Kolkata Metropolitan Development Authority

*e*-Request *f*or Proposals

*f*or

"SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS."

July'2025

**e-RfP No:** 01/SE(SC)/SWM/KMDA of 2025-26 Dated: 21/07/2025

OFFICE OF THE SUPERINTENDING ENGINEER
SOUTH CIRCLE, SOLID WASTE MANAGEMENT SECTOR
KOLKATA METROPOLITAN DEVELOPMENT AUTHORITY

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**DEFINITIONS**

In this Agreement, the following words and expressions shall, unless repugnant to the context ormeaning thereof, have the meaning hereinafter respectively assigned to them:

1. **"Access Road"** means a motorable approach road required to be built, by the concessionaire (if any), within the project boundary, for providing access to the plant(s) for the Concessionaire, itself.

2. **"Additional Cost"** means the additional capital expenditure and/or the additional operating costs or both as the case may be, which the Concessionaire is required to incur, post the Compliance Date, on account of Change in Law.

3. **"Adjoining Property"** means any land and/or property adjoining or adjacent or any part ofthe Site, including all conduits, roads, footpaths, walls, fences, buildings and other erections, structures, and other apparatus on, under or within such land and/or property.

4. **"Affected Party"** means the Party claiming to be affected by a Force Majeure Event.

5. **"Agreement"** or **"Concession Agreement"** means this agreement executed between the concerned Urban Local Body, the Authority and the Concessionaire including its Schedules and annexures and includes any amendments made thereto in accordance with the provisions hereof.

6. **"Applicable Law"** means all laws, acts, ordinances, rules, regulations notifications and guidelines in force and effect, including *inter-alia* the Environment Protection Act, 1986, Solid Waste Management Rules, 2016, the Construction and Demolition Waste Management Rules, 2016, the Plastic Waste Management Rules, 2016, the E-Waste Management Rules, 2016, the Hazardous Waste Management Rules, 2016, Guidelines for Disposal of Fresh Waste, 2019 by CPCB and CPHEEO Manual on Municipal Solid Waste Management, 2016, National Building Code, ISO standards and BIS standards, and shall also include judgments, decrees, injunctions, writs or orders of any court of record as may be in force and effect as of the date hereof and shall include any amendment or re-enactment thereof from time to time, having jurisdiction over any Party, this Agreement, the Project, the Project Agreements and each document, instrument and agreement delivered hereunder or in connection herewith;

7. **"Applicable Permits"** means all the authorizations, licenses, clearances, permits, no- objections, sanctions and consents as required under Applicable Laws, at its respective cost, to be procured by the Concessionaire in connection with the implementation of the Project.

8. **"Article"** means an article of this Agreement.

9. **"Associate"** means, in relation to the Concessionaire, [the Selected Bidder or a member of theSelected Bidder], a person who controls, or is controlled by, or is under the common controlof the same person who controls the concessionaire, the selected bidder or member of the selected bidder, as the case may be.

10. **"Authority"** means either Kolkata Metropolitan Development Authority (KMDA) or State Urban Development Agency (SUDA), under the Urban Development and Municipal Affairs (UD & MA) Department, Government of West Bengal, on case-to-case basis.

11. **"Authority Event of Default"** shall have the meaning assigned thereto in Article 23.

12. **"Authority's Representative"** means any officer nominated by the Authority, from time to time, to act on its behalf and liaise with the Concessionaire and the Authority for the purposes of this Agreement

and notified as such in writing to the Concessionaire and the Authority.

13. **"Availability"** means the availability of the Project Facilities to collect, transport process and dispose Solid Waste and bio-remediate fresh waste, as determined in accordance with Articles.

14. **"Availability Liquidated Damages"** means the liquidated damages payable by the Concessionaire to the Authority for failure to achieve the Guaranteed Availability, in accordance with Article.

15. **"Bioremediation"** shall hold the meaning ascribed to it under the Guidelines on Fresh Waste Management on Old Municipal Dumpsites, 2019.

16. **"C&T"** or **"Collection and Transportation"** refers to primary and secondary collection and transportation of Solid Waste from the Project Area to the Processing Facility/ Sanitary Landfill.

17. **"Change in Law"** shall have the meaning assigned thereto in Article**.**

18. **"Clause"** means a clause of this Concession Agreement.

19. **"Compliance Date"** means the later of the date by which the Condition Precedent of the Parties under Article 4 are achieved or waived.

20. **"Compliance Period"** shall have the meaning assigned thereto in Article.

21. **"Concession"** shall have the meaning as assigned thereto in Article 3.1.1.

22. **"Concessionaire Event of Default"** shall have the meaning assigned thereto in Article 23.

23. **"Conditions Precedent"** means conditions to be satisfied before commencement of the Project as specified in Article.

24. **"Commercial Operations Date"** or **"COD"** means the date when the Concessionaire begins commercial operations of the Processing Facility pursuant to issuance of Completion Certificate by the Authority.

25. **"Commencement Date"** shall have the meaning as assigned to it in Article.

26. **"Completion Certificate(s)"** shall refer to the Certificate to be issued by the Authority/Project Engineer as set out in Schedule 15, upon successful commissioning and functioning of the Processing Facility.

27. **"Concessionaire's Representative"** means the Person nominated by the Concessionaire, from time to time, to act on its behalf and liaise with the Authority for the purposes of this Agreement and notified as such in writing to the Authority.

28. **"Conditions Precedent"** means collectively, the obligations of the Concessionaire that are set out at Article 4, the obligations of the Authority that are set out at Article and '**Condition Precedent**' means any one of these.

29. **"Construction & Demolition (C&D) Debris" or "Debris"** means solid waste resulting from construction, re-modelling, repair, renovation, or demolition of Structures or from land clearing activities. "**Structures**" for the purposes of this definition means buildings of all types (both residential and non-residential), utilities, infrastructure facilities and any other type of man-made structure. **"Debris"** includes, but is not limited to bricks, concrete rubble and other masonry materials, soil, rock, wood (including painted, treated and coated wood and wood products), land clearing debris, wall coverings, plaster, drywall, plumbing fixtures, roofing, waterproofing material and other roof coverings,

asphalt pavement, glass, plastics, paper, gypsum boards, electrical wiring and components containing no hazardous materials, pipes, steel, aluminium and other non-hazardous metals used in construction of structures.

30. **"Contractor" or "Sub-Contractor"** means any Person with whom the Concessionaire has entered into/may enter into any material contract in relation to the Project.

31. **"Cost"** means all documented expenditure reasonably incurred by the Concessionaire, whether on or off the Site, including overhead and similar charges, but does not include profit.

32. **"CPCB"** means the Central Pollution Control Board of the Government of India.

33. "**CPI (IW)**" means the Consumer Price Index for Industrial Workers published by the Labour Bureau, GoI and shall include any index which substitutes the CPI(IW), and any reference to CPI(IW) shall, unless the context otherwise requires, be construed as a reference to the CPI(IW) published on the last date of the preceding quarter.

34. **"Daily Weight Sheet"** shall have the meaning assigned thereto in Schedule.

35. **"Dead Remains"** means the dead bodies, carcasses, bones or skeletal remains of animals, rodents and other living beings (other than plants)**.**

36. **"Debt Due"** means the aggregate of the following sums expressed in Indian Rupees outstanding on the Termination Date:

    (a) the principal amount of the debt provided by Lenders under the Financing Agreements for financing the Bid Project Cost (the "**principal**") but excluding any part of the principal that had fallen due for repayment 6 (six) months prior to the Termination Date.

    (b) all accrued interest, financing fees and charges payable under the Financing Agreements on, or in respect of, the debt referred to in Sub-Article (a) above until the Termination Date but excluding (i) any interest, fees or charges that had fallen due 3 (three) months prior to the Termination Date, (ii) any penal interest or charges payable under the Financing Agreements to any Lender, and (iii) any pre-payment charges in relation to accelerated repayment of debt except where such charges have arisen due to Authority Default; and

    (c) any Subordinated Debt which is included in the Financial Package disbursed by lenders for financing the Bid Project Cost; provided that if all or any part of the Debt Due is convertible into equity at the option of Lenders and/or the Concessionaire, it shall for the purposes of this Agreement be deemed to be Debt Due even after such conversion and the principal shall be dealt with as if such conversion had not been undertaken. For the Purposes of this Agreement, the term 'subordinated Debt" shall mean the debt provided by lenders or the Concessionaire's shareholders for meeting the Bid Project Cost and shall be subordinate to the financial assistance provided by Senior Lenders.

37. **"Debt Service"** means the sum of all payments on account of principal, interest, financing fees and charges due and payable in a Financial Year to the Lenders under the Financing Agreements.

38. **"Design and Drawings"** means: (a) the Basic Engineering Designs; (b) the Screening Report and (c) the detailed 'good for construction' designs and drawings, technical information, plans, samples, patterns, models and specifications for the works required for achieving the first Payment Milestone.

39. **"Designated Bins"** means the collection bins placed by the Concessionaire at locations recommended by the Concessionaire and approved by the Authority for receiving the Primary Collection & Transportation of Solid Waste within the Project Area.

40. **"Disposal** "means the final and safe disposal of post processed residual solid waste and inert street sweepings and silt from surface drains on land as specified in Schedule I of the SWM Rules 2016 to prevent contamination of groundwater, surface water, ambient air, and attraction of animals and birds.

41. **"Dispute"** shall have the meaning assigned thereto in Article 26 hereof.

42. **"Dispute Resolution Procedure"** means the procedure for resolution of disputes as set forth in Article.

43. **"Dumpsite"** means a land utilised by Authority for disposal of solid waste without following the principles of sanitary land filling.

44. **"EIA"** means the Environment Impact Assessment for the Project.

45. **"Emergency"** means conditions or situation that is likely to endanger the safety of the individuals on or about the Project or which poses an immediate threat of material damage to the Project.

46. **"Encumbrances"** means any encumbrance such as mortgage, charge, pledge, lien, hypothecation, security interest or other obligations and shall also include physical encumbrances, including encroachments on the Site.

47. **"Engineered Sanitary Landfill Site"** or **"Sanitary Landfill Site" or "Sanitary Landfill" or "SLF"** means the Sanitary Landfill Site to be developed, constructed and operated by the Concessionaire at the allocated site in conformance with the terms of this Agreement for disposal of residual inert matter and rejected waste; and the site where the concessionaire conducts a final and safe disposal of residual inert matter, residual solid waste and inert waste, which is designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, green-house gas emissions, persistent organic pollutants slope instability and erosion in accordance with the terms of this Agreement;

48. **"Equity"** means the sum expressed in Indian Rupees representing the paid-up equity share capital of the Concessionaire for meeting the equity component of the Total Project Cost, and for the purposes of this Agreement shall include convertible instruments which has converted into equity share capital of the Company.

49. **"Event of Default"** shall have the meaning assigned thereto in Article 23. It means the Authority Event ofDefault or a Concessionaire Event of Default, as the context may require.

50. **"Excluded Waste"** means waste material of the nature that the Project is not designed orauthorised to receive, manage, process and dispose which includes (i) Hazardous Waste, (ii) Bio-Medical Waste (iii) Dead Remains, (iv) E- Waste and (v) construction and demolition waste. However, domestic hazardous waste does not come under this category.

51. **"Execution Date"** means the date of signing of the Concession Agreement.

52. **"Facility"** means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment, or safe disposalare carried out.

53. **"Financing Agreements"** or **"Financing Documents"** means collectively the agreements entered into for providing the debt financing for the implementation of the Project and shall include the security documents creating the relevant security (such as mortgages or charges or liens) on the Project or any part thereof in line with this Agreement, for securing the debt provided for funding the Bid Project Cost.

54. **"Financial Assistance"** means all funded and non-funded financial assistance, including loans,

advances and guarantees or any re-financing that the Concessionaire may avail of for the Project from the Lenders.

55. **"Financial Close"** means, the date on which the Financing Documents become effective, the conditions precedent under the Financing Documents for disbursements are fulfilled and the Concessionaire has access to the Financial Assistance.

56. **"Financial Default"** means occurrence of breach of the terms and conditions of the Financing Agreements or continuous default in Debt service by the Concessionaire for period of 3 (three) months.

57. **"Financial Model"** means the financial model adopted by Senior Lenders, setting forth the capital and operating costs of the Project and revenues there from on the basis of which financial viability of the Project has been determined by the Senior Lenders, and includes a description of the assumptions and parameters used for making calculations and projections therein.

58. **"Financial Package"** means the financing package indicating the total capital cost of the Project and the means of financing thereof, as set forth in the Financial Model and approved by the Senior Lenders, and includes Equity, all Financial Assistance specified in the Financing Agreements, Subordinated Debt, if any.

59. **"Financial Year"** shall mean a year commencing on 1st April of a calendar year and ending on 31st March of the immediately succeeding calendar year.

60. **"Force Majeure"** or **"Force Majeure Event"** means an act, event, condition or occurrence as specified in Article 20.

61. **"Fundamental Change in Law"** means any Change in Law that:

    (a) renders unenforceable, illegal, invalid or void any material right or material obligationof the Concessionaire under this Agreement; or
    (b) renders a material part of this Agreement invalid, illegal or unenforceable; or
    (c) results in the Concessionaire being deprived of the whole or a substantial part of thebenefit of this Agreement.

62. **"GoI"** means the Government of India.

63. **"Good Earth"** means mixture of organic matter and fine soil.

64. "**Good Industry Practice"** means the exercise of that degree of skill, diligence, prudence and foresight in compliance with the undertakings and obligations under this Agreement which would reasonably and ordinarily be expected of a skilled and an experienced person engaged in the implementation, operation and maintenance or supervision or monitoring thereof or any of them or facilities similar to the Project Facilities.

65. **"Government Agency"** means GoI, Government of West Bengal, PLBs, the Authority or any Governmental Department, Commission, Board, Body, Bureau, Agency, Authority, Instrumentality, Court or Other Judicial or Administrative body, Central, State, or local, having Jurisdiction over the Concessionaire, the Site/Project or any portion thereof, or the performance of all or any of the services or obligations of the Concessionaire under or pursuant to this Agreement;

66. **"Grace Period"** shall mean as defined in Article 14.

67. **"Hand-back Conditions"** mean the condition in which the Site, the Facilities, and the Power Plant, if any, shall be handed back to the Authority or any entity nominated by the Authority on expiry or early termination of this Agreement, which is consistent with the due performance of the Concessionaire's

obligations under this Agreement.

68. **"Hand-back Requirement"** means the obligations of the Concessionaire in relation to transfer of the Facilities upon expiry or early termination of the Project, as set out in Article.

69. **"Hazardous Waste"** shall have the meaning as defined under the Hazardous Wastes Management Rules, 2016 and as amended thereto.

70. **"ICT Infrastructure"** shall mean all Information & Communication Technology Infrastructure, equipment and systems (including software, hardware, firmware, networks and websites) including but not limited to sensors, geographical positioning systems, cameras, electronic weigh bridges and associated software, to facilitate the functioning of the project on day-to-day basis.

71. **"Inert"** means wastes which are not bio-degradable, recyclable, or combustible and include debris, construction and demolition waste, street sweepings or dust and silt removed from the surface drain.

72. **"Intellectual Property Rights"** means patents, copyrights, database rights, design rights, trademarks, service marks, trade names, domain names, rights in reputation, rights in undisclosed or confidential information (such as know-how, trade secrets and inventions, whether patentable or not), and other rights of a like nature (whether registered or unregistered) and all applications for such rights as may exist anywhere in the world.

73. **"Invoice"** means an invoice for payment of the O&M Charges/Tipping Fee, submitted by the Concessionaire to the Authority in accordance with Article 17.

74. **"KPI Adherence Report"** shall have the meaning ascribed to it under Article 19.7.2.

75. **"KPI"** means the key performance indicators set out in Article, which the Project must achieve during the Construction Period and the O&M Period.

76. **"Fresh Waste"** shall have the meaning as provided under the CPCB Guidelines for Disposal of Fresh Waste, 2019.

77. **"Lenders"** or **"Senior Lenders"** means any person, financial institutions, banks, funds and trustees for bond holders or debenture holders, who have provided loans for financing the Bid Project Cost as evidenced in Financing Documents.

78. **"Letter of Award"** or **"LOA**" means the letter no. [•] dated [•], issued by the Authority to the Selected Bidder for developing the Project in terms of this Agreement.

79. **"Liquidated Damages"** means the Delay Liquidated Damages, the Availability Liquidated Damages, the Performance Liquidated Damages and the Power Consumption Liquidated Damages.

80. **"MNRE"** means Ministry of New & Renewable Energy, Government of India.

81. **"Material Adverse Effect"** means a material adverse effect of any act or event on the ability of any Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a material financial burden or loss to any or all Party(ies).

82. "**Material Breach**" means a breach by any Party of any of its obligations under this Agreement which has or is likely to have a Material Adverse Effect on the Project and which such Party shall have failed to cure.

83. **"Material Recovery Facility"** means a facility where non-compostable solid waste can be temporarily stored by the Authority or any other entity mentioned in Rule 2 of the SWM Rules 2016 or any person

or agency authorised by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the Authority or entity mentioned in Rule 2 of the SWM Rules 2016 for the purpose before the waste is delivered or taken up for its processing or disposal;

84. **"Minor Casualty"** means any fire or other casualty that results in physical damage to the Project Facilities to the extent that the total cost (as estimated by the Project Engineer) of repairing and/or replacing the damaged portion of the Project Facilities as the case may be, to the same condition as previously existed would not exceed the amount of [₹25,00,000.00 (Rupees twenty-five lakhs)].

85. "**Nominated Company** means the entity that is selected either by the Lenders or by the Authorityfor substituting the Concessionaire, upon occurrence of Concessionaire's Event of Default, in terms of the provisions of the Agreement and the Substitution Agreement.

86. "**Operational Plan**" means a comprehensive plan with location of Designated Bins, their pickup schedule, vehicle planning & scheduling for Secondary Collection and Transportation of Solid Waste in the Project Area, as prepared by the Concessionaire and approved by the Authority.

87. **"O&M"** means operation and maintenance.

88. **"O&M Charges** "means the amount required by the Concessionaire per quarter to operate and maintain the Project, including the Power Charges, during the O&M Period. The O&M charges for the first quarter after the COD will be determined on the basis of the O&M charges quoted by the Selected Bidder (in the Financial Proposal) for the first month from the COD, which amount shall then be adjusted to reflect the variation in the O&M Price Index.

89. **"O&M Expenses"** means the expenses incurred in the operation and maintenance of the Project and includes all matters connected with or incidental to such operation and maintenance, provision of services and facilities in accordance with the provisions of this Agreement.

90. **"O&M Manual"** means the manual, required to be prepared by the Concessionaire and approved by the Authority for the operation and maintenance of the Project in accordance with Article.

91. **"O&M Payments"** means, the (a) interest on the reducing balance, if so, of the completion cost; (b) O&M Charges; and (c) Power Charges (as per electricity consumption bill), to be paid by the Authority to the Concessionaire during the O&M Period, in accordance with this Agreement.

92. **"O&M Period"** means the period commencing from the COD and ending on the TerminationDate, during which the Concessionaire is required to operate and maintain the Project.

93. **"O&M Security"** has the meaning ascribed to it in Article 9.

94. **"Organic Waste"** means such type of Solid Waste that can be degraded by micro- organisms but shall not include excluded wastes.

95. "**Participating Local Bodies**" or "**PLBs**" means the under mentioned local bodies:

    (a) *** Municipal Corporation ("PLB1")
    (b) *** Municipality ("PLB 2")
    (c) *** Notified Area Authority ("PLB3)

96. **"Payment Milestone"** means the milestones listed in Article 14 for release of the Construction Payments to the Concessionaire, and „Payment Milestone" shall mean any one of them, as the context may require.

97. **"P&D" or "Processing & Disposal"** refers to Processing & Disposal of Solid Waste collected from the Project Area, as is more clearly defined in SWM Rules, 2016.

98. **"Performance Security/Security Deposit"** means the guarantee for performance of its obligations as per terms of this Agreement, to be furnished by the Successful Bidder (or the Concessionaire), in accordance with Article in the format given at Schedule.

99. **"Person"** means (unless otherwise specified or required by the context), any individual, company, corporation, partnership, joint venture, trust, society, unincorporated organization, government or government body or any other legal entity.

100. **"Post-COD Period"** means the period starting on and from the COD and ending on the Termination Date.

101. **"Power Outage"** means any interruption in the supply of electricity from the grid, or any Diesel-Generators (DG) Sets maintained by the Concessionaire at the Sites, which disrupts the continuous operation of the Project.

102. **"Pre-COD Period"** means the period commencing from the Execution Date and extending up to the COD.

103. "**Preliminary Notice"** means the notice of intended Concession Period by the Party entitled to terminate this Agreement to the other Party setting out, inter alia, the underlying Event of Default.

104. **"Price Index"** means, for the O&M Payments, the O&M Price Index.

105. **"Price Index Multiple"** means, the variation multiple in the Price Index occurring between the Reference Index Date preceding the Proposal Due Date and the Reference Index Date preceding the date of the Invoice, which is calculated by dividing the Price Index on the Reference Index Date preceding the date of the Invoice by the Price Index on the Reference Index Date preceding the Proposal Due Date.

    For the avoidance of doubt and by way of illustration, if (a) the Price Index on the Reference Index Date preceding the Proposal Due Date, say 30 May, 2018, is 200; (b) the Invoice is submitted on 15 April, 2020; and (c) the Price Index as on 31 March, 2020 is 210, then the Price Index Multiple for determination of the amount due in respect of such Invoice shall be 1.05.

106. **"Processing"** means any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products.

107. **"Processing Facility"** means the facility created by the Concessionaire for processing of the Solid Waste, prior to its final disposal at engineered Sanitary Landfill Site, and also includes a[refuse-derived fuel (RDF), bio-methanation, incineration] or any other approved technology for waste processing or any combination thereof.

108. **"Project"** shall mean the collection, transportation, processing and disposal of Solid Waste from Waste Generators in the Project Area at Municipal Dumpsite and discharging the Scope of Services more specifically set out in Schedule 1.

109. **"Project Agreements"** means any material contracts or agreements entered into by the Concessionaire after the date of this Agreement relating to the construction, operation and maintenance of the Project.

110. **"Project Area"** means the area presently under boundaries of the Authority or any extension thereof during the Concession Period.

111. **"Project Assets"** means all physical and other assets relating to and forming part of the Project including (a) rights over the Sites and Secondary Collection Points in the form of or license rights, Right of Way or otherwise; (b) tangible assets such as civil works and equipment including but not limited to foundations, buildings, complaint redressal centre, Processing Facility, electrical systems, communication systems, transport vehicles, Designated Bins, ICT Infrastructure and administrative office; (c) Project Facilities situated on the Sites and Secondary Collection Points; (d) all rights of the Concessionaire under the Project Agreements; (e) financial assets, such as receivables, security deposits etc.; (f) insurance proceeds; and (g) Applicable Permits and authorizations relating to or in respect of the Project;

112. **"Project Facilities"** means all the amenities and facilities required as basic and support infrastructure for implementation of the Project including construction/renovation, operation and maintenance of facilities for the solid waste management system such as infrastructure, collection and transportation vehicles, ICT infrastructure, machinery and equipment procured, inherited, installed and operated and all other Project related physical assets.

113. **"Project Engineer"** means Independent Engineer or Authority's Engineer or Project Management Unit (PMU) set up by the Authority or any unit set up by the Authority as specified in Article 13A to monitor and supervise the activities of the Concessionaire, in accordance with the provisions of the Agreement.

114. **"Proposed Technology"** means the proven technology(ies) proposed to be used by the Concessionaire to develop the Project and Project Facilities, as specified by the Concessionaire in its Designs and Drawings.

115. **"Proprietary Material"** shall be as defined in Article.

116. **"Qualifying Change in Law"** means any Change in Law, which:
    (a) is directly applicable to the Project,
    (b) impacts the Cost or time for undertaking the Project; and
    (c) which was not reasonably foreseeable by the Concessionaire as on the Bid Due Date.

117. **"Related Parties"**:

    **"Concessionaire Related Parties"** means any of the following:
    (a) the Selected Bidder or Associates of the Selected Bidder,
    (b) an officer, servant, employee or agent of the Concessionaire acting in that capacity,
    (c) any Subcontractor engaged by the Concessionaire and their directors, officers, servants, employees or agents acting in that capacity; or
    (d) any Person acting on behalf of the Concessionaire.

    **"Authority Related Parties"** means any of the following:
    (a) an officer, servant, employee or agent of the Authority, acting in that capacity;
    (b) any contractor or subcontractor of the Authority and their directors, officers, servants, employees or agents, acting in that capacity; or
    (c) any Person acting on behalf of the Authority.
    (d) For the avoidance a doubt, 'Authority Related Parties' does not include the Concessionaire.

118. **"Residual Inert Matter/Inert"** means the inert matter left for final disposal in engineered Sanitary Landfill Site after processing of the Solid Waste by one or more of the relevant Project.
119. **"Residual Solid Waste"** means and includes the waste and rejects from the Solid Waste which are not suitable for recycling or further processing.

120. "**Right of Way**" means the constructive possession of the Sites, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction, operation and maintenance of the Project, in accordance with this Agreement.

121. **"Schedules"** means any of the annexure, appendices, supplements or documents annexed to this Agreement and as amended from time to time.

122. **"Sanitary Land Fill" or "SLF"** means the site/s where the Concessionaire conducts a final and safe disposal of residual inert matter, residual solid waste and inert waste, which is designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, green-house gas emissions, persistent organic pollutants slope instability and erosion in accordance with the terms of this Agreement.

123. **"Scheduled Construction Completion Date** "means the date which is 12 (twelve) months from the Execution Date, by which the Concessionaire is required to complete fresh waste plant on the designated dumpsites and the construction of the Project Facilities.

124. **"Scheduled Maintenance** "means a planned maintenance of the Project that:

    (a) has been scheduled and allowed by the Authority in accordance with the Scheduled Maintenance Programme; and
    (b) is for inspection, testing, preventive and corrective maintenance, repairs, replacement, or improvement of such Facilities, as the case may be.

125. **"Scheduled Maintenance Programme"** means, for each year of the O&M Period, the schedule for undertaking preventive and corrective maintenance of the Project, as prepared by the Concessionaire and approved by the Authority in accordance with Article.

126. **"Screening Report"** means the environmental and social design safeguards screening report prepared by the Concessionaire and submitted to the Authority for its review as part of the Designs and Drawings.

127. **"SEB"** means West Bengal State Electricity Boards, either the Calcutta Electric Supply Corporation (CESC) or the West Bengal State Electricity Distribution Company Limited (WBSEDCL).

128. **"Segregated Combustible Fraction (SCF)/Refused Derived Fuel (RDF)"** means non-biodegradable, non-recyclable, non-reusable, nonhazardous solid waste having minimum calorific value (CV) exceeding 1,500 kcal/kg and excluding chlorinated materials like Polyvinyl Chloride (PVC) plastic, woody waste etc.

129. **"Selected Bidder" or "Successful Bidder"** means the Entity selected by the Authority through a competitive bidding process for implementing and managing the Project.

130. **"SERC"** means the West Bengal State Electricity Regulatory Commission.

131. **"Site**" means the identified land parcel, in respect of which the Concessionaire shall be granted License in accordance with terms hereof, for undertaking development/ construction of Processing Facilities, Sanitary Landfill sites.

132. **"Solid Waste"** means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste,agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radioactive waste generated in the area under the local authorities and other entities mentioned under Rule 2 of the SWM Rules 2016;

133. **"SPCB"** means State Pollution Control Board, particularly the West Bengal PollutionControl Board (WBPCB).

134. **"Subordinated Debt"** the aggregate of the following sums expressed in Indian Rupees or in the currency of debt, as the case may be, outstanding as on the Transfer Date:

    (a) the principal amount of debt provided by lenders or the Concessionaire's shareholders for meeting the Bid Project Cost and subordinated to the financial assistance provided by the Senior Lenders; and

    (b) all accrued interest on the debt referred to in sub-clause (a) above but restricted to the lesser of actual interest rate and a rate equal to [5% (five per cent)] above the bank rate in case of loans denominated in Indian Rupees and lesser of the actual interest rate and [6 (six) month] LIBOR (London Inter-Bank Offer Rate) plus [2% (two per cent)] in case of loans denominated in foreign currency, but does not include any interest that had fallen due 1 (one) year prior to the Transfer Date;

    (c) provided that if all or any part of the Subordinated Debt is convertible into Equity at the option of the lenders and/or the Concessionaire's shareholders, it shall for the purposes of this Agreement be deemed to be Subordinated Debt even after such conversion and the principal thereof shall be dealt with as if such conversion had not been undertaken.

135. **"Substitution Agreement"** is an agreement that may be executed between the Concessionaire, the Authority and the Lenders, pursuant to which, in case of Default by the Concessionaire including any Financial Default, Lenders (through its nominee) shall be allowed to take charge of the Concessionaire's roles and responsibilities under this Agreement.

136. **"Supplementary Fuel"** means any fuel that can be used as a supplement to the Solid Waste to enrich RDF/fuel during commissioning / start of activities. Use of supplementary fuel would be permissible as per MNRE guidelines.

137. **"SWM Rules"** means the Solid Waste Management Rules, 2016 framed by the Government of India under the Environment (Protection) Act, 1986 (Act 29 of 1986) and includes any statutory amendments/modifications thereto or re-enactments thereof, from time to time.

138. **"Taxes"** means all taxes, levies, imposts, cesses, duties and other forms of taxation, including (but without limitation) income tax, sales tax, goods and service tax, value added tax, service tax, octroi, entry tax, corporation profits tax, advance corporation tax, capital gains tax, residential and property tax, customs and other import and export duties, excise duties, stamp duty or capital duty, and any interest, surcharge, penalty or fine in connection therewith whichmay be payable by the Concessionaire or the sub-contractors and the term **Tax** shall be construed accordingly;

139. **"Technology Performance Security"** has the meaning ascribed to it in Article.

140. **"Termination"** shall mean the expiry or termination of this Agreement and the Concession hereunder.

141. **"Termination Compensation"** means the compensation payable by the Authority upon termination of this Agreement, in accordance with Article.

142. **"Termination Date"** means the date specified in the Termination Notice as the date on whichthe Concession Agreement expires or terminates earlier.

143. **"Termination Notice"** means the notice of Termination by any of the Parties to the other Party, in accordance with the applicable provisions of this Agreement.

144. **"Termination Payments"** means the payments payable pursuant to Articles of this Agreement.

145. **"Third Party"** means any Person other than the Parties to this Agreement.

146. **"Tests"** means the tests to be carried out by the Concessionaire at its cost, in the presence of Project Engineer as may be required for getting Statutory clearances / Approval orasked by Project Engineer in respect of the Processing Project Facility and SLF to ensure that the same confirms to the requirements as per Good Industry Practice and Applicable Law or Applicable Permits.

147. **"Total Casualty"** means any fire or other casualty that results in physical damage to the Project Facilities, to the extent that the total cost of repairing, replacing or restoring the damaged portion of the Project Facilities (as determined by the Project Engineer), to the same condition as existed previously, would be more than 25% (twenty-five per cent) of the total replacement cost of the Facilities.

148. **"Transfer Date"** shall be as defined in Article.

149. **"Transportation"** means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent the foul odour, littering and unsightly conditions.

150. **"Trial Operations** "means the operation of the Project Facilities on a trial basis for a period of 3 (three) months from the Construction Completion Date or such longer period as may be determined.

151. **"Trial Operations Completion Certificate"** means the certificate issued by the Authority to the Concessionaire upon successful completion of the Trial Operations.

152. **"Unscheduled Outage"** means an interruption of or a reduction in the Availability of any Facilities that is not the result of a Forced Unavailability.

153. **"Vacant Possession"** means delivery of possession of the Site free from all Encumbrances to the Authority and the grant of all rights and all other rights appurtenant thereto within the scope of this Agreement.

154. **"Variation** "means any alteration in the Scope of Work, technical specifications or the Designs and Drawings, as instructed by the Authority or proposed bythe Concessionaire, in accordance with Article 28.

155. **"Variation Order** "means an order issued by the Authority certifying its approval of a proposed Variation and recording the terms and condition on which the proposed Variation is required to be implemented.

156. **"Waste Generators"** means all residential, commercial, institutional and industrial establishments generating Solid Waste and located within the Project Area.

157. **"Waste to Energy"** means all activities, processes and technologies of converting Solid Waste into Electricity for commercial use.

158. **"Willful Misconduct** "means an intentional or reckless breach or disregard by a Party of any of its obligations under this Agreement.

**e-REQUEST FOR PROPOSAL**

**MAP OF WEST BENGAL**

WEST BENGAL
DISTRICT MAP
INDIA
SIKKIM
BHUTAN
NEPAL
N
Darjeeling
Kalimpong
KALIMPONG
DARJILING
JALPAIGURI
Jalpaiguri
ALIPURDUAR
Alipurduar
COOCH BEHAR
Cooch Behar
ASSAM
UTTAR DINAJPUR
BIHAR
Raiganj
DAKSHIN DINAJPUR
Balurghat
MALDA
English Bazar
MEGHALAYA
BANGLADESH
MURSHIDABAD
Baharampur
JHARKHAND
Suri
BIRBHUM
Asansol
PASHCHIM BARDHAMAN
NADIA
PURBA BARDHAMAN
Krishnanagar
PURULIYA
Purulia
Bankura
Bardhaman
BANKURA
Chinsurah
Barasat
HOOGHLY
NORTH TWENTY FOUR PARGANAS
PASCHIM MEDINIPUR
Howrah
HOWRAH
Kolkata
Alipore
KOLKATA
Jhargram
Medinipur
Tamluk
JHARGRAM
SOUTH TWENTY FOUR PARGANAS
PURBA MEDINIPUR
ODISHA
BAY OF BENGAL
LEGEND
International Boundary
State Boundary
District Boundary
State Capital
District Headquarter
Map not to Scale
Copyright © 2019 www.mapsofindia.com

**DISCLAIMER**

1. The information contained in this 'Request for Proposal' document (the "RfP" or "RfP Document" or "RfP document") or as subsequently provided to bidder(s) (herein after referred to as "Bidder(s)"), whether verbally or in documentary or in any other form by or on behalf of the Kolkata Metropolitan Development Authority (hereinafter referred to as "KMDA" or "Authority") or any of its employees or advisors, is provided to the Bidder(s) on the terms and conditions set out in this RfP and such other terms and conditions subject to which such information is provided.

2. This RfP document contains brief information about the project for *'*SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS*"* (hereinafter referred to as "**Project**") by the successful Bidder/developer selected through a competitive bidding process. The purpose of this RfP Document is to provide Bidders with information that may be useful to them in the formulation of their bid and for no other purpose.

3. This RfP is not an agreement and is neither an offer nor an invitation by the Authority to the prospective Bidders or any other person but is merely informative in nature, creating no obligation whatsoever. The terms on which the Project is to be developed and the right of the successful Bidder/applicant shall be as set out in a separate definitive agreement to be entered into by the concerned parties. The purpose of the RfP is to provide interested parties within formation that may be useful to them in making their proposal including financial proposals (the "Bid" or "Bid(s)" or "Proposal(s)") pursuant to this RfP. This RfP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RfP. The assumptions, assessments, statements and information contained in this RfP, or to be furnished later under the Bidding Documents (as defined hereinafter), by the Authority and/or any of its consultants are, only indicative and for the sole purpose of making available to interested parties/Bidder's information that may be useful to them in the formulation of their Bid. Such assumptions, assessments, statements, data and information may not be complete, accurate, adequate or correct. Each Bidder should therefore, before placing reliance on the aforesaid assumptions, assessments, statements, data and information conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RfP and obtain independent advice from appropriate sources. For the avoidance of doubt, in case the Bidder places reliance on any aforesaid assumptions, assessments, statements, data and information, then the same shall not in any manner bind/make liable the Authority and/or its consultant(s) to indemnify the Bidder in respect of any loss/damage/costs whatsoever arising out of or in connection with such reliance placed by the Bidder on the aforesaid assumptions, assessments, statements, data and information. Each Party shall carry out his own due diligence on all relevant issues including financial viability, technical parameters, site conditions, etc. and the Authority or its advisors do not guarantee the financial and technical viability of the Project. This RfP is being made available by the Authority to the interested parties on the terms set out in this RfP. The possession or use of this RfP in any manner contrary to any applicable law, rules or regulations, is expressly prohibited. The Bidders shall inform themselves about, and shall observe any applicable legal requirements in this regard. The information does not purport to be comprehensive or to have been independently verified. Nothing in this RfP shall be construed as legal, financial or tax advice.

4. Information provided in this RfP to the Bidder(s) is on a wide range of matters, some of which depend upon interpretation of law. The information given is not an exhaustive account of statutory requirements

and should not be regarded as a complete or authoritative statement of law. The Authority, its employees and advisors accept no responsibility for the accuracy or otherwise of any interpretation or opinion on law expressed herein.

5. Neither the information in this RfP nor any other written or oral information in relation to the selection process of the Bidder for implementing the Project or otherwise is intended to form the basis of or the inducement for any investment activity or any decision to enter into any contract or arrangement in relation to the Project and should not be relied on as such.

6. The Authority, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RfP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RfP and any assessment, assumption, statement or information contained therein or deemed to form part of this RfP or arising in any way in relation to the bidding process.

7. The Authority, its employees and advisors also accept no liability of any nature whether resulting from negligence or otherwise, howsoever caused, arising from reliance of any Bidder upon the statements contained in this RfP.

8. The Authority may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, statement, assessment, or assumptions contained in this RfP.

9. Intimation of discrepancies in the RfP document, if any, should be submitted to the office of the Superintending Engineer (Civil), SOUTH CIRCLE, Solid Waste Management Sector, Kolkata Metropolitan Development Authority, immediately by the Bidder, in written and through e-mail communication at sesouthkmda@gmail.com. If no written communication is received by the Authority, it shall be deemed that the Bidders/applicants are satisfied that the RfP Document is complete in all respects.

10. The issuance of this RfP does not in any way imply that the Authority is bound to select a Bidder or to appoint the Preferred Bidder for the Project. The Authority reserves the right in its sole discretion, to accept or reject any or all of the Bidders or bids without assigning any reasons thereof.

11. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparing, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Authority or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will be solely to the account of the Bidder and the Authority shall not be liable in any manner whatsoever for the same or for any other costs or expenses incurred by any Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the bidding process.

12. The Bidders are prohibited from any form of collusion or arrangement in an attempt to influence the selection and award process of the Bid. Giving or offering of any gift, bribe or inducement or any attempt to do any such act in any manner whatsoever on behalf of the Bidder towards any officer/employee of the Authority or to any other person in a position to influence the decision of the Authority for extending any favour in relation to this RfP or any other contract, shall render the Bidder to such liability/penalty as the Authority may deem proper, including but not limited to rejection of the Bid of the Bidder and forfeiture of its Bid Security.

13. Laws of the Republic of India are applicable to this RfP.

**ABBREVIATIONS**

| Sl. No. | Abbreviation | Expansion |
|---|---|---|
| 1. | SE (South) | *Superintending Engineer (SOUTH CIRCLE)* |
| 2. | SWM | *Solid Waste Management (Sector)* |
| 3. | KMDA | *Kolkata Metropolitan Development Authority* |
| 4. | SUDA | *State Urban Development Agency* |
| 5. | UD & MA Dept. | *Urban Development and Municipal Affairs Department* |
| 6. | e-RfP | *electronic – Request for Proposal* |
| 7. | ULB | *Urban Local Body* |
| 8. | MoEFCC | *Ministry of Environment, Forest & Climate Change* |
| 9. | CPHEEO | *Central Public Health and Environmental Engineering Organisation, Ministry of Housing and Urban Affairs, Government of India* |
| 10. | SWM | *Solid Waste Management* |
| 11. | EMD | *Earnest Money Deposit* |
| 12. | RTGS | *Real Time Gross Settlement* |
| 13. | NEFT | *National Electronic Fund Transfer* |
| 14. | PAN/GST | *Permanent Account Number/ Goods & Services Tax* |
| 15. | LoI | *Letter of Intent* |
| 16. | LoA | *Letter of Acceptance* |
| 17. | GPS | *Global Positioning System* |
| 18. | SPV | *Special Purpose Vehicle* |
| 19. | JV | *Joint Venture* |
| 20. | MoU | *Memorandum of Understanding* |
| 21. | MoA | *Memorandum of Agreement* |
| 22. | O&M | *Operation and Maintenance* |
| 23. | DG | *Diesel Generator* |
| 24. | EIC | *Engineer-In-Charge* |
| 25. | LW | *Fresh Waste* |
| 26. | CPCB | *Central Pollution Control Board* |
| 27. | WBPCB | *West Bengal Pollution Control Board* |
| 28. | CESC/WBSEDCL | *Calcutta Electric Supply Corporation/West Bengal State Electricity Distribution Company Limited* |
| 29. | R&R Dept. | *Rehabilitation and Resettlement Department* |
| 30. | SPV | *Special Purpose Vehicle* |
| 31. | COD | *Commercial Operation Date* |
| 32. | NABL | *National Accreditation Board for Testing and Calibration Laboratories, Government of India* |

Kolkata Metropolitan Development Authority

OFFICE OF THE SUPERINTENDING ENGINEER
SOUTH CIRCLE, SOLID WASTE MANAGEMENT SECTOR
KOLKATA METROPOLITAN DEVELOPMENT AUTHORITY

**e-RfP No:** 01/SE(SC)/SWM/KMDA of 2025-26 Dated: 21/07/2025

Memo No.: 53/SE(SC)/SWM/KMDA Date: 21/07/2025

## ABRIDGED NOTICE INVITING *e*-REQUEST FOR PROPOSAL

1. **INVITATION**: The Superintending Engineer, SOUTH CIRCLE, Solid Waste Management Sector, Kolkata Metropolitan Development Authority invites online e-Request for Proposals in two part system (Part-I Technical Bid and Part-II Financial Bid) from reliable, resourceful, bonafide and experienced firms/companies/Individual contractors/Special Purpose Vehicle/Joint Ventures, having experience and capability in executing projects of Solid Waste Management (SWM) work in any Government/ Government Undertaking/ Autonomous Bodies/Semi-Government/Statutory Bodies and Local Bodies, within the last 10 (ten) years from the date of issuance of this Request for Proposal, for the work of **"**SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS**"**, for the ULBs as mentioned below:

**Name of the Name of Work, EMD and Concession Period are mentioned below:**

| Sl. No. | Name of Work | Rate to be quoted by the bidder | Earnest Money Deposit (EMD)/ Bid Security (₹) | Concession Period |
|---|---|---|---|---|
| 1. | SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS | **Based on** per MT of input fresh waste | ₹ 10,00,000 | 16 years & 4 month (196 months) |

2. Intending bidders may download the RfP document from the website https://www.wbtenders.gov.in or https://kmda.wb.gov.in/ **25/07/2025 at 18.30 Hrs**. onwards directly with the help of his/her Digital Signature Certificate and the Earnest Money should be deposited online either by Net Banking (through any Nationalized Bank/Scheduled Bank) or through RTGS/NEFT as per requirement of the system. Further details may be available at the office of the undersigned or from the KMDA website: https://kmda.wb.gov.in/.

3. The RfP is to be submitted in sealed covers (through online, duly digitally signed in the website https://wbtenders.gov.in, **before 26/08/2025 upto 16.00 Hrs.** using his/her Digital Signature Certificate (DSC)).

   Corrigendum/addendum if any would be published on the website only.

**Superintending Engineer (Civil)**
SOUTH CIRCLE
Solid Waste Management Sector
**Kolkata Metropolitan Development Authority**

Memo No.: 53/SE(SC)/SWM/KMDA Date: 21/07/2025

Copy forwarded for kind information and necessary action to:

1. The Chief Executive Officer, KMDA
2. The Secretary, KMDA & The Senior Special Secretary, UD & MA Department, Government of West Bengal, Program Director, West Bengal State NGRBA (National Ganga River Basin Authority) Program Management Group (WBSPMG) and Secretary, KMDA (NG)
3. The Director, SUDA
4. The Director General (SWM), KMDA
5. The Chief Engineer-I, SWM Sector, KMDA
6. The Chief Engineer-II, SWM Sector, KMDA
7. The Superintending Engineer, Planning Circle, SWM Sector, KMDA
8. The Superintending Engineer, North Circle, SWM Sector, KMDA
9. The Accounts Officer, SWM Sector, KMDA.
10. The Deputy Secretary, P.R.O., KMDA along with 4 (four) copies of the e-NIT for publication in at least three leading daily News Papers and uploading this NIT on KMDA website and Government of West Bengal website.
11. The Notice Board, SOUTH CIRCLE, SWM Sector, KMDA
12. Office Copy.

**Superintending Engineer (Civil)**
SOUTH CIRCLE
Solid Waste Management Sector
**Kolkata Metropolitan Development Authority**

Kolkata Metropolitan Development Authority

OFFICE OF THE SUPERINTENDING ENGINEER
SOUTH CIRCLE, SOLID WASTE MANAGEMENT SECTOR
KOLKATA METROPOLITAN DEVELOPMENT AUTHORITY

**e-RfP No:** 01/SE(SC)/SWM/KMDA of 2025-26 Dated: 21/07/2025

Memo No.: 53/SE(SC)/SWM/KMDA Date: 21/07/2025

## DETAILED NOTICE INVITING *e*-REQUEST FOR PROPOSAL

### 1. INVITATION:

The Superintending Engineer, SOUTH CIRCLE, Solid Waste Management Sector, Kolkata Metropolitan Development Authority invites online e-Request for Proposals in two part system (Part-I Technical Bid and Part-II Financial Bid) from reliable, resourceful, bonafide and experienced firms/companies/Individual contractors/Special Purpose Vehicle/Joint Ventures, having experience and capability in executing projects of Solid Waste Management (SWM) work in any Government/ Government Undertaking/ Autonomous Bodies/Semi-Government/Statutory Bodies and Local Bodies, within the last 10 (ten) years from the date of issuance of this Request for Proposal, for the works as mentioned below:

**Table 1: Name of the Works, EMD and time of completion are mentioned below:**

| Sl. No. | Name of Work | Estimated Value of the work | Earnest Money Deposit (EMD)/Bid Security (₹) | Concession Period |
|---|---|---|---|---|
| 1. | SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS | **For fresh waste:** per MT of input fresh waste | ₹10,00,000 | 16 years & 4 month (196 months) |

**Notes:**

(1) For fresh waste processing facilities, maximum of **15 (fifteen) months** is allowable for designing, drawings, complete construction and establishment of fresh (wet & dry waste) MSW processing plants including installation of all machineries and equipment etc., including obtaining Consent to Establish (CTE)/No Objection Certificate (NOC) and Consent to Operate (CTO) from West Bengal Pollution Control Board (WBPCB). The Selected Bidder shall apply for CTE/NOC/EC for the project immediately after receipt of Work Order to save substantial time for getting CTE/NOC/EC.

(2) The agency will have a minimum of **1 (one) month** for trial run for all plants and machineries, before the Commercial Operation Date (COD).

(3) All plants and machineries that are to be installed by the agency, should be permanent, designed for 30 (thirty) years of Design Period, both for process design and structural design. Agency may be allowed to install the plants for their current/existing capacity requirement, within the given period, in Table 3 and Table 4, upon approval of the State Level Task Force in Solid Waste Management, under the Urban Development and Municipal Affairs Department. If so, she/he shall thus to escalate the capacity of the plants to its required plant capacity, as per Table 3, within **3 (three) years** from the Commercial Operation Date (COD), of the plants.

(4) The Concessionaire can adopt ***any one of the following alternatives*** for setting up of permanent waste processing plant:

i. Wet Waste processing plant of adequate capacity at Bazra dump site within Chandannagore MC **AND** dry waste processing plant of adequate capacity at Dharampur trenching ground, Sukanta Nagar within Hooghly Chinsurah Municipality. Segregated fresh waste shall be provided to the extent possible as mentioned in this e-RfP by the ULBs and GPs to the respective processing plants as mentioned earlier. In an event of receipt of mixed fresh waste at either of the processing facilities, the concessionaire shall make necessary arrangements for local segregation of such mixed waste and transportation of either wet or dry waste to their designated processing facilities. All cost of such segregation and transportation thereof shall be borne entirely by the concessionaire.

**OR**

ii. Setting up simultaneous wet and dry waste processing plant of adequate capacity at both Bazra dumpsite within Chandannagore MC **And** Dharampur trenching ground, Sukanta Nagar within Hooghly Chinsurah Municipality. All cost of such segregation and transportation thereof shall be borne entirely by the concessionaire

(5) There shall be a Capital Grant for each of the project, for setting up and/or establishment of all plants, installation of relevant equipment and machineries etc. complete and will be paid, on achieving each payment milestones, after approval of Engineer-In-Charge (EIC), as per table 5, below.

(6) The Capital Grant will be disbursed to the Concessionaire upon completion of each milestone, in this RfP, and no claim will be entertained for any milestone, that would not be complied or not require, on approval of the competent authority.

**(7) All Power Charges to bring electricity for the Facilities shall be borne by the Concessionaire. Any charges regarding inspection charges, EMD, Security Deposit, Power Service Connection Charges, Power Consumption bills etc., all to be borne by the Concessionaire. Electricity Connection Charges shall be taken in the name of the concerned Urban Local Body.**

**(8) The operation and maintenance period of 15 years will be counted from the Commercial Operation Date (COD).**

(9) Possession of the land of dumpsite(s), for setting up of all plants, equipment, and machineries for processing of fresh wastes (wet waste & dry waste), will be given to the agency only as permissive. In no circumstances, mortgages against the land, plant, equipment, or machineries will be allowed, for lending or borrowing loan/capital expenses from any bank or any financial institution. For operation and complete maintenance, including all addition and alteration of spares etc. for the plants, ownership of the plants will never be given to the respective agency. It will be only permissive, throughout the Concession Period.

(10) The Concessionaire will be provided a minimum waste assurance as per Table 3 **by weight of monthly incoming** fresh wastes (wet waste & dry waste)**at the dumpsite, of base year** (given in RfP, as current generation of MSW at Table 3) only for a period of 15 years form the date of Commercial Operation Date. (no escalation in quantity of waste will be provided)

Payment of tipping fees for processing and removal of fractions of fresh waste will be allowed on only the cumulative quantity processed at the facility of wet and dry waste respectively, so established.

(11) The Concessionaire can adopt ***any one of the following alternatives*** for setting up of permanent waste processing plant:

j. Wet Waste processing plant of adequate capacity at Bazra dumpsite within Chandannagore MC **AND** dry waste processing plant of adequate capacity at Dharampur trenching ground, Sukanta Nagar within Hooghly Chinsurah Municipality. Segregated fresh waste shall be provided to the extent possible as mentioned in this e-RfP by the ULBs and GPs to the respective processing plants as mentioned earlier. In an event of receipt of mixed fresh waste at either of the processing facilities, the concessionaire shall make necessary arrangements for local segregation of such mixed waste and transportation of either wet or dry waste to their designated processing facilities. All cost of such segregation and transportation thereof shall be borne entirely by the concessionaire.

ii. Setting up simultaneous wet and dry waste processing plant of adequate capacity at both Bazra dumpsite within Chandannagore MC **And** Dharampur trenching ground, Sukanta Nagar within Hooghly Chinsurah Municipality.

(12) The actual Concession Period will be counted from the date of issuance of Work Order, after signing the Concession Agreement, by all the parties, i.e., the agency, Kolkata Metropolitan Development Authority/State Urban Development Agency, and concern Urban Local Body.

(13) The Earnest Money Deposit (EMD)/Bid Security will be 2% of the Bid Project Cost, derived as per Table 15 of this bid document.

Initial Earnest Money Deposit will be ₹10,00,000.00 (Rupees Ten Lakh only) and fixed. It must be deposited online either by Net Banking (through any Nationalised Bank/Scheduled Bank) or through RTGS/NEFT as per requirement of the portal- https://wbtenders.gov.in.

Additional Earnest Money Deposit, over and above ₹10,00,000.00 (Rupees Ten Lakh), has to be submitted by the successful bidder (Concessionaire), before issuance of LOA/LOI/Work Order (WO) from the TIA, on approval of the competent authority.

(14) The EMD/Bid Security of the successful bidder will be converted as its Performance Security/ Security Deposit. For others, i.e., for non-responsive/unsuccessful bidders, this EMD/Bid Security will be returned back through e-portal, as per usual practice, on approval.

(15) Penal action will be taken against the selected agency, in term of imposition of Liquidated Damages

(LD) per day, that will be decided based on performance of the agency, but total LD will not exceed 10% of total project cost, if the agency is unable to start the works, within the periods allowed, as above.

(16) All civil/structural design should be done based on latest BIS codes for a minimum design life of 50 years.

Process design, drawing, detailed drawings of structures etc. are needed to done for 30 years. But the concessionaire is allowed to construct/establish the plants, except the Sanitary Landfill, based on modular approach, as given in the RfP and scale up as required for 15 years, within 5 years from COD.

However, bidder should construct all infrastructure, except the SLF, and install machineries of capacity of the base year waste.

Construction of SLF should be done for the capacity of minimum of requirement of 30 years of design period.

Capital grant shall be disbursed on pro-rata basis of capacity of the plant and infrastructure facility among different phases.

Phasing of construction of plant and infrastructure shall not be more than 2 (two).

(1st phase for current capacity, before COD and 2nd phase for projected capacity for 15 years, before completion of **3 years from COD**)

All structural setup should be well maintained and as good as new to the extent possible, while handing over to the Authority, after completion of the concession period. However, the Concessionaire can handover the facility in fully fair and operational condition. If necessary, retrofitting of the civil infrastructures need to be done to make the plant in good condition before handing over.

(17) Corrigendum/addendum if any would be published on the website only.

(18) Intending bidders may download the tender document from https://wbtenders.gov.in directly with the help of his/her Digital Signature Certificate and the Earnest Money should be deposited online either by Net Banking (through any Nationalized Bank/Scheduled Bank) or through RTGS/NEFT as per requirement of the system. Further details may be available at the office of the undersigned or from the KMDA website: https://kmda.wb.gov.in/.

(19) Any history of debarment or blacklisting or litigation or pending litigation or arbitration awards or 70% or more Liquidated Damage imposed against the applicant or any member of the SPV/JV, in any **single tender/contract** under any Government/Government Undertaking/Autonomous Bodies/Semi-Government/ Statutory Bodies/ Local Bodies/Local Authorities, etc., during the last 5 (five) years from the date of issue of this RfP, will be disqualified.

(20) Even though the bidders meet the minimum eligibility criteria, they are subject to be disqualified if they have: -

a. made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirement;
b. record of poor performance such as abandoning the works or services, not properly completed or financial failures etc.;
c. any history of debarment or blacklisting or litigation or arbitration awards or 70% or more Liquidated Damage imposed against the applicant or any member of the SPV/JV, in any **single tender/contract** under any Government/Government Undertaking/Autonomous Bodies/Semi-Government/ Statutory Bodies/ Local Bodies/Local Authorities, etc., during the last 5 (five) years from the date of issue of this RfP, against the bidder or any member of the joint venture.

d. Repetitive penalties may lead to a compulsory imposition of liquidated damages, and if the issue persists, it may lead to termination of the contract without assigning any reason whatsoever and also without achieving full liquidity damages (i.e., 10% of the contract value) as mentioned in the contract documents. The Engineer-in-Charge (EIC) has the discretion to implement this.

(21) If the Concessionaire/agency/selected bidder feels that it will be easier for her/him to set up temporary structures/hangers at the given site location, to start processing of fresh wastes (wet+dry) after the given period, as per schedule, and can build/set up/install the permanent sheds within 3 (three) years, from the Commercial Operation Date (COD), at the same site, for the projected capacity for 15 (fifteen) years, as mentioned earlier, she/he will be given permission to do the same, subject to site inspection/verification/acknowledgement by the Engineer-In-Charge (EIC). If agreed and approved, a sum, equal to **10% of the rate quoted per MT (input) for processing of fresh waste (wet waste & dry waste)**, will be deducted, till the main plants (permanent) are installed and operational. Capital Grant(s) shall only be provided upon installation of permanent units, as per the milestones for payment, given in *Article 17*.

*(A temporary hangar is a modular, prefabricated structure designed to protect equipment, wet waste and personnel from rain during monsoon. These structures are typically made from high-quality, lightweight materials, such as aluminium frames and heavy-duty PVC fabric, ensuring durability and easy transport).*

## 1.1. General guidance for e-Tendering:

### 1.1.1. Instructions for electronic submission of the tenders:

Guidelines for e-submission of the tenders have been detailed for assisting the bidders to participate in e-tendering.

### 1.1.2. Registration of Bidders:

Any bidder willing to take part in the process of e-tendering will have to be enrolled and registered with the Government e-Procurement system, through login onto https://wbtenders.gov.in. The Bidder is to click on the link (online Bidder Enrolment) for e-tendering site.

### 1.1.3. Digital Signature Certificate (DSC)

Each bidder is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders, from the approved service provider of the Controller of Certifying Authority, Government of India (http://cca.gov.in) on payment of requisite amount. The bidder can search the tender and download RfP and other tender documents electronically from computer, once he/she logs onto the website https://wbtenders.gov.in. This is the only mood of collection of the tender documents. A prospective Bidder shall be allowed to participate in the job either in the capacity of the individual or as a partner of a firm. If it is found applied several in single job all his applications will be rejected for that job.

### 1.1.4. Site Visit and Verification of Information:

Bidders are advised to submit their respective bids after visiting the sites and ascertaining for themselves the quantity of waste lying at site, site condition, location, surroundings, climate, applicable laws, applicable permits and regulations and any other matter considered relevant by them. Further examine the participating municipalities of the project for waste management practices, existing infrastructure and its surrounding and ascertain themselves on all technical and other aspects necessary for preparing their proposal (bid) including carrying out necessary technical surveys, field investigation etc. at its own cost and risk. The applicants shall be deemed to have full knowledge of the site condition upon

submitting the proposal in response to this RfP. The bidders shall be responsible for all of the cost associated with the preparation of their bids and participation in the bidding process. KMDA will not be responsible or in any way liable for such cost, regardless of the conduct or outcome of the bidding process. The cost of visiting the locations of required services and their surroundings shall be at the Bidder's own expense. Bidder must take an official permission to visit the site and follow applicable safety measures, while moving around the site.

1.1.5. **Submission of Tender:**

(a) Pre-qualification/Technical Bid and Financial Bid both will have to be submitted online concurrently duly digitally signed in the website https://wbtenders.gov.in, before the prescribed date and time using his/her Digital Signature Certificate (DSC). Virus scanned and duly digitally signed copies of the documents are to be uploaded. The documents will get encrypted (transformed into non readable formats).

(b) Financial Bid of the prospective tenderer will be opened only if the tenderer qualifies in the Technical Bid. The decision of the Tender Inviting Authority (TIA) will be final and in no case challenge against such decision will be entertained.

1.2. In the event of e-filling, intending bidders may download the tender documents from the website: https://wbtenders.gov.in directly. Necessary earnest money should be paid in the form of Net Banking or RTGS/ NEFT from the e-Procurement portal of the Government of West Bengal - https://wbtenders.gov.in.

1.3. Tender documents may be downloaded from website and submission of the bid should be done strictly as per the stated time schedule.

1.4. Scanned Copy of PAN card, Professional Tax, Income Tax return for last three years, GST registration number, Valid Trade Licence, Last three years Audited balance sheet, Credentials, Work order, Completion Certificate, Payment Certificate, Valid ESI & PF registration certificates of the bidder must be submitted duly digitally signed at desired location in the website: https://wbtenders.gov.in.

1.5. Scanned Copy of one affidavit before notary shall have to be submitted mentioning the correctness of the documents and a declaration of a penalty/ debarment etc faced by him under any Government/Semi Government/Autonomous Body /Institution through online at desired location.

1.6. The reconstituted 'Project Evaluation cum Technical Committee', now renamed as 'State Level Task Force' on Solid Waste Management under Urban Development and Municipal Affairs Department will examine the Technical Bid and the Financial Bid to conduct an evaluation based on Quality and Cost Based Selection (QCBS) process. The decision of the 'State Level Task Force' committee will be final and absolute in this respect.

1.7. **Small Scale Industrial (SSI) units or Micro, Small & Medium Enterprises (MSMEs), operating in Waste Management Sector participating in the tender shall have to deposit Earnest Money and if selected, Performance Security/Security Deposit as usual, as per Memo. No. 4245-F(Y) dated 28.05.2013 of the Finance Department, Government of West Bengal.**

1.8. **Start-ups operating in Waste Management Sector are allowed to participate in this bid, as per the prevailing norms and guidelines of the Government of West Bengal. They will be relaxed from both technical and financial experience, as required, provided they are bidding with an experienced lead partner, as SPV/JV, meeting both the technical and financial qualifications, as required in this e-RfP, and the lead partner and as well as the Start-up Company are jointly and severally responsible for execution and contract implementation.**

**The start-up Companies operating in Waste Management Sector, willing to bid as SPV/JV, must have to be registered, under the Department for Promotion of Industry and Internal Trade (DPIIT), under the Ministry of Commerce and Industry, Government of India, before the date of uploading (publishing) of this e-RfP, and will be exempted from both turnover/net-worth and credential, as required. All the necessary documents for their registration as start-up, must have to be submitted, while bidding.**

**They must submit all their documents, as per Clause 4.1, as required for Minimum Eligibility Criteria, other than the documents related to turnover/net-worth and credential etc., as mentioned.**

1.9. **KMDA reserves the right to,**

a. Accept any Bid.
b. Reject any Bid.
c. Annul the bidding process and reject all Bids.
d. Annul the bidding process and commence a new process; and
e. Waive irregularities, minor informalities, or minor non-conformities which do not constitute material deviations in the submitted Bids from the Bidding Documents, at any time prior to the award of the Contract without incurring any liability to the affected Bidder or Bidders and without any obligation to inform the affected Bidder or Bidders of the grounds for KMDA's actions.

f. Nothing in ITB is intended to permit KMDA to refuse to provide reasons for rejection to an unsuccessful Bidder.

1.10. Upon successful running of all plant and machineries, if the agency/concessionaire will be able to secure Carbon Credit/carbon financing in the domestic carbon market, the concessionaire will share at least 50% of profit from Carbon Credits with the concerned Urban Local Body (ULB) in its pro-rata contribution to the entire Carbon Project approved by the Ministry of Environment, Forest and Climate Change (MoEFCC).

1.11. The bidder/concessionaire may be debarred/suspended/restrained from participating any tender of Kolkata Metropolitan Development Authority (KMDA) at any stage on the following grounds:

**A. GROUNDS FOR SUSPENSION/DEBARMENT/RESTRICTION**

i) Submission of eligibility requirements containing false information or falsified documents.
ii) Submission of Bids that contain false information or falsified documents, or the concealment of such information in the Bids in order to influence the outcome of eligibility screening or any other stage of the bidding process.

iii) Unauthorized use of one's name/digital signature certificate for purpose of bidding process.

iv) Any documented unsolicited attempt by a bidder to unduly influence the outcome of the bidding in his favour.

v) Refusal or failure to post a self-declaration to the effect of any previous debarment/suspension/restriction imposed by any authority of State/Central Government, State/Central Government Undertaking/Statutory Bodies constituted under the statute of the Central/State Government.

vi) All other acts that tend to defeat the purpose of the competitive bidding such as lodging false complain about any bidder, lodging false complain about any officer duly authorized by the department, restraining any interested bidder to participate in the bidding process, etc.

vii) Assignment and subcontracting of the contract or any part thereof without prior written approval of the procuring entity.

viii) Whenever adverse reports related to adverse performance, misbehavior, direct or indirect involvement in threatening, making false complaints etc. damaging the reputation of the department or any other type complaint considered fit by the competent authority of the department, are received from more than one officer or at more than one occasion from individual officer.

ix) Refusal or failure to post the required performance security/earnest money within the prescribed time without justifiable cause.

x) Failure in deployment of technical personnel, engineers and / or work supervisor having requisite license/ supervisor certificate of competency as specified in the Contract.

xi) Refusal to accept an award after issuance of "letter of acceptance" or enter into contract with the authority without justifiable cause.

xii) Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period as mentioned in the "Letter of Acceptance", "Letter of Acceptance cum Work Order", "Work Order", "Notice to Proceed", "Award of Contract", etc.

xiii) Failure by the contractor to comply with its contractual obligations fully and faithfully without valid cause or failure by the contractor to comply with any written lawful instruction of the procuring entity or its representative pursuant to the implementation of the contract.

xiv) For the procurement of consultancy service/ contracts, poor performance by the consultant of his services arising from his fault or negligence. Any of the following acts by the consultant shall be construed as poor performance.

a) Non deployment of competent technical personnel, competent engineers and / or work supervisors.

b) Non deployment of committed equipment, facilities, support staff and manpower.

c) Defective design resulting in substantial corrective works in design and/or construction.

d) Failure to deliver critical outputs due to consultant's fault or negligence.

e) Specifying materials which are inappropriate and substandard or way above acceptable standards leading to high procurement cost.

f) Allowing defective workmanship or works by the contractor being supervised by the consultant.

xv) For the procurement of goods, unsatisfactory progress in the delivery of the goods by the manufacturer, supplier or distributor arising from his fault or negligence and/or unsatisfactory or inferior quality of goods, vis a vis as laid down in the contract.

xvi) Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause.

**B. CATEGORY OF OFFFNSE**

i) First degree of offense: - Sl. No. 19.A. (i) to 19.A (xvi) to be considered as first degree of offense.

ii) Second degree of offence: - Any one of the offences as mentioned under 19.B (i) above, committed by a particular bidder/contractor/supplier by more than one occasions, be considered as second degree of offense.

In addition to the penalty of suspension/debarment/restriction, the bid security/earnest money posted by the concerned bidder or prospective bidder shall also be forfeited.

(The same must be invariably part of the process of evaluation of bids.)

**C. PENALTY FOR OFFENSE**

**i) For committing 1st Degree of offense: -**
Disqualifying a bidder from participating in any tender process under Kolkata Metropolitan Development Authority up to 2(two) years.

**ii) For committing 2nd Degree of offense: -**
Disqualifying a bidder from participating in any tender process under Kolkata Metropolitan Development Authority for a period of 3(three) years.

1.12. **Time schedule and important information for downloading, uploading and opening of the Tender Documents:**

**Table 2:**

| No. | Item | | Detailed time schedule |
|---|---|---|---|
| a) | Project Name | : | SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS |
| b) | Nodal Officer | : | **Superintending Engineer (Civil)**<br>**SOUTH CIRCLE,** Solid Waste Management Sector<br>Kolkata Metropolitan Development Authority<br>Ground Floor, Unnayan Bhavan, Salt Lake City,<br>Kolkata – 700 091 |
| c) | Earnest Money Deposit (EMD)/Bid Security | : | @2 % of the Bid Project Cost, derived as per Table 15 of this bid document.<br><br>Initially the bidder must submit ₹10,00,000.00 (Rupees Ten Lakh), before submission of bid, as Initial Earnest Money Deposit.<br><br>Initial Earnest Money Deposit (EMD)/Part Bid Security, as per schedule, must be deposited online either by Net Banking (through any Nationalised Bank/Scheduled Bank) or through RTGS/NEFT as per requirement of the |

| No. | Item | | Detailed time schedule |
|---|---|---|---|
| | | | portal- https://wbtenders.gov.in.<br><br>Additional Earnest Money Deposit, in excess of ₹10,00,000.00 (Rupees Ten Lakh) above, has to be submitted by the successful bidder (Concessionaire), before issuance of Letter of Acceptance (LoA)/Letter of Intent (LoI)/Work Order (WO) from the TIA, on approval of the competent authority.<br><br>This Bid Security of the successful bidder will be converted as its Performance Security/ Security Deposit of the selected agency. For others, i.e., for non-responsive/unsuccessful bidders, this EMD/Bid Security will be returned through the e-portal, as per usual practice. |
| d) | Performance Security/ Security Deposit | : | The amount of Performance Security/Security deposit shall be 10%, of the total Project Cost.<br><br>Earnest Money Deposit (EMD)/Bid Security, that has been submitted by the bidder at the time of agreement, will be converted to and adjusted with the total security deposit.<br><br>Balance Security deposit @8% of total bill value, as per Schedule, will be deducted from each running account bill, up to 10% of the total project cost. |
| e) | O&M Security | : | 2% (Two percent) of 1 (one) year O&M Cost for fresh waste management only, to be calculated for waste generation, to be increased every year @1.6%, with the rate as proposed by the bidder and approved by the authority.<br><br>This is to be submitted within 60 (sixty) days of the Construction Completion Date, or 30 (thirty) days before COD, whichever is earlier, in the form of an unconditional and irrevocable Bank Guarantee (BG), valid for next 1 (one) year, which must be renewed on a year-on-year basis, before the expiry of the 11$^{th}$ (eleventh) month of the relevant year, until termination of the Concession Agreement.<br><br>As such, the generation of waste will be considered to be increased by @1.6% per annum and simultaneously the rate of processing being revised in every five-year, the amount of BG, will be revised accordingly, in every year.<br><br>If the selected bidder will desire to submit the BG, valid for 1 (one) year for an amount @2% of the Bid Project Cost, as per Table 15, he will be allowed to submit thus, but to be renewed such BG, before expiry of 11$^{th}$ month of every year, without fail. |

| No. | Item | | Detailed time schedule |
|---|---|---|---|
| | | | Non-submission of BG, in time, will attract ₹20,000.00 (Rupees Twenty Thousand) per day of penalty/Liquidated Damage, from its due date, where summation of all damages, will not cross 10% of the Bid Project Cost, and if so, the contract will be rescinded and bidder will be terminated, with forfeiture of the Security Deposit and O&M Security, so submitted.<br><br>In addition, the Authority shall be entitled to drawdown the total amount available under the O&M Security and retain such amount as cash security until such time that the Concessionaire submits an extension or replacement of the O&M Security.<br><br>*While issuing Bank Guarantee (BG) in favour of Kolkata Metropolitan Development Authority (KMDA), the issuing applicant must mention receiver's details as ICICI Bank, IFSC: ICIC0006950, Branch- Salt Lake, Sector- I, in the BG text at which SFMS IFIN 760 message to be sent by the issuing bank to establish the authenticity of the given BG.* |
| f) | Date & time of uploading (publishing) of e-RfP and other documents (online) | : | 25/07/2025 at 18.30 Hrs. |
| g) | Documents download starting date (Online) | : | 25/07/2025 at 18.30 Hrs. |
| h) | Last date for bidders/ contractors/agencies to submit Supplementary Questions/Queries: | : | 04/08/2025 upto 17.00 Hrs.<br>Address for submission of queries:<br>Given in tabular form elsewhere in this document.<br>**Note:**<br>➢ All queries are needed to be submitted through electronic-mail only in soft copy to the email addresses: sesouthkmda@gmail.com clearly super scribing the name of the project at the subject line. |
| i) | Pre-bid meeting | : | 05/08/2025 at 14.00 Hrs<br>**Mode of meeting: Physical**<br>**Office:** Office of the Superintending Engineer, SWM Sector, KMDA<br>Unnayan Bhavan, Block- G, Ground Floor, Salt Lake City, Kolkata – 700 091. |
| j) | Issue of response (corrigendum, if any) | : | 14/08/2025 upto 18.00 Hrs |
| k) | Starting date & time for submission of tender through online | : | 25/07/2025 at 18.30 Hrs. |
| l) | Last date & time limit for submission of tender through online | : | **26/08/2025 upto 16.00 Hrs** |
| m) | Scheduled date & time for opening the Part-I tender document (Technical Bid) | : | 28/08/2025 after 16.00 Hrs |

| No. | Item | | Detailed time schedule |
|---|---|---|---|
| n) | **Presentation Date for only those bidders who have submitted their bid** | **:** | To be notified later through e-mail and/or in https://wbtenders.gov.in |
| o) | Date of uploading the List of technically qualified bidders (Online) | **:** | To be notified later in https://wbtenders.gov.in |
| p) | Scheduled date & time for opening Part-II tender document (Financial Bid) | **:** | To be notified later in https://wbtenders.gov.in |
| No financial information should be uploaded to the folder marked for technical bid. | | | |

1.13. Tenders will be opened by the **Superintending Engineer, SOUTH CIRCLE, Solid Waste Management Sector, Kolkata Metropolitan Development Authority** or his authorized representative in presence of the tenderer or their authorized representatives who may like to be present. Scrutiny of papers/documents shall be done either by the Tender Inviting Authority/by any designated/authorised representative in this Department, on behalf of the TIA.

1.14. The Concessionaire will be provided a minimum waste assurance as mentioned in Col (h) of Table 3 at the dumpsite, of base year, over the month, for a period of 15 years, form the date of Commercial Operation Date (COD), i.e., if quantity of waste coming at the dumpsite, throughout the month in consideration, is less than, as given in Col (H) Table 3, payment will be made based the minimum assurance quantity as mentioned in Col(H) Table 3 of this RfP (no escalation in quantity of waste will be provided, in any circumstances). Payment of tipping fees for processing and removal of fractions of fresh waste (dry+wet) will be allowed on only the quantity processed at the established facility.

1.15. The facilities at both Chandannagore MC & Hooghly Chinsurah Municipality shall have CCTV surveillance facility with real time data transfer to the Central Control and Command Centre (C4) and storage of entire contract period each. For CCTV surveillance High-Definition IP based cameras in adequate numbers (as directed by KMDA) shall be provided by the Concessionaire.

1.16. All vehicles to be used for transporting waste and other fractions shall be provided with GPS tracker with real time data transfer facility to C4 to enable KMDA to track and monitor at any instant.

1.17. **The Concessionaire must develop Applications compatible with both android and iOS platform for real time monitoring and control of entire processing and land reclamation process, before commencement of COD one each for processing facility at Chandannagore MC and Hooghly Chinsurah, without which, no quantum of fresh waste (dry/wet waste) will be granted for payment.**

1.18. **Installation of weighbridge and processing timeline**

(a) The successful bidder shall install the weighbridge system (permanent) and other machineries required for processing of fresh waste before the Commercial Operation Date (COD). This includes the installation of weighbridge along with calibration, operationalizing the real-time monitoring system and all other necessary machineries and a successful trial run (minimum of 7 working days).

(b) Physical work on fresh waste processing must begin from the Commercial Operation Date (COD). However, processing activities of fresh MSW should not commence until ***a) the real-time monitoring system is fully installed, operational, and verified, b) weighbridge Calibration Certificate is duly submitted to EIC***. It is to be kept in mind that Time is the essence of this contract, and the agency shall complete the work within the scheduled time of completion, failing to meet this deadline will result in penalties, including potential liquidated damages.

(c) The successful bidder has to install permanent weigh bridge of minimum of **60MT** capacity (preferably pit-less type) and 12m length. The processing capacity **of the fresh MSW Plant should be atleast 150 MT per day and processing must commence from the Commercial Operation Date (COD)**, so that, the operator can process and remove minimum of 150 MT of waste per day, positively subject to availability of fresh waste. Accordingly, the agency shall design and install the number of trommel/machineries required for processing of atleast 150 MT per day of fresh municipal solid waste.

(d) Separate Weigh bridges shall have to be installed at Chandannagore MC and at Hooghly Chinsurah Municipality for Fresh Waste Weighment for both input waste and output fractions.

**Table 3: The quantum of monthly fresh waste assurance (fixed for 15 years):**

| Sl. No. | ULB | MSW (in TPD) | MSW (in TPD) (projected for 15 years) | Monthly waste assurance (Fixed) (in Ton per Month) |
|---|---|---|---|---|
| **(A)** | **(B)** | **(F)** | **(G)** | **(H)** |
| 1. | Chandannagore MC | 38 | 48.30 | 380 |
| 2. | Hooghly Chinsurah Municipality | 83 | 104.40 | 830 |
| 3. | Kodalia-I GP | 13 | 17.20 | 130 |
| 4. | Kodalia-II GP | 6.50 | 9.30 | 65 |
| 5. | Bandel | 6.70 | 9.50 | 67 |
| | | **TOTAL = 150** | **188** | **1472 (Avg.)** |

**Note:** *1. Increment in quantity of waste has been considered as 1.6% per year for 15 years*
*2.The estimated MSW generation rate of 200-600 grams per capita, as per CPHEEO guidelines, shall serve as the basis for this project. The MSW quantity in TPD mentioned in Table 3 is an estimate and may vary due to collection efficiency and per capita consumption fluctuations. The contracted ULB shall strive for 100% collection efficiency to achieve the stated MSW quantity.*
*3. Payment to the contractor shall be based on actual fresh MSW quantities received at the processing site, as per the quoted rates in contract agreement.*

**Table 4: Schedule of Period of Completion of different milestones, as per scope of work**

| Sl. No. | ULB | Agency to install Fresh Waste Processing Plant of min. Capacity (TPD) | Period of completion of construction of all plants, including installation of equipment, machineries etc. complete for processing of fresh waste, including obtaining Consent to Establish (CTE)/NOC and Consent to Operate etc. from WBPCB, from the date of Work Order, after agreement + trial run | Attainment of Commercial Operation Date (COD), from the date of Work Order, after agreement | Operation and Complete Maintenance period from COD | CONCESSION PERIOD |
|---|---|---|---|---|---|---|
| (1) | Chandannagore MC, Hooghly Chinsurah, Kodalia-I, Kodalia-II & Bandel | 150 | 15 months + 1 month | 16 months | 15 years | **196 months** |

## 2. INTRODUCTION

### 2.1. Background

2.1.1. The Kolkata Metropolitan Development Authority (KMDA), under UD&MA Department, Government of West Bengal acting through its Chief Executive Officer (CEO, KMDA) (the "**Authority**") are engaged in Processing of Fresh Wastes and reclamation of land of dumpsites and the development of Solid Waste Management projects and as part of thisendeavour, the Authority have decided to undertake Processing of Fresh Wastes and reclamation of land of dumpsites and the development, operation and complete maintenance of Solid Waste Management projects (the "**Project**") by inviting Proposals for the Projects within the jurisdiction of the Authority (the **"Project Area"**) and on the site(s) identified by the Authority for the implementation of the Project (the "**Site(s)**") on Capital Grant cum Processing Fee model through PPP on Design, Build, Operate and Transfer (the "**DBOT**") basis.

2.1.2. The Project may be awarded on DBOT basis to a private entity (the "**Concessionaire**") selected through a competitive bidding process. The Project would be implemented in accordance with the terms and conditions stated in the concession agreement to be entered into between the Authority and the Concessionaire (the "**Concession Agreement**").

2.1.3. In pursuance of the above, the Authority has decided to carry out the process for selection of a Concessionaire for implementation of the Project in accordance with the Concession Agreement.

### 2.2. The Project:

2.2.1. The Kolkata Metropolitan Development Authority (KMDA) usually serves the Kolkata Metropolitan Area (KMA), the largest urban agglomeration in eastern India, having an area of 1886.67 sq. km., envelopes 3 Municipal Corporations including Kolkata Municipal Corporation, 39 Municipalities and several Panchayet. Now, Government of West Bengal has entrusted to KMDA to provide a range of quality urban services to other urban population too for the rest of the state of West Bengal. Apart from core urban infrastructure services such as drinking water, sewerage and drainage, solid waste management, road maintenance, street lighting, KMDA also provides different social sector services and development of slums and minority communities in the KMA area.

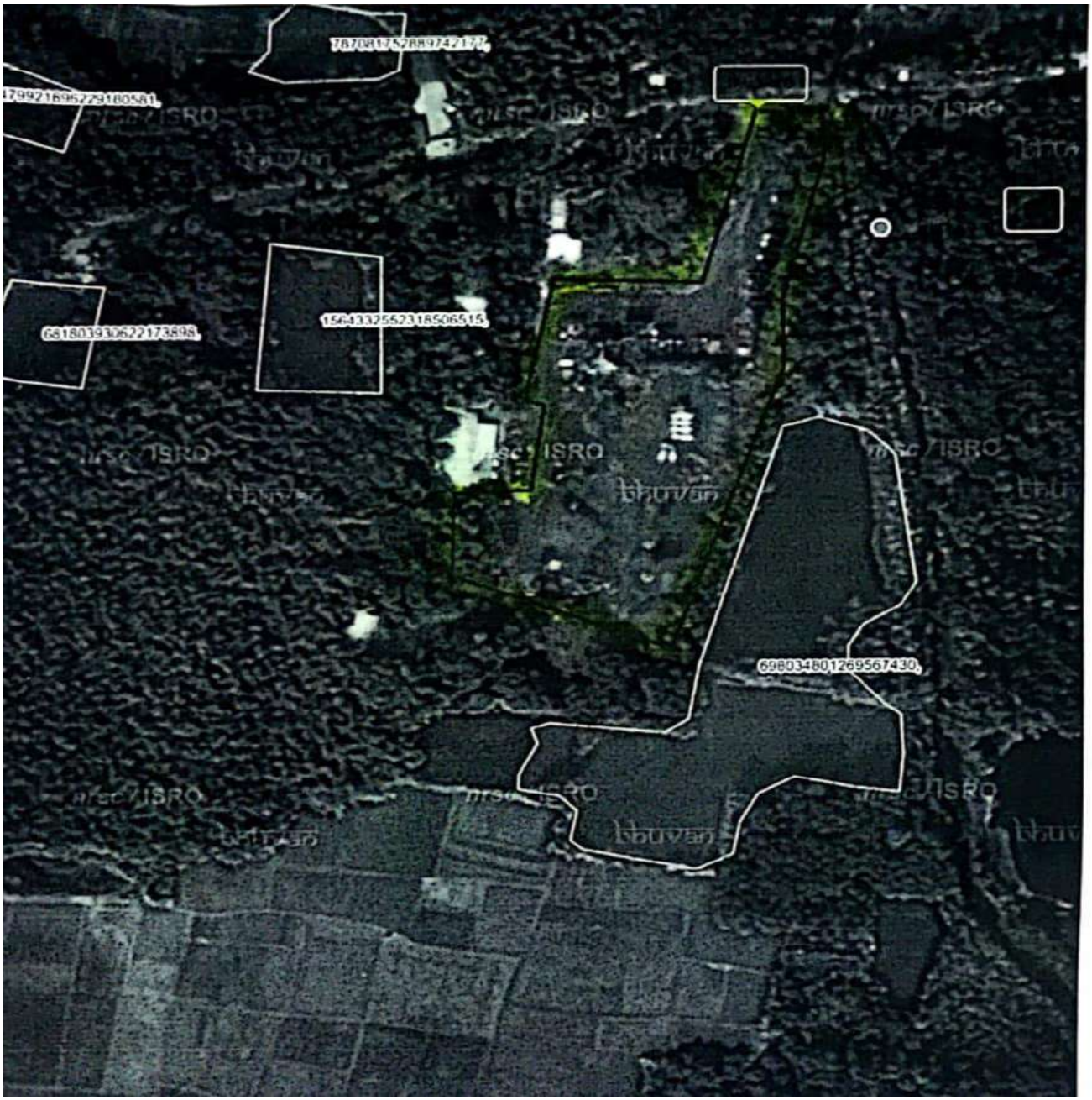
2.2.2. Kolkata Metropolitan Development Authority ("KMDA") has been in the forefront in implementing reforms aiming at improved service delivery that is qualitative, reliable, and sustainable. Solid Waste Management (SWM) is the priority area of service delivery and KMDA has been making continued efforts in improving Solid waste management in Kolkata Metropolitan Area and surroundings for the past few years.

2.2.3. As per the mandate given by the Government of West Bengal, KMDA has taken up the work of SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS strictly complying the Solid Waste Management Rules, 2016, at different dumpsites in the state of West Bengal on Design, Build, Operate and Transfer (DBOT) basis. The list below, consists of name of ULB, location and area of dumpsite(s), is given hereunder.

## (I) HOOGHLY CHINSURAH MUNICIPALITY

**GOOGLE EARTH IMAGE OF DUMPSITE at Dharampur trenching ground, Sukanta Nagar, HOOGHLY CHINSURAH MUNICIPALITY**
**LOCATION COORDINATES: (22.892912 N, 88.37879 E)**

(II) **CHANDANNAGORE MUNICIPAL CORPORATION**




**GOOGLE EARTH IMAGE OF Bazra Dumpsite Under Chandannagar Municipal Corporation**
**LOCATION COORDINATES: (**22°51'18.7" N, 88°19'42.7" E**)**

**Table 5: Detail of dumpsites and amount of Capital Grant (in ₹), receivable:**

| Project Sl. No. | ULB | Location of dumpsite | Area of dumpsite in acre | Capital Grant in Rs. (₹) |
|---|---|---|---|---|
| 1. | Chandannagore MC | BAZRA, LOCATION COORDINATES: (22°51'18.7"N, 88°19'42.7"E) | 5.20 acres (approx) | **₹ 9,86,00,000.00** |
| 2. | Hooghly Chinsurah Municipality | DHARAMPUR, SUKANTA NAGAR LOCATION COORDINATES: (22.892912 N, 88.37879 E) | 5.40 acres (approx) | |

2.2.4. KMDA wants to engage Management operator for the works, mentioned above, by a competitive bid process. The Operator is expected to install all the required plant and machineries of required capacity for processing of municipal fresh solid waste and disposal of fractions.

2.2.5. KMDA invites Technical and Financial Proposals from experienced firms to achieve the above-mentioned objective. The scope of work is detailed in Schedule 1.

2.3. **Request for Proposals**

The Authority invite proposals (the "**Proposals**") for implementation of theProject in conformity with the Concession Agreement. The Authority intend to select the Concessionaire through an open competitive bidding process in accordance with the procedure set out herein.

2.4. **Due diligence by Applicants**

Applicants are encouraged to inform themselves fully about the assignment and the local conditions before submitting the Proposal by paying a visit to the Authority and the Project Site(s), sending written queries to the Authority, and attending a Pre-Proposal Conference on the date and time specified elsewhere in this document.

2.5. **Obtaining RFP Document**

RFP document can be downloaded from this Authority's website: https://kmda.wb.gov.in/ and the e-procurement portal of the State Government: https://wbtenders.gov.in from the date as mentioned elsewhere in this document.

2.6. **Validity of the Proposal**

The Proposal shall be valid for a period of not less than 180 days from the Proposal Due Date (the "**PDD**"), i.e., from the last date of submission of the proposal.

2.7. **Brief description of the Selection Process**

2.7.1. The Authority, i.e., KMDA will follow Quality and Cost Based Selection (QCBS) process (referred to as the "**Selection Process**") for selecting eligible firms for the award of the project, as per memo no. 8385 – F(Y) dated 22.11.2013 of Finance Department, Government of West Bengal.

2.7.2. Interested firms are advised to submit their Quotation as part of the BoQ. Before submitting the bid/response to this RfP, the interested firms will visit the respective locations for their clear understanding of the project and they will interact with the KMDA/ULB officials well in advance for

any clarification so that during pre-bid meeting, KMDA can clarify queries before all interested enterprises.

2.7.3. Bidders qualifying the Bid Capacity Criteria and minimum eligibility criterions will be required to provide a presentation on the mode of operation (modus operandi) of the work, as per norms and explain clearly how he or she will carry out their works at site, considering every unforeseen circumstances. In this regard an Initial Implementation and Operational Plan (IIOP) has to be submitted by the bidder.

2.7.4. The BoQ of those firms, who meet the 'Bid Capacity Criteria', 'Minimum Eligibility Criteria' and having a minimum technical/quality score of **70**, will only be opened. Bidders, who do not score **70** or above in the "Technical Eligibility Evaluation Criteria" shall be declared ineligible for this project and their BoQs shall not be opened for further evaluation.

2.7.5. Considering the technical influence and value impact of the above services proposed to be procured, the bidder quoting the lowest (L1) amount, as Net Present Value (NPV) (calculated as per Table 15), for the Scope of Work as mentioned, who fulfils the "Bid Capacity Criteria', "Minimum Eligibility Criteria" and scores at least 70 in "Technical Eligibility Evaluation Criteria" may be awarded the contract (the "**Selected Bidder**") while the second lowest Applicant (L2) will be kept in reserve.

2.7.6.

In an event where the L1, i.e., the Selected Bidder could not be awarded the contract, the L2 bidder will be offered to match their rates with the L1 bidder rates/prices. The negotiation will be done on approval of the competent authority in the Department, if approved.

Now, if L2 refuses to negotiate its rate to L1, and the L2 Bidder could not be awarded the contract, the L3 bidder will be offered to match their rates with the L1 bidder rates/prices. Here too, the negotiation will be done on approval of the competent authority in the Department, if approved.

L4 and above will never be asked for negotiation of rate/price.

2.8. **Currency conversion rate and payment**

All payments to the selected Concessionaire shall be made in INR in accordance with the provisions of this RFP.

## 3. INSTRUCTIONS TO APPLICANTS

### 3.1. GENERAL

#### 3.1.1. Scope of Proposal

Detailed description of the objectives, scope of services, deliverables and other requirements relating to this Project are specified in this RFP. For determining the eligibility of Applicants for their technical-qualification hereunder, the following shall apply:

(a) The term applicant (the "**Applicant**") means a single entity or a group of entities (the "**Special Purpose Vehicle (SPV)/Joint Venture (JV)**" as the case may be, coming together to implement the Project. However, no Applicant applying individually or as a member of a Joint Venture, asthe case may be, can be a member of another Joint Venture. The term Applicant used herein would apply to both a single entity and a Joint Venture.

(b) An Applicant should either be a company within the meaning of Companies Act, 2013 or duly incorporated under the relevant laws of its country of origin, or a registered partnership firm under Indian Partnership Act, 1932, or a limited liability partnership under Limited Liability Partnership Act, 2008, or a partnership firm registered under the relevant laws of its country of origin, or any

combination of them with a formal intent to enter into a Joint Bidding Agreement or under an existing agreement to form a Joint Venture or a society registered under The Societies Registration Act, 1860 or Cooperative Society or any other similar legal entity registered under relevant laws of Republic of India. A Joint Venture shall be eligible for consideration subject to the conditions set out in this RFP. f

Applicants are advised that the selection of Concessionaire shall be on the basis of an evaluation by the Authority through the Selection Process specified in this RFP. Applicants shall be deemed to have understood and agreed that no explanation or justification for any aspect of the Selection Process will be given and that the Authority's decisions are without any right of appeal whatsoever.

The manner in which the Proposal is required to be submitted, evaluated and accepted is explained in this RFP. The Applicant shall submit its Proposal in the form and manner specified in this Part-2 of the RFP. The technical proposal shall be submitted in the form at Appendix-I and the financial proposal shall be submitted in the form at Appendix-II. Upon selection, the Applicant shall be required to enter into the Concession Agreement with the Authority in the form in this Bid Document.

3.1.2. **Key Personnel**

The Applicant shall offer and make available all key personnel meeting the requirements and for discharging the responsibilities specified below but not limited to. The concessionaire's team shall be manned by adequate number of experts with relevant experience in the execution of similar nature of assignments. List of suggested key personnel to be fielded by the concessionaire (the "**Key Personnel**").

**Table 6:**

| Key Personnel | Responsibilities |
|---|---|
| **Project Manager** | He will lead, co-ordinate and supervise the multidisciplinary team for implementation of the Project. |
| **Site Engineer - 2 nos.** | He will assist, co-ordinate and supervise day to day works at sites for implementation of the Project. He shall visit site regularly, prepare report, etc. (one from civil engineering and one from Electrical/ Mechanical Engineering background) |
| **Safety Expert** | He will be responsible to ensure compliance of the Project with the safety standards under applicable laws and good industry practice. |
| **Environmental Expert** | He will be responsible for Environmental Impact Assessment of the Project. |

The bidder shall engaged experts in additional positions to complete the assignment successfully if it so deems appropriate.

3.1.3. **Conditions of Eligibility of Applicants**

Applicants must read carefully the minimum conditions of eligibility (the "**Conditions of Eligibility**") provided herein. Proposals of only those Applicants who satisfy the Conditions of Eligibility will be considered for evaluation.

To be eligible for evaluation of its Proposal, the Applicant shall fulfil the following:

(A) **Technical Capacity**:

The agency should have constructed/installed, commissioned, completed and successfully running any Fresh MSW Processing Plant/Compost Plant/Bio-Gas Plant/Bio-CNG Plant /C&D Waste Processing Plant/Waste to Energy Plant etc., for 3 (three) consecutive years of Capacity 40% minimum of total capacity of plants required, at base year, as per Table 10.

**Or**

The agency should have constructed/installed, commissioned, completed and successfully running any 2 (two) or more Fresh MSW Processing Plant/Compost Plant/Bio-Gas Plant /Bio-CNG Plant/C&D Waste Processing Plant/Waste to Energy Plant etc., for 3 (three) consecutive years of Capacity/combined capacity of plants, in any processing facility, minimum 30% of total capacity of plants required, at base year, as per Table 10.

(B) **Financial Capacity**:
The Applicant shall have the Financial Capacity as specified in Table 10.

(C) **Availability of Key Personnel:**
The Applicant shall offer and make available all Key Personnel meeting the requirements specified in sub-clause (D) below. The said Key Personnel will continue to be available during the Concession Period as agreed under the Concession Agreement. In the event ofany such Key Personnel leaving the Applicant selected under this RFP during the Concession Period, he/she shall be replaced by a person with equivalent qualification and experience.

(D) **Conditions of Eligibility for Key Personnel:**
Each of the Key Personnel must fulfil the Conditions of Eligibility specified below:

**Table 7:**

| **Key Personnel (Maximum age not more than 65 years)** | **Educational Qualification** | **Length of Professional Experience** | **Experience on Eligible Assignments** |
|---|---|---|---|
| **Project Manager** | Post-Graduate/ Graduate in Civil Engineering | 10 years | He should have led the Project implementation teams for Eligible Assignments. |
| **Safety Expert** | Masters/Bachelor in Science or equivalent along with post graduate diploma in safety management | 7 years | He should have led the safety compliance teams or worked as a sole expert for [2 (two)] Eligible Assignments. |
| **Environmental Expert** | Masters/Bachelor in Environmental Science or equivalent | 7 years | He should have led the environmental impact assessment teams or worked as a sole expert for [2 (two)] Eligible Assignments. |
| **Site Engineer – I.** | Graduate/ Diploma in Civil Engineering | 5/7 years | Experience in one Eligible Assignments. |
| **Site Engineer – II.** | Graduate/ Diploma in Electrical/ Mechanical Engineering | 5/7 years | Experience in one Eligible Assignments. |

The Applicant shall enclose with its Proposal, certificate(s) from its statutory auditors stating its Financial Capacity. In case the Applicant is a Joint Venture, the Proposal must beaccompanied with the details of each Member and Associate of the Joint Venture whose Financial Capacity is considered for evaluation as provided in Clause. In the event that the Applicant does not have a statutory auditor, it shall provide the requisite certificate(s) from the firm ofchartered accountants that ordinarily audits the annual accounts of the Applicant.

Any entity which has been barred by the Central Government, any State Government, a statutory authority or a public sector undertaking, as the case may be, from participating in any project and the bar subsists as on the date of Proposal, would not be eligible to submit a Proposal either by itself or through its associate.

An Applicant or its associate should have, during the last three years, neither failed to perform on any agreement, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant or its associate, nor been expelled from any project or agreement nor have had any agreement terminated for breach by such Applicant or its associate.

The conditions of eligibility of key personnel are subject to modification.

While submitting a Proposal, the Applicant should attach clearly marked and referenced continuation sheets in the event that the space provided in the specified forms in the Appendices is insufficient. Alternatively, Applicants may format the specified forms making due provision for incorporation of the requested information.

### 3.1.4. **Conflict of Interest**

An Applicant shall not have a conflict of interest that may affect the Selection Process or the Project (the "**Conflict of Interest**"). Any Applicant found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Authority shall forfeit and appropriate the Bid Security as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, *inter alia*, the time, cost and effort of the Authority including consideration of such Applicant's Proposal, without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise.

The Authority require that the Concessionaire provides professional,objective, and impartial advice and at all times hold the Authority's interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Concessionaire shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the Authority.

Some guiding principles for identifying and addressing Conflicts of Interest have been illustrated in the Guidance Note at Schedule-3. Without limiting the generality of the above, an Applicant shall be deemed to have a Conflict of Interest affecting the Selection Process, if:

(a) the Applicant, its Joint Venture member (the "**Member**") or Associate (or any constituent thereof) and any other Applicant, providedthat this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an Applicant, its Member or Associate (or any shareholder thereof havinga shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Applicant, Member or Associate, as the case may be) in the other Applicant, provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in sub-section (72) of section 2 of the Companies Act, 2013. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "**Subject Person**") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall

be undertakenon a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% (twenty six per cent) of the subscribed and paid up equity shareholding of such intermediary; or

(b) a constituent of such Applicant is also a constituent of another Applicant; or

(c) such Applicant or its Associate receives or has received any direct or indirect subsidy or grant from any other Applicant or its Associate; or

(d) such Applicant has the same legal representative for purposes of this Proposal as any other Applicant;

(e) or such Applicant has a relationship with another Applicant, directly or through common third parties, that puts them in a position to have access to each other's information about, or to influence the Proposal of either or each of the other Applicant; or

(f) there is a conflict among this and other ongoing Projects of the Applicant (including its personnel of the proposed team) and any subsidiaries or entities controlled by such Applicant or having common controlling shareholders. The duties of the Concessionaire will depend on the circumstances of each case. During the implementation of this Project, the Concessionaire shall not take up any Project that by its nature will result in conflict with the present Project; or

(g) the Applicant, its Member or Associate (or any constituent thereof) for the Project, its contractor(s) or sub-contractor(s) (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an Applicant, its Member or Associate (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Applicant, Member or Associate, as the case may be,) in the Applicant, or its contractor(s) or sub-contractor(s) is less than 5% (five per cent) of the paid up and subscribed share capital of such Concessionaire or its contractor(s) or sub-contractor(s); provided further that this disqualification shall not apply to ownership by a bank, insurance company, pension fund or a Public Financial Institution referred to in sub-section (72) of section 2 of the Companies Act, 2013. For the purposes of this sub-clause (h), indirect shareholding shall be computed in accordance with the provisions of sub-clause (a) above.

For purposes of this RfP, Associate means, in relation to the Applicant, a person who controls, is controlled by, or is under the common control with such Applicant (the "**Associate**"). As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law or by contract. For the avoidance of doubt, an entity affiliated with the Concessionaire shall include a partner in the Concessionaire's firm or a person who holds more than 5% (five per cent) of the subscribed and paid up share capital of the Concessionaire, as the case may be, and any Associate thereof.

3.1.5. **Number of Proposals**

No Applicant or its Associate shall submit more than one Proposal for the Project. An Applicant applying individually or as an Associate shall not be entitled to submit another application either individually or as a member of any Joint Venture, as the case may be.

3.1.6. **Cost of Proposal**

The Applicants shall be responsible for all of the costs associated with the preparation of their

Proposals and their participation in the Selection Process including subsequent negotiation, visits to the Authority, Site(s) etc. The Authority will not be responsible or in anyway liable for such costs, regardless of the conduct or outcome of the Selection Process.

3.1.7. **Site(s) visit and verification of information**

Applicants are encouraged to submit their respective Proposals after visiting the Site(s) and ascertaining for themselves the Site(s) conditions, traffic, location, surroundings, climate, access to the Site(s), availability of drawings and other data with the Authority, Applicable Laws and regulations or any other matter considered relevant by them. Visits shall be organized for the benefit of prospective Applicants.

3.1.8. **Acknowledgement by Applicant**

It shall be deemed that by submitting the Proposal, the Applicant has:

(a) made a complete and careful examination of the RFP;

(b) received all relevant information requested from the Authority;

(c) acknowledged and accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the Authority or relating to any of the matters referred to in Clause above;

(d) satisfied itself about all matters, things and information, including matters referred to in Clause 2.6 herein above, necessary and required for submitting an informed Proposal and performance of all of its obligations thereunder;

(e) acknowledged that it does not have a Conflict of Interest; and

(f) agreed to be bound by the undertaking provided by it under and in terms hereof.

The Authority shall not be liable for any omission, mistake or error on the part of the Applicant in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RFP or the Selection Process, including any error or mistake therein or in any information or data given by the Authority.

3.1.9. **Right to reject any or all Proposals**

Notwithstanding anything contained in this RFP, the Authority reserve the right to accept or reject any Proposal and to annul the Selection Process and reject all Proposals, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof.

Without prejudice to the generality of Clause, the Authority reserve the right to reject any Proposal if:

(a) at any time, a material misrepresentation is made or discovered, or

(b) the Applicant does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Proposal.

Misrepresentation/ improper response by the Applicant may lead to the disqualification of the Applicant. If the Applicant is a Joint Venture, then the entire Joint Venture may be disqualified / rejected. If such disqualification / rejection occurs after the Proposals have been opened and the highest ranking Applicant gets disqualified / rejected, then the Authority reserve the right to consider the next

best Applicant, or take any other measure as may be deemed fit in the discretion of the Authority, including annulment of theSelection Process.

3.2. **DOCUMENTS**

3.2.1. **Contents of the RFP**

This RFP comprises the Disclaimer set forth hereinabove, the contents as listed below and will additionally include any Addendum / Amendment issued in accordance with Clause:

**Request for Proposal**

**Table 8:**

| | |
|---|---|
| | Map of West Bengal |
| | Disclaimer |
| | Abbreviations |
| | Abridged Notice Inviting e-Request for Proposal |
| 1. | Invitation |
| 2. | Introduction |
| 3. | Instructions to Applicants |
| 4. | Criteria for Evaluation |
| 5. | Fraud and Corrupt Practices |
| 6. | Pre-Proposal Conference |
| 7. | Miscellaneous |
| **A.** | **Appendices** |
| | **Appendix-I: Technical Proposal** |
| 1 | Form- 1: Letter of Proposal |
| 2 | Form- 2: Particulars of the Applicant |
| 3 | Form- 3: Statement of Legal Capacity |
| 4 | Form- 4A: Power of Attorney for signing of Proposal<br>Form- 4B: Power of Attorney for Lead Member of Joint Venture<br>Form- 4C: Form of Letter of Intent by SPV/JV partners to enter into SPV/JV agreement |
| 5 | Form- 5A: Financial Capacity of the Applicant<br>Form- 5B: Financial Capacity of the Applicant |
| 6 | Form- 6: Particulars of Key Personnel |
| 7 | Form- 7: Proposed Methodology, Technology and Work Plan |
| 8 | Form- 8: Initial Implementation and Operational Plan (IIOP) |
| 9 | Form- 9: Format for Joint Bidding Agreement |
| 10 | Form- 10: Abstract of Eligible Assignments of the Applicant |
| 11 | Form- 11: Abstract of Eligible Assignments of Key Personnel |
| 12 | Form- 12: Eligible Assignments of the Applicant |
| 13 | Form- 13: Eligible Assignments of Key Personnel |
| 14 | Form- 14: Curriculum Vitae (CV) of Key Personnel and Professional Personnel |
| 15 | Form- 15: Deployment of Personnel |
| 16 | Form–16: Monthly Progress report |
| 17 | Form-17: Format of Self-Attested Certificate regarding Associate |
| 18 | Form- 18: Format of Information on Litigation |
| 19 | Form- 19: Daily site monitoring report by KMDA/SUDA and municipality |
| 20 | Form- 20: Pre-bill Certification |
| | **Appendix–II: Financial Proposal** |
| 1 | Form- 1: Covering Letter |
| 2 | Form- 2A: Format for Bid Price Sheet |

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|---|---|
| | Form- 2B: Format for submitting capital cost expenditure, incurred for the project |
| 3 | Form- 3: Letter of Declaration |
| 4 | Form- 4: Declaration regarding customs/ excise duty exemption for materials to be purchased for use in developing the Project |
| 5 | Form- 5: Cost Break up Schedule |

3.2.2. **Submission of queries by the Applicants**

Applicants requiring any clarification on the RFP may send their queries to the Authority in writing via e-mail before the date mentioned in the Schedule of Selection Process at Clause, under the e-mail subject:

"Queries concerning RFP for [Name of the Project and RFP No.]"

The Authority shall endeavour to respond to the queries within the period specified therein but not later than 7 (seven) days prior to the Proposal Due Date. The responses will be sent by e-mail. The Authority will post the reply to all such queries on the Official Website of the Authority as provided in Clause and copies thereof will also be circulated to all Applicants who have sent the queries to the RFP document without identifying the source of queries.

For the purposes of determining the cut-off time for submission of queries and Proposals, the central server time displayed on the clock on the [Name of the State] Public Procurement Portal will be followed by the Applicants, the Authority.

The Authority reserve the right not to respond to any questions or provide any clarifications, in its sole discretion, and nothing in the Clause shall be construed as obliging the Authority to respond to any question or to provide any clarification.

3.2.3. **Amendment of RFP**

At any time prior to the deadline for submission of Proposal, the Authority may, for any reason, whether at their own initiative or in response to clarifications requested by an Applicant, modify the RFP document by the issuance of Addendum/ Amendment and posting it on the Official Website of the Authority and by conveying the same to the prospective Applicants (who have sent queries in respect of the RFP document) by e-mail.

The amendments will also be posted on the Official Website of the Authority along with the revised RFP containing the amendments and will be binding on all Applicants.

In order to afford the Applicants a reasonable time for taking an amendment into account, or for any other reason, the Authority may, at their discretion, extend the Proposal Due Date.

3.3. **PREPARATION AND SUBMISSION OF PROPOSAL**

3.3.1. **Language**

The Proposal with all accompanying documents (the "**Documents**") and all communications in relation to or concerning the Selection Process shall be in English language and strictly on the forms provided in this RFP. No supporting document or printed literature shall be submitted with the Proposal unless specifically asked for and in case any of these Documents is in another language, it must be accompanied by an accurate translation of the relevant passages in English, in which case, for all purposes of interpretation of the Proposal, the translation in English shall prevail.

3.3.2. **Format and signing of Proposal**

The Applicant shall provide all the information sought under this RFP. The Authority would evaluate only those Proposals that are received in the specified forms and complete in all respects.

The Proposal shall be typed and all supporting documents (submitted online or in hard-copy) shall be signed by the authorised representative (the "Authorised Representative") of the Applicant who shall initial each page, in blue ink. For the purposes of this RFP, the Authorised Representative shall be:

(a) a partner, in case of a partnership firm and/or a limited liability partnership; or
(b) a duly authorised person holding the Power of Attorney, in case of a limited company or a corporation; or
(c) the authorised representative of the Joint Venture.

A copy of the Power of Attorney certified under the hands of a partner or director of the Applicant and notarised by a notary public in the form specified in Appendix-I (Form-4) shall be annexed to the Proposal.

Applicants should note the Proposal Due Date, as specified in Clause, for submission of Proposals. Except as specifically provided in this RFP, no supplementary material will be entertained by the Authority, and that evaluation will be carried out only on the basis of Documents received by the closing time of Proposal Due Date as specified in Clause. Applicants will ordinarily not be asked to provide additional material information or documents subsequent to the date of submission, and unsolicited material if submitted will be summarily rejected. For the avoidance of doubt, the Authority reserve the right to seekclarifications under and in accordance with the provisions of Clause.

3.3.3. **Technical Proposal**

Applicants shall submit the technical proposal in the formats at Appendix-I (the "**Technical Proposal**").

While submitting the Technical Proposal, the Applicant shall, in particular, ensure that:

(a) The Bid Security/EMD is provided;
(b) All forms are submitted in the prescribed formats and signed by the prescribed signatories;
(c) Power of Attorney, if applicable, is executed as per Applicable Laws;
(d) CVs of all Professional Personnel have been included;
(e) Key Personnel have been proposed only if they meet the Conditions of Eligibility laid down at Clause of the RFP;
(f) No alternative proposal for any Key Personnel is being made and only one CV for each position has been furnished;
(g) The CVs have been recently signed and dated in blue ink by the respective Personnel and countersigned by the Applicant. Unsigned / countersigned CVs shall be rejected;
(h) The CVs shall contain an undertaking from the respective Key Personnel about his/her availability for the duration specified in the RFP;
(i) Professional Personnel proposed have good working knowledge of English language;
(j) Key Personnel would be available for the entire Concession Period;
(k) No Key Personnel should have attained the age of 65 (sixty-five) years at the time of submitting the proposal; and

(l) The proposal is responsive in terms of Clause as mentioned in RFP.

Failure to comply with the requirements spelt out in this Clause shall make the Proposal liable to be rejected.

If an individual Key Personnel makes a false averment regarding his qualification, experience or other

particulars, or his commitment regarding availability for the Project is not fulfilled at any stage after signing of the Concession Agreement, concessionaire shall be liable to be debarred for any future assignment of the Authority for a period of 5 (five) years. The award of the Project to the Applicant may also be liable to cancellation in such an event.

The Technical Proposal shall not include any financial information relating to the Financial Proposal.

The proposed team shall be composed of experts and specialists (the "**Professional Personnel**") in their respective areas of expertise and managerial/support staff (the "**Support Personnel**") such that the Concessionaire should be able to complete the Project within the specified time schedule. The Key Personnel specified in Clause shall be included in the proposed team of Professional Personnel. Other competent and experienced Professional Personnel in the relevant areas of expertise must be added as required for successful completion of this Project. The CV of each such Professional Personnel, if any, should also be submitted in the format at Form-12 of Appendix-I.

The Authority reserve the right to verify all statements, information and documents, submitted by the Applicant in response to the RFP. Any such verification or the lack of such verification by the Authority to undertake such verification shall not relieve the Applicant of its obligations or liabilities hereunder nor will it affect any rights of the Authority there under.

In case it is found during the evaluation or at any time before signing of the Concession Agreement or after its execution and during the period of subsistence thereof, that one or more of the eligibility conditions have not been met by the Applicant or the Applicant has made material misrepresentation or has given any materially incorrect or false information, the Applicant shall be disqualified forthwith if not yet appointed as the Concessionaire either by issue of the Letter of Award or entering into of the Concession Agreement, and if the Selected Bidder has already been issued the Letter of Award or has entered into the Concession Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by the Authority without the Authority being liable in any manner whatsoever to the Applicant or Concessionaire, as the case may be.

In such an event, the Authority shall forfeit and appropriate the Bid Security as mutually agreed pre-estimated compensation and damages payable to the Authority for, *inter alia*, time, cost and effort of the Authority, without prejudice to any other right or remedy that may be available to the Authority.

3.3.4. **Financial Proposal**

Applicants shall submit the financial proposal in the formats at Appendix-II (the "**Financial Proposal**") clearly indicating the tipping fees for processing of fresh wastes, as per Form-2, in both figures and words, in Indian Rupees, and signed by the Applicants Authorized Representative. In the event of any difference between figures and words, the amount indicated in words shall prevail. In the event of a difference between the arithmetic total and the total shown in the Financial Proposal, the lower of the two shall prevail.

(a) The Financial Proposal submitted by the Applicant shall comprise the Financial Proposal provided in Appendix – II of this RFP.

(b) The Applicants shall quote in the Bid Price Sheet, for the Project. The Applicant shall quote only the Bid Price.

While submitting the Financial Proposal, the Applicant shall ensure the following:

(c) The Financial Proposal shall take into account all expenses and tax liabilities. Further, all payments shall be subject to deduction of taxes at source as per Applicable Laws.

(d) Costs (including break down of costs) shall be expressed in INR in financial folder as per Annexure - II.

In case the annual accounts for the last financial year are not audited and therefore the Applicant cannot make it available, the Applicant shall give an undertaking to this effect, certified by the Statutory Auditor/ Chartered Accountant. In such a case, the Applicant shall provide the audited annual reports for the financial year preceding the latest financial year for which the audited annual report is not being provided.
Applicants may like to ascertain availability of excise/custom duty exemption benefits available in India to the contracts financed under loans/credits obtained under external assistance. They are solely responsible for obtaining such benefits which they have considered in their Proposal and in case of failure to receive such benefits for reasons whatsoever, the Authority will not compensate the Applicant. The Applicant shall furnish along with his Proposal a declaration tothis effect in the Declaration Format provided in this RFP.

Where the Applicant has quoted taking into account such benefits, it must give all information required for issue of certificates in terms of the Government of India Central Excise Notification and Customs Notification as stipulated in specific form of this RFP. In case the Applicant has not provided the required information or has indicated to be furnished later on in the Declaration Format, the same shall be construed that the goods/equipment for which certificate is required is Nil.

To the extent the Authority determine the quantities indicated therein are reasonable keeping in view the proposed methodology and work plan, the certificates will be issued, and no subsequent changes will be permitted. The certificate will be issued within [60 (sixty)] days of signing of the Concession Agreement for material, equipment and machinery.

If the Applicant has considered the customs/excise duty exemption for materials/ construction equipment to be bought for the work, the Applicant shall confirm and certify that the Authority will not be required to undertake any responsibilities of the Schemes of Government of India or the said exemptions being available during the contract execution, except issuing the required certificate.

The Proposals which do not conform to the above provisions or any condition by the Applicant which makes the Proposal subject to availability of customs duty/Tax exemption for materials/construction equipment or compensation on withdrawal of any variations to the said exemptions will be treated as non-responsive and rejected.

Any delay in procurement of the construction equipment /machinery/goods as a result of the above shall not be entertained as a reason for granting any extension of time.

3.3.5. **Submission of Proposal**

***3.3.5.1. E-Tendering Process***

(a) The Selection Process will be conducted by way of e-tendering. In order to participate in the Selection Process, an Applicant must procure a digital signature certificate and register on the [Name of the State] Public Procurement Portal using its digital signature. A digital signature certificate may be procured from a registered certifying authority as stipulated by Controller of Certifying Authorities, Government of India.

(b) The Applicants are encouraged to visit the e-Procurement Portal to acquaint themselves with the process of submitting their Proposals online.

(c) The Applicants shall upload the soft copy/scanned copy of the completed Proposal on or before the specified time on the Proposal Due Date on the West Bengal Public Procurement Portal (https://wbtenders.gov.in). Proposals submitted by any other means including by post, fax, telex,

telegram or e-mail shall not be entertained.

(d) While uploading the Proposal on the West Bengal Public Procurement Portal (https://wbtenders.gov.in), the Applicant must ensure that files containing the Proposal and scanned copies of the Bid Security are uploaded separately under the relevant heads in a PDF format. The Applicant shall be required to fill all mandatory forms and fields indicated in the Public Procurement Portal at the time of uploading its Proposal.

(e) Upon submitting the Technical Proposals and the Financial Proposals on the Procurement Portal (https://wbtenders.gov.in), the Applicants must affix their digital signature to the Technical Proposal and the Financial Proposal.

(f) The Applicants should ensure the legibility of the documents uploaded to the Public Procurement Portal (https://wbtenders.gov.in).

(g) The Applicant shall upload the Proposal sufficiently before the specified time on the Proposal Due Date to avoid any technical issues or malfunction in the network caused by heavy traffic of Applicants on the Proposal Due Date. The Authority will not be responsible for any failure, malfunction or breakdown of the electronic system of the Public Procurement Portal during the uploading process.

(h) The Applicant should check the system generated summary of its Proposal submission to confirm successful uploading of its Proposal.

(i) All Proposals uploaded to the Public Procurement Portal (https://wbtenders.gov.in) will be encrypted and the encrypted Proposals can only be opened by the authorised representatives of the Authority at or after the specified time for opening of the Proposals.

(j) Each Applicant shall also submit a scanned copy of the original Power of Attorney, Joint Bidding Agreement, before the Proposal Due Date (PDD).

(k) It is clarified that the Applicant will not be required to submit a hard copy of its Financial Proposal, and if a hard copy of the Financial Proposal is submitted, then the Proposal submitted by such Applicant shall be rejected as being non-responsive.

***3.3.5.2. <u>The Technical Proposal shall contain:</u>***

(a) Application in the prescribed format provided in Appendix-I and supporting Documents;
(b) Bid Security as specified in Clause;
(c) Incorporation certificate of the company / proof of company registration document / memorandum of association;
(d) Copy of Agreement and letter of award/work order of the client for which technical capacity is claimed;
(e) Certificate(s) (completion or currently operating, as the case may be) from its concerned client(s) in support of "the Technical Capacity" clearly stating the capacity of project (or quantity processed till date in case of currently running project) including performance of the Applicant for the work completed during the contract period of the project in respect of the projects whose experience is claimed:

i. Performance certificate should be issued from the concerned client(s) (certificate issued by the commissioner or equivalent officer) shall only be considered; and

ii. In case a particular work/contract has been jointly executed by the Applicant (as part of a Joint Venture), it should further support its claim for the share in work done for that particular work/contract.

***3.3.5.3. <u>The Financial Proposal shall contain the financial proposal in the prescribed format (Forms 1, 2 & 3 of Appendix-II). It shall be supplemented with:</u>***

(a) Certificate(s) specifying the net worth of the Applicant at the close of the preceding financial year from the PDD and specifying the methodology adopted for calculating such net worth.
(b) Copy of the latest GST Return filed/ Copy of PAN Card. Not applicable for foreign Applicant.
(c) GSTIN number; not applicable for foreign Applicant.

***3.3.5.4. <u>For the purposes of this RFP, "Net Worth" shall mean:</u>***

(i) **In case of a company**: the aggregate value of the paid-up share capital and all reserves created out of the profits and securities premium account, after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation; and

(ii) **In case of any other entity/body corporate**: the aggregate value of the paid-up capitaland reserves of such entity, after deducting the aggregate value of the intangible assets.

The Proposal shall be made in the Forms specified in this RFP. Any attachment to such Forms must be provided on separate sheets of paper and only information that is directly relevant should be provided. This may include photocopies of the relevant pages of printed documents. No separate documents like printed annual statements, company brochures, copy of contracts, etc., will be entertained.

The rates quoted shall be firm throughout the period of performance of the Project up to discharge of all obligations of the Concessionaire under the Concession Agreement.

Copy of Technical Proposal including original Bid Security, Power of Attorney, Joint Bidding Agreement and other documents that cannot be submitted online, should be put in separate sealed envelopes and the sealed envelopes together with the documents listed in Technical Proposal shall be sealed in another cover and delivered to the address provided in Clause before the date and time.

**Additional information for submission of Proposal by Joint Venture:**

a) Maximum number of members for forming a Special Purpose Vehicle (SPV)/Joint venture (JV) is allowed as **2 (two)** only.

b) The attributes to be evaluated will be the same as for individual contractors, however, certain parameters up to the specified limits have to be essentially met by both of the members of JV, cumulatively/collectively, some by the lead member, and some by the other member.

c) Proposal should contain the information required for each Member of the Joint Venture.

(i) Members of the Joint Venture shall nominate one member as the lead member (the "**Lead Member**"), who shall have [majority or 51%] equity stake/voting rights in the Special Purpose Vehicle/Joint Venture. The nomination of the Lead Member shall be supported by a Power of Intent Attorney and submit a formal Letter of Intent to enter into the SPV/JV agreement, as per the formats set forth in Form-4A, 4B & 4C of Appendix-I, signed by all the other members of the Special Purpose Vehicle/Joint Venture;

(ii) The SPV/JV Agreement shall be in the name of the Lead member (/any name) JV. Minimum equity stake/voting rights of the lead member and of consortium/JV member of the SPV/JV shall not be less than 51% and 10%, respectively. The lead partner shall have both minimum of 50% of technical credibility and 50% of financial capability, as mentioned in the tender as per order of the Finance Department, Government of West Bengal. The consortium partner must have minimum of 25% of technical credential and 25% of financial credential as required in tender,

but the SPV/JV as a whole shall have the required credibility, both technical and financial, **cumulatively/collectively**, as per tender. The JV/SPV Company shall be responsible and liable in all matters related to the project. The percentage stake of other members should also be stated in the SPV/JV agreement. In Case of any failure, the Lead member will be responsible to compensate the liquidated damages and penalties to KMDA in addition to all matters related to the project. The Lead Member of the SPV/JV must be registered and/or incorporated under appropriate laws of India.

**The SPV/JV Company must be registered and/or incorporated under appropriate laws of India after award of contract, but before the Commercial Operation Date (COD). The SPV/JV agreement should be registered in India, so as to be legally valid and binding on members.**

(iii) In the event, the Special Purpose Vehicle/Joint Venture has been declared as the Selected Bidder and issued Letter of Award of contract, all Members of the Special Purpose Vehicle/Joint Venture shall sign the Concession Agreement with the Authority. In this regard, it is clarified that all the Members of the Special Purpose Vehicle/Joint Venture shall be jointly and severally responsible and liable towards the Authority to execute the Project during the Concession Period and irrespective of the failure of any particular Member of the Special Purpose Vehicle/Joint Venture, the Authority shall be entitled to call upon the Lead Member or other Member(s) of the Special Purpose Vehicle/Joint Venture to discharge the obligations of the Special Purpose Vehicle/Joint Venture;

(iv) The Proposal should include a brief description of the roles and responsibilities of each Member of the Special Purpose Vehicle/Joint Venture, particularly with reference to financial and technical obligations under the Concession Agreement;

and

(v) Members of the Special Purpose Vehicle/Joint Venture shall enter into a binding Joint Bidding Agreement (the "**Joint Bidding Agreement**") for the purpose of submitting the Proposal.The Joint Bidding Agreement shall (as provided in Form - 9 of Appendix-I), *inter alia*:

(i) in case the Special Purpose Vehicle/Joint Venture is declared as the Selected Bidder, ensure that its shareholding/ownership equity commitments are clearly set out, and state that the Joint Venture shall act through the Lead Member in accordance with this RFP, and subsequently carry out all the responsibilities as Concessionaire in terms of the Concession Agreement and also open a current bank account jointly in the name of SPV/JV company and operate the same entire concession period in terms of the Concession Agreement ;

(ii) clearly outline the proposed roles and responsibilities of each Member at each stage, in the Joint Bidding Agreement;

(iii) commit the minimum equity shares to be held by each Member in the special purpose vehicle/Joint Venture; and include a statement to the effect that all members of the Special Purpose Vehicle/Joint Venture shall during the Concession Period, subject to the provisions of the Concession Agreement, be liable jointly and severally for all obligations of the Concessionaire in relation to the Project.

d) Except as provided under the bidding documents including the RFP, there shall not be any amendment to the Joint Bidding Agreement without the prior written consent of the Authority.

e) Joint Bidding Agreement should be submitted along with the Proposal. The Joint Bidding Agreement entered into between the members of the Special Purpose Vehicle/Joint Venture

should be specific to the Project and should fulfil the above requirements, failing which the Proposal shall be considered non-responsive.

f) No change in the composition of the Special Purpose Vehicle/Joint Venture will be allowed subsequent to the submission of the Proposal during the Selection Process.

g) By submitting the Proposal, the Applicant shall be deemed to have acknowledged and agreed that in the event of a change in control or management of a Member or an Associate whose Technical Capacity and/or Financial Capacity was taken into consideration for the purposes of technical qualification under and in accordance with the RFP which adversely impacts the Project, the Applicant shall inform the Authority forthwith along with all relevant particulars about the same and the Authority may, at their discretion, disqualify the Applicant or withdraw the Letter of Award from the Selected Bidder, as the case may be. In such an event, notwithstanding anything to the contrarycontained in the Concession Agreement, the Authority shall forfeit and appropriate the Bid Security or Performance Security, as the case may be, as compensation and damages payable to the Authority for, *inter alia*, time, cost and effort of the Authority, without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise.

**h) Small Scale Industrial (SSI) units or Micro, Small & Medium Enterprises (MSMEs) operating in Waste Management Sector, participating in the tender shall have to deposit Earnest Money and if selected, Performance Security/Security Deposit as usual, as per Memo. No. 4245-F(Y) dated 28.05.2013 of the Finance Department, Government of West Bengal.**

**i) Start-ups operating in Waste Management Sector are allowed to participate in this bid. They will be exempted from both technical and financial experience, as required, provided they are bidding with an experienced lead partner, as SPV/JV, meeting both the technical and financial qualifications, as required in this e-RfP, and the lead partner and as well as the Start-up Company are jointly and severally responsible for execution and contract implementation.**

**The start-up Companies operating in Waste Management Sector, willing to bid as SPV/JV, must have to be registered, under the Department for Promotion of Industry and Internal Trade (DPIIT), under the Ministry of Commerce and Industry, Government of India, before the date of uploading (publishing) of this e-RfP, and will be exempted from both turnover/net-worth and technical credential, as required. Bidders should note however, that such registrations must have been done before the last date of submission of bid through online. All the necessary documents for their registration as start-up, must have to be submitted, while bidding.**

**They must submit all their documents, as per Clause 4.1, as required for Minimum Eligibility Criteria, other than the documents related to turnover/net-worth and technical credential etc., as mentioned.**

**j) Disqualification:**

Even if an applicant meets the eligibility criteria and Pre-Qualification Criteria, the bidder shall be subject to disqualification if he or any of the constituent partners is found to have:

1. Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/ or;

2. Records of poor performance during the last five years, as on the date of application, such as abandoning the work, rescission of the contract for reasons which are attributable to non-performance of the contractor, inordinate delays in completion, consistent history of litigation

resulting in awards against the contractor or any of the constituents, or financial failure due to bankruptcy, and so on. The rescission of the contract of Joint Venture on account of reasons other than non-performance, such as the experienced partner (major partner) of JV pulling out;

3. On account of currency of debarment by any Government agency.

3.3.6. **Proposal Due Date**

i. Proposal should be uploaded on the West Bengal Public Procurement Portal (https://wbtenders.gov.in) on or before the Proposal Due Date specified in Clause 1.8 (Table 2) through "online bidder enrolment" on the said portal, and submission against the RFP titled "****" and in the manner and form as detailed in this RFP.

ii. For the purposes of determining the cut-off time for submission of Proposals, the central server time displayed on the clock on the West Bengal Public Procurement Portal will be followed by the Applicants, the Authority.

iii. The Authority may, at their discretion, extend the Proposal Due Date by issuing an Addendum in accordance with Clause 3.2.3. uniformly for all Applicants.

3.3.7. **Late Proposals**

Proposals received by the Authority after the specified time on ProposalDue Date shall not be eligible for consideration and shall be summarily rejected.

3.3.8. **Modification/ substitution/ withdrawal of Proposals**

There shall be no alterations, omissions, additions, or any other amendments made to the Proposal once submitted, except to the extent provided in Clause.

Any alteration / modification in the Proposal or additional information or material supplied subsequent to the Proposal Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

3.3.9. **Bid Security or EMD**

The Applicant shall furnish as part of its Proposal, a preliminary and or initial bid security of **₹10,00,000.00 (Rupees Ten Lakh)** through online payment mode as provided on the Official Website of the Authority (the "Bid Security or EMD"). However, the EMD will be 2% of the Project Cost and the additional EMD shall have to be submitted by the selected bidder, before issuance of LOI/WO from the TIA. The Selected Bidder's EMD will be converted to Security Deposit, that is 10% of the Bid Project Cost.

Any Proposal not accompanied by the Bid Security shall be rejected by the Authority as non-responsive.

The Authority shall not be liable to pay any interest on the Bid Security and the same shall be interest free.

The Applicant, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged that without prejudice to the Authority's any other right or remedy hereunder or in law or otherwise, the Bid Security shall be forfeited and appropriated by the Authority as the mutually agreed pre-estimated compensation and damage payable to the Authority for, inter alia, the time, cost and effort of the Authority in regard to the RFP including the consideration and evaluation of the Proposal under the following conditions:

1. If an Applicant submits a non-responsive Proposal;
2. If an Applicant engages in any of the Prohibited Practices specified in Section of this RFP;
3. If an Applicant withdraws its Proposal during the period of its validity as specified in this RFP and as extended by the Applicant from time to time;
4. In the case of the Selected Bidder, if the Applicant fails to reconfirm its commitments during negotiations as required specified in Clause;
5. In the case of a Selected Bidder, if the Applicant fails to sign the Concession Agreement or commence the assignment as specified in Clauses respectively; or
6. If the Applicant is found to have a Conflict of Interest as specified in Clause.

3.3.10. **O&M Security**

The Applicant, by submitting its Application pursuant to this RFP, shall be deemed to have acknowledged that without prejudice to the Authority's any other right or remedy hereunder or in law or otherwise, its O&M Security shall be forfeited and appropriated by the Authority as the mutually agreed pre-estimated compensation and damages payable to the Authority for, *inter alia*, the time, cost and effort of the Authority in regardto the RFP, including the consideration and evaluation of the Proposal, under the following conditions:

1. If an Applicant engages in any of the Prohibited Practices specified in Clause of this RFP;

2. if the Applicant is found to have a Conflict of Interest as specified in Clause; and

3. if the Selected Bidder commits a breach of the Concession Agreement.

An amount as specified in the Article 9 of the Concession Agreement shall be deemed to be the O&M Security for the purposes of the Clause, which may be forfeited and appropriated in accordance with the provisions of the Concession Agreement.

## 3.4. EVALUATION PROCESS

3.4.1. The Authority, i.e., KMDA will follow Quality and Cost Based Selection (QCBS) process (referred to as the "**Selection Process**") for selecting eligible firms for the award of the project, as per memo no. 8385 – F(Y) dated 22.11.2013 of Finance Department, Government of West Bengal.

3.4.2. Interested firms are advised to submit their Quotation as part of the BoQ. Before submitting the bid/response to this RfP, the interested firms may visit the respective locations for their clear understanding of the project and they will interact with the KMDA/ULB officials well in advance for any clarification so that during pre-bid meeting, KMDA can clarify queries before all interested enterprises.

3.4.3. Bidders qualifying the minimum eligibility criterions will be required to provide a presentation on the mode of operation (modus operandi) of the work, as per norms and explain clearly how he or she will carry out their works at site, considering every unforeseen circumstances. In this regard an Initial Implementation and Operational Plan (IIOP) has to be submitted by the bidder.

3.4.4. The BoQ of those firms, who meet the 'Minimum Eligibility Criteria' and having a minimum technical/quality score of **70**, will only be opened. Bidders, who do not score **70** or above in the "Technical Eligibility Evaluation Criteria" shall be declared ineligible for this project and their BoQs shall not be opened for further evaluation.

3.4.5. Considering the technical influence and value impact of the above services proposed to be procured, the bidder quoting the lowest (L1) amount, as Net Present Value (NPV) (calculated as per Table 15), for

the Scope of Work as mentioned, who fulfils the "Bid Capacity Criteria", "Minimum Eligibility Criteria" and scores at least 70 in "Technical Eligibility Evaluation Criteria" may be awarded the contract (the "**Selected Bidder**") while the second lowest (L2) and third lowest (L3) Applicants will be kept in reserve..

3.4.6. **Evaluation of Proposals**

The Authority shall open the Proposals as per schedule in Clause 1.8. The Technical Proposals shall be opened first.

Prior to evaluation of Proposals, the Authority will determine whether eachProposal is responsive to the requirements of the RFP. The Authority may, at their discretion, reject any Proposal that is not responsive hereunder. A Proposal shall be considered responsive only if:

(a) the Technical Proposal is received in the form specified at Appendix-I;
(b) it is received by the Proposal Due Date including any extension thereof pursuant to Clause;
(c) it is accompanied by the Bid Security as specified in Clause.
(d) it is signed by the Authorised Representative of the Applicant as stipulated in Clauses;
(e) it is accompanied by the Power of Attorney as specified in Clause;
(f) it contains all the information (complete in all respects) as requested in the RFP;
(g) it does not contain any condition or qualification; and
(h) it is not non-responsive in terms hereof.

The Authority reserve the right to reject any Proposal which is non- responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the Authority in respect of such Proposals.

The Authority shall subsequently examine and evaluate Proposals in accordance with the Selection Process specified at Clause and the criteria set out in Section 3 of this RFP.

After the technical evaluation, the Authority shall prepare a list of pre- qualified and shortlisted Applicants in terms of Clause for opening of their Financial Proposals. A date, time and venue will be notified to all Applicants for announcing the result of evaluation and opening of Financial Proposals. Before opening of the Financial Proposals, the list of pre-qualified and shortlisted Applicants along with their Technical Score will be read out. The opening of FinancialProposals shall be done in presence of respective representatives of Applicants who choose to be present. The financial evaluation and final ranking of the Proposals shall be carried out in terms of Clauses.

Any information contained in the Proposal shall not in any way be construed as binding on the Authority, their agents, successors or assigns, but shall be binding against the Applicant if the Project is subsequently awarded to it.

3.4.7. **Confidentiality**

Information relating to the examination, clarification, evaluation, and recommendation for the selection of Applicants shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional adviser advising the Authority in relation to matters arising out of, or concerning the Selection Process. The Authority shall treat all information, submitted as part of the Proposal, in confidence and shall requireall those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/or the Authority or as may be required by law or in connection with any legal process.

3.4.8. **Clarifications sought by the Authority**

To facilitate evaluation of Proposals, the Authority may, at their discretion, seek clarifications from any Applicant regarding its Proposal. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.

If an Applicant does not provide clarifications sought under Clause  above within the specified time, its Proposal shall be liable to be rejected. In case the Proposal is not rejected, the Authority may proceed to evaluate the Proposal by construing the particulars requiring clarification to the best of its understanding, and the Applicant shall be barred fromsubsequently questioning such interpretation of the Authority.

## 3.5. APPOINTMENT OF CONCESSIONAIRE

### 3.5.1. Negotiations

The Selected Bidder may, if necessary, be invited for negotiations. The negotiations shall generally not be for reducing the price of the Proposal, but will be for re-confirming the obligations of the Applicant under this RFP. Issues such as deployment of Key Personnel, understanding of the RFP, proposed methodology, technology and work plan shall be discussed during negotiations. A Key Personnel who did not score [60% (sixty per cent)] marks as required under shall be replaced by the Applicant with a better candidate to the satisfaction of the Authority..

The Authority will examine the CVs of all other Professional Personnel and those not found suitable shall be replaced by the Applicant to the satisfaction of the Authority.

### 3.5.2. Substitution of Key Personnel

The Authority will not normally consider any request of the Selected Bidder for substitution of Key Personnel as the ranking of the Applicant is based on the evaluation of Key Personnel and any change therein may upset the ranking. Substitution will, however, be permitted if the Key Personnel is not available for reasons of any incapacity or due to health, subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority.

The Authority expect all the Key Personnel to be available during implementation of the Agreement. The Authority will not consider substitution of Key Personnel except for reasons of any incapacity or due to health. Such substitution shall ordinarily be limited to one Key Personnel subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority. The client will not consider substitutions during contract negotiations/ contract implementation except under exceptional circumstances. For the reason other than death/ extreme medical ground, where replacement is proposed by the Concessionaire due to non-availability of the originally proposed key personnel or in cases where replacement has become necessary as a key personnel proposed by the Concessionaire has been found to be unsuitable for the project by the Authority or his authorised representative during contract negotiations / contract implementation , the following shall apply (i) for total replacement up to 1 key professionals, a sum equal to ₹10,000/- shall be deducted from the payments (ii) for total 2 replacements, a sum equal to ₹25,000/- shall be deducted from the payments (iii) for total replacement 3, a sum equal to ₹50,000/- shall be deducted from the payments. If for any reason beyond the reasonable control of the Concessionaire, it becomes necessary to replace any of the personnel, the Concessionaire shall forthwith provide as a replacement a person of equivalent or better qualification and experience.

### 3.5.3. Indemnity

The Applicant shall, subject to the provisions of the Agreement, indemnify the Authority for an amount not exceeding 3 (three) times the value of the Agreement for any direct loss or damage that is caused due to any deficiency in services.

3.5.4. **Award of Project**

3.5.4.1. After selection, a Letter of Award (the "**LOA/LOA cum Work order**") shall be issued, in duplicate, by the Authority to the Selected Bidder:

(a) declaring it as the Selected Bidder;
(b) accepting its Technical and Financial Proposal;
(c) requesting it to sign and return, as acknowledgement, a copy of the LOA within 7 (seven) days of receipt of the LOA;
(d) requesting it to submit the Performance Securities and O&M Security in accordance with Clause; and
(e) requesting it to incorporate the Special Purpose Vehicle, which will act as the Concessionaire.

3.5.4.2. If the Selected Bidder fails to return a duly signed copy of the LOA to the Authority within 7 (seven) days of receipt of the LOA, then the Authority may, unless they consent to an extension, without prejudice to any of its rights under the RFP or law, disqualify the Selected Bidder, revoke the LOA, and forfeit the Bid Security. If the Authority elect to disqualify such Selected Bidder and revoke the LOA, then the procedure setout in Clause shall follow.

3.5.4.3. After notification of award in accordance with Clause, the Authoritymay also notify all other Applicants of the results of the Selection Process, and shall publish on the Official Website of the Authority and the [Name of the State] Public Procurement Portal, results of the Selection Process and the following information:

a. name of each Applicant who submitted a Proposal;

b. results of evaluation of Technical Proposals;

c. names of Applicants whose Technical Proposals were rejected and the reasons for their rejection;
d. Bid Prices as read out at opening of Financial Proposals;

e. name and evaluated Bid Prices of each Financial Proposal that was evaluated;

f. names of Applicants whose Financial Proposals were rejected and the reasons for their rejection; and

g. name of the Selected Bidder, the Bid Price it offered, and summary scope of the contract awarded.

The Authority shall promptly respond in writing to any unsuccessful Applicant who, after notification of award in accordance with Clause, requests in writing the grounds on which its Proposal was not selected.

3.5.5. **Execution of the Concession Agreement**

3.5.5.1. After acknowledgement of the LOA as aforesaid by the Selected Bidder, the Special Purpose Vehicle incorporated by the Selected Bidder shall execute the Concession Agreement within the period prescribed in Clause 1.8.

3.5.5.2. If the Special Purpose Vehicle fails to execute the Concession Agreement on or before the date specified in Clause 1.8, the Authority may, unless they consent to an extension, without prejudice to any of their rights under the RFP or law, disqualify the Selected Bidder, revoke the LOA and forfeit the Bid Security. If the Authority elect to disqualify such Selected Bidder and revoke the LOA, then the procedure set out in Clause shall follow.

3.5.5.3. The Selected Bidder shall not be entitled to seek any deviation in the Concession Agreement except the amendments to reflect facts or to correct minor errors.

3.5.5.4. If the Selected Bidder seeks to materially negotiate or seeks any material deviations from the final execution draft of the Concession Agreement, the Authority may elect to disqualify the Selected Bidder and revoke the LOA issued to the Selected Bidder. If the Authority elect to disqualify such Selected Bidder and revoke the LOA, then the procedure set out in Clause shall follow.

3.5.5.5. If the Authority elect to disqualify such Selected Bidder and revoke the LOA, the Authority will not be liable in any manner whatsoever to the Selected Bidder. Additionally, the Authority will have the right to forfeit and appropriate the Bid Security or, as the case may be, appropriate an equivalent amount from the Performance Security if the Concession Agreement has been executed, as a mutually agreed genuine pre-estimate of the loss suffered by the Authority for, amongst others, the Authority's time, cost and efforts in conducting the Selection Process. Such forfeiture will be without prejudice to any other right or remedy that the Authority may have under the RFP, the Concession Agreement or Applicable Laws.

3.5.5.6. If the Authority elect to disqualify such Selected Bidder and revoke the LOA the Authority reserve the right to:

a. select the next highest ranking/lowest quoting Applicant as the Selected Bidder for the Project; or

b. take any such measure as may be deemed fit in the discretion of the Authority, including inviting fresh Financial Proposals from the technically qualified Applicants or annulling the entire Selection Process.

3.5.6. **Commencement of Project**

The Applicant shall commence the implementation of the Project at the Site(s) within 7 (seven) working days of the execution date of the Concession Agreement, or such other date as may be mutually agreed. If the Applicant fails to either sign the Concession Agreement as specified in Clause or commence the Project as specified herein, the Authority may invite the second ranked Applicant for negotiations. In such an event, the Bid Security of the first ranked Applicant shall be forfeited and appropriated in accordance with the provisions of Clause.

3.5.7. **Proprietary data**

Subject to the provisions of Clause 3.4.7, all documents and other information provided by the Authority or submitted by an Applicant to the Authority shall remain or become the property of the Authority. Applicantsand the Applicant, as the case may be, are to treat all information as strictly confidential. The Authority will not return any Proposal or any information related thereto. All information collected, analysed, processed or in whatever manner provided by the Applicant to the Authority in relation to the Project shall be the property of the Authority.

## 4. CRITERIA FOR EVALUATION

### 4.1. Minimum Eligibility Criteria

A Bidder may be a natural person, private entity, government-owned entity or any combination of them with a formal intent to enter into an agreement or under an existing agreement to form a SPV/JV. For an applicant/bidder can submit the Bid either individually or form a SPV/JV.

The bidder needs to fulfil the following requirements to qualify for the Technical Evaluation Stage:

| Sl. No. | Criteria | Document required |
|---|---|---|
| 1. | Bid Capacity | Information of audited financial statements for the last year to demonstrate the current soundness of the bidder:<br>1. The Bidder's Net worth for the last year, calculated as the difference between total assets and total liabilities, should be Positive.<br>2. Bidder, who meets the bid capacity criteria, will be qualified for further evaluation only if their available bid capacity at the expected time of bidding is 1.2 times more than the total estimated cost of the works. The available bid capacity will be calculated as per **Form 28 of Appendix - I**. |

***Note:*** *1. If the bidder fails in the Bid Capacity Evaluation stage, the bid won't be considered for any further Technical Evaluation and shall be summarily rejected.*

*2. Any act of suppression of facts/distortion of facts/misrepresentation of facts by the bidder while calculating bid capacity shall invariably result in cancellation of the bidders proposal and the bidder shall be liable for penal action as per relevant clauses of this document.*

**Table 9:**

| Sl. No. | Criteria | Document required |
|---|---|---|
| 1. | The Bidder should be an enterprise firm incorporated in India and operating for at least last five complete Financial Years | • Certificate of Incorporation in case of company along with Articles of Association and Memorandum of Association and Certificate of Enlistment/Trade License.<br>• In case of Partnership firm, the bidder needs to submit copy of Registered Deed of Partnership and Certificate of Enlistment/Trade License<br>• In case of Sole Proprietorship bidder needs to submit Certificate of Enlistment/Trade License.<br>• Other relevant documents.<br>**In case of SPV/JV, apart from Start-ups, both the members should possess minimum eligibility criteria, as mentioned and should be operating their business for at least last five complete Financial Years. The Lead member should have a stake of 51% and will be jointly and severally held responsible for execution of the mentioned work**. The Lead partner of the SPV/JV can submit their bid only after constituting a SPV/JV with the other partner. Minimum share of any member of SPV/JV shall not be less than 10%. |
| 2. | **(Either)**<br>The agency should have completed construction of any fresh waste processing plant, in the last 10 (ten) years from the date of publication of this bid, comprising of Compost Plant/Bio-Gas Plant/Bio-CNG Plant /C&D Waste Processing Plant/ Waste to Energy Plant etc., and SLF, if any, | **Bidders Kindly Note:**<br>• Credential Certificate issued by the Executive Engineer or equivalent or competent authority of a State/Central Government, State Central Government undertaking, Statutory/ Autonomous bodies constituted by the Central/ State stature, on the completed /commissioned work will be taken as credential. |

| Sl. No. | Criteria | Document required |
|---|---|---|
| | and ran it for 3 (three) consecutive years of capacity/ combined capacity of plants (units), in any processing facility, of **minimum of 60 TPD** capacity in a single tender.<br>**(OR)**<br>The agency should have completed construction of 2 (two) or more fresh waste processing plants, in the last 10 (ten) years from the date of publication of this bid, comprising of Compost Plant/Bio-Gas Plant/Bio-CNG Plant /C&D Waste Processing Plant/Waste to Energy Plant etc., and SLF, if any, and ran it for 3 (three) consecutive years of capacity/combined capacity of plants, in processing facilities, each of minimum of 45 TPD.<br>**(OR)**<br>The agency, in the last 10 (ten) years from the date of publication of this bid, must have completed running of any fresh waste processing plant, comprising Compost Plant/Bio-Gas Plant/Bio CNG Plant/C&D Waste Processing Plant/Waste to Energy Plant etc., and SLF, if any, for 3 (three) consecutive years and completed processing of waste of **minimum 3,67,969.60 MT.**<br>**(OR)**<br>The agency, in the last 10 (ten) years from the date of publication of this bid, must have completed running of any 2 (two) or more fresh waste processing plants, comprising Compost Plant/Bio-Gas Plant/Bio CNG Plant/C&D Waste Processing Plant/Waste to Energy Plant etc., and SLF, if any, for 3 (three) consecutive years and completed processing of waste of each of **minimum 2,75,977.2 MT**. | • Credentials for Completed/Commissioned projects should be submitted as per the enclosed format, given in Annexure 4.<br>• Necessary Work Order, Agreements and Completion/Successful Commission Certificate should be submitted along with the technical bid. If Credentials are not submitted as per Annexure 4 it won't be considered for evaluation.<br>• Credentials for Completed/Commissioned project will be considered for evaluation.<br>• Credentials for bidder working as sub-contractors will not be considered for evaluation. If the projects have been executed as Joint Venture, then proper legal documents should be submitted mentioning the bidder was a partner of the venture and not a subcontractor.<br>**In case of SPV/JV, member of the SPV/JV should also have the minimum eligibility criteria, as mentioned of this RfP.** |
| 3. | Power of Attorney for mentioning authorized signatories | A Registered Power of Attorney issued on Non- Judicial Paper. Or.<br>A company Board Resolution mentioning the names of the authorized signatories.<br><br>In case of SPV/JV all the members should submit a power of attorney mentioning the Lead member as the authorized signatory for this tender. |

| Sl. No. | Criteria | Document required |
|---|---|---|
| 4. | Any debarred or blacklisted agency shall not be allowed to participate. | An undertaking on Non-Judicial Stamp Paper stating the same, dated on or after the 'RfP download starting date (online)" as mentioned herein, must be submitted as per Annexure 6: Understating stating the Bidder is Not Blacklisted, debarred or terminated due to unsatisfactory performance or Bankruptcy.<br><br>In case of SPV/JV all members should submit the undertaking. |
| 5. | Valid Scanned Copies of the following documents | **(i) Trade License/Certificate of Enlistment,**<br>**(ii) PAN Card,**<br>**(iii) Professional Tax Registration Certificate,**<br>**(iv) Goods and Service Tax (GST) registration certificate mentioning the 15-digit Goods and Service Tax Payer Identification Number under the GST Act 2017,**<br>**(v) Income Tax Return Certificate for the last three Financial Years,**<br><br>Bidder should note: In Case any document is not required in any particular state/country the bidder should provide an undertaking on its company letterhead duly signed by the authorized signatories mentioning it is not applicable in that particular state for its business.<br>In case of SPV/JV all members should submit the required documents. |
| 6. | The Bidder should have an average Annual Turnover as indicated in Table 10 (avg. of best of 3 years, calculated from the last 5 financial years). | **Copies of Balance Sheets and Profit & Loss Statements endorsed by any Statutory Auditor of the bidder for the last 5 financial years (2019-20, 2020-21, 2021-22, 2022-23 and 2023-24)**. However, the bidder may submit the year's balanced sheet and statement of profit and loss, through certification by any Chartered Account (CA) firm.<br>If so, the successful or winning bidder, then will have to submit the same for the last financial year, through certification from any Statutory Auditor only, before signing the contract.<br>In case of SPV/JV the Lead member should have average Annual Turnover as mentioned. |
| 7. | The Bidder should have minimum Net worth as indicated in Table 10. | **Copy of the Certificate issued from a certified Chartered Accountant, not older than 6 (six) months from the date of submission of this RfP document**.<br>In case of SPV/JV, all the members in combined or Lead member of the SPV/JV should meet this criterion. |
| 8. | The bidder should have a Registered Office in India | **Documentary Proof of having a registered office in India.**<br>In case of SPV/JV the Lead member should submit Documentary Proof of having a registered office in India. |
| 9. | GST Certificate | **GST Certificate**<br>In case of SPV/JV the Lead member and all other members should submit the GST Certificate. |
| 10. | Professional Tax Registration Certificate | **Professional Tax Registration Certificate**<br>In case of SPV/JV the Lead member and all other members should submit the Professional Tax Registration Certificate. |

| Sl. No. | Criteria | Document required |
|---|---|---|
| 11. | Income Tax Return Certificates for the last three Financial Year | **Income Tax Return Certificates for the last 5 financial years (2019-20, 2020-21, 2021-22, 2022-23 and 2023-24).** In case of SPV/JV the Lead member and all other members should submit Income Tax Return Certificates for the last 3 financial years. |
| 12. | Trade License | **Valid Trade License** In case of SPV/JV the Lead member and all other member should submit the Trade License. |
| 13. | PAN Card | **PAN Card** In case of SPV/JV the Lead member and all other member should submit the PAN Card |
| 14. | Covering Letter | **Covering letters duly signed** In case of SPV/JV the Lead member should submit the Annexures on their letterhead. |
| 15. | Initial Implementation & Operation Plan (IIOP) including Process flow sheet, Approach and Methodology | **Initial Implementation & Operation Plan (IIOP)** for this project. Process flow sheet, Approach and Methodology shall be submitted by the bidder. |

**Note:**

(a) The bidder should clearly mention at Annexure 4, whether he will be evaluated for minimum eligibility criteria based on quantity as specified or amount as mentioned hereunder.

(b) In Case any document is not required in any particular state the bidder should provide an undertaking on its company letterhead duly signed by the authorized signatories mentioning it is not applicable in that particular state for its business.

(c) Any history of debarment or blacklisting or litigation or arbitration awards or 70% or more Liquidated Damage imposed against the applicant or any member of the SPV/JV, in any **single tender/contract** under any Government/Government Undertaking/Autonomous Bodies/Semi-Government/ Statutory Bodies/ Local Bodies/Local Authorities, etc., during the last 5 (five) years from the date of issue of this RfP, will be disqualified.

(d) Even though the bidders meet the minimum eligibility criteria, they are subject to be disqualified if they have: -

a. made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirement;

b. record of poor performance such as abandoning the works or services, not properly completed or financial failures etc.;

c. any history of debarment or blacklisting or litigation or arbitration awards or 70% or more Liquidated Damage imposed against the applicant or any member of the SPV/JV, in any **single tender/contract** under any Government/Government Undertaking/Autonomous Bodies/Semi-Government/ Statutory Bodies/ Local Bodies/Local Authorities, etc., during the last 5 (five) years from the date of issue of this RfP, against the bidder or any member of the joint venture.

d. repetitive penalties may lead to a compulsory imposition of liquidated damages, and if the issue persists, it may lead to termination of the contract without assigning any reason whatsoever and also without achieving full liquidity damages (i.e., 10% of the contract value) as mentioned in the contract documents. The Engineer-in-Charge (EIC) has the discretion to implement this.

e. submitted documents including statements uploaded in the tender are invalid, fake, false, incorrect, fabricated, counterfeit or inauthentic. Any information/ statements uploaded in the tender, if are found to be false/incorrect/fabricated/ misrepresented/fraudulently made or concealed, the Bid will be liable to be rejected/cancelled/terminated at any stage of the tender and the bidder shall also be liable to be prosecuted under relevant section of IPC/Bharatiya Nyaya Sanhiti and Indian Information and Technology Act, 2008 and any other applicable law for the time being in force in addition to forfeiture of EMD/Security Deposit. *(an Affidavit duly affirmed before the 1st class Judicial Magistrate in this respect must be furnished by the prospective bidder(s), without which the Technical Bid may be treated as non-responsive)*

**Table 10: The bidder should have the credential:**

| Sl. No. | ULBs & GPs | Total Generation of waste at base year (MT) | Total Fresh Waste Quantity to be processed | Criteria for Evaluation (Either / Or) | Annual Avg. Turnover (avg. of best 3 FYs, from last 5 FYs) (₹ in Crore) | Net Worth (₹ in Crore) |
|---|---|---|---|---|---|---|
| | | | | Fresh Waste Management | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. | Chandannagore MC, Hooghly Chinsurah, Kodalia-I, Kodalia-II and Bandel | 150 TPD | 9,19,924.00 | **Fresh Waste Management**<br>**(Either)**<br>The agency should have completed construction of any fresh waste processing plant, in the last 10 (ten) years from the date of publication of this bid, comprising of Compost Plant/Bio-Gas Plant/Bio-CNG Plant /C&D Waste Processing Plant/ Waste to Energy Plant etc., and SLF, if any, and ran it for 3 (three) consecutive years of capacity/ combined capacity of plants (units), in any processing facility, of **minimum of 60 TPD** capacity in a single tender.<br>**(OR)**<br>The agency should have completed construction of 2 (two) or more fresh waste processing plants, in the last 10 (ten) years from the date of publication of this bid, comprising of Compost Plant/Bio-Gas Plant/Bio-CNG Plant /C&D Waste Processing Plant/Waste to Energy Plant etc., and SLF, if any, and ran it for 3 (three) consecutive years of capacity/combined capacity of plants, in processing facilities, each of minimum of 45 TPD.<br>**(OR)**<br>The agency, in the last 10 (ten) years from the date of publication of this bid, must have completed running of any fresh waste processing plant, comprising Compost Plant/Bio-Gas Plant/Bio CNG Plant/C&D Waste Processing Plant/Waste to Energy Plant etc., and SLF, if any, for 3 (three) consecutive years and completed processing of waste of **minimum 3,67,969.60 MT.**<br>**(OR)**<br>The agency, in the last 10 (ten) years from the date of publication of this bid, must have completed running of any 2 (two) or more fresh waste processing plants, comprising Compost Plant/Bio-Gas Plant/Bio CNG Plant/C&D Waste Processing Plant/Waste to Energy Plant etc., and SLF, if any, for 3 (three) consecutive years and completed processing of waste of each of **minimum 2,75,977.2 MT**. | 7.99 | 5.99 |

**Criteria for SPV/JV Bids:**

- SPV/JV is allowed as per the rules and regulations of Government of India, subject to a **maximum of 2 members**. A SPV/JV bid will be considered in the name of the Lead Partner (/any name) JV, registered agreement (named as SPV/JV Agreement) signed by all the members should be furnished along with the bid.

- All members of the SPV/JV should have joint and several liabilities for execution of the project. The SPV/JV should share copy of the work sharing bipartite agreement, clearly specifying work share of each SPV/JV member, along with the technical bid, dated on or after the RfP download starting date.

- The attributes to be evaluated will be the same as for individual contractors, however, certain parameters up to the specified limits have to be essentially met by both of the members of JV, cumulatively/collectively, some by the lead member, and some by the other member.

- The SPV/JV Agreement shall be in the name of the Lead member (/any name) JV. Minimum equity stake/voting rights of the lead member and of consortium/JV member of the SPV/JV shall not be less than 51% and 10%, respectively. The lead partner shall have both minimum of 50% of technical credibility and 50% of financial capability, as mentioned in the tender as per order of the Finance Department, Government of West Bengal. The consortium partner must have minimum of 25% of technical credential and 25% of financial credential as required in tender, but the SPV/JV as a whole shall have the required credibility, both technical and financial, cumulatively/collectively, as per tender. The JV/SPV Company shall be responsible and liable in all matters related to the project. The percentage stake of other members should also be stated in the SPV/JV agreement. In Case of any failure, the Lead member will be responsible to compensate the liquidated damages and penalties to KMDA in addition to all matters related to the project. The Lead Member of the SPV/JV must be registered and/or incorporated under appropriate laws of India.

  **The SPV/JV Company must be registered and/or incorporated under appropriate laws of India after award of contract, but before the Commercial Operation Date (COD). The SPV/JV agreement should be registered in India, so as to be legally valid and binding on members.**

- The SPV/JV Agreement must clearly spell out the identity of the lead member, the proportion of financial involvement of the respective members and must state unequivocally that an action by the lead member will bind all the other members, jointly and severally, irrespective of their respective financial involvements in the SPV/JV. An attested true copy of a legally binding SPV/JV Agreement must be submitted along with the technical bid.

- It should be clearly mentioned in the SPV/JV agreement that if any SPV/JV gets selected as the successful bidder, then none of the members can exit the SPV/JV or get replaced till the project is executed. Any deviation or violation on part of the successful SPV/JV will cause it to forfeit the Security Deposit. Any change in the membership of the SPV/JV be required to be made by the members of the SPV/JV, the same shall be done with the prior consent of KMDA subject to the conditions as may be stipulated by them in this regard.

- The applicant or any member of the SPV/JV should not be blacklisted/terminated/ debarred by any State Government, PSU, Government of India or Government of any foreign country. An undertaking as per APPENDIX- I (Form- 21) (enclosed in this document), towards the same must be submitted by all members of the SPV/JV dated on or after the RFP download start date.

- The lead/JV member (for SPV/JV) should have an Average Annual Turnover as mentioned above in the best 3 financial years, in last 5 (five) FYs (may be for FY 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24). Balance Sheets and Profit & Loss Statements for the last 5 Financial Years, as mentioned above, must be submitted. Also, a certificate from the auditor must be submitted clearly mentioning the

annual turnover for the last 5 Financial Years as mentioned above and as per the annexure given herewith.

- The applicant or any member of the SPV/JV (in case of SPV/JV) should have the necessary credentials as mentioned in the eligibility criteria (even for technical evaluation).

- **Small Scale Industrial (SSI) units or Micro, Small & Medium Enterprises (MSMEs), operating in Waste Management Sector participating in the tender shall have to deposit Earnest Money and if selected, Performance Security/Security Deposit as usual, as per Memo. No. 4245-F(Y) dated 28.05.2013 of the Finance Department, Government of West Bengal.**

- **Start-ups operating in Waste Management Sector are allowed to participate in this bid, as per the prevailing norms and guidelines of the Government of West Bengal. They will be exempted from both technical and financial experience, as required, provided they are bidding with an experienced lead partner, as SPV/JV, meeting both the technical and financial qualifications, as required in this e-RfP, and the lead partner and as well as the Start-up Company are jointly and severally responsible for execution and contract implementation.**

  **The start-up Companies operating in Waste Management Sector, willing to bid as SPV/JV, must have to be registered, under the Department for Promotion of Industry and Internal Trade (DPIIT), under the Ministry of Commerce and Industry, Government of India, before the date of uploading (publishing) of this e-RfP, and will be exempted from both turnover/net-worth and credential, as required. All the necessary documents for their registration as start-up, must have to be submitted, while bidding.**

  **They must submit all their documents, as per Clause 4.1, as required for Minimum Eligibility Criteria, other than the documents related to turnover/net-worth and credential etc., as mentioned.**

- **The LOI and Work order shall be issued in the name of JV/SPV and Selected JV/SPV shall open a bank account in the name of JV/SPV for further transaction with the Authority i.e., submission of O & M security and payment of Bills etc.**

  Project Citation as per Annexure, a copy of the Work Order/Agreement/Contract copy and Work Completion Certificates/Ongoing Certificates between the participating bidder and the client as mentioned above must be submitted to fulfill this criterion.

- **Disqualification:**

  Even if an applicant meets the eligibility criteria and Pre-Qualification Criteria, the bidder shall be subject to disqualification if he or any of the constituent partners is found to have:

  1. Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/ or;

  2. Records of poor performance during the last five years, as on the date of application, such as abandoning the work, rescission of the contract for reasons which are attributable to non-performance of the contractor, inordinate delays in completion, consistent history of litigation resulting in awards against the contractor or any of the constituents, or financial failure due to bankruptcy, and so on. The rescission of the contract of Joint Venture on account of reasons other than non-performance, such as the experienced partner (major partner) of JV pulling

out;

3. On account of currency of debarment by any Government agency.

4.2. **Evaluation of Technical Proposals**

In the first stage, the Technical Proposal will be evaluated on the basis of Applicant's experience, its understanding of scope of work and scope of services as set out in the Concession Agreement, proposed methodology, technology and work plan, and the experience of Key Personnel. Only those Applicants whose Technical Proposals get a score of 70 (seventy) marks or more out of 100 (one hundred) shall qualify for further consideration.

Each Key Personnel must score a minimum of [60% (sixty per cent)] marks except as provided herein. A Proposal shall be rejected if the Project Manager scores less than [60% (sixty per cent)] marks or any two of the remaining Key Personnel score less than [60% (sixty per cent)] marks. In case the Selected Bidder has one Key Personnel, other than the Project Manager, who scores less than [60% (sixty per cent)] marks, he would have to be replaced during negotiations, with a better candidate who, in the opinion of the Authority, would score [60% (sixty per cent)] or above.

**The bidders should have the credentials as detailed below:**

The Technical Bids will be evaluated on the basis of the criteria indicated in the following sections. The bidders should have satisfactorily completed the works as mentioned at Table 10, during the last **10 years** ending last day of the month previous to the one in which bids are invited.

**i) BID EVALUATION CRITERIA:**

**Technical scoring point distribution:**

The technical evaluation shall be based on the following point distribution:

**Table 11:**

| Sl. No. | Description | Maximum Point |
|---|---|---|
| 1 | Evaluation Criteria for Assessment of Relevant Experience of the Firm/Bidder(s) | 44 |
| 2 | Initial Implementation & Operation Plan (IIOP) along with Power Point Presentation in detail (Adequacy of approach & methodology, work plan and Technical Presentation) | 20 |
| | | |
| 3 | Average Turnover, Net Worth, Year of Establishment | 24 |
| 4 | Qualification & relevant experience of proposed Key Personnel | 12 |
| | **Total Point:** | **100** |

**Evaluation Criteria for Assessment of Relevant Experience of the Firm/Bidder(s):**
**Table 12:**

| Sl. No. | Description of Parameters | Marks to be awarded | Maxi-mum Marks | Details of self-evaluation with Page references of certificates from Technical Proposal (to be filled, or else the applicant may be rejected) |
|---|---|---|---|---|
| 1 | Year of establishment of the Firm/company (In case of SPV/JV Year of Establishment of Lead Member shall be considered) | | 6 | Marks:<br><br>Page- |
| | a. Year of Establishment of the firm >= 5 years | 4.2 | | |
| | b. Additional 1 Mark for every 2 years, subject to maximum 6 Marks | | | |
| 2. | Bidder/Firm's Average Annual Turnover (last 5 years) in Audited Financial years (INR) [as prescribed in RFP] | | 10 | Marks:<br><br>Page- |
| | a. Average Annual Turnover of last 5 years >= as specified in Table 10 | 7 | | |
| | b. Additional 2 Mark for every additional turnover of ₹1.5 Crore, subject to maximum 10 Marks<br>Note: If the Bidder is a JV, then either of the members shall fulfil the total turnover criteria. | | | |
| 3. | Net Worth: | | 8 | Marks:<br><br>Page- |
| | a. As specified in Table 10 | 5.6 | | |
| | b. As specified in Table 10 + (</=1.0 Cr.) | 7 | | |
| | c. As specified in Table 10 + (> 1.0 Cr.) | 8 | | |
| | Interpolation shall be made for intermediate Amount.<br>Note: If the Bidder is a JV, then either of the members shall fulfil the total turnover criteria. | | | |
| 4. | **Technical Experience** - Bidder has successfully completed any project related to processing of Municipal fresh waste utilising methods as described in CPCB guidelines and as per SWM Rules, 2016 of quantity (MT) as mentioned in Table 10, in India, during the last **10 (ten)** years | | 15 | Marks:<br><br>Page- |
| | a. As per Table 10. | 10.5 | | |
| | b. 50% of additional capacity as mentioned in Table 10. | 12 | | |
| | c. 80% of additional capacity as mentioned in Table 10. | 13.5 | | |
| | d. 100% of additional capacity as mentioned in Table 10. (Interpolation shall be made for intermediate quantity.) | 15 | | |
| 5. | **Technical Experience** - Bidder had completed and successfully ran/running any Fresh MSW Processing Plant/Compost Plant/Bio-Gas Plant/Bio-CNG Plant/C&D Waste Processing Plant/Waste to Energy Plant for 3 (three) consecutive years of minimum capacity/cumulative capacity (in a single tender) of projects completed, as in Table 10, in India during the last **10 (ten)** years | | 20 | Marks:<br><br>Page- |
| | a. As per Table 10. | 14 | | |
| | b. 50% of additional capacity as mentioned in Table 10. | 16 | | |
| | c. 80% of additional capacity as mentioned in Table 10. | 18 | | |
| | d. 100% of additional capacity as mentioned in Table 10. (Interpolation shall be made for intermediate quantity.) | 20 | | |

| Sl. No. | Description of Parameters | Marks to be awarded | Maxi-mum Marks | Details of self-evaluation with Page references of certificates from Technical Proposal (to be filled, or else the applicant may be rejected) |
|---|---|---|---|---|
| 6. | **Technical Experience** - Bidder having experience in collection (either of primary or secondary or both) of Mixed or Segregated Municipal Solid Waste and Transportation to Processing Plant/Dumpsite/Landfill for 3 (three) consecutive years and transported a minimum amount (in MT), as mentioned in Table 10 (column (8)), in India during the last **10 (ten)** years | | 4 | Marks:<br>Page- |
| | a. As per Table 10. | 2.8 | | |
| | b. 50% of additional quantity as mentioned in Table 10. | 3 | | |
| | c. 80% of additional amount as mentioned in Table 10. | 3.5 | | |
| | d. 100% of additional quantity as mentioned in Table 10. (Interpolation shall be made for intermediate quantity.) | 4 | | |
| 7. | **Technical Experience** - Bidder had design, completed construction and successfully operated and maintained an engineered/ sanitary landfill facility of capacity, as mentioned in Table 10 (column (7)), of inert waste for at least 3 (three) consecutive years, in India during the last **10 (ten)** years | | 5 | Marks:<br>Page- |
| | a. As per Table 10. | 3.5 | | |
| | b. 50% of additional quantity as mentioned in Table 10. | 4 | | |
| | c. 80% of additional amount as mentioned in Table 10. | 4.5 | | |
| | d. 100% of additional quantity as mentioned in Table 10. (Interpolation shall be made for intermediate quantity.) | 5 | | |
| 8. | Initial Implementation & Operation Plan (IIOP) along with Power Point Presentation in detail (Adequacy of approach & methodology, work plan and Technical Presentation) | | 20 | Marks:<br>Page- |
| 9. | Qualification & relevant experience of proposed Key Personnel | | 12 | Marks:<br>Page- |
| | **Total =** | | 100 | |

**For Sl. No. 4:**
The bidder should have completed at least 1 (one) work/2 (two) or more works as per Table 10: Minimum Eligibility Criteria

**For Sl. No. 5:**
The Bidder in over the last 10 (Ten) years preceding the bid due date, should have undertaken projects on contract basis from Central/State Government or their undertakings/ Urban Local Bodies/Municipal Corporations/Municipal Council/PSUs (the "**Eligible Projects**")

**Note:** Bidders should have following minimum process and equipment facility for operation to PASS the Technical Evaluation stage. Non-possession of minimum process and equipment shall be a criterion to FAIL in the Technical Evaluation stage.

Proof of ownership certificate of machinery to be provided by a Chartered Accountant along with

proposal. In case bidders intending to hire, lease deed shall be submitted along with proposal.

1. One line – Minimum single Trammel set with 3 screeners.
2. Any other machines as specified in CPCB Guidelines for Disposal of fresh Waste.

**For Sl. No. 6:**
Qualification & relevant experience of proposed Key Personnel

**Table 13:**

| Sl. No | Proposed Key Personnel | Maximum Marks |
|---|---|---|
| 1. | Project Manager | 4 |
| 2. | Safety Specialist* | 2 |
| 3. | Environmental Specialist & Health Expert * | 2 |
| 4. | Site Engineer - I | 2 |
| 5. | Site Engineer - II | 2 |
| | **Total =** | **12** |

* He/she should have worked as a sole expert for Urban Infrastructure projects. Experience in environment / safety / Social Risk Assessment, resettlement and rehabilitation and Management plans related to similar project would be preferred. (Maximum age limit **65 years** on Bid due date for all Key Personnel)

**Table 14:**

| **1. Project Manager** (Maximum age limit 65 years on Bid due date) | | | | |
|---|---|---|---|---|
| Name of the Bidder:<br>Name of the Personnel proposed by the Bidder: | | | | |
| **Sl. No.** | **Description of Parameters** | **Marks to be awarded** | **Maxi-mum Marks** | **Details of self-evaluation with Page references of certificates from Technical Proposal (to be filled, or else the applicant may be rejected)** |
| 1.0 | **General Qualification** | | 25 | Marks:<br><br>Page- |
| | a. Graduate in Civil Engineering from recognized university | 20 | | |
| | b. Post Graduate degree in Environmental / Geotechnical / Structural / Soil Mechanics and Foundation Engineering / Construction Management from recognized university | 5 | | |
| 2.0 | **Adequacy for the Project -** Professional Experience in SWM Project | | 60 | |
| | i) Total Professional Experience in civil engineering field<br>a. 10 years | 10 | | Marks:<br><br>Page- |
| | Add 1 mark extra for each additional completed year of experience subject to maximum **5 (five)** marks. | | | |
| | ii) Supervision Experience of Urban Infrastructure projects<br>a. 3 projects | 10 | | Marks:<br><br>Page- |

| | | | | |
|---|---|---|---|---|
| | Add 2 marks extra for each additional project subject to maximum **10 (ten)** marks. | | | |
| | iii) Preparation of detailed Project Report/ Feasibility Study cum Preliminary Design report / Supervision Experience of any solid waste (Fresh waste or Fresh waste) management project<br>a. 1 project | 10 | | Marks:<br><br>Page- |
| | Add 3 marks extra for each additional project subject to maximum **15 (fifteen)** marks. | | | |
| 3.0 | **Permanent employment with the Firm** | | | |
| | a. Not employed with the Firm or non-permanent staff or < 1 year or independent professionals | 5 | 15 | Marks:<br>Page |
| | b. Retainer/non-permanent staff More than 1 year | 7 | | Marks:<br><br>Page |
| | Add 1 mark extra for each additional completed year with the firm subject to maximum **8 (eight)** marks. | | | |
| | **Total =** | | 100 | |

Note-

- Proof of Permanent employment shall also be submitted.
- Similar Capacity includes the following positions
- On behalf of Consultant: Senior Engineer / Design Engineer
- On behalf of Contractor: Project Manager (Construction/Construction Supervision of Urban Infrastructure projects)
- In Government Organizations: Superintending Engineer (or equivalent) and Above

Only those projects will be considered for evaluation at Sl. No. 2(i), 2(ii) and 2(iii) above, where the input of the personnel is at least one year.

**2. Safety Specialist** (Maximum age limit 60 years on Bid due date)

Name of the Bidder:
Name of the Personnel proposed by the Bidder:

| **Sl. No.** | **Description of Parameters** | **Marks to be awarded** | **Maxi-mum Marks** | **Details of self-evaluation with Page references of certificates from Technical Proposal (to be filled, or else the applicant may be rejected)** |
|---|---|---|---|---|
| 1.0 | **General Qualification** | | 25 | Marks:<br><br>Page- |
| | a. Graduate in Science or equivalent from recognized university | 15 | | |
| | b. Post Graduate degree/diploma in safety management from recognized university | 10 | | |
| 2.0 | **Adequacy for the Project -** Professional Experience in Urban Infrastructure projects | | 60 | |
| | i) Total Professional Experience in Urban Infrastructure projects / Industrial / Mining engineering field<br>a. 7 years | 10 | | Marks:<br><br>Page- |
| | Add 1 mark extra for each additional completed year of experience subject to maximum **5 (five)** marks. | | | |
| | ii) Supervision Experience of Urban Infrastructure projects/ Industrial/ Mining engineering<br>a. 3 projects | 10 | | Marks:<br><br>Page- |

| | | | | |
|---|---|---|---|---|
| | Add 2 marks extra for each additional project subject to maximum **10 (ten)** marks. | | | |
| | iii) Experience as Safety Expert in Construction Supervision / mining / industrial projects<br>a. 1 project | 10 | | Marks:<br><br>Page- |
| | Add 3 marks extra for each additional project subject to maximum **15 (fifteen)** marks. | | | |
| 3.0 | **Permanent employment with the Firm** | | 15 | |
| | a. Not employed with the Firm or non-permanent staff or < 1 year or Independent professionals | 5 | | Marks:<br>Page |
| | b. Retainer / non-permanent staff More than 1 year | 7 | | Marks:<br><br>Page |
| | Add 1 mark extra for each additional completed year with the firm subject to maximum **8 (eight)** marks. | | | |
| | **Total =** | | 100 | |

Note-

- Proof of Permanent employment shall also be submitted.
- Similar Capacity includes the following positions
- On behalf of Consultant: Senior Engineer / Design Engineer
- On behalf of Contractor: Project Manager (Construction/Construction Supervision of Urban Infrastructure projects)
- In Government Organizations: Superintending Engineer (or equivalent) and Above

Only those projects will be considered for evaluation at Sl. No. 2(i), 2(ii) and 2(iii) above, where the input of the personnel is at least one year.

**3. Environmental Specialist & Health Expert** (Maximum age limit 60 years on Bid due date)

Name of the Bidder:
Name of the Personnel proposed by the Bidder:

| **Sl. No.** | **Description of Parameters** | **Marks to be awarded** | **Maxi-mum Marks** | **Details of self-evaluation with Page references of certificates from Technical Proposal (to be filled, or else the applicant may be rejected)** |
|---|---|---|---|---|
| 1.0 | **General Qualification** | | 25 | Marks:<br><br>Page- |
| | a. Graduate in Civil Engineering / Science or equivalent from recognized university | 15 | | |
| | b. Post Graduate degree in environmental engineering / diploma in environmental science or management from recognized university | 10 | | |
| 2.0 | **Adequacy for the Project -** Professional Experience in Urban Infrastructure projects / Industrial / Mining engineering field | | 60 | |
| | i) Total Professional Experience in Urban Infrastructure projects / Industrial / Mining engineering field<br>a. 7 years | 10 | | Marks:<br><br>Page- |
| | Add 1 mark extra for each additional completed year of experience subject to maximum **5 (five)** marks. | | | |
| | ii) Preparation of detailed Project Report/ Feasibility Study cum Preliminary Design report in Urban Infrastructure projects / Supervision Experience of Urban Infrastructure projects / Industrial / Mining engineering | 10 | | Marks:<br><br>Page- |

| | | | | |
|---|---|---|---|---|
| | a. 3 projects | | | |
| | Add 2 marks extra for each additional project subject to maximum **10 (ten)** marks. | | | |
| | iii) Experience in Environmental Impact Assessment as Environment Expert in Construction Supervision / mining / industrial projects<br>a. 1 project | 10 | | Marks:<br><br>Page- |
| | Add 3 marks extra for each additional project subject to maximum **15 (fifteen)** marks. | | | |
| 3.0 | **Permanent employment with the Firm** | | | |
| | a. Not employed with the Firm or non-permanent staff or < 1 year or Independent professionals | 5 | 15 | Marks:<br>Page |
| | b. Retainer / non-permanent staff More than 1 year | 7 | | Marks: |
| | Add 1 mark extra for each additional completed year with the firm subject to maximum **8 (eight)** marks. | | | Page |
| | **Total =** | | 100 | |

Note-

- Proof of Permanent employment shall also be submitted.
- Similar Capacity includes the following positions
- On behalf of Consultant: Senior Engineer / Design Engineer
- On behalf of Contractor: Project Manager (Construction/Construction Supervision of Urban Infrastructure projects)
- In Government Organizations: Superintending Engineer (or equivalent) and Above

Only those projects will be considered for evaluation at Sl. No. 2(i), 2(ii) and 2(iii) above, where the input of the personnel is at least one year.

**4. Site Engineer - I (**Maximum age limit 50 years on Bid due date**)**

Name of the Bidder:
Name of the Personnel proposed by the Bidder:

| **Sl. No.** | **Description of Parameters** | **Marks to be awarded** | **Maxi-mum Marks** | **Details of self-evaluation with Page references of certificates from Technical Proposal (to be filled, or else the applicant may be rejected)** |
|---|---|---|---|---|
| 1.0 | **General Qualification** | | 25 | Marks:<br><br>Page- |
| | a. Graduate in Civil Engineering or Diploma in Civil Engineering or equivalent from recognized university | 20 | | |
| | b. Post Graduate degree / diploma in engineering or management field from recognized university | 5 | | |
| 2.0 | **Adequacy for the Project -** Professional Experience in Urban Infrastructure projects | | 60 | |
| | i) Total Professional Experience in Urban Infrastructure projects<br>a. 5 years for Graduate in Civil Engineering<br>a. 8 years for Diploma in Civil Engineering | 10 | | Marks:<br><br>Page- |
| | Add 1 mark extra for each additional completed year of experience subject to maximum **5 (five)** marks. | | | |
| | ii) Supervision Experience of Urban Infrastructure projects/ Industrial / Mining engineering<br>a. 2 projects | 10 | | Marks:<br><br>Page- |
| | Add 2 marks extra for each additional project subject to maximum **10** | | | |

| | | | | |
|---|---|---|---|---|
| | **(ten)** marks. | | | |
| | iii) Experience as Senior Design engineer in Construction / mining / industrial projects<br>a. 1 project | 10 | | Marks:<br><br>Page- |
| | Add 3 marks extra for each additional project subject to maximum **15 (fifteen)** marks. | | | |
| 3.0 | **Permanent employment with the Firm** | | | |
| | a. Not employed with the Firm or non-permanent staff or < 1 year or independent professionals | 5 | 15 | Marks:<br><br>Page |
| | b. Retainer / non-permanent staff More than 1 year | 7 | | Marks:<br><br>Page |
| | Add 1 mark extra for each additional completed year with the firm subject to maximum **8 (eight)** marks. | | | |
| | **Total =** | | 100 | |

Note-

- Proof of Permanent employment shall also be submitted.
- Similar Capacity includes the following positions
- On behalf of Consultant: Senior Engineer / Design Engineer
- On behalf of Contractor: Project Manager (Construction/Construction Supervision of Urban Infrastructure projects)
- In Government Organizations: Superintending Engineer (or equivalent) and Above

Only those projects will be considered for evaluation at Sl. No. 2(i), 2(ii) and 2(iii) above, where the input of the personnel is at least one year.

**5. Site Engineer - II (**Maximum age limit 50 years on Bid due date**)**

Name of the Bidder:
Name of the Personnel proposed by the Bidder:

| **Sl. No.** | **Description of Parameters** | **Marks to be awarded** | **Maxi-mum Marks** | **Details of self-evaluation with Page references of certificates from Technical Proposal (to be filled, or else the applicant may be rejected)** |
|---|---|---|---|---|
| 1.0 | **General Qualification** | | | Marks: |
| | a. Graduate in Civil/Electrical/Mechanical Engineering or Diploma in Civil/Electrical/ Mechanical Engineering or equivalent from recognized university | 20 | 25 | Page- |
| | b. Post Graduate degree / diploma in engineering or management field from recognized university | 5 | | |
| 2.0 | **Adequacy for the Project -** Professional Experience in Urban Infrastructure projects | | | |
| | i) Total Professional Experience in Urban Infrastructure projects/ Industrial / Mining engineering field<br>a. 5 years for Graduate in Civil / Electrical / Mechanical Engineering<br>a. 8 years for Diploma in Civil/ Electrical / Mechanical Engineering | 10 | 60 | Marks:<br><br>Page- |
| | Add 1 mark extra for each additional completed year of experience | | | |

| | | | | |
|---|---|---|---|---|
| | subject to maximum **5 (five)** marks. | | | |
| | ii) Supervision Experience of Urban Infrastructure projects / Industrial / Mining engineering<br>a. 3 projects | 10 | | Marks:<br><br>Page- |
| | Add 2 marks extra for each additional project subject to maximum **10 (ten)** marks. | | | |
| | iii) Experience as Design engineer in Construction / mining / industrial projects a. 1 project | 10 | | Marks:<br><br>Page- |
| | Add 3 marks extra for each additional project subject to maximum **15 (fifteen)** marks. | | | |
| 3.0 | **Permanent employment with the Firm** | | | |
| | a. Not employed with the Firm or non-permanent staff or < 1 year or Independent professionals | 5 | 15 | Marks:<br><br>Page |
| | b. Retainer / non-permanent staff More than 1 year | 7 | | Marks:<br><br>Page |
| | Add 1 mark extra for each additional completed year with the firm subject to maximum **8 (eight)** marks. | | | |
| | **Total =** | | 100 | |

Note-

- Proof of Permanent employment shall also be submitted.
- Similar Capacity includes the following positions
- On behalf of Consultant: Senior Engineer / Design Engineer
- On behalf of Contractor: Project Manager (Construction/Construction Supervision of Urban Infrastructure projects)
- In Government Organizations: Superintending Engineer (or equivalent) and Above

Only those projects will be considered for evaluation at Sl. No. 2(i), 2(ii) and 2(iii) above, where the input of the personnel is at least one year.

While awarding marks for the number of Eligible Projects, the Applicant or Key Personnel, as the case may be, that has undertaken the highest number of Eligible Assignments shall be entitled to the maximum score for the respective category and all other competing Applicants or respective Key Personnel, as the case may be, shall be entitled to a proportionate score. No score will be awarded to an Applicant/ Key Personnel for fulfilling the eligibility criteria of a minimum number of Eligible Assignments and only projects exceeding the eligibility criteria shall qualify for scoring. For the avoidance of doubt and by way of illustration, if the minimum number of Eligible Projects for meeting the eligibility criteria is say, 3 (three), then an equivalent number will be ignored for each Applicant/Key Personnel and only the balance remaining will be considered for awarding scores relating to the number of Eligible Assignments on a proportionate basis. However, for assigning scores in respect of the size and quality of Eligible Assignments, all Eligible Assignments of the Applicant/Key Personnel shall be considered.

4.3. **Eligible Assignments.**

For the purposes of determining Conditions of Eligibility and for evaluating the Proposals under this RFP, the following projects shall be deemed as eligible assignments (the "**Eligible Assignments**") as mentioned above.

4.4. **Financial Capacity**

To demonstrate its financial capacity to undertake the Project (**Financial Capacity**), the Applicant must meet each of the financial qualification criteria specified in Table 10.

**(a) Net worth**

(i) In each of the Financial Years [Mention the **5 Financial Years** preceding the ProposalDue Date], the Applicant's Net Worth (as per the audited annual financial statements)shall be at least INR.

(ii) If the Applicant is a JV, then the Net Worth, as required in Table 10 above shall be demonstrated singly, i.e., the lead partner should have the credential, as specified in Table 10, whereas the should meet at least 50% of the requirement. Provided further that if the Applicant is subsequently declared the Selected Bidder for the Project, then any Member of the SPV/JV whose Net Worth was assessed for the purposes of demonstrating that the SPV/JV has the Financial Capacity to undertake the Project, shall hold at least 26% (twenty six per cent) shareholding in the paid up and subscribed equity of the concessionaire/SPV until expiry of 3 (three) years from COD.

(iii) An Applicant or a Member of a SPV/JV may rely on the Net Worth of its Associate(s) for demonstrating its Financial Capacity. In such a case, the Applicantor a Member of a SPV/JV shall submit an undertaking from the Associate(s) stating that the necessary proportionate equity for the project will be provided for successful implementation of the project. In addition to this, during Financial Closure, necessary board resolution from the Associate(s) has to be submitted to the extent of equity contribution.

(b) The Applicant (and in case of a SPV/JV, any Member) and its Associate(s) (in case the Net Worth of the Associate is being claimed) is not affected by and has not been affected by any of the following events, conditions or circumstances in the **[5 (five)] Financial Years** immediately preceding the Proposal Due Date, as certified by the statutory auditor of the Applicant (and in case of a JV, the statutory auditor of a Member) and its Associate(s) (if applicable):

(i) the Applicant (and the Associate(s), if applicable) having been categorized as a wilfuldefaulter in accordance with Applicable Laws or laws of the country of its incorporation;
(ii) the Applicant (and the Associate(s), if applicable) being subject to proceedings for declaration of or being declared bankrupt, being wound up, or having its affairs administered or conducted by any court, administrator, receiver; or
(iii) the Applicant (and the Associate(s), if applicable) having been declared by a court or other competent authority as being unable to pay its debts, or having made any composition or arrangements with creditors or having had the repayment of its debts suspended.

(c) The Applicant (and in case of a JV, any Member) and its Associate(s) (if applicable)has not been convicted or otherwise being found responsible (or having any of its directors, partners, trustees, officers or managers convicted or being found responsible) by any court, tribunal, regulatory, public or other competent authority for a breach of any laws or regulations which:

(i) related to any act of fraud or dishonesty for which a fine, penalty, damages, compensation or other payment was levied against the Applicant (and the Associate(s), if applicable) or any of its directors, partners, trustees, officers ormanagers; or

(ii) resulted in the permanent or temporary suspension of the rights of the Applicant (and the Associate(s), if applicable) to provide any service or carry on any type of business or operations.

4.5. **Short-listing of Applicants**

The Applicants scoring equal to or above 70 (seventy) points after the evaluation of the Technical Proposals, will be pre-qualified and short-listed for financial evaluation. However, if the number of such pre-qualified Applicants is less than two, the Authority may, at their discretion, pre-qualify the

Applicant(s) whose technical score is less than 60 (sixty) points even if such Applicant(s) do(es) not qualify in terms of Clause.

4.6. **Evaluation of Financial Proposal**

Capital Grant (Fixed, to be provided on achieving different milestones, as per Table 5 and Article 17 of this RfP, in INR)

**Bidding Parameter:**

T1- Tipping fee for Fresh Waste, only applicable after COD (revision @+3% on every 5 years, will be considered, in INR per MT),

***Table 15***: For Illustration purposes only:

| Sl. No. | Year | Avg. daily fresh waste (in TPD) | T1 (Rs/MT) | Capital Grant (Rs. Cr) | Bid Project Cost (Rs. Cr) | NPV factor (Discounted rate @9%) | NPV |
|---|---|---|---|---|---|---|---|
| (1) | 2023 | 61 | 624 | 1.97 | 3,35,93,360.00 | 1 | ₹ 3,35,93,360.00 |
| (2) | 2024 | 62 | 624 | | 1,41,21,120.00 | 0.9174 | ₹ 1,29,54,715.49 |
| (3) | 2025 | 63 | 624 | | 1,43,48,880.00 | 0.8417 | ₹ 1,20,77,452.30 |
| (4) | 2026 | 64.1 | 624 | | 1,45,99,416.00 | 0.7722 | ₹ 1,12,73,669.04 |
| (5) | 2027 | 65.2 | 624 | | 1,48,49,952.00 | 0.7084 | ₹ 1,05,19,706.00 |
| (6) | 2028 | 66.3 | 642.72 | | 1,55,53,502.64 | 0.6499 | ₹ 1,01,08,221.37 |
| (7) | 2029 | 67.4 | 642.72 | | 1,58,11,554.72 | 0.5963 | ₹ 94,28,430.08 |
| (8) | 2030 | 68.5 | 642.72 | | 1,60,69,606.80 | 0.547 | ₹ 87,90,074.92 |
| (9) | 2031 | 69.6 | 642.72 | | 1,63,27,658.88 | 0.5019 | ₹ 81,94,851.99 |
| (10) | 2032 | 70.8 | 642.72 | | 1,66,09,170.24 | 0.4604 | ₹ 76,46,861.98 |
| (11) | 2033 | 72 | 662.01 | | 1,73,97,622.80 | 0.4224 | ₹ 73,48,755.87 |
| (12) | 2034 | 73.2 | 662.01 | | 1,76,87,583.18 | 0.3875 | ₹ 68,53,938.48 |
| (13) | 2035 | 74.4 | 662.01 | | 1,79,77,543.56 | 0.3555 | ₹ 63,91,016.74 |
| (14) | 2036 | 75.6 | 662.01 | | 1,82,67,503.94 | 0.3262 | ₹ 59,58,859.79 |
| (15) | 2037 | 76.9 | 662.01 | | 1,85,81,627.69 | 0.2992 | ₹ 55,59,623.00 |
| | | | | Total | **26,17,96,102.45** | | **15,66,99,537.03** |

**Note:**

1) This Bid Project Cost (in INR) above, calculated as per the quoted tipping fees for fresh waste, with the Capital Grant, as given to the agency, will be calculated for Additional Earnest Money Deposit, Security Deposit and O&M Security etc.
2) Waste generation is considered to be increased by 1.6% per year.
3) The Concessionaire, who is supposed to be the lowest quoting Net Present Value (NPV) of the project, will be selected.
4) Manual evaluation:
   Lowest quoting NPV, as evaluated above, will be selected.
5) This BOQ will be treated as indicative one and Department will ignore Computer-Generated Comparative Statement. Department will not consider the Highest or Lowest bidder from the Computer-Generated Comparative Statement Sheet. Department will consider only Numerical Figure up to two Decimal places as per BOQ for manual evaluation process as per RFP to select the successful bidder who gets the Lowest quoting NPV.

4.7. **Initial Earnest Money Deposit/Bid Security**

It is ₹10,00,000.00 (Rupees Ten Lakh only)

4.8. **Security Deposit recovered for fresh waste management:**

a. It will be 10% of amount for managing the fresh waste, as calculated against the rate quoted by the bidder with subsequent rate enhancement for every five years, for managing the fresh waste to be counted from starting of Commercial Operation Date (COD). The Earnest Money Deposit (2% of the Project Cost) will be converted to initial Security Deposit and will be adjusted in subsequent Running Account bill. The SD @8% will be deducted on pro-rata basis from each Running Account bill for processing of fresh waste.

b. The recovered Security Deposit of @8% of total bill value within the 1st year of operation counted from Commercial Operation Date (COD), will be released only after successful completion of **3 (three) years** of processing of fresh waste, disposal of all fractions and operation and maintenance of all the plants and machineries. Subsequent release of Security Deposit will be made on completion of every year accordingly. Hence, the total EMD (2% of total Project Cost), converted to SD and the SD recovered in the last 3 (three) years of processing of fresh waste, disposal of all fractions and O&M, under contract, might be released after **12 (twelve) months** from completion of contract and handing over of all plants and machineries in running condition to the employer (condition assessment of all plants and machineries to be done by the agency through any third-party Institution of National Importance, like any IIT, NIT, JU/IIEST, Shibpur etc.).

c. Total operation and maintenance period of all plants and machineries will be **15 (fifteen) years**, starting from the date of start of Commercial Operation.

## 5. FRAUD AND CORRUPT PRACTICES

5.1. The Applicants and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, the Authority shall reject a Proposal without being liable in any manner whatsoever to the Applicant, if it determines that the Applicant has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "**Prohibited Practices**") in the Selection Process. In such an event, the Authority shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, *inter alia*, time, cost and effort of the Authority,in regard to the RFP, including consideration and evaluation of such Applicant's Proposal.

5.2. Without prejudice to the rights of the Authority under Clause 4.1 hereinabove and the rights and remedies which the Authority may have under the LOA or the Agreement, if an Applicant or Applicant, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOA or the execution of the Agreement, such Applicant or Applicant shall not be eligible to participate in any tender or RFP issued by the Authority during a period of 2 (two) years from the date such Applicant or Applicant, as the case may be, is found by the Authority to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

5.3. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:

a) "**corrupt practice**" means (i) the offering, giving, receiving, or soliciting, directly or indirectly,of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA or has dealt with matters concerning the Agreement or arising therefrom, before or after the execution thereof, at any time

prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, as the case may be, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Authority in relation to any matter concerning the Project;

b) "**fraudulent practice**" means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;

c) "**coercive practice**" means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person's participation or action in the Selection Process;

d) "**undesirable practice**" means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and

e) "**restrictive practice**" means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition inthe Selection Process.

## 6. PRE-PROPOSAL CONFERENCE

6.1. Pre-Proposal Conference of the Applicants shall be convened at the designated date, time and place. A maximum of two representatives of each Applicant shall be allowed to participate on production of an authority letter from the Applicant.

6.2. During the course of Pre-Proposal Conference, the Applicants will be free to seek clarifications and make suggestions for consideration of the Authority. The Authority shall endeavour to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Selection Process.

## 7. MISCELLANEOUS

7.1. The Selection Process shall be governed by, and construed in accordance with, the laws of India and the Courts in the state of West Bengal shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Selection Process.

7.2. The Authority, at their discretion and without incurring any obligation orliability, reserves the right, at any time, to:

a) suspend and/or cancel the Selection Process and/or amend and/or supplement the Selection Process or modify the dates or other terms and conditions relating thereto;

b) consult with any Applicant in order to receive clarification or further information;

c) retain any information and/or evidence submitted to the Authority by, on behalf of and/or in relation to any Applicant; and/or

d) independently verify, disqualify, reject and/or accept any and all submissions or other information and/or evidence submitted by or on behalf of any Applicant.

7.3. It shall be deemed that by submitting the Proposal, the Applicant agrees and releases the Authority, their employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/or performance of any obligations hereunder, pursuant hereto and/or in connection herewith and waives any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or future.

7.4. All documents and other information supplied by the Authority or submitted by an Applicant shall remain or become, as the case may be, the property of the Authority. The Authority will not return any submissions made hereunder. Applicants are required to treat all such documents and information as strictly confidential.

7.5. The Authority reserve the right to make inquiries with any of the clients listed by the Applicants in their previous experience record.

**APPENDIX - I**
**TECHNICAL PROPOSAL**

**APPENDIX-I**

Form- 1
**Letter of Proposal**
(On Applicant's letterhead)

(Date and Reference)

To,
.....
.....
.....

**Subject: Appointment of Concessionaire for [Name of the Work]**

Dear Madam/Sir,

With reference to your RFP Document dated .....,I/we, having examined all relevant documents and understood their contents, hereby submit our Proposal for selection as Concessionaire for the development and operation of permanent solid waste management system (the "**Project**").The proposal is unconditional and unqualified.

1. All information provided in the Proposal and in the Appendices is true and correct and all documents accompanying such Proposal are true copies of their respective originals.

2. This statement is made for the express purpose of appointment as the Concessionaire for the aforesaid Project.

3. I/We shall make available to the Authority any additional information it may deem necessary or require for supplementing or authenticating the Proposal.

4. I/We acknowledge the right of the Authority to reject our application without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.

5. I/We certify that in the last five years, we or any of our Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.

6. I/We declare that:

    a. I/We have examined and have no reservations to the RFP Documents, including any Addendum issued by the Authority;

    b. I/We do not have any conflict of interest in accordance with Clause of the RFP Document;

    c. I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Clause of the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprise or any government, Central or State; and

    d. I/We hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 4 of the RFP, no person acting for us or on our behalf will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

7. I/We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the Concessionaire, without incurring any liability to the Applicants in accordance with Clause of the RFP document.

8. I/We declare that we/any member of the Joint Venture, are/is not a Member of any other Joint Venture applying for selection as a Concessionaire.

9. I/We certify that in regard to matters other than security and integrity of the country, we or any of our Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.

10. I/We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.

11. I/We further certify that no investigation by a regulatory authority is pending either against us or against our Associates or against our CEO or any of our Directors/Managers/ employees.

12. I/We hereby irrevocably waive any right or remedy which we may have at any stage at law or how so ever otherwise arising to challenge or question any decision taken by the Authority [and/ or the Government of India] in connection with the selection of Concessionaire or in connection with the Selection Process itself in respect of the above mentioned Project.

13. The Bid Security/EMD of ₹.....(Rupees.....) has been submitted through online mode of payment as provided in the RFP document.

14. I/We agree and understand that the proposal is subject to the provisions of the RFP document. In no case, shall I/we have any claim or right of whatsoever nature if the Project is not awarded to me/us or our proposal is not opened or rejected.

15. I/We agree to keep this offer valid for 180 (one hundred eighty) days from the Proposal Due Date specified in the RFP.

16. A Power of Attorney in favour of the authorised signatory to sign and submit this Proposal and documents is attached here within Form-4 of Appendix-I.

17. In the event of my/our firm/ Joint Venture being selected as the Concessionaire, I/we agree to enter into the Concession Agreement in accordance with the RFP of the bid document. We agree not to seek any changes in the aforesaid form and agree to abide by the same.

18. I/We have studied RFP and all other documents carefully and also surveyed the Site(s). We understand that except to the extent as expressly set forth in the Concession Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the Authority or in respect of any matter arising out of or concerning or relating to the Selection Process including the award of Project.

19. The Financial Proposal is being submitted separately. This Technical Proposal read with the Financial Proposal shall constitute the Application which shall be binding onus.

20. I/We agree and undertake to abide by all the terms and conditions of the RFP Document. In witness thereof, I/ we submit this Proposal under and in accordance with the terms of the RFP Document.

Yours faithfully,

(Signature, name and designation of the authorised signatory) (Name and seal of the Applicant/ Lead Member)

**APPENDIX-I**

Form- 2

**Particulars of the Applicant**

1. Details of Applicant

(a) Name:

(b) Country of incorporation and MOA/PAN:

(c) Address of the corporate headquarters and its branch office(s), if any, in India:

(d) Date of incorporation and/or commencement of business and GST certificate details:

2. Brief description of the Company including details of its main lines of business and proposed role and responsibilities in this Project:

3. Details of individual(s) who will serve as the point of contact/ communication for the Authority:

(a) Name:

(b) Designation:

(c) Company:

(d) Address:

(e) Telephone Number:

(f) E-Mail Address:

4. Particulars of the Authorized Signatory of the Applicant:

(a) Name:

(b) Designation:

(c) Address:

(d) Phone Number:

5. In case of a Joint Venture:

(a) The information above (1-4) should be provided for all the Members of the Joint Venture.
(b) A copy of the Joint Bidding Agreement should be attached to the Proposal

(c) Information regarding the role of each Member should be provided as per table below:

| **Sl. No.** | **Name of Member** | **Role** | **Percentage of equity in the Joint Venture** |
|---|---|---|---|
| 1. | | | |

| | | | |
|---|---|---|---|
| 2. | | | |
| 3. | | | |
| 4. | | | |

(d) The following information shall also be provided for each Member of the Joint Venture:

**Name of Applicant/Member of Joint Venture**

| | **Criteria** | **Yes** | **No** |
|---|---|---|---|
| (1) | Has the Applicant constituent of the Joint Venture been barred by the [Central/State] Government, or any entity controlled by it from participating in any project (BOT or otherwise)? | | |
| (2) | If the answer to (1) is yes, does the bar subsist as on the Proposal Due Date? | | |
| (3) | Has the Applicant/Joint Venture paid liquidated damages of more than 10% (ten per cent) of the contract value in a contract due to delay or has been penalized due to any other reason in relation to execution of a contract, in the Last three years? | | |

6. A statement by the Applicant and each of the Members of its Joint Venture (where applicable) or any of their Associates disclosing material non-performance or contractual non-compliance in past projects, contractual disputes and litigation/ arbitration in the recent past is given below (attach extra sheets, if necessary)

**APPENDIX-I**

Form- 3

**Statement of Legal Capacity**

*(To be forwarded on the letter head of the Applicant)*

Ref. Date:

To,
.....
.....
.....

Dear Madam/Sir,

**Subject: RFP for Selection of Concessionaire for [Name of the Work]**

I/We hereby confirm that we, the Applicant (along with other Members in case of Joint Venture, the constitution of which has been described in the Proposal), satisfy the terms and conditions laid down in the RFP document.

I/We have agreed that …….. (insert Applicant's name) will act as the Lead Member of our Joint Venture.

I/We have agreed that..... (insert individual's name) will act as our Authorised Representative/ will act as the Authorised Representative of the Joint Venture on our behalf and has been duly authorized to submit our Proposal. Further, the authorised signatory is vested with requisite powers to furnish such proposal and all other documents, information or communication and authenticate the same.

Yours faithfully,

(Signature, name and designation of the authorised signatory) For and on behalf of.....

**APPENDIX-I**

Form- 4A

**Power of Attorney for signing of Proposal**

*(On Non-judicial Stamp Paper of Appropriate value)*

Know all men by these presents, we, .....(name of Company and address of the registered office) do hereby constitute, nominate, appoint and authorize Ms./Mr ..... ..... daughter/wife/son and presently residing at **,** who is presently employed with us and holding the position of.....as our true and lawful attorney (hereinafter referred to as the "**Authorized Representative**") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for selection as the Concessionaire for **[Name of the Work]** (the "**Project**"), proposed to be developed by the ..... (the "**Authority**")including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-Proposal and other conferences and providing information/ responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts and undertakings consequent to acceptance of our Proposal and generally dealing with the Authority in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us till the entering into of the Concession Agreement with the SPV /the Authority and the Selected Bidder as confirming party.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorised Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorised Representative in exercise of the powers here by conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHERE OF WE, ..... THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF ....., 20.....

For.....

(Signature, name, designation and address)

Witnesses:
1.
2.
Notarised

Accepted

.....
(Signature, name, designation and address of the Attorney)

**Notes:**

1. The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure. The Power of Attorney should be executed on a non-judicial stamp paper of ₹100 (hundred) and duly notarised by a notary public.

2. Wherever required, the Applicant should submit for verification the extract of the charter documents and other documents such as a resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power here under on behalf of the Applicant.

3. For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, Applicants from countries that have signed the Hague Legislation Convention 1961 need not get their Power of Attorney legalised by the Indian Embassy if it carries a conforming Apostille certificate.

4. Power of Attorney executed abroad should conform to the provisions of Notaries Act, 1952 and Indian Stamp Act, 1899.

**APPENDIX-I**

Form- 4B

**Power of Attorney for Lead Member of Joint Venture**

*(On Non-judicial Stamp Paper of Appropriate value)*

Whereas the Authority has invited applications from interested parties for the **Proposal for Selection of Concessionaire for [Name of the Work].**

Whereas, ……..,……..,…….. and (collectively the "**Joint Venture**") being Members of the Joint Venture are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal (RFP) and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Joint Venture to designate one of them as the Lead Member with all necessary power and the Authority to do for and on behalf of the Joint Venture, all acts, deeds and things as may be necessary in connection with the Joint Venture's Proposal for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We,…….Having our registered office at.....,

M/s,…….Having its registered office at.....,

M/s,…….Having its registered office at.....,

(herein after collectively referred to as the "**Principals**") do hereby irrevocably designate, nominate, constitute, appoint and authorize M/s.…….Having our registered office at ....., being one of the Members of the Joint Venture, as the Lead Member and true lawful attorney (with power to sub delegate) to conduct all business for and on behalf of the Joint Venture and any one of us during the Selection Process and; in the event the Joint Venture is awarded the concession/ contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Joint Venture, all or any of such acts, deeds or things as are necessary or required or incidental to the pre-qualification of the Joint Venture and submission of its Proposal for the Project, including but not limited to signing and submission of all applications, Proposals and other documents and writings ,participate in Applicants and other conferences, respond to queries, submit information/documents, sign and execute contracts and undertakings consequent to acceptance of the Proposal of the Joint Venture and generally to represent the Joint Venture in all its dealings with the Authority, and/ or any other Government Agency or any person, in all matters in connection with or relating or arising out of the Joint Venture's Proposal for the Project and/or upon award there of till the Concession Agreement is entered in to with SPV/the Authority and the Selected Bidder as confirming party.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/Joint Venture.

IN WITNESS WHERE OF WE, ..... THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF ....., 20.....

For……..

(Signature)

…….. (Name & Title)

For……..

(Signature)

…….. (Name & Title)
For……...

(Signature)

…….. (Name & Title)

Witnesses:

1.

2.

…… (Executants)
(To be executed by all the Members of the Joint Venture)

**Notes:**

1. The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure. The Power of Attorney should be executed on a non-judicial stamp paper of ₹100 (hundred) and duly notarised by a notary public.

2. Wherever required, the Applicant should submit for verification the extract of the charter documents and other documents such as a resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Applicant.

3. For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, Applicants from countries that have signed the Hague Legislation Convention 1961 need not get their Power of Attorney legalised by the Indian Embassy if it carries a conforming Apostille certificate.

4. Power of Attorney executed abroad should conform to the provisions of Notaries Act, 1952 and Indian Stamp Act, 1899.

**APPENDIX-I**

Form- 4C

**FORM OF LETTER OF INTENT BY SPV/JV PARTNERS TO ENTER INTO SPV/JV AGREEMENT**

*(On Non-judicial Stamp Paper of Appropriate value, if required as per laws of the country of the bidder, to be purchased in the Name of Joint Venture)*

THIS LETTER OF INTENT signed on this..... day of..... Two Thousand and .....by..... a company within the meaning of the Companies Act, 2013/ partnership firm within the meaning of the (Indian) Partnership Act, 1932/ limited liability partnership within the meaning of the Limited Liability Partnership Act, 2008, and having its registered office/ office at .....(hereinafter called the "Party No.1" which expression shall include its successors, executors and permitted assigns) and M/s ..... a company within the meaning of the Companies Act, 2013/ partnership firm within the meaning of the (Indian) Partnership Act, 1932/ limited liability partnership within the meaning of the Limited Liability Partnership Act, 2008, and having its registered office/ office at .....(hereinafter called the "Party No.2" which expression shall include its successors, executors and permitted assigns) for the purpose of making a bid and entering into a contract [hereinafter called the "Contract" (in case of award)} against the work of "……".in terms of tender being NIT No. ……..issued by the Kolkata Metropolitan Development Authority ,herein after called "KMDA".

WHEREAS the Party No.1 and Party No-2 intend to enter into a Joint Venture Agreement
AND WHEREAS KMDA invited bids for the work of **[Name of the Work],** stipulated in the Bidding Documents.

AND WHEREAS ITB Eligibility Criteria forming part of the bidding documents, inter-alia, stipulates that two qualified partners, meeting the requirements of 'Qualification Requirement of the Bidder', as applicable may bid, provided, they submit a Letter of Intent to enter into Joint Venture Agreement and the Joint Venture Partners fulfill all other requirements under ITB 'Eligible Bidder' and in such a case, the Letter of Bid (Bid Form) shall be signed by the Partner - In Charge so as to legally bind all the Partners of the Joint Venture, who will be jointly and severally liable to perform the Contract by entering into Joint Venture Agreement as per Performa submitted with the Bid which will be legally binding on all partners and all obligations hereunder.

AND WHEREAS KMDA invited bids for the works of **[Name of the Work].**

The above clause further states that this Letter of Intent shall be attached to the bid and the Contract performance guarantee will be as per the format enclosed with the bidding document without any restrictions or liability for either party.

AND WHEREAS the bid is being submitted to KMDA vide proposal No.....dated..... by Party No.1 based on this letter of Intent between all the parties; under these presents and the bid has been signed by all the parties.

NOW THIS UNDERTAKING WITNESSETH AS UNDER:
In consideration of the above premises and agreement all the parties of this letter of Intent do hereby declare and undertake:

1. In requirement of the award of the Contract by KMDA to the Joint Venture Partners, we, the Parties do here by undertake that M/s..... the PartyNo.1, shall act as lead member of the Joint Venture and further declare and confirm that we the parties to the Joint Venture shall jointly and severally be bound unto KMDA for the successful performance of the Contract and shall be fully responsible for the work of "……" accordance with the Contract for which we shall enter into Joint Venture Agreement as per proforma submitted with the Bid which will be legally binding on all partners.

2. If the Contract is awarded to Joint Venture, then in case of any breach or de fault of the said Contract by any of the parties to the Joint Venture, the party(s) will be fully responsible for the successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.

3. Further, if KMDA suffers any loss or damage on account of any breach in the Contract or any short fall in the performance of the equipment in meeting the performances guaranteed as per the

specification in terms of the Contract, the Party(s) of these presents will promptly make good such loss or damages caused to KMDA, on its demand without any demur. It shall not be necessary or obligatory for KMDA to proceed against lead Partner to the represents before proceeding against or dealing with the other Party(s), KMDA can proceed against any of the parties who shall be jointly and severally liable for the performance and all other liabilities/obligations under the Contract to KMDA.

4. The financial liability of the Parties of the Deed of Undertaking to KMDA in the event of award of Contract on the Joint Venture, with respect to any of the claims arising out of the performance or non-performance of the obligations set for within the Deed of Undertaking, read in conjunction with their relevant conditions of the Contract shall, however not be limited in anyway so as to restrict or limit the liabilities or obligations of any of the Parties of the Deed of Undertaking.

5. It is expressly understood and agreed between the Parties to this Letter of Intent that the responsibilities and obligations of each of the Parties shall be as delineated in Appendix-I (to be suitably appended by the Parties along with this Letter of Intent in its bid). It is further undertaken by the parties that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities of the Parties under the Contract in the event of award on Joint Venture.

6. It is also understood that this Letter of Intent is provided for the purposes of undertaking joint and several liabilities of the partners to the Joint Venture for submission of the bid and performance of the Contract if awarded and that this Letter of Intent shall not be deemed to give rise to any additional liabilities or obligations, in any manner or any law, on any of the Parties to this Letter of Intent or on the Joint Venture, other than the express provisions of the Contract.

7. This Letter of Intent shall be construed and interpreted in accordance with the provisions of the Contract.

8. In case of an award of a Contract, we the parties to this Letter of Intent do hereby agree that we shall enter into Joint Venture Agreement as per proforma submitted with the Bid which will be legally binding on all partners and we shall be jointly and severally responsible for furnishing a Contract performance security deposit from a bank in favor of KMDA in the currency/currencies of the Contract.

9. It is further agreed that this Letter of Intent shall be irrevocable and shall for main integral part of the bid. It shall be effective from the date first mentioned above for all purposes and intents.

IN WITNESS WHEREOF, the Parties to this Letter of Intent have through their authorized representatives executed these presents and affixed Common Seal so their companies, on the day, month and year first mentioned above.

For Lead Partner (Party No.- 1) For
and on behalf of M/s

Common Seal of ..... has been affixed in my/ our presence pursuant to Board of Director's Resolution dated .....

Name.....
Designation .....
Signature.....
(Signature of the authorized representative)

WITNESS:
I…….
II…….

For Party No.-2 For and on behalf of
M/s

Common Seal of ..... has been affixed in my/ our presence pursuant to Board of Director's Resolution dated .....

Name.....
Designation .....
Signature.....
(Signature of the authorized representative)

WITNESS:
I…….
II…….

**APPENDIX-I**

Form-5A

**Financial Capacity of the Applicant**

(*See Clause 3.1.3.(B)*)

**Applicant Type:** Single entity Applicant/Joint Venture Member 1/ Joint Venture Member 2
**Name of the Firm:**

**(all figures are in ₹ Crores)**

| Year | Financial Year 2019 - 2020 | Financial Year 2020 - 2021 | Financial Year 2021 - 2022 | Financial Year 2022 - 2023 | Financial Year 2023 - 2024 | Average of best 3 (three) years in last 5 (five) years |
|---|---|---|---|---|---|---|
| **Total Annual Turnover (in ₹Cr.)** | | | | | | |
| **Net worth** | | | | | | |

**Instructions:**

1. *The Bidder shall provide the Audited Annual Financial Statements of the corresponding years. Failure to do so would result in the Proposal being considered as non-responsive. In case the annual accounts for the latest financial year are not audited and therefore cannot make it available, the applicant shall give an undertaking, to this effect and the statutory auditor shall certify the same. In such case, the applicant shall provide the audited annual reports for five years preceding the year for which audited annual report is not being provided.*

2. *A certificate from Statutory Auditor or may be from any Chartered Account (CA) firm should be provided as supporting document certifying the Financial Pre-Qualification.*

3. *Turnover certificate issued by the Chartered Accountant should bear UDIN.*

**Note:**

1. The financial year shall mean the period commencing from April 1 of any given year to March 31 of the succeeding year.

2. For the purpose of this RfP, turnover ("the turnover") shall mean the average of annual revenues from execution of the projects during the preceding five financial years from the due date of submission of this bid. This shall not include capital grants/capital subsidies/donations/salaries/dividend/bonus /commission and interest income.

3. For the purposes of this RfP, net worth (the "Net Worth") shall mean:

(a) In case of Private Limited/Limited Companies incorporated under the Companies 1956 (or the Companies Act 2013) (or equivalent Act in case of Foreign bidder) shall mean the sum of subscribed and paid up equity and all reserves created out of the profits and securities premium account after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write- back of depreciation and amalgamation (as prescribed in the Companies Act 2013).

(b) In case of Partnership Firms means partners' capital plus reserve & surplus.

(c) In case of individuals, means sum of all assets less liability.

4. All entity, whether single or Joint Venture, must submit their Financial Statement in the given format, and submit necessary papers/documents in support, for verification.

**APPENDIX-I**

Form-5B

**Financial Capacity of the Applicant**

| Applicant Type | Member Code | **Annual Turnover** (Average of best 3 years in past 5 years) (in Crores) | **Net Worth** (Avg. of best 3 years in past 5 years) (in Crores) |
|---|---|---|---|
| **Single entity Applicant** | | | |
| **Joint Venture Member 1** | | | |

*More rows may be added as per requirement

**Instructions:**

1. The Applicant/ its constituent Joint Venture Members shall attach copies of the balance sheets, financial statements and annual reports for 5 years preceding the Proposal Due Date. The financial statements shall:
   (a) Reflect the financial situation of the Applicant or SPV/JV Members and its/their Associates where the Applicant is relying on its Associate's financials;
   (b) Be audited by a statutory auditor;
   (c) Be complete, including all notes to the financial statements; and
   (d) Correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).
2. For the purposes of this RFP "Net Worth" shall be computed as per the formulation provided in Clause of this RFP.
3. The Applicant shall provide Statutory Auditor's certificate/ Chartered Accountant certificate specifying the Net Worth and also specifying the methodology adopted for calculating such net worth.

**APPENDIX-I**

**Form-6**
**Particulars of Key Personnel**

| Sl. No. | Designation of Key Personnel | Name | Educational Qualification | Length of Professional Experience | Present Employment | | No. of Eligible Assignments |
|---|---|---|---|---|---|---|---|
| | | | | | Name of Company/Firm | Employed Since | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1. | Project Manager | | | | | | |
| 2. | Safety Expert | | | | | | |
| 3. | Site Engineer | | | | | | |
| 4. | Environmental Expert | | | | | | |

Refer Form of Appendix-I (Experience of Key Personnel)

## APPENDIX-I

Form-7

### Proposed Methodology, Technology and Work Plan

The proposed methodology, technology and work plan shall be described as follows:

**1. Understanding of terms and conditions of the Concession Agreement** (not more than two pages)

The Applicant shall clearly state its understanding of the terms and conditions of the Concession Agreement and also high light its important aspects.

**2. Methodology and Work Plan** (not more than three pages)

The Applicant will submit its methodology for carrying out the Project, outlining its approach toward achieving the key performance indicators laid down in the Concession Agreement. The Applicant will submit a brief write up on its proposed team and organisation of personnel explaining how different areas of expert is needed for the Project have been fully covered by its Proposal. In case the Applicant is a Joint Venture, it should specify how the expertise of each Member is proposed to be utilised for the Project. The Applicant should specify the sequence and locations of important activities, and provide a quality assurance plan for carrying out the Project.

**3. Proposed Technology** (detailed note)

The Applicant will submit its proposed technology for carrying out the Project, including the details of technology/ combination of technologies proposed for processing of waste, sources of technologies and technology tie-up.

**4. Other details to be included in the Technical Proposal** (detailed notes)

(a) Equipment, vehicles/ e-vehicles, etc.
(b) Area requirement for processing and sanitary landfill facility
(c) Key assumptions in development of processing facility and basis of proposed capacity.
(d) Key assumptions in development of sanitary landfill facility and basis of designed capacity, area requirement.
(e) Processing products along with their quantity (Ton/ day. etc.)
(f) Market tie-up for sale of processing products
(g) Project plan including schedule for equipment replacements and capacity additions at regular intervals.
(h) Organization and staffing/ man power details (collection, transportation, processing & disposal)
(i) Environment management plan
(j) Assessment of risk and mitigation plan
(k) Key approvals and clearances
(l) Total investment proposed, project financial aspects–capital cost, operation and maintenance cost, revenues, etc.
(m) Project timelines

Applicants would be required to submit information on key assumptions for the Project (the "**Key Assumptions**") based on their estimates of various parameters pertaining to the Project. Key Assumptions must include (but not limited to) information on the following:

(i) Project cost estimates
(ii) Details of preliminary expenses
(iii) Base construction cost
(iv) Contingencies

(v) Details of pre-operative expenses
(vi) Operation & Maintenance cost
(vii) Processing product quantities in [Ton/days] and estimated revenues

**Note**: All of the above details should be provided as elaborately as feasible and supported with engineering drawings (if applicable), manpower requirement, fuel, power requirement and explanation of time required for recovery and utilization of components. Based on the above work requirement, the Applicant will provide details of plant, machinery and equipment proposed to be deployed in the works and their status (new or old). The Applicant shall also provide a list of key personnel proposed to be deployed for the work with their curriculum vitae.

**Note 2**: The Applicant may be invited to make a presentation on approach, methodology, proposed technologies and project plant to judge their understanding of the Project.

**Note3**: Marks will be deducted for writing lengthy and out of context responses.

**APPENDIX-I**

Form-8

**Initial Implementation and Operational Plan (IIOP)**

In preparing the Initial Implementation and Operational Plan (IIOP), Bidders shall review the RfP in full and understand the Project Scope in its entirety. Bidders can undertake required reconnaissance studies and field level studies to ensure that their IIOP meets the requirements of RfP.

The IIOP shall also be in compliance with the applicable laws, including the Solid Waste Management Rules, 2016.

The bidders shall design the IIOP for the Project Scope covering the following items:

| Sl. No. | Components | Weightage |
|---|---|---|
| 1. | Project Understanding | 1.5 |
| 2. | Approach and Methodology for Project Operations | 2 |
| 3. | Procurement Plan, Equipment, and Manpower Deployment Schedule including organization chart | 2 |
| 4. | Takeover Plan | 1 |
| 5. | Monsoon plan | 1 |
| 6. | Fire Management, Leachate Management Plan & Inert Management Plan if any, QA & QC Plan & EHS Plan | 1.5 |
| 7. | MoU/letter from industry to ensure disposal of RDF | 1 |
| 8. | Disaster Management Plan | 1 |
| 9. | Action Plan for Complaint Redressal System | 1 |
| 10. | Implementation Schedule and Action Plan for MIS | 1 |
| 11. | Monitoring and Reporting plan To KMDA | 1.5 |
| 12. | Operation & Maintenance Plan | 1.5 |
| 13. | Environment, Health and Safety (EHS) Plan | 1 |
| 14. | Business Plan | 1.5 |
| 15. | Risk Assessment | 1.5 |
| **Total** | | **20** |

**(a) Project Understanding**

The Bidder shall provide their understanding of the Project with respect to the Project Area and Scope of Work.

**(b) Methodology for Project Operations**

The Bidder shall provide their methodology for carrying out Project Operations as specified under Project Scope. The Bidder may request for any additional data from the KMDA or can generate on his own. The Bidder shall provide a broad process flow chart for Project Operations. The Bidder shall also specify their methodology for segregation of different fractions, leachate management & inert disposal. The Bidder shall also provide sample calculations for estimating infrastructure and manpower requirement. The Bidder shall adhere to the SWM Rules, 2016 and CPHEEO Manual while formulating methodology for Project Operations. A Comprehensive Aggregate Disposal Plan covering activity like Removal, Segregation, Processing, Transportation, Disposal in a scientific manner shall be submitted as well.

**(c) Procurement Plan, Manpower Deployment Plan and Installation & Commissioning Plan**

The Bidder shall provide Procurement Plan, Manpower Deployment Plan for Project Operations as well as and Installation & Commissioning Plan to achieve Commercial Operation Date (COD). The Procurement Plan shall include the details of Project Asset to be deployed including asset type, capacity, specifications and manufacturer. The Manpower Deployment Plan shall include details on type of manpower (skilled/unskilled/driver), no. of manpower and the source. The Bidder shall provide procurement and deployment schedule in Gantt chart inclusive of replacement of Project Assets during the entire project period. The bidder shall also detail out the Installation & Commissioning Schedule in proper format.

**(d) Organization Chart**

The Bidder shall provide an Organization Chart of their Management Team with clearly defined roles and responsibility. The Bidder shall also specify the educational qualifications and professional experience for each proposed position. The Organization Chart shall be provided from top to bottom in hierarchy as per below format.

| Sl. No. | Position | No. | Role and Responsibility | Educational Background | Experience |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| N | | | | | |

**(e) Implementation Schedule**

The Bidder shall conform to the Implementation Schedule as specified in the RfP document till the achievement of COD with key milestones, critical activities and completion dates. The Bidder shall also provide the Implementation Schedule in Gantt chart.

**(f) Takeover Plan**

The Bidder shall provide a Plan for phase-wise takeover or takeover of entire Project Area at once. The Bidder shall provide the Manpower Deployment Schedule and Procurement Schedule to achieve COD as per the Takeover Plan.

**(g) Leachate Management Plan**

The Bidder shall provide their methodology for leachate management at the dumpsite. The Bidder can also provide their successful experience in previous projects.

**(h) Disaster Management Plan**

The Bidder shall provide a broad outline for carrying out Project Operations during the time of disaster.

**(i) Operation & Maintenance Plan**

The Bidder shall provide a broad outline of Operation and Maintenance of Project Assets and Project Operations. The Bidder shall specify the servicing schedule for each Project Asset.

| Sl. No. | Project Asset. | Number | Servicing Detail* | Frequency of servicing** | Frequency of Replacement[$] |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10 | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| 13. | | | | | |
| 14. | | | | | |
| 15. | | | | | |

* Bidder to detail out Asset Servicing like – cleaning, painting, critical spare replacement etc. ** Bidder to detail out the frequency of these servicing as detailed in the previous column against each servicing requirement;

Bidder to detail out the frequency of replacement of these assets.

**(j) Environment, Health and Safety (EHS) Plan**

The Bidder shall provide a broad outline of EHS Plan for Project Operations. The Bidder shall indicate the environment, health and safety measures proposed to be adopted during the Project Period. The Bidder shall specify the measures for each project activity as per below format.

| Sl. No. | Activity | Potential Impact on Environment, Health and Safety | Preventive, Control &Mitigation Measures | Action Plan |
|---|---|---|---|---|
| | | | | |
| | | | | |

**(k) Action Plan for Complaint Redressal System**

The Bidder shall provide a broad outline for setting up Complaint Redressal System. The Bidder shall provide the infrastructure and manpower requirement for the setting up of Complaint Redressal System. The Bidder shall also specify the support required from the KMDA in setting up of the System. The Bidder shall propose their innovative ways of effectively dealing with Complaints. The Bidder can also provide their successful experience in previous projects.

**(l) Action Plan for MIS**

The bidder shall provide the detailed MIS framework to be implemented for 24*7 monitoring of the

project operations as well as data management.

**(m) Business Plan**

The bidder shall provide a detailed Business Plan in terms of their overall project operations, environmental & social compliances, selling of bio mined fractions and inert disposal. The Business Plan shall include the following structure:

i. Overview
ii. Strength, Weakness, Opportunities and Threats (SWOT) analysis
iii. Industry analysis
iv. Market demand analysis
v. Sales Strategy & Marketing Plan
vi. Operation Plan
vii. Financial Plan along with expected revenue generation for the project period
viii. (Financial model to be provided)

(n) Environmental Quality Parameter Monitoring:
i. Air Quality
ii. Water Quality (Ground and Surface)
iii. Soil Quality

**(o) Risk Assessment**

Bidder shall identify and assess the risk in the project and suggest the consideration to address those risk for the successful implementation of the project

**(p) Expected Completion Date:**

The bidder should specify the expected completion date of the entire project (i.e., removal of such quantity of fresh waste, mentioned in this RfP). The date should be specified in _____ (DD/MM/YYYY) format.

**APPENDIX-I**

Form-9

**Format for Joint Bidding Agreement**

*(To be executed on Stamp paper of appropriate value)*

THIS JOINT BIDDING AGREEMENT is entered in to on this the ……day of 20…

***BETWEEN***

1. ……Limited, a company/ partnership/LLP/proprietorship incorporated/ registered under[***] and having its registered office at …… (herein after referred to as the "**First Part**" which expression shall, unless repugnant to the context include its successors and permitted assigns)

***AND***

2. ……Limited, a company /partnership/LLP/proprietorship incorporated/ registered under [***] and having its registered office at ……. (hereinafter referred to as the '**second Part**" which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above-mentioned parties of the FIRST, and SECOND PART are collectively referred to as the "**Parties**" and each is individually referred to as a "**Party**".

***WHEREAS,***

(A) **Kolkata Metropolitan Development Authority, under Urban Development and Municipal Affairs Department, Government of West Bengal,** having its principal office at……including its administrators, successors and assigns) and the **[Name of the Authority],** having its principal office at……including its administrators, successors and assigns) have invited Proposals (the "**Proposals"**) by its Request for Proposal No.……dated (the **"RFP"**) for **[Name of the Work]** (the **"Project"**).

(B) The Parties are interested in jointly bidding for the Project as members of a Joint Venture and in accordance with the terms and conditions of the RFP document and other bid documents in respect of the Project, and

(C) It is a necessary condition under the RFP document that the members of the Joint Venture shall enter into a Joint Bidding Agreement and furnish a copy thereof with the Proposal.

***NOW IT IS HEREBY AGREED as follows:***

**1. Definitions and Interpretations**

In this Agreement, the capitalized terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFP.

**2. Joint Venture**

The Parties do hereby irrevocably constitute a Joint Venture (the "**Joint Venture**") for the purposes of jointly participating in the Selection Process for the Project.

The Parties hereby undertake to participate in the Selection Process only through this Joint Venture and not individually and/ or through any other Joint Venture constituted for this Project, either directly or indirectly or through any of their Associates.

The above clause further states that this Undertaking shall be attached to the bid and the Contract performance guarantee will be as per the format enclosed with the bidding document without any restrictions or liability for either party.

AND WHEREAS the bid is being submitted to KMDA vide proposal No.....dated..... by Party No.1 based on this Undertaking between all the parties; under these presents and the bid in accordance with the requirements of ITB and Eligibility Criteria, has been signed by all the parties.

NOW THIS UNDERTAKING WITNESSETH AS UNDER:

In consideration of the above premises and agreements all the parties of this Deed of Undertaking do hereby declare and undertake:

In requirement of the award of the Contract by KMDA to the Joint Venture Partners, we, the Parties do hereby undertake that M/s..... the Party No.1, shall act as Lead Partner and further declare and confirm that we the parties to the Joint Venture shall jointly and severally be bound unto KMDA for the successful performance of the Contract and shall be fully responsible for the work "……." in accordance with the Contract.

**3. Covenants**

The Parties hereby undertake that in the event the Joint Venture is declared the Selected Bidder and awarded the Project, it shall incorporate a special purpose vehicle (the "**SPV**") under the Indian Companies Act, 2013 for entering into a Concession Agreement with the State Government and the Authority for performing all its obligations as the Concessionaire in terms of the Concession Agreement for the Project.

**4. Role of the Parties**

The Parties hereby undertake to perform the roles and responsibilities as described below:

(a) Party of the First Part shall be the Lead Member of the Joint Venture (the shareholding of the Lead Member should be [at least 51% or majority shareholder]) and shall have the Power of Attorney from all Parties for conducting all business for and on behalf of the Joint Venture during the duration of the Project;

(b) in case the Joint Venture is declared as the Selected Bidder, ensure that its shareholding/ownership equity commitments are clearly set out, and state that the Joint Venture shall act through the Lead Member in accordance with this RFP, and subsequently carry out all the responsibilities as Concessionaire in terms of the Concession Agreement and also open a current bank account jointly in the name of SPV/JV company and operate the same entire concession period in terms of the Concession Agreement;

*(c)* Party of the Second Part shall be responsible for *[insert role]*

**5. Joint and Several Liability**

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the RFP and the Concession Agreement, till the expiry of the Concession Agreement. It is further undertaken by the parties that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities of the Parties under this agreement.

It is further agreed that this agreement shall be irrevocable and shall for main integral part of the bid and shall continue to be enforceable till KMDA discharges the same or upon the completion of the Contract in accordance with its provisions, whichever is earlier. It shall be effective from the date first mentioned above for all purposes and intents.

In case of any breach or default of the said Contract by any of the parties to the Joint Venture, the parties do hereby undertake to be fully responsible for the successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.

The financial liability of the Parties of this agreement to KMDA, with respect to any of the claims arising out of the performance or non-performance of the obligations set forth in this agreement, read in conjunction with the relevant conditions of the Contract shall, however not be limited in any way so as to restrict or limit the liabilities or obligations of any of the Parties of this agreement.

**6. Shareholding in the SPV**

The Parties agree that the proportion of shareholding among the Parties in the SPV shall be as follows:

First Party:

Second Party:

The Parties shall ensure that the Parties shall: (i)collectively hold at least 51% (fifty one percent) shareholding in the paid up and subscribed equity of the concessionaire/SPV until expiry of 3 (three) years from COD; and (ii) each of the Parties whose Technical Capacity and Financial Capacity was taken into consideration shall each hold 26% (twenty six percent) shareholding in the paid up and subscribed equity of the concessionaire/SPVuntilexpiryof3 years from COD.

The Parties undertake that they shall comply with all equity lock-in requirements set for thin the Concession Agreement.

**7. Representation of the Parties**

Each Party represents to the other Parties as of the date of this Agreement that:

(a) Such Party is duly organized, validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter in to this Agreement;

(b) The execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Joint Venture Member is annexed to this Agreement, and will not, to the best of its knowledge:

(i) Require any consent or approval not already obtained;

(ii) Violate any Applicable Law presently in effect and having applicability to it;

(iii) Violate the memorandum and articles of association, by-laws or other applicable organizational documents thereof;

(iv) violate any clearance, permit, concession, grant, license or other governmental authorization, approval, judgement, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or

(v) create or impose any liens, mortgages, pledges, claims, security interests, charges or encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;

(c) this Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it and shall be construed and interpreted in accordance with the provisions of the Agreement and

(d) there is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Associates is a party that presently affects, or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfilment of its obligations under this Agreement.

**8. Termination**

This Agreement shall be effective from the date hereof and shall continue in full force and effect until the completion of the Project is achieved under and in accordance with the Concession Agreement. However, in case the Joint Venture is either not pre-qualified for the Project or does not get selected for award of the Project, the Agreement will stand terminated in case the Applicant is not pre-qualified or upon return of the Bid Security by the Authority to the Applicant, as the case may be.

**9. Miscellaneous**

Further, if KMDA suffers any loss or damage on account of any breach in the agreement or any shortfall in the performance of the equipment in meeting the performances guaranteed as per the specification in terms of the Contract, the Party(s) of these presents undertake to promptly make good such loss or damages caused to KMDA, on its demand without any demur. It shall not be necessary or obligatory for KMDA to proceed against Lead Partner to these presents before proceeding against or dealing with the other Party(s), KMDA can proceed against any of the parties who shall be jointly and severally liable for the performance and all other liabilities/obligations under the Contract to KMDA.

This Joint Bidding Agreement shall be governed by laws of India. The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the Authority.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

| | |
|---|---|
| SIGNED, SEALED AND DELIVERED<br><br>For and on behalf of<br><br>**LEAD MEMBER** by:<br><br>(Signature) (Name)<br><br>(Designation) (Address) | SIGNED, SEALED AND DELIVERED<br><br>For and on behalf of<br><br>**SECOND PART**<br><br>(Signature) (Name)<br><br>(Designation)(Address) |

**Notes:**

1. The mode of the execution of the Joint Bidding Agreement should be in accordance with the procedure, if any, laid down by the Applicable Law and the charter documents of the executant(s)and when it is so required, the same should be under common seal affixed in accordance with the required procedure.

2. Each Joint Bidding Agreement should attach a copy of the extract of the charter documents and

documents such as resolution / Power of Attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Joint Venture Member.

]

**APPENDIX-I**

**Form-10**
**Abstract of Eligible Assignments of the Applicant**
*(See Clause 4.3)*

| Sl. No. | Name of Project | Name of Client | Date of Commencement | Date of Commissioning | Project Capacity | Location of the Project | Project Cost (in ₹crore) | Whether credit is being taken for the eligible Experience of an Associate (Yes/No) |
|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1 | | | | | | | | |
| 2 | | | | | | | | |

The names and chronology of Eligible Projects included here should conform to the project-wise details submitted in **Form-12 of Appendix- I**.

**Note 1**: Experience for any activity relating to an Eligible Project shall not be claimed by two or more Members of the Joint Venture. In other words, no double counting by a Joint Venture in respect of the same experience shall be permitted in any manner whatsoever.

]

**APPENDIX-I**

**Form-11**
**Abstract of Eligible Assignments of Key Personnel**
(See Clause 3.1.4)

Name of Key Personnel: Designation:

| Sl. No. | Name of Project | Name of Client | Date of Commencement of work by the Key Personnel | Date of Completion of work by the Key Personnel | Man-days spent | Project Capacity | Location of the Project | Project Cost (in ₹crore) | Name of Company/Firm for which the Key Personnel worked | Designation of the Key Personnel on the Project |
|---|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |

Use separate Form for each Key Personnel.
The names and chronology of projects included here should conform to the project-wise details submitted in Form-13 of Appendix- I.

**Note**: The Applicant may attach separate sheets to provide brief particulars of other relevant experience of the Key Personnel.

]

**APPENDIX-I**

**Form-12**

**Eligible Assignments of the Applicant**

*(See Clause 3.1.4)*

| | | |
|---|---|---|
| 1. | Name of the Project | |
| 2. | Nature of the Project | |
| 3. | Name of the Client | |
| 4. | Address, Telephone no. and E-mail address of the Client | |
| 5. | Date of Commencement | |
| 6. | Date of Commissioning | |
| 7. | Project Capacity | |
| 8. | Location | |
| 9. | Project Cost | |
| 10. | Whether credit is being taken for the eligible Experience of an Associate (Yes/No) | |
| 11. | Brief description of the Project: | |
| It is certified that the aforesaid in formation is true and correct to the best of my knowledge and belief.<br><br>(Signature and name of Applicant) | | |

**Notes:**

1. Use separate sheet for each Eligible Project.

**APPENDIX-I**

**Form-13**

**Eligible Assignments of Key Personnel**

*(See Clause 3.1.4)*

| | | |
|---|---|---|
| 1. | Name of the Project | |
| 2. | Nature of the Project | |
| 3. | Name of the Client | |
| 4. | Address, Telephone no. and E-mail address of the Client | |
| 5. | Date of Commencement of work of the Key Personnel | |
| 6. | Date of Completion of work of the Key Personnel | |
| 7. | Man-days spent | |
| 8. | Project Capacity | |
| 9. | Location | |
| 10. | Project Cost | |
| 11. | Name of Company/ Firm for which the Key Personnel worked | |
| 12. | Designation of the Key Personnel on the Project | |
| 13. | Brief description of the Project: | |
| It is certified that the aforesaid information is true and correct to the best of my knowledge and belief.<br><br>(Signature and name of Key Personnel) | | |

**Notes:**

1. Use separate sheet for each Eligible Project.
2. The Applicant may attach separate sheets to provide brief particulars of other relevant experience of the Key Personnel.
3. Exchange rate for conversion of US$ shall be as per Clause 1.7.1.

**APPENDIX-I**

**Form-14**
**Curriculum Vitae (CV) of Key Personnel and Professional Personnel**
*(See Clause 2.14.6)*

1. Proposed Position:

2. Name of Personnel:

3. Date of Birth:

4. Nationality:

5. Educational Qualifications:

6. Employment Record: (Starting with present position, list in reverse order every employment held)

7. List of projects on which the Personnel has worked

| Name of Project | Description of Responsibilities |
|---|---|
| | |

8. Details of the current project and the time duration for which services are required for the current project.

Certification:

1. I am willing to work on the Project and I will be available for entire duration of the Project as required.
2. I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications and my experience.

(Signature and name of the Key Personnel)

Place.....

(Signature and name of the authorised signatory of the Applicant)

**Notes:**

1. Use separate form for each Key Personnel and Professional Personnel
2. The names and chronology of projects included here should conform to the project-wise details submitted in Form-11 and Form-13 of Appendix-I.
3. Each page of the CV shall be signed in ink or digitally signed and dated by both the Personnel concerned and by the Authorised Representative of the Applicant along with the seal of the Applicant. Photocopies will not be considered for evaluation.

**APPENDIX-I**

**Form-15**
**Deployment of Personnel**

| Sl. No. | Designation | Name | Man-Days (MD) | | Week Numbers | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | At Project site | Away from Project site (specify) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 1. | | | | | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | | | | | | |
| **Total Man-days** | | | | | | | | | | | | | | | | | | |

**APPENDIX-I**

**Form–16**

**Monthly Progress report**

| Item of Work/Activity | To be carried out/ prepared by | | Week | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Name | Designation | | | | | | | | | | | | | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | |

**APPENDIX-I**

Form-17

**Format of Self-Attested Certificate regarding Associate**

**Self-Attested Certificate regarding Associate**

Based on the authenticated record of [*Insert name of the Company*], this is to certify that [more than 50% (fifty percent) of the subscribed and paid up voting equity of …….. (name of the Applicant/ Member/ Associate) is held, directly or indirectly, by (name of Applicant/Member/Associate)

By virtue of the aforesaid, the latter exercises control over the former, who is an Associate.]

[.....(name of Applicant/Member/Associate) has the power, directly or indirectly,

to direct or influence the management and policies of .....(Applicant /Member) by operation of law, contract or otherwise]. By virtue of the aforesaid, the former exercises control over the latter, who is an Associate.]

A brief description of the said equity held, directly or indirectly, is given below:

{Describe the share-holding of the Applicant/Member and the Associate. In the event the Associate is under common Control with the Associate/JV Member or the Control is exercised by operation of law, the relationship may be suitably described and similarly certified herein.}

Name of the Applicant/Member: Seal of the Applicant/ Member:

**APPENDIX-I**

Form-18

**Format of Information on Litigation**

(To be provided by the Applicant/ each Member)

| Sl. No. | Name | Forum and Counter party | Brief Description of the matter | Estimated financial liability | Current Status of Litigation | Orders passed Against the Applicant/ Member |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**APPENDIX-I**

Form- 19

**DAILY SITE MONITORING REPORT BY KMDA AND MUNICIPALITY**

1) Name of Urban Local Body (ULB) :
2) Name/Location of dump site :
3) Date of inspection :
4) Inspected by (name of the officer, entrusted by the municipality/nodal officer) :

**FORMAT – A1:**
**LOG SHEET FOR RECORDING TEMPERATURE, MOISTURE CONTENT, pH ETC.**

| Windrow Sl. No. | Windrow Formation Date | Windrow Size | Age of Windrow | Windrow Turning Day | Temperature | | Moisture Content | pH Value | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 9:00 AM | 4:00 PM | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| | | | | | | | | | |
| | | | | | | | | | |

**FORMAT – A2:**
**LOG SHEET FOR RECORDING WEIGHT OF INPUT MSW WASTE**

| Trip Sl. No. | Date | Time | Vehicle No. | Vehicle Type | Type of material | Gross tare weight (kg) | Empty tare weight (kg) | Net weight (kg) (7) – (8) | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| | | | | | | | | | |
| | | | | | | | | | |

_____

Dated Signature of
The Nodal Officer

_____

Municipality/Municipal
Corporation/Notified Area Authority

**APPENDIX- I**

**Form- 20**
**LIST OF CONTRACTOR'S MACHINERIES, PLANT & EQUIPMENT**
(On Applicant's Letterhead)

Whereas it is entirely the responsibility of the concessionaire/contractor to deploy sufficient plant and mechanical equipment to ensure compliance with his obligations under the contract, the concessionaire/contractor should fill up the following form which she/he have must own.

| Sl. No. | List of Equipment | Numbers have |
|---|---|---|
| (1) | | |
| (2) | | |
| (3) | | |
| (4) | | |
| (5) | | |
| (6) | | |
| (7) | | |
| (8) | | |
| (9) | | |
| (10) | **Laboratory Instruments:** | |
| | (a) | |
| | (b) | |
| | (c) | |
| | (d) | |
| | (e) | |

Date:

**Signature of bidder (with seal, if any)**

**APPENDIX- I**

**Form- 22**
**Declaration against Common Interest**
(On Applicant's Letterhead)

I/We, Sri/Smt. _____, the authorized signatory on behalf of _____ do hereby affirm that I/We/any of the member of _____ bidding against RfP No._____, SI. No._____ do not have any common interest either as a partner on any Partnership Firm as a Proprietor/Owner of any other firm in the same serial for the work I/We want to participate.

Date:

**Signature of bidder (with seal, if any)**

**APPENDIX- I**

**Form- 23**
**Sample Form of Declaration of the Bidder**
*(Affidavit duly affirmed before the 1st class Judicial Magistrate)*
*(To be executed on Non-Judicial Stamp Paper of any value, not less than ₹50/-)*

***Before the 1st class Judicial Magistrate***
**AFFIDAVIT**

I/We ……, do hereby solemnly affirm and declare as follows:

1. That I/we the …… of the company in style and the name of " ……." which is situated at "……." have duly authorized by and competent to affirm this affidavit on behalf of the said bidder.

2. That I/we are not being under ineligibility for corrupt or fraudulent practices.

3. That I/we were not blacklisted nor were any of the contract/services been debarred and/or terminated with/by any of the Central/State Government Ministries/Affiliates or UT Government/PSU Organisations for projects in India or elsewhere during the last 5 years, from the date of issue of the tender notices.

4. That I/we have not been declared insolvent/bankrupt or have not filed for insolvency/ bankruptcy or in the process of being declared bankrupt before any designated authority in any country.

5. That our organisation/company have not been imposed with 70% or more of Liquidity Damage (LD) of the stipulation against a stipulated maximum celling of Liquidity Damages (LD) of the total project cost, in any **single tender/contract,** by any Government/Semi-Government/PSU/Local Authority/Local Body, for the tender awarded in the last 5 years from the date of issue of the tender notices.

6. That our organisation/company have no arbitration or no pending litigation existing with any Government Organisation during last 5 (five) years from the date of issue of the tender notices

7. That our organisation/company have not been exist any arbitration with any Government Organisation during last 5 (five) years from the date of issue of the tender notices.

8. That all the submitted documents including statements uploaded in the tender are valid, genuine, true, correct and authenticate. Any information/statements uploaded in the tender if are found to be false/incorrect/fabricated/misrepresented/fraudulently made or concealed, the Bid will be liable to be rejected/cancelled/ terminated at any stage of the tender and the bidder shall also be liable to be prosecuted under relevant section of IPC/Bharatiya Nyaya Sanhiti and Indian Information and Technology Act 2008 & any other applicable law for the time being in force in addition to forfeiture of EMD/ Security Deposit.

*All above statements are true to the best of my knowledge and belief.*

Date: <*insert date*>
Place: <*insert place*>

*(Dated & Signature of the Tenderer)*

**APPENDIX- I**

**Form- 24**
**SELF DECLARATION**
(On Applicant's Letterhead)

1. I, the under-signed do certify that all the statements made in the attached/uploaded documents are true and correct. In case of any information submitted proved to be false or concealed, the bid may be rejected and no objection/claim will be raised by the under-signed.

2. The under-signed also hereby certifies that neither me/our firm M/S _____ _____ nor any of constituent partner had been blacklisted/debarred/suspended/restrained to participate in tender by any authority of State/Central Government, State/Central Government Undertaking/Statutory Bodies constituted under the statute of the Central/State Government during the last 5 (five) years prior to the date of this RfP.

3. The under-signed would authorize and request any Bank, person, Firm or Corporation to furnish pertinent information as deemed necessary and/or as requested by the Department to verify this statement.

4. The under-signed understands that further qualifying information may be requested and agrees to furnish any such information at the request of The Department.

5. During scrutiny, if it comes to the notice to tender inviting authority that the credential or any other papers are found incorrect/manufactured/fabricated, that I/we will not be allowed to participate in the tender and that bid will be out rightly rejected without any prejudice with Forfeiture of Earnest Money forthwith.

Date:

**Signature of bidder (with seal, if any)**

**APPENDIX- I**

**Form- 25**
**INFORMATION REGARDING CURRENT LITIGATION, DEBARRING/EXPELLING OF TENDERER OR ABANDONMENT OF WORK BY TENDERER**
(On Applicant's Letterhead)

| | | | | |
|---|---|---|---|---|
| 1. | a) | Is the Applicant currently involved in any litigation or have had any history of litigation, relating to the contract works, under any Government/ Government Undertaking/Autonomous Bodies/Semi-Government/ Statutory Bodies/Local Bodies/Local Authorities, etc., during the last 5 (five) years from the date of issue of the RfP | : | YES / NO |
| | b) | If yes, give details with reasons | : | |
| 2. | a) | Has the Applicant or any of its constituent partners been debarred/expelled by any Government/ Government Undertaking/Autonomous Bodies/ Semi-Government/Statutory Bodies/Local Bodies/ Local Authorities, during the last 5 (five) years from the date of issue of the RfP | : | YES / NO |
| | b) | If yes, give details with reasons | : | |
| 3. | a) | Has the Applicant or any of its constituent abandoned/suspended from any contract by any Government/Government Undertaking/Autonomous Bodies/Semi-Government/Statutory Bodies/Local Bodies/ Local Authorities, during the last 5 (five) years from the date of issue of the RfP. | : | YES / NO |
| | b) | If yes, give details with reasons | | |
| 4. | a) | Has the Applicant any arbitration awards for any contract from any Government/Government Undertaking/ Autonomous Bodies/Semi-Government/Statutory Bodies/ Local Bodies/ Local Authorities, during the last 5 (five) years from the date of issue of the RfP. | : | YES / NO |
| | b) | If yes, give details with reasons | : | |
| 5. | a) | Has the Applicant penalized with 70% or more liquidated damage for any single tender/contract imposed from any Government/Government Undertaking/ Autonomous Bodies/Semi-Government/Statutory Bodies/ Local Bodies/ Local Authorities, during the last 5 (five) years from the date of issue of the RfP. | : | YES / NO |
| | b) | If yes, give details with reasons | | |

Note: If any information in this Schedule is found to be incorrect or concealed, pre-qualification application will be summarily rejected.

Date:

**Signature of bidder (with seal, if any)**

**APPENDIX- I**

**Form- 26**
**FORMAT OF CERTIFICATE FROM THE STATUTORY AUDITOR FOR NET WORTH AND AVERAGE ANNUAL TURNOVER AND COMPLIANCE WITH OTHER FINANCIAL QUALIFICATION CRITERIA**

(On the letter head of the statutory auditor of the Bidder/each Member of the Consortium/Associate (as applicable))

Based on the books of accounts of [insert name of the Bidder/Member/Associate] (Bidder/Member) and other published information authenticated by it, this is to certify that:

(a) As on [insert date], the Bidder's/Member's/Associate's Net Worth is INR [□] (Rupees in words).

The Net Worth of INR [□] (Rupees in words) has been calculated in accordance with the computation set out below which is in accordance with the terms set out in the Request for Proposal (RFP) issued by the Authority on [□].

**Net worth**

| | |
|---|---|
| = | (paid up share capital) |
| Add: | (reserves) |
| Add: | (others, please specify) |
| Subtract: | (revaluation reserves) |
| Subtract: | (intangible assets) |
| Subtract: | (miscellaneous expenditures to the extent not written off and carry forward losses) |
| Subtract: | ((others, please specify) |

** Please note that the items in brackets should correspond to items as per the annual report so that it can be verified exactly how the net worth has been computed.*

(b) As on [insert date], the average of the Bidder's/Member's/Associate's Annual Turnover over the best [3 (three)], from last [5 (five)] Accounting Years immediately preceding the Bid Due Date is INR [□] (Rupees in words).

The Average Annual Turnover of INR [□] (Rupees in words) has been calculated in accordance with the terms set out in the Request for Proposal (RfP) issued by the Authority on [□].

(c) The Bidder/Member is not affected by and has not been affected by any of the following events, conditions or circumstances in the [5 (five)] Accounting Years immediately preceding the Bid Due Date:

(i) having been categorized as a willful defaulter in accordance with the laws of the country of its incorporation;

(ii) having been admitted into corporate insolvency resolution process under the Insolvency and Bankruptcy Code 2016;

(iii) having entered into any compromise with its creditors, or been subject to proceedings for being wound up, or having its affairs administered or conducted by any court, administrator, receiver; or

(iv) having been declared by a court or other competent authority as being unable to pay its debts, or having made any composition or arrangements with creditors or having had the repayment of its debts suspended.

Name of the auditor:

Seal of the auditor:

Signature:

Name:

Membership Number:

Designation:

Date:

**APPENDIX- I**

**Form- 27**

**LIST OF ALL PROJECTS/JOBS UNDERTAKEN AND/OR COMPLETED DURING THE LAST 5 (FIVE) YEARS, FROM THE LAST DATE OF SUBMISSION OF BID ONLINE**

(On Applicant's Letterhead)

| Sl. No. | Name of Work | Contract no./ Work Order no. and date | Date of completion/if ongoing | Bid value/ Tendered amount | Whether any history of debarment, blacklisting, litigation, arbitration awards and/or liquidated damage imposed equal to or more than 70% | Remarks, if any |
|---|---|---|---|---|---|---|
| (1) | | | | | | |
| (2) | | | | | | |
| (3) | | | | | | |
| (4) | | | | | | |
| (5) | | | | | | |
| (6) | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**Dated signature of bidder (with seal)**

**APPENDIX- I**

**Form- 28**

**CALCULATION OF BID CAPACITY**

**BID CAPACITY OF BIDDERS TO BE ASSESSED ACCORDING TO THE FINANCIAL DECLARATION FURNISHED BY THEM AS FOLLOWS:**

**Name of Applicant: _____**

Information of audited financial statements for the last year to demonstrate the current soundness of the bidder:

9. The Bidder's Net worth for the last year calculated as the difference between total assets and total liabilities should be Positive
10. Bidder, who meets the bid capacity criteria, will be qualified for further evaluation only if their available bid capacity at the expected time of bidding is 1.2 times more than the total estimated cost of the works. The available bid capacity will be calculated as under.

    Assessed Available Bid Capacity = (A X N X 2 – B) = _____;

    Where,

    A = Maximum value of engineering works in respect of projects executed in any one year during the last five years (updated to the price level of the year indicated in table below under note) taking into account the completed as well as works in progress. The projects include turnkey project /item rate contract /Construction works,

    N = Number of year (i.e.,___year) prescribed for completion of works for which Bids are invited,

    B = Financial Liability of the bidder to be incurred for existing commitments and on-going works during the period of the subject contract

**The Bidder's financial position: -**

**To calculate the value of 'A'**

i) A table containing value of Engineering Works in respect to Project (turnkey project/item rate contract/construction works) undertaking by the Bidder during the last 5 years is as follows: -

| Sl No. | Financial year | Value of Engineering Works undertaken (₹in Crores) | Updating factor | Value updated to the price level of the year |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 = Col 3 X Col 4 |
| 1. | (2023–2024) Year–1 | | 1.00 | |
| 2. | (2022–2023) Year–2 | | 1.05 | |
| 3. | (2021–2022) Year–3 | | 1.10 | |
| 4. | (2020–2021) Year–4 | | 1.15 | |
| 5. | (2019–2020) Year–5 | | 1.20 | |

ii) Maximum value of projects that have been undertaken during F.Y. _____ out of the last 5 years and value thereof is Rs._____ Crore. (Rupees _____).

iii) Net worth for the last year (2022 – 2023) is (₹in figure) _____

| | |
|---|---|
| ……<br>……<br><br>Signature, name and designation of Authorized Signatory<br>For and on behalf of<br>…….. (Name of the Applicant) | *I do hereby confirm that all information/data furnished above is true to the best of my knowledge and ability.*<br><br>……<br>……<br>……<br>Name of the Statutory Auditor's Firm<br>Seal of the audit firm.<br>(Signature, name, address, valid phone number and designation, Membership No. and Date of Birth of Statutory Auditor/Firm) |

**To calculate the value of 'B'**

A table containing value of all the existing commitments and ongoing works to be completed during the next years (prescribed time for completion of the works for which Bids are invited) is as follows:

| Sl. no. | Name of Work/ Project | Name of the Employer | Percentage of participation of Bidder in the Project | Stipulated period of completion as per Agreement / LOA with the start date | Value of contract as per Agreement / LOA (₹) | Value of work completed (₹) | Balance value of work to be completed (₹) | Anticipated date of completion | Financial liability to incurred for the said work / project during the period of the subject contract (₹) |
|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

……
Signature, name and designation of Authorised Signatory

For and on behalf of……..
(Name of the Applicant)

*I do hereby confirm that all information/data furnished above is true to the best of my knowledge and ability. My client does not have any other financial liabilities related to any on-going/completed/upcoming projects save and except those mentioned herein.*

……
……
Name of the Statutory Auditor's Firm
Seal and Stamp of the audit firm.
(Signature, name, address, valid phone number and designation, Membership No. and Date of Birth of Statutory Auditor/Firm)

**Form- I A**

This is to certify that we have verified the consolidated financial statement of_____ (Name of the Firm in which application is made) having its Registered Office at _____ (address of the Firm). Based on our examination of Books and Records and other documentary evidences we certify that the financial data of the company given in the balance sheets are detailed hereunder for the financial year(s) as mentioned below are true and correct

| Sl No | Description | Financial Data for the last 5 audited Financial Years. | | | | |
|---|---|---|---|---|---|---|
| | | (2019–2020) | (2020–2021) | (2021–2022) | (2022–2023) | (2023–2024) |
| 1. | **Net Worth** (Calculated based on capital, profit, and free reserve available to the firm should be positive) | | | | | |
| 2. | **Working Capital** | | | | | |
| 3. | **Annual Turnover** (Civil Construction Work) | | | | | |

Available Liquid Assets (2022-2023 FY):

1. Working Capital = **₹** _____
2. Uncommitted Bank Guarantees = ₹ _____
3. Credit facilities = **₹** _____
   (Certificate to be submitted in Form I B)

4. Total Liquid Assets = **₹**_____

| | |
|---|---|
| ……<br>……<br>Name of the Statutory Auditor's Firm/ Chartered Accountant Firm<br><br>Signature:-<br>Seal of the Audit/Chartered Accountant Firm:<br>Name :-<br>Address:-<br>Phone No.:-<br>Membership No.:-<br>Date of Birth :- | ……<br>……<br>Signature, name and designation of Authorised Signatory<br><br>For and on behalf of<br>……..…….. (Name of the Applicant) |

N.B:- THIS FORM (I.E., FORM-I A) MUST BE MADE IN THE LETTER HEAD OF THE AUDITOR'S/ CHARTERED ACCOUNTANT FIRM, CLEARLY MENTIONING THE ADDRESS AND CONTACT NUMBER OF THE FIRM & DATE OF BIRTH OF THE CHARTERED ACCOUNTANT ISSUING THE CERTIFICATE, WITH UDIN NUMBER.

**Form- I B**

*(Format for Credit Facility issued by the bank which is authorised to conduct Government business in West Bengal by Reserve Bank of India as notified by State Government from time to time and any other Bank which has been authorised by the State Government)*

Certified that we hereby undertake to declare that a Credit Facility of Rs .....shall be provided to the agency..... (name of the agency) ..... for the execution of the work_____ (name of the work) _____ (vide e-NIT No.- _____) if awarded by the competent authority/ Tender Inviting Authority.
Signature of the Bank Authority

**Designation:**
**Code No-**

**Counter Signed by the intending Bidder**

**APPENDIX - II**
**FINANCIAL PROPOSAL**
**(TO BE SUBMITTED IN FINACIAL FOLDER/PACKET ONLY)**

**APPENDIX-II**
**(TO BE SUBMITTED IN FINACIAL FOLDER/PACKET ONLY)**
Form-1

**Covering Letter**
(On Applicant's letter head)

(Date and Reference)

To,

.....

.....

.....

Dear Sir,

**Subject: Appointment of Concessionaire for "**SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS**".**

I/We,.....(Applicant's name) here with enclose the Financial Proposal for selection of my/our Company/Joint Venture as Concessionaire for above.

I/We agree that this offer shall remain valid for a period of **180 (one hundred and eighty)** days from the Proposal Due Date or such further period as may be mutually agreed upon.

Yours faithfully,

(Signature, name and designation of the authorised signatory)

**Note**: The Financial Proposal is to be submitted strictly as per forms given in the RFP.

**APPENDIX-II**
**(TO BE SUBMITTED IN FINACIAL**

**FOLDER/PACKET ONLY)**

Form-2A

**Format for Bid Price Sheet**

*Only for Reference: Quotation to be filled and uploaded online only*

Date:

To,

.....

**Ref.: Request for proposal for the work of "**SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS**".**

Dear Sir,

We are pleased to submit our Financial Proposal for the work 'SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF PERMANENT Fresh Municipal Solid Waste Processing Plant(s), along with its operation and complete maintenance for a period of 15 (fifteen) years from the Commercial Operation Date (COD), strictly complying the Solid Waste Management Rules, 2016, at _ _ _ _ Municipality in _ _ _ _ district, West Bengal on Design, Build, Operate and Transfer (DBOT) basis".

| Sl. No. | WASTE MANAGEMENT/SERVICE | Unit of Measurement (UOM) | ACCEPTED RATE (PER MT) |
|---|---|---|---|
| 1. | "SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS"<br><br>Tipping fee for processing and scientific disposal of fresh waste as received and delivered at Fresh Municipal Solid Waste Processing Plant(s) (all units) by the municipal authority/municipal corporation, , for a period of 15 (fifteen) years, after obtaining the Commencial Operation Date (COD), strictly complying the Solid Waste Management Rules, 2016, on Design, Build, Operate and Transfer (DBOT) basis" **(T1)**.<br><br>(Rate to be quoted: per MT cost of input fresh waste processed and disposal of different fractions as per CPHEEO manual/SWM Rule, 2016 and any other directives/orders issued by the Government of India/Government of West Bengal time to time, from the dumpsite, strictly as per the scope of work. *At present the GST rate for the above stated work* | Per Metric Tonne on input basis | |

| | | | |
|---|---|---|---|
| | *is 0 % (Zero) Percent as on date of publication of this RfP. GST will be reimbursed by the Authority on actual basis as per prevailing norms and rate, if applicable, during the entire concession period.*<br><br>*(Revision @+3% on every 5 years, will be considered, in INR per MT cost of input fresh waste, which will be applicable only for two times in 15 years, one after successful completion of operation and maintenance of 5 (five) years and the other after 10 (ten) years)* | | |

In witness thereof, I/we submit this Financial Proposal under and in accordance with the terms of the RFP document no……...

Yours faithfully Authorized signatory

(Name & seal of the Applicant)

Date:
Place:

**I. Applicants to note the following while filling-up the Financial Proposal:**

(i) The Applicants shall essentially submit the tipping fees online as provided above for processing of fresh waste during the concession period.

(ii) The quoted amount must include two places of decimals.

a. The above quoted rates are inclusive of all statutory taxes, duties and levies, complete however excluding GST. GST will be reimbursed by the Authority on actual basis as per prevailing norms and rate if applicable during the entire concession period.

b. The Concessionaire shall, on the 7$^{th}$ day of every month or in case the 7$^{th}$ day of a month is a holiday then on the following working day of such month, submit to Independent Engineer/ KMDA a monthly tipping fee statement.

c. The bidder should quote Per MT of input fresh waste processed, as per the scope of work.

d. Moisture content shall be measured, by the agency, at a frequency of **one sample per 6000 MT (for input waste and output fractions)** of each segregated fractions from National Test House / IIT / IIEST / Jadavpur University or any other Govt. institute of repute within West Bengal. The moisture content so obtained shall be considered for payment of that quantity. Sample shall be collected from track load at the exit of dumpsite for fresh waste.

e. Weight shall be measure at the weighbridge installed at the exit of dumpsite for MSW Processing facility.

f. Payment shall be made only after proper disposal of different fractions from the site as per guideline of SWM Rule, 2016 and current CPCB / SPCB guideline issued for management and disposal of fresh waste.

g. No payment shall be made from 2$^{nd}$ R/A bill onwards of fresh MSW without the test certificates of Moisture Content, analysis reports of all fractions, Air Quality Monitoring, ground water quality etc. of 1$^{st}$ R/A, from National Test House / IIT / IIEST / Jadavpur University or any other Govt. institute of repute within West Bengal, certificate for disposal of different fraction from end user and real time monitoring data etc. whatever be the penal clause or penalty made. The cost for the same shall be borne by the selected bidder.

h. Maximum period of RDF disposal as per SWM Rules, 2016 and CPCB guideline shall be **60** days beyond which penalty shall be imposed as per the respective clause given in tender.

II. **Tipping Fee**:

i. **Revision of Tipping Fee**:

a) The quoted rate for Processing and Disposal of the Municipal Solid Waste (segregated) per day for the period of 15 years in terms of tipping fee will be increased by 3% of current rate after completion of every successive five (5) years.

**ii. Mechanism of Payment during Term of Concession**

(i) Payment Breakup schedule for **Fresh Waste**:

(i) An amount of 50% of billed value shall be paid without inspection and validation of documentary evidence etc. subject to availability of fund. This amount shall not exceed the performance security / EMD submitted by the bidder at any point of time during the contract period.
(ii) An amount of 50% of billed value shall be paid after submission of documentary proof/evidence, certificates etc. as per requirement subject to availability of fund.

(iii) Maximum period of removal of any recyclable, non-recyclable, compost, bio-CNG, bio-gas, i.e., any fractions/by-products, as per SWM Rules, 2016 shall be maximum of **60** days beyond which penalty shall be imposed as per the respective clause given in tender.

**Note:** - 50% payment shall be released against 1st RA Bill only to maintain cash flow during execution, however no further payment shall be made if actual quantity of RDF generated has not been disposed from the site after 60 days from date of processing. 2nd and subsequent RA bill shall be paid only after regular disposal of actual RDF from site as obtained from materials balance at site.

**KMDA deduct/ withhold the following charges:**

a. 10 (ten) percent of each Running Account bill, up to 10% of the Total Project Cost.
b. Statutory deductions, such as Income Tax.
c. Any Penalties & Liquidity Damages for operational breaches, which is determined to be due and payable, as specified in the Bid documents.
d. Any other recoveries under the terms of this Agreement.
e. All payments to the Concessionaire by KMDA shall be made by way of Account transfer.

| | **Notes** |
|---|---|
| 1. | KMDA may engage an independent auditor to audit the weights and other reports. The bidder should provide all the support to KMDA as and when required. |
| 2. | All costs incurred for preparation, printing, submission, review and approval need to be borne by the Bidder. Bidder should quote the rates accordingly. |
| 3. | The concessioner shall receive payment from KMDA as per the Agreement and by obtaining and submitting to KMDA the certificate from the in-charge officer or site engineer or any other monitoring mechanism decided by KMDA along with the certification of weight slips by the in-charge officer for each trip of waste weighed. The reconciliation of the bills shall be done by the Works Monitoring Committee formed by the KMDA before the final bill is submitted to Kolkata Metropolitan Development Authority. |
| 4. | The concessioner shall raise monthly invoice by the 7th of the subsequent month and submit to the Authority. |

| | Notes |
|---|---|
| 5. | KMDA shall evaluate the submitted invoice and inform concessioner if any discrepancy or changes/modifications required within 7 working days from the date of receipt of the invoice. |

**APPENDIX-II**
**(TO BE SUBMITTED IN FINACIAL FOLDER/PACKET ONLY)**
Form-3

**Letter of Declaration**

*(The Letter of Declaration is to be submitted by EACH Member in case of Joint Venture)*

Date:_____

Place:_____

To,

**…….**

**…….**

Dear Sir/Madam,

**Sub: Selection of Concessionaire for [Name of the Work].**

This has reference to the Proposal being submitted by_____(mention the name of the Applicant/ Lead Member of the Joint Venture), as single entity/ Lead Member of the Joint Venture comprising_____(mention name(s) of the Members) in respect of Selection of Concessionaire for Development and Operation of Solid Waste Management System in response to the Request for Proposal (the "**RFP**") issued by the Authority dated[•].

We hereby confirm the following:

1. We_____(name of the Applicant/ Member furnishing the Letter of Declaration), have examined in detail and have understood and satisfied ourselves regarding the contents including in respect of the following:
   - For the purpose of all subsequent communications with the Authority the Applicant shall be represented by_____(mention name of the authorized representative of the Applicant/ Lead Member);
   - *The Joint Bidding Agreement has been signed between/among(names of the Members), as members of the Joint Venture; and the Proposal is being submitted on behalf of the Joint Venture (name of the Lead Member).*
2. We have satisfied ourselves regarding our role as(here give a brief description of the role) in the Project as specified in the Proposal. If the Applicant/Joint Venture is awarded the Project, we shall perform our role as outlined in the Proposal to the best of our abilities. We have examined the Proposal in detail and the commitments made in the same. We agree and undertake to abide by the Proposal and the commitments made therein.
3. We authorize ___(name of the authorized representative of the Applicant/ Lead Member), as the Lead Member and authorize the same to perform all tasks including, but not limited to providing information, responding to enquiries, entering into contractual commitments etc. on behalf of the Joint Venture, in respect of this Project.
4. *{We understand that, no change in the membership in the Joint Venture, in the role and form of responsibility of any Member shall be permitted after submission of the Proposal. If any change in the membership of the Joint Venture is desired, it would need to be communicated to the Authority in writing for its approval. The Authority would reserve the right to reject such requests for a change of Joint Venture structure, if in its opinion; it would adversely affect the same.}*

For and on behalf of:

[Signature]

(Authorised Representative and Signatory)
Name of the Person:
Designation:

**APPENDIX-II**
**(TO BE SUBMITTED IN FINACIAL FOLDER/PACKET ONLY)**
Form-4
**Declaration regarding customs/ excise duty exemption for materials to be purchased for use in developing the Project**

(Applicant's Name and Address)

**To:**

---

---

**Dear Sir:**

**Ref:** ----------[Name of the Project]-Certificate for Import/ Procurement of Goods and materials/

Construction Equipment.

1. We confirm that we are solely responsible for obtaining customs/excise duty waivers which we have considered in our Proposal and in case of failure to receive such waivers for reasons whatsoever, the Owner will not compensate us.

2. We are furnishing below the information required by the Authority for issue of the necessary certificates in terms of the Government of India Central Excise Notification No. ***along with all subsequent amendments including the amendment dated *** and Customs Notification No.***.

3. The goods, equipment and materials for which certificates are required are as under:

| **Items** | **Make/ Brand Name/ Class** | **Capacity [where applicable]** | **Quantity** | **Value** | **State whether it will be procured locally or imported [if so from which country]** | **Remarks regarding justification for the quantity and their usage in development of The Project** |
|---|---|---|---|---|---|---|
| Goods | | | | | | |
| [a] | | | | | | |
| [b] | | | | | | |

4. We agree that no modification to the above list is permitted after Proposals are opened.

5. We agree that the certificate will be issued only to the extent considered reasonable by the Authority for the work, based on the Proposal submitted by us, the proposed methodology, technology and work plan furnished along with the Proposal.

6. We confirm that the above goods will be exclusively used for the construction of the above work. We are aware that exemption will be issued to only goods/ material/ equipment which form part of the work on permanent basis but not for the goods/ material/ equipment which are used by the us for execution of project and after completion of the project, the goods remain with the us being owner of such goods for further deployment in other projects.

(Signature)_____ (Printed Name) _____ (Designation)_____ (Common Seal) _____

Date:_____ Place:__

**APPENDIX-II**
**(TO BE SUBMITTED IN FINACIAL FOLDER/PACKET ONLY)**

Form-5

**Cost Break up Schedule**

(To be uploaded in Financial Folder only)

**BROAD SHEET (TO BE FILLED BY THE CONCESSIONAIRE, ALONG WITH THE ABOVE COMMERCIAL BREAK-UP OF CAPITAL COST:**

| Sl. No. | List of Components: Description | Area Required | Amount (₹ P.) |
|---|---|---|---|
| 1. | Gate | | |
| 2. | Security Room | | |
| 3. | Two storied Office building | | |
| 4. | Laboratory | | |
| 5. | Toilet | | |
| 6. | Weigh Bridge: capacity - 50 MT, (12m x 3 m) with online electronic, automatic system equipped with the latest technology along with backup server facility and real time data transfer facility to the Central Control and Command Centre (C4) | | |
| 7. | Compost Plant | | |
| 8. | Material Recycling Facility | | |
| 9. | Screening & Compost Storage | | |
| 10. | Maturation | | |
| 11. | Leachate Collection tank | | |
| 12. | Drain | | |
| 13. | Transformer | | |
| 14. | Diesel Generator | | |
| 15. | Underground Water Tank | | |
| 16. | Septic Tank & Soak Pit | | |
| 17. | Internal Road | | |
| 18. | Sanitary Land Fill Facility | | |
| 19. | Installation of Trammel / Vibrating Screen | | |
| 20. | Temporary shed, platform and creation of facilities for handling, separating, segregating, storing and quantifying of the excavated MSW and Processing material. | | |
| 21. | On-site storage facility for various fractions of processed waste and proper channelization further for sale or reuse to industry/vendors | | |
| 22. | Dry waste shed facility | | |
| 23. | Repair, Replacement of spare parts of the infrastructure to handed over to KMDA after completion or expiry or termination of the concession agreement, which is earlier. | | |

(Signature)_____ (Printed Name)_____ (Designation)_____
(Common Seal) _____

**CONCESSION AGREEMENT**

**CONCESSION AGREEMENT**

This **CONCESSION AGREEMENT (Agreement)** is entered into on this the ……. day of ....., 20.....

**BETWEEN**

1. The **Kolkata Metropolitan Development Authority (KMDA)/State Urban Development Agency (SUDA) (as the case may be)** under **Urban Development and Municipal Affairs Department, Government of West Bengal** represented by the [Tender Inviting Authority] and having its offices at [Address of Tender Inviting Authority], (hereinafter referred to as the **"Authority"** which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns);

**AND**

2. The [•] **[Municipality/Municipal Corporation/Cluster of** [•]] represented by [The Chairman/Chairperson], and having its offices at [•] (hereinafter referred to as the "**Authority**" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns);

**AND**

3. {****** Limited}, a company incorporated under the provisions of the Companies Act, 2013 and having its registered office(s) at [•], (hereinafter referred to as the "**Concessionaire**" which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns and substitutes).

Collectively referred to as "Parties", and individually as "Party".

**WHEREAS:**

(A) Government of West Bengal, through the West Bengal Municipal Act, 1993 (West Bengal Act XXII of 1993), has entrusted the municipalities with such powers and functions as institutions of self-governance and to assign to them tasks relating to solid waste management.

(B) The Authority is engaged in the development of solid waste management projects.

(C) The Authority is desirous of implementing such work of SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF PERMANENT Fresh Municipal Solid Waste (wet+dry) processing plant(s) (1 year for plant construction and 3 months for trial run), along with its operation and complete maintenance for a period of 15 (fifteen) years from the Commercial Operation Date (COD), strictly complying to the Solid Waste Management Rules, 2016, at different dumpsites in the state of West Bengal on DBFOT basis (the "**Project**") by inviting Proposals for the Project within the jurisdiction of the Authority/collective jurisdictions of ULBs (the **"Project Area"**); which will *inter alia* include setting up and operation of the Project in accordance with the terms and conditions to be set forth in the Agreement.

(D) The Authority had accordingly invited proposals under its Request for Proposals No. (the "**Request for Proposals** or "**RFP**") for selection of bidders for undertaking the development, operation and maintenance of the Project on Design, Build, Operate and Transfer (the **"DBOT"**) basis and had selected bidders including *inter alia*, the {the selected bidder/consortium comprising ……. and ……. (collectively, the "**Joint Venture**") with …… as its lead member (the "**Lead Member**").

(E) After evaluation of the bids received, the Authority had accepted the bid of the {selected bidder/ Consortium} (the "**Selected Bidder**") and issued its Letter of Award (hereinafter called the "**LOA**") No. …….. dated ……. to the Selected Bidder requiring, *inter alia*, the execution of this Agreement within 30 (thirty) days of the date of issue thereof.

(F) The Selected Bidder has since promoted and incorporated the Concessionaire (**"Special Purpose Vehicle**" or **"SPV**") as a company under the Companies Act, 2013, and has requested the Authority to accept the Concessionaire as the entity which shall undertake and perform the obligations under the Concession Agreement for implementing the Project.

(G) The Authority has agreed to the said request of the Selected Bidder and the Parties have accordingly agreed to enter into this Agreement with the Concessionaire for the **"Project"** subject to and on the terms and conditions set forth hereinafter under processing fee with provision of **Capital Grant** model (hereinafter referred to as the O&M fee.

NOW THEREFORE in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the sufficiency and adequacy of which is hereby acknowledged, and intending to be legally bound hereby, the Parties agree as follows:

## ARTICLE 1
## DEFINITIONS AND INTERPRETATION

### 1.1. Definitions

1.1.1. The words and expressions beginning with capital letters and defined in this Agreement shall, unless the context otherwise requires, have the meaning ascribed thereto herein, and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules. The words and expressions used but not defined in this Agreement and defined in the Environment Protection Act, 1986 (the **"EPA"**), Solid Waste Management Rules, 2016 (the **"SWM Rules"**),the Construction and Demolition Waste Management Rules, 2016 (the **"C&D Rules"**), the Plastic Waste Management Rules, 2016 (the **"PWM Rules"**),the Bio-Medical Waste Management Rules, 2016 (the **"BWM Rules"**), the E-Waste Management Rules, 2016 (the **"EWM Rules"**), the Hazardous Waste Management Rules, 2016 (the **"HWM Rules"**), , shall have the respective meanings as are assigned to them, respectively, in the EPA, the SWM Rules, the C&D Rules, the PWM Rules, the BWM Rules, the EWM Rules, the HWM Rules.

### 1.2. Interpretation

1.2.1. In this Agreement, unless the context otherwise requires,

(a) the words, phrases and expressions defined herein above in the Article 1 or in Definitions or defined elsewhere by description in this Agreement, together with their respective grammatical variations and cognate expressions shall carry the respective meanings assigned to them in the said Article or in this Agreement and shall be interpreted accordingly. Expressions which have not been defined in this Agreement shall carry the respective meanings assigned to them in their ordinary applicability read in context with the manner of their usage in this Agreement or in their respective technical sense, as the case maybe;

(b) references to any legislation or any provision thereof shall include amendment or re- enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;

(c) references to laws of the State, laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications whichhave the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;

(d) references to a "**person**" and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;

(e) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;

(f) the words "**include**" and "**including**" are to be construed without limitation and shall be deemed to be followed by "**without limitation**" or "**but not limited to**" whether or not they are followed by such phrases;

(g) references to "**construction**" or "**building**" include, unless the context otherwise requires, investigation, design, developing, engineering, procurement, delivery, transportation, installation, processing, fabrication, testing, commissioning and other activities incidental to the

construction, and "**construct**" or "**build**" shall be construed accordingly;

(h) references to **"development"** include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, upgradation and other activities incidental thereto, and "develop" shall be construed accordingly;

(i) any reference to any period of time shall mean a reference to that according to Indian Standard Time;

(j) any reference to "**hour**" shall mean a period of 60 (sixty) minutes commencing either on the hour or on the half hour of the clock, which by way of illustration means 5.00 (five), 6.00 (six), 7.00 (seven) and so on being hours on the hour of the clock and 5.30 (five thirty), 6.30 (six thirty), 7.30 (seven thirty) and so on being hours on the half hour of the clock;

(k) any reference today shall mean a reference to a calendar day;

(l) reference to a "**business day**" shall be construed as reference to a day (other than a Sunday and public holiday) on which banks in the state of West Bengal are generally open for business;

(m) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;

(n) any reference to "**quarter**" shall mean a reference to the period of 3 (three) months commencing from April 1, July 1, October 1, and January 1, as the case may be;

(o) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Agreement;

(p) any reference to any period commencing "**from**" a specified day or date and "**till**" or "**until**" a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;

(q) the words importing singular shall include plural and vice versa;

(r) references to any gender shall include the other and the neutral gender;

(s) "**lakh**" means a hundred thousand (100,000) and "**crore**" means ten million (10,000,000);

(t) "**indebtedness**" shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;

(u) references to the "**winding-up**", "**dissolution**", "**insolvency**", or "**reorganisation**" of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, re-organisation, dissolution, arrangement, protection or relief of debtors;

(v) save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, licence or document of any description shall be construed as reference to that agreement, deed, instrument, licence or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Sub-

clause (u) shall not operate so as to increase liabilities or obligations of the Authority hereunder or pursuant hereto in any manner whatsoever;

(w) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Agreement from or by any Party shall be valid and effective only if it is in writing under the hand of a duly authorised representative of such Party in this behalf and not otherwise;

(x) the Schedules and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;

(y) references to Recitals, Articles, Clauses, Sub-clauses, Provisos or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses, Provisos and Schedules of or to this Agreement; reference to an Annex shall, subject to anything to the contrary specified therein, be construed as a reference to an Annex to the Schedule in which such reference occurs; and reference to a Paragraph shall, subject to anything to the contrary specified therein, be construed as a reference to a Paragraph of the Schedule or Annex, as the case may be, in which such reference appears;

(z) the damages payable by either Party to the other of them, as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the "**Damages**"); and

(aa) time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.

1.2.2. Unless expressly provided otherwise in this Agreement, any Documentation required to be provided or furnished by the Concessionaire to the Authority shall be provided free of cost and in three copies, and if the Authority is required to return any such Documentation with their comments and/or approval, they shall be entitled to retain two copies thereof.

1.2.3. The rule of construction, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.

1.2.4. Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act, 1897 shall not apply.

1.2.5. The Parties acknowledge that damages for specific defaults prescribed under this Agreement (including the Delay Liquidated Damages, the Performance Liquidated Damages, the Availability Liquidated Damages,) are a genuine pre-estimate of and reasonable compensation for the loss and damage that shall be suffered due to failure to perform its obligations in accordance with this Agreement, and are not in the nature of a penalty.

1.2.6. Subject to the provisions of this Agreement, the Concessionaire shall be responsible to and indemnify, the Authority for the acts and omissions of the Concessionaire Related Parties as if they were the acts and omissions of the Concessionaire and the Authority shall be responsible to and indemnify the Concessionaire for the acts and omissions of the Authority Related Parties, respectively, as if they were the acts and omissions of the Authority, as the case may be.

1.2.7. Neither the giving of any approval or consent, the review, knowledge or acknowledgement of the terms of any document by or on behalf of the Authority, nor the failure to do so, shall, unless expressly stated

in this Agreement, relieve the Concessionaire of any of its obligations under this Agreement or of any duty which it may have under this Agreement to ensure the correctness, accuracy or suitability of the matter or thing which is thesubject of the approval, consent, review, knowledge or acknowledgement.

**1.3. Measurements and arithmetic conventions**

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down; provided that the drawings, engineering dimensions and tolerances may exceed 2 (two) decimal places as required.

**1.4. Priority of agreements, clauses and schedules**

1.4.1. This Agreement, and all other agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:

(a) this Agreement; and

(b) all other agreements and documents forming part hereof or referred to herein, i.e., the Agreement at (a) above shall prevail over the agreements and documents at (b).

1.4.2. Subject to the provisions of Clause 1.4.1., in case of ambiguities or discrepancies within this Agreement, the following shall apply:

(a) between two or more Clauses of this Agreement, the provisions of a specific Clause relevantto the issue under consideration shall prevail over those in other Clauses;

(b) between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;

(c) between any two Schedules, the Schedule relevant to the issue shall prevail;

(d) between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;

(e) between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and

(f) between any value written in numerals and that in words, the latter shall prevail.

## ARTICLE 2
## SCOPE OF WORK

**2.1. Scope of Work**

The scope of work of the Agreement (the "**Scope of Work**") shall mean and include, during the Concession Period:

2.1.1. SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS;

2.1.2. Dispose/sell processed waste, by-products, recycled products, etc.; and

2.1.3. Discharge the Scope of Services more specifically set out in **Schedule 1**.

## ARTICLE 3
## THE CONCESSION

### 3.1. Grant of Concession

3.1.1. Subject to and in accordance with the provisions of this Agreement, Applicable Laws and Applicable Permits, the Authority, awards to the Concessionaire the concession set forth herein including exclusive right, license and authority to Design, Build, Operate and Transfer (DBOT) the Project (the "**Concession**"), during the period of Construction of permanent Project Facilities in 15 (fifteen) months and 1 month for trial run with Operation and Maintenance Period of 15 (Fifteen) years commencing from Commercial Operation Date (the "**COD**") of all the processing facilities and the Concessionaire hereby accepts the Concession and agrees to implement the Project subject to and in accordance with the terms and conditions set forth in this Agreement.

Provided that the Concessionaire may, at any time no earlier than 5 (five) years, but no later than 2 (two) years prior to the completion of the Concession Period upon issuing a notice to this effect to the Authority, request for an additional Concession Period on the terms and conditions set out herein and in accordance with the provisions of Article 3.4.

### 3.2. Rights Associated with the Grant of Concession

Without prejudice to the generality of foregoing, the Concession hereby granted to theConcessionaire shall oblige or entitle (as the case may be) the Concessionaire to:

3.2.1. the Right of Way, access and license rights to use the Site for the purpose of and to the extent conferred by the provisions of this Agreement;

3.2.2. access to the Site from the Compliance Date, for the sole purpose of implementing the Project, provided, however, to the extent of applicability of Article, the Concessionaire shall be entitled to access the Site prior to the Compliance Date;

3.2.3. To design, engineer, procure, construct, install, commission, operate and maintain the Project by either itself or through such Person/Sub-Contractor as may be selected by it;

3.2.4. Upon achieving Commercial Operation Date (COD) of the Project, forming part of the Project, to manage, operate and maintain the same till the Termination Date of the Project;

3.2.5. To obtain financing for the Project in the form of equity or debt, from domestic and from recognized foreign sources, through public issues, private placements or direct borrowings or investment from the capital markets, banks, lending institutions, mutual funds, insurance companies, pension funds, provident funds and any other source as it may deem necessary for implementing the Project; and

Provided that the Authority shall be informed by the Concessionaire as to the creation of any security interest in favour of the Lenders within a period of [14 (fourteen)] days from the date such security interest comes into existence and provide to the Authority within such time, notarized true copies of any and all documents/ agreements relating thereto.

Provided further, nothing contained herein shall (i) absolve the Concessionaire from its responsibilities to perform/discharge any of its obligations under and in accordance with the provisions of this Agreement; (ii) authorise or be deemed to authorise the Lenders to implement and execute Project themselves; and (iii) under any circumstances amount to any guarantee from or recourse to the Authority;

3.2.6. To develop SLF facility of design capacity on the Site provided by the Authority for this purpose in

accordance with the fresh Waste Guidelines and other Applicable Laws;

3.2.7. To Process entire Solid Waste from the project area and dispose the residual inert matter and rejected waste/processing rejects and air pollution control residue in SLF facility;

3.2.8. To store, use, appropriate, market and sell or dispose-off all the constituents / products / by- products from the Solid Waste, including but not limited to recyclables, electricity, methane (biogas), bio-CNG, refuse derived fuel (the "RDF"), residual inert waste and to further retain and appropriate any revenues generated from the sale of such products/ by-products in accordance with this Agreement;

3.2.9. To retain the fiscal incentives and benefits accruing in respect of or on account of the Project including Certified Emission Reductions (CERs) or Verified Emission Reductions (VERs) under Kyoto Protocol / Climate Change initiative with prior consent of the Authority;

3.2.10. To obtain the utilities required for enabling the construction of the Project, by fulfilling eligibility conditions (if any) and paying the applicable charges for the utilities;

3.2.11. To hold, possess, control the Sites, in accordance with the terms of the Concession Agreement, for the purposes of the due implementation of the Project;

3.2.12. To appropriate, possess, control and to further, at its sole discretion, utilise, renovate, modify, replace or demolish, free of any cost or charges or any liability for payment of compensation in respect thereof, all the buildings and structures and infrastructure that may be existing on Secondary Collection Points and Sites with reference to Solid Waste management in Project Area;

3.2.13. To develop the Project using recent full-proof technology(ies) to establish municipal solid waste management and processing plant of required capacity and to retain and appropriate any revenues generated from the sale of energy/residual inert waste in accordance with terms of this agreement, SWM Rules, 2016 and Good Industry Practice as below:

| **Technology(ies) recommended** | | |
|---|---|---|
| 1. | Dry Waste | ➢ Sorting, recovery and scientific disposal of recyclables to authorised recyclers,<br>➢ Recovery of RDF and disposal to the cement plants/W2E plants,<br>➢ Setting up of plastic recycling facility,<br>➢ Setting up of Plastic (mainly Single Used Plastics) Shredder of design capacity and use it in road construction etc.,<br>➢ Installation of bailing unit(s) for bailing the shredded unused plastics for future use, |
| 2. | Wet Waste | ➢ Composting and disposal of manure,<br>➢ Organic extrusion followed by bio-methanation to generate bio-CNG including Effluent Treatment Plant for treating digestate,<br>➢ Disposal of C&D wastes,<br>➢ Disposal of inert to Sanitary Landfill (SLF),<br>➢ Construction of Leachate Treatment Facility for treatment of leachate of effluent. |

***Note: The e-RfP is technology agnostic. No additional cost beyond the capital grant as mentioned in Table 05 shall be provided.***

3.2.14. To modify, adapt, upgrade or change the technology, from time to time, based on actual operations of the Processing Project Facility, Good Industry Practices and the requirements of the Project except in respect of the building by-laws, subject to no disruption in services and obligations;

3.2.15. The Concessionaire may, as per requirement and in agreement with the Authority, subject to fulfilling the eligibility conditions and procuring all required approvals from related regulatory/ statutory authorities, develop, operate and maintain additional recycling or Processing facilities on the Site(s), provided that the same does not cause any adverse effect on its Project related obligations or increases in any manner the financial liability (including in relation to land requirement) of the Authority under the Agreement. In the event and so long as the Concessionaire meets the foregoing conditions, the Authority shall render such reasonable assistance that Concessionaire requests in this connection.

### 3.3. Concession Period

3.3.1. Subject to early Termination of this Agreement in accordance with its terms, the term of this Agreement is **16 (sixteen) years** and **4 (four) months**, during which the Concessionaire is authorised to implement the Project on CAPEX recovery cum processing fee with provision of Capital Grant model, with the tipping fees for management of all facilities and resources required for management of Fresh Municipal Solid Waste in accordance with the provisions hereof: Provided that in the event of Termination, the Concession Period shall mean and be limited tothe period commencing from the Compliance Date and ending with the Termination Date.

3.3.2. The Authority shall, at any time prior to the date of expiry of the Concession Period, have the right to grant concession with respect to the Project for a period which it may determine in its sole discretion, after the expiry of the Concession Period, through international competitive bidding amongst developers other than the Authority and any undertaking owned by it.

### 3.4. Extension of Concession Period

The Authority may in its sole discretion, in the event the Concessionaire does not commit any Event of Default during the last 5 (five) years of the Concession Period, agree to extend the Concession after the expiry of the Concession Period on same or modified terms and conditions for a term as mutually decided by the Parties by issuing a notice to the Concessionaire by no later than [6 (six)] months prior to the date of expiry of the Concession Period. It is specifically agreed between the parties that what constitutes an "Event of Default" shall be within the sole discretion of the Authority.

Provided that any such extension shall also lead to an extension of license agreement(s) for an equal period so as to make the license agreement co-terminus with extended Concession Period.

## ARTICLE 4
## CONDITIONS PRECEDENT

### 4.1. Conditions Precedent

4.1.1. Save and except as expressly provided in the bid document and any related Schedules or unless the context otherwise requires, the respective rights and obligations of the Parties under this Agreement shall be subject to the satisfaction in full of the conditions precedent specified in this Article (the "**Conditions Precedent**"). Provided, however, that a Party may grant waiver from satisfaction of any Condition Precedent by the other Party in accordance with the provisions of Articles, as the case may be, and to the extent of such waiver, that Condition Precedent shall be deemed to be fulfilled for the purposes of this Article

### 4.1.2. Conditions Precedent for Authority

The Concessionaire may, upon providing the Performance Securities to the Authority in accordance with Article and at any time after [15 (fifteen)] days from the Execution Date or on an earlier day acceptable to the Authority, by notice require the Authority to satisfy any or all of the Conditions Precedent set forth in the Article and the Conditions Precedent required to be satisfied by the Authority shall be deemed to have been fulfilled when the Authority shall have:

(a) Procured for the Concessionaire the Right of Way to the Site(s);

(b) Facilitated and ensured that the Site(s) and vacant and unencumbered possession of all Site(s) handed over to the Concessionaire.

(c) Facilitated the Concessionaire in terms of obtaining all Applicable Permits from the Departments concerned/ Competent Authority, if requested by the Concessionaire, including permits in relation to environmental protection and conservation including but not limited to those specified in Schedule;

(d) Finalized and allocated location for setting up centralized waste processing units, in consultation with the Concessionaire;

(e) Finalized and allocated Secondary Collection Points, if any, in the Project Area in consultation with the Concessionaire;

(f) Provided land for SLF

and

(g) Provided Access Roads to the Site as per Good Industry Practices.

Provided, that upon request in writing by the Authority, the Concessionaire may, in its discretion, waive the Conditions Precedent set forth in the Article.

### 4.1.3. Conditions Precedent for the Concessionaire

The Conditions Precedent required to be satisfied by the Concessionaire within a period of [90 (ninety)] days from the Execution Date shall be deemed to have been fulfilled when the Concessionaire shall have:

a) Provided to the Authority the copies (certified as true copies by an authorised officer of the Concessionaire) of the constitutional documents of the Concessionaire;

b) Prepared and submitted a detailed project report, covering technology proposed, demand assessment, technical feasibility, detailed cost estimates, capital investment plan, details, revenue projections, environment & social impact assessment and detailed financial analysis, to the Authority, consistent with the technical plan submitted during the bidding stage within 3 (three) months from Compliance Date;

c) Provided notarised true copies of its board resolution authorizing the execution, delivery and performance of this Agreement by the Concessionaire;

d) Procured all Applicable Permits unconditionally or if subject to conditions, then all such conditions required to be fulfilled under such Applicable Permits, have been fulfilled as on date the Concessionaire claims satisfaction of all the Conditions Precedent under this Agreement;

e) Delivered to the Authority {from the Consortium Members, their respective} confirmation, in original, of the correctness of their representations and warranties set forth in Article 7

f) Provided proof of its shareholding pattern, evidenced by certificates from the authorised signatory of the Concessionaire.

g) Procured at its own cost, water connection, power connection and other service connections to the Site;

h) Provided that upon request in writing by the Concessionaire, the Authority may in its sole discretion, waive fully or partially any or all the Conditions Precedent set forth in this Article.

**4.2. Satisfaction of Conditions Precedent**

4.2.1. The later of the date within such time when the Authority or the Concessionaire fulfills its Conditions Precedent (unless the Authority waives the same for the Concessionaire) shall be the date from which the relevant and respective obligations of the Parties hereunder shall commence (the "Compliance Date"), respectively.

4.2.2. The Concessionaire shall, upon satisfaction or waiver, as the case may be, of all the Conditions Precedent, subject to confirmation by the Authority, notify the Authority of the occurrence of the Compliance Date.

**4.3. Damages for delay by the Concessionaire**

In the event that: (i) the Concessionaire does not procure fulfilment or waiver of any or all of the Conditions Precedent set forth in Article within the period specified in that Article; and (ii) the delay has not occurred as a result of breach of this Agreement by the Authority or due to Force Majeure Event, the Concessionaire shall pay Damages to the Authority of an amount calculated at the rate of [0.2% (zero point two per cent)] of the Security deposit or O&M security for each day's delay until the fulfilment of the Conditions Precedent, up to the maximum amount equal to the bid security (EMD) and upon reaching such maximum amount, the Authority may, in its sole discretion and subject to the provisions of Article, terminate the Agreement. Provided that in the event of delay by the Authority in procuring fulfilment of the Conditions Precedent specified in Article, no Damages shall be due and payable by the Concessionaire specified in Article until the date on which the Authority shall have procured fulfilment of the Conditions Precedent specified in Article.

**4.4. Commencement of the Concession Period**

The date and all the Conditions Precedent specified in Article, are satisfied or waived, as the case may be, shall be the Compliance Date which shall be the date of the commencement of the Concession Period. For avoidance of doubt, the Parties agree that the Concessionaire may, upon occurrence of the Compliance Date hereunder, by notice convey the particulars thereof to the Authority, and shall thereupon be entitled to commence development of the Project in accordance with the terms of this Agreement.

**4.5. Non-Compliance with Conditions Precedent**

4.5.1. In the event the Conditions Precedent for Concessionaire have not been satisfied within the stipulated time and the Authority has not waived, fully or partially, such conditions relating to the Concessionaire, this Agreement shall cease to have any effect as of that date and shall be deemed to have been terminated by the mutual agreement of the Parties and no Party shall subsequently have any rights or obligations under this Agreement and the Authority shall not be liable in any manner whatsoever to the Concessionaire or Persons claiming through or under it;

4.5.2. In the event this Agreement fails to come into effect on account of non-fulfillment of the Concessionaire's Conditions Precedent, the Authority shall be entitled to forfeit and encash the Security deposit or O&M security or both.

4.5.3. In the event the Conditions Precedent for the Authority have not been satisfied within the stipulated time, then the Concessionaire shall have the option to either: (i) mutually extend the time period for satisfaction of the Conditions Precedent for the Authority (as the case may be). In the event of termination, the Authority shall pay to the Concessionaire, reasonable development costs, as determined through the mechanism enumerated below. In case of extension of time period for fulfilment of Conditions Precedent for the Authority beyond a period of 90 (ninety) days from the Compliance Date, the Concession Period shall be proportionately extended for the same period.

4.5.4. In the event this Agreement fails to come into effect on account of the non-fulfillment of the Authority Conditions Precedent, the Authority shall return the Performance Securities to the Concessionaire; provided there are no outstanding claims of the Authority on the Concessionaire.

**4.6. Termination upon delay**

4.6.1. Without prejudice to the Damages for delay prescribed in relevant Articles in the bid document the Parties expressly agree that in the event the Compliance Date does not occur, for any reason whatsoever, within a period of [90 (ninety)] days from the Execution Date or the extended period provided in accordance with this Agreement, then all rights, privileges, claims and entitlements of the Concessionaire under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Concessionaire and the Agreement may be terminated by the non-defaulting Party. Provided, however, that in the event the delay in occurrence of the Compliance Date is for reasons attributable to the Concessionaire, the Performance Security or the bid security, as the case may be, of the Concessionaire shall be encashed and appropriated by the Authority as Damages thereof.

4.6.2. Instead of terminating this Agreement as provided in respective Article of the bid document, the Parties may by mutual agreement extend the time for fulfilling the Conditions Precedent. In the event of such extension in time for fulfilling Conditions Precedent, the Concession Period shall also be extended proportionately.

## ARTICLE 5
## OBLIGATIONS OF THE CONCESSIONAIRE

### 5.1. General Obligations of the Concessionaire

5.1.1. Subject to and on the terms and conditions of this Agreement, the Concessionaire shall, at its own cost and expense, implement the Project, procure for and undertake the development, engineering, procurement, equipping, operation and maintenance of the Project and observe, fulfill, comply with and perform all its obligations set out in this Agreement or arising hereunder.

5.1.2. Perform and fulfill all of the Concessionaire's obligations with respect to the Project set out in Schedules and under this Agreement;

5.1.3. The Concessionaire shall arrange for and procure, at its own cost and risk, all infrastructure facilities and utilities for the construction, development, operation and maintenance of the Project, including procuring connection for and supply of electricity, water, gas and other utilities as may be necessary or required for the operation of the Project. The Concessionaire shall obtain all Applicable Permits and comply with the conditions there under for the procurement and use of such infrastructure facilities and utilities.

5.1.4. During the Concession Period, the Concessionaire shall obtain from the relevant Government Instrumentalities, the Applicable Permits (other than the Applicable Permits required to be obtained by the Authority specified in Article) and keep in force and comply with the conditions of all Applicable Permits for the development, Operation and Maintenance of the Project.

5.1.5. The Concessionaire shall comply with all Applicable Laws (including without limitation all public and labour related laws and health, safety, and sanitation laws, as then in force) and conditions of all Applicable Permits (including keeping them valid and in force as required) while performing its obligations under this Agreement. Further, the Concessionaire shall ensure and procure that its Contractors, if any, comply with all Applicable Permits and Applicable Laws during their performance of any of the Concessionaire's obligations under this Agreement.

5.1.6. The Concessionaire shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:

a) procure, as required, the appropriate proprietary rights, licenses, agreements and permissions for materials, methods, processes and systems used or incorporated into the Project;

b) carry out processing of fresh Waste by employing environment-friendly technologies which are not potentially detrimental or pose harm or risk to the quality of the reclaimed land;

c) maintain harmony and good industrial relations among the personnel employed by it or itsContractors in connection with the performance of its obligations under this Agreement and shall be solely responsible for compliance with all labour laws and be solely liable for all possible claims and employment related liabilities of its staff employed in relation with the Project and hereby agrees to keep the Authority indemnified against any claims, damages, expenses or losses in this regard and in no case and for no purpose shall the Project Engineer/ Authority be treated as the employers of the Concessionaire, in this regard;

d) not do or omit to do any act, deed or thing which may in any manner violates any provision of this Agreement;

e) always act in a manner consistent with the provisions of this Agreement and not cause or fail to do any act, deed or thing, whether intentionally or otherwise, which may in any manner violate any of the provisions of this Agreement or Applicable Laws and Applicable Permits;

f) procure that all equipment and facilities comprising the Project are developed, operated and maintained in accordance with the Specifications and Standards, Maintenance Requirements, Safety Requirements as specified in **Schedules of the bid document** and Good Industry Practice;

g) support, cooperate with and facilitate the Authority in the implementation and operation of the Project in accordance with the provisions of this Agreement;

h) to comply with the time lines for setting up the Project Facilities;

i) endeavour to improve the ancillary conditions and infrastructure related to the Project including assistance to informal recycling workers, procure and maintain in full force and effect, as necessary, appropriate proprietary rights, licenses, agreements and permissions for materials, methods, processes and systems used in or incorporated into the Project;

j) for processing and disposal of fresh waste, construct and operate the Sanitary Landfill Site at the allocated site in conformity with the terms of this Agreement for disposal of residual inert matter and rejected waste;

k) be responsible for all the health, security, environment and safety aspects of the Project at all times during the Concession Period;

l) upon receipt of a request thereof, afford access to the Project to the authorised representatives of the Project Engineer/ Authority for the purpose of ascertaining compliance with the terms, covenants and conditions of this Agreement;

m) bear all expenses towards uniforms, safety gear and waste handling equipment to all the waste lifters and drivers;

n) ensure that the project is operational on all calendar days of the year;

o) be responsible for the conduct of its staff employed for this project while on duty;

p) shall obtain approval from transport department as applicable and obtain fitness certificate for the vehicles each year before the due date and shall bear any cost or expense associated with this;

q) to operate, maintain, repair and renovate the project assets and project facilities, in accordance with, inter alia, the Applicable Laws, Applicable Permits and the requirements;

r) submit the Operational Plan to the Authority at least 1 (one) month before proposed Commencement Date and get the same approved;

s) procure, acquire and put into place at its own cost and expenses all the Project Assets and Project Facilities required by the Concessionaire to implement the Project during the Pre-COD Period so as to achieve COD within the time stipulated in this Agreement;

t) promptly rectify and remedy any defects or deficiencies, at its own cost, if any pointed out by the Project Engineer in the Inspection Report and furnish a report within the stipulated time period in respect thereof to the Project Engineer;

u) comply with all the performance parameters as specified in KPIs, set forth in the Article; to carry out

all necessary test(s) and get the approvals as per Applicable Law and in conformity with Good Industry Practices, prior to achieving COD;

v) pay all taxes, duties and outgoings, including utility charges relating to the project;

w) handover/transfer the Sites and immovable Project Facilities to the Authority upon Termination of this Agreement, in accordance with the provisions thereof;

x) provide live GPS feed of movement of transportation vehicles, camera feeds at weighbridge of Site to the Project Engineer, as and when sought by the Project Engineer;

y) be responsible and indemnify the Authority for any accident due to negligence or otherwise in the performance of the project; and

z) submit compliance as required to environmental agency and shall provide all information related to project as would be required by the Project Engineer/ Authority pursuant to any RTI query or any issue raised in State Assembly/ Parliament; and

**5.2. Obligations relating to Project Agreements**

5.2.1. It is expressly agreed that the Concessionaire shall, at all times, be responsible and liable for all its obligations under this Agreement. Notwithstanding anything contained in the Project Agreements or any other agreement, and no default under any Project Agreement or any other agreement shall excuse the Concessionaire from its obligations or liability hereunder.

5.2.2. Before finalisation, the Concessionaire shall submit to the Authority the drafts of all Project Agreements and the operation and maintenance contract (if any) or any amendments or replacements thereto for its review and comments, and the Authority shall have the right but not the obligation to undertake such review and provide its comments and observations, if any, to the Concessionaire. Concessionaire shall appropriately make amendments as per review/comments/observations and re-submit the same to the Authority for its review. After execution of any Project Agreement or amendment thereto, the Concessionaire shall submit to the Authority a true copy thereof, duly attested by a Director of the Concessionaire, for its record. For avoidance of doubt, it is agreed that the review and comments/ observations by the Authority on any Project Agreement or failure or omission of the Authority to review and/ or comment hereunder shall not be construed or deemed as acceptance of any such agreement or document by the Authority. No observation and /or review of the Authority and/or its failure to review and/or convey its observations onany document shall relieve the Concessionaire of its obligations and/or liabilities under this Agreement in any manner whatsoever nor shall the Authority be liable for the same in any manner whatsoever.

5.2.3. Notwithstanding anything to the contrary contained in this Agreement, the Concessionaire shall not sub-lease, sub-license, assign or in any manner create an Encumbrance on any of the Project Assets as the case may be, without prior written approval of the Authority, which approval the Authority may, in its discretion, deny if such sub-lease, sub- license, assignment or Encumbrance has or may have a Material Adverse Effect on the rights and obligations of the Authority under this Agreement or Applicable Laws.

5.2.4. The Concessionaire shall procure that each of the Project Agreements contains provisions that entitle the Authority to step into such agreement, in its sole discretion, in substitution of the Concessionaire in the event of Termination or Suspension (the "**Covenant**"). For the avoidance of doubt, it is expressly agreed that in the event the Authority does not exercise such rights of substitution within a period not exceeding [90 (ninety)] days from the Termination Date, the Project Agreements shall be deemed to cease to be in force and effect on the Termination Date without any liability whatsoever on the Authority

and the Covenant shall expressly provide for such eventuality. The Concessionaire expressly agrees to include the Covenant in all its Project Agreements and undertakes that it shall, in respect of each of the Project Agreements, procure and deliver to the Authority an acknowledgment and undertaking, in a form acceptable to the Authority, from the counter party(ies) of eachof the Project Agreements, where such counter party(ies) shall acknowledge and accept the Covenant and undertake to be bound by the same and not to seek any relief or remedy whatsoever from the Authority in the event of Termination or Suspension.

### 5.3. No Breach of Obligations

The Concessionaire shall not be considered to be in breach of its obligations under this Agreement nor shall it incur or suffer any liability if and to the extent performance of any of its obligations under this Agreement is affected by or on account of any of the following:

(i) Force Majeure Event, subject to Article 20;
(ii) Authority Event of Default;
(iii) Compliance with the instructions of the Project Engineer/ Authority or the directions of any Government Agency other than instructions issued as a consequence of a breach by the Concessionaire of any of its obligations hereunder;

### 5.4. Concessionaire's Representative

To fulfil the Concessionaire's obligations and for implementation of the Project in accordance with this Agreement, the Concessionaire shall deploy representative(s) (the "**Concessionaire Representative**") on its behalf including a Project Manager (the **"Project Manager"**). The Project Manager shall have full authority to act on behalf of the Concessionaire for all matters relating to this Agreement and shall be an overall in charge to ensure implementation of the project in accordance with the provisions hereof. The Project Manager shall closely co-ordinate with the Project Engineer/Authority and shall be responsible to ensure redressal on an immediate basis, any objections, observations, shortcomings, defects or defaults pointed out by the Project Engineer during routine inspections and project review meetings and submit action take report to the Project Engineer/Authority within a period not later than 7 (seven) days from the date of conveying of such defect/shortcoming. The Project Manager or its nominee shall make themselves available for meetings as and when called upon by the Project Engineer, the Authority.

### 5.5. Sole purpose of the Concessionaire

The Concessionaire having been set up for the sole purpose of exercising the rights and observing and performing its obligations and liabilities under this Agreement, the Concessionaire or any of its subsidiaries shall not, except with the previous written consent of the Project Engineer/Authority, be or become directly or indirectly engaged, concerned or interested in any business other than as envisaged herein.

### 5.6. Engagement of trained personnel

The Concessionaire shall ensure that the personnel engaged by it in the performance of its obligations under this Agreement are at all times properly skilled and trained for their respective functions.

### 5.7. Equity Lock-in requirements

The Concessionaire acknowledges that:

5.7.1. The Selected Bidder shall hold [100% (one hundred per cent)] shareholding in the paid-up Equity capital of the Concessionaire until expiration of [1 (one)] year from COD, [51% (fifty one per cent)] shareholding in the paid-up Equity capital until expiration of [10 (ten)] years from COD and thereafter [26% (twenty six per cent)] shareholding in the paid up equity capital during the remaining Concession Period.

Provided that in case the Selected Bidder is a Consortium of entities, then the lead member (the "**Lead Member**") of such JV/Consortium and the member whose credentials were considered for prequalification for bid, shall have the majority equity share holding of the paid-up Equity capital of the Concessionaire and that all the members of the SPV/JV / Consortium together shall hold [100% (one hundred per cent)] Equity capital of the Concessionaire, until expiry of [1 (one)]year from COD, [51% (fifty one percent)]shareholding in the paid-up Equity capital until expiration of [10 (ten)]years from COD and thereafter [26% (twenty six per cent)]shareholding in the paid-up Equity capital during the remaining Concession period.
Provided further that a member of the SPV/JV / Consortium meeting either the Technical Capacity or the Financial Capacity shall subscribe at least 10% (ten per cent) of the paid-up and subscribed Equity of the SPV until the 2nd (second) anniversary of the COD for member meeting the Technical Capacity and until the 1st (first) anniversary of the COD for the member meeting the Financial Capacity.

5.7.2. Any violation in the shareholding pattern in the equity lock-in requirements would be treated as Concessionaire Event of Default.

**5.7.3. Exit from Consortium**

a) Any Consortium member other than the Lead Member shall be allowed to exit the Consortium anytime during the Concession Period after 5 years from COD and the Lead Member will be allowed to replace/absorb the shares and responsibilities of other Consortium members, subject to approval from Authority may reserve the right to withheld for the reasons recorded therein.

b) Notwithstanding the provisions of Article above, the member of the Consortium responsible for carrying out processing and disposal of fresh MSW (clearly mentioned in Joint Bidding agreement & JV agreement) may be allowed to exit the Consortium after 1.5 years from COD, subject to receipt of Completion Certificate from the Authority upon satisfactory completion of works.

**5.8. Obligations relating to management of the Concessionaire**

5.8.1. The Concessionaire shall not, without the prior written approval of the Authority and the State Government, undertake or cause to be undertaken, any action for all or any of the following or any matter incidental or consequential thereto:

(a) to alter or add to the provisions of the memorandum of association;
(b) to alter or add to the articles of association;
(c) to change the name of the Concessionaire;
(d) to reduce the share capital;
(e) to commence any new lines of business;
(f) to apply for corporate insolvency proceedings under the Insolvency and Bankruptcy Code, 2016;
(g) for various other matters pertaining to the winding up of the Concessionaire; and
(h) any other matter which is required by the Companies Act to be passed by a specialresolution of the shareholders of the Concessionaire.

For the purposes of this clause, a "related party" shall have the meaning ascribed to it under the Companies Act, 2013.

**5.9. EHS Standards and L&FS Standards**

5.9.1. The Concessionaire shall at all times and throughout the Concession Period (designing, development, construction, operation and maintenance) comply with Applicable Laws including the relevant Environmental, Health and Safety (the " **EHS**") Rules and Regulations and life and fire safety Standards (the "**L&FS Standards**").

5.9.2. The Concessionaire shall prepare and comply with the performance standards, including an environmental and sustainability plan stating how the Concessionaire intends to manage and mitigate risks in relation to EHS. Such performance standards shall take into consideration the principles set out in:

(a) National EHS regulations;

(b) Real Estate (Regulation and Development) Act, 2016;

(c) National Building Code of India published by BIS and other statutory BIS standards applicable to projects of similar nature; and

(d) L&FS Standards.

**5.10. Obligations relating to Taxes**

The Concessionaire shall pay, at all times during the subsistence of this Agreement, all Taxes, levies, duties, cesses and all other statutory charges payable in respect of the Project. Provided, however, that all payments made by the Concessionaire with respect to GST levied on or in respect of any services provided by the Concessionaire to the Authority for and in respect of the Project shall be reimbursed by the Authority upon receipt of particulars thereof.

**5.11. Obligations relating to information**

5.11.1. Without prejudice to the provisions of Applicable Laws, Applicable Permits and this Agreement, upon receiving a notice from the Authority for any information that it may reasonably require or that it considers may be necessary to enable it toperform any of its functions, the Concessionaire shall provide such information to the Authority forthwith and in the manner and form required by the Authority.

5.11.2. After receiving a notice from the Authority for reasoned comments on the accuracy and text of any information relating to the Concessionaire's activities under or pursuant to this Agreement which the Authority proposes to publish, the Concessionaire shall provide such comments to the Authority in the manner and form required by the Authority.

**5.12. Obligations relating to other charges**

5.12.1. The Concessionaire shall make timely payments for all utility services in respect of the Sites, including water, sewage, electricity, telecommunication, internet and cable charges, etc.

## ARTICLE 6
## OBLIGATIONS OF THE AUTHORITY

## 6.1. General Obligations of the Authority

6.1.1. The Authority shall, at its own cost and expense, undertake, comply with and perform all its obligations set out in this Agreement.

6.1.2. Subject to and in accordance with the provisions of this Agreement and Applicable Laws, the Authority agrees to provide support to the Concessionaire and undertakes to observe, comply with and perform the following:

(a) identify and earmark / allocate parcel(s) of land, by itself, within or outside the Project Area for the purpose of setting up of Project Facilities including SLF, Processing Project Facility and decentralized units, etc., for scientific management of Solid Waste;

(b) upon written request from the Concessionaire, and subject to the Concessionaire complying with Applicable Laws, provide reasonable support and assistance to the Concessionaire in procuring Applicable Permits required from any Government Instrumentality for implementation and operation of the Project, subject to the Concessionaire submitting its applications complete in all respect in a timely manner. The Authority agrees and undertakes that it shall not unreasonably delay or withhold provision of any such reasonable support or assistance to the Concessionaire;

(c) upon written request from the Concessionaire, provide reasonable assistance to the Concessionaire in obtaining access to all necessary infrastructure facilities and utilities, including water and electricity at rates and on terms no less favourable to the Concessionaire than those generally available to commercial customers receiving substantially equivalent services;

(d) provide the Sites on leave and license basis free from Encumbrance to the Concessionaire and ensure that no barriers are erected or placed on or about the Sites by any Government Instrumentality or persons claiming through or under any Government Instrumentality, except for reasons of Safety Requirements, Emergency, national security, or law and order;

(e) not do or omit to do any act, deed or thing which may in any manner violate the provisions of this Agreement;

(f) support, cooperate with and facilitate the Concessionaire in the implementation and operation of the Project in accordance with the provisions of this Agreement;

(g) may engage an independent monitoring and appraisal entity (Project Engineer / Project Engineer cum PMU / E-I-C) who shall monitor, supervise, and review Concessionaire's progress details/activities. The Concessionaire shall submit monthly reports to the Project Engineer / / Project Engineer cum PMU / E-I-C regarding progress ofthe Project. The Project Engineer shall validate the data provided by the Concessionaire in monthly progress reports;

(h) may undertake on its own or through the Project Engineer, the development and management of ICT (Information Communication and Technology) and IoT (Internet of Things) based infrastructure (including sensors and video analytics) for monitoring the project, [Name of the State];

(i) make timely payments as prescribed in Article;

(j) observe and comply with all obligations set forth in this Agreement, and any other Agreement to be executed with the Concessionaire;

(k) facilitate in a timely manner all such approvals, permissions and authorizations which Concessionaire may require or is obliged to seek from them under this Agreement, in connection with implementation of the Project and the performance of its obligations. Provided where authorization for availing permits for utilities such as power, water, sewerage, telecommunications or any other incidental services/utilities is required, the same shall be provided by the Authority within [30 (thirty)] days from receipt of such request from the Concessionaire, subject to the conditions of the applications / details submitted being complete and correct.

(l) approve the Operational Plan within [a week] of its submission by the Concessionaire;

## ARTICLE 7
## REPRESENTATIONS, WARRANTIES AND UNDERTAKINGS

### 7.1. Representations and Warranties of the Parties

Each Party represents and warrants to the others that:

(i) It is duly organized, validly existing and in good standing under the laws of India;

(ii) It has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;

(iii) It has taken all necessary corporate and other action under Applicable Laws and its constitutional documents to authorize the execution, delivery and performance of this Agreement;

(iv) It has the financial standing and capacity to undertake the Project;

(v) This Agreement constitutes its legal, valid and binding obligation fully enforceable against it in accordance with the terms hereof;

(vi) It is subject to civil and commercial laws of India with respect to this Agreement and it hereby expressly and irrevocably waives any immunity in any jurisdiction in respect thereof; and

(vii) It shall have an obligation to disclose to the other Party as and when any of its representations and warranties ceases to be true and valid.

**7.2. Representations and Warranties of the Concessionaire**

The Concessionaire represents and warrants to the Authority that:

(a) it is duly organised and validly existing under the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising there under including any obligation, liability or responsibility hereunder;

(b) it has full power and authority to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;

(c) it has taken all necessary corporate and other actions under Applicable Laws to authorise the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;

(d) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement shall be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;

(e) all undertakings and obligations of the Concessionaire arising from the {RFP/RFQ} or otherwise shall be binding on the Concessionaire as if they form part of this Agreement;

(f) it is subject to the laws of India and West Bengal, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising there under including any obligation, liability or responsibility hereunder;

(g) the information furnished in the Bid and as updated on or before the Execution Date is true and accurate in all respects as on the Execution Date;

(h) the execution, delivery and performance of this Agreement shall not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of

its memorandum and articles of association or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;

(i) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi- judicial, Government Instrumentality or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Agreement;

(j) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any Material Adverse Effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;

(k) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a Material Adverse Effect on its ability to perform its obligations under this Agreement;

(l) all its rights and interests in the Project shall pass to and vest in the Authority on the Termination Date free and clear of all liens, claims and Encumbrances without any further act or deed on its part or that of the Authority, and that none of the Project Assets shall be acquired by it Subject to any agreement under which a security interest or other lien or Encumbrance is retained by any person, save and except as expressly provided in this Agreement;

(m) no representation or warranty given by it contained herein or in any other document furnished by it to the Authority, including the Bid or to any Government Instrumentality in relation to Applicable Permits contains or shall contain any untrue or misleading statement of material fact or omits or shall omit to state a material fact necessary to make such representation or warranty not misleading;

(n) no sums, in cash or kind, have been paid or shall be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the Concession or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Authority in connection therewith;

(o) all information provided by the Concessionaire in response to the {Request for Proposals/Qualification} or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects;

(p) agree that the execution, delivery and performance by it of this Agreement and all other agreements, contracts, documents and writings relating to this Agreement constitute private and commercial acts and not public or government acts;

(q) consents generally in respect of the enforcement of any judgment against it in any proceedings in any jurisdiction to the giving of any relief or the issue of any process in connection with such proceedings; and

(r) the Concessionaire shall not venture into or continue any business which is in direct or indirect competition with the Project. In the event the Concessionaire engages in such activities, the same shall constitute a fundamental breach of this Agreement by the Concessionaire;

(s) all undertakings and obligations of the Concessionaire arising from the {Request for Proposals/Qualification} or otherwise shall be binding on the Concessionaire as if they form part of this Agreement further representations as may be added depending on the specific circumstances of the Concessionaire.

**7.3. Representations and Warranties of the Authority**

The Authority represents and warrants to the Concessionaire that:

(a) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated herein and that it has takenall actions necessary to execute this Agreement, exercise the rights and perform the obligations specified under this Agreement on behalf of the Authority.

(b) it has taken all necessary actions under the Applicable Laws to authorize the execution, delivery and performance of this Agreement.

(c) it has the financial standing and capacity to perform its obligations under this Agreement.

(d) this Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof.

(e) it has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on the Authority's ability to perform its obligations under this Agreement;

**7.4. Disclosure**

(a) In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of it. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to beuntrue or incorrect nor shall it adversely affect or waive any right, remedy or obligation ofa Party under this Agreement.

(b) Neither the Authority nor any of its agents or employees shall be liable to the Concessionaire in contract, tort, including negligence or breach of statutory duty, statute or otherwise as a result of:

(i) any inaccuracy, omission, unfitness for any purpose of inadequacy of any kind whatsoever in the data disclosed by the Authority to the Concessionaire in relation to the Project; and/or

(ii) any failure to make available to the Concessionaire any materials, documents, drawings, plans or other information relating to the Project.

## ARTICLE 8
## DISCLAIMERS

**8.1.** The Concessionaire acknowledges that prior to the execution of this Agreement, the Concessionaire has, after a complete and careful examination, made an independent evaluation of the Request for Proposals, Scope of the Project, Specifications and Standards, Site, existing structures, local conditions, physical qualities of ground, subsoil and geology, and all information provided by the Authority or

obtained procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. The Authority makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability or completeness of any assessment, assumption, statement or information provided by it and the Concessionaire confirms that it shall have no claim whatsoever against the Authority in this regard.

**8.2.** The Concessionaire acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in this Article above and hereby acknowledges and agrees that the Authority shall not be liable for the same in any manner whatsoever to the Concessionaire, Associates or any person claiming through or under any of them.

**8.3.** The Parties agree that any mistake or error in or relating to any of the matters specified in Article above shall not vitiate this Agreement or render it voidable.

**8.4.** In the event that either Party becomes aware of any mistake or error relating to any of the matters specified in Article above, that Party shall immediately notify the other Party, specifying the mistake or error; provided, however, that a failure on part of the Authority to give any notice specified in Article shall not prejudice the disclaimer of the Authority contained in Article and shall not in any manner shift to the Authority any risks assumed by the Concessionaire pursuant to this Agreement.

**8.5.** The Concessionaire accepts that it is solely responsible for the verification of any design, data, documents or information provided by the Authority, any Government Authority or their consultants and advisors to the Concessionaire and that it shall accept and act thereon at its own cost and risk.

**8.6.** The Concessionaire shall be solely responsible for the contents, adequacy and correctness of the design, data, drawings and detailed engineering prepared or procured by the Concessionaire for implementing the Project.

## ARTICLE 9
## PERFORMANCE SECURITY AND SECURITY DEPOSIT

### 9.1. Performance Security/Security Deposit

9.1.1. The Concessionaire shall for the due and punctual performance of its obligations hereunder relating to the Project simultaneously with the execution of this Agreement, shall have to submit 10% (ten percent)

of the total Bid Project Cost, as Performance Security/Security Deposit, till receipt of Completion Certificate of the said Project.

9.1.2. The Security deposit or the amount retained by the Authority as cash security for management of fresh waste shall be refunded only after expiry of 12 months of successful completion of processing and subsequent disposal of all fractions.

9.1.3. The Security deposit or the amount retained by the Authority as cash security for managing the fresh waste shall be returned only after the expiry of 3 (three) years from the COD, unless this Agreement is terminated earlier, in which case the Performance Security will be returned within 30 (thirty) days from the date of termination, subject to the Authority's right to receive any amounts from the Concessionaire under this Agreement.

9.1.4. The Security Deposit shall secure the due performance of all the Concessionaire's obligations during the Construction Period.

**9.2. Security Deposit recovered for fresh waste management:**

9.2.1. It will be 10% of amount for managing the fresh waste, where 2% of Earnest Money Deposit (EMD) of amount derived from the rate quoted by the bidder with subsequent rate enhancement for every five years, for managing the fresh waste to be counted from starting of Commercial Operation Date (COD), will be converted to initial Security Deposit and rest of 8% will be deducted pro-rata basis from each Running Account bill for processing of fresh waste.

9.2.2. Total operation and maintenance period of all plants and machineries will be **15 (fifteen) years**, starting from the date of start of Commercial Operation.

**9.3. O&M Security**

9.3.1. As Condition Precedent to the COD, within 60 (sixty) days of the Construction Completion Date, or 30 (thirty) days before COD, whichever is earlier, the Concessionaire shall furnish an unconditional and irrevocable Bank Guarantee (BG) to the Authority, for an amount corresponding to 2% (Two percent) of the O&M Cost for 1 (one) year fresh waste management only, with the rate as proposed by the bidder and approved by the authority (the "**O&M Security**").

9.3.2. The Concessionaire shall furnish the O&M Security in the same format as provided for the Performance Security in the RFP, with necessary modifications. The Concessionaire shall maintain the O&M Security in full force and effect until the expiry of the O&M Period. The O&M Security shall have an initial validity period of 1 (one) year, which must be renewed on a year-on-year basis, before the expiry of the 11th (eleventh) month of the relevant year, until the Termination of the Concession Agreement.

As such, the generation of waste will be considered to be increased by 1.6% per annum and simultaneously the rate of processing will be revised in every five year and thus the amount of BG, will be revised accordingly, in every year.

If the selected bidder will desire to submit these BG, valid for 1 (one) year, for an amount @2% of Bid Project Cost, at a stretch, he will be allowed to submit thus, but to be renewed such BG, before expiry of 11$^{th}$ month of every year, without any fail.

Non-submission of BG, in time, will attract ₹20,000.00 (Rupees Twenty Thousand) per day of penalty/Liquidated Damage, where summation of all damages, will not cross 10% of the Bid Project Cost, and if so, the contract will be rescinded and bidder will be terminated, with forfeiture of the Security Deposit and O&M Security, so submitted.

In addition, the Authority shall be entitled to drawdown the total amount available under the O&M Security and retain such amount as cash security until such time that the Concessionaire submits an extension or replacement of the O&M Security.

9.3.3. The O&M Security shall secure the due performance of all the Concessionaire's obligations during the O&M Period.

**9.4. Refund of Security Deposit**

9.4.1. The recovered Security Deposit of @10% of total bill value within the 1st year of operation counted from Commercial Operation Date (COD), will be released only after successful completion of 3 (three) years of processing of fresh waste, disposal of all fractions and operation and maintenance of all the plants and machineries. Subsequent release of Security Deposit will be made on completion of every year accordingly. Hence, SD recovered in the last 3 (three) years of processing of fresh waste, disposal of all fractions and O&M, under contract, will be released after 6 (six) months from completion of contract and handing over of all plants and machineries in running condition to the employer (condition assessment of all plants and machineries to be done by the agency through any third-party Institution of National Importance, like any RITES, INSDAG, IIT, NIT, JU/IIEST, Shibpur etc.).

**9.5. Extension of O & M Securities**

9.5.1. If any O&M Security is not renewed by the expiry of the 11th (eleventh) month of the relevantyear of the O&M Period, then the Authority shall be entitled to drawdown the total amount available under the O&M Security and retain such amount as cashsecurity until such time that the Concessionaire submits an extension or replacement of the O&M Security.

**9.6. Encashment of Security Deposit by the Authority**

9.6.1. The decision of the Authority as to any breach/ delay having been committed, liability accrued or loss or damage caused or suffered shall be conclusive, absolute and binding on the Concessionaire and the Concessionaire specifically confirms and agrees that no proof of any amount of liability accrued or loss or damages caused or suffered by the Authority under this Concession Agreement is required to be provided in connection with any demand made by the Authority to recover such compensation through appropriation of the relevant amounts from the Security Deposit/O&M Security under this Agreement.

9.6.2. In the event of encashment of the Security Deposit / O&M Security by the Authority, in full or part, the Concessionaire shall within 15 (fifteen) days of receipt of the encashment notice from the Authority provide a fresh O&M Security or replenish (in case of partial appropriation) the existing O&M Security, as the case may be. The provisions of this Article shall apply *mutatis mutandis* to such fresh O&M Security. The Concessionaire's failure to comply with this provision shall constitute a default or breach of the Concession Agreement by the Concessionaire, which shall entitle the Authority to terminate this Concession Agreement in accordance with the provisions hereof.

Provided that if the Agreement is terminated due to any event other than a Concessionaire Event of Default, the Security Deposit if subsisting as of the Termination Date shall subject to the Authority's right to receive amounts, if any, due from the Concessionaire under this Agreement, be duly discharged and released to the Concessionaire.

**9.7. Utilization of retained amount**

9.7.1. The Authority shall be entitled to utilize the retained amount in the same manner as it would utilise the

Security Deposit, or the O&M Security, as the case may be.

(a) Upon receipt of a renewed or replacement O&M Security within 30 (thirty) days of the expiry / termination of the O&M Period, the Authority shall return the unutilized cash security amount for the O&M Security to the Concessionaire.

(b) The interest earned on any retained amounts on cash security shall be the property of the Authority or the Authority shall not be required to account to the Concessionaire for any such interest.

9.7.2. The Authority shall have the right to draw on the Security Deposit and claim up to the amount guaranteed upon the Concessionaire's failure to satisfy any Condition Precedent or honour any of its obligations, responsibilities or commitments during the Construction Period, or any amount due and payable by the Concessionaire to the Authority (including any Delay Liquidated Damages), in accordance with this Agreement.

9.7.3. The Authority shall have the right to draw on the O&M Securities and claim up to the amount guaranteed upon the Concessionaire's failure to honour any of its obligations, responsibilities or commitments during the O&M Period, or any amount due and payable by the Concessionaire to the Authority (including any Availability Liquidated Damages), in accordance with this Agreement.

9.7.4. Without prejudice to its right to draw on the Security Deposit or, as the case may be, the O&M Securities, the Authority shall have the right to draw on the O&M Securities- and claim up to the amount guaranteed upon the Concessionaire's failure to honour any of its ESHS related obligations, responsibilities or commitments during the Construction Period or the O&M Period, as set out in the approved ESHS Documents, in accordance with this Agreement.

9.7.5. Bank Guarantees would not be released in case of breach by the Concessionaire of any of the terms of the Agreement.

**9.8. Cost to be borne by Concessionaire**

The cost of procuring the O&M Security shall be borne solely by the Concessionaire.

**9.9. Demand under Performance Securities**

9.9.1. The Authority shall not be required to give any prior notice to the Concessionaire of its intention to make a demand under the Security deposit, or the O&M Securities, as the case may be. However, the Authority shall provide the Concessionaire with a copy of any demand notice issued by them under the O&M Securities, simultaneously with the issuance of the demand notice to the Scheduled Bank that has issued the relevant the O&M Security.

9.9.2. If the Authority makes a demand under any Security deposit and / or O&M Security, in part or in full, the Concessionaire shall immediately and in no event later than 15 (fifteen) days of such demand, restore the value of such Security Deposit or O&M Security to the amount stated.

**9.10. Release of Performance Security by the Authority**

9.10.1. Upon the expiry of the O&M Period or the termination of this Agreement, whichever is earlier, the O&M Securities, as the case may be, the amount retained by the Authority as cash security, shall be released to the Concessionaire after the expiry of 30 (thirty) days from the Termination of this Agreement, subject to the Authority's right to receive any amounts from the Concessionaire before or upon Transfer Date. However, after completion of concession period extension of the contract may be

given at the prevailing rate at the end of 16th year and at same terms and conditions on mutual agreement.

## ARTICLE 10
## THE SITES

### 10.1. The Sites

10.1.1. The Sites of the Project Facilities shall comprise of the land as described in the Schedule, and in respect of which the Rights of Way shall be provided and granted by the Authority to the Concessionaire on a leave and license basis under and in accordance with this Agreement (the '**sites**").

10.1.2. The Sites would include (but not limited to) land for setting up of Project Facilities relating to Processing and Material Recovery Project Facility (at the reclaimed Municipal Landfill/Dumpsite), decentralized units for Processing of Organic Waste, Secondary Collection Points, etc.

10.1.3. Without prejudice and subject to the Agreement, the ownership of the Project except Sites, including all improvements made therein by the Concessionaire, during the Concession Period, shall at all times remain with the Concessionaire.

**10.2. Grant of License over the Site**

10.2.1. Authority shall grant the Concessionaire a license over the Site along with all necessary Rights of Way, to enter upon, access and occupy the Sites, free of all Encumbrances specified in Article, Applicable Laws, and Applicable Permits. The license granted to the Concessionaire shall include the exclusive right to:

(a) design, construct, commission, operate and maintain during the O&M Period, the Project Facilities necessary for implementation of the Project at various Sites, in accordance with the SWM Rules, and other Applicable Laws;

(b) install, operate, use, maintain, and remove such equipment, devices or other structures and improvements on, over, or under the Sites, as may be necessary or appropriate for the operations and activities required or permitted under this Agreement;

(c) use Access Roads, gates, fences and utilities at or about the Sites;

(d) construct, use, operate, maintain, replace and repair electric lines, telecommunication lines, water supply networks and other utilities required to undertake the Project at the Sites.

10.2.2. On and from the Compliance Date and subject to the provisions of this Agreement, Authority shall grant the Concessionaire: (i) license over the Sites including the exclusive right to occupy and use the Sites to construct the Project Facilities; and (ii) all necessary Rights of Way to the Sites. Any charges payable for obtaining the Right of Way will be paid directly by Authority.

10.2.3. Authority shall provide the Site to the Concessionaire free of Encumbrances and encroachments as a Condition Precedent. If the Concessionaire discovers any hazardous substances at the time of handover of the Site by Authority, Authority will remove such hazardous substances at its own cost and expense. The Concessionaire's acceptance of the Sites at the time of Authority's handover/giving access to the Sites shall be deemed to be unconditional acceptance and that there were no hazardous substance or any possible form of obstruction to the project at the time of handover of Sites and concessionaire shall be barred from raising any such issues, whatsoever, after the handover or having access to the Sites.

10.2.4. The Concessionaire shall not without the prior written consent or approval of Authority use the Sites for any purpose other than to undertake the Project and purposes incidental thereto, as permitted under this Agreement or as may be otherwise approved by Authority.

10.2.5. The full ownership and title over the Sites shall vest with Authority for the entire Concession Period.

10.2.6. Authority warrants that the Concessionaire shall, subject to complying with the terms and conditions of this Agreement, occupy the Sites, from such time that access is granted to the Concessionaire and until the expiry of the Concession Period or early termination of this Agreement. If the Concessionaire is obstructed by any Person claiming any right, title or interest in or over the Sites or any part thereof or in the event of any enforcement action including any attachment, distraint, appointment of receiver or liquidator being initiated by any Person claiming to have a charge on the Site or any part thereof, Authority shall, if called upon by the Concessionaire, defend such claims and proceedings.

10.2.7. The Concessionaire hereby irrevocably appoints the Authority (or its nominee) to be its true and lawful attorney, to execute and sign in the name of the Concessionaire a transfer or surrender of the rights granted hereunder at any time after the Concession Period has expired or has been Terminated in terms hereof, whichever is earlier, a sufficient proof of which shall be the declaration of any duly authorised officer of the Authority, and the Concessionaire consents to it being registered for this purpose.

10.2.8. Termination of the Agreement shall automatically terminate the license granted over the Sites.

10.2.9. If there's any delay in handover by authority it will not be attributable to concessionaire. However, if any delay occurs due to activity of concessionaire it will be attributed to the concessionaire.

**10.3. Site Data and Verification**

10.3.1. Authority has made available to the Concessionaire, the layout plans, load flow studies and all other relevant data, studies and reports in Authority's possession in connection with the Sites.

10.3.2. The Concessionaire shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the implementation of the Project at the Sites.

10.3.3. The Concessionaire shall also be deemed to have inspected and examined the Site and its surroundings, analysed and verified the accuracy and reliability of the studies, reports and data provided by Authority and any other information available with respect to the Sites and to have satisfied itself as to all the relevant matters including:

(a) the nature of the Site, including the subsurface, hydrological, climatic and generalphysical conditions of the Site;

(b) the suitability of the Site for undertaking the construction and operation of the Project;

(c) the condition of the utilities available till the battery limits of the Sites;

(d) the extent, nature and availability of labour, material, transport, accommodation, storage facilities and other facilities and resources necessary to undertake the Project;

(e) the nature of design, construction work and O&M services necessary for the performance of its obligations under this Agreement;

(f) Applicable Laws and Applicable Permits required to be obtained and maintained to undertake the Project;

(g) the risk of injury or damage to Adjoining Property and to the occupiers of such property or any other risk;

(h) the suitability and adequacy of any access roads to the Sites and other utilities and facilities to be provided by the relevant Government Authority; and

(i) all other matters that may affect the performance of its obligations under this Agreement.

Subject to Clause, the Concessionaire acknowledges and agrees that if any error or discrepancy is subsequently discovered in the data made available by Authority, then the Authority and the Concessionaire may mutually arrive at a decision regarding any extension of the Scheduled Payment Milestone Completion Date, the Scheduled Construction Completion Date and/or compensation for

additional costs incurred caused due to such error or discrepancy. Provided that the Concessionaire shall not be entitled to any extension as mentioned above, nor shall it be open to the Concessionaire to justify any default or delay on the ground of the Concessionaire having not visited or acquainted itself with the Sites and Sites‟ conditions in any manner whatsoever. Further, any misinterpretation of the data, studies and reports provided by Authority shall not relieve the Concessionaire from the performance of its obligations under this Agreement on the ground that it could not reasonably be expected to have foreseen any of the matters listed in Clause above, which affect or may affect the Project or the performance of any of its obligations under this Agreement.

**10.4. Unforeseen Site Conditions**

Without prejudice to Clause 10.3 above, if during the execution of the Project, the Concessionaire encounters any adverse physical conditions, which could not have been reasonably foreseen by acting in accordance with Good Industry Practices, the Concessionairemay seek a Variation in accordance with Article 28. Upon receipt of a request for a Variation due to unforeseen Site conditions, if, in the opinion and sole discretion of Authority, such conditions could not have been reasonably foreseen by a prudent developer acting in accordance with Good Industry Practices, then Authority shall issue a Variation Order in accordance with Article 28. Any decision of Authority regarding the existence of any unforeseen Site conditions shall be final and binding.]

**10.5. Site Related Covenants**

10.5.1. The Concessionaire agrees and undertakes that:

(a) the Concessionaire shall not transfer, alienate, assign, dispose of, sub-license or create any Security over any part of the Site or its rights and interest in the Site, other than as specifically permitted under this Agreement;

(b) the Concessionaire shall not allow any encroachment on, or unauthorized occupation of any part of the Site and in the event of any encroachment or unauthorized occupation, the Concessionaire shall immediately cause such encroachment or any unauthorized occupants to be removed from the Site. The Concessionaire shall not be entitled to any extension of time or costs incurred in removal of any encroachment or any unauthorized occupants from the Site;

(c) the Concessionaire shall be wholly responsible for safety at and security of the Sites and the Project Facilities developed;

(d) the Concessionaire shall take all necessary measures to confine its operations, personnel and equipment to the Site and not encroach on any Adjoining Property;

(e) all minerals, fossils, articles of value or antiquity, structures and other remains or things of geological or archaeological interest and other objects with historic, antique or monetary value discovered at, on or under any of the Sites shall be dealt with in accordance with Applicable Laws and the Concessionaire shall take all necessary precautions to prevent its or its Sub-Contractor's personnel from removing or damaging any such article or thing. Further, immediately upon the discovery of any such article or thing of value, the Concessionaire shall inform Authority of such discovery and carry out the instructions of Authority in this regard;

(f) the Concessionaire shall make good any damage to any roads, footpaths, conduits, and other works on any Adjoining Property, which is caused by the Concessionaire or the Concessionaire Related Parties;

(g) the Concessionaire shall not to do or permit to be done anything which might:

(i) cause destruction, scarring or defacing of natural surroundings in the vicinity ofthe Site;
(ii) be or become a danger or nuisance or give rise to liability in tort to any owners or occupiers of the Adjoining Property or to members of the public; or
(iii) cause any contamination or damage to any Adjoining Property,

and the Concessionaire shall, at its own expense, take all reasonable measures and precautions to avoid any such danger, nuisance, tort, damage or interference and shall make good any damage so caused.

If the construction works and/or the O&M services cannot be carried out without interfering with the rights of the owner or occupier of any Adjoining Property, the Concessionaire shall promptly and at its own cost obtain all necessary third party consents and/or the approval of the concerned Government Authority(ies) to undertake such construction works and/or the O&M services. Authority shall provide all assistance to the Concessionaire for procuring such approvals.

(h) The Concessionaire shall not sub-license whole or any part of the Sites.

(i) The Concessionaire shall obtain and maintain the Applicable Permits in such sequence as is consistent with the requirements of the Project. The Concessionaire shall be responsible and shall be in compliance with the terms and conditions subject to which Applicable Permits have been issued.

(j) During the Concession Period, the Concessionaire shall protect the Sites from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Contractor or other person claiming through or under the Concessionaire to place or create any Encumbrance or security interest over all or any part of the Sites or the Project Facilities, or on any rights of the Concessionaire therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement.

(k) The Concessionaire may landscape and develop the Sites and regulate the use thereof in accordance with the Good Industry Practice and in conformity with the provisions of this Agreement.

**10.6. Access to Authority Related Parties**

10.6.1. The Concessionaire shall ensure that the Authority Related Parties have access to the Sites and the license granted to the Concessionaire over the Site shall always be subject to:

(a) the rights of Authority, Authority's Representative, the Project Engineer, and other Authority Related Parties to enter upon and access the Site to inspect and monitor the progress of the Project, and for the exercise of their rights and the performance of their obligations under this Agreement, provided that Authority shall ensure that the exercise of the inspection or monitoring rights do not impede or obstruct the construction and/or operation of the Project in any manner whatsoever; and

(b) the rights of the utility providers to enter upon and access the Sites for laying orinstalling telegraph lines, electric lines or for any other public purpose.

If any physical damage is caused to the Sites or the Project Facilities as a result of such access and use of the Sites by Authority, Authority's Representative, Authority Related Parties then the Authority shall bear the costs of remedying such damage and restoring the Sites and the Project Facilities.

## ARTICLE 11
## UTILITIES AND ASSOCIATED ROADS

**11.1. Existing utilities and roads**

Notwithstanding anything to the contrary contained herein, the Concessionaire shall ensure that the Government Instrumentalities owning the existing roads, Right of Way or utilities, on,under or above the Site are enabled by it to keep such utilities in continuous satisfactory use, if necessary, by providing suitable temporary or permanent diversions with the Authority of the relevant Government Instrumentality. Further, the Authority shall, upon written request from the Concessionaire, initiate and undertake at the Concessionaire's cost, legal proceedingsfor acquisition of any Right of Way necessary for such diversion.

### 11.2. Shifting of obstructing utilities

The Concessionaire shall, subject to Applicable Laws, provisions of Applicable Permits and with the assistance of the Authority, undertake shifting of any utility, including electric lines, water pipes and telephone cables, to an appropriate location or alignment within or outside the Site, if and only if such utility causes or shall cause a Material Adverse Effect on the construction, operation or maintenance of Project. The cost of such shifting shall be borne by the Concessionaire, and in the event of any delay in shifting thereof, the Concessionaire shall be excused for failure to perform any of its obligations hereunder if such failure is a direct consequence of delay on the part of the entity owning such electric lines, water pipes or telephone cables, as the case may be.

### 11.3. Felling of Trees

The Authority shall assist the Concessionaire in procuring the Applicable Permits for felling of trees to be identified by the Concessionaire for this purpose if and only if such trees cause a Material Adverse Effect on the construction, operation or maintenance of the Project. In the event of any delay in felling thereof for reasons beyond the control of the Concessionaire, it shall in the sole discretion of the Authority, be excused for failure to perform any of its obligations hereunder if such failure is a direct consequence of delay in the felling of trees. For avoidance of doubt, the costs and expense in respect of felling of trees shall be borne by the Concessionaire and any revenues thereof shall be paid to the Authority.

## ARTICLE 12
## FINANCIAL CLOSURE AND SUBSTITUTION AGREEMENT

**Deleted**

## ARTICLE 13A
## PROJECT ENGINEER

### 13A.1 Project Engineer

The Authority may appoint a third-party engineering firm with requisite technical expertise, knowledge and experience in the [design, engineering, construction, development, and operation] of [fresh waste processing facilities, material recovery facilities, and other machinery and facilities forming part of the solid waste management system] as the engineer for the Project (the "**Project Engineer**"). The Project Engineer shall assist the Authority in supervising the development of all the amenities and facilities required as basic and support infrastructure for implementation of the Project including construction/renovation, operation and maintenance of facilities for fresh Waste and the Solid Waste management system such as infrastructure, collection and transportation vehicles, ICT infrastructure, machinery and equipment procured, inherited, installed and operated and all other Project related physical assets (the "**Project Facilities**") and shall support Authority to monitor compliance with the KPIs during the O&M period. The detailed scope of work of the Project Engineer is set out in **Schedule 10**.

### 13A.2 Remuneration

All fees, costs, charges and expenses payable to the Project Engineer shall be borne by the Authority.

### 13A.3 Replacement of Project Engineer

13A.3.1. The Concessionaire may request the Authority to replace the Project Engineer if the Concessionaire believes that the Project Engineer is not performing its duties in accordance with this Agreement or is otherwise impeding the performance of the Concessionaire's obligations under this Agreement.

13A.3.2. the Authority may replace the Project Engineer in any of the following circumstances:

(a) if it has reason to believe that the Project Engineer has not discharged its duties in accordance with this Article and/or Schedule; or
(b) has received a formal complaint from the Concessionaire. In such a case the Authority will make necessary investigations and it is established that the Project Engineer has not discharged its duties in accordance with this Article and/or Schedule; or
(c) if the Project Engineer submits its resignation.

13A.3.3. In appointing any replacement of the Project Engineer, the Authority shall comply with this Article and Schedule.

### 13A.4 Duties of Project Engineer

13A.3.1. The Project Engineer shall be required to act independently, reasonably, fairly andexpeditiously to ensure:

(a) the timely completion of construction of the Project Facilities on or before the Scheduled Construction Completion Date; and
(b) compliance with the KPIs during the O&M Period.

13A.3.2. The Project Engineer shall at all times during the Concession Period have the right to enter upon and access the Site. The Concessionaire shall have the right to accompany the Project Engineer during its inspection of the Project Facilities.

13A.3.3. During the Construction Period, the Project Engineer shall inspect the Project Facilities at least

once a month and prepare an inspection report, setting out the progress of the construction of the Project Facilities, defects or deficiencies, if any, and status of compliance with the Construction Plan, Specifications and Standards, and Designs and Drawings. The Project Engineer shall send the report to Authority and the Concessionaire within 7 (seven) days of such inspection, pursuant to which, the Concessionaire shall be required to rectify the defects or deficiencies, if any, identified by the Project Engineer.

13A.3.4. During the O&M Period, the Project Engineer shall inspect the Project Facilities at least once a month and prepare an inspection report, setting out the defects or deficiencies, if any, and status of compliance with the KPIs (including specifically, the Influent Standards and the Discharge Standards). The Project Engineer shall send the report to Authority and the Concessionaire within 7 (seven) days of such inspection, pursuant to which, the Concessionaire shall be required to rectify the defects or deficiencies, if any, identified by the Project Engineer. The Project Engineer shall also have the right to verify the results of the tests undertaken by the Concessionaire at any time during the O&M Period of the quality of the compost or any other by-products created during waste management processes which are intended to be sold in the market.

13A.3.5. The Project Engineer shall, at all times, have the right to attend any meetings held by the Concessionaire to review the progress of the construction or O&M of the Project Facilities, and to provide its comments/suggestions regarding the progress as well as the manner in which the construction works, or O&M services is being undertaken. Neither any comments/suggestions provided by the Project Engineer nor any failure to provide comments/suggestions shall be deemed to be an acceptance of the construction works or the O&M services or a waiver of the Concessionaire's obligations to implement the Project, in accordance with this Agreement, the Technical Specifications, the Designs and Drawings, the ESHS Documents, and all Applicable Laws and Applicable Permits.

13A.5 Except as specifically provided in this Agreement, the Project Engineer shall have no authority, whether express or implied, to amend, vary or curtail any of the rights or obligations of the Parties.

13A.6 The Concessionaire agrees that notwithstanding any review by the Project Engineer of any or all of the construction works or O&M services, the Concessionaire shall bear all risk, responsibility and liability for the quality, adequacy and suitability of the Project Facilities.

**13A.7 Authorised Signatories**

The Authority shall require the Project Engineer/Independent Engineer to designate and notify to the Authority and the Concessionaire up to 2 persons employed in its firm to sign for and on behalf of the Project Engineer/Independent Engineer, and any communication or document required to be signed by the Project Engineer/Independent Engineer shall be valid and effective only if signed by any of the designated persons, provided that the Project Engineer/Independent Engineer may, by notice in writing, substitute any of the designated person by any of its employees.

## PROJECT MANAGEMENT UNIT

### 13B.1. Composition

The Authority may appoint project level Project Management Unit(the **"PMU"**) comprising of a project manager, representative(s) of the Authority, and expertsfrom relevant fields (including a third-party engineering firm). There shall also be a representative of Concessionaire in the Project Management Unit.[13]

### 13B.2. Role of the PMU

The PMU is expected to play a key role in discharging its functions as an extension to the Authority, thereby facilitating the smooth implementation and operation of the Project. Broadly, the role of the PMU is to:

13B.2.1. review, monitor and where required by the Agreement, to approve activities associated with the design, construction, operation and maintenance of the Project;
13B.2.2. report to the Parties on the various physical, technical and financial aspects of the Project based on inspections, PMU site visits and Tests;
13B.2.3. assist the Parties in arriving at an amicable settlement of disputes should the need arise; and
13B.2.4. review matters related to safety and environment management measures adopted by the Concessionaire for the Project.

### 13B.3. Duties and functions

13B.3.1. The PMU shall have the overall responsibility of monitoring and supervision of the Project.
13B.3.2. The PMU shall coordinate with the Authority and keep them updated on all activities and approvals accorded to the Concessionaire on a regular basis.
13B.3.3. Further, any event of default by PMU as part of its obligations shall be treated as the Authority Event of Default (as the case may be) and its consequence thereof.

### 13B.4. Scope of Services

The services to be provided by the PMU are listed below. In addition, the scope of services would also include such other functions as are required to be undertaken pursuant to specific provisions of the Agreement.

#### 13B.4.1. Design and Planning

(a) Ensure that all activities of the Project fully comply with all Applicable Laws and,governing the requirements of Municipal Solid Waste disposal in India in particular, SPCB and CPCB standards for air, water and land.
(b) Review of the implementation plan submitted by the Concessionaire.

#### 13B.4.2. Construction Inspection and General Services

(a) The PMU would monitor, in accordance with Good Industry Practice, the progress in implementation of the Project. For this purpose the PMU shall undertake, *inter-alia*, the following activities and where appropriate make suitable suggestions:

(i) Ensure compliance by the Concessionaire with the provisions of this Agreementand Applicable Laws;
(ii) Act on behalf of the Authority as the Authority's Representative regarding all contact with the

Concessionaire unless expressly indicated otherwise;

(iii) Review of all Tests;

(iv) Interpret the requirements of the contract and make decisions regarding performance of the Concessionaire. The PMU shall inform and advise the Authority in a timely manner all matters relating to the execution, progress, and completeness of the Project;

(v) Reject work which fails to comply with the specifications and requirements of the Agreement. Whenever considered necessary or advisable to ensure correction of defective work, the PMU may require inspection or testing of such work, whether or not such work be then fabricated, installed, or completed;

13B.4.3. The PMU shall attend regular meetings (the **"Project Review Meetings"** or **"PRMs")** with the Authority and the Concessionaire, from time to time. The PMU shall take notes at the meetings and provide a copy of the PRM minutes to each person who attended the meeting.

13B.4.4. The PMU shall approve fortnightly progress reports and bills and invoices raised by the Concessionaire.

**13B.5. Remuneration**

The remuneration, cost and expenses of the PMU shall be borne by the Authority only.

**13B.6. Replacement**

The Authority may, in its discretion, terminate the appointment of any member in the PMU, other than the Concessionaire's representative, at any time and appoint another member in his place.

**13B.7. Tenure**

The tenure of the PMU shall commence from the date of its constitution during the Compliance Period and extend up to the Termination Date, unless the Agreement is terminated earlier in terms hereof.]

**ARTICLE 14**

## CONSTRUCTION PERIOD

### 14.1. Commencement and Duration

14.1.1. The period for construction of the Project Facilities shall commence on and from the Date of issuance of Work Order and shall continue until the Construction Completion Date (the **"Construction Period"**).

Maximum of **12 (twelve)** months (as mentioned in Table 4) is allowed for designing, drawings, complete construction and establishment of fresh MSW processing plants including installation of all machineries and equipment etc., including obtaining Consent to Establish (CTE)/No Objection Certificate (NOC) and Consent to Operate (CTO) from West Bengal Pollution Control Board (WBPCB).

Notwithstanding anything to the contrary in this Agreement, the Concessionaire shall, prior to the Compliance Date, be entitled to commence:

(a) soil or geophysical investigation or testing at the Sites; and

14.1.2. Maximum of **45 days** extra will be given for installation of weight bridge (as per schedule) and other machineries complete, including trial run

### 14.2. Designs and Drawings

14.2.1. Basic Engineering Designs

(a) The Concessionaire shall prepare the Basic Engineering Designs in accordance with the Technical Specifications, Applicable Laws and Applicable Permits. [If the Concessionaire proposes to set up the Waste to Energy Plant(s), the Concessionaire shall also submit the Basic Engineering Designs for the Waste to Energy Plant(s).] The Basic Engineering Designs shall be drawn to scale, with accurate dimensions, to minimize construction delays, disputes and cost overruns and to ensure smooth construction of the Project Facilities and submitted in accordance with the **Schedule**. The Project Facilities should be designed in a manner such that the Concessionaire can obtain Consent to Operate from the West Bengal Pollution Control Board for the operation of the Project Facilities. The Basic Engineering Designs should also specify the Proposed Technology(ies) for the implementation of the Project.

(b) Within 30 (thirty) days from the Execution Date, the Concessionaire shall submit 4 (four) hard copies and 1 (one) soft copy on a hard disk/pen drive/data storage card of the draft Basic Engineering Designs to Authority for its review and approval.

(c) Authority shall forward the Basic Engineering Designs to the Project Engineer for their review and comments.

(d) Authority shall provide comments if any, on the draft Basic Engineering Designs (including any comments from the Project Engineer) to the Concessionaire or notify the Concessionaire of its approval of the draft Basic Engineering Designs within 20 (twenty) days from the date of receipt of the draft Basic Engineering Designs. Authority may require the Concessionaire to amend or modify the draft Basic Engineering Designs if Authority or the Project Engineer identifies any deficiencies, inaccuracies or shortcomings in the draft Basic Engineering Designs. If the Concessionaire receives any comments, suggestions or instructions to modify the draft Basic Engineering Designs from Authority, then the Concessionaire shall modify the draft Basic Engineering Designs to correct any such shortcomings, inaccuracies or deficiencies and/or address,

in writing, Authority's / the Project Engineer's comments on the draft Basic Engineering Designs and submit the revised Basic Engineering Designs to Authority for its approval within 10 (ten) days of receipt of comments. The process set out in this Clause 14.2.1.(a) shall continue until the Basic Engineering Designs are approved by Authority in accordance with this Clause 14.2.1.(c) and Clause 14.2.1.(d). For the avoidance of doubt, approval of Basic Engineering Designs by the Authority/ the Project Engineer shall not relieve the Concessionaire of its obligations to prepare the Basic Engineering Design in accordance with Technical Specifications, Applicable Laws and Applicable Permits.

(e) If any component, as per the Scope of Work of Contract and also approved and vetted General Arrangement Drawing(s) (GAD) based on process design consideration, cannot be executed at site or anywhere else within the vicinity of the dumpsite, due to unavoidable circumstances, the cost of the same shall be deducted as per Article 17 for Payments, of the RfP document. However, if any work(s) or balance work(s) mentioned above cannot be executed at site or anywhere else, then the cost shall be deducted from the Capital Grant as per the prevailing Schedule of Rates of different departments under Government of West Bengal.

**(f) Use of Proposed Technology**

(i) The Concessionaire shall design and develop the Project on the basis of any proven Technology proposed and approved by the Authority as partof the Designs and Drawings.

(ii) If the Selected Bidder is the owner of the Proposed Technology, then the Concessionaire shall enter into a technology license agreement with the Selected Bidder, under which the Selected Bidder will grant to the Concessionaire an irrevocable, perpetual, assignable, non-exclusive and royalty-free license to use the Proposed Technology to develop and operate the Facilities.

(iii) If the Selected Bidder does not own the Proposed Technology, then the Concessionaire shall, at its own cost, enter into a technology license agreement with the technology provider, under which the technology provider will grant tothe Concessionaire an irrevocable, perpetual, assignable and royalty-free license to use the Proposed Technology. At no point will the Authority be obliged to make any payments to the Concessionaire towards the licensing and use of the Proposed Technology.

(iv) Upon the expiry or early termination of this Agreement, the Concessionaire shall assign the license and related rights to use the Proposed Technology for the sole purpose of operating and maintaining the Project at no additional cost to the Authority.

(v) The Concessionaire shall indemnify the Authorityfor any claims, losses, damages and costs suffered by the Authority as a result of an infringement of any third party's Intellectual Property Rights caused by the operation and use of the Project Facilities.

14.2.2. The Concessionaire shall construct the Project Facilities strictly in accordance with the approved Designs and Drawings. If there are any errors or deficiencies in the Technical Specifications, the Designs and Drawings shall take into account, address or rectify such errors or deficiencies. The Concessionaire shall not deviate from or make any subsequent modification or amendment to the approved Designs and Drawings without the prior written approval of Authority. The Concessionaire shall not commence construction of any part of theProject Facilities prior to approval of the Designs and Drawings in accordance with the Clause. If the Concessionaire undertakes any construction work for the Project Facilities prior to the approval of the Designs and Drawings, it shall do so at its own risk and Authority shall have the right to reject any such construction work that does not comply with the approved Designs and Drawings.

14.2.3. Notwithstanding any approval of the Designs and Drawings by Authority, the Concessionaire shall bear all risk, responsibility and liability for the suitability, accuracy, adequacy and practicality of the Designs and Drawings. Subject to satisfaction of Conditions Precedent specified in Article, the Concessionaire shall not be entitled to any extension of time and/or costs incurred in the preparation of the Designs and Drawings and complying with the requirementsof the Clause.

**14.3. Construction Plan**

14.3.1. Within [30 (thirty)] days from the Execution Date, the Concessionaire shall prepare and submit to Authority a detailed Construction Plan. The Construction Plan shall set out:

(a) The detailed plan for completing the construction (the **"Construction Completion Schedule"** of the Project Facilities by the Scheduled Construction Completion Date; specific activities and extent of construction work to be performed by the Concessionaire to achieve each of the Project Facilities Payment Milestones; and

(b) the order in which the Concessionaire proposes to execute the construction of the Project Facilities.

14.3.2. Authority shall review and provide comments, if any, on the draft Construction Plan to the Concessionaire or notify the Concessionaire of its approval of the draft Construction Plan within 30 (thirty) days from the date of receipt of the draft Construction Plan from the Concessionaire. Authority may require the Concessionaire to amend or modify the draft Construction Plan if Authority identifies any deficiencies or shortcomings in the draft Construction Plan. If the Concessionaire receives any comments, suggestions or instructions to modify the draft Construction Plan from Authority**,** then the Concessionaire shall incorporate the suggestions made by Authority and modify the draft Construction Plan to address any such comments, shortcomings or deficiencies identified by Authority. Thereafter, the Concessionaire shall submit the revised Construction Plan to Authority for its approval. The process set out in this Clause shall continue until the Construction Plan is approved by Authority in accordance with this Clause.

14.3.3. The Concessionaire shall develop and construct the Project Facilities strictly in accordance with the approved Construction Plan. The Concessionaire shall not deviate from or make any subsequent modification or amendment to the approved Construction Plan without the prior written approval of Authority. The Concessionaire shall not commence construction of any part of the Project Facilities prior to approval of the Construction Plan in accordance with this Clause.

14.3.4. Notwithstanding any approval of the Construction Plan by Authority, the Concessionaire shall, be solely liable for completing the construction of the Project Facilities by the Scheduled Construction Completion Date.

14.3.5. The Concessionaire shall submit a consolidated Construction Plan for the Project Facilities.

14.3.6. Authority shall review and provide comments, if any, on the draft Reclamation Plan to the Concessionaire or notify the Concessionaire of its approval of the draft Reclamation Plan within 20 (twenty) days from the date of receipt of the draft Reclamation Plan from the Concessionaire. Authority may require the Concessionaire to amend or modify the draft Reclamation Plan if Authority identifies any deficiencies or shortcomings in the draft Reclamation Plan. If the Concessionaire receives any comments, suggestions or instructions to modify the draft Reclamation Plan from Authority**,** then the Concessionaire shall incorporate the suggestions made by Authority and modify the draft Reclamation Plan to address any such comments, shortcomings or deficiencies identified by Authority. Thereafter,

the Concessionaire shall submit the revised Reclamation Plan to Authority for its approval. The process set out in the Clause shall continue until the Reclamation Plan is approvedby Authority in accordance with the Clause 14.3.6.

**14.4. Environmental, Social, Health and Safety (ESHS) Documents**

14.4.1. Within 45 (forty five) days from the Execution Date, the Concessionaire shall prepare and submit 4 (four) hard copies and 1 (one) soft copy on a hard disk/pen drive of the ESHS Documents to Authority in the format prescribed in Schedule 13.

14.4.2. The ESHS Documents shall set out the Project Facilities specific health, safety and environment policies, guidelines and procedures to be followed by the Concessionaire in undertaking the Project, developed in accordance with the applicable safeguard policies/performance standards/Applicable Laws, the Environmental and Social Management Framework (ESMF), this Agreement, Applicable Permits, and Good Industry Practices.

14.4.3. The ESHS Documents shall comprise the following:

**(a) Safeguard Documents**

As part of the Safeguard Documents, the Concessionaire shall create the environment and social impact assessment report (the **"ESIA"**) and prepare the environmental management plan (the "EMP").

**(b) Safety Documents**

As part of the Safety Documents, the Concessionaire shall be required to prepare thefollowing:

(i) environment, social, health and safety management plan (the **"ESHSMP"**);
(ii) environmental, social, health and safety management strategies and implementation plan (the **"ESHS-MSIP"**). The ESHS-MSIP shall include the following, for the purposes of managing the key ESHS risks in relation to the Project:
   a. traffic management plan to ensure safety of local communities fromconstruction traffic;
   b. water resource protection plan to prevent contamination of drinking water;
   c. boundary marking and protection strategy for mobilization and construction to prevent offsite adverse impacts; and
   d. strategy for obtaining Concessionaire Applicable Permits prior to the start of relevant works.

**(c) Code of Conduct**

The Code of Conduct shall be prepared on the basis of the requirements set out in Schedule 13. The Code of Conduct shall apply to the Concessionaire's employees and subcontractors and shall set out the ESHS obligations of the Concessionaire under the Agreement relating to risks associated with labor influx, spread of communicable diseases, sexual harassment, gender-based violence, illicit behaviour and crime, and maintaining a safe environment etc. The Code of Conduct shall also set out the manner in which the Code of Conduct will be implemented, including how it will be introduced into conditions of employment/engagement, what training will be provided, how it will be monitored and how the Concessionaire proposes to deal with any breaches.

(d) In the ESHS, the Concessionaire shall also be required to provide details of the core team of 3 (three) people for implementation of the Concessionaire's ESHS obligations, comprising: (i) health

expert and safety specialist; (ii) an environmental specialist; and (iii) social specialist, who meet the minimum qualification requirements specified in Schedule 13.

(e) Within 30 (thirty) days from the Execution Date, the Concessionaire shall prepare and submit 4 (four) hard copies and 1 (one) soft copy of Labour Influx and Workers Camp Management Plan to Authority that addresses specific activities that will be undertaken to minimize the impact on the local community, including elements such as worker codes of conduct, training programs on HIV/AIDS, etc. A Workers' Camp Management Plan addresses specific aspects of the establishment and operation of workers" camps.

This Labor Influx and Workers' Camp Management Plan will include:

(i) mandatory and repeated training and awareness raising for the workforce about refraining from unacceptable conduct toward local community members, specifically women;
(ii) informing workers about national laws that make sexual harassment and gender- based violence a punishable offence which is prosecuted;
(iii) introducing a Worker Code of Conduct as part of the employment contract, and including sanctions for non-compliance (e.g., termination), manual scavenging, engagement with local residents, child labor, non-discrimination, harassment of coworkers including women and those belonging to Scheduled Castes and Schedules Tribes and other minority social groups,
(iv) contractors adopting a policy to cooperate with law enforcement agencies in investigating complaints about gender-based violence.
(v) training programs on HIV/AIDS and other communicable diseases,
(vi) workers' Camp Management Plan addressing specific aspects of the establishment and operation of workers' camps provided the Authority is unable to cater to the demand for affordable housing for this additional workforce in terms of rentals, hostels, apartments, etc.; and
(vii) complaint handling mechanism at the Project level.

14.4.4. Authority shall forward a copy of the draft ESHS Documents to the Project for its review and comments.

14.4.5. Authority shall provide comments, if any, on the draft ESHS Documents (including any comments from the Project Engineer) to the Concessionaire or notify the Concessionaire of its approval of the draft ESHS Documents within 30 (thirty) daysfrom the date of receipt of the draft ESHS Documents from the Concessionaire. Authority may require the Concessionaire to amend or modify the draft ESHS Documents if Authority or the Project Engineer identifies any deficiencies or shortcomings inthe draft ESHS Documents. If the Concessionaire receives any comments, suggestions or instructions to modify the draft ESHS Documents from Authority, then the Concessionaire shall modify the draft ESHS Documents to address any such comments, shortcomings or deficiencies identified by Authority. Thereafter, the Concessionaire shall submit the revised ESHS Documents to Authority for its approval. The process set out in this Clause shall continue until the ESHS Documents are approved by Authority in accordance with this Clause.

14.4.6. The Concessionaire shall ensure that its Sub-contractors comply with and conform in all aspects of the ESHS Documents, approved in accordance with this Clause, in executing the Project. Any failure of the Concessionaire or the Sub-Contractors to comply with the ESHS Documents shall constitute a Concessionaire Event of Default. The Concessionaire shall indemnify Authority against all costs, expenses, penalties and liabilities incurred/suffered by the Authority due to the Concessionaire's or any Sub-Contractor's failure to comply with the ESHS Documents in the course of execution of the Project. The Concessionaire shall not deviate from or make any subsequent modification or amendment to the approved ESHS Documents without the prior written approval of Authority**.**

14.4.7. Neither any approval of the ESHS Documents by Authority, nor any failure to review and provide

comments on the ESHS Documents shall excuse any failure by the Concessionaire to adopt proper and recognized safety and environment friendly practices during the execution of the Project. The Concessionaire shall bear all risk, responsibility and liability for the accuracy and adequacy of the final ESHS Documents in ensuring compliance with the applicable safeguard policies/performance standards/Applicable Laws, the ESMF, this Agreement, Applicable Permits and Good Industry Practices in the execution of the Project. The Concessionaire shall not be entitled to any extension of time and/or costs incurred in preparation of the ESHS Documents and complying with the requirements of Clause.

**14.5. Concessionaire's Construction Obligations**

14.5.1. The Concessionaire shall design, construct and complete the Project Facilities and achieve the COD in accordance with Applicable Laws, Applicable Permits, Good Industry Practice, the Technical Specifications, the ESHS Documents, the Designs and Drawings, the Construction Plan and other provisions of this Agreement.

For this purpose, during the construction period, the Concessionaire shall:

(a) Complete the development and construction of the relevant Project Facilities

(i) is in compliance with the Technical Specifications, the Designs and Drawings, the Construction Plan, the ESHS Documents, Applicable Laws, Applicable Permits and Good Industry Practices. For the avoidance of doubt, if there arises any ambiguity or conflict between the Technical Specifications and any Applicable Laws, then the one setting out the more stringent requirements or specifications shall prevail;

(ii) the Project Facilities are fabricated, erected, installed and completed in accordance with the final Designs and Drawings;

(iii) the Project Facilities are free from all defects in design, materials, and workmanship;

(iv) the Project Facilities are safe, reliable and fit for purpose;

(v) the Project Facilities shall be capable of operating up to their respective design capacity; and

(b) maintain and comply with the conditions of all Applicable Permits in undertaking the construction of the Project Facilities;

(c) within 30 (thirty) days of the Compliance Date, and in any event, prior to the commencement of any construction of the Project Facilities, appoint a Person with sufficient skill and expertise to act as the Concessionaire's Representative. The Concessionaire's Representative shall monitor, coordinate and supervise the completion of the Project Facilities, and liaise with Authority's Representative and the Project Engineer during the Construction Period and the O&M Period. At any time during the Concession Period, the Concessionaire may replace the Concessionaire's Representative with prior written notice to the Authority;

(d) provide all necessary assistance to the Project Engineer, the Authority in undertaking inspection of the Project Facilities, and in performing its other obligations and duties under this Agreement;

(e) ensure that none of its employees, consultants, service providers, suppliers, or Sub- Contractors, who may be engaged in future, shall be engaged in corrupt, fraudulent, collusive, coercive or obstructive practice;

(f) reasonably consider and act upon the comments/suggestions made by the Project Engineer and Authority during any meetings with the Concessionaire;

(g) rectify any defects and/or deficiencies in the Project Facilities, including any defects and/or deficiencies identified by the Project Engineer or Authority;

(h) take all necessary measures to maintain the safety and security of personnel, material and property at the Site(s) and the Adjoining Properties, in accordance with the approved ESHS Documents and all Applicable Laws;

(i) ensure that all excavated materials, earthworks, waste materials and hazardous substances are stored and/or disposed in accordance with the ESHS Documents, Applicable Laws and Applicable Permits;

(j) submit monthly reports to the Project Engineer (with a copy to Authority), no later than 10 (ten) days after the end of each month, which should set out the following:

(i) extent of progress of construction activities performed by the Concessionaire for the Project Facilities;

(ii) comparison of actual progress against the planned progress of construction works,reasons for delay, if any and steps taken by the Concessionaire to mitigate the delay;

(iii) details of any accident or hazardous incident at the Site(s) and the steps taken by the Concessionaire to mitigate the consequences of such accident or hazardous incident; and

(iv) status of rectification of defects and/or deficiencies discovered by the Project Engineer or Authority;

(k) ensure that an adequate number of suitably skilled and experienced contractors, architects, workmen and other personnel are engaged to undertake the Project. The Concessionaire shall be solely responsible for the work performed by any staff and labour engaged by it to execute the Project and for payment of all applicable labour charges, fees, cess payable under Applicable Laws (including labour welfare legislations) in connection with the skilled and unskilled manpower employed for the Project, including specifically the „Building and Other Construction Workers Welfare Cess Act, 1996". The Concessionaire shall ensure that its Sub-Contractors provide all necessary amenities and welfare facilities for the staff and labour engaged by them at the Site(s) and comply with all applicable labour laws. The Concessionaire shall indemnify and hold harmless the Authority from and against all claims, liabilities, expenses, costs and losses suffered or incurred by the Authority due to the Concessionaire's to comply with any Applicable Laws (including labour welfare legislations);

(l) arrange for all equipment, machinery, tools and other resources required to undertake the Project and be solely responsible for such equipment, machinery, tools and resources;

(m) take all reasonable measures to ensure that the transportation of any of the Concessionaire's or from the Site(s), does not interfere with local traffic in the vicinity of the Site(s);

(n) maintain accurate and systematic accounts and records of goods and material utilized and other costs and expenses incurred in connection with the construction works for the Project Facilities, including all invoices, receipts, challans, vouchers, quotations and other records and documents with respect to the Project Facilities in accordance with Applicable Laws;

(o) obtain and maintain adequate insurances as per this Agreement; and

(p) prepare and keep up-to-date, "as-built" records of the execution of the construction work for the Project Facilities, showing the exact as-built locations, sizes and details of the works executed. The "as-built" records shall be kept on the Site(s) and be made available to the Project Engineer and Authority for review and verification. The Concessionaire shall provide 4 (four) hard copies and 1 (one) soft copy on a compact disc, of the complete set of "as-built" drawings for the Project Facilities to Authority as a condition precedent to the issuance of the Construction Completion Certificate.

**14.6. Rights and Obligations of the Authority**

14.6.1. During the Construction Period, Authority shall:

(a) comply with all its obligations under Applicable Laws (including, specifically the [ Act applicable in the State] Act) and Applicable Permits;

(b) make reasonable endeavours to assist the Concessionaire in obtaining the Applicable Permits from the relevant Government Authorities, provided that the Concessionaire has complied with all the requirements as per Applicable Laws for applying for such Applicable Permits;

(c) within 30 (thirty) days of the Compliance Date, and in any event, prior to the commencement of any construction for the Project Facilities, appoint a Person with sufficient skill and expertise to act as Authority's Representative. Authority's Representative shall liaise with the Concessionaire's Representative, and the Project Engineer during the Construction Period and the O&M Period. At any time during the Concession Period, Authority may replace Authority's Representative with prior written notice to the Concessionaire;

(d) cause the Project Engineer to carry out timely inspection of the Project Facilities, and perform its other obligations and duties under this Agreement;

(e) upon progressive completion of construction works for the Project Facilities in accordance with the Technical Specifications, Designs and Drawings, Construction Plan and other provisions of this Agreement, as certified by the Project Engineer, issue the Milestone Completion Certificates and the Construction Completion Certificate to the Concessionaire;

(f) ensure that the Concessionaire enjoys peaceful access to the Site(s) and shall not assign, transfer, or otherwise dispose its rights, title, and interest in the Site(s) or create any Encumbrance over any part of the Site(s), which may adversely impact the exercise of the Concessionaire's rights and duties under this Agreement;

14.6.2. During the Construction Period, the Authority shall:

(a) comply with all its obligations under the Applicable Laws;

(b) within 30 (thirty) days of the Compliance Date, and in any event, prior to the commencement of any construction for the Project Facilities, appoint a Person with sufficient skill and expertise to act as the Authority Representative. The Authority Representative shall liaise with the Concessionaire's Representative, Authority’s Representative and the Project Engineer during the Construction Period and the O&M Period. At any time during the Concession Period, the Authority may replace the Authority Representative with prior written notice to the Authority and the Concessionaire; and

**14.7. Utilities**

14.7.1. The Concessionaire shall obtain install and maintain at its cost, all utilities necessary for undertaking the construction of the Project Facilities, including all temporary power and water connections, lighting facilities, telephone connections, internet connections, etc., at the Site(s). The Concessionaire shall bear the cost of all power, water, and other utilities consumed by it during the Construction Period, and the Concessionaire shall not be entitled to claim any reimbursement from the Authority in this regard.

14.7.2. The Concessionaire shall not be entitled to any extension of time or costs to comply with its obligations in Clause above.

14.7.3. Authority shall provide any reasonable assistance required by the Concessionaire to obtain the utilities for the construction of the Project Facilities.

**14.8. Construction Timelines**

14.8.1. The Concessionaire shall comply with the Construction Plan, the Designs and Drawings and the Technical Specifications and complete the construction of the Project Facilities on or before the date scheduled for completion of construction works (the **"Scheduled Construction Completion Date**").

14.8.2. Subject to Clause below, the Concessionaire shall be entitled to a day-for-day extension of the relevant Scheduled Completion Date or as the case may be, the Scheduled Completion Date, if the completion of construction of the Project Facilities is delayed due to any of the following reasons (each such event, a **"Delay Event"**):

(a) occurrence of a Force Majeure Event, provided that the requirements of Article 14 have been complied with;

(b) a Qualifying Change in Law;

(c) any delay attributable to unforeseen Site conditions; or
(d) any variation proposed by Authority in the Technical Specifications or the Designs and Drawings in accordance with Article 28.

(e) delay caused in complying with any instructions of Authority or the Project Engineer, which instructions are not attributable to any default of the Concessionaire.

The Concessionaire shall promptly provide Authority (with a copy to the Project Engineer) with a notice upon becoming aware of any Delay Event listed at Article above. The notice should specify the nature of the Delay Event, the extent of delay suffered or likely to be suffered by the Concessionaire and mitigation measures being taken by the Concessionaire.

The issuance of the notice under this Article, within 7 (seven) days from the date the Concessionaire became aware of the Delay Event, shall be a condition precedent to the Concessionaire's entitlement to an extension under Article.

For the avoidance of doubt, a Delay Event shall allow the Concessionaire only the extension of time and no additional costs.

14.8.3. Without prejudice to the Concessionaire's obligations to notify Authority regarding the occurrence of a Delay Event above, the Concessionaire shall: (i) keep and maintain records as reasonably necessary to substantiate and establish claims for extensions under Article; and (ii) give Authority and the Project Engineer access to such records and documents or provide Authority and the Project Engineer with

copies, if so requested.

14.8.4. If the Concessionaire claims an extension of time in accordance with Article and Authority is of the opinion that such delay was caused or materially contributed to by any concurrent or interacting cause or causes of delay not listed in Article but solely attributable to the Concessionaire, then the Concessionaire shall not be entitled to any extension of time for the concurrent period of delay.

14.8.5. If two or more of the Delay Events listed in Clause occur concurrently, then such concurrent period shall not be counted twice in determining an extension under Clause.

14.8.6. Except as provided in Clause, the Concessionaire shall not be entitled to any extension of time for any reason whatsoever, including due to:

(a) delay caused in complying with any instructions of Authority or the Project Engineer which are attributable to any act or omission of the Concessionaire;
(b) unavailability or shortage of equipment, materials, or any other resources;

(c) any delay in approving the drafts of the Designs and Drawings, the Construction Plan, the ESHS Documents or any other document submitted by the Concessionaire due to any deficiencies or shortcomings in such drafts of the Designs and Drawings, the Construction Plan, the ESHS Documents or other documents, as the case may be; or

14.8.7. Any Dispute between the Parties with respect to the occurrence, length of subsistence or consequence of any of the Delay Event shall be settled in a final and binding manner in accordance with clause written in the bid document.

**14.9. Delay Liquidated Damages**

14.9.1. Subject to Clause, if the Concessionaire fails to complete the work Milestone by the relevant Scheduled Completion Date or fails to complete the construction of the Project Facilities by the Scheduled Construction Completion Date, then Authority shall be entitled to liquidated damages for each day of delay, the Scheduled Construction Completion Date, at the rate of [[1% (one per cent)] of the Security deposit (the **"Delay Liquidated Damages"**).

14.9.2. The Delay Liquidated Damages will be payable until the work for the relevant Payment Milestone is completed or, as the case may be, the construction of the Project Facilities is completed, as certified by Authority in accordance with Article.

14.9.3. If the Concessionaire completes the construction of the Project Facilities by the Scheduled Construction Completion Date, the aggregate Delay Liquidated Damages recovered by Authority under this Article for a delay in achieving any Payment Milestone shall be refunded by Authority to the Concessionaire, without any interest.

14.9.4. Authority shall be entitled to deduct the Delay Liquidated Damages from the amount payable to the Concessionaire for any Payment Milestone, and if such amounts are insufficient, Authority shall have a right to invoke the Security deposit or Performance Security(ies) to the extent of the Delay Liquidated Damages.

14.9.5. The Parties acknowledge that the Delay Liquidated Damages are a genuine pre-estimation of and reasonable compensation for the loss that shall be suffered by Authority as a result of the delay in the completion of the Project Facilities, and not as penalty.

14.9.6. If, for any reason, the above paragraphs relating to the payment of Delay Liquidated Damages are void, invalid or otherwise inoperative so as to disentitle Authority from claiming any Delay Liquidated

Damages, then Authority will be entitled to claim against the Concessionaire for general damages for delay in completing the works for the relevant Payment Milestone by the Scheduled Payment Milestone Completion Date, or for the delay in completing the construction of the Project Facilities by the Scheduled Construction Completion Date.

14.9.7. If the Concessionaire fails to complete the works for a Payment Milestone within 6 (six) months of the Scheduled Payment Milestone Completion Date or if the Concessionaire fails to complete the construction of the Project Facilities within 6 (six) months from the Scheduled Construction Completion Date, other than on account of any Delay Event (the "Grace Period"), then such failure shall be deemed to be a Concessionaire Event of Default in accordance with Clause.

14.9.8. The payment or deduction of Delay Liquidated Damages shall not relieve the Concessionaire from its obligations to complete the construction of the Project Facilities, or from any of its other duties, obligations or responsibilities under the Agreement. The Concessionaire shall use and continue to use its best endeavors to avoid or reduce further delay in completing the Project Facilities.

14.9.9. Completion of Payment Milestones

(a) Authority shall have the right to provide any comments, suggestions and/or instruct the Concessionaire to carry out necessary modifications, to ensure that the works comply with the requirements of Article. Upon receipt of such comments, suggestions or instructions from Authority, the Concessionaire shall make necessary modifications to the works to remedy any defects or deficiencies and re-issue a notice to Authority. The Concessionaire shall bear all costs of remedying the defects and deficiencies in the works and shall not be entitled to any extension of time for remedying such defects or deficiencies. This process shall be repeated until Authority is satisfied that the works for the relevant Payment Milestone have been completed in accordance with the requirements of Article and issues a Milestone Completion Certificate in accordance with this Article.

14.9.10. Testing and Commissioning of the Project Facilities

(a) Upon completion of construction of each Project Facilities, in accordance with the requirements set out in this Agreement, the Concessionaire shall issue a notice to Authority, requiring it to be present at the Site(s) on the date specified in such notice to undertake a final inspection of the completed Project Facilities and conduct any tests required to ensure that the Project Facilities complies with the Technical Specifications, the Designs and Drawings, Applicable Laws and Applicable Permits.

(b) Within 5 (five) days from the date of receipt of a notice under Article above, Authority may request the Concessionaire to vary the date of the final inspection and tests and the Concessionaire shall accommodate such request, provided that, such date shall be no later than 7 (seven) days from the date specified in the notice received from the Concessionaire under Article above.

(c) The Concessionaire shall, on the date specified in the notice issued under Article or on such other date as may be agreed with Authority, carry out the tests in accordance with the instructions and under the supervision of Authority and in accordance with **Schedule**, to demonstrate that the Project Facilities complies with the requirements of Clause.

(d) If Authority is not satisfied with the results of the tests or inspection, then the Concessionaire shall remedy any defects or deficiencies in the Project Facilities, identified by Authority or revealed through the tests and the Project Facilities shall be tested again upon rectification of such defects or deficiencies. This process shall be repeated until such time that Authority is satisfied that the Project Facilities has been completed in accordance with Clause and is safe and fit for purpose.

The Concessionaire shall bear all costs of remedying the defects and deficiencies and retesting the Project Facilities and shall not be entitled to any extension of time for remedying such defects or deficiencies or for retesting the Project Facilities.

## 14.10. Trial Operations

14.10.1. the Concessionaire shall commence the Trial Operations of the Project Facilities in accordance with the trial operation procedures to determine whether the Project Facilities meets the KPIs on a continuous basis and is fit and ready to be placed into commercial operations in accordance with this Agreement.

14.10.2. If the Concessionaire fails to commence or continue the Trial Operations, due to the inadequate quantity or inferior quality of the Solid Waste, then the Concessionaire shall promptly notify Authority. If in the opinion of Authority, the quantity or quality of Solid Waste is not adequate to undertake Trial Operations, then Authority shall extend the time period for the Trial Operations. In such case, the date scheduled for commencement of operations (the **"Scheduled COD"**) will also be extended on a day-for-day basis, provided that the Scheduled COD shall not be extended beyond the date which is [6 (six)] months from the Construction Completion Date.

14.10.3. During the Trial Operations, Authority shall or shall cause the Project Engineer to monitor the performance of the Project Facilities on a regular basis to ensure that the Project Facilities meets the Technical Specifications.

14.10.4. If Authority, or, as the case may be, the Project Engineer is of the view that: ( i) the Trial Operations are not being conducted in accordance with the Trial Operations Procedure; or (ii) there are any defects or deficiencies in the Project Facilities, Authority shall instruct the Concessionaire to follow the trial operation procedures and/or rectify the defects and deficiencies to ensure compliance with the KPIs.

It is clarified that no Availability Liquidated Damages are payable by the Concessionaire during the Trial Operations period for a failure to achieve the KPIs. However, for the Trial Operations to be successfully concluded, the Concessionaire must demonstrate that the Project Facilities consistently and continuously meets the KPIs during the last [10 (ten)] days of the [1 **(month)**] months Trial Operations period, as may be extended in accordance withClause above. If the Project Facilities fails to achieve the KPIs on a continuous basis during the last [10 (ten)] days of the[1 **(one)**] months Trial Operations period (as extended in accordance with Clause, then the Trial Operations period shall be extended by another **10** days. Subject to Clause, the Trial Operations shall continue until the Concessionaire can demonstrate that the Project Facilities consistently achieves the KPIs for 10 (ten) consecutive days.

14.10.5. If the Concessionaire has been able to consistently achieve the KPIs for [20 (twenty)] consecutive days (as supported by daily reports), the Concessionaire shall issue a notice to Authority requiring Authority to undertake a final inspection of the Project Facilities. Authority shall have the right to undertake such final inspection within [5 (five)] Business Days of a notice being issued by the Concessionaire.

14.10.6. If, upon final inspection, Authority is satisfied that the Project Facilities meets the KPIs and the Technical Specifications, and are capable of safe and reliable operations, then, Authority shall issue the Trial Operations Completion Certificate for the Project Facilities to the Concessionaire within [7 (seven)] days of Authority undertaking a final inspection of the Project Facilities pursuant to Article above.

14.10.7. If, upon final inspection, Authority believes that the Project Facilities does not comply with the KPIs

and/or Technical Specifications, then Authority may reject the Project Facilities and terminate this Agreement. Upon termination of this Agreement, in accordance with this Article, the consequences set out in Article and Article shall follow.

14.10.8. If Authority: (i) does not undertake a final inspection of the Project Facilities within [5 (five)] Business Days of receipt of a notice from the Concessionaire under Clause; or (ii) fails to notify the Concessionaire of any defects in the Project Facilities within [7 (seven)] days of undertaking a final inspection; or (iii) fails to issue a Trial Operations Completion Certificate within [7 (seven)] Business Days from the date of the final inspection, then the Trial Operations shall be deemed to have been successfully completed for Project Facilities and the Trial Operations Completion Certificate will be deemed to have been issued to the Concessionaire upon the expiry of the [5 (five)] Business Days period (in case of (i)) and upon the expiry of the [7 (seven)] Business Days period (in case of (ii) and (iii)).

14.10.9. If the Trial Operations are not successfully completed and/or the Concessionaire fails to issue a notice to Authority under Article above on or prior to the Scheduled COD, as may be extended in accordance with Article, for any Project Facilities, then such failure shall be treated as a Concessionaire Event of Default and the consequences set out at Article shall follow.

14.10.10. Notwithstanding anything contained in Article, if the Concessionaire fails to successfully complete the Trial Operations for the Project Facilities on or prior to the Scheduled COD, as may be extended in accordance with Clause, then such failure will be treated as an Authority Event of Default, and the consequences set out specified in Article shall follow.

14.10.11. The Concessionaire will not be entitled to any O&M Payments or any other payment for conducting the Trial Operations, which shall be carried out solely at the cost and risk of the Concessionaire.

**14.11. Commercial Operations Date**

14.11.1. Within 7 (seven) working days from the date of issuance or deemed issuance of the Trial Operations Completion Certificates for the Project Facilities, Authority shall issue the COD Certificate, subject to the following conditions having been fulfilled by the Concessionaire:

(a) the Concessionaire having received the Construction Completion Certificate;
(b) the Concessionaire having submitted to Authority the Scheduled Maintenance Programme for the first-year Post-COD; and
(c) the O&M Manual having been approved by Authority;
(d) the Concessionaire having submitted the Project Facilities O&M Security to Authority.

14.11.2. If Authority fails to issue the COD Certificate to the Concessionaire within 7 (seven) Business Days from the date of satisfaction of the conditions specified in Article above and fails to notify the Concessionaire of any reasons for the failure to issue the COD Certificate, then, the COD Certificate shall be deemed to have been issued to the Concessionaire upon the expiry of the 7 (seven) Business Days period.

14.11.3. The date on which the COD Certificate is issued or deemed to have been issued to the Concessionaire shall be the Commercial Operations Date of the Project Facilities.

14.11.4. Concessionaire shall be entitled to receive Capital Grant support amounting to maximum the sum as given in Table 05. The Capital Grant shall be disbursed as per the scheduled milestones, within in the construction period, before COD, subjected to the fulfilment of terms and condition as detailed in RFP & Concession Agreement.

14.11.5. Payment of tipping fees to the Concessionaire shall only be applicable after COD for processing and scientific disposal of fresh waste as received and delivered at Fresh Municipal Solid Waste Processing Plant(s) (all units) by the municipal authority, for a period of 15 (fifteen) years

**14.12. Safety certification prior to Project COD**

The Concessionaire shall, not later than [15 (fifteen)] days prior to the likely Project COD, notify the Authority and the Project Engineer of the compliance or Safety Requirements and invite them to observe any or all the Tests that may be specified by the Project Engineer in accordance with Applicable Laws, Applicable Permits and Good Industry Practice to determine that the Project infrastructure is safe for entering into commercial service, provided that in case of failure in any Test requiring repetition thereof, the cost of such second or subsequent Test shall be borne entirely by the Concessionaire.

## ARTICLE 15
## OPERATIONS AND MAINTENANCE PERIOD

### 15.1. Commencement and Duration

The period for the operation and maintenance of the Project Facilities, other than the Project Facilities used for processing of fresh Waste, shall commence on and from COD and shall continue until the Termination Date (the **"O&M Period"**).

### 15.2. O&M Manual

15.2.1. The Concessionaire shall prepare a detailed O&M Manual for the Project Facilities based on the Proposed Technology and in accordance with the Technical Specifications, the ESHS Documents, Applicable Laws and Applicable Permits. The O&M Manual shall specify the operation procedures (separately for each component of the Project Facilities) and maintenance procedures. In case of any errors or deficiencies in the Technical Specifications, the O&M Manual shall take in account, address or rectify such errors or deficiencies. The Language of the O&M Manual shall be English.

15.2.2. At least 30 (thirty) days prior to the Scheduled Construction Completion Date, the Concessionaire shall submit 4 (four) hard copies and 1 (one) soft copy on a compact disc of the draft O&M Manual to Authority for its review and approval.

15.2.3. Authority shall review and provide comments, if any, on the draft O&M Manual to the Concessionaire or notify the Concessionaire of its approval of the draft O&M Manual within 20 (twenty) days from the date of receipt of the draft O&M Manual from the Concessionaire. Authority may require the Concessionaire to amend or modify the draft O&M Manual if Authority identifies any deficiencies, inaccuracies or shortcomings in the draft O&M Manual. If the Concessionaire receives any comments, suggestions or instructions to modify the draft O&M Manual from Authority, then the Concessionaire shall modify the draft O&M Manual to correct any shortcomings, inaccuracies or deficiencies identified by Authority and/or address, in writing, Authority's comments on the draft O&M Manual and submit the revised O&M Manual to Authority within 10 days of having received Authority's response, for its approval. The process set out in this Article shall continue until the O&M Manual is approved by Authority in accordance with this Article

15.2.4. The Concessionaire shall revise the O&M Manual as and when the Concessionaire thinks it necessary to do so and in such case the provisions of Article will apply as is to the approval of the revised manual.

15.2.5. The Concessionaire shall undertake the O&M of the Project Facilities strictly in accordance with the approved O&M Manual. The Concessionaire shall not deviate from or make any amendment to the approved O&M Manual without the prior written approval of Authority. The Concessionaire shall not commence operation of the Project Facilities prior to approval of the O&M Manual in accordance with Article.

15.2.6. Notwithstanding any approval of the O&M Manual by Authority**,** the Concessionaire shall bear all risk, responsibility and liability for the suitability, accuracy, adequacy and practicality of the O&M Manual. The Concessionaire shall not be entitled to any extension of time and/or costs incurred in the preparation of or updating the O&M Manual and complying with the requirements of Article.

15.2.7. The Concessionaire shall submit a consolidated O&M Manual for the Project Facilities.

### 15.3. Concessionaire's rights and obligations

15.3.1. The Concessionaire shall operate and maintain the Project Facilities in a manner that:

(a) is in compliance with the Technical Specifications, Applicable Laws, Applicable Permits and Good Industry Practice;
(b) results in the Project Facilities achieving the KPIs;
(c) ensures that each of the Project Facilities is capable of operating up to its design capacity on a daily basis;
(d) is safe and reliable, subject to normal wear and tear of the Project Facilities;
(e) is in compliance with the technology license agreement(s) executed by the Concessionaire for the technology, processes, know-how and systems used or incorporated into the Project Facilities;
(f) maintains the safety and security of personnel, material and property at the Site(s), in accordance with the approved ESHS Documents, Applicable Laws and Applicable Permits;
(g) ensures that all waste materials and hazardous substances are stored and/or disposed in accordance with the ESHS Documents, Applicable Laws and Applicable Permits; and
(h) rectify, cure, remedy all defects, deficiencies, defaults, damage, etc., all of the Project Facilities at its own cost and risk.

15.3.2. The Concessionaire shall provide adequate power backup at the Site(s) (including through installation of DG Sets) to ensure continuous supply of power (even during any interruption(s) in the supply of power from the grid) for the uninterrupted operations of the Project Facilities during the O&M Period.

15.3.3. The Concessionaire shall provide all necessary assistance to the Project Engineer, and the Authority in undertaking inspection and monitoring of the operation and maintenance of the Project Facilities.

15.3.4. The Concessionaire shall reasonably consider and act upon the comments/suggestions made by the Project Engineer and Authority during any meetings of the Concessionaire with its Sub-Contractors.

15.3.5. The Concessionaire shall provide Authority and the Project Engineer with reasonable access to the Site(s) during office hours to monitor and inspect the Project Facilities.

15.3.6. The Concessionaire shall arrange for all equipment, machinery, tools and other resources required to undertake the O&M of the Project Facilities and shall take all reasonable measures to ensure that the transportation of any of the Concessionaire's or the Sub-Contractors' personnel or equipment, to or from the Site(s), does not interfere with local traffic in the vicinity of the Site(s).

15.3.7. The Concessionaire shall develop and implement a safety and surveillance programme for the Project Facilities and for handling and disposal of the residual inert matter and adopt appropriate measures and safeguards for security of the environment, life, and property at the Site(s).
15.3.8. The Concessionaire shall ensure that none of its employees, consultants, service providers, suppliers, or Sub-Contractors, including any O&M contractor appointed by the Concessionaire, shall engage in any corrupt, fraudulent, collusive, coercive or obstructive practice.

**15.4. Rights and obligations of the Authority**

15.4.1. During the O&M Period, Authority shall:

(a) comply with all its obligations under Applicable Laws (including, specifically the [ Act applicable in the State] Act) and Authority Applicable Permits;

(b) monitor and review the operations and performance of the Project Facilities. This includes the right to access the Project Facilities, and review the records and reports that the Concessionaire is required to maintain, during normal working hours;

(c) review the Scheduled Maintenance Programme and all other plans and documents submitted by the

Concessionaire in an expeditious manner, in accordance with this Agreement;

(d) ensure that the Concessionaire continues to enjoy peaceful access to the Site(s) and shall not assign, transfer, or otherwise dispose of its rights, title, and interest in the Site(s) or create any Encumbrance over any part of the Site(s), which may adversely impact the exercise of the Concessionaire's rights and duties under this Agreement.

15.4.2. During the O&M Period, the KMDA/SUDA shall:

(a) comply with all its obligations under the Applicable Laws;

(b) make the O&M Payments specified in Article; and

**15.5. Utilities**

15.5.1. The Concessionaire shall apply for and obtain the power connection (at the battery limit of therelevant Site(s)) for the operation of the Project Facilities, in its name, at least 30 (thirty) days prior to the Scheduled Construction Completion Date. All necessary assistance shall be provided to procure power, water, sewerage connection etc.

15.5.2. The Concessionaire shall install and maintain at its cost, all utilities (other than power) necessary for the O&M of the Project Facilities, including water, telephone connections, internet connections, etc. at the Site(s). Specifically, to procure water for the O&M of the Project Facilities, the Concessionaire may dig bore wells at the Site(s) after obtaining all Applicable Permits (including any no-objection certificates from the Central Ground Water Authority or the relevant state authority).

15.5.3. The Concessionaire shall not be entitled to any additional costs to comply with its obligations in Article.

15.5.4. Authority shall provide any reasonable assistance required by the Concessionaire to obtain the utilities for the O&M of the Project Facilities.

**15.6. Monitoring and Reporting**

15.6.1. Online Monitoring and Meters

(a) At the Project Facilities Sites, the Concessionaire shall install and maintain an online monitoring system, in accordance with the Technical Specifications and Applicable Laws (including specifically, the EPA) to monitor the volume, specifications and characteristics of the incoming Solid Waste and ensure that the Project Facilities are capable of operating up to its design capacity on a daily basis. The online monitoring devices should be capable of measuring and analysing the quantum and characteristics of the Solid Waste at the Processing facility and decentralized units and of the quantum and quality of disposables discharged from the Sites.

(b) Online monitoring system shall maintain a record for equipment's historical running information, status, faults, and any other parameters required to judge its conditions. Such monitoring shall be conducted in accordance with Applicable Laws and Good Industry Practices.

(c) The Concessionaire shall record and transmit all data collected from the online monitoring systems and the meter reading of the grade, volume and characteristics of the incoming Solid Waste and the processed disposables. The Concessionaire shall furnish a summary report for the Project Facilities to Authority (with a copy to the Project Engineer) on a daily basis, which shall indicate: (A) the quantum of the Solid Waste received at the relevant Project Facility(ies) and the quantum of the processed disposables including compost from the relevant Project Facility(ies) of the relevant day; and (B) the

periods during which the quantum of Solid Waste received at the relevant Project Facility( ies)exceeded its design capacity.

(d) The Concessionaire shall also be required to upload the periodic reports from the online monitoring on the Central Pollution Control Board's website.

(e) The Concessionaire shall maintain the online monitoring systems and meters at its own cost and expense for the entire O&M Period.

(f) At Project Facility (ies), the Concessionaire shall also install meters and gauges at the DG Sets to measure the total number of energy units (in kWh) consumed from the DG Sets in each month of the O&M Period.

(g) The meters shall be calibrated once every year during the O&M Period in accordance with Good Industry Practices and the meters shall be jointly tested by Authority and the Concessionaire to ensure the accuracy of the meters installed by the Concessionaire.

15.6.2. Records and Reporting Requirements

(a) The Concessionaire shall maintain:

(i) records of the quantum and characteristics of the Solid Waste received at, and the processed disposables discharged from the Project Facilities; and

(ii) books of accounts recording all payments received from the Authority and other revenues derived/collected by it from the Project Facilities or resulting from its use, separately for each of the Project Facility and Site.

(b) The Concessionaire shall provide to Authority, 2 (two) copies of its audited financial statements along with a report from its statutory auditors, within 90 (ninety) days of the close of each Financial Year.

(c) For Project Facilities, the Concessionaire shall deliver to Authority, with a copy to the Project Engineer, the following during the O&M Period within the specified timelines:

(i) reports relating to any activity, problem, incident or circumstance that threatens or may threaten public health, safety, the environment or the safety and security of the Project Facilities, and any action taken to mitigate the effect of such incident or problem, as soon as reasonably practicable but no later than 12 (twelve) hours after the occurrence of such event or circumstance;

(ii) reports on any critical breakdowns or failures in the Project Facilities, within 12 (twelve) hours of such occurrence;

(iii) reports on accidents or other incidents in relation to the O&M personnel or any third party, along with statements on actions taken to minimise recurrence, within 2 (two) days of such occurrence;

(iv) daily reports with the data collected from the monitoring and metering system, the online monitoring system and the tests conducted by the Concessionaire in accordance with Clause on the characteristics and volume of Solid Waste treated at the Project Facilities, processed disposables discharged from the Project Facilities, at the end of each day (i.e., on or before [15:00 hours] every day);

(v) monthly progress reports relating to the performance of O&M services (including on compliance with the KPIs, details of disposal or sale, as the case may be, of the processed disposables, and

details of any Emergency during the relevant month), on or before the 7th (seventh) day of the following month. The monthly progress report must be certified by the Project Engineer before it is submitted to Authority;

(vi) copies of any reports, notices or responses submitted for compliance/non- compliance with Applicable Laws or Applicable Permits, within 2 (two) days of making such submissions to the relevant Government Authority; and

(vii) reports on any material litigation, including any winding-up proceedings or notice to commence winding-up proceedings or material disputes to which the Concessionaire is a party, appointment of a receiver or administrator in relation to the business or assets of the Concessionaire and any adverse orders or judgments passed by any Government Authorities that affects or is likely to affect the performance of the O&M services, as soon as reasonably possible after the occurrence of any such event.

(d) It is clarified that the reports set out in this Clause will be separately prepared and furnished for each of the Project Facilities.

**15.7. Design Capacity Utilization**

15.7.1. During each day of the O&M Period, the Concessionaire shall ensure that Project Facilities can accept and process Solid Waste up to its design capacity.

15.7.2. The Concessionaire shall notify Authority (with a copy to the Project Engineer) as soon as it becomes aware that the quantum of Solid Waste received at the relevant Project Facility is more than its design capacity.

15.7.3. In such circumstances, if the Concessionaire is unable to accept and process the excess Solid Waste (i.e., over and above the design capacity) at the relevant Project Facility, then such failure shall be treated as a Forced Unavailability for which the Concessionaire shall not be liable, subject to the Concessionaire having notified Authority in accordance with Article above. Authority reserves the right to require the Project Engineer to verify the capacity utilization at any Project Facility, at any time during the O&M Period.

**15.8. Maintenance and Repair of the Project Facilities**

15.8.1. During the O&M Period, the Concessionaire shall, at its own cost, undertake the maintenance of the Project Facilities and repair any damage to the Project Facilities either by itself, such that the Project Facilities shall be:

(a) in good working condition (subject only to wear and tear and Force Majeure) and achieve their full useful economic life in accordance with the Designs and Drawings;

(b) maintained in compliance with the Technical Specifications, O&M Manual, Scheduled Maintenance Programme, Applicable Laws, Applicable Permits, Good Industry Practice and the recommendations of the technology providers;

(c) capable of meeting the KPIs.

15.8.2. For the first year of the O&M Period, the Concessionaire shall submit its scheduled maintenance programme for the Project Facilities, specifying the Scheduled Maintenance periods for the Project Facilities and the impact of such Scheduled Maintenance periods on the Availability of each of the

Project Facility (the **"Scheduled Maintenance Programme"**) to the Authority at least 1 (one) month before the Scheduled COD and for every subsequent year of the O&M Period, the Concessionaire shall submit the Scheduled Maintenance Programme, at least 1 (one) month prior to the beginning of the relevant year. The Scheduled Maintenance Programme for the first year will cover the period from the COD until the end of the calendar year in which the COD occurs. It is clarified that the Concessionaire shall submita consolidated Scheduled Maintenance Programme for the Project Facilities.

15.8.3. Within 15 (fifteen) days of receipt of the Scheduled Maintenance Programme, Authority shallnotify the Concessionaire of its approval of such schedule.

If Authority does not accept any one or more of the requested Scheduled Maintenance periodsor its impact on the Availability of a Project Facilities, Authority shall advise the Concessionaire within 15 (fifteen) days of the receipt of the Scheduled Maintenance Programme on when any Scheduled Maintenance can be rescheduled or how its impact on theAvailability of a Project Facilities may be minimised. The rescheduled time shall be as close as reasonably practicable to the requested time and shall be of equal duration as the requested period. If Authority fails to object to any Scheduled Maintenance within the specified time period or fails to advise the Concessionaire of a substitute time, the Concessionaire may schedule the Scheduled Maintenance for such duration and at such time as initially requested.

(a) Notwithstanding the finalization of the Scheduled Maintenance Programme pursuant to this Article, Authority may require the Concessionaire to reschedule a Scheduled Maintenance in the Scheduled Maintenance Programme, provided that:

(i) Authority has given the Concessionaire at least 30 (thirty) days' prior written notice of such re-scheduling;

(ii) Authority shall not require such Scheduled Maintenance to be rescheduled for a period of shorter or longer duration;

(iii) Authority shall not require that a single Scheduled Maintenance period be split into two or more periods; and

(iv) Authority shall not require that a Scheduled Maintenance be brought forward any earlier than 15 (fifteen) days from the date of such notice without the consent of the Concessionaire.

(b) Notwithstanding the finalization of the Scheduled Maintenance Programme pursuant to this Clause 15.9, the Concessionaire may request a rescheduling of any Scheduled Maintenance upon 60 (sixty) days" prior written notice to Authority. Authority shall respond to such request within 10 (ten) days and shall not unreasonably withhold its permission for such re-scheduling.

(c) Within 5 (five) days of any re-scheduling of a Scheduled Maintenance, as may be approved by the Authority, the Concessionaire shall provide to Authority, the amended Scheduled Maintenance Programme, which shall then be the "**Scheduled Maintenance Programme**".

(d) During the O&M Period, the Concessionaire shall, at its own cost, replace any component or part of the Project Facilities that is damaged or worn out or in the Concessionaire's judgment becomes no longer practicable to repair as a result of normal wear and tear.

(e) If at any time during the O&M Period, a Project Facilities is damaged by a Minor Casualty, the Concessionaire shall, with reasonable diligence, proceed to process the claim with insurance providers and at its own cost, repair, replace, and restore the damaged portion of the Project Facilities to the same condition that it was in before the occurrence of such Minor Casualty. To the extent available, insurance

proceeds shall be applied to such repair, replacement or restoration.

If at any time during the O&M Period, a Project Facilities is damaged by a Total Casualty, then this Agreement shall be terminable at the option of the Concessionaire. If the Concessionaire elects to terminate the Agreement, then the consequences specified in Article will follow. If, however, the Concessionaire elects not to terminate the Agreement, then the Concessionaire shall repair, replace and restore the damaged Project Facilities to the same condition that it was in before the occurrence of such Total Casualty. To the extent available, insurance proceeds shall be applied to such repair, replacement or restoration.

**15.9. Remedial Measures**

If after the COD, the Concessionaire ceases to operate Project Facilities for a period of 48 (forty eight) consecutive hours other than due to a Forced Unavailability, Scheduled Maintenance, or a suspension pursuant to Article, which is not attributable to the Concessionaire, or a Force Majeure Event, without the prior written consent of Authority, then Authority shall be entitled to step-in and undertake O&M of such Project Facilities until the Concessionaire demonstrates to the satisfaction of Authority that it can and will resume normal operation and maintenance of the Project Facilities. The exercise of Authority's rights under this Article shall be at the cost, risk and expense of the Concessionaire. The Concessionaire shall not be entitled to receive any O&M Charges for the duration that Authority steps-in to operate and maintain the Project Facilities.

**15.10. O&M Personnel**

15.10.1. The Concessionaire shall engage adequate number of suitably skilled and qualified personnel to undertake the O&M of the Project Facilities in accordance with the requirements set out in this Article.

15.10.2. The Concessionaire shall be solely responsible for discharging all obligations in connection with the employment of the O&M personnel, including the payment of wages, salaries, Taxes, and retrenchment compensation and providing all amenities and benefits required under applicable laws.

15.10.3. Subject to compliance with the Applicable Laws, the Concessionaire shall have full freedom to determine its internal human resources (HR) policies, including, the wages, benefits and salary structure of its employees, the conditions of service, the shifts of work, its hire and fire policy (whether for misconduct or other cause), and payment of severance or retrenchment compensation.

15.10.4. Authority is not and shall not be treated as the "principal employer" of or be deemed to have any contractual or other relationship with the O&M personnel. The Concessionaire shall hold harmless and indemnify Authority against all losses, claims, costs and damages that Authority may suffer due to the Concessionaire's to comply with Applicable Laws.

**15.11. Segregation of Mixed Waste:**

(i) The Concessionaire shall be responsible for segregation of the Mixed Waste up to the Maximum Permissible Mixed Waste Quantity (should not be less than 50% of total waste quantity) in accordance with the Waste Acceptance and Rejection Plan (to be prepared and submitted by the concessionaire at least 60 (sixty) days prior to scheduled COD, and get vetted from the Authority).

(ii) Any Biodegradable Waste that is segregated from the mixed waste will be processed at the facility created/established for processing of thus, at site, and if such waste is acceptable waste and any Recyclable Materials recovered from the segregation of the Mixed Waste may be sold by the Concessionaire.

(iii) Any residual waste (including any non-biodegradable waste) left after segregation of the Mixed Waste, and that cannot be processed at the processing facilities or sold as Recyclable Materials, shall be delivered by the Concessionaire at the Delivery Point for disposal.

### 15.12. Sale of CBG Output, By-Products and Recyclable Materials

#### (a) Sale of CBG Output

(i) The Concessionaire shall be free to store, use, appropriate, market and sell the CBG Output.

(ii) Concessionaire may sell the CBG Output, at such price and to such Person as it deems fit, and the proceeds of such sale shall be to the account of the Concessionaire.

(iii) The Concessionaire shall enter into an Offtake Agreement with any Off-taker of the CBG Output and the CBG shall be delivered at the delivery point agreed between the Concessionaire and the Off-taker.

(iv) The Concessionaire shall be responsible for the transportation and delivery of the CBG to any Off-taker at its own cost, including for the cost of laying pipelines for the transportation of CBG and/or for the cost of arranging cylinders and cascades for transportation of CBG.

(v) The Concessionaire shall ensure that any cylinder cascades, trucks, pipelines or other appropriate vehicles and / or infrastructure for the transport of the CBG Output, are deployed and maintained in good working condition and designed, operated and maintained in a manner which poses no risk of harm or damage to the environment, life or property in the course of transportation to the relevant delivery location.

(vi) The Concessionaire shall maintain records and submit reports to the Concessionaire of the quantum of the CBG Output sold and delivered on a [weekly] basis. The Independent Engineer shall have the right to, at any time during the O&M Period, inspect the records maintained by the Concessionaire in order to verify the quantum of CBG sold and delivered to the Off-takers.

#### (b) Sale of Recyclable Materials and By-Products

(i) The Concessionaire shall, as a part of the Associated Infrastructure, create an area of storage at the Site for the By-Products and any material that is recyclable (Recyclable Material).

(ii) The By-Products and the Recyclable Material shall be handled safely and stored by the Concessionaire in accordance with the EMP, OHS Plan, Applicable Laws, the Performance Standards and Applicable Permits.

(iii) The Concessionaire shall maintain records and submit reports to the Authority of the quantum of By-Products generated from the Project Facilities and the Recyclable Material recovered on a [weekly] basis. The Independent Engineer shall have the right to, at any time during the O&M Period, inspect the records maintained by the Concessionaire in order to verify the quantum of By-Products generated and Recyclable Material recovered.

(iv) The ownership of the By-Products and the Recyclable Material will vest in the Concessionaire.

(v) The Concessionaire shall be free to sell or otherwise dispose of the By-Product and /or the Recyclable Material, at such price and to such person as it deems fit, and the proceeds of such sale shall be to the account of the Concessionaire.

(vi) The Concessionaire shall arrange for transportation of the By-Products and the Recyclable Material from the Site, at its own cost.

## ARTICLE 16
## MONITORING AND INSPECTION

### 16.1. During Pre-COD Period

16.1.1. Monthly Progress Reports

During the Pre-COD Period, the Concessionaire shall, not later than 7 (seven) days after the close of each month, furnish to the Project Engineer, a monthly report bringing out indetail the progress made by the Concessionaire and also organise monthly review meetings with respect to its Scope of Work, including *inter-alia* the Processing facility Project Facilities and any such information as may be considered essential by the Project Engineer.

16.1.2. Inspection

During the Pre-COD Period, the Project Engineer shall inspect or cause to be inspected the Project Facilities at least [once a month] or at such shorter intervals as may be considered essential by the Project Engineer and make report of such inspection (the "Pre-COD Inspection Report") stating in reasonable detail the delay or deficiencies, if any, with particular reference to the Scope of Work, specifications, Good Industry Practices, and Applicable Laws.

It shall send a copy of such a Report to the Concessionaire within 2 (two) days of such inspection/ observation and upon receipt thereof, the Concessionaire shall rectify and remedy the observations, if any, stated in the Inspection Report. Provided however, such inspection or submission of Inspection Report by the Project Engineer shall not relieve or absolve the Concessionaire of its obligations and liabilities hereunder in any manner whatsoever.

16.1.3. Tests

For determining that the Project Facilities conform to the specifications and requirements of this Agreement, the Project Engineer shall require the Concessionaire to carry out or cause to be carried out tests, at such time and frequency and in such manner as may be specified by the Project Engineer/Authority from time to time, in accordance with Good Industry Practice for quality assurance. The Concessionaire shall, with due diligence, carry out or cause to be carried out all the tests in accordance with the instructions of the Project Engineer and furnish the results thereof to the Project Engineer. For the avoidance of doubt, the costs to be incurred on any such test undertaken shall be borne solely by the Concessionaire. In the event that results of any tests conducted under this Article above establish any defects or deficiencies in the works, the Concessionaire shall carry out remedial measures and furnish a report to the Project Engineer in this behalf. For the avoidance of doubt, it is agreed that tests pursuant to this Article shall be undertaken in addition to and independent of the tests that shall be carried out by the Concessionaire for its own quality assurance in accordance with Good Industry Practice. It is also agreed that a copy of the results of such tests shall be sent by the Concessionaire to the Project Engineer forthwith.

**16.2. Post-COD period**

16.2.1. Monthly Status Reports

During Post-COD Period, the Concessionaire shall, not later than 7 (seven) days after the close of each month, furnish to the Project Engineer a monthly report stating in reasonable detail the condition of the Project including its compliance or otherwise with the Maintenance Requirements, the quantity of Solid Waste Collected, Processed and Disposed and shall promptly give such other relevant information as may be required by the Project Engineer. In particular, such report shall separately identify and state in reasonable detail the defects and deficiencies that require rectification.

16.2.2. Inspection

16.2.3. The Project Engineer shall inspect or cause to be inspected the execution of the Project at least [once

a month]. It shall make a report of such inspection (the "Post-COD Inspection Report") stating in reasonable detail the defects or deficiencies, if any, with reference to the Maintenance Requirements, maintenance manual, KPIs or requirements as set forth in this Agreement including Schedules/ Schedules, and send a copy thereof to the Concessionaire within 7 (seven) days of such inspection and upon receipt thereof, the Concessionaire shall rectify and remedy the defects or deficiencies, if any, stated in the Post-COD Inspection Report. Such inspection or submission of Post-COD Inspection Report by the Project Engineer shall not relieve or absolve the Concessionaire of its obligations and liabilities hereunder in any manner whatsoever.

16.2.4. **Remedial measures**

(a) The Concessionaire shall repair or rectify the defects or deficiencies, which have impact on the operations/ efficiency of the Project, if any, set forth in the Post-COD Inspection Report and furnish a report in respect thereof to the Project Engineer within 15 (fifteen) days of receiving the Post-COD Inspection Report; provided that where the remedying of such defects or deficiencies is likely to take more than 15 (fifteen) days, the Concessionaire shall submit progress reports to the Project Engineer of the repair works [once every week] until such works are completed in conformity with this Agreement.

(b) In the event that remedial measures are not completed by the Concessionaire in conformity with the provisions of this Agreement, the Project Engineer/ Authority shall be entitled to recover Damages from the Concessionaire at the rate of [0.1% (zero point one percent)] of Performance Security /Security Deposit for each day of delay beyond the period specified for rectification of such defect or deficiency by the Project Engineer/Authority. Authority's right to take remedial measures

(c) In the event the Concessionaire does not maintain and/or repair the Project Facilities/ Project Assets or any part thereof in conformity with the Maintenance Requirements, maintenance manual or KPI or requirements as set forth in this Agreement including Schedules/ Schedules, and fails to commence remedial works within 15 (fifteen) days of receipt of Post-COD Inspection Report or notice in this behalf from the Authority, the Authority shall, without prejudice to its right under this Agreement including termination thereof, be entitled to undertake such remedial measures at the risk and cost of the Concessionaire, and to recover its cost from the Concessionaire. In addition to recovery of the aforesaid cost, an additional sum equal to [10% (ten percent)] of such cost shall be paid by the Concessionaire to the Authority as damages.

## ARTICLE 17
## PAYMENTS

### 17.1. Payment during Concession Period

In consideration of the works and services required to be performed by the Concessionaire for processing of fresh waste and designing, financing, constructing, operating and maintaining the Project Facilities in accordance with this Agreement, the Concessionaire shall be entitled to receive both the tipping fee for processing activities and the Construction Payments with the O&M Payments as tipping fees from the Authority in accordance with this Article 17.

The Concessionaire shall be deemed to have satisfied itself regarding the adequacy, accuracy and sufficiency of the Payments for processing, the Construction Payments and the O&M Payments. Except for any adjustment in accordance with this Agreement, or any permitted Variation, the Construction Payments and the O&M Payments are the total consideration payable to the Concessionaire for undertaking the Project.

### 17.2. Bid Project Cost (tentative)

The Parties expressly agree that the cost of construction of the Project, as on the Bid Date, which is due and payable by the Authority to the Concessionaire, shall be deemed to be, as calculated from the tipping fees, as received from the Concessionaire and the Capital Grant, as provided (the **"Bid Project Cost"**) tentative. The Parties further agree that the Bid Project Cost specified hereinabove for payment to the Concessionaire shall be inclusive of the cost of decentralized units, cost of construction and complete establishment of all units, power connection charges during construction, working capital, physical contingencies and all other soft costs, expenses and charges for and in respect of construction of the Project Adjusted **Bid Project Cost.**

### 17.3. Payment during Construction Period

**I. The Concessionaire is allowed to receive a Capital Grant, as per Table 5**

**MILESTONES FOR PAYMENT OF CAPITAL GRANT**

| Sl. No. | | Description of Items | Percentage Payment breakup schedule | | |
|---|---|---|---|---|---|
| (1) | **Installation of weighbridge, as per schedule** | | | | 1% |
| | (a) | On approval of Design and/or Fabrication Drawing(s) prepared by the Original Equipment Manufacturer (OEM) | 2% of 1% = | 0.02% | |
| | (b) | On Completion of installation of weighbridge and obtaining calibration certificate from the Office of the Legal Metrology | 98% of 1% = | 0.98% | |
| | | | | | |
| (2) | **Dry Waste Processing Facility/Material Recovery Facility (MRF)** | | | | 21% |
| | (a) | On approval of all required Design/Construction/Fabrication (Fabrication Drawings are required for steel structures only) Drawings for setting up of Dry Waste Processing Facility | 2% of 21% = | 0.42% | |
| | (b) | On completion of foundation(s) up to plinth level | 15% of 21% = | 3.15% | |

| Sl. No. | | Description of Items | Percentage Payment breakup schedule | | |
|---|---|---|---|---|---|
| | (c) | On completion of superstructure above plinth level | 30% of 21% = | 6.3% | |
| | (d) | On completion of all electrical and mechanical works, as required, including (i) Plastic recycling facility and shredder, (ii) Bailing unit for bailing of shredded plastics | 25% of 21% = | 5.25% | |
| | (e) | On completion of painting, all types of finishing works etc. all complete | 28% of 21% = | 5.88% | |
| | | | | | |
| (3) | **Wet Waste Processing Facility** | | | | 29% |
| | (a) | On approval of all required Design/Construction/Fabrication (Fabrication Drawings are required for steel structures only) Drawings for setting up of Wet Waste Processing Facility | 2% of 29% = | 0.58% | |
| | (b) | On completion of foundation(s) up to plinth level | 15% of 29% = | 4.35% | |
| | (c) | On completion of superstructure above plinth level | 30% of 29% = | 8.7% | |
| | (d) | On completion of all electrical and mechanical works, as required | 25% of 29% = | 7.25% | |
| | (e) | On completion of painting, all types of finishing works etc. all complete | 28% of 29% = | 8.12% | |
| | | | | | |
| (4) | **Sanitary Landfill** | | | | 6% |
| | (a) | On approval of all required Design/Construction Drawings for setting up of Sanitary Landfill of required capacity | 2% of 6% = | 0.12% | |
| | (b) | On completion of excavation/filling up of earth in layers, and compaction of the same with bentonite etc., as per design requirement, to form embankment (Geological Barrier) | 20% of 6% = | 1.2% | |
| | (c) | On completion of installation of geo-textile and geo-membrane, as per design requirement | 20% of 6% = | 1.2% | |
| | (d) | On completion of drainage layer(s), gas collection systems, leachate collection systems etc. all complete, as per design requirement | 30% of 6% = | 1.8% | |
| | (e) | On completion of all types of finishing works etc. all complete | 28% of 6% = | 1.68% | |
| | | | | | |
| (5) | **Administrative Building with laboratory, as per FCO guidelines (minm. two storied, framed structure)** | | | | 10% |
| | (a) | On approval of all required Design/Construction Drawings | 2% of 10% = | 0.2% | |
| | (b) | On completion of foundation, up to plinth level | 15% of 10% = | 1.5% | |
| | (c) | On completion of first floor (structural part) | 15% of 10% = | 1.5% | |
| | (d) | On completion of 2nd floor/roof (structural part) | 18% of 10% = | 1.8% | |

| Sl. No. | | Description of Items | Percentage Payment breakup schedule | | |
|---|---|---|---|---|---|
| | (e) | On completion of construction of walls, installtion of doors and windows, plastering, painting etc. complete | 25% of 10% = | 2.5% | |
| | (f) | On completion of all electrical and mechanical works, as required, including installation of Air Conditioners (min. 4 nos. - 1 at Laboratory, 2 at meeting room and 1 at officer's cabin) | 10% of 10% = | 1% | |
| | (g) | On completion of meeting table (large) with chairs (min. 8 nos.) | 2% of 10% = | 0.2% | |
| | (h) | On completion of installation of all equipment and machineries for laboratory, as per FCO guidelines | 13% of 10% = | 1.3% | |
| | | | | | |
| (6) | **Car parking shed** | | | | 2% |
| | (a) | On approval of all required Design/Construction/Fabrication (Fabrication Drawings are required for steel structures only) Drawings | 2% of 2% = | 0.04% | |
| | (b) | On completion of foundation(s) up to plinth level | 15% of 2% = | 0.3% | |
| | (c) | On completion of superstructure above plinth level | 43% of 2% = | 0.86% | |
| | (d) | On completion of all electrical and mechanical works, as required | 10% of 2% = | 0.2% | |
| | (e) | On completion of painting, all types of finishing works etc. all complete | 30% of 2% = | 0.6% | |
| | | | | | |
| (7) | **Leachate collection system and treatment facility** | | | | 2% |
| | | | | | |
| (8) | **Site development works** | | | | 12.5% |
| | (a) | On approval of General Arrangement (GA) drawing(s) | 4% of 12.5% = | 0.50% | |
| | (b) | On completion of internal Roads with marking | 22% of 12.5% = | 2.75% | |
| | (c) | On completion of internal drainage networks | 17% of 12.5% = | 2.125% | |
| | (d) | On completion of internal water supply system | 15% of 12.5% = | 1.875% | |
| | (e) | On completion of development of internal area, with cutting/filling of earth etc., plantation complete | 5% of 12.5% = | 0.625% | |
| | (f) | On completion of construction of inspection boreholes for regular testing of ground water | 1% of 12.5% = | 0.125% | |
| | (g) | On completion of all type of installation and construction of liquid waste management system, as needed and approved | 4% of 12.5% = | 0.50% | |
| | (h) | On completion of all types of finishing works including plant markings/flags etc. complete | 12% of 12.5% = | 1.50% | |
| | (i) | Repair, Renovation, height augmentation & Retrofitting of the already existing Boundary Wall in the periphery of the MSW processing plant premises including repairing of overhead barbed wires, Angles etc. as per direction of EIC for ensuring 24x7 | 20% of 12.5% = | 2.50% | |

| Sl. No. | | Description of Items | Percentage Payment breakup schedule | | |
|---|---|---|---|---|---|
| | | protection of plant premises along with Construction of new boundary wall along the proposed length as per direction of EIC. | | | |
| | | | | | |
| (9) | **On completion of bringing Power to the facilities, including internal lighting arrangements** | | | | 10% |
| | (a) | On approval of all kinds of electro-mechanical drawing(s) | 2% of 10% = | 0.2% | |
| | (b) | On getting NOC/approval from the Department of Power, Government of West Bengal | 3% of 10% = | 0.3% | |
| | (c) | On submision of EMD, Security Deposit, Service Connection Charges, and all other charges to bring power to the facility from the nearest/effective electric transformer/pole | 60% of 10% = | 6% | |
| | (d) | On completion of installation of transformers, panels etc. | 20% of 10% = | 2% | |
| | (e) | On completion of installation of DG set, of required capacity, for power backup | 10% of 10% = | 1% | |
| | (f) | On completion of all internal lighting arrangements | 5% of 10% = | 0.5% | |
| | | | | | |
| (10) | **On completion and/or getting of all sort of assessments (Environmental Impact Assessment (EIA)), Environmental Clearance (EC), Consent to Establish (CTE)/No Objection Certificates (NOC), Consent to Operate (CTO) etc, from the WBPCB** | | | | 1.5% |
| (11) | **On completion of Trial Run and Commissioning (Commercial Operation Date) of all facilities** | | | | 5% |
| | | | | | |
| | | **TOTAL =** | | | **100%** |
| | | | | | |
| (12) | **Vehicles required for operation purposes** | | All vehicles are to be provided by the agency, while operating the plants. | | |

**Note: Furnishing of no claim certificate as per requisite format given in this e-RfP is mandatory at each milestone payment stage by the Concessionaire failing which payment shall not be disbursed under any circumstances.**

(A) Notwithstanding anything to the contrary in this Agreement, the Authority shall have no obligation to issue a Payment Certificate unless:

(B) the Performance Securities, security deposit and all other securities remain valid and in effect;

(C) the insurances to be obtained by the Concessionaire in accordance with Article  are valid and in effect;

(D) the Concessionaire Applicable Permits for construction of the Project Facilities are in full force and effect, unless the withdrawal or cancellation of any Applicable Permit is not attributable to

the Concessionaire's failure to comply with Applicable Laws;

(E) the Concessionaire has complied with the ESHS Documents in undertaking the construction of the Project Facilities; and

(F) there is no subsisting Concessionaire Event of Default.

**17.4. Payments during Operation Period**

(a) The 1st (first) instalment of O&M Payments shall be due and payable within 30 (thirty) days of the 60th (sixtieth) day of COD and the remaining instalments shall be due and payable within 30 (thirty) days of completion of the successive 60th day (the "Bi-monthly Payment Date"). For the avoidance of doubt, the last Bi-monthly Payment Date would be adjusted to in such a way that it falls at the end of the Operations Period.

(b) Power Charges

(i) All Inspection charges, Earnest Money Deposit, Security Deposit, Power Service Connection Charges for bringing power connection at site shall be borne by the Concessionaire.
(ii) The Power Charges/Power Consumption bills for the Facilities shall be borne by the Concessionaire.
(iii) If there is any interruption in the supply of power from the grid, the Concessionaire should use backup power supply from the DG Sets.

**17.5. Taxes and Royalties**

(a) The Construction Payments and the O&M Payments are inclusive of all Taxes.

(b) the Authority may deduct from the Construction Payments, the O&M Payments and any other amounts due to the Concessionaire, any income tax or withholding tax that is required to be deducted at source.

(c) The Concessionaire shall be responsible for payment of all applicable Taxes, including all procedural compliances related to the payment of Taxes pursuant to this Agreement, and shall be solely responsible for any proceedings initiated by any Government Authority, in respect of any non-payment or short-payment of Taxes.

(d) The Concessionaire shall be responsible for payment of all applicable royalties on any fine and coarse aggregate, core sand, fine sand, grit and any other minerals extracted and/or used by the Concessionaire or any Sub-Contractor during the Construction Period and furnish proof of payment of such royalties to the Authority along with the Invoices for the Construction Payments.

(e) Upon a request from the Concessionaire, the Authority will provide all relevant certificates and information to enable the Concessionaire to obtain any Tax exemptions available in relation to the Project. It is clarified that the Authority shall not be responsible in any manner for ensuring that any applicable Tax exemptions are available to the Concessionaire.

(f) The Concessionaire shall indemnify the Authority from and against any cost or liability that may arise due to the Concessionaire's failure to pay all applicable Taxes, in connection with the Project.

(g) Any Taxes payable in relation to the Sites shall be borne by the Authority.

**17.6. Disputed Amounts**

(a) The Parties shall, within [10 (ten)] days of receiving the amount due and payable to it, shall notify the other Party of the disputed amounts along with details thereof (the **"Disputed Amounts"**). Within [7 (seven)] days of receiving such notice, the defending Party shall present any information or evidence as may be reasonably required for determining that such Disputed Amounts are not payable. The Parties may, if necessary,meet a representative of the other Party for resolving the dispute and in the event that the dispute is not resolved the Dispute Resolution Procedure in accordance with Article shall apply.

(b) If any amount is payable by either Party upon determination of a dispute regarding any Disputed Amount such amount shall be deemed to be payable on the date when it first became due and

**17.7. Set-off**

(a) The Concessionaire shall not be entitled to retain or set-off any amount due to the Authority by it, but the Authority may retain or set-off any amount owed to it by the Concessionaire under this Agreement which has fallen due and payable against any amount due to the Concessionaire under this Agreement.

(b) The Authority shall notify the Concessionaire at the time it exercises its right to set-off and shall provide the Concessionaire its reasons for exercising such right to set-off.

**17.8. Tipping Fee (O&M Payments)**

Subject to the provisions of this Agreement and bid documents, and in consideration of the Concessionaire accepting the Concession and undertaking to perform and discharge its obligations in accordance with the terms, conditions and covenants set forth in this Agreement, the Authority agrees and undertakes to pay the Concessionaire a tipping fee (O&M Payments) which shall be the only fee paid by the Authority to the Concessionaire for performing the services under this Agreement. The Concessionaire has to quote the O&M Fee for processing & disposal of municipal solid waste on per MT of input basis (also called the base O&M payment of ₹_____ Per MT), with the tipping fee that they shall claim for processing of fresh waste, on per MT of input basis, lying at site, on rate quoted in financial bid or the negotiation rate received. Weighment must be done at the gate of the Processing plant and thereafter processed at the processing plant as per the provisions of the bid document. The O&M payments shall be calculated in accordance with this Schedule 17, subject to any deduction(s) as allowed under the terms of this Agreement.

The Concessionaire shall be deemed to have satisfied itself regarding the adequacy, accuracy and sufficiency of the O&M Payments. Except for any adjustment in accordance with this Agreement, or any permitted Variation, the O&M Payments are the total consideration payable to the Concessionaire for undertaking the Project.

**17.9. Tipping Fee**

Subject to the provisions of this Agreement and bid documents, and in consideration of Concessionaire accepting the Concession and undertaking to perform and discharge its obligations in accordance with the terms, conditions and covenants set forth in this Agreement, KMDA agrees and undertakes to pay to Concessionaire, the Tipping Fee, which shall be the only fee paid by KMDA to the Concessionaire for performing the services under this Agreement.

The following is the Tipping Fee details and shall be revised at a frequency as specified in Tipping Fee Revisions.

| Sl. No. | WASTE MANAGEMENT/SERVICE | Unit of Measurement (UOM) | ACCEPTED RATE (PER MT) |
|---|---|---|---|
| | "SELECTION OF CONSCESSIONAIRE FOR ESTABLISHMENT OF A PERMANENT MUNICIPAL SOLID WASTE PROCESSING PLANT AT CHANDANNAGORE MUNICIPAL CORPORATION, HOOGHLY CHINSURAH MUNICIPALITY FOR CATERING TO MUNICIPAL SOLID WASTE GENERATED FROM THESE AREAS AND ADJOINING PERI-URBAN GRAM PANCHAYATS NAMELY KODALIA-I, KODALIA-II AND BANDEL IN THE STATE OF WEST BENGAL, ALONGWITH THEIR OPERATION AND COMPLETE MAINTENANCE FOR A PERIOD OF 15 (FIFTEEN) YEARS FROM THE COMMERCIAL OPERATION DATE (COD), STRICTLY COMPLYING WITH THE SOLID WASTE MANAGEMENT RULES, 2016, ON DESIGN, BUILD, OPERATE AND TRANSFER (DBOT) BASIS" | | |
| 2. | Tipping fee for processing and scientific disposal of fresh waste as received and delivered at Fresh Municipal Solid Waste Processing Plant(s) (all units) by the municipal authority/municipal corporation, , for a period of 15 (fifteen) years, after obtaining the Commencial Operation Date (COD), strictly complying the Solid Waste Management Rules, 2016, on Design, Build, Operate and Transfer (DBOT) basis" **(T1)**.<br><br>(Rate to be quoted: per MT cost of input fresh waste processed and disposal of different fractions as per CPHEEO manual/SWM Rule, 2016 and any other directives/orders issued by the Government of India/Government of West Bengal time to time, from the dumpsite, strictly as per the scope of work. *At present the GST rate for the above stated work is 0 % (Zero) Percent as on date of publication of this RfP. GST will be reimbursed by the Authority on actual basis as per prevailing norms and rate, if applicable, during the entire concession period.)*<br><br>*(Revision @+3% on every 5 years, will be considered, in INR per MT cost of input fresh waste, which will be applicable only for two times in 15 years, one after successful completion of operation and maintenance of 5 (five) years and the other after 10 (ten) years)* | Per Metric Tonne on input basis | |

a. The above quoted rates are inclusive of all statutory taxes, duties and levies, but excluding GST which will be reimbursed by the Authority on actual basis as per prevailing norms and rate if applicable during the entire concession period.

b. The Concessionaire shall, on the 7th day of every month or in case the 7th day of a month is a holiday then on the following working day of such month, submit to Independent Engineer/KMDA a monthly tipping fee statement.

c. Moisture content shall be measured at a frequency of **one sample per 6000 MT (for input waste and output fractions)** of each segregated fractions from National Test House / IIT / IIEST / Jadavpur University or any other Govt. institute of repute within West Bengal. The moisture content so obtained shall be considered for payment of that quantity. Sample shall be collected from track load at the exit of dumpsite for fresh waste.

d. Weighment shall be measured at the weighbridge installed at the exit.

e. Payment shall be made only after proper disposal of different fractions from the site as per guideline of SWM rule-2016 and current CPCB / SPCB guideline issued for management and disposal of fresh waste.

f. No payment shall be made after 2nd/3rd R/A bill of Fresh waste without any test certificate of Moisture Content from National Test House/IIT/IIEST, Shibpur/Jadavpur University or any other Govt. institute of repute within West Bengal, certificate for disposal of different fraction from end user and real time monitoring data etc. whatever be the penal clause or penalty made. The cost for the same shall be borne by the selected bidder.

g. Maximum period of RDF disposal as per SWM Rules, 2016 and CPCB guideline shall be **60** days beyond which penalty shall be imposed as per the respective clause given in tender.

**17.10. Revision of Tipping Fee:**

(a) The quoted rate for Processing and Disposal of the Municipal Solid Waste (segregated) per day for the period of 15 years in terms of tipping fee will be increased by 3% after completion of every successive five (5) years.

(b) After completion of concession period extension of the contract may be given at the prevailing rate at the end of 16th year and at same terms and conditions.

17.11. **Payment Breakup schedule for Fresh Waste:**

(i) An amount of 50% of billed value shall be paid without inspection and validation of documentary evidence etc., but the Concessionaire to submit all weighment slips/challans (input and output), CCTV footage for the weighment period, drone/Total Station survey at the date of start of work and the date of billing, subject to availability of fund.

(ii) An amount of 50% of billed value shall be paid after submission of documentary proof/evidence, certificates etc. as per requirement subject to availability of fund.

(iii) Maximum period of removal of any recyclable, non-recyclable, compost, bio-CNG, bio-gas, i.e., any fractions/by-products, as per SWM Rules, 2016 shall be maximum of **60** days beyond which penalty shall be imposed as per the respective clause given in tender.

**Note:** - 50% payment shall be released against 1st RA Bill only to maintain cash flow during execution, however no further payment shall be made if actual quantity of RDF generated has not been disposed from the site after 60 days from date of processing. 2nd and subsequent RA bill shall be paid only after regular disposal of actual RDF from site as obtained from materials balance at site.

17.11.1. KMDA deduct / withhold the following charges:

Statutory deductions as per prevailing rates applicable which are not limited to the following:

i. 10 (ten) percent of each Running Account bill, up to 10% of the Total Project Cost.

ii. Any penalties for operational breaches, which is determined to be due and payable, as specified.
iii. Any other recoveries under the terms of this Agreement.
iv. All payments to the Concessionaire by KMDA shall be made by way of Account transfer.
v. 50% payment will be made based on the performance criteria set out in the concession agreement for each instance of default on account of penalty parameters set out in clause or any other criteria in the concession agreement or Tender document the Authority shall issue a show cause notice to the concessionaire. **Only the amount of the tipping fees for which the show-cause notice has been issued shall be withheld.** The balance of the 50% of the tipping fees shall be disbursed along with the payment of tipping fees.
vi. The withheld amount shall be disbursed and settled in the next bill payable to the concessionaire subject to the satisfactorily submission of the response of the show-cause notice issued to it within such time as directed in the show-cause notice along with sufficient documentary evidence and acceptance by the Authority as the case may be at their sole discretion. If the concessionaire does not respond to the show-cause notice to it within the directed time schedule or the Authority as the case may be are not satisfied with the response submitted by the concessionaire, it will forfeit the withheld amount. The right and decision of the acceptance or rejection of the response of the show-cause notice submitted by the concessionaire lies only with the Authority and in all cases shall be acceptable by the concessionaire. **The withheld amount forfeited by the Authority shall remain deposited in the Special account and after yearlyre-conciliation shall be utilized in IEC or any other such activity as agreed by the Authority.**

| | **Notes** |
|---|---|
| 1. | KMDA may engage an independent auditor to audit the weights and other reports. The bidder should provide all the support to KMDA as and when required. |
| 2. | All costs incurred for preparation, printing, submission, review, and approval need to be borne by the Bidder. Bidder should quote the rates accordingly. |
| 3. | The concessioner shall receive payment from KMDA as per the Agreement and by obtaining and submitting to KMDA the certificate from the in-charge officer or site engineer or any other monitoring mechanism decided by KMDA along with the certification of weight slips by the in-charge officer for each trip of waste weighed. The reconciliation of the bills shall be done by the Works Monitoring Committee formed by the KMDA before the final bill is submitted to Kolkata Metropolitan Development Authority. |
| 4. | The concessioner shall raise monthly invoice by the 7$^{th}$ of the subsequent month and submit to the Authority. |
| 5. | KMDA shall evaluate the submitted invoice and inform concessioner if any discrepancy or changes/modifications required within 7 working days from the date of receipt of the invoice. |

## ARTICLE 18
## CAPITAL GRANT

### 18.1. Amount and Disbursement of Capital Grant

The Authority will contribute the Capital Grant for this Project, during project implementation, as per scheduled milestones (as per Article 17). The Capital Grant support amounting to maximum the sum as given in Table 5 in this RfP.

The Capital Grant shall be disbursed as per the scheduled milestones, within in the construction period,

before COD, subjected to the fulfilment of terms and condition as detailed in RFP & Concession Agreement.

**18.2. Capital Grant Disbursement Procedure**

The concessionaire shall deliver to the Authority a request for Capital Grant disbursement after Successful achievement of scheduled milestone(s), mentioned in this RFP Document along with all required documents, the Capital Grant funds shall be disbursed by the Authority after meeting and fulfilment of all condition precedents.

## ARTICLE 19
## KEY PERFORMANCE INDICATORS

**19.1.** Without prejudice to the obligations specified in this Agreement, the Concessionaire shall develop, operate, and maintain the Project Facilities, machinery, and vehicles such that it achieves the performance indicators comprising Availability, Reliability, Operation, Punctuality, Frequency, Safety, upkeep, and conformity with ISO certification, as specified in this Article, Good Industry Practice and Applicable Laws (the "Key Performance Indicators").

| Sl. No. | Activity | Target / Service Level | Applicable Penalty |
|---|---|---|---|
| (1) | Submission of Balance EMD | Not more than 15 working days from the issuance of Letter of Award (LOA) by the Competent Authority/Authority | ₹30,000/- per day with a maximum penalty for 7 days; else, Bid and LOA shall be rejected and EMD will be forfeited. |
| (2) | Signing of Contract | Not more than ,2-5" days from the submission of PBG by the Successful Bidder | ₹30,000/- per day with a maximum penalty for 7 days; else, Bid and LOA shall be rejected and EMD will be forfeited. |
| (3) | Commencement of Work | Within 15 days of handing over the project site. | ₹10,000/- per day after handing over the project site |
| (4) | Weighbridge Data Streaming to ICCC | It is the responsibility of the successful bidder to ensure that actual input data and output data of Weighbridge shall always be streamed to ICCC, failure in compliance shall lead to penalty. | ₹5, 000/- per instance |
| (5) | Tampering with Weighbridge Meter Reading | It is the responsibility of the successful to ensure the accuracy of weighbridge, tampering of Weighbridge or failure to maintenance by the Successful Bidder shall lead to penalty. | ₹9,00.000/- for First instance, ₹15,00.000/- for Second instance thereafter the Authority shall forfeit the PBG |
| (6) | Tampering of Meters/ Sensors/ Devices/ | It is the responsibility of the successful to ensure the accuracy of all Meters/ Sensors/ Devices/, tampering of such devices or failure to maintenance by the Successful Bidder shall lead to penalty. | ₹9,00,000/- for First instance, ₹15.00,000/- for Second instance thereafter the Authority shall forfeit the PBG |
| (7) | Maintenance | Nonperformance of onsite Preventative and Corrective maintenance including Operation trails of items (i.e., Equipment/ Machinery installed. If the Preventative and Corrective maintenance including Operation trails, service is not performed as per Original Equipment Manufacturer (OEM) supplier manual/ instruction of concerned agency/Engineer in charge, the Authority. | ₹75,000/- per instance. |
| (8) | Work Defect | If any defect in carrying out the work by the successful bidder has been noticed by Project Engineer, or the Authority Official then a joint inspection shall be carried out with the representative of successful bidder and all the defaults to be rectified shall be brought to the notice of Successful Bidder. | ₹5,000/- per instance per day |
| (9) | Damage | Penalty for Damaging Municipal | Minimum ₹5,000/- per spot or and |

| Sl. No. | Activity | Target / Service Level | Applicable Penalty |
|---|---|---|---|
| | | property | actual cost as decided by Engineer-In-Charge |
| (10) | Environmental Compliance | Noncompliance to odour control | ₹5,000/- per day or as per the fine imposed by CPCC |
| (11) | Environmental Compliance | Non-compliance of Air/water qualityas per CPHEEO norms/Authority concerned. | As per the fine imposed by CPCC/ Agency Concerned/ the Authority. |
| (12) | ID Card | Not found displaying photo ID | ₹50/- per instance. |
| (13) | Worker Uniform | Worker not in proper Uniform/ Penalty for failure to provide uniform | ₹100/-per instance. |
| (14) | Staff Misconduct | Indulging in smoking/drinking/ sleeping or any other misconduct during duty hours | ₹500/- with removal of the offender |
| (15) | Safety Compliance | Absence of personal PPE protective gears (i.e., Hand Gloves, mask, safety shoes and other required safety gears required for the work) | ₹100/- per instance per person per persona] protective gears missing. |
| (16) | Housekeeping | Unsatisfactory Housekeeping keeping/ Non disposal of Machinery waste | ₹250/- per instance per location |
| (17) | Accidental Insurance Scheme And Health insurance Scheme | The Successful bidder shall Provide Health Insurance schemes and Accidental Insurance schemes within 1 month of joining. | ₹1.000 per instance per staff per year, |
| (18) | Medical Health Checkup | The Successful bidder shall undertake medical health checkup twice a year (at Six Months intervals) for the project staff and workers. | ₹50,000 per instance |
| (19) | Safety Signs | The Successful bidder shall always maintain safety signs during the currency of the project. | ₹1,000/- per instance |
| (20) | Disposal of Inert | Disposing more inert into landfill beyond permissible limit of 10% of the incoming waste<br>If the amount of inert generated is greater than 10% of the monthly incoming municipal solid waste to be processed. | Additional fine equivalents to the excess reject generated i.e., in excess of 10%, for example if the reject to landfill is 17% for a particular month than the fine will be 10%' -17%<br>= 7% of the monthly tipping fees for the particular month. |

**19.2. Note:**

1. If waste going to any of the Landfill is more than limits specified in the RFP document, in such case additional waste being land filled shall be counted as untreated waste & same shall be deducted from the average O&M fees for processing of Municipal Solid Waste subjected to the conditions mentioned in RFP document.

2. Duration of one shift is considered to be of 8 hours duration.

3. If the total penalty amount reaches 10% of contract cost, authority may consider terminating the contract and initiate further legal action which may including blacklisting.

4. If the Concessionaire is not performing as per the provisions of the Concession Agreement, in such case Municipal Commissioner, the Authority at its sole discretion can impose additional fines/penalties (i.e., above 10% of the monthly amount of O&M fees) in addition to as specified in the above tables.

   The said penalty shall be on first occurrence if repeated, the base amount shall be doubled on equal slab e.g. in case of fine /penalty of ₹1000/-, even after lapse of next I8hrs the complaint is not resolved, in such case fine/penalty amounting ₹2000/- shall be imposed, after next 18 hrs. (total 54 hrs. of registering of complaint) the penalty amount shall be ₹4000/- and after next 18hrs the penalty amount will double to ₹8000/- (total 72 hrs. of registering of complaint) shall be likewise imposed, respectively. Penalization authority shall be with Engineer in charge/IE/ Commissioner/ Competent Authority against the complaints received from the Sanitary Inspector/Zone/ Customer Complaint Cell.

5. 5. The decision of the Authority shall be final, conclusive and binding on all the parties upon a question relating to the meaning of anything contained in the conditions herein mentioned and to the quality of articles / execution of work, or as all other questions, claims if any etc.
6. 6. In addition to above fines, successful bidder shall be also responsible for the scientific processing of minimum 90% of the daily collected and transported Solid waste to the processing facility. However, no municipal solid waste shall go out of the municipal solid waste processing facility without scientific processing.

**19.3. Facilities at Project Facilities (SLF Site an decentralized units)**

(n) Availability

The Concessionaire shall ensure that the Availability of the Project Facilities at the SLF Site and decentralized units on every day during the Post-COD period shall be [100% (one hundred per cent)] (the "**Guaranteed Availability**").

(o) Operation

(i) The Concessionaire shall at all times procure that, save and except anydetermined damage caused by theft, arson or vandalism:

A. there are adequate arrangements of Project Facilities as per Specifications and Standards;

B. all machinery, equipment and facilities are operational, function efficiently, and their availability is no less than [98% (ninety eight per cent)] in a month;
C. the Project Facilities are maintained in accordance with Maintenance Requirements;

(p) Punctuality and duration of work

(i) The Concessionaire agrees that the Punctuality as to the duration of work of the Project Facilities shall be measured on a monthly basis in terms of the percentage of days with minimum [8 (eight)] hours of operation to the total number of working days ("**Duration Punctuality**").

(ii) The Parties agree that the Concessionaire may exercise a relaxation equivalent to [2 (two)] hours, for start of the schedule of the work, for reasons attributable to rains, Force Majeure, [or any special circumstance].

(iii) The Concessionaire agrees that the Duration Punctuality shall be equal to or morethan [80% (eighty percent)] respectively.

**19.4. Miscellaneous**

**(a) Quantum of inert/ residual waste undisposed**

The Concessionaire shall make reasonable endeavours to ensure sale of most of the recovered waste products, materials, etc., so as to limit the quantum of waste which remains undisposed to maximum of [10% (ten per cent)] of the waste processed. The quantum of undisposed waste shall be calculated as the difference of total quantum of waste collected and the waste recycled/processed and/or the recycled/processed waste which could not sell.

**(b) Certification**

(i) The Concessionaire shall, prior to 1st (first) Anniversary of the COD, achieve and thereafter maintain throughout the Concession Period, [ISO standards] certification or a substitute thereof for the Project Facilities including Collection vehicles and Transportation vehicles, and shall provide certified copies thereof to the Authority, forthwith.

(ii) In the event of default in obtaining the certification specified in Article, the Concessionaire shall, within [15 (fifteen)] days thereof, submit to the Authority, an action plan that sets out the actions proposed to be taken by the Concessionaire for rectifying its deficiencies and obtaining such certification for the Project Facilities.

(iii) If the period of default in obtaining the ISO certification under this Article shall exceed a continuous period of [15 (fifteen)] months, the Concessionaire shall pay Damages to the Authority in an amount equal to [5% (five per cent)] of the Security deposit.

**(c) Monthly Report**

The Concessionaire shall, no later than [7 (seven)] days after the end of each month, furnish to the Authority, a report stating the KPIachievement of the Project Facility as measured on a daily basis. The Concessionaire shall promptly give such other relevant information as may be required by the Authority.

**19.5. Availability of Project Facilities**

**19.5.1.** The 'Availability' of each Project Facilities will be determined as a ratio of the number of hours in a day during which such Project Facility was available to carry out operations up toits design capacity, to the total number of hours in a day, and the term 'Available' shall be construed accordingly.

**19.5.2.** In computing the Availability of each Project Facilities, the Concessionaire agrees that the Project Facilities will be deemed to be Available at all times, other than during the period of:

(a) an Unscheduled Outage affecting such Project Facility;
(b) a Power Outage affecting such Project Facility;
(c) suspension of the O&M services for such Project Facility, for reasons attributable to the Concessionaire; or
(d) an Emergency affecting such Project Facility, attributable to the Concessionaire, during which the Project Facility will be deemed to be not Available.

**19.5.3.** Notwithstanding anything to the contrary contained in this Agreement, during the period of a Forced Unavailability or a Force Majeure, the Project Facility affected by such Forced Unavailability or a Force Majeure will be deemed to be Available.

**19.5.4.** If the Availability for a Project Facility on any given day is less than the Guaranteed Availability, the Authority shall issue a notice to the Concessionaire requiring the Concessionaire to cure the default causing the reduction in Availability in [3 (three)] days. Any failure to cure the default and achieve the Guaranteed Availability within [3 (three)] days of receipt of the notice from the Authority shall constitute a Concessionaire Event of Default. The Authority may claim Availability Liquidated Damages would be available till the default is cured or the Agreement is terminated.

**19.6. Damages for failure to achieve Key Performance Indicators**

**19.6.1.** Availability Liquidated Damages

(a) If the Availability on any given day in a [month/quarter] is less than the Guaranteed Availability then the Concessionaire shall pay the liquidated damages (the **"Availability Liquidated Damages"**) equal to [0.1% (zero point one per cent)] of the O&M Security or Performance Security (in case of Availability Liquidity Damages for processing of Fresh Waste) for each such day.

(b) The aggregate Availability Liquidated Damages payable by the Concessionaire in any[month/quarter] of the O&M Period will be deducted from the O&M Payments due tothe Concessionaire for such [month/quarter]. If the Availability Liquidated Damages for a [month/quarter] exceed the O&M Payments for such [month/quarter], then the excess amounts shall, at the discretion of the Authority, either be adjusted against the O&M Payments for the subsequent [month/quarter] or recovered from the O&M Securities.

**19.6.2.** Performance Liquidated Damages

(a) If the compliance of KPIs (other than Availability of Project Facilities) on any given day(s) in a [month/quarter] is less than the benchmarks then the Concessionaire shall pay the liquidated damages (the **"Performance Liquidated Damages"**) equal to [0.1% (zero point one per cent)] of the O&M Security for each such day.

(i) Based on the KPI Adherence Report, if the Project Facility(ies) does notcomply with the KPIs, then the process set out below shall follow:

A. In the first instance of non-compliance (the **"First Breach"**), the Authority shall issue a notice to the Concessionaire on the first day of such non-compliance (the "**First Breach Notice"**) requiring the Concessionaire to cure the First Breach within [20 (twenty)] days from the date of the First Breach Notice. If the First Breach is cured within [2 (two)] days of the First Breach Notice, then the Concessionaire shall not be liable to pay any Performance Liquidated Damages. If, however, the First Breach continues beyond [2 (two)] days of the First Breach Notice, then, the Concessionaire shall be liable to pay the Performance Liquidated Damages as pre-decided by the Parties, from the [3rd (third)] day of the First Breach.

B. If: (I) the First Breach continues for [20 (twenty)] days from the date of the First Breach Notice; or (II) another instance of non-compliance occurs within [6 (six)] months of the First Breach, then such breach shall constitute the **Second Breach**. Upon occurrence of the Second Breach, the Authority shall issue a notice to the Concessionaire on the first day of the Second Breach (the **"Second Breach Notice"**) requiring the Concessionaire to cure the

Second Breach within [20 (twenty)] days fromthe date of the Second Breach Notice. If the Second Breach continues beyond [2 (two)] days of the Second Breach Notice, then, the Concessionaire shall be liable to pay twice the amount of the Performance Liquidated Damages, as pre-decided by the Parties, from the[1st(first)] day of the Second Breach. In case of (I) above, it is clarified that the Concessionaire will be liable to pay Performance Liquidated Damages at the rate specified for the First Breach, for the first [2 (two)] days of a continuing breach from the date of the Second Breach Notice and twice the specified Performance Liquidated Damages from the [3rd(third)] day of a continuing Second Breach.

C. If: (I) the Second Breach continues for [20 (twenty)] days from the date of the Second Breach Notice; or (II) another instance of non-compliance occurs within [6 (six)] months of the Second Breach, then such breach shall constitute the **Third Breach**. Upon occurrence of the Third Breach, the Authority shall issue a notice to the Concessionaire on the first day of the Third Breach (the "**Third Breach Notice"**) requiring the Concessionaire to cure the Third Breach within [20 (twenty)] days from the date of the Third Breach Notice. If the Third Breach continues beyond [2 (two)] days of the Third Breach Notice, then: (X) the Concessionaire shall be liable to pay thrice the amount of the Performance Liquidated Damages applicable to the First Breach, from the [1st (first)] day of the Third Breach; and (Y) the Capex Annuity for the relevant [month(s)/quarter(s)] will be reduced by an amount equal to the Capex Annuity for the relevant [quarter/90 (ninety)] days for each day that the Third Breach continues beyond the [1st (first)] day of the Third Breach. In case of (I) above, it is clarified that the Concessionaire will be liable to pay twice the Performance Liquidated Damages specified applicable to the First Breach, for the first [2 (two)] days of a continuing breach from the date of the Third Breach Notice and thrice the specified Performance Liquidated Damages from the [3rd (third)] day of the Third Breach, in addition to the reduction in the Capex Annuity.

D. If: (I) the Third Breach is not cured within [20 (twenty)] days from the Third Breach Notice; or (II) a failure to comply with the KPIs results in occurrence of a Third Breach more than 3 (three) times in a continuous [12 (twelve)] month period, it will be treated as a Concessionaire Event of Default and the consequences set out at Article 23 shall apply.

E. The Parties acknowledge that the Performance Liquidated Damages (including any escalation contemplated in this Article 18.3.2) are a genuine pre-estimation of and reasonable compensation for the environmental damage that may be caused by the Concessionaire's continuing failure to comply with the KPIs, and not as penalty. The payment of Performance Liquidated Damages will not absolve the Concessionaire from any other liability under Applicable Law, for causing any environmental pollution or health hazard due to its failure to comply with the Discharge Standards and/or Applicable Law.[23]

(b) The Performance Liquidated Damages payable by the Concessionaire in any [month/quarter] of the O&M Period will be deducted from the O&M Payments due to the Concessionaire for such [month/quarter]. If the Performance Liquidated Damages for a [month/quarter] exceed the O&M Payments for such [month/quarter], then the excess amounts shall, at the discretion of the Authority, either be adjusted against the O&M Payments for the subsequent [month/quarter] or recovered from the O&M Security.

(c) Within [7 (seven)] days from the end of each month, the Concessionaire shall be required to provide the monthly progress report for each of the Project Facilities) on compliance of such Project Facilities with the KPIs and the reasons for such failure, if any. The Project Engineer shall be required to certify each such monthly report before it is provided to the Authority. Such certified report on compliance with KPIs shall be referred to as **the KPI Adherence Report** and shall form the basis for O&M Payments being made to the Concessionaire during the O&M Period.

**19.6.3.** Notwithstanding anything to the contrary contained herein, in the event in any [month/quarter] the aggregate of Availability Liquidated Damages and Performance Liquidated Damages levied by the Authority on account of non-performance exceeds 10% of the total project cost, then the same shall be construed as Concessionaire Event of Default, which shall make this Agreement liable for termination.

**19.7. Liquidated Damages:**

**19.7.1. Failure to take possession of the site within 15 days of issuance of the LoI:**

If the successful bidder fails to take possession of the site within 15 days from the date of issuance of the LoI and Work Order by KMDA to the successful bidder, the EMD will be forfeited, the bid will stand cancelled and Kolkata Metropolitan Development Authority as per their discretion will have the right to either approach the L2 bidder or issue fresh tender for the said work.

**19.7.2. Failure to execute the Agreement after issue of Letter of Intimation:**

If the successful bidder fails to sign the Agreement in the format shared by Kolkata Metropolitan Development Authority within 10 days of issue of Letter of Intent from Kolkata Metropolitan Development Authority without any valid ground, then the EMD will be forfeited, the bid will stand cancelled and Kolkata Metropolitan Development Authority will have the right to either approach the L2 bidder or issue fresh tender for the said work.

**19.7.3. Delay in Completion of Work:**

In case the bidder fails to complete the work of establishing/construction and thus commissioning of the proposed plant within the **period as mentioned in Table 4**, then the bidder will be liable to pay a fine of minimum of ₹10,000/- (Rupees Ten Thousand only) or any amount that may be approved from the authority, for every day of delay as liquidated damages subjected to maximum of **10% of project cost**. In case the successful bidder is not solely liable for the delay, amount of liquidated damage shall be deducted on proportionate/pro rata basis depending upon the successful bidder's extent of fault in causing such delay. KMDA shall have the right to determine such extent of fault and liquidated damages. Payment of liquidated damages shall not be the sole and exclusive remedies available to KMDA and the successful bidder shall not be relieved from any obligations by virtue of payment of such liquidated damages. KMDA may in its discretion, have the right to terminate the Agreement.

**19.7.4. Failure to start the operation**:

If the successful bidder fails to start the operation and maintenance from the date of commissioning of the plant, the Performance Security/Security Deposit and EMD will be forfeited, the bid will stand cancelled and Kolkata Metropolitan Development Authority as per their discretion will have the right to either approach the L2 bidder or issue fresh tender for the said work.

**19.8. Penalties**

a) From the date of start of actual operation of MSW the Concessionaire shall be subject to the following service level penalties for his failure to carry out operations and providing services properly.

b) For the processing and disposal facility, the penalties will be applicable from the date of issue of readiness certificate from the Authority. Total penalties shall not exceed 50% of the total dues of the concessionaire for any given month. In other words, the dues as well as the penalties of the concessionaire shall be calculated on a monthly basis.

c) Penalties shall be applied in case of defaults as indicated below. The Project Engineer / PMU and till the time no Project Engineer / PMU is appointed the designated officer by the Authority in the role of Project Engineer / PMU shall certify the work done by the Concessionaire and shall have the responsibility to notify to the Authority any such default in the functionsof the Concessionaire. In case the Project Engineer / PMU /the designated officer in role of Project Engineer / PMU finds any default on the part of concessionaire which can be attributed directly to the actions or inactions of the concessionaire or to his negligence, the act or abstinence shall be broughtto the notice of the Authority or the as the Case may be. The Project Engineer / PMU shallprepare a list of such defaults in a month or to every event of such default and a show-causenotice shall be issued to the concessionaire by the Authority for such defaults.The Concessionaire is free to agitate against the show-cause issued to him within the time stipulated in the show-cause notice by presenting response of the same to the Authority alongwith sufficient documentary proof. If the Authority finds the response of the concessionaire satisfactory and decides that any penalty was imposed without just reasons it shall nullify suchshow-cause notice issued and corresponding penalty imposed. The right to accept or reject the response to the show-cause notice presented by the concessionaire lies with the Authority and shall be binding on the concessionaire. If the Authority is of the view to sustain the default to be valid even after the response to the show-cause notice the same shall lead to deduction of Penalty as per table below or as per provision of this agreement

| **Sl. No.** | **Description of Non-Compliance / Function** | **Penalty Amount** |
|---|---|---|
| 1 | Non-Compliance to, SWM Rules 2016, CPCB Guidelines 2019 on Municipal Fresh Waste and other Environmental Standards notified by regulatory authorities or as specified in the Contract. | ₹20,000/- per Incidence per day till compliance is achieved. |
| 2 | Non provision/ delay in provision of site facilities as per specifications. | ₹20,000/- per item per day till Compliance is achieved. |
| 3 | Non-compliance of Safety Standards, use of Personal Protective Equipment by the Worke₹ | ₹5,000/- per Incidence per day till the compliance is achieved. |
| 4 | Failure to process and dispose of minimum average specified quantity of Fresh waste on a daily basis (Computed monthly) excluding the monsoon period as decided in the Workplan {Minimum monthly Target Qty to be processed = Total Quantity ÷ (Completion Period in Months –Installation Period in Months) | Per Month penalty = (Monthly Target Quantity – Actual Monthly Quantity Processed and disposed off) x 5% of Processing Fee for per MT of Fresh Waste processed (As quoted by bidder) from the Project Site |
| 5 | Non-compliance of submission of Topographic survey drawing through drone along with contour in regular interval (at least Quarterly) as mentioned bid document | ₹5,000/- per Incidence per day till the compliance is achieved. |
| 6 | Non-compliance of submission of testing of moisture content of fresh waste in daily basis as mentioned bid document | 2 % of rate quoted by the bidder x Quantity in MT Processed till the compliance is achieved. |
| 7 | Non-compliance of submission of testing of air/ground water/soil quality of Fresh waste project site in regular interval (at least once in a month) as mentioned bid document | ₹5,000/- per Incidence per day till the compliance is achieved. |
| 8 | Non-compliance of installation of weighing machine along with uploading data to web and Automatic vehicle number plate detection and recognition system | 4 % of rate quoted by the bidder x Quantity in MT Processed till the compliance is achieved. |

| Sl. No. | Description of Non-Compliance / Function | Penalty Amount |
|---|---|---|
| 9 | Non-compliance of installation and operation of Real Time monitoring System including CCTV surveillance at either Chandannagore MC/ Hooghly Chinsurah Municipality. | a) If not done by the bidder<br>- 10% of rate quoted by the bidder x Quantity in MT Processed till the compliance is achieved (for both fresh and fresh waste).<br><br>b) If the Real-Time Monitoring Application (App) is provided by KMDA/ SUDA<br>- 12% of rate quoted by the bidder x Quantity in MT Processed till the compliance is achieved (for both fresh and fresh waste).<br><br>c) If the Real-Time Monitoring Application (App) is provided by KMDA/ SUDA and the bidder fails to supply data in the App<br>- 15% of rate quoted by the bidder x Quantity in MT Processed till the compliance is achieved for fresh waste). |
| 10 | Non-compliance of Tracking & installation of GPS Tracking System in all Vehicles to be used for Processing Fresh waste and disposal of different fraction of fresh waste & Fresh waste. | 4 % of rate quoted by the bidder x Quantity in MT Processed till the compliance is achieved. |
| 11 | Non-compliance of submission of calibration certificate of each testing equipments for processing of Fresh waste in regular interval (at least once in a year or as per requirement) as mentioned bid document | ₹5,000/- per Incidence per day till the compliance is achieved. |
| 12 | Non-compliance of proper disposal of RDF within Specified time. | ₹2,000/MT of RDF per month |
| 13 | Dumping waste at any place other than designated facility or spots. | ₹25,000/- per case |
| 14 | Workers found without proper protective gears, dress or Identity Card during activity. | ₹1,000/ - per case |
| 15 | Non-compliance of complaint in same session or same day as per provision of this agreement | ₹5,000/- per case |
| 16 | If the waste is burned at any stage of management. | ₹5,000/- per case |
| 17 | If the quantity of rejects disposed in sanitary landfill is more than 10% of the incoming waste | ₹25,000/- per day |
| 18 | Failure to upkeep and maintain records. | ₹5,000/- per case |
| 19 | Submission of Statutory documents | ₹5,000/- per case |
| 20 | If the workers/staff of agency found involved in any illegal activity like going on strike, creating nuisance being hurdles in Solid Waste management. | ₹25,000/- per day |

| Sl. No. | Description of Non-Compliance / Function | Penalty Amount |
|---|---|---|
| 21 | *Non-compliance of Key Performance Indicator*<br>• *Guaranteed Availability- ensure 100% processing, disposal and landfill facilities every day*<br>• *Operation - no less than 98% in a month*<br>*Punctuality and duration of work - Duration Punctuality more than 80%* | ₹5,000/- per case |
| 22 | *Non availability of Key personnel at site or office*<br>*i) Project Manager not more than 5days*<br>*ii) Safety specialist not more than 5days*<br>*iii) Environmental Specialist & Health Expert not more than 15days*<br>*iv) Site Engineer – I v) Site Engineer – II not more than 2 days.* | ₹5,000/- per Incidence per day till the compliance is achieved. |
| 23 | *Weighment of output waste for fresh waste* | 5% of tipping fees for fresh waste, will be deducted straightway. |
| 24 | *Fire incidents* | ₹20,000/- per additional incidence per day every year<br><br>Exclusion: 2 incidents of fire per 1 lakh MT (1 incident of fire for below 1 lakh MT) at dumpsite of fresh waste will be exempted from penalty. |
| 25 | *Penalty for service providers not meeting the targets provided in RfP* | ₹100/- for every Ton of SCF/RDF,<br>₹100/- for every Ton of Inert/C&D Materials,<br>₹100/- for every Ton of Good Earth |
| 26 | *Non-availability of equipment* | No penalty if all equipment in working condition for 95% of operational days in a month/quarter/year.<br><br>If any equipment is not in working condition, a Penalty of ₹5,000/- per day to be applied on all days beyond the buffer of 5% in a month/quarter/year.<br><br>Excluding incidents of:<br>• Rainy days,<br>• Other externalities include social aspects.<br>• Factors not under the control of the operator. For example, inability of the ULBs to dispose the waste where ULB is responsible for disposal of waste/by-products. |

## ARTICLE 20
## FORCE MAJEURE

### 20.1. Force Majeure Events

Any of the following events which is beyond the control of the party claiming to be affected thereby ("Affected Party"), and which the Affected Party has been unable to overcome or prevent despite exercise of due care and diligence, and result in Material Adverse Effect shall constitute Force Majeure Event:

(a) Earthquake, flood, inundation and landslide;
(b) Storm, tempest, hurricane, cyclone, lightning, thunder or other extreme atmospheric disturbances;
(c) fire caused by reasons not attributable to the agency/ULB or any of the employees, or agents of the agency/ULB.
(d) Acts of terrorism
(e) Strikes, labour disruptions, any other disruptions or public unrest not arising on account of acts of the agency/ULB
(f) Action of Government Agencies having Material Adverse Effect, including but not limited to:
    - Acts of expropriation compulsory acquisition or take over by any Government agency of the processing/ landfill site facilities or any part thereof.
    - Any judgment or order of a court of competent jurisdiction or statuary authority in India made against the agency in any proceeding, which is non- collusive and duly prosecuted.
    - any unlawful, unauthorized or without jurisdiction refusal to issue or to renew or the revocation of any applicable permits, in each case for reason other than the agency's breach or failure in

complying with the SWM rule, 2016, O&M requirements defined in the contract, applicable laws, applicable permits, any judgment or order of any Government Agency or of any contract by which the agency as the case may be is bound.

- Early termination of this agreement by ULB for reason of national emergency or national security.

(g) war, hostilities (whether declared or not), invasion, act of foreign enemy, rebellion, riots, weapon conflict or military actions, civil war, ionizing radiation, contamination by radioactivity from nuclear fuel, any nuclear waste, radioactive toxic explosion, volcanic eruptions.
(h) Strikes, work to rule actions, go slow or similar labour difficulty in the city as a whole and not specific to the work
(i) Any resistance from the citizens or any other groups not allowing to operate the plant stipulated in the tender.

20.1.1. Force Majeure shall not apply in the following circumstances and events:

(a) Un-availability, late delivery of the spares, , machineries, materials and consumables for the work on account of change in cost, delay in manufacture;
(b) A delay in performance of any other agency or employees of the agency;
(c) Non-performance of machineries resulting from wear and tear and not maintained in time.
(d) Non-performance on account of failure to comply with any laws of India related to the work.

20.1.2. Neither ULB nor the agency shall be considered in default or in contractual breach to the extent that performance of obligations is prevented by a Force Majeure Event which arises after the date of issue of work order.

20.1.3. Upon occurrence of an event considered by the agency to constitute Force Majeure and which may affect performance of his obligations, he shall promptly notify ULB's representative, and shall endeavour to continue to perform his obligations as far as reasonably practicable. The agency shall also notify ULB's representative of any proposals, including any reasonable alternative means for performance, but shall not effect such proposals, without the consent of ULB's representative.

20.1.4. Upon occurrence of any event considered by ULB to constitute Force Majeure, and which may affect performance of ULB's obligations, he shall promptly notify the agency and the agency's representative, and shall endeavour to continue to perform his obligations as far as reasonably practicable. ULB shall also notify the agency of any proposals with the objectives of completing the works and mitigating any increased costs to ULB and the agency.

**20.2. Procedure for Calling Force Majeure:**

(i) The Party claiming Force Majeure shall inform the other Party of the situation of Force Majeure as soon as reasonably practicable. The efforts made by the affected party in overcoming the effects will be conveyed to the other party with supporting data including relief from them.

(ii) The affected party shall also inform to the other party cessation of the Force Majeure or circumstances and report regarding the total relief of what so ever nature desired by the affected party.

(iii) Neither party shall then be responsible or liable for any action under the tender conditions for failure or delay in performance of the work under the contract.

(iv) The period allowed for restoration of the normal performance by the parties of such obligation shall be extended on day to day basis based on merit and mutual consent of the parties.

(v) Each party shall use reasonable efforts to mitigate the effects of any event or circumstances of Force Majeure and to cooperate to develop and implement a plan of remedial and reasonable alternative measures to remove the event of Force Majeure. The affected should take lead and exert to resume normal performance of its obligation under the tender conditions.

(vi) The agency shall perform his obligations under the contract as near as it is reasonably practical, also shall seek all reasonable alternative means of performance.

(vii) When the affected party is able to resume performance of its obligations under this contract, it shall promptly give the other party a written notice to that effect provided that in no event shall the suspension of performance be of greater scope and of longer duration than is necessitated by Force Majeure.

(viii) The rights and obligations of the affected party shall be suspended to the extent they are affected by the Force Majeure; ULB shall not be liable to make any payment to the agency for him being affected on account of Force Majeure. In this situation, the agency shall only be paid for the work done, since unforeseen situation should be shared by both, ULB and agency.

**20.3. Notice of Force Majeure Events**

20.3.1. The Affected Party shall give notice to the other Party in writing of the occurrence of any Force Majeure Event (the "**FM Notice"**), as soon as the same arises or as soon as reasonably practicable and in any event within 3 (three) days after the Affected Party knew of its occurrence, the adverse effect it has or is likely to have on the performance of its obligations under this Agreement, the actions being taken and an estimate of the time period required to overcome the Force Majeure Event and/or its nature and effects (if it is possible to estimate the same).

20.3.2. If, following the issue of the FM Notice, the Affected Party receives or becomes aware of any further information relating to the Force Majeure Event, it shall submit such further information to the other Party as soon as reasonably practicable.

20.3.3. Any party claiming to have been affected by a Force Majeure Event shall not be entitled to any relief unless it has complied with all the provisions of this Article 20.1.

**20.4. Excuse of Performance**

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:

(a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;

(b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and

(c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

If a Force Majeure Event affects only one Project Facility, and not the other Project Facilities, then the Affected Party shall only be excused from the performance of its obligations in relation to the affected

Project Facilities.

### 20.5. No Liability for Other Losses

Save and except as expressly provided in this Agreement, no Party shall be liable in any manner whatsoever to the other Parties in respect of any loss relating to or arising out of the occurrence or existence of any Force Majeure Event or the exercise by it of any right pursuant to this Article 20.

### 20.6. Resumption of Performance

The Affected Party shall in consultation with the other Parties, make all reasonable efforts to limit or mitigate the effects of a Force Majeure Event on the performance of its obligations under this Agreement. The Affected Party shall also make efforts to resume performance of its obligations under this Agreement as soon as possible and upon resumption, shall notify the other Parties of the same in writing. The other Parties shall afford all reasonable assistance to the Affected Party in this regard.

All the other consequences of termination that are set out at Article 21 shall apply in case of termination of this Agreement due to a Force Majeure Event.

## ARTICLE 21
## SUSPENSION OF CONCESSIONAIRE'S RIGHTS

### 21.1. Suspension upon Concessionaire Default

Upon occurrence of a Concessionaire Event of Default, the Authority shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (i) suspend all rights of the Concessionaire under this Agreement including the Concessionaire's right to receive Payments under Article 19, and other revenues pursuant hereto, and (ii) exercise such rights itself and perform the obligations hereunder or authorize any other person to exercise or perform the same on its behalf during such suspension (the **"Suspension"**). Suspension hereunder shall be effective forthwith upon issue of notice by the Authority to the Concessionaire and may extend up to a period not exceeding 180 (one hundred and eighty) days from the date of issue of such notice; provided that upon written request from the Concessionaire and the Lender's Representative, the Authority shall extend the aforesaid period of 180 (one hundred and eighty) days by a further period not exceeding [90 (ninety)] days.

### 21.2. Suspension by the Concessionaire

#### 21.2.1. Suspension of construction or O&M of the Project Facilities

(a) At any time during the Concession Period, the Concessionaire may suspend, whether partially or wholly, the construction or O&M of any Project Facility, in case of an Emergency.

(b) The Concessionaire acknowledges that suspension of the construction of any Project Facility during the Construction Period pursuant to Article shall not entitle the Concessionaire to an

extension of time, if such event is attributable to the Concessionaire.

(c) In case of suspension of the performance of the O&M services of any Project Facility pursuant to Article for reasons attributable to the Concessionaire, the Concessionaire shall be entitled to continue to receive the Capex Annuity along with interest, but not the O&M Charges, for the period during which it suspends the performance of the O&M services pursuant to Article

(d) In case of suspension of the performance of the O&M services pursuant to Article for reasons not attributable to the Concessionaire, the Concessionaire shall be entitled to continue to receive the Capex Annuity along with interest, and the O&M Charges, for the period during which it suspends the performance of the O&M services pursuant to Clause Article.

(e) Upon the occurrence of an Emergency, the Concessionaire shall as soon as reasonably possible, and in no event later than [3 (three)] days after such occurrence, notify the Authority, of such occurrence.

(f) If, upon notification, the Authority does not concur with the Concessionaire on the nature of such occurrence, then the Concessionaire shall be required to immediately re-commence the construction or O&M of the Project Facility, as the case may be. Upon re-commencement of the construction or O&M services, the Concessionaire may initiate a Dispute regarding its claim for the occurrence of such an event or circumstance, and such Dispute shall be finally settled in accordance with the dispute resolution procedure set out in Article, provided however that the burden of proof as to the occurrence or existence of such an event shall be upon the Concessionaire.

**21.2.2. Mitigation, Resumption and Termination**

(a) The Concessionaire shall make best endeavours to:

(i) mitigate the effects (including incremental costs and delays) of the events or circumstances resulting in suspension pursuant to Article above. Notwithstanding anything to the contrary contained in this Agreement, if the Authority**,** in its sole assessment, is not satisfied with the steps being taken by the Concessionaire to mitigate the effects of the Emergency, the Authority shall have the right to step-in to this Agreement and undertake necessary measures to mitigate the effect of the Emergency at the cost and risk of the Concessionaire; and

(ii) resume the construction or O&M services of the Project Facility within 24 (twenty four) hours of the ceasing of any of the events or circumstances resulting in suspension pursuant to Article or such longer period as may be approved by the Authority and notify the Authority of the resumption of the works or services.

(b) During the period of Suspension hereunder, all rights and liabilities vested in the Concessionaire in accordance with the provisions of this Agreement shall continue to vest therein and all things done or actions taken, including expenditure incurred by the Authority for discharging the obligations of the Concessionaire under and in accordance with this Agreement and the Project Agreement, shall be deemed to have been done or taken for and on behalf of the Concessionaire and the Concessionaire undertakes to indemnify the Authority for all costs incurred during such period.

(c) Without prejudice to Clause.

(i) if suspension of the construction or O&M of a Project Facility pursuant to Article continues for a period of [60 (sixty)] days, and such event is attributable to the Concessionaire, then such suspension shall amount to a Concessionaire Event of Default in accordance with Article; and

(ii) if suspension of the construction or O&M of a Project Facility pursuant to Article continues for a period of [60 (sixty)] days, and such event is not attributable to the Concessionaire, then such event will be treated as a Force Majeure Event and the consequences set out in Article shall apply.

**21.3. Suspension by the Authority**

**21.3.1. Suspension of construction and/or O&M of the Facilities**

(a) At any time during the Concession Period, the Authority may suspend, whether partially or wholly, the construction or O&M of a Project Facility, in any of the following events or circumstances:

(i) upon the occurrence of an Emergency; or

(ii) if the Concessionaire fails to comply with Applicable Laws, Applicable Permits, the ESHS Documents, the O&M Manual or otherwise fails to perform its obligations in accordance with this Agreement (including the Technical Specifications).

(b) The Concessionaire acknowledges that suspension of the construction of the Project Facilities during the Construction Period pursuant to Article 21.3.1(a) shall not entitle the Concessionaire to an extension of time if such event is attributable to the Concessionaire.

(c) In case of suspension of the performance of the O&M services specified in Article for reasons attributable to the Concessionaire, the Concessionaire shall be entitled to continue to receive the Capex Annuity along with interest, less the Liquidated Damages payable by the Concessionaire for failure to operate the Project Facilities specified in Article. The Concessionaire shall not be entitled to the O&M Charges for the period during which it suspends the performance of the O&M services specified in Article.

(d) In case of suspension of the performance of the O&M services specified in Article for reasons not attributable to the Concessionaire, the Concessionaire shall be entitled to continue to receive the Capex Annuity along with interest, and the O&M Charges, for the period during which it suspends the performance of the O&M services specified in Article.

**21.3.2. Mitigation, Resumption and Termination**

(a) The Concessionaire shall make best endeavours to:

(i) mitigate the effects (including incremental costs and delays) of the events or circumstances resulting in suspension specified in Article above. Notwithstanding anything to the contrary contained in this Agreement, if the Authority, in its sole assessment, is not satisfied with the steps being taken by the Concessionaire to mitigate the effects of the Emergency, the Authority shall have the right to step-in to this Agreement and undertake necessary measures to mitigate the effect of the Emergency at the cost (as determined by the Project Engineer) and risk of the Concessionaire; and

(ii) resume the construction or O&M services of the relevant Project Facility within 24 (twenty four) hours of the ceasing of any of the events or circumstances resulting in suspension specified

in Article or such longer period as may be agreed between the Parties, and notify the Authority of the resumption of the works or services.

(b) Without prejudice to Article:

(i) if suspension of the construction or O&M of the relevant Project Facility specified in Article and the Emergency is attributable to the Concessionaire, ora such suspension continues for a period of 60 (sixty) days, and such suspensionis attributable to the Concessionaire then such suspension shall amount to a Concessionaire Event of Default in accordance with Article; and

(ii) if suspension of the construction or O&M of the relevant Facility specified in Article continues for a period of 60 (sixty) days, and such suspension is not attributable to the Concessionaire, then such suspension will be treated as a Force Majeure Event and the consequences set out in Article shall apply.

**21.4. Revocation of Suspension**

21.4.1. In the event that the Authority shall have rectified or removed the causeof Suspension within a period not exceeding **90 (ninety) days** from the date of Suspension, it shall have the option to revoke the Suspension and restore the rights of the Concessionaire under this Agreement. For the avoidance of doubt, the Parties expressly agree that the Authority may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.

21.4.2. Upon the Concessionaire having cured the Event of Default within a period not exceeding 90(ninety) days from the date of Suspension, the Authority shall revoke the Suspension forthwith and restore all rights of the Concessionaire under this Agreement.

**21.5. Termination**

21.5.1. At any time during the period of Suspension under this Article, the Concessionaire may by notice require the Authority to revoke the Suspension and issue a Termination Notice. Subject to the rights of the Lenders' Representative to undertake substitution in accordance with the provisions of this Agreement, the Authority shall, within [15 (fifteen)] days of receipt of such notice, terminate this Agreement under and in accordance with Article.

21.5.2. Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within [180 (one hundred and eighty)] days from the date of Suspension hereunder or within the extended period, if any, the Concession Agreement shall, upon expiry of aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all provisions of this Agreement shall apply, *mutatis mutandis*, to such Termination as if a Termination Notice had been issued by the Authority upon occurrence of a Concessionaire Default.

## ARTICLE 22
## CHANGE IN LAW

### 22.1. Change in Law

The Concessionaire may claim the benefit of and/or relief for a Change in Law event subjectto and in accordance with this Article 22.

### 22.2. Consequences of Change in Law

22.2.1. The Concessionaire shall not be allowed any relief and/or compensation for any Change in Law which is not a: (i) Qualifying Change in Law; or (ii) Fundamental Change in Law.

22.2.2. If a Qualifying Change in Law occurs, then the Concessionaire shall notify the Authority of such Qualifying Change in Law along with details of:

(a) any necessary change in the Construction Plan, the O&M Manual or the Technical Specifications on the basis of which construction works and O&M services are required to be undertaken for the Facilities;
(b) any changes that are required to the terms of this Agreement to deal with such Qualifying Change in Law;
(c) any extension of the Scheduled Payment Milestone Completion Date or the Scheduled Construction Completion Date, to account for the delay, if any, resulting from the Qualifying Change in Law; and/or
(d) any increase in Costs that will result from the Qualifying Change in Law.

22.2.3. As soon as practicable and in any event, within 30 (thirty) days from the receipt of any notice from the Concessionaire under Article above, the Parties shall agree on the consequences of the Qualifying Change in Law, as specified in the notice, and any way in which the Concessionaire can mitigate the effect of the Qualifying Change in Law, including:

(a) providing evidence that the Concessionaire has used reasonable endeavours (including, where practicable, the use of competitive quotes) to minimise any increase in Costs or oblige the Sub-Contractors to minimise any increase in Costs;

(b) providing evidence as to how the Qualifying Change in Law has affected prices of materials used for construction or O&M of Project facilities; and

(c) demonstrating to the Authority that the Qualifying Change in Law is the direct cause of the increase in Costs or delay and the estimated increase in Costs, or extension of time could not reasonably be expected to be mitigated or recovered by the Concessionaire.

22.2.4. If the Parties fail to agree on the consequences of the Qualifying Change in Law within 30 (thirty) days from the receipt of any notice from the Concessionaire under Article above, the dispute will be finally settled in accordance with the dispute resolution procedure set out in Article.

22.2.5. If the Concessionaire has complied with Article above and the Parties mutually agree or it is determined in accordance with Article above, that the Concessionaire is required to incur additional Costs due to a Qualifying Change in Law, then:

(a) the Concessionaire shall be required to bear all Costs resulting from any one or more Qualifying Change in Law events, up to an aggregate amount equivalent to 0.5% (zero point five per cent) of the total Bid Project Cost (the **"Threshold Limit"**); and

(b) for any additional Costs resulting from the Qualifying Change in Law, which is in excess of the Threshold Limit, the Concessionaire shall be entitled to be compensated for such additional Costs, in excess of the Threshold Limit, by way of,

(i) a lump-sum payment of an amount equivalent to the additional Costs incurred by the Concessionaire, over and above the Threshold Limit; or
(ii) an appropriate adjustment in the O&M Charges.

(c) If the Concessionaire has complied with Article above and the Parties mutually agree or it is determined in accordance with Article that the Concessionaire will suffer any delay as a result of the occurrence of a Qualifying Change in Law, then the Concessionaire shall be entitled to an extension of time as mutually decided by the Authority, and Concessionaire.

(d) In case of a dispute with respect to the quantum of relief (whether extension of time or compensation) that the Concessionaire shall be entitled to under this Article shall be as agreed by the Parties or as determined in accordance with Article, provided always that:

(i) the Concessionaire shall bear any increased Cost to the extent of the Threshold Limit; and
(ii) the Concessionaire shall only be entitled to relief that is reasonable for such Qualifying Change in Law.

(e) Notwithstanding anything to the contrary in this Agreement, the Concessionaire shall not be entitled to any schedule relief and/or compensation or adjustment in the Bid Project Cost or the O&M Charges due to a Qualifying Change in Law, if such Qualifying Change in Law becomes applicable as a result of a delay in the execution of the Project, which is not attributable to a Delay

Event.

(f) If a Fundamental Change in Law occurs, then,

(i) the affected Party may notify the other Parties of the effects of such Fundamental Change in Law on the validity and enforceability of this Concession Agreement or on the rights of the Concessionaire under this Agreement; and

(ii) any Party may propose amendments to the Concession Agreement, which would make the Concession Agreement compliant with Applicable Laws, while enabling the Parties to achieve their commercial objectives.

If the Parties are unable to agree on necessary amendments to the terms of this Agreement within 30 days of receipt of a notice from the affected Party or the Fundamental Change in Law event is such that it cannot be mitigated with amendments to the terms of this Agreement, the Fundamental Change in Law event shall be treated as a Direct Political Force Majeure Event in accordance with Article 20.

**22.3. Increase in costs**

22.3.1. Change in Law shall mean the occurrence or coming into force of any of the following, after the Compliance Date:

(a) The enactment of any new Indian law including laws related to environment, emission standards, etc.;

(b) The repeal, modification or re-enactment of any Applicable Law;

(c) A change in the interpretation or application of any Indian law by a court of record;

Provided that Change in Law shall not include:

(a) Coming into effect, after the Compliance Date, of any provision or statute which is already in place as of the Compliance Date,

(b) Any new law or any change in the existing law under the active consideration of or in the contemplation of any government as of the Compliance Date which is a matter of public knowledge (including *inter-alia*, by-laws, directions, orders, regulations to be issued under the SWM Rules);

(c) Any change in the rates of the Taxes which have a direct effect on the Project.

22.3.2. Subject to Change in Law resulting in Material Adverse Effect and subject to the Concessionaire taking necessary measures to mitigate the impact or likely impact of Change in Law on the Project, if as a result of Change in Law, the Concessionaire suffers an increase in costs or reduction in net after-tax return or other financial burden (the "**Additional Cost**"), the aggregate financial effect of which exceeds 0.5% (zero point five per cent) of the total Bid Project Cost in any Financial Year, the Concessionaire may so notify the Project Engineer/Authority and notify with the information as required under Article below and propose amendments to this Agreement so as to place the Concessionaire in the same financial position as it would have enjoyed had there been no such Change in Law resulting in increased costs, reduction in return or other financial burden as aforesaid. The said remedial measures would be discussed and consequences arising there from shall be dealt with as per terms of Article below..

22.3.3. Upon occurrence of a Change in Law, the Concessionaire shall promptly, notify the Project Engineer/Authority of the following:

(a) The nature and the impact of Change in Law on the Project;

(b) the estimate of the Additional Cost likely to be incurred by the Concessionaire on account of Change in Law;
(c) The measures, which the Concessionaire has taken or proposes to take to mitigate the impact of Change in Law, including in particular, minimising the Additional Cost;
(d) The relief sought by the Concessionaire.

22.3.4. Upon notice by the Concessionaire, the Parties shall meet, as soon as reasonably practicable but no later than 30 (thirty) days from the date of notice, and either agree on amendments to this Agreement or on any other mutually agreed arrangement.

## ARTICLE 23
## EVENTS OF DEFAULT AND TERMINATION

### 23.1.Events of Default

Event of Default shall mean either Concessionaire Event of Default or the Authority Event of Default or all three as the context may admit or require.

### 23.2.Concessionaire Event of Default

23.2.1. In addition to any events specified elsewhere in this Agreement, events arising out of any acts or omissions of the Concessionaire and which have not occurred solely as a consequence of a Authority Event of Default, a Qualifying Change in Law, a Fundamental Change in Law or any other Force Majeure Event, and where the Concessionaire has failed to remedy the defects within any specified time period (to the extentany time period is provided), any of the following events shall constitute an Event of Default by the Concessionaire (the **"Concessionaire Event of Default"**):

(a) failure of the Concessionaire to complete the construction of a Project Facility by the expiry of the Grace Period;

(b) failure of the Concessionaire to pay the Delay Liquidated Damages within the timelines specified in this Agreement;

(c) failure of the Concessionaire to achieve successful completion of Trial Operations of Project Facilities;

(d) failure of the Concessionaire to remedy any reduction in Availability within [3 (three)] days of receipt of a notice from the Authority in accordance with Article18;

(e) failure of the Concessionaire to build and/or operate the Project in compliance with the KPIs and Technical Specifications;

(f) for any Project Facility, failure of the Concessionaire to achieve the KPIs for [2 (two)] consecutive days, [32 (thirty two)] times in a continuous [12 (twelve)] month period;

(g) suspension of the construction or O&M of a Project Facility pursuant to Article (to the extent such Emergency is attributable to the Concessionaire) for a continuous period of 60 (sixty) days;

(h) a breach by the Concessionaire of its obligations under this Agreement which has a Material Adverse Effect on the ability of the Concessionaire to construct and/or operate and maintain the Project Facilities and such breach, if capable of being remedied, is not remedied within [30 (thirty)] days of issuance of written notice from Authority specifying such breach and requiring the Concessionaire to remedy the same;

(i) any representation made or warranties given by the Concessionaire under this Agreement being found to be false or misleading in any material respect;

(j) failure of the Concessionaire to submit and maintain a valid Performance Securities and O&M Securities in accordance with Article;

(k) failure of the Concessionaire to maintain a valid Mobilization Advance Guarantee in accordance with Article;

(l) breach by the Concessionaire of its obligations set forth in this Agreement;

(m) failure of the Concessionaire to obtain, renew and maintain any Concessionaire Applicable Permits;

(n) failure of the Concessionaire to comply with any Applicable Law (including specifically the EPA);

(o) failure of the Concessionaire to obtain and maintain insurance cover in accordance with Article;

(p) failure of the Concessionaire or the Sub-Contractors to comply with the ESHS Documents in accordance with Article;

(q) the breach of the Concessionaire's obligations under or the occurrence of an Event of Default or analogous event under the Financing Agreements (for reasons attributable to the Concessionaire).

(r) abandonment of the Project by the Concessionaire;

(s) the Concessionaire has unlawfully repudiated this Agreement or has otherwise expressed an intention not to be bound by this Agreement;

(t) a resolution for insolvency of the Concessionaire is passed, or any petition for insolvency of the Concessionaire is initiated before a court (including tribunal) of competent jurisdiction in accordance with the provisions of Insolvency and Bankruptcy Code, 2016 and such application has not been withdrawn within 14 (fourteen) days of the date thereof;

(u) if a trustee or receiver is appointed for the Concessionaire or for the whole or material part of its assets that has a material bearing on the Project;

(v) a resolution for winding up of the Concessionaire is passed, or any petition for winding up of the Concessionaire is admitted by a court (including tribunal) of competent jurisdiction in accordance with the provisions of Insolvency and Bankruptcy Code, 2016 or Companies Act, 1956/ Companies Act, 2013 and a liquidator or receiver is appointed and such order has not been set aside within 90 (ninety) days of the date thereof or the Concessionaire is ordered to be wound up by Court except for the purpose of amalgamation or reconstruction; provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Concessionaire are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Concessionaire under this Agreement and the agreements in relation thereto; and provided that:

(i) the amalgamated or reconstructed entity has the capability and operating experience necessary for the performance of its obligations under this Agreement and the agreements in relation thereto; and

(ii) the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and the agreements in relation thereto and has a credit worthiness at least as good as that of the Concessionaire as at the Effective Date.

**23.3.Termination due to Event of Default**

**23.3.1. Termination for Concessionaire Event of Default**

(a) Without prejudice to any other right or remedy which the Authority may have in respectthereof under this Agreement, upon the occurrence of a Concessionaire Event of Default, the Authority shall, be entitled to terminate this Agreement in the manner as set out under Article.

(b) Provided however that upon the occurrence of a Concessionaire Event of Default as specified under Article, the Authority may terminate this Agreement by issue of Termination Notice in the manner set out under Article after giving the Concessionaire an opportunity of hearing.

(c) If the Authority decides to terminate this Agreement pursuant to preceding Article, it shall in the first instance issue Preliminary Notice to the Concessionaire. Within 30 (thirty) days of receipt of the Preliminary Notice, the Concessionaire shall submit to the Authority in sufficient detail, the manner in which it proposes to cure the underlying Event of Default (the "**Concessionaire's Proposal to Rectify**").

(d) In case of non-submission of the Concessionaire's Proposal to Rectify within the said period of 30 (thirty) days, the Authority shall be entitled to terminate this Agreement by issuing Termination Notice, and the Performance Security of the Concessionaire shall get forfeited.

(e) If the Concessionaire's Proposal to rectify is submitted within the period stipulated therefor, the Concessionaire shall have further period of 30 (thirty) days to remedy/ cure the underlying Event of Default. If, however the Concessionaire fails to remedy/cure the underlying event of default within such further period allowed, the Authority shall be entitled to terminate this Agreement, by issue of Termination Notice and the Performance Security of the Concessionaire shall get forfeited.

**23.3.2. Termination Notice**

If a Party has become entitled to do so decide to terminate this Agreement pursuant to the preceding sub Article, it shall issue Termination Notice setting out:

(a) in sufficient detail the underlying Event of Default;

(b) the Termination Date which shall be a date occurring not earlier than 60 (sixty) days from the date of Termination Notice;

(c) the estimated Termination Payment including the details of computation thereof; and,

(d) any other relevant information.

**23.3.3. Obligation of Parties**

Following issue of Termination Notice by either Party, the Parties shall promptly take all such steps as may be necessary or required to ensure that;

(a) until Termination is final the Parties shall, to the fullest extent possible, discharge their respective obligations so as to maintain the continued operation of the Project;

(b) the Termination Payment, if any, payable by the Authority in accordance with the Article is paid to the Concessionaire within 30 (thirty) days of the Termination Date; and

(c) the Project is handed over to the Authority by the Concessionaire onthe Termination Date free from any Encumbrance along with any payment that may bedue by the Concessionaire to the Authority.

**23.3.4. Termination Payment for Authority Event of Default**

Upon Termination of this Agreement on account of Authority Event of Default, the Concessionaire shall be entitled to receive back the Performance Security and also receive an amount equal to Debt Due and 110% (one hundred and ten per cent) of the Adjusted Equity as Termination Payment.

**23.3.5. Withdrawal of Termination Notice**

Notwithstanding anything inconsistent contained in this Agreement, if the Party who has been served with the Termination Notice cures the underlying Event of Default to the satisfaction of the other Party at any time before the Termination occurs, the Termination Notice shall be withdrawn by the Party which had issued the same. Provided that the Party inbreach shall compensate the other Party for any direct costs/ consequences occasioned by theEvent of Default which caused the issue of Termination Notice.

**23.3.6. Termination Payment for Concessionaire Event of Default**

(a) Upon Termination of this Agreement on account of Concessionaire Event of Default before COD, no Termination Payment shall be made to the Concessionaire and the Authority shall be entitled to forfeit the Performance Securityof the Concessionaire;

(b) Upon Termination of this Agreement on account of Concessionaire Event of Default after COD, the Authority shall be entitled to forfeit the Performance Security of the Concessionaire and pay Termination Payment to the Concessionaire as specified below:

An amount equal to 90% (ninety per cent) of Debt Due less Insurance cover; provided that, if any, insurance claims forming part of the Insurance cover are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall be included in the computation of Debt Due.

**23.3.7. Upon termination of this Agreement**

(a) The Concessionaire shall cease all work in relation to construction of the Project Facilities.
(b) The Concessionaire shall cease all work in relation to O&M of the Project Facilities.
(c) The Concessionaire shall take all necessary steps to safeguard and protect the Project Facilities (at whatever stage of completion or operation) and all other equipment, materials and goods on the Sites.
(d) The Concessionaire shall hand over the Sites and the immovable assets, to Authority or its nominee, to the extent applicable, as per Articles,

(e) In case of termination of this Agreement due to an Authority Event of Default, the Authority shall return the Performance Securities/security deposit, the O&M Securities, if not already returned to the Concessionaire, after adjusting any outstanding payments owed by the Concessionaire, within 30 (thirty) days from the Transfer Date.

(f) The Concessionaire agrees that on the service of a Termination Notice or 180 (one hundred and eighty) days prior to the expiry of the Concession Period by efflux of time, it shall conduct or cause to be conducted by the Project Engineer/Authority, a survey (the **"Condition Survey"**) and inspection of the Project to ascertain the condition thereof, verify compliance with the Concessionaire's obligations under this Agreement and to prepare an inventory of the assets comprised in the Project;

(g) If, as a result of the Condition Survey, the Authority, and the Project Engineer shall observe/notice that the Project or any part thereof is not in the condition required thereof under this Agreement (except normal wear and tear) the Concessionaire shall, at its cost and expenses, take all necessary steps to put the same in the requisite conditions well before the Termination Date.

**23.3.8. Transfer of the Sites and the Project Facilities**

Upon the expiry or early termination of this Agreement, the Concessionaire shall hand over the Sites, the immovable assets such as Processing Facility, Material Recovery Facility, decentralized units, etc., to the Authority any other entity nominated by the Authority in accordance with this Article on a date mutually decided by the Authority and the Concessionaire (the **"Transfer Date"**).

**23.3.9. Inspection of the Sites and the Project Facilities**

(a) No later than 30 (thirty) days from the end of the 19$^{th}$(nineteenth) year of the O&M Period or 30 (thirty) days from the date of termination of the Agreement, as the case may be, the Authority shall or shall cause the Project Engineer to carry out a condition survey of the Sites and the Project Facilities to assess whether theyhave been maintained by the Concessionaire in accordance with its obligations under this Agreement, and are in working condition in line with the design life of the Project Facilities.
(b) Authority shall notify the Concessionaire at least 7 (seven) days priorto the date on which it wishes to carry out the survey of the Sites and the Project Facilities.

(c) If the survey carried out by the Authority or the Project Engineer shows that the Concessionaire has not or is not complying with its obligations under this Agreement, then the Authority shall notify the Concessionaire of the rectification and/or maintenance work which is required to ensure that the condition of the Sites and the Project Facilities is restored to the Hand-back Conditions.

(d) The Concessionaire shall carry out such rectification and/or maintenance work to achieve the Hand-back Conditions within 30 (thirty) days from the receipt of a notice from the Authority in accordance with Article above, at its own cost and risk. Upon completion of the rectification and/or maintenance work, the Concessionaire shall request the Authority to carry out a final survey and inspection of the Sites and the Project Facilities. The Authority shall carry out the final survey within 7 (seven) days of receipt of a notice from the Concessionaire pursuant to this Article. [At the discretion of the Authority, the Concessionaire may be allowed extension of the period of [15 (fifteen)] days to rectify the defects notified by the Authority or Project Engineer if and to the extent that the Project Facilities cannot be

used for the purposes for which they are intended after handing over by reason of a defect or damage attributable to the Concessionaire.]

(e) If the Authority satisfied with the results of the final survey, then the Authority shall notify the Concessionaire within 7 (seven) days of carrying out the final survey that the Sites and the Project Facilities, comply with the Hand-back Conditions. If the Authority not satisfied with the results of the final survey, then the Authority shall or shall cause the Project Engineer to estimate the cost of restoring the Sites and the Project Facilities to the Hand-back Conditions and recover such cost from the Concessionaire.

**23.3.10. Hand-back Requirements**

On the expiry or early termination of this Agreement, the Concessionaire shall, at its owncost:

(a) hand over to the Authority or any entity nominated by the Authority, the Sites and the Project Facilities;

(b) to the extent that such rights and interests are not already vested in the Authority, transfer all its rights and interest in the immovable assets comprising in the Project Facilities and execute such deeds and documents as may be necessary for this purpose and complete all related legal or other formalities;

(c) hand over all records and documents relating to the Sites and the Project Facilities including as-built records, Designs and Drawings, online monitoring and metering data, operating logs, manuals, reports, plans and records;

(d) transfer to the Authority or its nominee (free of cost) the license to use the Proposed Technology and other know-how relating to the Project Facilities;

(e) transfer or cause to be transferred to the Authority or its nominee any sub-contract that the Authority or its nominee has chosen to take over and terminate all other sub- contracts;

(f) transfer to the Authority or its nominee all Concessionaire Applicable Permits which the Authority or its nominee may require, and which can be legally transferred;

(g) remove from the Sites all employees and workmen, and movable assets, equipment and materials that are not required to be taken over by the Authority or its nominee; and

(h) cooperate with and assist the Authority with the Project post the handing over.

**23.3.11. Consequences of termination due to a Force Majeure Event**

In case of termination of the Agreement due to a Force Majeure Event, the followingconsequences shall apply:

(a) the Concessionaire shall hand over the Sites and the immovable assets, to Authority onan "as is where is" basis and to the extent relevant;

(b) Authority shall be required to return the Mobilization Advance Guarantees, Performance Securities or the O&M Securities, as the case may be, after adjusting any outstanding payments owed by the Concessionaire, to the Concessionaire within 30 (thirty) days from the Transfer Date; and

(c) in case of termination due to an Indirect Political Force Majeure Event or a Direct Political Force Majeure Event, Authority shall (or shall require the Project Engineer) to assess the Cost of the

construction work undertaken by the Concessionaire in relation to the Project Facilities as on the date of the Termination Notice and based on such assessment, pay the Termination Compensation in accordance with Article.

**23.4.Rights of Authority on Termination**

23.4.1. Upon Termination of this Agreement for any reason whatsoever, Authority shall upon making the Termination Payment, if any, to the Concessionaire, have the power and authority to:

(a) enter upon and take possession and control of the Sites, constructed Project Facilities and the immovable assets, forth with;

(b) prohibit the Concessionaire and any person claiming through or under the Concessionaire from entering upon/ dealing with the Project including Project Facilities and the immovable assets;

23.4.2. Notwithstanding anything contained in this Agreement, Authority shall not, as consequence of Termination or otherwise, have any obligation whatsoever including but not limited to obligations as to compensation for loss of employment, continuance or regularization of employment, absorption or re-employment on any ground, in relation to any person in the employment of or engaged by the Concessionaire in connection with the Project, and the handover of the Project Facilities by the Concessionaire to the Authority shall be free from any such obligation/ fee/ penalties/taxes.

23.4.3. Termination Payment shall become due and payable to the Concessionaire within 15 (fifteen) days of a demand being made by the Concessionaire to the Authority with the necessary particulars. For the avoidance of doubt, it is expressly agreed that the Termination Payments shall become due and payable by the Authority upon actual or constructive handover of the Sites, Project Facilities and immovable assets by the Concessionaire to the Authority clear from all encumbrances, charges and liens whatsoever, unless expressly agreed by the Parties otherwise.

23.4.4. The Concessionaire expressly agrees that Termination Payment under this Article 23 shall constitute a full and final settlement of all claims of the Concessionaire on account of Termination of this Agreement for any reason whatsoever and that the Concessionaire or anyshareholder thereof shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

23.4.5. The Authority, and the Concessionaire hereby unconditionally acknowledge and agree that, without prejudice to their any other right or remedy, the Authority shall be entitled to pay the Termination Payment [to the extent required] to the Lenders‟ Representative for procuring discharge/ release of the any charge/ hypothecation created by Concessionaire on the movable assets for securing payment of Debt Due; and for this purpose the Lender is entitled to receive from the Authority, without any further reference to or consent of the Concessionaire, the Debt Due upon Termination of the Concession Agreement; and Concessionaire hereby irrevocably agree that such payment by the Authority shall be full and final settlement of proportionate claim of Termination Payment to the Concessionaire under this Agreement.

**23.5.Accrued Rights and liabilities of Parties**

(a) Notwithstanding anything to the contrary contained in this Agreement, Termination pursuant to any of the provisions of this Agreement shall be without prejudice to accrued rights of either Party including its right to claim and recover money as damages and other rights and remedies which it may have in law or contract. All accrued rights and obligations of either Party under this Agreement, including without limitation those relating to the Termination Payment, shall survive the Termination but only to the extent such survival is necessary for giving effect to such rights and obligations.

(b) Nothing in Article shall prevent or restrict a Party to seek injunctive relief or a decree of specific performance or other discretionary remedies of the court.

## ARTICLE 24
## TERMINATION COMPENSATION

### 24.1. Termination Compensation for Termination post the Compliance Date but prior to the Construction Completion Date

24.1.1. For an Authority Event of Default

If the Agreement is terminated prior to the Construction Completion Date for an Authority Event of Default shall be liable to pay to the Concessionaire the aggregate of:

(a) Debt Due;

**LESS**

(a) any unadjusted Mobilization Advance (and interest if any);

(b) any amounts due and payable by the Concessionaire under this Agreement (including Liquidated Damages).

24.1.2. For a Concessionaire Event of Default

If the Agreement is terminated prior to the Construction Completion Date for a Concessionaire Event of Default, the Authority shall pay to the Concessionaire, the aggregate of:

(a) 85% (eighty five per cent) of Debt Due;

**LESS**

(a) any unadjusted Mobilization Advance (and interest if any);

(b) any amounts due and payable by the Concessionaire under this Agreement (including Liquidated

Damages).

**24.2. Termination Compensation for Termination post the Construction Completion Date butprior to the COD**

24.2.1. For an Authority Event of Default

If the Agreement is terminated post Construction Completion Date but prior to the COD for an Authority Event of Default, the Authority shall be liable to pay to the Concessionaire the aggregate of:

(a) Debt Due;

**LESS**

(a) any amounts due and payable by the Concessionaire under this Agreement (including Liquidated Damages).

24.2.2. For a Concessionaire Event of Default

If the Agreement is terminated post the Construction Completion Date but prior to the COD for a Concessionaire Event of Default, the Authority shall pay to the Concessionaire, the aggregate of:

(a) 85% (eighty five per cent) of Debt Due;

**LESS**

(a) any amounts due and payable by the Concessionaire under this Agreement (including Liquidated Damages).

**24.3. Termination Compensation for Termination post the COD**

24.3.1. For an Authority Event of Default

If the Agreement is terminated post the COD for an Authority Event of Default, the Authority shall be liable to pay to the Concessionaire the aggregate of:

(a) O&M Payments due to the Concessionaire as on the date of the Termination Notice;

**LESS**

(a) any amounts due and payable by the Concessionaire under this Agreement (including Liquidated Damages).

24.3.2. For a Concessionaire Event of Default

If the Agreement is terminated post the COD for a Concessionaire Event of Default, the Authority shall pay to the Concessionaire, the aggregate of:

(a) O&M Payments due to the Concessionaire as on the date of the Termination Notice;

**LESS**

(a) any amounts due and payable by the Concessionaire under this Agreement (including Liquidated Damages).

**24.4. Termination Compensation for Termination due to a Force Majeure Event**

24.3.1. Force Majeure Event

(a) If the Agreement is terminated due to an Political Force Majeure Event or Non-Political Force Majeure Event, prior to the COD:

(i) Debt Due;

**LESS**

(i) any insurance proceeds received and retained by the Concessionaire

(b) If the Agreement is terminated due to an Indirect Political Force Majeure Event or Non- Political Force Majeure Event, post the COD, Authority shall be liable to pay to the Concessionaire:

(i) O&M Payments due to the Concessionaire as on the date of the notice oftermination under Article;

(ii) Debt Due;

**LESS**

(i) any insurance proceeds received and retained by the Concessionaire.

**24.5. Limitations on Termination Compensation**

(a) Termination Compensation, due and payable under this Agreement shall be limited to the Debt Due and Adjusted Equity, as the case may be, which form part of the Bid Project Cost, in accordance with the provisions of this Agreement. For avoidance of doubt, it is agreed that within a period of [60 (sixty)] days from COD, the Concessionaire shall notify to the Authority, the Bid Project Cost and its disaggregation between Debt Due and Equity, and only the amounts so conveyed shall form the basis of computing Termination Compensation, and it is further agreed that in the event such disaggregation is not notified to the Authority, the Equity and Debt Due shall be arrived at by adopting the proportion between debt and equity as specified in the Financing Agreements. The Parties also agree that, notwithstanding anything contained in this Agreement, for the purposes of computing Termination Compensation, the Debt Due shall at no time exceed [50% (fifty per cent)] of the Bid Project Cost.

(b) The amount payable in respect of any Debt Due expressed in foreign currency shall be computed at the Reference Exchange Rate for conversion into the relevant foreign currency as on the date of Termination Compensation. Provided, however, that the provisions of this Article shall not apply if the Concessionaire does not notify the particulars of any foreign currency loans within [60 (sixty)] days of the date of conversion of such foreign currency loans into Indian currency. Provided further that all borrowings in foreign currency shall be restricted to the financing of the Bid Project Cost ad any borrowings in excess thereof shall not qualify for computation of Termination Compensation.

**24.6. Full and Final Settlement**

Notwithstanding anything to the contrary elsewhere in this Agreement, any Termination Compensation determined specified in Article shall, once paid, be in full and final settlement of any claim, demand and/or proceedings of the Concessionaire against the Authority, in relation to Termination of this

Agreement and the Concessionaire shall be excluded from all other rights and remedies in respect of such Termination.

24.7. The provisions of this Article 25 shall survive the Termination of this Agreement.

## ARTICLE 25
## SUBSTITUTION OF THE CONCESSIONAIRE

25.1. **Substitution** by Lenders' Representative

In the event of Concessionaire's default. Authority shall, if there be any Lenders, send copy of the Termination Notice to the Lenders" Representative to inform and grant 15 (fifteen) days to the Lender's Representative, for making representation on behalf of the Lenders stating the intention to substitute the Concessionaire. In case Authority receives representation on behalf of the Lenders, within the aforesaid period, the Authority shall withhold the termination for period not exceeding 180 (one hundred and eighty) days, for enabling the Lender's Representative to exercise the Lender's right of substitution in accordance with the Substitution Agreement and substitute the Concessionaire with Nominated Company.

25.2. Substitution by the Authority

In the event that no company is nominated by the Lender's Representative to act as the Nominated Company, Authority may either substitute the Concessionaire with its own Nominated Company in accordance with the Substitution Agreement or terminate the Agreement.

25.3. Substitution Process

While carrying out substitution, the Lender's Representative or the Authority, as the case may be, shall invite competitive bids from the prospective parties for acting as the Nominated Company and substituting the Concessionaire. Such Nominated Company shall have to agree to bear all the liabilities of the Concessionaire in terms of this Agreement and Financing Agreement.

25.4. Consequences of Substitution

Authority shall grant, to the Nominated Company, the right to develop, design, construct, operate and maintain the Project (including entering into Sub-Contracts) together with all other rights of the Concessionaire under this Agreement, subject to fulfillment of the Concessionaire's entire obligation under this Agreement by such Nominated Company, for the remainder of the term of this Agreement.

Such rights shall be granted by the Authority through the novation of the Agreement, if applicable, in favour of the Nominated Company. The Authority shall also execute new Substitution Agreement with the Nominated Company and the Lenders, if there be any. All Sub-Contracts and agreements in respect of the Project including Financing Agreements and all Subcontracts executed by the Concessionaire shall stand transferred and novated in favour of the Nominated Company. Further all rights of the Concessionaire on the Sites and Project Assets in terms of the Agreement shall stand transferred and novated in favour of the Nominated Company. All approvals/ clearances of the Authority received by the Concessionaire shall stand transferred and novated in favour of the Nominated Company. The Concessionaire shall get replaced by the Nominated Company for all purposes related to the Project.

## ARTICLE 26
## DISPUTE RESOLUTIONS

**26.1. Settlement of Disputes:**

All questions and disputes relating to the meaning of the specifications, designs, drawings and instructions hereinbefore mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever, in any way arising out of or relating to the contracts, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the executions or failure to execute the same, whether arising during the progress of the work, or after the completion or abandonment there of shall be resolved by any competent court having jurisdiction at Kolkata.

If the contractor considers any work demanded of him/her to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge or any matter in connection with or arising out of the contract or carrying out of the work to be unacceptable, he/she shall promptly within 15 days request the Chairman of the Departmental Dispute Redressal Committee, inwriting, for written instruction or decision. Thereupon, the Dispute Redressal Committee shall give its written instruction or decision within a period of three months from the date of receipt of the Contractor's letter.

The Dispute Redressal Committee in each of the Works Departments shall be constituted with the following officials as Members:

| | | |
|---|---|---|
| 1 | Secretary/Engineer-in-Chief of the Department concerned | Chairman |
| 2 | Joint Secretary / Deputy Secretary/any Officer of equivalent rank of the Department | Member |
| 3 | One Designated Chief Engineer/Engineer of the Department to be nominated by the Department concerned. | Member Secretary and Convenor |
| 4 | One representative of Finance Department of the Government not below the rank of Joint Secretary or Financial Advisor in case of the Works Department where FA system has been introduced. | Member |

This provisions will be applicable irrespective of the value of the works to which the dispute may relate.

**26.2. Performance during Dispute**

26.2.1. Pending the submission of and/or decision on a Dispute, the Parties shall continue to perform their respective obligations under this Agreement without prejudice to a final adjustment/decision.

## ARTICLE 27
## INSURANCE

### 27.1. Insurance Cover

The Concessionaire shall, at its cost and expense, purchase and maintain effective from the Compliance Date and during the Concession Period such insurance policies for such maximum sums as are necessary and customary under Financing Documents and Applicable Laws, and/or in accordance with Good Industry Practice (or may in the future become available) on commercially reasonable terms and reasonably required to be maintained consistent with projects and facilities of the size and type of the Project, including but not limited to the following:

(a) Builders'/Sub-Contractors' all risk insurance;

(b) Erection insurance and/or break down insurance;

(c) Public liability insurance applicable for the Concession Period, Termination and post- Termination period;

(d) Statutory insurances such as workmen's compensation insurance or any other insurance required by the Applicable Laws;

(e) Comprehensive Third Party liability insurance including injury or death to Persons who may enter the Sites;

(f) Insurance policies related to any of the Concessionaire's obligations hereunder;

(g) Any other insurance that may be considered necessary by the Authority/ Lenders of the Concessionaire, if any, to protect the Concessionaire, its employees and its assets (against loss, damage or destruction at replacement value) or otherwise, including all Force Majeure Events that are insurable and not otherwise covered in items (a) to(f).

### 27.2. Insurance Companies and Costs

The Concessionaire shall insure all insurable Project Assets comprised in the Project;

All insurance policies supplied by the Concessionaire shall include a waiver of any right of subrogation of the insurers there under against, *inter-alia*, the Authority, and its assigns, subsidiaries, affiliates, employees, insurers and underwriters and of any right of the insurers of any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy.

The Concessionaire hereby further releases, assigns and waives any and all rights of recovery against, *inter-alia*, the Authority, and its affiliates, subsidiaries, employees, successors, assigns, insurers and underwriters, which the Concessionaire may otherwise have or acquire in or from or in any way connected with any loss covered by policies of insurance maintained or required to be maintained by the Concessionaire pursuant to this Agreement (other than Third Party liability insurance policies) or because of deductible articles in or inadequacy of limits of any such policies of insurance, unless otherwise mentioned in this Agreement.

### 27.3. Evidence of Insurance Cover

The Concessionaire shall, from time to time, provide to the Authority copies of all insurance policies

(or appropriate endorsements, certifications or other satisfactory evidence of insurance) obtained by the Concessionaire in accordance with this Agreement.

### 27.4. Application of Insurance Proceeds

All moneys received under insurance policies shall be promptly applied by the Concessionairetowards repair or renovation or restoration or substitution or replacement of the Project or any part thereof, which may have been damaged or destroyed. The Concessionaire shall carry out such repair or renovation or restoration or substitution or replacement to the extent possible in such manner that the Project or any part thereof, shall, after such repair or renovation or restoration or substitution or replacement be as far as possible in the same condition as they were before such damage or destruction, normal wear and tear expected.

### 27.5. Validity of the Insurance Cover

The Concessionaire shall pay the premium payable on such insurance policies so as to keep the policies in force and valid throughout the Concession Period and furnish copies of the same to the Authority. Each insurance policy shall provide that the same shall not be cancelled or terminated unless 10 (ten) days‟ clear notice of cancellation is provided to the Authority in writing. If at any time the Concessionaire fails to purchase and maintain in full force and effect any and all of the insurances required under this Agreement, the Authority may at its option purchase and maintain such insurance and all sums incurred by the Authority in this behalf shall be reimbursed by the Concessionaire forthwith on demand, failing which the same shall be recovered by the Authority by exercising right of set-off or otherwise from the Performance Security / Security Deposit.

| Sl. No. | Type of Cover | Minimum Cover of Insurance |
|---|---|---|
| | Works and of Plant and materials | Contract Price plus 20% |
| | Loss or damage to equipment | Full replacement cost |
| | Loss or damage to property of Third Party | Full replacement cost |
| | Personal injury or death insurance | |
| | (a) for Third Party | Rs 50.00 Lakhs per occurrence with number of occurrences unlimited |
| | (b) for Concessionaire’s employees or labour | In accordance with the statutory requirements applicable to West Bengal |
| | Other insurances | As per contract requirement |

## ARTICLE 28
## VARIATION

Authority and the Concessionaire may, at any time during the Concession Period, propose a Variation to the Scope of Work, Technical Specifications, and/or the Designs and Drawings.

### 28.1. Authority Proposed Variation

Authority may propose a Variation in the Scope of Work, Technical Specifications or the approved Designs and Drawings. Provided that, Authority shall not propose a Variation, which: (i) is not technically feasible; or (ii) is not in compliance with any Applicable Law or Applicable Permit.

Within 15 (fifteen) days of receipt of a request for Variation from Authority, the Concessionaire shall submit a proposal to Authority(with a copy to the Project Engineer) setting out in sufficient detail the implications of the proposed Variation, including any implications on the Construction Plan, the Scheduled Milestone Completion Date, the Scheduled Construction Completion Date and Scope of Work and additional Costs incurred in undertaking the Variation or any reduction in Costs resulting from the Variation. It is clarified that the additional Costs incurred in undertaking the Variation or any reduction in Costs resulting from the Variation will be determined on the basis of Authority's schedule of rates for similar works.

Notwithstanding anything to the contrary in this Article, the Concessionaire shall have the right to reject a Variation proposed by Authority if, in the Concessionaire's view, the proposed variation will result in: (i) the Concessionaire incurring additional Costs, of more than 25% (twenty five per cent) of the Bid Project Cost; (ii) reduction in the Bid Project Cost by more than 25% (twenty five per cent); or (iii) a delay of more than 120 (one hundred and twenty) days in a Scheduled Milestone Completion Date or the Scheduled Construction Completion Date.

Based on its review of the proposal submitted by the Concessionaire, Authority may, at its sole discretion: (i) accept the proposal and the corresponding adjustment to the Construction Plan and/or the additional Costs or reduction in the Bid Project Cost for undertaking the Variation; (ii) provide its comments on the proposal seeking amendments and/or justification for the implications put forth by the Concessionaire; or (iii) reject the proposal submitted by the Concessionaire and withdraw the proposed Variation, within 15 (fifteen) days from the date of receipt of the Concessionaire's proposal under Sub-Clause above.

To the extent Authority seeks amendments and/or justification in the proposal submitted by the Concessionaire, the Concessionaire shall incorporate or address, in writing, Authority's comments and submit a revised proposal.

On approval of the proposal or the revised proposal, as the case may be, Authority shall issue a Variation Order and Concessionaire shall proceed with the Variation in accordance with the Variation Order.

If the Parties are unable to agree on the implications of a Variation proposed by Authority, which in Authority's view is necessary or desirable for the Project, Authority shall have the right to require the Concessionaire to carry out the proposed variation at the cost determined in accordance with Authority's schedule of rates for similar works. Where Authority's schedule of rates do not provide schedule of rates for similar works, then the cost of the works covered by the proposed Variation will be determined by Authority, in consultation with the Project Engineer. Any dispute on the terms of the Variation will be resolved in accordance with Article 26.

On implementation of a Variation Order, the Concessionaire shall be entitled to the agreed adjustment

to the Construction Plan, Scheduled Milestone Completion Date, Scheduled Construction Completion Date and/or payment of additional amounts, if any, set out in the Variation Order.

**28.2. Concessionaire Proposed Variation**

The Concessionaire may propose a Variation if it considers such Variation necessary or desirable to improve the efficiency, quality, reliability, durability, maintainability or safety of the Project Facilities.

To propose a Variation, the Concessionaire shall submit a proposal to Authority (with a copy to the Project Engineer), with a statement setting out:

(a) the need for a Variation;
(b) the additional work required; and
(c) adjustment to the Compliance Date, Construction Plan, Scheduled Milestone Completion Date and Scheduled Construction Completion Date;

Based on its review of the proposal submitted by the Concessionaire, if Authority is of the view that the proposed Variation is justified, then it will determine the cost of the proposed Variation using Authority's schedule of rates for similar works and where Authority's schedule of rates do not provide schedule of rates for similar works, then the cost of the works covered by the proposed Variation will be determined by Authority, in consultation with the Project Engineer. Thereafter, Authority shall notify the Concessionaire of the additional cost determined by Authority for the proposed Variation and any other comments that Authority may have on the implications of the proposed Variation. To the extent Authority seeks amendments and/or justification in the proposal submitted by the Concessionaire, the Concessionaire shall incorporate or address, in writing, Authority's comments.

On the Concessionaire's acceptance of the costs determined by Authority for the proposed Variation and any other amendments sought by Authority to the Concessionaire's proposal, Authority shall issue a Variation Order and Concessionaire shall proceed with the Variation in accordance with the Variation Order.
On implementation of a Variation Order, the Concessionaire shall be entitled to the agreed adjustment in the Construction Plan and/or additional costs, as set out in the Variation Order.

Notwithstanding anything to the contrary in this Article 28, the Concessionaire shall be bound to implement any Variation that is necessitated by a Change in Law and any consequent adjustment in the Construction Plan and additional Costs shall be determined in accordance with Article.

Notwithstanding the above, a Variation made necessary due to any act, omission or default of the Concessionaire or any Sub-Contractor in the performance of the Concessionaire's obligations under this Agreement shall not entitle the Concessionaire to any adjustment in the Construction Plan or any other compensation or relief.

No Variation shall invalidate this Agreement.

**ARTICLE 29**

## INTELLECTUAL PROPERTY AND CONFIDENTIALITY

### 29.1. Proprietary Material

The property in all designs, drawings, processes, methods, details, plans, concepts, technology, specifications, schedules, programs, reports, calculations, documents and other works relating to the Project, including intellectual property rights therein or thereto, whether registered or not, which have been or are hereafter written, originated, made or generated by the Concessionaire or any of its employees, Sub-Contractors, consultants or agents in connection with this Agreement or the design, development, construction, operation and maintenance of the Project/Project Facilities/Project Assets, shall be and remain at all times the property of the Concessionaire, vest exclusively in the Concessionaire and ensure to the exclusive benefit of the Concessionaire (the "Proprietary Material").

The Concessionaire, as beneficial owner, hereby grants to the Authority a perpetual non- exclusive license to use such Proprietary Material in connection with the Project, irrevocably and free of cost. Such license shall carry the right to use the Proprietary Material for all purposes connected with the Project; however, it shall not be transferable to a Third Party. Such license shall automatically get extended to the Authority for Project purpose only, and not for Third Party use or transfer, upon the Termination of this Agreement or the discharge by the Concessionaire of its duties hereunder.

### 29.2. Confidentiality

The Project Engineer/ Authority shall not at any time divulge or disclose or suffer or permit its servants or agents to divulge or disclose, transfer, communicate to any Person or use in any manner for any purpose unconnected with the Project any Proprietary Material or other information, material, documents, records or data, concerning the Project, the Concessionaire and the Project Engineer, the Authority(including any information concerning the contents of this Agreement) except of its directors, officials, employees, Sub-Contractors, consultants, agents or representatives on a need to know basis or as may be required by any law, rule, regulation or any judicial process.

The Authority shall use such Proprietary Material and information only for the purposes of this Agreement or as otherwise expressly permitted by the Concessionaire in writing.

The Concessionaire shall ensure that all its directors, employees, Sub-Contractors, consultants, agents or representatives execute, deliver and comply with customary confidentiality and non-disclosure agreements reasonably required by the Authority, have been duly approved by the Authority, with respect to the Project.

The aforesaid provisions shall not apply to the following information:-

(i) Obtained from a Third Party who is free to divulge the same and which was notobtained under any obligation of confidentiality; or
(ii) Already in the public domain otherwise than by breach of this Agreement;
(iii) Disclosed due to a court order or under any Act of GoI/Government of [Name of the State] or required by Applicable Laws.

### 29.3. Survival

The Concessionaire and the Authority accept and confirm that the provisions of this Article shall survive the Termination of this Agreement.

## ARTICLE 30

## MISCELLANEOUS

### 30.1. Assignment and Charges

The Concessionaire shall not assign in favour of any person this Agreement or the rights, benefits and obligations hereunder save and except with prior consent of the Authority.

Restraint set forth in Article 31.1.1 shall not apply to:

(a) liens/ encumbrances arising by operation of law (or by an agreement evidencing the same) in the ordinary course of business of the Concessionaire;

(b) mortgage/pledge/hypothecation of movable assets/goods purchased by Concessionaire, revenue and receivables received by Concessionaire (excluding Insurance proceeds) in favor of the Lenders for the Project.

Provided, no charge/ mortgage/ lien/ hypothecation or encumbrance of any kind whatsoever can be created or construed as allowed to be created over the Project Assets including the Sites, assets and equipment provided by the Authority for the Project.

Provided further that irrespective of security hereinabove permitted, Concessionaire is irrevocably obligated to procure release of such security and hand over to the Authority, upon Termination of this Agreement, their respective Project Assets free of all Encumbrances whatsoever.

The Concessionaire shall not create nor permit to subsist any further Encumbrance over the Sites.

### 30.2. Interest and Right of Set-Off

Any sum which becomes payable under any of the provisions of this Agreement by one Party to the other Party shall, if the same is not paid within the time allowed for payment thereof, shall be deemed to be a debt owed by the Party responsible for payment thereof to the Party entitled to receive the same. Such sum shall until payment thereof carry interest at prevailing PLR of State Bank of India per annum from the due date for payment thereof until the same is paid to or otherwise realized by the Party entitled to the same. Without prejudice to any other right or remedy that may be available under this Agreement or otherwise under law, the Party entitled to receive such amount shall also have the right of set-off.

Provided the stipulation regarding interest for delayed payments contained in this Article 31.2shall neither be deemed nor construed to authorize any delay in payment of any amount due by a Party nor be deemed or construed to be a waiver of the underlying breach of payment obligations.

### 30.3. Governing Law and Jurisdiction

This Agreement shall be governed by the laws of India. The competent court having jurisdiction at Kolkata shall have jurisdiction over all matters arising out of or relating to this Agreement.

### 30.4. Waiver

Waiver by either Party of any default by the other Party in the observance and performanceof any provision of or obligations under this Agreement:

(a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions or obligations under this Agreement;

(b) shall not be effective unless it is in writing and executed by a duly authorized representative of

such Party; and

(c) shall not affect the validity or enforceability of this Agreement in any manner.

Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation hereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver/breach of any terms, conditions or provisions of this Agreement.

**30.5. Survival**

(a) Termination of this Agreement shall not relieve the Concessionaire or the Authority of any obligations already incurred hereunder which expressly or by implication survives Termination hereof, and except as otherwise provided in any provision of this Agreement expressly limiting the liability of any Party, shall not relieve any Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

(b) Termination shall:

(i) not relieve the Concessionaire or the Authority, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and

(ii) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

All obligations surviving Termination shall only survive for a period of [3 (three)years] following the date of such Termination.

**30.6. Amendments**

This Agreement and the Schedules together constitute a complete and exclusive understanding of the terms of the Agreement between the Parties on the subject hereof and noamendment or modification hereto shall be valid and effective unless agreed to by all the Parties hereto and evidenced in writing.

**30.7. Notices**

Unless otherwise stated, notices to be given under this Agreement including but not limited toa notice of waiver of any term, breach of any term of this Agreement and termination of this Agreement, shall be in writing and shall be given by hand delivery, recognized international courier, mail, telex or facsimile transmission and delivered or transmitted to the Parties at their respective addresses as specified below or such address, email address, telex number,or facsimile number as may be duly notified by the respective Parties from time to time, and shall be deemed to have been made or delivered:

(a) in the case of any communication made by letter, when delivered by hand, by recognized international courier or by mail (registered, return receipt requested) at that address, and

(b) in the case of any communication made by telex or facsimile, when transmitted properly addressed to such telex number or facsimile number.

**30.8. Severability**

If for any reason whatsoever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties shall negotiate in good faith with a view to agreeing upon one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable. Provided failure to agree upon any such provisions shall not be subject to Dispute Resolution under this Agreement or otherwise.

**30.9. No Partnership**

Nothing contained in this Agreement shall be construed or interpreted to create an association, joint venture or partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.

**30.10. Language**

All notices required to be given under this Agreement and all communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language and true translation into English language if other than English is used at the costs and expenses of the Party sending such communication, notice, documentation and proceedings.

**30.11. Counterparts**

This Agreement may be executed in [6 (six)] counterparts, each of which when executed and delivered shall constitute an original of this Agreement but shall together constitute one and only the Agreement.

**30.12. Liability for Review**

Except to the extent expressly provided in this Agreement:

(a) no review, comment, certification, verification or approval by the Authority of any Project Agreement, design, detailed engineering, or document, accounts, invoice, etc., submitted by the Concessionaire nor any observation, testing, certification, validation or inspection of the construction, operation or maintenance of the Project nor the failure to review, approve, comment, observe, test or inspect hereunder shall relieve or absolve the Concessionaire from its obligations, duties and liabilities under this Agreement, the Applicable Laws and Applicable Approvals; and

(b) the Authority, their advisors or shall not be liable to the Concessionaire by reason of any review, comment, approval observation, testing, certification, verification, validation or inspection referred in Sub-Clause (a)above.

**30.13. Unforeseen Event**

Any event or condition that has not been explicitly covered under the provisions of this Agreement shall be resolved after discussion and mutual agreement between the Parties.

**30.14. Liability and Indemnification**

(a) The Concessionaire shall indemnify, defend and hold harmless (the "**Indemnifying Party**") the Authority(the "**Indemnified Parties**") during the Concession Period from and against all liabilities, damages, losses, expenses, claims, suits, proceedings, judgments, settlements, actions, costs of any nature whatsoever, whether directly or indirectly arising, for personal injury, for damage to or loss of any property and any Third Party liability, including reasonable attorneys" fees, actually incurred or suffered by the Indemnified Parties, arising out of or in any way connected with (i) any breach, negligence, default, omission, violation, infringement etc., as the case may be, by the Indemnifying Party or Persons claiming through or under it or due to such Party"s

representations and warranties herein; covenants, agreements or obligations contained herein or the terms and conditions hereof; any intellectual property right of any Person; (ii) failure of the Indemnifying Party or Persons claiming through or under it to comply with Applicable Laws or the Applicable Permits or to pay taxes or make contractual or other payments due and payable to any Person; (iii) the employment, sickness, injury or death of any Person employed directly or indirectly by the Indemnifying Party or Persons claiming through or under it ;or(iv) as provided elsewhere herein.

(b) The Concessionaire shall be responsible for executing, performing its obligationshereunderinaccordancewiththeprovisionsofthisAgreementatitsriskand consequence and shall be responsible for any liability whatsoever arising under, in connection with or in relation to the discharge of obligations hereunder by the Concessionaire or Persons claiming through or under it and shall indemnify, keep indemnified and hold the Authority and its advisors harmless in this behalf.

(c) The Authority shall not be liable to the Concessionaire for any indirect, consequential, incidental, punitive or exemplary damages, loss of profit, consequential financial or economic loss or any disruption in the flow of Solid Waste into the Project for any reason whatsoever.

(d) The Concessionaire shall keep the Authority indemnified during the Concession Period against any claims, damages, liabilities, costs, penalties etc. (i) from or by any Government Authority, including the CPCB or the SPCB, and Third Parties for damages to the environment or any acts, omissions, defaults or negligence of the Concessionaire that damages the environment; and (ii) resulting from accidents at work, occupational diseases and contingencies that may arise at or around the Sites or in the employment of labour and personnel at the Project. The Concessionaire shall remain liable for its acts or omissions in implementing the Project in accordance with the Technical Specifications and the Applicable Laws even after the Termination of this Agreement by efflux of time or otherwise.

(e) Except as expressly provided in this Agreement, the Concessionaire shall carry out and perform its rights and obligations under this Agreement and the Project Agreements at its own cost and risk. It shall be fully responsible for and shall bear the financial risks in relation to the Project and all its rights and obligations under or pursuant to this Agreement and the Project Agreements till the Termination Date.

(f) The provisions of this Article 31.15 shall survive the Termination of this Agreement.

### 30.15. Liability for review of Documents and Drawings

Except to the extent expressly provided in this Agreement:

(a) no review, comment or approval by the Authority or the Independent Expert of any Project Agreement, Document or Drawing submitted by the Concessionaire nor any observation or inspection of the construction, operation or maintenance of the Project nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Concessionaire from its obligations, duties and liabilities under this Agreement, the Applicable Laws and Applicable Permits; and

(b) the Authority shall not be liable to the Concessionaire by reason of any review, comment, approval, observation or inspection referred to in Sub-Article (a) above.

### 30.16. Reservation of Rights

No forbearance, indulgence, relaxation or inaction by the Concessionaire at any time to require

performance of any of the provisions of this Agreement shall in any way affect, diminish or prejudice the right of the Authority to require performance of that provision, and no delay in exercising or omitting to exercise any right, power or remedy accruing to the Authority upon any default or otherwise under this Agreement shall impair any such right, power or remedy or shall be construed to be a waiver thereof or any acquiescence in such default, nor shall the action or inaction of the Authority in respect of any default or any acquiescence by it in any default, affect or impair any right, power or remedy of the Authority in respect of any other default.

**30.17. Third Parties**

This Agreement and all rights hereunder are intended for the sole benefit of the Parties and, to the extent expressly provided, for the benefit of the Authority Related Parties, the Concessionaire Related Parties and the Lenders, and shall not imply or create any rights on the part of, or obligations to, any other Person.

**30.18. Entire Agreement**

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. Forthe avoidance of doubt, the Parties hereto agree that any obligations of the Concessionaire arising from the RFP, shall be deemed to form part of this Agreement and treated as such.

## ARTICLE 31
## PENALTY FOR SUPPRESSION / DISTORTION OF FACTS

1.1. During scrutiny in any stage of the tender process, if it comes to the notice to tender inviting authority

that the credential or any other papers found incorrect/manufactured/fabricated, that tenderer will not be allowed to participate in the tender and that Bid will be out rightly rejected without any prejudice with forfeiture of earnest money forthwith.

1.2. The bidder may be debarred/suspended/restrained from participating any tender of Kolkata Metropolitan Development Authority (KMDA) at any stage on the following grounds:

**D. GROUNDS FOR SUSPENSION/DEBARMENT/RESTRICTION**

i) Submission of eligibility requirements containing false information or falsified documents.

ii) Submission of Bids that contain false information or falsified documents, or the concealment of such information in the Bids in order to influence the outcome of eligibility screening or any other stage of the bidding process.

iii) Unauthorized use of one's name/digital signature certificate for purpose of bidding process.

iv) Any documented unsolicited attempt by a bidder to unduly influence the outcome of the bidding in his favour.

v) Refusal or failure to post a self-declaration to the effect of any previous debarment/suspension/restriction imposed by any authority of State/Central Government, State/Central Government Undertaking/Statutory Bodies constituted under the statute of the Central/State Government.

vi) All other acts that tend to defeat the purpose of the competitive bidding such as lodging false complain about any bidder, lodging false complain about any officer duly authorized by the department, restraining any interested bidder to participate in the bidding process, etc.

vii) Assignment and subcontracting of the contract or any part thereof without prior written approval of the procuring entity.

viii) Whenever adverse reports related to adverse performance, misbehavior, direct or indirect involvement in threatening, making false complaints etc. damaging the reputation of the department or any other type complaint considered fit by the competent authority of the department, are received from more than one officer or at more than one occasion from individual officer.

ix) Refusal or failure to post the required performance security/earnest money within the prescribed time without justifiable cause.

x) Failure in deployment of technical personnel, engineers and / or work supervisor having requisite license/ supervisor certificate of competency as specified in the Contract.

xi) Refusal to accept an award after issuance of "letter of acceptance" or enter into contract with the authority without justifiable cause.

xii) Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period as mentioned in the "Letter of Acceptance", "Letter of Acceptance cum Work Order", "Work Order", "Notice to Proceed", "Award of Contract", etc.

xiii) Failure by the contractor to fully and faithfully comply with its contractual, obligations without valid cause, or failure by the contractor to comply with any written lawful instruction of the procuring entity or its representative(s) pursuant to the implementation of the contract.

xiv) For the procurement of consultancy service/ contracts, poor performance by the consultant of his

services arising from his fault or negligence. Any of the following acts by the consultant shall be construed as poor performance.

g) Non deployment of competent technical personnel, competent engineers and / or work supervisors;

h) Non deployment of committed equipment, facilities, support staff and manpower; and

i) Defective design resulting in substantial corrective works in design and/or construction;

j) Failure to deliver critical outputs due to consultant's fault or negligence; and

k) Specifying materials which are inappropriate and substandard or way above acceptable standards leading to high procurement cost.

l) Allowing defective workmanship or works by the contractor being supervised by the consultant.

xv) For the procurement of goods, unsatisfactory progress in the delivery of the goods by the manufacturer, supplier or distributor arising from his fault or negligence and/or unsatisfactory or inferior quality of goods, vis a vis as laid down in the contract.

xvi) Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause.

**E. CATEGORY OF OFFFNSE**

iii) First degree of offense: - Sl. No. 31.2.A. (i) to 31.2.A (xvi) to be considered as first degree of offense.

iv) Second degree of offence: - Any one of the offences as mentioned under 31.2.B (i) above, committed by a particular bidder/contractor/supplier by more than one occasions, be considered as second degree of offense.

In addition to the penalty of suspension / debarment/restriction, the bid security / earnest money posted by the concerned bidder or prospective bidder shall also be forfeited.

(The same must be invariably part of the process of evaluation of bids.)

**F. PENALTY FOR OFFENSE**

**iii) For committing 1st Degree of offense: -**

Disqualifying a bidder from participating in any tender process under Kolkata Metropolitan Development Authority up to 2(two) years.

**iv) For committing 2nd Degree of offense: -**

Disqualifying a bidder from participating in any tender process under Kolkata Metropolitan Development Authority for a period of 3(three) years.

## ARTICLE 32
## MONITORING OF CONSTRUCTION

**32.1. Monthly Progress Reports**

During the Construction Period, the Concessionaire shall, submit monthly reports to the Independent Engineer (with a copy to the Authority), no later than [7 (seven)] days after the end of each month, which should set out the following:

(a) extent of progress of construction activities performed by the Concessionaire for the Project Facilities;

(b) comparison of actual progress against the planned progress of construction works, reasons for delay, if any and steps taken by the Concessionaire to mitigate the delay;

(c) details of any accident or hazardous incident at the Site and the steps taken by the Concessionaire to mitigate the consequences of such accident or hazardous incident; and

(d) status of rectification of defects and/or deficiencies discovered by the Independent Engineer or the Authority.

The Concessionaire shall promptly give such other relevant information as may be required by the Independent Engineer.

**32.2. Inspection**

During the Construction Period, the Independent Engineer shall inspect the construction of the Project Facilities at least once a month and make a report of such inspection (the Inspection Report) stating in reasonable detail the defects or deficiencies, if any, with particular reference to the Scope of Work and Technical Specifications. It shall send a copy of the Inspection Report to the Authority and the Concessionaire within [7 (seven)] days of such inspection and upon receipt thereof, the Concessionaire shall rectify and remedy the defects or deficiencies, if any, stated in the Inspection Report. Such inspection or submission of the Inspection Report by the Independent Engineer shall not relieve or absolve the Concessionaire of its obligations and liabilities hereunder in any manner whatsoever.

**32.3. Tests**

(a) For determining that the construction works conform to the Technical Specifications, the Independent Engineer may require the Concessionaire to carry out, or cause to be carried out, tests, in accordance with Good Industry Practice, for quality assurance. The costs incurred on the tests shall be borne solely by the Concessionaire.

(b) If the results of any tests conducted under this Clause 32.3 establish any defects or deficiencies in the construction works, the Concessionaire shall carry out remedial measures and furnish a report to the Independent Engineer in this regard. The Independent Engineer shall have the right to verify such reports and if required, request the Concessionaire to carry out or cause to be carried out tests to determine that such remedial measures have brought the construction works into compliance with the Technical Specifications, and the procedure set forth in this Clause 15.3 shall be repeated until such construction works conform to the Technical Specifications.

**32.4. Suspension of Unsafe Construction Works:**

(a) Upon recommendation of the Independent Engineer to this effect, the Authority may, by notice, require the Concessionaire to suspend forthwith the whole or any part of the construction work if, in the reasonable opinion of the Authority, such work is unsafe and a potential safety hazard.

(b) The Concessionaire shall, pursuant to a notice under this Clause 32.4, suspend all or part of the construction works for such time and in such manner as may be specified by the Authority and carry out remedial measure to secure the safety of the suspended works. The Concessionaire may by notice, require the Independent Engineer to inspect such remedial measures adopted and submit a report to the Authority recommending whether such suspension may be revoked. Upon receiving the recommendations of the Independent Engineer, the Authority shall either revoke such suspension or instruct the Concessionaire to carry out further remedial measures that are necessary, in the reasonable opinion of the Authority, and the procedure set forth in this Clause 32.4 shall be repeated until the suspension is revoked.

**32.5. Video Recording**

During the Construction Period, the Concessionaire shall provide to the Authority for every quarter, a video recording, which will be compiled into a [3 (three)] hour USB drive, covering the status and progress of construction works in that quarter. The first such video recording shall be provided to the Authority within [7 (seven)] days of the Appointed Date and thereafter, no later than [ 15 (fifteen)] days after the close of each quarter.

In witness whereof the Parties hereto have signed this Agreement on this day of 20**.

[Name of the Municipality] (The Municipality) By:
Name:

Title:

[Name of the Authority] (The Authority) By:
Name:

Title:

[Name of the Concessionaire (The Concessionaire) By:
Name:

Title:

**SCHEDULE 1**
**SCOPE OF SERVICES**
*(See Article 2)*

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**1. Conditions for Weigh Bridge:**

1.1. The Concessionaire is allowed to install minimum one no. permanent Weigh Bridge of capacity 60MT (minimum) each at Chandannagore MC and Hooghly Chinsurah Municipality Dumpsites, for weighment of incoming and outgoing of wet/dry fresh wastes and its fractions after processing. Based on the situation and requirement she/he can install more than one Weigh Bridge at site, upon approval. Location of weigh bridge(s) shall be strictly as per the approved General Arrangement Drawing (GAD).

1.2. The capacity and size of Weigh Bridge shall be designed considering maximum capacity and size of track carrying the segregated fraction of fresh waste. Capacity and length of Weigh Bridge shall not be less than 60 MT and 12 m Length.

1.3. Setting up of a weighbridge of required capacity - for weighing as approved by Kolkata Metropolitan Development Authority for measurement of fresh and fresh waste to be processed and processed fresh waste. This weighing system shall be fully online electronic, automatic system equipped with the latest technology along with backup server facility and real time data transfer facility to the Central Control and Command Centre (C4). Data of weighing system shall be maintained properly for the entire contract period with backup server facility and shall be provided as & when required by KMDA officials and other competent authorities.

1.4. It shall be fully online electronic, automated system equipped with Automatic vehicle number plate detection and recognition and latest technology along with backup server facility. Data of weighing system shall be maintained properly for the entire contract period with backup server facility and real time data transfer facility to the Central Control and Command Centre (C4) and shall be provided as & when required by KMDA officials and competent authority.

1.5. RFID tagged with unique numbering system shall be used for input line, output line and other vehicles engaged in excavation and pre-stabilization.

1.6. Fully online electronic, automatic system equipped with PLC and SCADA based monitoring with latest state of the art technology along with backup server facility shall be used for daily monitoring.

1.7. It shall have CCTV surveillance facility at both Chandannagore MC and Hooghly Chinsurah Municipality with real time data transfer to the Central Control and Command Centre (C4) and storage of entire contract period. For CCTV surveillance High-Definition IP based cameras in adequate numbers (as directed by KMDA) shall be provided by the Concessionaire. CCTV surveillance on each processing line/points, entry and exit points with high definition PTZ camera and further storage of data of pictures of work undertaken on daily basis.

1.8. CCTV Recordings of operation of weighing system shall be provided as and when required by KMDA officials and competent authorities.

1.9. All vehicles to be used for transporting waste and recyclable materials shall be provided with GPS tracker with real time data transfer facility to the Central Control and Command Centre (C4) to enable them to track and monitor at any instant.

1.10. The Concessionaire shall develop an App compatible with both android and iOS platform for real time monitoring and control of entire fresh waste processing process, before commencement of processing of wet/dry fresh waste and subsequent commencement of COD for wet/dry fresh waste at both Chandannagore MC and Hooghly Chinsurah Municipality.

1.11. Remote Monitoring System: The SCADA shall be equipped with provision of remote monitoring to enable the plant monitoring from any remote location.

1.12. All the data acquisition of weighing system comprising weighing of Solid Waste to be processed shall be done online on website https://kmda.wb.gov.in/public domain in view of the transparency of project operations. Dedicated connectivity for both KMDA users shall be provided by the Concessionaire.

1.13. Any malfunctioning in operation of weighing system shall be the responsibility of the Concessionaire.

1.14. In case any malfunction/technical problem in the functioning of weighing system; the same shall be rectified by the Concessionaire within a period of 24 hrs. During this period of failure, weighing of solid waste shall be carried out at private weighbridge located outside which shall be approved by KMDA at the Concessionaire's cost and no additional charges shall be paid by KMDA. The facility should be covered under 24 hours CCTV surveillance and there should be a mechanism for independently verifying trucks/dumpers entering and exiting the plant. There should also be a mechanism for independent assessment of the amount of waste entering the plant and amount of different fractions exiting the facility. The bidder shall make necessary material balance every week at processing facility and weekly report shall be submitted to the authority. These figures would be used for the purpose of payment to contractor.

1.15. The sites at Chandannagore MC and Hooghly Chinsurah Municipality shall be operated with real time monitoring system including CCTV surveillance as stated above with data storage of entire contract period. For CCTV surveillance to ensure full coverage of site with High-Definition IP based cameras in adequate numbers shall be provided by the contractor to abide and comply with the contract conditions. All the vehicles, transporting the recovered fraction for disposal out of the site shall be fitted with GPS based monitoring system and the movement record of the vehicles shall be maintained by the contractor. In addition, the contractor shall maintain videographic records of the of transportation vehicles for disposal of recovered fraction at the weighing location. ***Payment shall be released only when fully functional Real Time Monitoring System, GPS monitoring report and in site or weighing location videographic evidence is submitted otherwise penal measures shall be taken as specified elsewhere in this document.*** CCTV Recordings of operations shall be provided as and when required by the employer or its designated Authority.

1.16. The design of architecture and establishment of Central Control and Command Centre (C4) at Kolkata is within the scope of work of the Authority. Also, bidders shall have to design their monitoring and command centre at project site in such a way that all data of each project site for entire project duration shall be stored and can be retrieved at any time. Also, the system shall be designed to integrate with C4 at Kolkata for transferring real time data, monitor and control. The communication Protocol, band width etc. shall be provided to the bidder at appropriate time.

1.17. The agency shall take the weight of input fresh waste before processing into trammel.

1.18. Moisture content shall be tested as par the procedure laid down in this document for input and output waste. Also weight of the different fraction going out from the site shall be taken and materials balance shall be (input waste and output fractions) shall be done and need to be submitted along with the bill. Also, the agency shall submit proper end user certificate / co-processing certificate from valid end user of different fractions along with bills.

1.19. As per the guideline for Extended Producer Responsibility (EPR) for processing of plastic issued on 16.02.2022 (GSR-133), all the EPRs have to take online approval from Pollution Control Board. No certificate regarding this, shall be issued from any other Department/Agency.

1.20. **Scope of work and deliverables of automated Weighbridge system:**

**The following shall be the broad scope of work:**

- Deployment of Unmanned Weighbridge Solution.
- **Integration with:**
  - Hardware components such as Controllers,
  - CCTV,
  - IR sensors, T
  - Traffic Lights and– Boom barrier
- Security Audit, Installation and Go-Live of the Automated Unmanned Weighbridge solution.
- The weighbridge shall be calibrated by the concerned Govt. agencies as required. The contractor shall be responsible for obtaining stamping of department of Weights and Measures, periodic calibration etc. from time to time as per the Govt. norms. The copy of the Calibration Certificates issued by the concerned Govt. agency shall have to be submitted to KMDA by the agency.
- Operation & Maintenance Services.
- The system shall be designed to integrate with C4 at Kolkata for transferring real time data, monitor and control.

**Installation and configuration of hardware:**

A detailed study of requirement will be conducted at the site. The proposed specification and bill of material shall be finalized in line with the requirement for the smooth operationalization of the Automated Unmanned Weighbridge system**.** Requirement of the hardware components such as CCTV cameras, Traffic lights, boom barriers, IR sensor units etc. is elaborated below:

**CCTV**

CCTV cameras shall be installed at strategic positions with maximum viewing angle. Cameras shall take the snapshot of the front view, top view and back view of the material carrying vehicles at the appropriate area such as weighbridge, entry, exit etc. The front view imagery shall be used to determine the vehicle number while the top view will capture imagery of the material storage bed.

**RFID Reader**

RFID readers stationed at the entry points of the weighbridges are used to authenticate the tags on the windshields of the material carriers. RFID based tags/ fast tags shall serve as an identification of the material carrying vehicle. In case of fast-tag provision, Readers only shall be utilized for capturing vehicle information from the fast-tag.

**Boom Barrier**

These shall be installed at entry and exit point of weighbridges to control the access of material carrying vehicle to weighbridge. Only the trucks with valid RFID tag/ FASTag shall be allowed to pass through the boom barrier.

**Sensors**

Sensors shall be deployed at strategic positions on the weighbridge, which detect if the carrier is optimally positioned for weighment on Weighbridge.

**Public Announcement (PA) System/Audio**

The PA system receives input from the IR sensors and accordingly guides the carrier into correct positioning on the weighbridge. PA systems shall guide the vehicle to be aligned on the weighbridge for optimum weighment. The PA system shall also announce the weight of the materials carried by the vehicle.

**Traffic Light**

Traffic lights will be installed near the boom barriers at the entry & exit of the weighbridges to guide the material carriers on and off the weighbridge. This facilitates efficient queuing and vehicle management.

**LED Display**

The display will be mounted near the weighbridge. It shall display the vehicle details and the captured weight.

**Server**

A standalone server shall be deployed at the check-gate. It shall store all transaction information at the check-gate. There will be direct synchronization between this standalone server and the data centre.

**Development of Application Software for Check-Gate Operation Monitoring**

Web based application software shall be developed for the automation of Check-gate operations. The application shall have the following modules and functionalities.

**Check-gate Operation**

- Master data management
  - Check-gates
  - Weighbridges
  - Material carrying Vehicles
- Centralized administration of user-ids and password management
- Capture FASTag details like vehicle number
- Scalable architecture to facilitate on-boarding of additional check-gates and weigh-bridges, if required.
- Online-offline synchronization of data in case of network unavailability
- Material Carrier Monitoring
- Map-based tracking of material carriers
- Real time information on digital map

**Dashboard**

- Visual representation of captured information shall be facilitated through Dashboards
- Graphical dashboards shall enable view of all / some key reports/ parameters enabling quick decision making
- Representation of following information on dashboards:
  - Weighbridge-wise report with top-view, back view and front-view images of material carrying vehicle using the CCTV systems
  - Entry/Exit report of material carrying vehicles

**Unmanned WB solution**

The Unmanned Weighbridge Solution with a controller shall be installed and configured with all devices to operate the system automatically. Necessary programming shall be done in the controller so that the devices shall operate sequentially as per process requirement. The solution shall have the following functionality:

- FASTag/ RFID tags of material carrying vehicles shall be captured through RFID Readers

- Validation of FASTag/ RFID against e-Pass details captured
- IR sensor & Public announcement system based vehicle positioning for optimum weighment
- Capture automated weighment details
- Capture top-view, front-view & back view of the vehicle from CCTV camera
- Validate captured weight against weight recorded in transit pass
- Share all captured details with i3MS for future reference/audit purposes

**Load Cells**

- The weighing system shall comprise of Compression type load cells of capacity 20 MT or more. The weighbridge shall be supported by these load cells. The no. of load cells provided shall not be less than 8 nos.
- Nonlinearity of each cell will not exceed 0.025% and total error will not exceed 0.02% of full load scale capacity of each cell. The weighbridge shall be so designed as to ensure that lateral force and other undesirable forces do not act on load cells.
- The load cells should be weather proof and shall be suitably protected to withstand environmental conditions
- The load cell shall be provided with integral cable

**Integration**

- The system shall have integration with a multitude of hardware and software systems.

**Hardware:**

The various hardware components which the system shall be with shall include:

- CCTV camera
- Boom Barrier
- Traffic Lights
- Controller & IR sensors
- CONTROL PANEL
- Public Announcement (PA) Systems
- RFID Tags (if required) and Readers
- RFID READER UHF
- LED Display
- Weighbridge digitizer
- U.P.S. Capacity: 2 KVA
- CVT 3 KVA, Input: 130-270V, 50Hz+5% Output: 220+2%, 50Hz
- Personal Computer
- Printer

**Software and interface requirements:**

- The Weighbridge software must be user friendly and compatible with Windows
- Weigh bridge software needs to have facility for interconnected operation in a network environment.
- The system should generate loading slips, way bills, in the users prescribed format without much manual intervention. During generation of the printed slips, the data available in the system should be used to avoid redundant data entry operation.
- The system should maintain back up data in specified path (network or local system) for use during failure or breakdown. Backup data to removable strong such as CD and USB drives etc. also needs to be provided for manual backup operation. There should be provision for recovery of the software and database from the backup for uninterrupted operation.

- The weigh bridge software and the database used by the system must be tamperproof with built in authentication for security. All user access to the weigh bridge software should be recorded automatically
- The bidder must be able to modify /add or remove features in the software in a reasonable time period as per the recommendation of the competent authority.
- Other standard facilities for electronics Weigh Bridge also need to available in the system.
- The calibration of the weighbridge should be carried out using software without any manual intervention and the record of all such calibration needs to be automatically generated and stored in the system

**Implementation**

After successful integration of the System with the proposed hardware and i3MS, User Acceptance Testing (UAT) shall be done for Automated Unmanned Weighbridge Solution. Then, the weighbridge shall be calibrated by the concerned Govt. agencies as required.

## 2. Sanitary Landfill Site

### 2.1. Role of Concessionaire

a. The Concessionaire shall Design, Construct and Operate Project Facility of Sanitary Land Filling (SLF) including Processing facility, Material Recovery Facility, etc., of Designed Capacity at the Site provided by the Authority. The Site for SLF to be finalized by the Authority and handed over to the Concessionaire within [1 (one)] month from Execution Date. The Sanitary Landfill shall be setup in accordance with therequirement of SWM Rules, 2016 and CPHEEO Manual. Concessionaire may use other existing SLF site(s) within 30 Km radius subject to prior approval of competent authority. No extra payment will be admissible for transportation and disposal of the residual inert matter and rejected waste/processing rejects.

b. The Concessionaire shall install a weighbridge from the start date of disposal activity ofappropriate capacity. The weighing system shall be fully online electronic, automatic system equipped with the latest technology along with backup server facility. Data of weighing system shall be maintained properly for the entire Concession Period with backup server facility and shall be provided as & when required by the Authority/Project Engineer.

c. Concessionaire to ensure by weighment that inert/residual Processing waste from Processing Facilities to the Sanitary Landfill should not be disposed more than 10% of the total incoming waste at Processing facility and as per SWM Rules 2016.

d. SLF shall comprise compacted earth bunds with impermeable liner systems comprising compacted clay liners, or geo-membranes, or geosynthetic clay liners. The landfill cells will incorporate leachate collection systems comprising gravel and geotextile filter layers and pipe collection and transfer systems.

e. The Concessionaire shall also set up a leachate treatment facility at the landfill site involving any suitable technology to meet the standards as per regulatory norms.

f. Shall be responsible for all the health, security, environment and safety aspects of the Project at all times during the Concession Period.

g. Ensure arrangement for water and power supply at site at its own cost.

h. Transportation of inert/residual Processing waste to the Sanitary Landfill is to be done by the Concessionaire from each Site/Collection Point.

i. Ensure that the Project Facilities remain free from all encroachments and take all steps necessary to remove encroachments, if any.

j. Pay all Taxes, duties and outgoings, including utility charges relating to the Project Facilities.

k. The Concessionaire shall provide fencing along the perimeter of the Site and arrange adequate lighting system for easy operations in the working area as well as to the access ways.

l. Provide fire protection measures and safety equipment for all workers at the site. Entrance into the Site from outside the Site shall be restricted to one point. However, several emergency exits may be provided.

m. Adequate measures to avoid trespassing shall be taken by the Concessionaire. Ensure adequate power back-up for smooth operation of the machinery and equipment installed.

n. All the necessary regulatory approvals (including Environmental clearance, consent to establish and operate from SPCB, etc.) shall be taken prior to the commencement of SLF construction and operations.

o. The Concessionaire shall provide access to the Municipalities to dispose of desilting and road sweeping waste in the SLF.

p. The Concessionaire shall carry out scientific closure of the Dumpsite(s) after the concession period before handing over the Site.

q. The Concessionaire shall be responsible to carry out the processing of Municipal Solid Waste as per guideline framed time to time by the Central Government/State Government throughout the concession period.

r. **RDF/Plastics derived from processing of Fresh Waste:**

(a) Plastic wastes, derived from processing of Fresh wastes, to be disposed off, according to Plastic Waste Management (Amendment) and (Second Amendment) Rules, 2022.

(b) It is mandatory for the Concessionaire to supply the RDF, generated from processing of fresh waste to the Waste to Energy plant that may come within 200 km radius of the site, in near future, at mutually agreeable price between the two parties.

2.2. **Role of the Authority**

a. The agency shall prepare a lay out plan to set up the processing facilities including SLF within the available land for SWM The Authority shall provide approval within reasonable time.

b. the Authority shall approve the Implementation Plan submitted by the Concessionaire within reasonable period. The Authority shall, where appropriate, coordinate/assist Concessionaire in securing Applicable Permits.

c. May appoint Project Engineer (Project Engineer) to monitor, supervise, and review Concessionaire's progress against the submitted timelines and also verify and approve the Concessionaire's monthly/running bills. The Project Engineer shall also approve the weighbridge proposed by the Concessionaire.

d. The Authority shall make timely payments.

e. the Authority shall meet and defray any cost or penalty levied upon the Concessionaire pursuant to any judgment or order of any court of competent jurisdiction or statutory authority, in connection with any

damages resulting from fresh waste, which is not directly attributable to Concessionaire's non-observance/non-performance of its Bio- Remediation or any other obligation hereunder.

**f. Handover the dumpsites(s) within 30 (thirty) days from the signing of agreement. There will be no lease of land to the Concessionaire, nor is she/he permitted to raise money mortgaging the land. Concessionaire can use the land for the purpose of this Project only till Concession Period or termination of contract whichever is earlier.**

2.3. **Role of Participating Municipalities**

a. Handover the Dumpsite(s) for processing of Fresh Waste at the Dumpsite(s) within 30 (thirty) days from the signing of agreement. There will be no lease of land to the Concessionaire nor is he permitted to raise money mortgaging the land. Concessionaire can use the land for the purpose of this Project only till Concession Period or termination of contract whichever is earlier;

b. Facilitate in a timely manner all such approvals, permissions and authorizations which Concessionaire may require or is obliged to seek from them under this Agreement, in connection with implementation of the Project and the performance of its obligations;

c. Ensure a separate waste collection stream from bulk waste generators, vegetable and flower markets for the purpose of collecting segregated Organic Waste.

d. Assist in getting connection for water and electricity connection at each of the Site(s).

e. Shall ensure source segregation of MSW.

f. Shall ensure regular primary collection of waste from households i.e. on daily basis.

g. Shall assure a minimum of quantity as specified in Table 3 of waste input, by weight, of current year (Table 3), throughout the period of 15 years of O&M, at the Processing facility on daily basis to run the plant(s);

h. The Concessionaire shall submit monthly reports to Municipalities and Project Engineer regarding progress of the Project. Municipalities shall validate the data provided by the Concessionaire in monthly progress reports after seeking comments of the Project Engineer;

i. Observe and comply with all obligations set forth in this Agreement, and any other Agreement to be executed with the Concessionaire;

j. Have right over assets and technology within Concession Period and expiration of Concession Period, The ULB can take over the assets thus created for solid waste management at processing facilities if the concessionaire fails to provide service at desired level and as per guidelines framed by the central Govt. / state govt. time to time for SWM.

2.4. Bidder has to dispose off the inert materials at Sanitary Landfill (SLF) site constructed by the bidder itself, within the land as provided. If land in constraint for construction of SLF at the given site, and the bidder couldn't construct the SLF within the area as earmarked and demarcated in this RfP, the cost of thus will be deducted from the Capital Expenditure/Capital Grant, as provided to the agency, i.e., @6% of the Capital Grant, as mentioned in Table 5 and Article 17 of this RfP.

However, bidder may use other existing SLF site(s) within 30 Km radius subject to prior approval of competent authority. No extra payment will be admissible for transportation and disposal of the residual inert matter and rejected waste/processing rejects. If the bidder fails to design and construct the SLF due to scarcity of land or any other issues whatsoever for construction of SLF, 6% of capital grant allocated for SLF design & construction will not be paid to the concessionaire.

In the case, where land is not available for construction of SLF, inert materials, derived from the Fresh waste, that is not more than 10% of the total generation of waste, to be disposed off at the available regional/cluster SLF situated within 25 KM radius, by the bidder.

## 3. Setting-up of Processing Facilities

### 4.1. Role of Concessionaire

a) The Concessionaire shall be obligated to set up at its own cost and expense, a Processing Facility at the earmarked Site and discharge obligations set out in Schedule 1 for Processing of Solid Waste prior to its final disposal at engineered Sanitary Landfill Site,as per the Construction Plan submitted by the Concessionaire. The Implementation Schedule shall be submitted in the form of bar chart or in MS Project.

b) The Processing Facility may also include a setting up a Waste to Energy Plant and bio-CNG plant having capacity as per process design, if concessionaire intend to set up in the processing site. No extra land will be provided by the Authority to set up this facility as available in the dumpsite. Concessionaire may arrange land at his own cost (if required) for Bio-CNG/Waste to Energy complying all norms specified in CPHEEO manual and BIS code and other guidelines. The Concessionaire shall have the Processing Facility fully set up and obtain an Completion Certificate from the Authority/Project Engineer for the newly installed Project Facility(ies) within a period no later than [1 (one) month] from the Scheduled Construction Completion Date. The Concessionaire shall also be obligated to promptly rectify and remedy any defects or deficiencies that are pointed by the Project Engineer and furnish a report in respect thereof to the Project Engineer.

c) In the event the Concessionaire is unable to achieve COD within the said time period, the Concessionaire shall be granted an additional period of maximum 90 (ninety) days without levy of any damages. In case of any further delay to achieve COD, Liquidated Damages at the rate, as decided by the Authority of delay beyond 90 days from Scheduled Construction Completion Date shall be levied by the Authority on the Concessionaire, subject to a maximum of 180 (One Hundred and Eighty)] days beyond which it shall tantamount to Concessionaire Event of Default. Provided however, if the delay to achieve COD is due to any Force Majeure event or due to delay on part of the Authority/ Project Engineer in issuing Completion Certificate, no such Liquidated Damages shall be levied.

## 5. Processing & Disposal of Solid Waste

### 5.1. Role of Concessionaire

a) The Concessionaire shall setup Processing Project Facility& Sanitary Landfill on the designated lands provided by the Authority. The land provided shall only be used for the purposes of the Project.

b) The concessionaire shall Construct of temporary site office, water, power, sanitation facilities to workers as per statutory standards.

c) The Concessionaire shall submit process design and process flow diagram for processing of Municipal solid waste of required capacity as per contract agreement for approval to the Authority.

d) The Concessionaire shall construct all necessary units and infrastructures as per requirement within the designated site including internal road, storm water drainage system, leachate management system, power supply system, water supply system etc, two storied Office building consist of adequate space for storage of materials, consumables, equipment and space for laboratories, office space for In charge and its supporting staff, rest room for workers, toilet etc.

e) Windrow shed: The agency should cover the windrow shed, as calculated from CPHEEO guideline, with minimum 70% of permanent structural arrangement and maximum 30% of temporary arrangement, only for the monsoon cover.

f) The Concessionaire shall take all Applicable Permits in sequence and comply with the provisions therein from time to time.

g) The Concessionaire shall design, construct, operate and maintain all the Project Assets and Project Facilities including Processing Facility and SLF in compliance with all applicable laws at its own cost.

h) For the Processing Project Facility, the agency may use any of the proven technology(ies) for RDF/thermal/ biological Processing, as per the SWM Rules, 2016, its amendments, CPHEEO manual and in line with the Applicable Laws including but not limited to CPCB. The Sanitary Landfill shall be setup in accordance with the requirement of SWM Rules, 2016.

i) The Concessionaire shall at its cost and expense procure all machinery and equipment for Processing Project Facility and Sanitary Landfill. The Concessionaire shall comply with proprietary rights, licenses, agreements and permissions for materials, methods, processes and systems used or incorporated in the Project

j) The Processing Facility shall achieve COD within a period of [13 (thirteen)/16 (sixteen) months] (as mentioned in Table 4 of RfP) from the date of signing of this Agreement/issuance of Work Order (whichever earlier). The Concessionaire shall submit monthly progress reports during the above period to Project Engineer/EIC.

k) The Concessionaire shall operate and maintain the Processing Project Facility in accordance with the Applicable Laws.

l) Silt collected from drain needs to be managed separately. It should be dried and weighted before disposed off to the Engineered/Sanitary Landfill.

m) The Concessionaire shall ensure that the inert/Processing rejects generated from the Processing Facility should achieve total elimination of landfill but in any circumstances not in excess of **10% (ten per cent)** of input waste quantity. The Concessionaire will all time ensure the daily capping of SLF as per Solid Waste Management Rules, 2016. The Concessionaire will also ensure treatment and discharge of leachate generated from Processing Project Facility in accordance with the CPCB standards.

n) All non-biodegradable waste viz. plastic, metal, glass, electronics & other items are to be segregated and sold to re-processors/ recyclers/ Govt. authorized agencies or recycled/ reprocessed through recycling/ re-processing facilities directly or indirectly within the allotted site and appropriate/retain the whole of the sale proceeds. Other wastes such as rubber, tyres, upholstery, bags, etc., may be sold to cement plant or other factories as energy source. The resources recovery shall be carried out at the cost and risk of the Concessionaire. It shall also be ensured that no part of construction & demolition waste is dumped in the landfill of the plant.

o) All penalties, levies due to any non-compliance will be borne by the Concessionaire.

p) The Concessionaire shall retain revenue generated through products produced out of such Processing. The Concessionaire shall also retain revenue generated through carbon credits.

q) The Concessionaire shall maintain daily records of quantum of incoming, processed waste, rejects, products and product quality in the formats approved by the Project Engineer. The monthly report shall be submitted by the Concessionaire to the Project Engineer. The monthly report may be subject to verification by Project Engineer.

r) The Concessionaire shall arrange for all facilities and equipment for weighing - minimum 2 (two) ( for processing quantity equal to or more than 100 TPD) and one ( for processing quantity less than 100 TPD) as specified herein.

s) The flue gas vented to atmosphere shall be required to be treated adequately by scrubbing, neutralization and filtering so that the pollutants are dust levels are well within the acceptance level as statutory requirements.

t) The Concessionaire shall develop the surrounding of the plant with greenhouse concept having plants, lawns, gardens etc. as model spot for educating students/ public on environmental protection and best environment practices.

u) The Concessionaire shall erect at least (1) signboard with details (capacity, contact details and signage) about the SLF in [Local Language(s)] and English of a size not less than 2ft. by 4ft. each, adjacent to the main entrance in a manner that is ordinarily visible to any person using such entrance.

v) The Concessionaire shall at all times comply with the statutory norms of CPCB/ SPCB for pollution control.

w) The Concessionaire will place a board at the entrance of the Processing facility displaying emission and discharge parameters of air & water.

x) The Concessionaire shall display layout at the entrance and indicate warning signs in the project facilities area.

y) The workers involved in Solid Waste handling shall be provided with gloves, masks, uniforms, aprons and other Personal Protective Equipment (PPE).

z) The concessionaire should have to carry out necessary weighment of all types of vehicles entering at the dumpsite, irrespective of carrying segregated or mixed wastes, for assessment of quantity of waste generated and entering into the workplace, minimum for consecutive fifteen working days, after installation and calibration of permanent weighbridge or one and half month from issuance of Work Order, whichever is earlier.

aa) The concessionaire should prepare all design drawings, as per the RfP quantity given and as per requirements of the CPHEEO manual, and as per BIS code.

bb) The concessionaire is allowed to construct all the processing units for the capacity as per the actual quantity of waste entering into the work place, during initial stage of fresh waste processing.

cc) The concessionaire should scale up or increase the capacity of processing units for the concession period, if needed.

dd) The processing facility shall be designed for all weather operations. The processing facility shall be operated under cover, so that dust, litter and noise could be effectively controlled. The processing facility shall be cleaned daily, and the floors washed.

ee) The processing facility shall be equipped with internal roads, ramp and platforms at different levels. These shall be concrete/bituminous designed and built with requirement and capacity to withstand the load of moving machineries and vehicles.

ff) The concessionaire shall make provisions to restrict entry of stray animals.

gg) Shall rehabilitate and give preference in providing employment opportunity to the eligible candidates of the nearby area.

hh) All staff uniform and vehicles involved in the project shall have advisory messages about Solid Waste

Management.

ii) The agency will be provided **tripping fees**, as submitted and approved, for processing of both fresh and fresh wastes, whatever lying at site (fresh waste) and received at site (fresh waste), per day, mixed or segregated, **on actual basis**, from day one of Commercial Operation Date (COD).

## 6. Setup Complaint Redressal Centre

### 6.1. Role of Concessionaire

a) The Concessionaire shall setup at least 1 (one) Complaint Redressal Centre which shall be functional by the Commencement Date such that it allows for (a) easy monitoring of operations of the Project and (b) establishment of standard protocol to address customer complaints.

b) The Complaint Redressal Centre shall be capable to registering complaints by the way of written communication, telephonically or personal visits by the consumers. The Complaint Redressal Centre shall be supported in English and [local language(s)].

c) The Complaint Redressal Centre shall have at least 3 (three) operational dedicated phone lines for receiving customer calls / complaints.

d) The telephone numbers of the Complaint Redressal Centre shall be clearly reflected on all secondary storage equipment and transportation vehicles. These numbers shall be mentioned in English and [local language(s)].

e) The "Complaint Redressal Centre" shall be kept operational by the Concessionaire from 6 am to 10 pm, 7 (seven) days a week. Concessionaire shall maintain a digital record of all complaints received containing identification number, customer name, service address, phone number, date and time of initial call, date and time of any follow -up calls and type of complaint. Complaints shall be verified and shall be redressed within 24 hours of their receipt.

**Annex- I**
**(Schedule 1)**
**Construction requirements for waste processing facilities**

## 1. General

1.1. The minimum facilities to be provided in the Waste Processing Facilities which are to be implemented by the Concessionaire as part of the Project have been highlighted in this Schedule.

1.2. The Waste Processing Facilities shall conform to the minimum design requirements set out in this Schedule and to the SWM Rules, 2016.

## 2. Overall Design Parameters

### 2.1. Windrow Composting

- During aerobic composting in windrow process, microorganisms oxidize organic compounds to carbon di-oxide, nitrite and nitrate. Carbon from organic compounds is used as a source of energy while nitrogen is recycled. Due to exothermic reaction, temperature of the mass in windrows rises.

- Windrow composting process consists of placing the source segregated organic part of municipal solid waste (MSW) in long narrow pile called windrows that are turned on regular basis for boosting passive aeration. The turning operation also facilitates mixing of composting materials.

- At thermophilic stage in windrows the following criteria is significant:

  Moisture: 55 – 60% Temperature: $55^{o}$ – $65^{0}$C
  Air voids: 20 – 30%
  Microorganisms: Thermo-tolerant fungi, thermophilic bacteria, actinomycetes etc
  [Ref: CPHEEO Manual Part II, 2016, Page 227]

- Density: -
  Municipal solid waste (mixed) density may be in the range of 450kgs – 500kgs per cum. (CPHEEO Manual Part II, 2016).

  The density of organic and inorganic waste may be as follows considering mixed MSW density range as mentioned above.

  - Density of organic MSW: 600 – 700 kg/$m^3$
  - Density of inorganic MSW: 300 – 350 kg/$m^3$

### 2.2. Compost Pad

The segregated organic (wet) waste is transferred onto the compost pad into the windrows. The compost pad is an area where windrows are stacked. The compost pad must be stable, durable and impervious, so it is constructed with an appropriately designed combination of reinforced cement concrete (RCC) and plain cement concrete (PCC). Compost pad shall have a slope of about 1% to drain the excess water (storm water or leachate) from the windrows into a leachate collection tank.

### 2.3. Windrow Formation

The size, shape and spacing of windrows depend on the equipment used for turning. For example, bucket loaders are used to build high windrows, whereas turning machines create low and wide windrows. Manual labor is also used for windrows of a smaller scale, where additional equipment costs and use of machinery are not feasible (CPHEEO Manual 2016, Page 247).

Tentative windrow dimensions are suggested below:

- Windrow Composting Plant receiving organic waste up to 50 TPD:
  Base Width: 2.0 m to 2.75 m Height: 1.5 m to 1.75 m
- Windrow Composting Plant receiving more than 50 TPD but less than 100TPD:
  Base Width: 2.0 m to 4.0 m Height: 1.5 m to 3.0 m
- Windrow Composting Plant receiving 100 TPD or more:
  Base Width: 5.0 m to 8.0 m Height: 2.0 m to 3.0 m

However, height to base width ratio of the windrow depends basically on the angle of repose of the materials. In general, as the average windrow shape is between an oval and trapezoid, a factor of 0.66 is assumed to estimate windrow volume.

Therefore, the equation of windrow volume is:
Volume = Height x Width x length x 0.66. (Ref: CPHEEO Manual Part II, 2016).

## 2.4. Windrow Spacing

The space between windrows should be sufficient for movement of windrow turning machine. Normally it is 1 – 3 meters (CPHEEO Manual, Page 246). However horizontal (cross-sectional) and longitudinal spacing may preferably be 2.0 to 3.0 meters to facilitate windrow turning machine to function properly. In case of pay loader movement, longitudinal spacing of windrows may be kept between 4.0 to 5.0 meters.

## 2.5. Maturation area

A Space should be kept for maturation of compost. Following guidelines may be considered for construction of maturation area.

- Reduced volume after 21 days compost: 30% of original volume of windrow pad.
- Height of compost in maturation area may be upto 1.5M.
- Area may be confirmed by considering 15 days maturation period.
- Add 20% to 25% additional area for movement of vehicle.

## 2.6. Unloading Area / Platform

A space for unloading / platform of organic (wet) waste needs to be provided. There should not be any accumulation of waste in this area.

## 2.7. Screening and Packing Area

There must be adequate space for screening and packing of finished compost. It is suggested that a space of 20 to 25 $m^2$ / MT can be provided.

## 2.8. Total Area of Windrow Compost Plant

Total area of windrow composting plant will comprise of = Total windrow pad area + Clear spacing among windrows + Space for windrow turning machine movement or pay-loader movement + Maturation area + Unloading area / platform + Screening and packing area.

In addition, 10% area may be kept for office, weighbridge installation wash room etc. The above area calculation does not include buffer zone around compost plant.

## 2.9. Duration Composting

Duration of composting may be 5 weeks or 35 days (CPHEEO Manual Part II, 2016). In order to minimize land area, compost pads for 20 days may be appropriate. Accordingly, 21st day compost may be kept separately in an ear-marked area for maturation for at least 15 days.

## 2.10. Compost Refinement

At the end of composting phase, the material usually contains 30 – 35 % moisture. The composting is normally taken to be complete when active decomposition stage is over and C/N ratio is around 20.

## 2.11. Protection against Rain

The windrow composting plant should be covered with structural shed to be built by installing columns and truss. Structural design calculation with drawing (duly vetted by Engineering Educational Institution) should be submitted before construction.

## 2.12. Quality of Organic Compost

To ensure safe application of compost, the quality must conform to FCO-2009. (Refer SWM Rules, 2016).

***[Appropriate Compost Plant Design and Specification has been incorporated in Annexure 4 of Municipal Solid Waste Management Manual Part III: The Compendium. CPHEEO, Ministry of Urban Development, Government of India].***

## 2.13. Material Recovery Facility (MRF)

The SWM Rules, 2016 defines 'Material Recovery Facility' (MRF), means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in Rule 2 or any person or agency authorized by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorized informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned inn Rule 2 for the purpose before the waste is delivered or taken up for its processing or disposal.
Depending on the scale of operation and the level of mechanization in the facility, MRFs can be classified as manual or mechanized.
Suggested MRF area may be in the range of 20 $m^2$ to 25 $m^2$ per MT of dry waste.

# 3. List of Mandatory Facilities

The Concessionaire shall provide the facilities in the manner as set out under this clause ("Mandatory Waste Processing Facilities"). The Concessionaire, subject to review and approval of the same by IE cum PMC/ Project Engineer/PMU / the Authority, may adopt alternate designs for the Mandatory Waste Processing Facilities.

## 3.1. Weigh Bridge

The Concessionaire shall provide one weigh bridge of rated capacity of 40 metric tons each at the entry gate to the waste processing facilities. Each weighing platform shall have minimum dimensions of 12 m length and 3 m width.

The weigh bridge shall meet the minimum technical specifications set out in the Table below.

- The Facility shall have a separate Weighbridge (each for Entry and Exit) for weighing the quantum of municipal solid waste being brought in by individual trucks/compactors.
- The trucks along with the loaded material will be visually inspected and if found in accordance with the guidelines of the treatment operation, will be weighed and permitted to enter the Facility. The weight and the origin/destination of the waste will be automatically registered.

The Weighbridge shall include an electronic, pit type, modular deck Weighbridge with digital Load Cells, electronic Digital Indicator along with Computer Interface. The Weighbridge shall be modular deck with each module made of RSJ Sections and RCC or Steel Deck. Load Cells shall be heavy duty digital Load Cells with high accuracy Load Measuring Gauges, advanced Lightening Protection Circuit and IP68 Junction Boxes. The Weighbridge Indicator shall be digital Indicator with LED Display, Keypad, Real Time Clock, in-built Ports for Computer Interface. Software shall be easy to operate, user friendly program capable of automatic weight transfer to Computer, including customized information like Date, Slip No., Vehicle No., Type of Material, Weight, Location of Collection etc.

| **Parameter** | **Specifications** |
|---|---|
| Type | Pit less Design, Fully Electronic automatic Weighbridge with provision of auto number plate detection system. Pit Mount, Modular Weighbridge |
| No. of platforms | Two (For more than 100 TPD capacity) one for less than 100 TPD capacity |
| Type of Platform | Modular Deck, each Module made of RSJ Sections & Plates with RCC or Steel Deck Structural Steel as per IS 2062 |
| Capacity | 60 MT per platform each |
| Resolution | 5 kg (Display Increment) |
| Platform Size | 12m x 3m (minimum) |
| Weighing Electronics | Micro-controller type multi-processing of weighment based digital weight indicator with<br>▪ Menu driven Operations<br>▪ Auto Zero /Auto Zero Maintenance<br>▪ Auto Gain & Full Digital Calibration<br>▪ Auto Calibration Check<br>▪ Programmable Update Rate with adjustable digitalaveraging and auto latching<br>▪ A/D Converter: 24 Bit high resolution<br>▪ Password Security<br>▪ Parallel Printer Port & Serial EDP port<br>▪ Real Time Clock<br>▪ Self & Concessionaire Diagnostics |
| Printer | 80 Column Dot Matrix Parallel Printer |
| Key Board | 105 keys IBM compatible key-board with interface |
| Display | ▪ Dual Display (6-digit 7 segment LED for Weight Displayand 2 x 16 Character, LCD Dot Matrix Display for message).<br>▪ 4-inch Seven segment LED weight display (Jumbo Display)<br>▪ Polarity Indication: Negative sign in display |
| Data Storage | Facility to store 2000 truck information in the memory |
| UPS | Adequate for 4 hours operation of the weigh bridge |
| Weighbridge Construction | Rugged Fabricated Steel Structure, side girders, 8mm thickTop Deck Chequered Plate, Cross Girders, designed to take 100% Rated Load, 150% Safe Over Load & 200% Ultimate Load |
| Load Cells | ▪ No. of Load Cells: 06<br>▪ Type: GD Rocker Pin Design with Hexagonal end Counterforce (Load Pin) for Anti rotation<br>▪ Output: digital with response time of digitizer 0.1 second |

| Parameter | Specifications |
|---|---|
| | ▪ Accuracy: OIML, 10000d Class III –L, viz; 0.010% of Rated<br>▪ Capacity Rated Output Sensitivity: 2 mV/V<br>▪ Output Update: 10 reading per second<br>▪ Non-Linearity: < +/- 0.017 % of Rated<br>▪ Output No Repeatability: < +/- 0.010% of Rated Output Overload Rating: > 300% of Rated Capacity<br>▪ 6 nos. double ended shear beam type, IP 68 class protection capacity<br>▪ 12 VDC/15VDC<br>*Heavy Duty, Rocker Column Compression Type Digital Load Cell Cells with IP68 Junction Boxes* |
| Electronic Digitizer | ▪ Microprocessor based. Graphical LCD Display, in-built Data Storage + External USB Configure Facility with in-built Ports for Computer Interface |
| Software | To print Weighment slip consisting of Time, Date, Auto detection of Lorry Number plate, Product, Customer, Tare Weight, Gross Weight,Net Weight enable to upload data to cloud / APP etc. |
| | There shall be microprocessor-controlled system (Closed circuit cameras and computers) for monitoring of weighbridge activities fromthe Offices of EIC and Concessionaire simultaneously.<br>Weigh bridge shall be capable to provide following data also<br>▪ Receiving the Waste from corporation<br>▪ Dumping of inert to landfill<br>Product/by product weighing if required as per the type ofproduct/by product anticipated by bidder. |
| Scope of Supply | Weighbridge including Platform, Load Cells with Mounting Assembly, Electronic Digitizer with in-built Data Storage + External USB Configure Facility, Weighbridge Management Software, UPS (APC Make) with Inbuilt Rechargeable Battery, Junction Box, Data Cable Set, Outdoor Jumbo Display, Lightening Arrestor and all other<br>All other mechanical, electrical and instrumentation accessories, whether specified or not, but required for completion of the entire system shall be in bidder's scope. |

a. It shall be fully online electronic, automated system equipped with Automatic vehicle number plate detection and recognition and latest technology along with backup server facility. Data of weighing system shall be maintained properly for the entire contract period with backup server facility and real time data transfer facility to the Central Control and Command Center (C4) and shall be provided as & when required by KMDA officials and competent authority.

b. It shall have CCTV surveillance facility with real time data transfer to the Central Control and Command Center (C4) and storage of entire contract period. For CCTV surveillance High-Definition IP based cameras in adequate numbers (as directed by KMDA) shall be provided by the Concessionaire.

c. CCTV Recordings of operation of weighing system shall be provided as and when required by KMDA officials and competent authorities.

d. All vehicles to be used for transporting waste and recyclable materials shall be provided with GPS tracker with real time data transfer facility to the Central Control and Command Center (C4) to enable them to track and monitor at any instant.

e. The Concessionaire shall develop an App compatible with android smart phone for real time monitoring and control of entire fresh waste processing scheme.

f. All the data acquisition of weighing system comprising weighing of Solid Waste to be processed shall be done online on website https://kmda.wb.gov.in/public domain in view of the transparency of project

operations. Dedicated connectivity for both KMDA users and citizens shall be provided by the Concessionaire.

g. Any malfunctioning in operation of weighing system shall be the responsibility of the Concessionaire.

h. In case any malfunction/technical problem in the functioning of weighing system; the same shall be rectified by the Concessionaire within a period of 24 hrs. During this period of failure, weighing of solid waste shall be carried out at private weighbridge located outside which shall be approved by KMDA at the Concessionaire's cost and no additional charges shall be paid by KMDA.

i. The design of architecture and establishment of Central Control and Command Center (C4) at Kolkata is within the scope of work of the bidder. Also, bidders shall have to design their monitoring and command center at project site in such a way that all data of each project site for entire project duration shall be stored and can be retrieved at any time. Also, the system shall be designed to integrate with C4 at Kolkata for transferring real time data, monitor and control. The communication Protocol, band width etc. shall be provided to the bidder at appropriate time.

**Infeed Bunkers:**

Input Dry Waste, fully/partially segregated at source, shall be delivered into the Infeed Bunkers where the waste shall be visually inspected, and any bulky or non-suitable material shall be removed.

The Infeed Bunkers shall be installed in an underground Pit having RCC Floor and RCC Walls all around and shall be provided with Floor Washing Arrangement and Drainage. Also, it shall be provided with an Odor Control System comprising Centrifugal Fans, Air Ducting, and modular Bio-filters to ensure that mal odorous gases are effectively sucked and adsorbed in the Bio-filter.

The technical specifications are as follows:

| | |
|---|---|
| Input Material | Dry Waste |
| Quantity of Input Material | 200 TPD |
| Bulk Density of Input Material | 150-200 kg/m3 |
| Daily Operating Hours | 16 hours (max.) |
| No. of Units | As per bidder's design |
| Throughput Rate of each Unit | As per bidder's design |
| Storage Time | 30 minutes (min.) |
| Volume of each Unit | As per bidder's design |

**Material of Construction**

In-feed Hopper: Structural Steel S235 as per EN 10025
Body and Side Plates etc.: Structural Steel S235 as per EN 10025
Scope of Supply: Infeed Bunker including Supports Construction. Infeed Hopper, Chain Bell Conveyor, and all other Accessories etc. complete.

**Bag Opener + Oversize Remover**

Input Dry Waste, from above Infeed Bunkers, shall be conveyed to the Bag Opener + Oversize Remover. It shall have a Bunker with adequate storage volume Chain Belt Conveyor at the front end and Slitting Rotor at the other end which will open the waste bags and make the waste available for further sorting and recovery of Recyclables. The Oversize Remover will remove medium and oversize fractions (e.g., large plastic films etc.). The waste shall be then, taken to the Wind Shifter.

The technical specifications are as follows:

| | |
|---|---|
| Input Material | Dry Waste |
| Quantity of Input Material | 200 TPD |
| Bulk Density of Input Material | 150-200 kg/$m^3$ |
| Daily Operating Hours | 16 hours (max.) |
| No. of Units | As per bidder's design |
| Throughput Rate of each Unit | As per bidder's design |

Material of Construction:

| | |
|---|---|
| Infeed Hopper | Structural Steel S235 as per EN 10025 |
| Body and Side Plates etc. | Structural Steel S235 as per EN 10025 |
| Roller | Structural Steel S235 as per EN 10025 |
| Rotor Knives / Counter Knives | Hardox® 450 as per EN 10029 |
| Scope of Supply | Bag Opener including Oversize Remover Interconnecting Conveyors, Support Construction, Staircase & Maintenance Platform, Stand-alone Electrical cum Control Panel with Profibus/Profinet Interface and all other Accessories etc. complete |

**Iron Separator-1:**

The heavy fraction from Wind shifter shall be passed through the Disc Screen for further separation of organic. Prior to the Coarse Screen, a permanent magnet type Iron Separator shall be placed over the conveyor belt for removal of ferro-magnetic materials. The Iron Separator shall be so installed as to drop the collected metal pieces directly into the Bin below from where the same can be stored in the Recyclable Storage Area for later resale/reuse to the metal vendors.

The permanent magnet shall create strong magnetic field. A conveyer belt shall run over magnet and pick-up ferrous material. As the belt moves away from magnetic field, material shall dislodge and fall into a chute.

The technical specifications are as follows:

| | |
|---|---|
| Input Material | Heavy Fraction from Wind Shifter |
| Quantity of Input Material | 70 TPD |
| Type | Over-belt Permanent Magnet Type |
| Daily Operating Hours | 16 hours (max.) |
| No. of Unit | As per bidder's design |
| Throughput rate | As per bidder's design |
| Orientation | In-line to Infeed Conveyor |
| Direction of Metal Extraction | In-direction to Infeed Conveyor |
| Separation Efficiency | 85% (minimum) of incoming Fe |

Material of Construction:

| | |
|---|---|
| Support Legs, Base Frame | Structural Steel S235 as per EN 10025 |
| Body and Side Plates etc. | Structural Steel S235 as per EN 10025 |
| Scope of Supply | Iron Separator comprising Permanent Magnet, Conveyor, Chute, Support Frame and all other Accessories etc. complete. |

All other mechanical, electrical and instrumentation accessories, whether specified or not, but required for completion of the entire system shall be in bidder's scope.

entire system shall be in bidder's scope.

**Wind Shifter:**

The output of Bag Opener shall be taken to the Wind shifter where it will be separated into three fractions - Light, Medium, and Heavy.

- Light fraction comprising Low Micron Garbage Bags, Plastic Films, multi-layer Plastic Pouches/Bags, Polystyrene (Packaging Styrofoam) shall be taken to the Recycling / Sorting Station for sorting of recyclables.

- Medium fraction comprising Aluminum (Soft Drink Cans etc.), PET (Bottles of Water/Juice/Soft Drink, Containers of Ketchup/Jam etc.), Hard Plastic (Medicine Bottles, Drinking Straws, Containers for Yogurt / Take-out Meals etc.), HDPE (Milk Bottles, Detergent/Shampoo Bottles, Grocery Bag etc.), Tetra Pak etc. shall be conveyed to the Recycling / Sorting Station for sorting of recyclables.

- Heavy fraction comprising Glass Bottles, Metal (Cutleries, Containers etc.), Footwear, Other Leather Items (Bags, Wallets, Belts etc.), Clothes, Organic Waste, Vegetable Cuts, Tender Coconut and Inert etc. shall be shall be taken to the Recycling / Sorting Station for sorting of recyclables.

The technical specifications are as follows:

| | |
|---|---|
| Input Material | Dry Waste |
| Quantity of Input Material | 200 TPD |
| Bulk Density | 150-200 kg/$m^3$ |
| Type | Double Drum Separator |
| Daily Operating Hours | 16 hours (max.) |
| No. of Unit | As per bidder’s design |
| Throughput Rate | As per bidder’s design |

Material of Construction

| | |
|---|---|
| Support Legs. | Structural Steel S235 as per EN 10025 |
| Base Frame Body and Side Plates etc. | Structural Steel S235 as per EN 10025 |
| Splitter drums | Structural Steel S235 as per EN 10025 |
| Expansion Chamber | Structural Steel S235 as per EN 10025 |
| Scope of Supply | Wind shifter comprising Infeed Conveyor, 1st & 2nd Splitter Drums, Expansion Chamber, Light Fraction Discharge Conveyor, Air Nozzles, Recirculation Fans. Air Ducts. Air Diverter Valves, Dust Filter and all other Accessories etc. complete. |

All other mechanical, electrical and instrumentation accessories, whether specified or not, but required for completion of the entire system shall be in bidder’s scope.

**Iron Separator 2:**

The heavy fraction from Wind shifter shall be passed through the Disc Screen for further separation of organic. Prior to the Coarse Screen, a permanent magnet type Iron Separator shall be placed over the conveyor belt for removal of ferro-magnetic materials. The Iron Separator shall be so installed as to

drop the collected metal pieces directly into the Bin below from where the same can be stored in the Recyclable Storage Area for later resale/reuse to the metal vendors.
The permanent magnet shall create strong magnetic field. A conveyer belt shall run over magnet and pick-up ferrous material. As the belt moves away from magnetic field, material shall dislodge and fall into a chute.

The technical specifications are as follows:

| | |
|---|---|
| Input Material | Heavy Fraction from Wind shifter |
| Quantity of Input Material | 70 TPD |
| Type | Over-belt Permanent Magnet Type |
| Daily Operating Hours | 16 hours (max.) |
| No. of Unit | As per bidder's design |
| Throughput Rate | As per bidder's design |
| Orientation | In-line to Infeed Conveyor |
| Direction of Metal Extraction | In-direction to Infeed Conveyor |
| Separation Efficiency | 85% (minimum) of incoming Fe |

Material of Construction

| | |
|---|---|
| Support Legs, Base Frame | Structural Steel S235 as per EN 10025 |
| Body and Side Plates etc. | Structural Steel S235 as per EN 10025 |
| Scope of Supply | Iron Separator comprising Permanent Magnet, Conveyor, Chute, Support Frame and all other Accessories etc. complete. |

All other mechanical, electrical and instrumentation accessories, whether specified or not, but required for completion of the entire system shall be in bidder's scope.

### 3.2. Municipal Solid Waste Inspection Area

The Concessionaire shall, for the purpose of inspection of Municipal Solid Waste by the Authority/ IE cum PMC/ Project Engineer/PMU, as required under Article 5.11, provide a separate area ("Municipal Solid Waste Inspection Area") in each of the Waste Processing Facilities, which shall meet the minimum technical specifications set out in Table below.

| **Parameter** | **Specifications** |
|---|---|
| Platform | Platform shall be of minimum 150 th Cement Concrete design mix based on appropriate loading on factory floor slab)with nominal reinforcement over 75$^{th}$ PCC and Minimum area: 50 sqm<br>▪ The Platform shall be covered with slope roof on MS structure as per relevant IS Code |
| Construction | ▪ Levelling of the ground shall be done with approved earth having permeability coefficient (to leachate) and measured in field not greater than 1.0 x 10-7 cm/sec and subsequently compacted at 90% modified Proctor Density<br>▪ 75 mm thick PCC to be provided over single BFS<br>▪ 150 mm thick RCC flooring on top of the PCC.<br>▪ 2% slope shall be provided for platform<br>▪ Lined drains shall be provided for collection of leachate and surface run-off |

3.3. **Storm Water Drainage System**

The Concessionaire shall design and implement the storm water drainage system within the Waste Processing Facilities in such a manner as to ensure that

a. it is independent from the Leachate System (as provided in Clause 3.4 below);
b. the run-off rain water from the hinterland does not enter the Municipal Solid Waste storage and processing area;
c. there is no stagnation of rain water in the Sites.

The drainage system shall be constructed so as to meet the minimum technical specifications given below and as per relevant IS Code of practice / guideline.

| **Parameter** | **Specifications** |
|---|---|
| Design | • Shall have rectangular cross section<br>• Shall be covered surface drain with provision of Manhole and Catch pit at regular interval<br>• Shall be neat cement plastered<br>• Shall be as per the Drawings approved by the IE cum PMC/ Project Engineer/PMU<br>MOC shall be Brick work (1:4) up to 1 m depth and RCC beyond 1.00 M depth |

**3.4. Leachate System**

(a) The Concessionaire shall,
   i. construct leachate collection tank/s and provide a leachate collection network which shall meet the O&M Requirements;
   ii. ensure that the leachate from the Waste Processing Facilities is carried to the LeachateCollection Tank without any stagnation (except in storage/holding tanks)

(b) The Concessionaire shall provide a leachate treatment plant ("Leachate Treatment Plant") atthe Waste Processing Facilities of appropriate capacity but with a minimum initial capacity of5 cum/hour with suitable technology to ensure treatment of leachate to Inland Surface WaterStandards of MoEF & CC or Central Pollution Control Board recommended standards. The Leachate Treatment Plant shall be designed as a modular unit and so as to allow for increasein capacity in line with the increase in leachate treatment requirement.

(c) Overall design of the leachate system should be such as to ensure that there is no percolationof the leachate into the ground and it does not come into contact with any water body.

(d) The Concessionaire however should work out the maximum leachate flow generated, depending on the maximum prevailing rainfall intensity and the landfill area, as designed by him. The designs of leachate collection and treatment system should be carried out for the peak flow, as generated during the monsoon period.

**3.5. Water Supply System**

The Concessionaire shall provide a water supply system adequate to meet the requirements for Processing of Municipal Solid Waste, drinking and washing purposes in accordance with Good Industry Practice.

3.6. **Quality Control Laboratory**

The quality control laboratory shall be set up at the 1st floor of office building having floor area shall not be less than 25Sq M. It shall have laboratory platform with granite finish along the periphery of the laboratory room. Minimum two nos. of porcelain laboratory sink with swan neck bib cock shall be provided.

Floor finish shall be of vitrified tiles (600x600) and internal wall shall be plastered (1:5) and 1.55 mm thk. cement putty finish and painted with high quality emulsion paint. All MEP woks with standard specification is within the scope of work. Height of laboratory room shall not be less than 3 M.

Supply installation of laboratory furniture, laboratory equipment etc are within the scope of contract. The Concessionaire shall provide a quality control laboratory with the equipment adequate to carry out the following tests:

**3.6.1.** Municipal Solid Waste analysis and characterization
**3.6.2.** Leachate quality as per SWM rules/CPCB/MoEF & CC guidelines
**3.6.3.** Air quality as per SWM Rules CPCB/MoEF & CC guidelines
**3.6.4.** Installation of a machine to make distilled water at laboratory.

3.7. Worker Amenities

The Concessionaire shall provide workers amenities in the Project Facilities accordance with Good Industry Practice.

There shall be one rest room for workers at the ground floor of office building having area not less than 15 Sq M. Apart from the rest room there shall be toilet and bathing facility for the workers. Toilet and bathing area shall not be less than 10 Sqm.

Floor finish shall be of vitrified tiles (600x600) and internal wall shall be plastered (1:5) and 1.55 mm thk. cement putty finish and painted with high quality emulsion paint. All MEP woks with standard specification is within the scope of work. Height of rest room shall not be less than 3 M.

3.8. Office space : The Concessionaire shall provide office space having area not less than 30 Sqm in the Project Facilities accordance with Good Industry Practice. The office space shall have one cabin for in charge and a hall for supporting staff. The office shall be kept at 1st floor of the office building. It shall have separate wash room with all amenities having an area of 5 sqm.

Floor finish shall be of vitrified tiles (600x600) and internal wall shall be plastered (1:5) and 1.55 mm thk. cement putty finish and painted with high quality emulsion paint. All MEP woks with standard specification is within the scope of work. Height of office room shall not be less than 3 M.

**3.8.1.** Store room : The Concessionaire shall provide office space having area not less than 30 Sqm in the Project Facilities accordance with Good Industry Practice in ground floor of office building.

3.9. Green Belt

The Concessionaire shall provide a vegetative cover in a strip of width 3 m all along the boundarywall or as directed in the Terms and Conditions of the Environmental Clearance (EC)/Consent toEstablish issued to the Project. The species of trees for providing vegetative cover shall be in accordance to the EC terms and Conditions and as approved by the Authority/ IE cum PMC/ Project Engineer/PMU.

3.10. Name Board

The Concessionaire shall erect two signboards, one in local language and the other in English, ofa size not less than 2 ft. by 4 ft each, adjacent to the main entrance of the Waste Processing Facilities in a manner such that it is ordinarily visible to any person using such entrance. The signboard shall prominently display the following text in English (and its translation in local language) in black upper-

case letters on a white/yellow background:

"This property belongs to the Municipality has been handed over to M/s _ for Developing, Operating and Maintaining an Waste Processing & Engineered Sanitary Landfill Facility under a Design, Procure, Supply, Operate & Transfer Basis".

The Concessionaire shall ensure that the signboard is maintained in good condition throughout the Concession Period.

### 3.11. Windrow Platform and shed

The Concessionaire shall, for the purpose of Processing of Municipal Solid Waste through composting techniques, provide windrow platforms ("Windrows"), which shall meet the minimum technical specifications as set out in Table below.

| Parameter | Specifications |
|---|---|
| Platform | Platform shall be of minimum 150 th Cement Concrete design mix based on appropriate loading on factory floor slab)with nominal reinforcement over 75 th PCCand Minimum area: 50 sqm<br>▪ The Platform shall be covered with slope roof on MS structure as per relevant IS CodeThe area of the Windrow shall be adequate for processing the quantity of Municipal Solid Waste as set out in the RFPdocument. |
| Construction | ▪ Levelling of the ground shall be done with approved earth having permeability coefficient (to leachate) and measured in field not greater than 1.0 x 10-7 cm/sec and subsequently compacted at 90% modified Proctor Density<br>▪ 75 mm thick PCC (1:2:4) to be provided over single BFS<br>▪ 150 mm thick RCC flooring on top of the PCC.<br>▪ The height of platform shall be 400 mm above approach road level.<br>▪ The Platform shall be covered with slope roof on MS structure as per relevant IS Code. 60% of the roof cover shall be of permanent nature with colour coated metal sheeting having metal thickness not less than 0.6 mm and tensile strength 350MPA and rest 40% shall be of temporary sheeting (PVC coated fabric having weight not less than 1050 g/ sqm) over permanent MS structure which will be used for monsoon shed only.<br>▪ Platform slabs shall be laid with adequate expansion and contraction joints to prevent leachate percolation to the ground<br>▪ 2% slope shall be provided for platform<br>▪ Lined drains shall be provided for collection of leachate and surface run-off |

### 3.12. Maturation platform and shed

The Concessionaire shall construct maturation platform and shed similar to windrow platform and shed

| Parameter | Specifications |
|---|---|
| Platform | Platform shall be of minimum 150 thk. Cement Concrete design mix based on appropriate loading on factory floor slab)with nominal reinforcement over 75 thk. PCC and Minimum area: 50 sqm<br>▪ The Platform shall be covered with slope roof on MS structure as per relevant IS Code. The area of the Windrow shall be adequate for processing the quantity of Municipal Solid Waste as set out in the RFPdocument. |

| | |
|---|---|
| Construction | ▪ Levelling of the ground shall be done with approved earth having permeability coefficient (to leachate) and measured in field not greater than 1.0 x 10-7 cm/sec and subsequently compacted at 90% modified Proctor Density<br>▪ 75 mm thick PCC (1:2:4) to be provided over single BFS<br>▪ 150 mm thick RCC flooring on top of the PCC.<br>▪ The height of platform shall be 400 mm above approach road level.<br>▪ The Platform shall be covered with slope roof on MS structure as per relevant IS Code. 60% of the roof cover shall be of permanent nature with colour coated metal sheeting having metal thickness not less than 0.6 mm and tensile strength 350MPA and rest 40% shall be of temporary sheeting (PVC coated fabric having weight not less than 1050 g/ sqm) over permanent MS structure which will be used for monsoon shed only.<br>▪ Platform slabs shall be laid with adequate expansion and contraction joints to prevent leachate percolation to the ground<br>▪ 2% slope shall be provided for platform<br>▪ Lined drains shall be provided for collection of leachate and surface run-off |

### 3.13. Material Recovery Facilities

The Concessionaire shall construct materials recovery facility as per SWM rules 2016 and time to time amended by Central Govt. and State Govt.

The Concessionaire shall procure, supply, install, commission, operate and transfer the MRF after the concession period in fully functional condition. The material recovery facility shall be fully covered with color coated metal sheeting as specified above and as per direction of EIC. The vertical surface of MRF shall be covered with color coated metal sheeting as specified above and as per direction of EIC.

### 3.14. Storage of compost

The Concessionaire shall construct a godown of 15 days production capacity for storage of compost. It shall be pitched roof fully covered with color coated metal sheeting over MS structure. The wall of godown shall be of 250 thich 1st class brickwork finished with cement plaster and painted with best quality paind as per fertilizer industry standard. The flooring shall be as per fertilizer industry standard..

### 3.15. Office Building

The Concessionaire shall construct a site office space of minimum **160m²** for the Engineer-In-Charge and hisstaff with office equipment and furniture for the use of engineer, which shall become the property of the Authority after concession period. The office building shall be of RCC framed structure 2 / 3 storied building which shall consist of store, laboratory, workers rest room, office space etc.

This office space is over and above the space required by the concessionaire for establishingthe laboratory, SCADA/monitoring facility, administrative block etc.

### 3.16. Site Development Works /Basic Infrastructure Facilities

The Concessionaire shall undertake following site development works at site. The Concessionaire may, subject to recommendations by Engineering In-charge for the project from client, adopt alternate designs for the site development works.

"Site Development Works" under the concession includes the following components, but is notlimited to:

a) Site grading and construction of rain water diversion drains
b) Provision for water supply, power, lighting and communication
c) Construction of roads, fencing etc.
d) Repair, Renovation & Retrofitting of the already existing Boundary Wall in the periphery of the MSW processing plant premises including repairing of overhead barbed wires, Angles etc. as per direction of EIC for ensuring 24x7 protection of plant premises.
e) Maintenance of all the above facilities throughout the period of Concession.

3.17. **Fencing:**

No fencing to the whole dumpsite is required to construct/erect by the agency. But fencing is required to be provided while processing the fresh and/or fresh waste, to be executed in any private land arranged by the bidder/concessionaire, if required. The cost of fencing and the lease rent of the private land, will be borne by the bidder/concessionaire.

**3.18. Roads**

The Concessionaire shall provide and maintain good quality motorable roads. There shall be 4.5m. wide main road with 0.8 m. wide paved shoulder and 3 .0 m wide other road with 0.75 m wide paved shoulder on either sides along the entire length of boundarywall with adequate drainage facility. Pavement design shall conform to the latest revisions ofcodes and Standards published by Indian Road Congress (Specifications for Road and BridgeWorks, IV Revision by Ministry of Shipping, Road, Transport & Highways, Government of India) and Bureau of Indian Standards (BIS).

Following are the minimum requirement for pavement:

i. Sand layer of required thickness overlaid by geotextile sheet (GSM 250)
ii. Granular Sub Base (GSB) of designed thickness.
iii. Wet Mix Macadam (WMM) layer of designed thickness.
iv. Dry Lean Concrete (DLC) layer in cement concrete of proportion 1:2:4
v. Interlocking concrete paver blocks, having minimum thickness of 100mm and crushing strength not lesser than 45N/mm2, laid over a layer of 45mm. thick uniformly graded river sand with a mechanical compactor.

Hard shoulder shall be constructed in Grade 2 & 3 metal.

**3.19. Lighting and Other Electrical Works**

The Concessionaire shall provide and maintain through ought the Concession period:

i. adequate lighting system to achieve adequate Lux level as per standard calculation for the surrounding office area and road;
ii. road lighting with permanent Mild Steel light post (assembly of 150mm, 125mm. and 100mm. MS tubes) of 11m. height, embedded in concrete foundation, pole painted with two coats of aluminium paint over a coat of metal primer with necessary fixtures, cable arrangement and High Pressured Sodium or Mercury Vapor (HPSV / HPMV) fittings.
iii. The Concessionaire shall provide, maintain and implement all electrical works in accordance with Good Industry Practices and as per the Drawings approved by the Independent Engineer. The Concessionaire shall provide power back-up to ensure operation of at least the following facilities:
    a. Water supply system and control room
    b. All incoming and outgoing cables, meeting room, transformer yard and electrical panel room

**3.20. Codes and Standards**

The following standards in order of preference shall be adopted in consultation with the Authority/ IE cum PMC/ Project Engineer/PMU, unless otherwise specified:

a) SWM Rules 2016
b) Bureau of Indian Standards (BIS)
c) Suitable specification/standard devised by the IE cum PMC/ Project Engineer/PMU
d) Any other standards specified by statute and Applicable Laws
e) Any other standard proposed by the Concessionaire and approved by the IE cum PMC/ Project Engineer/PMU
f) Rules/Office Orders/Circulars/Guidelines issued by Ministry of Environment Forest and Climate Change
g) Rules/Office Orders/Circulars/Guidelines issued by Central Pollution Control board (CPCB) and State/UT Pollution Control Committee.
h) Rules/Office Orders/Circulars/Guidelines issued by the Government of West Bengal

All items of building works shall conform to Public Works Department (PWD) specifications for Class 1 building works and standards given in the National Building Code(NBC).

## 3.21. Procedure

**Before Commencement of construction:**

**Prior to commencement of any construction activity, the Concessionaire shall finalize an implementation plan for the Project ("Implementation Plan") in consultation with the IE cum PMC/ Project Engineer/PMU. The Implementation Plan shall, inter alia, include:**

a) A detailed schedule of implementation for putting up and operationalizing the Project Facilities, which shall specify at least four major milestones;

b) The Critical Path Method (CPM) / Programme Evaluation and Review Technique (PERT) charts or similar activity planning technique/ method for monitoring. This would cover all stages/ aspects of implementation of the Project Facilities including design and engineering, procurement of materials and equipment, installation, construction and testing;
c) Manpower deployment plan, including the designation of key personnel for the management and supervision of all Project-related activities. (This would include the designation of suitably qualified personnel for areas such as contract administration and supervision, construction management, safety, environmental management, plant and equipment maintenance, procurement, materials management and quality control);
d) A broad method statement for key items (including earth works, concrete works, structural concrete work, and road works) setting out the methodology of construction, materials and construction equipment mobilisation/ utilization plans;
e) Details of the quality assurance and quality control procedures; and
f) Format of the Monthly Project Progress Report giving details of the physical progress in implementation of the Project Facilities and operations and maintenance activities undertaken ("Monthly Project Progress Report").

**Prior to commencement of any construction activity, the Concessionaire shall also finalize in consultation with the IE cum PMC/ Project Engineer/PMU:**

a) an operations and maintenance plan for the Project Facilities during the Implementation Period (O&M Plan — Implementation Period) and which shall, inter alia, include an Environmental Management Plan,

b) Quality Assurance Plan

The Concessionaire shall, in consultation with the IE cum PMC/ Project Engineer/PMU workout an appropriate schedule for submission of documents set out in Clauses 5.1.1 and 5.1.2 above to the IE cum PMC/ Project Engineer/PMU for review.

Prior to commencement of construction of any of the Project Facilities, the Concessionaireshall have:

a) Obtained all such Applicable Permits/clearances as are necessary to commence construction of such Project Facilities;
b) Finalized such Drawings as are necessary and the Implementation Schedule in consultation with the IE cum PMC/ Project Engineer/PMU;
c) Mobilized the requisite resources, personnel and organization necessary for the same and designated and appointed suitable officers/ representatives as it may deem appropriate with responsibility to supervise implementation of the Project and for exchange of information with the IE cum PMC/ Project Engineer/PMU, the Authority;
d) Finalized in consultation with the IE cum PMC/ Project Engineer/PMU a method statement setting out details of the actual methods that would be adopted by the Concessionaire for the construction of such Project Facilities including details of equipment and machinery that would be used, their locations, and arrangements for conveying and handling materials;
e) Finalized in consultation with the IE cum PMC/ Project Engineer/PMU quality assurance and quality control procedures to cover all aspects of the work so as to ensure the desired quality. This would include establishment of a well-equipped functional laboratory.

The Concessionaire shall immediately upon commencement of Construction Works notifythe Authority of the same.

**During Construction**

The Concessionaire shall:

a) Ensure that the construction/ rehabilitation of the Project Facilities is undertaken with minimal inconvenience to the traffic using the existing access road to the Sites.
b) Take precautions to avoid inconvenience to, damage to, destruction of or disturbance to any third party rights and properties;
c) ensure adequate safety of the personnel deployed at the Proposed Site which would include measures such as the provision and maintenance of barricades, and illumination during night in consultation with the IE cum PMC/ Project Engineer/PMU;
d) be in compliance with the Applicable Laws and Applicable Permits/clearances obtained for the Project including the clearances obtained by the Authority;
e) Adhere to the Implementation Plan and O&M Plan-Implementation Period;
f) deploy adequate number of qualified and competent personnel having relevant experience and skills for implementation of the Project and interaction with the IE cum PMC/ Project Engineer/PMU/ the Authority

Positions and Levels

**The Concessionaire shall be responsible for:**

a) the accurate setting-out survey control points, lines and levels of reference;

i. the correctness of the positions, levels, dimensions and alignment of all parts of the works;
ii. the provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities;

iii. If, at any time during execution of the works, any error is noticed in the position, levels,dimensions or alignment of any part of the Construction Works, the Concessionaire, on being asked to do so by the IE cum PMC/ Project Engineer/PMU, shall at his own cost, rectify such errors to the

satisfaction of the IE cum PMC/ Project Engineer/PMU.

b) The checking of any setting-out or of any line or level by the IE cum PMC/ Project Engineer/PMU shall not in anyway relieve the Concessionaire of his responsibility for the accuracy thereof and the Concessionaire shall carefully protect and preserve all benchmarks, sight rails, pegs andother materials used in setting-out the works.

**Tests**

a) Various tests ("Tests") would be undertaken for the Project as per the standards prescribed under SWM Rules and Bureau of Indian Standards. Where no testing methodsare specified by the said standards, details of the Tests to be carried out and specificationsto be achieved for the respective Project Facilities/Construction Works or part thereof shallbe agreed upon with the IE cum PMC/ Project Engineer/PMU prior to construction.

b) Where material properties vary from or comply only marginally with the specifications contained in the Construction Requirements, the IE cum PMC/ Project Engineer/PMU shall increase the frequency of Testing as appropriate at the cost of the Concessionaire.

c) The Tests would be carried out at a location (place of manufacture, fabrication or preparation, at site or any specialized testing laboratory) that the IE cum PMC/ Project Engineer/PMU may reasonably require, at the cost and expense of the Concessionaire.

d) The Concessionaire shall provide such assistance, labour, electricity, fuels, stores, apparatus and instruments as are normally required for examining, measuring and testing any materials or plant and shall supply samples of materials, as required by the IE cum PMC/ Project Engineer/PMU to undertake Tests.

No part of the Construction Works shall be covered up or put out of view before the samehas been examined by the IE cum PMC/ Project Engineer/PMU.

**The IE cum PMC/ Project Engineer/PMU may from time to time require:**

a) removal from the sites, within such time as may be specified in its instructions, any material, equipment, machinery or plant which, in its opinion, do not meet the standards specified in the Construction Requirements;
b) Substitution/ replacement of such improper material, equipment, machinery or plant;
c) Re-execution, of any or part of the Construction Works which in the opinion of the IE cum PMC/ Project Engineer/PMU do not meet the standards set out in the Construction Requirements;
d) The Concessionaire to make boreholes or to carry out exploratory excavation for the Project.

The Concessionaire shall mobilise adequate numbers of equipment, plants and machineryto ensure adherence to the Implementation Plan.
The Concessionaire shall arrange for all the material requirements for the Project and disposal of all material wastes. The Applicable Permits in this regard would have to be obtained by the Concessionaire. All operations shall be carried out by the Concessionaire with minimum degradation of the environment. All excessive and unsuitable excavated materials shall be stacked at appropriate dumping places or otherwise disposed of by the

Concessionaire in consultation with the IE cum PMC/ Project Engineer/PMU.

Prior to making the request for the issue of Readiness Certificate or Provisional Readiness Certificate, the Concessionaire shall submit to the IE cum PMC/ Project Engineer/PMU / the Authority the following, duly finalized in consultation with the IE cum PMC/ Project

Engineer/PMU:

a) the Operations and Maintenance Manual for the Project ("O&M Manual") setting out in detail the standards, schedules, procedures, type, periodicity and other details of the operation and maintenance activities to be carried out for the Project during the Active Operations Period so as to meet the O&M Requirements as well as details of the management information system to be incorporated, reports to be submitted and procedure for reviews, and

b) the Operations & Maintenance Plan ("O&M Plan") for the first year of operations.

### 3.22. After Completion of Construction

Upon completion of construction but prior to issue of the Certificate of Commercial Operation Date (COD), the Sites shall becleared of all construction equipment, surplus materials, debris and temporary installations and shall be left in tidy and clean manner and to the satisfaction of the IE cum PMC/ Project Engineer/PMU.

### 3.23. Reporting Requirements and Documents to be provided

During the period of construction of the Project (the "Implementation Period"), the Concessionaire shall submit to the Authority/Nodal Agency /the IE cum PMC/ Project Engineer/PMU, Monthly Project Progress Reports (for each calendar month or part thereof) within 5 working days of the last day of the month. The report shall review the progress made, identify slippages, if any, and project the future activities to be undertaken (including rectifications), operations and maintenance activities undertaken and would, inter alia, include the following:

c) Listing of working drawings/sketches submitted
d) Comments of IE cum PMC/ Project Engineer/PMU, if any on the working drawings/sketches submitted
e) Concessionaire's response to the comments on the Drawings/sketches
f) Listing of the "As Built" drawings submitted
g) Progress of pre-construction activities - mobilization of plant and equipment, personnel, site office, utility relocation etc.
h) Concessionaire's compliance inspection report, if any required
i) Constraints in construction
j) Progress data with 's" curves
k) Project data with contract detail and sectional completion details
l) Tests carried out, if any, and results thereof
m) Remedial measures taken by the Concessionaire following such tests, where required
n) Review of milestones and reasons for delay, if any
o) Suspension of construction, if any, its reasons, duration and the steps undertaken to resume construction
p) All actual or potential deviations from the Implementation Plan
q) Disagreements/ Disputes, if any, and proposed measures to be taken
r) Maintenance activities carried out by the Concessionaire
s) Monthly weather report giving daily temperature maximum and minimum value, rainfall, wind speed & direction and any other significant event.
t) Injury to any personnel, its severity, cause and remedial measure(s) taken to avoid recurrence
u) Brief report of any accident / incident within the Sites, injury/fatality, property damage, cause of accident and actions taken to avoid recurrence
v) Notes of meetings between the Concessionaire and the IE cum PMC/ Project Engineer/PMU and/or the Authority highlighting critical decisions taken or agreements reached.
w) Within 90 days of issue of Readiness Certificate or the Provisional Readiness Certificate, as the case may be, the Concessionaire shall submit to the Authority the following documents, free of cost:

x) two hardcopies and one copy in electronic form (Compact Discs/USB drives) of the "as- built" Drawings of the Construction Works which have been completed as on COD, duly verified by the IE cum PMC/ Project Engineer/PMU, including, but without limitation, an “as-built” survey illustrating the layout of the Project and setback lines, if any, of the buildings and structures forming part of Project Facilities reflecting the Project as actually designed, engineered and constructed. Such “as-built” Drawings shall be detailed, accurately scaled and sequentially numbered, covering all relevant engineering features, which in relation to structures shall also include cross sections in each drawing;

y) copies of all geo-technical, meteorological reports, if any;

z) Two hardcopies and One copy in electronic form (Compact Discs/USB drives) of the Operations and Maintenance Manual.

## 4. Construction requirement for landfill facility

The Concessionaire shall utilize the Site, excluding the Waste Processing Facility area, for the purpose of setting up the Landfill Facility in accordance with the Construction Requirements and O&M Requirements.

### 4.1. Landfill Design and Construction

The landfill requirement given below is indicative. However, any stringent requirement as per site conditions/statutory requirements shall need to be followed and implemented.

#### 4.1.1. Area

The Concessionaire shall utilize the Site, excluding the Waste Processing Facility area, for the purpose of setting up the Landfill Facility in accordance with the Construction Requirements and O&M Requirements.

#### 4.1.2. Survey and Excavation

(a) The Concessionaire shall undertake detailed topographic survey within the proposed Engineered Sanitary Landfill area at 5m grids (such levels being designated as “Natural Ground Level”) and submit the same to the Authority/ IE cum PMC/ Project Engineer/PMU

(b) The Concessionaire shall excavate to a depth from the existing Natural Ground Level (“NGL”) based on the results of the detailed topographic survey.

(c) The concessionaire shall undertake an assessment of the hydrogeological settings of a landfilling site as it is necessary to ensure that the site is conducive to the proposed design of the landfill, which should be in line with the specifications of the SWM Rules, 2016.

(e) The objectives of a hydrogeological assessment are to determine the physical, hydraulic and chemical properties of the surface material and bedrock where appropriate; define groundwater flow characteristics and potential contaminant, migration pathways; determine the structural integrity of the subgrade to support the landfill including its construction and any overlying facilities; determine the availability and suitability of the soil for cover and liner uses; establish a groundwater monitoring network; and determine the feasibility of the contingency plans for contaminant control.

(e) The Concessionaire shall, except with the prior written approval of the Authority/ IE cum PMC/ Project Engineer/PMU, carry out excavation of area adequate for at least 4 months of Landfilling.

### 4.1.3. Composite Liner System

The Concessionaire shall provide a composite liner system at bottom of the landfill, which shall consist of the following:

(a) Drainage layer of 50 cm thick granular soil material of permeability value of 1 x 10-2 cm/sec.

(b) A 1.5mm thick Grade I smooth HDPE geomembrane or geo-synthetic liners as per IS: 10889-1984 Specification for High Density Polyethylene Films

(c) A 900 mm thick compacted soil amended with additives as per IS: 6186-1986 Specification for Bentonite to reach the required permeability coefficient, (to leachate) and measured in field, 1 x $10^{-7}$ cm/sec.

### 4.1.4. Intermediate Liner System

The Concessionaire shall, in accordance with the O&M Requirements, provide an Intermediate Liner, which shall consist of a 450 - 600 mm thick compacted soil amended with additives as per IS: 6186-1986 to reach the required permeability value 1 x $10^{-7}$ cm/sec.

### 4.1.5. Daily Cell Cover

The Concessionaire shall, in accordance with the O&M Requirements, at its own cost and expense provide the Daily Cell Cover which shall consist of a 100 mm thick compacted soil layer over a 2 m thick layer of SWM amended with additives as per IS: 6186 - 1986 to reach the required permeability value not greater than 1 x $10^{-7}$ cm/sec.

### 4.1.6. Final Cover System

The Concessionaire shall, in accordance with the O&M Requirements, provide the Final Cover which shall consist of:

(a) Barrier Soil Layer of 600mm thick compacted soil amended with additives as per IS: 6186- 1986 to achieve a permeability value not greater than 1 x $10^{-7}$ cm/sec

(b) Drainage Layer of 150mm thick granular soil material of permeability value not greater than 1 x 10-2 cm/sec

(c) Vegetative Layer of 450mm thick with good clay soil as per MSW Rules and as approved by the Independent Consultant.

## 4.2. List of Other Mandatory Facilities

The Concessionaire shall also mandatorily provide the facilities in the manner as set out under this clause ("Mandatory Landfill Facilities"). The Concessionaire may, subject to review and approval of the same by IE cum PMC/ Project Engineer/PMU/Authority, adopt alternate designs for the Mandatory Landfill Facilities.

### 4.2.1. Leachate Collection and Removal System ("LCRS")

4.2.1.1. The Concessionaire shall provide the LCRS, which shall consist of but not limited to:

(a) a leachate drainage layer consisting of 500 mm thick granular soil material of permeability value of 1 x $10^{-2}$ cm/sec with a slope of 2%.

(b) 100mm dia HDPE feeder pipes ("Feeder Pipes") with a maximum lateral spacing of 30 m.

(c) 150mm dia HDPE header pipes ("Header Pipes") with a maximum lateral spacing of 50 m.

(d) a HDPE main header pipe ("Main Header Pipe") of size 250mm dia, which will collect leachate from the header pipes and discharge into a day sump.

(e) leachate collection tank/s and a leachate collection network which shall meet the O&M Requirements.

4.2.1.2. The leachate from the Landfill Facility should be carried to the Leachate Collection Tank without any stagnation (except in storage/holding tanks)

4.2.1.3. Overall design of the leachate system should be such as to ensure that there is no percolation of the leachate into the ground and it does not come into contact with any water body. Leachate should be treated before reuse or safe disposal as per the regulatory norms.

### 4.2.2. Gas Recovery and Greenhouse Gas Mitigation System ("GRGS")

4.2.2.1. The Concessionaire shall, in accordance with the O&M Requirements, provide the GRGS, which shall consist of a gas venting layer 200mm thick granular soil material of permeability value of 1 x 10-2 cm/sec, and adheres to Applicable Law.

4.2.2.2. GRGS shall be as approved by the IE cum PMC/ Project Engineer/PMU

## 4.3. Quality Control

The Concessionaire shall ensure provision of equipment adequate to carry out the following tests with parameters as per SWM Rules, 2016:

a) Ambient Air quality monitoring
b) Ground water quality monitoring
c) Leachate quality monitoring
d) Landfill gas monitoring

## 4.4. Worker Amenities

The Concessionaire shall provide workers amenities in accordance with Good Industry Practice.

## 4.5. Internal Roads

The Concessionaire shall provide good quality motorable roads within the Landfill Facility which shall meet the minimum criteria as set out in Table below.

| Parameter | Specification |
|---|---|
| Carriageway width | 5 m |

**Pavement design**

- Flexible pavement with the following specifications (as per Specifications for Road and Bridge Works (latest Revision) by Ministry of Surface Transport published by Indian Roads Congress [IRC])
- Sub-grade: CBR value of 5%

- Sub-base: 200 mm thick, sand-gravel mix of 1:1, CBR value of 20%
- Base course: 150 mm thick WBM in 2 layers of 75 mm each
- Asphalt base: 50 mm thick Bituminous Macadam laid with mechanical spreaders
- Seal Coat: Semi dense bituminous concrete or mixed
- Seal surface

### 4.6. Lighting

The Concessionaire shall provide,

(a) adequate lighting system to achieve the lux levels, specified in the Indian Standard Codes (latest versions) of SP – 30 and IS 6665 – 1972 for the different working areas;
(b) street lighting with permanent steel light posts for main internal roads and access roads;
(c) movable heavy duty focus lamps depending on the operational requirement.

### 4.7. Other Electrical Works

The Concessionaire shall provide all electrical equipment and implement all electrical works in accordance with Good Industry Practices and as per the Drawings approved by the Independent Consultant. The Concessionaire shall provide power back-up to ensure operation of at least the following facilities:

(a) Weigh bridge
(b) Lighting of work area
(c) Leachate circulation system
(d) Water supply system

## 5. Procedure

The terms and conditions shall be as set out under Clause of Schedule in this RfP.

## SCHEDULE 2
## APPLICABLE PERMITS
*(See Article 4)*

### 1. Concessionaire Applicable Permits

| Sl. No. | Applicable Permit | Authority |
|---|---|---|
| (1) | Temporary Power Connection (During Construction Period) | Electricity Board/ other temporary sources |
| (2) | Consent to Operate | State Pollution Control Board |
| (3) | Consent for storage of hazardous materials | Director of Explosives |

| | | |
|---|---|---|
| (4) | Consent Firefighting system | Firefighting Department |
| (5) | CEIG approval – stage 1 for construction & stage 2 on completion of project | Chief Electrical Inspector to Government |

The Concessionaire will be liable to obtain all Applicable Permits (other than the Authority Applicable Permits) that are necessary for construction, operation and maintenance of the Project Facilities.

The Authority shall assist the Concessionaire in obtaining all the required permits.

**2. Authority Applicable Permits**

| **Sl. No.** | **Applicable Permit** | **Authority** |
|---|---|---|
| (1) | Electricity Board approval during various stages – request for load sanction, remittance of deposit, installation of incomings, etc. | Electricity Board |
| (2) | Layout and building plan approval | ULB/DTCP |
| (3) | Environmental Impact Assessment (EIA) | Department of Environment |
| (4) | Environmental Clearance (EC) | Department of Environment and State Pollution Control Board |
| (5) | Consent to Establish (NOC) | State Pollution Control Board |
| (6) | Tree cutting | Forest Department |
| (7) | Road cutting & crossing | Public Works Department |
| (8) | Railway Crossing | Commissioner Railway safety |
| (9) | Revenue road cutting & crossing | Panchayat/Local Authority |
| (10) | Access Road to new Project Facilities | Forest Department/ Panchayat/Local Authority/Irrigation Department |
| (11) | Consent to Operate for Existing Facilities | ULB and SPCB |

The Concessionaire shall proactively assist the Authority in obtaining all the required permits.

## SCHEDULE 3
## SPECIFICATIONS AND STANDARDS
*(See Article 5.1)*

**1. Project Facilities**

1.1. The Project Facilities shall conform to the Specifications and Standards as specified in this Schedule and in this Agreement.

1.2. The Specifications and Standards applicable to the design and construction of the Processing facilities, Material Recovery Facilities at the Sanitary Land Filling site and the decentralized units for Processing of Organic Waste shall conform with the National Building Code of India, relevant specifications and

standards specified by the Bureau of Indian Standards (BIS), International Organization for Standardization (ISO), other Applicable Laws and Good Industry Practice.

1.3. ln the absence of any specific provision in this Agreement, the following standards shall apply in order of priority:

(i) National Building Code
(ii) Bureau of Indian Standards (BIS)
(iii) International guidelines
(iv) Any other specifications/standards/codes proposed by the Concessionaire and reviewed by the Project Engineer.

The latest version of the specified codes and standards which were notified published at least [60 (sixty)] days prior to the Bid Date in respect of this Agreement shall apply.

## 2. General Plant and Process Requirements

### 2.1. Design Requirements

Concessionaire's design shall fully comply with the following requirements, regardless of whether or not such requirements or any related components are shown in any drawings included in the Tender Document:

The Concessionaire shall perform a complete Hazardous Area Classification analysis as per IS 5572 for all facilities and components in this contract and shall submit a complete report of such analysis as well as Hazardous Area Classification Drawings that delineate boundaries of all classified areas and indicate the classification of each area. All electrical or other powered equipment, instrumentation, or components shall fully comply with all requirements of IS 5571.

Where necessary, equipment shall be provided with acoustic, sound-dampening enclosures to limit ambient noise during normal operation. All equipment shall be arranged and buildings and structures designed to permit safe and easy access to and removal of all equipment.

All structures, whether liquid-holding or not, shall be designed such that they can be fully and completely drained and will not float or move when empty, because of groundwater buoyancy or any other reason. The structures shall be designed to counteract any possible floatation without the use of any type of groundwater pressure relief valves.

The floors of all liquid-holding structures (including but not limited to channels, tanks, reactors, digesters, etc.) shall be appropriately sloped and trenches and drain sumps shall be provided at the bottoms of such slopes to facilitate complete drainage of liquid. Appropriate drain pipes and valves connected to the drain sump(s) shall be provided for all structures. Where the drain pipe connects to the structure, the top-of-pipe elevation shall be at least 150 mm lower than the lowest floor elevation for the structure. Non-liquid-holding areas, structures, or buildings where leakage or other wet activities can occur, whether in normal use or during maintenance, shall be provided with covered drainage channels which shall direct the spillage and any washings shall be suitably drained to the sump of Filtrate pump house.

### 2.2. Plant Layout and Hydraulic Profile

A representative plot plan layout is included in this Tender Document. [Insert Drawings, if applicable]

These drawings shall be considered representative only. In the event of any conflicts between information, Concessionaire shall provide independent detailed and optimized layout and hydraulic design, which shall fully comply with the requirements and constraints specified herein.

Basic information about inlet and outlet hydraulic conditions, interfaces, and constraints is provided in the tender document. In addition, the Concessionaire's layout and hydraulic design shall comply with the following specific constraints and all other requirements described in the Tender Document:

Available topographical survey information, benchmarks, contour maps, geotechnical/soil investigations, and effluent receiving water body/structure maximum or high flood level (HFL) elevations are to be prepared and/or collected by Bidder and/or gathered from Employer on request if available. However, Employer makes no guarantees or representations regarding this information whatsoever. Tenderers use of this information shall be at their own risk. Tenderers shall independently obtain any and all site information they deem necessary for proper preparation of the bids and for the planning, design, testing, commissioning, operation, and
maintenance of all components in the contract.

All new plant components shall be fully contained within the designated site boundaries and shall be placed so as to easily and logically accomplish all specified interfaces with existing components. Concessionaire's proposed site layout shall clearly show the space allocated for all plant components, including those components and/or unit processes that may be designated for future construction or installation. Setbacks and clearances from the site boundary shall be provided as appropriate and as required by law. All existing utilities (including but not limited to water, sewer, and power, whether overhead or underground and whether physically located on the site or not) that must be relocated to accommodate the Concessionaire's proposed and approved site layout shall be relocated by the Concessionaire. Concessionaire shall be fully responsible for all applicable permits, approvals, public notifications and processes, and any other paperwork or procedures required, and shall fully coordinate the entire process with the Employer as well as all other agencies, entities, and stakeholders that may be involved.

## 2.3. The Plant Layout shall fully comply with the following

Minimum clear distance provided to permit safe and convenient access for operation and maintenance shall be 5m between adjacent treatment units or fixed structures and 500mm between individual equipment units.

The design shall further ensure that all such units receive equal flow or loading at all times when in operation.

The design shall ensure that multiple modules of various unit processes are fully and can operate as a single plant and a single process stream – multiple parallel plants will not be allowed. Such integration shall be accomplished by means of common collection and distribution channels, boxes, or header pipes in between unit processes that combine the flow from multiple modules of the upstream unit process and redistribute it to multiple modules of the downstream unit process. Designs where each module operates independently of other modules will not be permitted.

## 2.4. Solid waste Management Treatment Process Layout and Facilities Description

This section provides general descriptions and design / sizing criteria and other requirement of the major processes and facilities that the Concessionaire shall be required to design, construct, and operate under this contract. The Concessionaire shall use this description together with other information provided elsewhere in this Tender Document, including but not limited to this section. The Concessionaire may propose alternate implementation details such as layouts and elevations of specific components. However, the Concessionaire shall strictly comply with the specified treatment concept, major unit processes, flow configuration (connectivity between unit processes and facilities), performance requirements (such as effluent and sludge quality), and design criteria (such as design operating

conditions, various process loading rates and/or detention times, volumes, and dimensions where specified).

## 3. Civil Scope

### A] Utility Buildings

**Meter Room/Electric Room cum Toilet Block, if applicable**

It will be constructed as per item of BOQ and payment will be made for the composite item consisting of at least following item with specification. Nothing etc. will be paid beyond the relevant items of BOQ for the successful completion, structural stability, water proofing and sound engineering practice all other items are to be executive for proper functioning of this unit.

**Description of item**

1.Earth work in excavation by mechanical means (Hydraulic excavator) All kinds of soil
Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :
1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)
Providing and laying in position machine batched and machine mixed design mix M25 grade cement concrete for reinforced cement concrete work.
All works upto plinth level & all works above plinth level upto fifth floor
Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level
Thermo-mechanically Treated bars
Centering and shuttering including strutting, propping etc. and removal of form for:
Foundations, footings, bases of columns, etc. for mass concrete, Suspended floors, roofs, landings, balconies and access platform, Lintels, beams, plinth beams, girders, bressummers and cantilevers, Columns, Pillars, Piers, Abutments, Posts and Struts
Brick work with clay flyash F.P.S. (non modular) brick of class designation 7.5 in superstructure above plinth level up to floor five level in:
Cement mortar 1:4 (1 cement : 4 coarse sand)
12 mm cement plaster finished with a floating coat of neat cement of mix : 1:4 (1 cement: 4 coarse sand)
12 mm cement plaster of mix : 1:4 (1 cement: 4 coarse sand)

6 mm cement plaster of mix : 1:3 (1 cement : 3 fine sand)
18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished rough with sponge.
Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :
New work (two or more coats) over and including water thinnable priming coat with cement primer
Finishing walls with water proofing cement paint of required shade : New Work (Two or more coats applied @ 3.84 kg/sqm)
Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.
Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C.
1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)
Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :
4 mm thick glass panes

Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.
Using M.S. angles 40x40x6 mm for diagonal braces
Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm
of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)

Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete.
250 mm weighing not less than 150 gms
Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :
125 mm
Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:
Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :
Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture
Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.
40 mm thick with 20 mm nominal size stone aggregate

Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement.
18 mm thick
Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.
Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc.
Internal work – Exposed on wall. 15 mm dia. nominal bore
Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. (external work):
25 mm dia nominal bore
Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe including painting with anti corrosive bitumastic paint, cutting chases and making good the wall.
15mm dia nominal bore
`
Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :
15 mm nominal bore
Providing and fixing G.I. Union in G.I. Pipe including cutting and threading the pipe and making long screws etc. complete (New work).
15 mm nominal bore
Providing and fixing brass bib cock of approved quality : 15 mm nominal bore
Providing and fixing brass stop cock of approved quality : 15 mm nominal bore

Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Flexible pipe 40 mm dia

water proofing of terrace, disposal of rain water and waste water, providing water services, storm water drain, plinth protection, DPC and other miscellaneous item required for successful completion and functioning of the building.
Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete.
15 to 50 mm nominal bore

Constructing Masonry Chamber 30x30x50 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement :2 coarse sand : 4 graded stone aggregate 20 mm nominal size ) necessary excavation foundation concrete 1:5:10 ( 1 cement :5 fine sand:10 graded stone aggregate 40mm nominal size ) and inside plastering with cement mortar 1:3 (1 cement :3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design :
With common burnt clay F.P.S.(non modular) bricks of class designation 7.5
Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :
150 mm dia. R.C.C. pipe

300 mm dia. R.C.C. pipe
Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete:
For pipes 100 to 230 mm diameter
Providing and fixing square-mouth S.W. gully trap grade `A' complete with C.I. grating, brick masonry chamber with water tight C.I. cover with frame of 300x300 mm size (inside), the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg per standard design. 100x100 mm Size P type
With F.P.S. Bricks class 75
Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :
W.C. pan with ISI marked black solid plastic seat and lid
Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively.
Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Semi rigid pipe 32 mm dia
Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.
Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.
Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.
Waste coupling 31mm dia of 79mm length and 62mm breadth weighing not less than 45gms

Providing and fixing PTMT 15mm Urinal spreader size 95x69x100 mm with 1/2" BSP thread and shapes, weighing not less than 60gms.

Providing and fixing PTMT urinal cock of approved quality and colour
15 mm nominal bore, 80mm long, 42mm high and 30mm wide with BSP female threads weighing not less than
48 gms
Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :
100 mm dia. R.C.C. pipe

Constructing brick masonry manhole in cement mortar 1:4 (1 cement: 4 coarse sand) with
R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :
Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight offrame 15 kg) :
With common burnt clay F.P.S. (non modular) bricks of class designation 7.5

Providing and fixing PTMT, push cock of approved quality and colour.
15 mm nominal bore, 80 mm long, weighing not less than 46 gms

Providing and fixing unplasticised PVC connection pipe with brass unions :
30 cm length
15 mm nominal bore

Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :
15 mm nominal bore

Providing and fixing PTMT grating of approved quality and colour.
Rectangular type with openable circular lid
150 mm nominal size square 100 mm diameter of the inner hinged round grating

Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :
White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass
pillar tap

Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand)and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment
of matching shade complete.

Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.

Steel work welded in built up sections/ framed work, including cutting, nhoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.
In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works

Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.

The ground floor shall have Laboratory if stated in BoQ separately, rooms and toilets, one each for men and women of appropriate size. Each of these toilets shall have one WC, wash basin, towel rail, mirror, soap dispenser and other features of required specifications as directed by the Engineer. Men's toilet shall have 2 urinals also. Two Nos. of Triple layered polyethylene water storage tanks of size 1 KL each shall be provided at the top of the building and nothing extra is payable.

**The laboratory shall be provided with the following, if applicable**

A platform projecting 750 mm from the wall one at about 150 mm height from floor l Level and the other at sill level. The upper platform shall be of RCC. The platforms shall be covered with Granite stone on top surface.

**Ceramic tiles on the walls all along the RCC platforms up to the 750 mm.**

Two laboratory sinks on the RCC platform and one wash basin along the opposite wall. The sinks and wash basin shall have direct water supply connection and not from the service tank.
The space below the platform shall have cabinet/ cupboards for keeping laboratory materials.

**A septic tank and soak pit shall be provided for the collection of sewerage from the toilet**

Before commencing the construction of the office, the Concessionaire shall submit to the engineer for his approval a drawing of the proposed building showing all architectural and finishing details. After approval of these details, concessionaire shall submit structural designs and drawings.

The Concessionaire shall furnish the rooms as the engineer directs and the equipment, furniture, furnishings and fittings to be supplied shall be new items and also of approved make.

All the operating expenses, water, lights and other charges shall be regarded as an inclusive cost of the Concessionaire's operating costs and part of the contract price and nothing extra is payable.

**Architectural Concepts and Designs**

An Architectural Design Basis Report will be submitted to the engineer including proposals for the following scheme components: shape, form, colour, and basic materials for interior and exterior architecture along with an appropriate landscaping scheme. All schemes will be supported by architectural statement explaining the factors considered in the design.

Architecture work shall include walls, roof, flooring and floor finish, roof water proofing, down water pipes, windows, ventilators, doors, glazing, equipment access doors, painting and other ornamental works. The concessionaire shall get all Architectural, Structural and RCC drawings and design calculations, etc approved by engineer prior to construction of works at site.

**Structural Designs**

The Concessionaire shall on its own carryout Soil investigation i.e., Geo technical investigation and prepare Structural drawings vetted by Government College or Institute such as RITES, INSDAG, IIT, NIT, JU, IIEST.

**Design Submissions**

The design considerations described hereunder establish the minimum basic requirements of plain and reinforced concrete structures, masonry structures and structural steel works. However, any particular structure shall be designed for the satisfactory performance of the functions for which the same is being constructed. The Concessionaire shall also take care to check the stability of partly completed or existing structures associated with the proposed SWM System.

Complete detailed design calculations of foundations and superstructure together with general arrangement drawings and explanatory sketches shall be submitted to the Engineer. Separate calculations for foundations or superstructures submitted independent of each other shall be deemed to be incomplete and will not be accepted by the Engineer. The concessionaire shall be responsible for the safety of structures, structural strength, stability, soundness, water tightness and accuracy, adequacy of design, workability and performance even after the approval of the same by the Engineer. During the job execution, if any deficiency or alteration is required, firm shall attend to the same within the contractual provisions and nothing extra shall be claimed/paid to the firm.

Approval conveyed to the firm will neither relieve the firm of its contractual obligations and its responsibility for the correctness of the dimensions, material, of the construction, weights, quantities, design perimeters, dimensions, assembly its, performance, particulars, conformity of the supplies with Indian statuary laws as may applicable nor will it limit the DJBs rights under the contract.

**Design Loadings**

All buildings and structures shall be designed to resist the worst combination of the loads/stresses during testing and under working conditions and shall be as per IS:875. The loads considered shall include dead load, live load, wind load, seismic load, stresses due to temperature changes, shrinkage and creep in materials, dynamic loads and uplift pressure.

**A] Dead Load**

This shall comprise all permanent construction including foundations, walls, floors, columns, roofs, partitions, stairways, fixed service equipment and other items of machinery. In estimating the loads of process equipment all fixtures and attached piping shall be included. The following minimum loads shall be considered in design of structures:

| | | | |
|---|---|---|---|
| (i) | Weight of water | : | 10.00 kN/$m^3$ |
| (ii) | Weight of saturated soil (irrespective of strata available at site and type of soil used for filling etc.). However, for checking stability against uplift, actual weight of soil as determined by field test shall be considered. | : | 20.00 kN/$m^3$ |
| (iii) | Weight of plain concrete | : | 24.00 kN/$m^3$ |
| (iv) | Weight of reinforced concrete | : | 25.00 kN/$m^3$ |
| (v) | Weight of brickwork (exclusive of plaster) | : | 22.00 N/$m^2$ per mm thickness of brickwork |
| (vi) | Weight of plaster to masonry surface | : | 18.00 N/$m^2$ per mm thickness |

| | | | |
|---|---|---|---|
| (vii) | Weight of granolithic terrazo finish or rendering screed, etc.: | | 24.00 N/m$^2$ per mm thickness |
| (viii) | Weight of sand (filter media) | : | 26.0 kN/m$^3$ |

**B] Live Load**

The following minimum loads shall be considered in the design of structures:

| | | | |
|---|---|---|---|
| (i) | Live Load on Roofs | : | 1.50 kN/m$^2$ |
| (ii) | Live Load on Dome | : | 2.50 kN/m$^2$ |
| (iii) | Live Load on floors supporting equipment such as pumps, blowers, compressors, valves etc. | : | 10.00 kN/m$^2$ |
| (iv) | Live load on all other floors walkways, stairways, and platforms | : | 5.00 kN/m$^2$ |
| (v) | Toilet | : | 2.00 kN/m$^2$ |

In the absence of any suitable provisions for live loads in I.S. Codes or as given above for any particular type of floor or structure, assumptions made must receive the approval of the Engineer prior to starting of the design work. Apart from the specified live loads or any other load due to material stored, any other equipment load or possible overloading during maintenance or erection/construction shall be considered and shall be partial or full whichever causes the most critical condition. Any such loading condition must be incorporated in design calculations with supporting documentation for approval.

**C] Wind Load**

Wind loads shall be conforming to IS 875.

**D] Earthquake Load**

Earthquake loads shall be conforming to IS 1893 considering seismic (Zone IV). Importance factor shall be taken as per Table 6 of IS 1893 (Part 1). The soil foundation coefficient shall be considered as 1.2.

**E] Dynamic Load**

Dynamic loads due to working of plant items such as pumps, blowers, compressors, switch gears, travelling cranes, etc. shall be considered in the design of structures.

**F] Vehicular Load**

IRC Class AA (wheeled vehicle) loading shall be considered for design of structures under or by the side of roads.

**G] Joints**

Movement joints such as expansion joints, complete / partial contraction joints and sliding joints shall be designed to suit the structure requirements. Position and design of construction joints should be predetermined keeping in view the convenience in construction. All joints should be tested for water tightness and must be leak proof. The material used in the joints like joint filers, water bars, sealing compounds and other such materials should be resistant to chemical and biological action and require approval of Engineer and nothing extra is payable.

**H] Water stops**

Water stops shall be of PVC/Neoprene as applicable (material shall be suitable for sewage/acidic liquid storage). To be supplied from approved manufacture. Samples and the test certificate shall be got

approved by the Engineer – in – charge before procurement for incorporation in the works. Water stops shall be either of the bar type, serrated with center bulb and end gips for use within the concrete elements or of the surface (kicker) type for external use. nothing extra is payable.

**I] Completely / Partly Underground Liquid Retaining Structures**

All underground or partly underground liquid retaining structures shall be designed for the following conditions:

Structure filled with liquid: Liquid depth up to full height of wall, irrespective of the actual height of liquid in the structure: no relief due to soil pressure from outside to be considered;

Structure empty: full earth pressure and surcharge pressure, as applicable, to be considered; Partition wall between dry sump and wet sump: to be designed for full liquid depth up to full height of wall including free board;

Partition wall between two compartments: to be designed as one compartment empty and other full; Structures shall be designed for uplift in empty conditions with the water table indicated by the Concessionaire's own investigation or approved by Engineer prior to design, whichever is maximum. No reduction Factor for the uplift forces shall be considered.

The dead weight of the empty structure should provide a safety factor of not less than 1.2 against uplift pressures during construction and in service;

Walls shall be designed under operating conditions to resist earthquake forces from earth pressure mobilization and dynamic water loads;

Underground or partially underground structures shall also be checked against stresses developed due to any combination of full and empty compartments with appropriate ground/uplift pressures from below to base slab.

**J] Foundations**

The minimum depth of foundations for all structures, equipment, buildings and frame foundations and load bearing walls shall be conforming to IS 1904. All foundations shall extend to a depth below virgin ground level as per the Geotechnical Report. The foundations shall be placed on virgin soil and not on backfilled soil. The earth fill above virgin ground level till formation level shall be taken as a surcharge load and shall be added in the loads coming on foundations appropriately.

Maximum safe bearing capacity of soil strata shall be taken as indicated in geotechnical reports by concessionaires. For the foundation depths and types of footings other than those mentioned in the geotechnical reports, the maximum safe bearing capacity shall be appropriately computed from the parameters given in the geotechnical reports and got reviewed and approved by the Engineer.
Care shall be taken to avoid the foundations of adjacent buildings or structure foundations, either existing or not within the scope of this Contract. Suitable adjustments in depth, location and sizes may have to be made depending on site conditions.

Plinth level of all structures shall be at least 500 mm above formation level. If pile foundations are used, the bidder shall conduct the initial routine test as per IS 2911 at his own cost, to determine the safe load bearing capacity of piles.

**Design Requirements**

The Civil & Structural design shall be carried out in accordance with IS:456, and IS:3370 and other relevant Indian Standard Codes. For the seismic forces, the structure should be designed as per IS: 1893 and all the factors as applicable for Zone V.

**A] The following are the design requirements for all reinforced or plain concrete structures:**

- All blinding and leveling concrete shall be minimum 100 mm thick in concrete grade M15, unless otherwise specified.
- All structural reinforced concrete shall be with a maximum 20 mm stone aggregate size.
- The minimum grade of concrete shall be M-25 for RCC structures other than liquid retaining structures, for which minimum grade of concrete shall be M 30.
- The minimum reinforcements in walls, floors and roofs of liquid retaining structures in each of two directions at right angles shall be 0.3% HYSD bars.
- Minimum reinforcement and cover to the reinforcement shall be provided as per relevant IS standards.

**B] Minimum Thicknesses of Reinforced Concrete Members**

The following minimum thicknesses shall be used for different reinforced concrete members, irrespective of design thicknesses:

| | | | |
|---|---|---|---|
| (i) | Walls for liquid retaining structures (except for Launders, Channels) | : | 150 mm |
| (ii) | Bottom slabs for liquid retaining structures | : | 150 mm |
| (iii) | Wall foundation (at junction of base slab & wall) | : | 250 mm |
| (iv) | Roof slabs for liquid retaining structures | : | 150 mm |
| (v) | Launders & Channels – Base Slab & Wall | : | 150 mm |
| (vi) | Floor slabs including roof slabs, walkways, canopy slabs | : | 100 mm |
| (vii) | Walls of cables / pipe trenches | : | 75mm |
| (viii) | Precast trench cover | : | 75 mm |

**Additional Appointment of Third Party**

The Local Body as and when feels can appoint Third Party as PMC or otherwise to Supervise, Monitor & Verify Performance and/or conduct of Concessionaire as well as to verify test records, drawings, schedule, QA/QC, treatment process efficiency, etc at extra cost as & when required.

**Design Calculations & Drawings Submissions**

The Concessionaire at his own cost shall carryout contour survey & prepare design calculations for the technology, process flow diagram, P&ID, Section drawings, working civil & MEP drawings, Layout on Contour also superimposed on google maps, architectural & structural design calculations & drawings, line diagram, hydraulic drawings, etc. Additionally, concessionaire shall submit cut sheets & test certificates of MEP, etc.

**GENERAL SPECIFICATIONS FOR CIVIL WORKS**

**GS (1) Sand and Metal**

Sand and coarse aggregate (metal) shall be stored separately on site on hard ground so as to keep them free from foreign materials such as soils, clay, glass etc. In case of machined crushed metal separate depot shall be prepared for different sizes of metal and suitable proportion to form dense mix as directed by the Officer In-Charge shall be taken from these different sizes of metal.

**GS (2) Form Work**

A The wooden shuttering planks shall be not less than 40 mm thick or such other thickness as may be allowed by the Executive Engineer / authorized person /authorized person for a particular job. The entire form work, whether of steel, plywood or wooden planks, shall be very strongly proposed and braced with sufficiently strong vertical and horizontal members and the entire Servicing structure shall be of sufficiently horizontal members and sufficiently strong to take up the load of concrete and all stresses it may be subjected to, without any deflection. The Concessionaire shall be wholly and fully responsible for any defects in the entire form work and its Servicing structure.

The form work shall be very smooth and entirely free from any dust particles direct and its inner surface shall be oiled for the easy facility of form removal and shall be watertight.

**GS (3) Reinforcement**

The Concessionaire has to procure it from open Market at his cost. The bars shall be scrapped thoroughly for removing any scales, rust, etc. before use in work. Bars that may be found defective in any way shall not be allowed to be used. The reinforcement is to be fabricated and placed in position as per the Officer In-Charge or concessionaires design to be intimated to the Concessionaire during execution from time to time. The hooks, laps, anchors, cover, etc. shall be as per IS code. The Concessionaire has to place in position the reinforcement as directed and to secure it by binding wire to be provided at Concessionaires cost. Any additional reinforcement provided by concessionaire in addition to approved design and direction shall not be measured and paid for.

To ensure that the minimum cover require for slabs, beams, etc. is provided. Separators of precast or cast in situ CC block with wires embedded shall be used and shall be tied to the reinforcement with wires. Between 2 or more layers of reinforcement, separators, of 200 mm or 25 mm size bars as directed shall be used duly tied. The separators of M.S. bar piece shall not be admissible for payment. The GI binding wire shall not be admissible for payment.

When Concessionaire has to bring steel then it shall be only tested one and Concessionaire shall produce the manufacturers rolling mills test certificate without which it shall not be accepted. Further the Concessionaire shall arrange to get tested any samples from steel brought at site in a laboratory at his cost, and result should be submitted to Officer In-Charge. Defective steel shall be rejected.

**GS (4) Mixing**

Good clean water shall only be used for mixing. Arrangements for bringing such water shall be done by the Concessionaire at his cost. The amount of water to be used shall be as directed by the Engineer-in-charge. On the bases of correct water cement ratio. The water measuring apparatus shall be provided by the Concessionaire at his cost.

For R.C.C. reservoirs and for other works which in the opinion of the Executive Engineer/ authorized person/authorized person is important the concrete shall be only machine mixed. The mixing shall be continued for at least 8 minutes after all materials and water are placed in the drum which shall revolve for 14 to 18 revolutions or as specified by the manufacturers. The mixer for this purpose shall be brought by Concessionaire at his cost and the Officer In-Charge does not take any responsibility for supply of mixer if as a result of breakdown of mixer during concreting, hand mixing must be resorted to temporarily. Only such work which is considered absolute essential by the Executive Engineer / authorized person / authorized person shall be allowed to be done by hand mixing and the entire operation of hand mixing and precaution thereof shall be taken as directed by the Engineer-in-charge. For hand mixture mixing shall be done for sufficient time till it is of uniform colour. The required

quantity of aggregate shall then be added and the mixture again turned over for at least 14 to 18 times. The required quantity of water shall then be added gradually through rose pieces attached to the can until process of turning is in progress and till is of uniform consistency where such hand mixing is allowed as a result of area requirement and no extra payment for this excess cement shall be admissible.

For works other than mentioned in above para, hand mixing will be allowed and, in such cases, cement to be used shall be as per standard requirement only.

Normally the standard cement consumption will be as under: for one cum of concrete 1:2:4 (M-150) 1:1.1/2:3 (M-200) 1:3:6 (M-100) 5.90 bags 6.90 bags 4.42 bags For any other mix the cement consumption shall be as decided by the Executive Engineer / authorized person/ authorized person. The consumption as mentioned above shall be for the gross RCC column actually cast.

**GS (5) Concrete Laying**

The forms shall first be lightly moistened before laying concrete. The concrete shall be placed in position within 20 minutes after adding water to the mix and shall be slowly deposited in its place and not thrown or dumped from a height shall be placed in uniform layers. For vertical walls or water retaining structure, water stoppers shall be provided.

For columns the concrete shall be laid in maximum 1.2 M height at a time. For vertical walls of reservoir, it shall be laid in maximum 0.6 M height only at a time.

**GS (6) Tamping, Ramming and Consolidating**

For all RCC structures and other works which are considered by the Executive Engineer/ authorized person/authorized person to be important mechanical vibrators shall invariably be used by the Concessionaire at his cost. The Concessionaire shall provide at least 2 vibrators in good working condition, to have one as a standby and to prevent interruption in work. The concrete being laid shall be vigorously vibrated laying and loaded by bars where vibrator cannot reach so that dense and complete filling is assured. The Concessionaire shall make his own arrangements for procuring vibrators at his cost and the OFFICER IN-CHARGE does not guarantee that they will be supplied on hire.

For all other works consolidation and tamping shall be manual labour by rodding vigorously by M.S. bars, throughout for a sufficient time and in such manner as directed by the Engineer-in-charge. Adequate number of labourers shall be set apart specifically for tamping and ramming with relievers. The efficiency of tamping and consolidation shall be judged by absence of any air pockets and absence of honey combing any defective consolidation and tamping shall be entirely on Concessionaire's risk and costing will have to be entirely pulled down if so directed and redone properly entirely at the cost of the Concessionaire.

**GS (7) Curing**

All RCC work will be watered and kept constantly wet for 28 days after initial set casting by means of wet gunny bags and pounding as directed by the Engineer-in-charge. This operation shall start immediately after initial set of the concrete. Should the Concessionaire fail to water the concrete - continuously, it will be done immediately at Concessionaire's cost.

Removal of Form It shall be generally as under, subject to the written approval and modification by the Engineer-in-charge. Column and Beam Sides 3 Days Vertical Walls 6 Days

Bottom of Slab and Domes 10 Days Bottom of Beams 14 Days Bottom of Beams of Span 4.5 M and above 21 Days

**GS (8) Inspection**

The work of each category of operation i.e., completion of form work placing reinforcement, concreting, removal of form, etc. must be got inspected by the Junior Engineer before commencing and succeeding operation in case of RCC works and major RCC jobs. In all cases, however, before the concrete is laid it must be got inspected and approved by the Deputy Engineer to concreting shall be commenced with approval of the Deputy Engineer. In case of RCC structures and other major works concreting must be done in presence of Deputy Engineer himself. In other case, it shall be done in presence of Junior Engineer. In case of failure to comply with above specifications, the work is liable to be pulled down if directed for any work which is done contrary to specification and no payment thereof shall be admissible.

**GS (9) Finish and Quality of Concrete**

The RCC work cast shall be of dense mix, homogenous without any honey combing true in size alignment and shape. Any defective work shall not be entitled for full tendered rates for payment and if the defects are major no measurements and payment are admissible and Concessionaire shall have to pull down such defective work and redo at his cost. The decision of the Executive Engineer / authorized person / authorized person regarding such defective work and the decision, viz. pulling it down or reducing rates as may be necessary shall be final and binding on the concessionaire.

All RCC work shall be finished as directed by the Executive Engineer / authorized person/ authorized person. It should be clearly under stood that the finishing is not meant to cover the casting defects but only to give a smooth appearance. In case of RCC reservoirs and other major RCC works Concessionaire shall not commence finishing unless and until Engineer-in- charge has inspected the casting of concrete after removal of form and has satisfied about its quality failing which it shall be regarded that casting was defective and action deemed fit as per clause (11) 1 above will be taken since finishing has to commence immediately after removal of forms. The forms removal in RCC reservoirs and other major work shall be done in presence of Deputy Engineer. 28 days test : 1:2:4 1:1.1/2:3 1:1.5:1 150 Kg/cm2 200 Kg/cm2 300 Kg/cm2 Cube casting acceptance of concrete will be as specified in IS 456 - 1964 and relevant ISS. Unacceptable quality concrete shall be demolished and redone without any extra cost by the concessionaire. The Executive Engineer / authorized person/ authorized person at his discretion considers substandard work at a suitable reduced rate, provided such weak concrete is restricted to such members and in such quantities, which in the opinion of the Executive Engineer/authorized person / authorized person will not endanger the safety of the structures. Executive Engineer / authorized person's/ authorized person’s decision in such cases shall be final and binding on the concessionaire. 9.3 Surfaces not in contact with form work and not subject to any plaster shall be finished by a float to present a smooth and uniform appearance. Surfaces which are in contract of form work but for which no plastering is provided as per plan and estimate shall also be finished smooth, and sand faced as directed. Surfaces for which plastering is to be done, as per separate provision of plastering plans and estimates, shall immediately on removal of forms, be roughened for bond by a pointed tamping tool.

In case, whether would be specified in the tender item or not the finish shall be such as to match with the rest of the structure to present a harmonious appearance. It shall consist of 3 coats of cement, rendering, plastering float finished faced, etc. as per to the requirement at site and as directed by the Executive Engineer / authorized person / authorized person and Concessionaire shall have to do it at his own cost. Failure to do proper finishing as directed shall result in payment at reduced rates only to the Concessionaire and the decision of the Executive Engineer / authorized person / authorized person in this respect shall be final and binding on the Concessionaire.

**GS (10) Testing**

All structure meant to hold water shall be tested for water tightness test at Concessionaire's cost, by filling them to their desired level. The water tightness test shall be considered satisfactory when the fall

in water level after the container is filled to the FSL is not more than 6mm in 48 hours and there is no sweating from outside or bottom whatsoever.

Concessionaire has to make his own arrangements for water for testing at his cost and these arrangements shall be such that immediately after initial setting of plaster, the containers are filled with water. After the satisfactory water tightness test the container shall be kept constantly filled with water at Concessionaire's cost till the completion of work.

Till satisfactory water tightness test is given by the Concessionaire, at his cost, to the satisfaction of the Officer In-Charge. Only 90% tendered rates shall be admissible for payment for RCC concrete items.

In case of major RCC works from batches or concrete mix actually being laid, testing cubes shall be cast periodically as directed by the Officer In-Charge, in presence of the Deputy Engineer-in-charge and these cubes shall be got tested after they have attained their full strength, from a suitable testing laboratory. The Officer In-Charge's representative shall arrange for taking test cubes, sending them to laboratory and obtaining test results, at full cost of Concessionaire. The charges of this viz. moulds, labour for casting, materials, conveyance charges to and from the laboratory including TA of staff members and laboratory test charges, etc. are included in the tender rates and they shall be recovered from Concessionaire's bills. The ultimate compressive stress as revealed from these tests shall not be less than 28 days test : 1:2:4 1:1.1/2:3 150 Kg/cm2 200 Kg/cm2 Cube casting acceptance of concrete will be as specified in IS 456-1964 and relevant ISS. Unacceptable quality concrete shall be demolished and redone without any extra cost by the Concessionaire. The Executive Engineer / authorized person at his discretion consider substandard work at a suitable reduced rate, provided such weak concrete is restricted to such members and in such quantities, which in the opinion of the Executive Engineer / authorized person will not endanger the safety of the structure. Executive Engineer / authorized person's decision in such cases shall be final and binding on the Concessionaire.

**GS (11) Measurements**

The Measurements shall be the unit as mentioned in the Schedule and break - up schedule.

Mode of measurements shall be:- a) Columns: Height from top of footing to bottom of beams shall be measured as columns. b) Braces for columns shall be measured as net between column faces. c) For straight beams, duly ribs between column top and slab bottom surface shall be measured to beams and rest in slabs. d) For ring beams the full section of beams from bottom to top shall be measured in beams and quantities laying outside the full beam section in beams. Slant walls, slabs, etc. as the case may be shall be measured in the respective slant wall vertical wall, flat slab, etc. as the case may be. e) Vertical walls shall be measured for net quantity outside columns, beams, slabs. f) No deduction shall be made for reinforcement in RCC work. 11.3 The measurement under RCC works for net dimensions cast as directed without any allowance for rendering, finishing, etc.

**GS (12) Specification for Masonry viz. UCR/CR, Brick Masonry Khandki Facing, etc.**

The masonry shall be either UCR/CR Khandki facing, BB Masonry, etc. as specified in the respective tender items.

For stone masonry either UCR/CR or Khandki facing, with 1:5 proportion cement mortar, which has to retain, the percentage of mortar shall be between 40% to 45% of the gross built-up masonry and in no case less than 40%. The cement to be used in masonry shall be on the basis of this percentage. If the masonry is constructed with less percentage of the mortar than specified above and if in the opinion of Executive Engineer / authorized person it is not suitable retain water pressure, it shall have to be dismantled and redone at Concessionaire's cost with correct percentage of mortar.

For all other masonries viz. UCR/CR/BB, etc. the percentage of mortar shall be as per P.W.D. Hand Book Specifications and cement to be used shall be based on these percentage.

For CR Masonry, khandki facing masonry etc all courses shall be of equal height, to be specified by the Engineer-in-charge and only one row of khandkies shall be allowed in one course.

Tender rates of masonry item, unless otherwise mentioned specifically in the tender items, shall include scaffolding, watering, curing and cement pointing in CM 1:2 to the exposed faces, where necessary and as directed.

For masonries meant for retaining structures, the Concessionaire shall give a satisfactory water tightness test at his cost to the satisfaction of OFFICER IN-CHARGE Till such a satisfactory water tightness test is given, only part rates (90%), as directed by the Executive Engineer / authorized person shall be admissible for payment and the decision for such part regarding reduced rates, shall be final and binding on the Concessionaire. It shall be Concessionaire's responsibility to give the water tightness test and he may use standard waterproofing compounds at his cost in the mortar.
In all other items viz. materials like sand, stones, joints, headers, khandkies, etc. the PWD Hand Book Specification (latest edition) and specifications given in standard specification Book (Red Book) shall apply.

The wall of masonry should be truly vertical on both faces or should be truly as specified grade.

The height of masonry should not be raised at more than 1 M per day.

**GS (13) Doors, Windows CCTW Doors, Windows, Cupboards, etc.**

Sizes shown on drawing are clear opening in masonry and not the shutter's size. these sizes shown on drawings are, therefore, inclusive of required frame sizes and doors, windows, etc. and shall be manufactured, accordingly. If sizes bigger than shown in drawing are manufactured, as instructed specifically in writing they shall be measured and paid for accordingly.

The work shall be executed as per the size of frame thickness of shutter type viz. plain planked paneled, glazed, etc. and fixture, etc. as described in tender item. Iron bars for windows ventilators are to be provided if specifically mentioned in the tender item at Concessionaire's cost. Specifications in PW standard specifications shall be applicable.

The design shutters and quality of wood shall be got approved from the Engineer-in- charge before manufacture. The CCTW to be used for wood work shall be uniform in substance straight, free from large deed knots, flows flanks. The work shall be done as per specification of P.W.D. hand books latest edition. The joints shall be perfect. The work be done as per specification Book (Red Book) published by B&C Department.

Parts of wood embedded in masonry shall be painted with the tar. The frames of doors, windows, ventilators, etc. shall have proper holdfasts embedded in masonry.

Whenever iron bar is to be provided as per tender item the rate thereof is included in tender item. The painting shall be done as prescribed in tender item. No painting, however, shall be permitted till the wood work is approved by the Engineer-in-charge.

Any substandard work not confirming to the specifications shall be paid at reduced rates only and also liable to the outright rejected and Executive Engineer / authorized person's decision in such cases shall be final and binding on the Concessionaire.

The mode of measurement shall be on area units as mentioned in Schedule.

**GS (14) Steel doors, windows and ventilators**

**General** The specification lays down the requirements of providing the steel doors, windows and ventilators shall confirm to IS 1038 - 1975 its latest revision.

**Material's** Rolled Steel Sections: They shall be manufactured from steel confirming to I.S. 1977-1962 specifications its latest revision for structural steel. They shall be free from rolling defects and shall be suitable for punching and welding. Coupling Sections for Non-modular Opening: They shall be manufactured from mild steel plate 1.6 mm in thickness confirming to the dimensions as given in figure 84 or IS 1038 -1975 its latest revision as specified in the Item1 Glass Panels: Glass panels shall weigh at least 7.5 kg/sqm. and shall be free from flaws, specks and bubbles. All glass panels shall have properly squared corners and straight edges. The size of glass panels shall be as specified in the item. Workmanship: The doors windowsand ventilators shall be fixed in true line and level, to the entire satisfaction of the Engineer-in- charge. The damaged works shall be made good to the level of original works. Screws: Screws threads of machine screws used in manufacture of steel doors, windows and ventilators shall conform to the requirements of IS 7362-1962.

**Mode of measurement** The item shall include — a) Providing and fixing of steel framesand shutters to line and level. b) Fixing of required fixtures and fastenings of approved quality. c) Glazing or paneling with specified materials such as glass or steel sheets etc. in workman like manner. d) Painting the steel sections and portion of the doors windows and ventilators with three coats of synthetic enamel paint of approved quality and shade.

## GS (15) Plastering

12 mm, 20 mm and 25 mm cement either plain or waterproof. The plastering items shall be executed in thickness and cement mortar of proportions as detailed in respective tender items. Similarly, the plastering shall be either ordinary or waterproof as specified in tender item.

In case of waterproof plaster, standard and approved waterproofing compounding shall be mixed in cement mortar in required percentage as directed and then the plaster is applied. Unless and until the water tightness test is given by the Concessionaire to the satisfaction of the Officer In-Charge only part rates shall be paid.

The finishing shall be either smooth or rough cast as may be directed by the Officer In- Charge unless otherwise specifically mentioned in the tender item.

Neeru finish wherever directed by the Officer In-Charge shall be done from inside at no extra cost.

Curing and watering shall be done as directed and plaster shall be in alignment and level. Any substandard work is liable to be rejected and shall have to be redone at Concessionaire's cost. Sand to be used shall be of approved quality only.

Cost of all scaffolding is including in the tender rate.

## GS (16) Flooring - IPS Flooring

1.1/2" thick cement concrete 1:2:4 shall be provided for IPS flooring. The size of metal shall not be more than 1/2" and it shall be properly graded. A thin coat of very fine plaster shall be provided on top to give it a smooth finish. The marking of false grooves to surfaces as directed includes the cost of labour.

## GS (17) Shahabad Stone Flooring

Stone shall be specified in tender item. The Shahabad stones shall be square with suitable dimensions and of approved quality only. All stones shall be of the same size. They shall be either rough Shahabad

or polished Shahabad as mentioned in tender item. If there is no such mention, they shall be rough shahabad only. These shall be set in 1:2:4 CC and joints
properly finished in CM 1:1 pointing. The CC bedding below 10 cm thickness (M-100) is included in the item.

All other specifications of P.W.D. Hand Book latest edition and specifications given in Standard Specification Book (Red Book) published by B and C Department shall apply to the above flooring items.

**GS (18) Painting**

The work shall be carried out as per the description of the tender item and as directed by Engineer-in-charge. It shall be whitewashing, distempering and / or snowcem painting. Shade and make shall be as directed by the Officer In-Charge and for decorative purpose, Officer In- Charge may ask for different shades to be provided for different components or different parts of the same component which the Concessionaire shall have to do within his tendered rate only at no extra cost to the Officer In-Charge Cost of priming coat as directed, scaffolding, etc. is included in the tender item. The work shall be executed as per the specifications of P.W.D. Hand Book latest edition and specification for painting in Standard Specification Book (Red Book) published by B and C Department.

**GS (19) Providing and Fixing M.S. Ladder**

Ladder shall be manufactured as per the details provided in the tender item. All the materials and labour required for executing the item are to be provided by the Concessionaire at his cost. The Ladder shall be properly fixed at site as directed and the bottom and top shall be properly embedded in 1:2:4 CC block as directed at Concessionaire's cost. In order to have stiffness to the ladder, cross Services or stiffeners at suitable intervals as directed, shall be provided of suitable M.S. flats duly embedded in walls or welded to the ladder. The specifications for this item as given in the Standard Specification Book (Red Book) published by B and C Department shall be followed.

**GS (20) GI Hand Railing**

The item shall be executed as specified in the tender item and as shown on drawing. The vertical SERVICES shall be properly fixed at base either in masonry or concrete by nuts and bolts duly embedded in the form, right anchorage holes in the vertical Services to pass GI piping in it or welding to fix the GI pipes to Services together with MS cleats, etc. are included in this item. The GI piping shall be provided along with required specials, fixtures, fastenings, etc. and GI collars or welded as per necessity. The diameter of GI piping, number of rows, size and type to vertical posts together with its center to center distance height, etc. shall be as specified in the tender item in absence thereof as per the Officer In-Charge’s type design in force. The rate shall also include 2 coats of approved shade oil paint. Cost of all the materials which shall be procured by the Concessionaire, labour involved for executing this item is including in tender item. The measurements and the payment shall be on the basis of lengths in running meters occupied by the completed railing assembly in plan.

**GS (21) Providing, Fixing RSJ and Other Structural Steel Works**

This item covers fixing MS/RS girders, MS angle, channel, flats base plates, gusset plates, clear, bracket, etc. and other accessories as per requirement and as directed and fabricating the assembly by cutting, drilling holes, etc. and erecting and fixing item at site with necessary riveted or welded joints, fixtures with nuts and bolts, etc. wherever necessary as directed. Structural steel works materials shall be procured by the Concessionaire from open market at his cost. The item includes 3 coats of oil paint of shade as directed to all structural work.

All above operations including cost of material and labour thereof are included in the tender item. The measurement and payment shall be on the weight basis in the unit as mentioned in Schedule 'B', actually erected at site as directed shall be admissible for payment. RSJ channels, angles, flats, gusset plates, brackets, base cleats, packing pieces actually used as directed shall be admissible for payment but not the rivets, nuts and bolts, etc. The riveted or welded joints or fixing with nuts are included in the tendered rates. The specification for this item given in Standard Specification (Red Book) published by B and C Department will be followed.

**GS (22) Murum filling, Bedding etc.**

When tender item provides that murum available from excavation is to be used free of cost, whatever murum that is available and suitable from excavated stuff shall be used by the concessionaire shall be used by the concessionaire free of cost.

The murum filling or bedding is to be done in 15 cm to 20 cm thick layers, watered and duly consolidated by hand rammers as directed.

**GS (23) Rubble Filling - Providing and Packing Rubble Filling, etc.**

The rubble shall be properly hand packed with murum bindage in 20 cm thick layers as directed. Unless otherwise specifically mentioned in the tender item of the cost of rubble is included in this item, and if rubble is available from excavation, the same shall be used by the concessionaire after getting approved the quality of rubble selected from the excavated stuff by the Engineer-in-charge. This rubble is considered to be issued free of cost for use on the work only.

This shall be as per specification of P.W.D. (Hand Book) and as directed by Engineer-in- charge. Only trap stone shall be used other than the specification for this item in Standard Specification Book.

**GS (24) Specifications for Embankment**

**Scope of work:** The item shall include deposition and spreading the available material from excavation in final position and consolidation as specified
**Clearance of site:** Before commencing the work on the embankment, the site should be cleared of stones and vegetation without any charges. The soil available from excavation and to be used for embankment work should be free from any deleterious materials and the same shall be carried out by the concessionaire without any charges.

**Material used:** All the material to be used shall be free from organic material and shall contain coarse-grained material whose suitability being confirmed by laboratory tests. Thematerial shall not contain stones larger than 3/4th thickness of compacted layer Surplus rubble available at site can be used as casing material as directed by the Engineer-in-charge.

**Compaction including watering:** All the materials placed in the embankment shall be compacted to attain a dry density which shall not be less than 95% of the modified proctor density of the material under consideration. The required amount of water to be sprinkled for a specific quantity of soil shall be first calculated when water is proposed to be added at the dam. This water should be thoroughly mixed with the soil and then rolling should be started. Rolling should be done by wheeled power rollers of 10 Tonne capacity. For the portions where compaction is permitted by the Executive Engineer / authorized person to be done by non- mechanical means, the compaction shall be done by stone or iron rollers of such a size and weight that they will give a pressure of 15 Tonne per metre length of the roller. There should be at least 2 field density tests per day for ascertaining the dry density of the soil. Also the fieldtests shall be done forever 300 cum of embankment compacted.

**Tamping:** In those part of the structure in accessible to the specified rolling equipment's,around and in contact with the structure and in proximity to structures where the rolling equipment will not be permitted to operate, compaction shall be either accomplished either with hand or mechanical tampers of approved type. Rollers will not be permitted to operate withinone meter of structures and this distance shall be tamped by mechanical tamper. All materialsto be tamped shall be exercised to obtain a good contact and bond with surface of structures.

## GS (25) Specifications for Stone Pitching Scope of Work

The slopes of the embankment to receive the pitching shall be first prepared and the pitching laid upon the bank work

**Material:** Stones should be large and placed vertically so as to interlock with each other and the chips used for filling the interstices and wedging may be in pieces. The stone should be large enough so as not to be disturbed by wave action. Also the flat surface of the pitching should face the embankment. The remaining interstices being filled in with chips, spauls properly hammered in so that the entire mass becomes firm and cannot be disturbed by hand

**Laying of Pitching:** The stones used for pitching shall be perfectly sound and as regular as possible.60% of the stones shall not weigh less than 40Kg each. The stones should be interlocked and keyed together with minimum voids. High irregular points shall be knockedoff and the finished pitching shall present a neat and reasonably smooth and uniform surface free of loose stones.

## GS (26) Providing H.D.P.E. Pipes

This Indian Standard lays down requirements for high density polyethylene pipes from 16mm to 1000mm nominal diameter of pressure rating from 0.25 MPa to 1.6 MPa in material grades of PE63, PE80, PE100, for use for buried water, sewerage mains and services confirming to IS 4984/14151/12786/13488 latest version.

***References:*** *The Indian Standards listed below are necessary adjuncts to this standard*

| IS No. | Title |
|---|---|
| 2530: 1963 | Methods of test for polyethylene moulding materials and polyethylene compounds. |
| 4905: 1968 | Methods for random sampling. |
| 7328: 1991 | High density polyethylene materials for moulding and extrusion (First revision). |
| 9845: 1968 | Method of analysis for the determination of constituents of plastics materials and articles intended to come into contact with foodstuffs (First revision) |
| 10141: 1982 | Positive list of constituents of polyethylene in contact with foodstuffs, pharmaceuticals and drinking water. |
| 10146: 1982 | Polyethylene for its safe use in contact with foodstuff, pharmaceuticals and drinking water. |

### Designation

Pipes shall be designated according to the grade of material followed by pressure rating and nominal diameter for example, PE 63, PN 10, DN,200 indicates a pipe pertaining to material grade 63, pressure rating 1.0 MPs and outside nominal diameter 200 mm. in blue colour. These stripes shall be executed during pipe manufacturing and shall not be more than 0.2 mm indepth. The material of the strips shall be of the same type of resin, as used in the base compound for the pipe.

### Material

The material used for the manufacture of pipes should not constitute toxic hazard, should not services microbial growth and should not give rise to unpleasant taste or odour, cloudiness or discoloration of water. Pipe manufacturers shall obtain a certificate to this effect from themanufacturers of raw material.

**High Density Polyethylene.** High density polyethylene (HDPE) used for the manufacture of pipes shall conform to designation PEEWA-45-T-006 of IS 7328:1991. HDPE confirming to designation PEEWA-45-T-012 of IS 7328 m: 1992 may also be used with the exception that melt flow rating (MFR) shall not exceed 1.10 Kg / 10 minutes. In addition the material shall also conform 5.6.2 of IS 7328:1992 (See A-1) 1.6.3 The specified base density shall be between 9405 Kg / m3 and 946.4 kg / m3 (both inclusive) when determined at $27^0$C according to procedure prescribed in Annex A of IS 7328: 1992. The value of the density shall also not differ from the nominal value by more than 3 Kg / m3 as per 5.2.1.1 of IS 7328:1992.

1.6.4 The MFr of the material shall be between 0.41 and 1.10 (both inclusive) when tested at 1900 with nominal load of 5 Kgf as determined by method prescribed in 7 of IS 2530:1993. The MFR of the material shall also be within — 20 percent of the value declared by the manufacturer.

**The Resin** shall be compounded with carbon black. The carbon black content in the material shall be within 2.5 = 0.5 % and the dispersion of carbon black shall be satisfactorywhen tested according to the procedure described in IS 2530:1963.

**Anti-oxidant** The percentage of anti-oxidant used shall not be more than 0.3 percent by mass of finished resin. The anti-oxidant used shall be physiologically harmless and shall be selected from the list given in IS 10141: 1982.

**Reworked Material** The addition of not more than 10 percent of the manufacturer‟s own rework material resulting from the manufacture of pipes is permissible. No other reworked or recycled material shall be used.

**Dimensions of Pipes**

**Wall Thickness:** The minimum and maximum wall thickness of pipes for the three grades of materials, namely, PE 63, PE 80, and PE 100 shall be as PW IS 4984 / 1995. 1.6.2

**Method of Measurement:** The outside diameter of the pipe shall be taken as the average of two measurements taken at right angles for pipes up to 110 mm diameter. Alternatively and for high sizes, the diameter shall be measured preferably by using a flexible pittape or micrometer, having an accuracy of not less than 0.1 mm. The wall thickness shall be measured by a dia. vernier or ball ended micrometer. The resulting dimension shall be expressed to the nearest 0.1 mm.

**Notes:**

1. The outside diameter shall be measured at a distance of at least 300 mm from theend of the pipe.

2. In the case of dispute, the dimension of pipes shall be increased after conditioningat room temperature for 4 hours.

**Length of Straight Pipe:** The length of straight pipe shall not be less than 6.0 m.

**Coiling:** The pipes supplied in coils shall be coiled on drums of minimum diameter of 25 times the nominal diameter of the pipe ensuring that kinking of pipe is prevented.

**Visual Appearance:** The internal and external surfaces of the pipes shall be smooth, clean and free from grooving and other longitudinal grooves or irregularities in the wall thicknessshall be permissible provided that the wall thickness remains within he permissible limits.

**Performance Requirements.**

**Hydraulic Characteristics**. Then subjected to internal pressure creep rupture test in accordance with procedure given in Annexure of IS 4985 / 1995 the pipes under test shall show no signs of localized swelling, leakage or weeping, and shall not burst during the prescribed test duration. The temperatures, duration of test and induced stresses for the test shall conform to those specified in Table as below.

| Sr. No. | Test | Test Temp $^0$C | Test Duration (Minimum Holding Time) | Induced Stress, or in MPa for | | |
|---|---|---|---|---|---|---|
| | | | | PE 63 | PE 80 | PE 100 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| i) | Type Test | 80 | 165 | 3.5 | 4.6 | 5.5 |
| ii) | Acceptance test. | 48 | 48 | 3.8 | 4.9 | 5.7 |

**Reversion Test.** When tested according to the procedure given at Annex C, IS of 4985 / 1995 the value of the longitudinal reversion shall not be greater than 3 percent.

**Overall Migration Test.** When tested from a composite sample of minimum 3 pipes as per IS 9845: 1986, the overall migration of constituents shall be within the limits stipulated in IS10146: 1987.

**Density.** When tested from a composite sample of minimum three pipes as per Annex A of IS 7328: 199, it shall meet the requirement as given in 5.2. 1 of IS 4985 / 1995.

**Melt Flow Rate (MFR).** When tested from a composite sample of minimum three pipes as per IS 2530: 1963 at 1900 C with nominal load of 5 kg, MFR shall be between 0.4 to 1.1 kg / 10 minutes and also shall not differ by more than 30% of the MFR of the material used in manufacturing pipes.

**Carbon Black Content and Dispersion.** When tested from a composite sample of minimum three pipes, in accordance with IS 2530:1963, the carbon black content shall be within 2.5 = 0.5 percent and the dispersion of carbon black shall be satisfactory.

**Sampling, Frequency of tests and Criteria for conformity.**

**Type Test.** The tests are intended to prove the suitability and performance of a new composition, a new technique or a new size of a pipe. Such tests, therefore, need be applied only when a change is made in polymer composition or method of manufacture, or when a new size of pipe is to be introduced. Even if no change is envisaged type test shall be done at least once in two years on each pressure rating and grade of pipe of the highest size manufactured during the period.

**Acceptance Tests.** Acceptance tests are carried out on samples selected from a lot for the purpose of a acceptance of the lot.

**Lot.** All pipes of the same size, same pressure rating and same grade and also manufactured essentially under similar conditions of manufacture, shall constitute a lot. For ascertaining conformity of the lot to the requirements of this specification, samples shall selected in accordance with the provisions.

**GS (27) Precautions during Execution**

(i) The Concessionaire shall comply with instructions issued by the Employer in respect of road maintenance and inter utility code of conduct for excavating trenches across and along various roads and other places, in all respects. In case of non-compliance the concessionaire shall be

liableto pay liquidated damages for various lapses as indicated below:

a) Non-installation of boards on either ends of trenches: ₹500/- per day till implementation
b) Non shoring of walls of trenches to prevent collapse of the excavated portion (beyond 1.5m) and where proper stopping not proved: ₹1000/- per day till the shoring is fixed.
c) Digging of trenches beyond a stretch of 500 meter for Electrical Authority and Employer and otherwise 1000 meter in case of telephone: ₹500/- per day till the damage is restored.
d) Non barricading of trenches of more than 1.5 meter: ₹500/- per day till completed.
e) Excavation of trenches across and along roads during day time (at 8 AM to 8PM) without permission: ₹500/- per day.
f) Non removal of excess earth and other stones etc. which are causing inconvenience to the road users: ₹1000/- per day till completed.
g) Non consolidation of earth while back filling of trenches to the original level: ₹500/- per day till completed.
h) Non adherence to prescribed methodology for reinstatement of trenches: ₹500/- per day.
i) Road cutting without written or oral permission: ₹1250/- per day.
j) Non stacking of materials pipes etc. in an orderly manner during execution causing 98
k) in convenience to the road users: ₹1000/- per day.

(ii) The concessionaire shall have to provide MS sheet barricading or as provided in BOQ up to a minimum height of 2m above ground level all around the Site of excavation and trenches as per direction of Engineer-in-Charge. Such barricading must be provided before taking up the excavation work and must remain in position till complete filling back of excavated trenches and resurfacing work, if any. The sheets must be painted in red & White stripes with fluorescent paint.

(iii) Proper supporting of all underground services such as water mains, sewers, cables, drains, and water and sewer connections shall be provided by the concessionaire without any additional cost. If the services/connections are damaged the concessionaire will be responsible for the restoration of the same to original specifications at his own cost.

(iv) Imposition of liquidated damages by Employer shall not absolve Concessionaire from any other civil/ criminal liabilities.

(v) Concessionaire should maintain first aid box, electric shock recovery devices, safety equipment such as breathing apparatus, safety personal protective equipment and/ or other safety equipment as per NHRC guidelines and/ or factory act. The Engineer-in-Charge shall decide to impose suitable damages

**GS (28) Action in Case work Not Done as per Specifications**

All work under or in course of execution or executed in pursuance of the Contract shallalways be open and accessible to the inspection and supervision of the Engineer-in-Charge,his representatives and assistants in charge of the Works and all senior officers, officer of the quality control division of the Employer, third party hired by Employer, and of the chief technical examiner's office. The Concessionaire shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the Concessionaire, either himself be present to receive orders and instructions or have his responsible agent, present for that purpose.

In the event it appears to the Engineer-in-Charge or his representative in charge of the Works or any nominated officer (as described above in this clause), that any work has been executed with unsound, imperfect, or unskillful workmanship, or is against Good Engineering Practice or with material or articles of a quality inferior to that contracted or otherwise not in accordance with the Contract, the Concessionaire shall, on demand in writing which shall be made during construction and upto six months after completion of the Works by the Engineer-in-Charge specifying the work, materials or

articles complained (notwithstanding that the same may have been passed, certified and paid for forthwith) rectify, or remove and reconstruct the Works so specified in whole or in part, as the case may require, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of failing to do so within a period specified by the Engineer-in- Charge in his demand aforesaid, the Concessionaire shall be liable to pay compensation at the same rate specified earlier in the Contract (for non-completion of the Works in time) for this default.

Provided that in such an event the Engineer-in-Charge may not accept the itemof Works at the rates applicable under the Contract but may accept such items at reduced rates as the Employer may consider reasonable during the preparation of on-account billsor final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the Works outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the Concessionaire. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same shall be final and binding on the Concessionaire.

**GS (29) Action where there are no Specifications**

In the case of any class of work for which there is no such specifications as referred in tender conditions, such work shall be carried out in accordance with the CPWD/ Bureau of Indian Standards Specifications or any other applicable standards specific to the Works. Provided that where there is no such specification in CPWD/ Bureau of Indian Standards, the Works shall be carried out as per manufacturers‟ specifications. Provided further that where there are no such specifications as required above, the Works shall be carried out in all respects in accordance with Good Engineering Practice and Site requirements under the instructions and requirements as communicated by the Engineer-in-Charge.

**GS (30) Concessionaire to Supply Tools & Plants etc.**

The Concessionaire shall provide at his own cost all materials (except such special materials If any, as may in accordance with the Contract be supplied from the Employer) stores, plants, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary work required for the proper execution of the work, whether original, altered or substituted and whether includedin the specification or other documents forming part of the Contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-Charge. The Concessionaire shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out Works, and counting, weighing and assisting the measurement for examination at any timeof the Works or materials. In the event the Concessionaire fails to supply such requisite number of persons with the means and materials the same may be provided by the Engineer-in-Charge at the expense of the Concessionaire and the expenses may be deducted, from any money due to the Concessionaire, under this Contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof.

**GS (30).1. Hire of Plant and Machinery**

(i) The Concessionaire shall arrange at his own expense all tools, plant, machinery or equipment (hereinafter referred to as T&P) required for execution of the Works except for the Plant & Machinery listed in Special Conditions of Contract and stipulated for issue to the Concessionaire. If the Concessionaire requires any item of T&P on hire from the T&P available with the Employer over and above the T&P stipulated for issue, the Employer will, if such item is available, hire it to the Concessionaire at rates to be agreed upon between him and the Engineer-in-Charge. In such a case all the conditions hereunder for issue of T&P shall also be applicable to such T&P as is agreedto be issued.

Plant and Machinery when supplied on hire charges as shown in Special Conditions of Contract shall be taken from the departmental equipment yard/shed and the Concessionaire shall bear the cost of carriage from the place of issue to the Site and back. The Concessionaire shall be responsible to return the plant and machinery in the condition in which it was handed over to him, and shall be

responsible for all damage caused to the said plant and machinery at the Site or elsewhere during operation and otherwise during transit including damage to or loss of plan and for all losses due to his failure to return the same, soon after the completion of the Works for which it was issued. The Engineer-in-Charge shall be the sole judge to determine the liability of the Concessionaire and its extent in this regard and his decision shall be final and binding on the Concessionaire

(ii) The plant and machinery as stipulated above shall be issued as and when available and if required by the Concessionaire. The Concessionaire shall arrange his work program schedule according to the availability of the plant and machinery and no claim whatsoever will be entertained from him for any delay in supply by the Employer. If such re-arrangement results in delay in completion of work, and such delay, in the opinion of Engineer-in-Charge are unavoidable, the concessionaire shall be entitled to shall be eligible for extension of time.

(iii) The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over up to and inclusive of the date of the return in good order even though the same may not have been working for any cause except major breakdowndue to no fault of the Concessionaire or faulty use requiring more than three working days continuously (excluding intervening, holidays and Sundays) for bringing the plant in order. The Concessionaire shall immediately intimate in writing to the Engineer-in- Charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer-in-Charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this if the breakdown occurs before lunch period or major breakdown will be computed considering half a day"s breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next workingday. In case of any dispute under this clause the decision of the Engineer-in-Charge shall be final and binding on the Concessionaire.

(iv) The hire charges shown above are for each day of 8 hours (inclusive of the one hour lunch break) or part thereof.

(v) Hire charges shall include service of operating staff as required and also supply of Lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery" and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the Concessionaire who shall be fully responsible for the safeguard and security of plant and machinery. The Concessionaire shall on or before the supply of plant and machinery sign an agreement indemnifying the Employer against any loss or damage caused to the plant and machinery either during transit or at Site.

Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-Charge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case the hourly hire charges for overtime to be borne by the Concessionaire shall be50% more than the normal proportionate hourly charges (1/8th of the daily charges) subject to a minimum of half day"s normal charges on any particular day. For working out hire charges for overtime a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.

(vi) The Concessionaire shall release the plant and machinery every 7 (seventh) day for periodical servicing and/or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the Concessionaire for the day of servicing/ wash out irrespective of the period employed in servicing

(vii) The plant and machinery once issued to the Concessionaire shall not be returned by him on account of lack of arrangements of labour and materials, etc. on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in- Charge the

Works or a portion of Works for which the same was issued is completed.

(viii) Log Book for recording the hours of daily work for each of the plant and machinery supplied to the Concessionaire shall be maintained by the Employer and shall be countersigned by the Concessionaire or his responsible agent daily. In case the Concessionaire contests the correctness of the entries and/or fails to sign the Log Book, the decision of the Engineer-in-Charge shall be final and binding on him. Hire charges shall be calculated according to the entries in the Log Book and will be binding on the Concessionaire. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing, the data for which shall be provided by Employer later on request. Local Body may use GPS tracking devices for on-line monitoring of movements and recording of log book.

(ix) In the case of concrete mixers, the Concessionaires shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion. In case rollers for consolidation are employed by the Concessionaire himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any items to be consolidated for each roller-day shall also be same as in data

(x) For less use of rollers recovery for the less roller days shall be made at the stipulated issue rate.

(xi) The Concessionaire shall be responsible to return the plant and machinery in the condition in which it was handed over to him and he shall be responsible for all damage caused to the said plant and machinery at the Site or elsewhere in operation or otherwise or during transit including damage to or loss of parts, and for all losses due to his failure to return the same soon after the completion of the Works for which it was issued. The Engineer-in-Charge shall be the sole judge to determine the liability of the Concessionaire and its extent in this regard and his decision shall be final and binding on the Concessionaire.

(xii) The Concessionaire shall be exempted from levy of any hire charges for the number of days he is called upon in writing by the Engineer-in-Charge to suspend execution of the work, provided Employer plant and machinery in question have, in fact, remained idle with the Concessionaire because of the suspension.

(xiii) In the event of the Concessionaire not requiring any item of plant and machinery issued by Employer though not stipulated for issue in Contract any time after taking delivery at the place of issue, he may return if after 2 (two) days written notice or at any time without notice it he agrees to pay hire charges for 2 (two) additional days without, in any way, affecting the right of the Engineer-in-Charge to use the said plant and machinery during the said period of 2 (two) days as he likes including hiring out to a third party.

**GS (30).2. Foreclosure of Contract due to abandonment or reductions in scope of work**

If at any time after issuance of Work Order, the Employer decides to abandon or reduce the scope of the Works for any reason whatsoever and hence not require the whole or any part of the Works to be carried out, the Engineer-in-Charge shall give notice in writing to that effectto the Concessionaire and the Concessionaire shall act accordingly in the matter. The Concessionaire shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the Works in full butwhich he did not derive in consequence of the fore closure of the whole or part of the Works.

The Concessionaire shall be paid at Contract rates full amount for Works executed at Siteand, in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilized on the Works to the full extent in view of the foreclosure:

(i) Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office, storage accommodation and water storage tanks.

(ii) Employer shall not take over Concessionaire's materials or any part thereof either brought to Site or of which the Concessionaire is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work). However, the Engineer-in-Charge/Employer may consider providing cost for such materials as deemed reasonable. The cost shall, however, take into account purchase price, salvage value, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the Concessionaire.

(iii) If any materials supplied by Employer are rendered surplus, the same except normal wastage shall be returned by the Concessionaire to Employer at rates not exceeding those at which these were originally issued less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the Concessionaire. In addition, cost of transporting such materials from Site to Employer's stores, if so required by Employer, shall be paid by the Employer.

(iv) Reasonable compensation for repatriation of Concessionaires site staff and imported labour to the extent necessary. The Concessionaire shall, if required by the Engineer- in-Charge furnish to him books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition. The reasonable amount of items on (i)and (iv) above shall not be in excess of 2% of the cost of the Works remaining incomplete on the date of closure, i.e., total stipulated cost of the Works as per accepted tender less the cost of Works actually executed under the Contract. Provided always that against any payments due to the Concessionaire on this account or otherwise, the Engineer-in-Charge shall be entitled to recover or be credited with any outstanding balances due from the Concessionaire for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the Employer from the Concessionaire underthe terms of the Contract.

**SCHEDULE 4**
**MAINTENANCE REQUIREMENTS**
*(See Article 5.1)*

**1. Maintenance Requirements**

The Concessionaire shall, at all times, operate and maintain the Project in accordance with the provisions of the Agreement, Applicable Laws, Applicable Permits and Good Industry Practice. In particular, the Concessionaire shall, at all times during the Operation & Maintenance Period, conform to the Maintenance Requirements set forth in this Schedule.

The Concessionaire shall repair or rectify any defect or deficiency set forth in Clause 2 of this Schedule within the time limit specified therein and any failure in this behalf shall constitute a breach of the Agreement.

**2. Repair/rectification of defects and deficiencies**

The obligations of the Concessionaire in respect of Maintenance Requirements shall include repair and rectification of the defects and deficiencies in the Project within the time limit set forth in Annex-I of this Schedule.

The Concessionaire shall at all times maintain an adequate inventory of spares and consumables to meet the Maintenance Requirements.

**3. Other defects and deficiencies**

In respect of any defect or deficiency not specified in Annex-I of this Schedule, the Concessionaire shall undertake repair or rectification in accordance with Good Industry Practice and within the time limit specified by the Project Engineer.

In respect of any defect or deficiency not specified in Annex-I of this Schedule, the Project Engineer may, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards, and any deviation or deterioration beyond the permissible limit shall be repaired or rectified by the Concessionaire in accordance with Good Industry Practice and within the time limit specified by the Project Engineer.

**4. Extension of time limit**

Notwithstanding anything to the contrary specified in this Schedule, if the nature and extent of any defect or deficiency justifies more time for its repair or rectification than the time specified herein, the Concessionaire shall be entitled to additional time in conformity with good industry Practice. Such additional time shall be determined by the Project Engineer and conveyed to the Concessionaire and the Authority with reasons thereof.

**5. Emergency repairs/restoration**

Notwithstanding anything to the contrary contained in this Schedule, if any defect, deficiency or deterioration in the Project poses a hazard to safety or risk of damage to property, the Concessionaire shall promptly take all reasonable measures for eliminating or minimizing such danger.

**6. Inspection by the Concessionaire**

The Concessionaire shall, through its engineer, undertake a periodic (at least weekly) visual inspection of the Project and maintain a record thereof in a register. Such record shall be kept in safe custody of the Concessionaire and shall be open to inspection by the Authority and the Project Engineer at any time during office hours.

**Annex-I**

*(Schedule)*

The Concessionaire shall repair and rectify the defects and deficiencies[32] specified in this Annex-I toSchedule within the time limit set forth herein:

| Sl. No. | Nature of defect or deficiency | Time limit for repair/ rectification |
|---|---|---|
| **Access Roads** | | |
| i. | Damage of pavement edge exceeding l0 cm | 15 days |
| ii. | Debris on roads | 2 hours |
| iii. | Damage to shape or position of road side furniture, signs and marking; poor visibility or loss of retro-reflectivity | 24 hours |
| **Lighting at the Project Facilities** | | |
| i. | Any major failure of the system | 6 hours |
| ii. | Faults and minor failures | 2 hours |
| iii. | Lighting level falling below [200] lux | 1 hour |

**Other Maintenance Requirements**

| | |
|---|---|
| Repair of Water tank & distribution network within the project facilities | - 24 hours |
| Repair of Drainage network within the project facilities | - 48 hours |
| Cleaning of drain | - 24 hours |
| Toilet cleaning | - 24 hours |
| Water tank cleaning | - 180 days |
| Septic Tank/soak pit cleaning | - 3years |
| Painting of all Infrastructure | - 5years |

The list is indicative

**Annex-II**

*(Schedule)*

**Other Maintenance Requirements**

Operations and maintenance requirements of waste processing facility

**1. General**

(a) The Concessionaire shall comply with the O&M Requirements set out in this Schedule. In doing so, the Concessionaire shall ensure that the Waste Processing Facilities are maintained to the standards and specifications as set out in the Construction Requirementsand also meet the other requirements, if any, set out in the Agreement.

(b) In the design, planning and implementation of all works and functions associated with the operation and maintenance of the Waste Processing Facilities, the Concessionaire shall take all such actions and do all such things (including without limitation, organizing itself, adopting measures and standards, executing procedures including inspection procedures, and engaging concessionaires, if any, agents and employees) in such manner, as will:

(i) ensure the safety of personnel deployed on and users of the Waste ProcessingFacilities or part thereof;

(ii) permit unimpaired performance of statutory duties and functions of any party inrelation to the Project;

(c) During the Active Operations Period and till the date of handover of the Waste Processing Facilities, the Concessionaire shall, in respect of the Waste Processing Facilities, ensure that:

(i) applicable and adequate safety measures are taken;

(ii) adverse effects on the environment and to the owners and occupiers of property and/or land in the vicinity of the Waste Processing Facilities, due to any of its actions, is minimized;

(iii) any situation which has arisen or likely to arise on account of any accident or other emergency is responded to as quickly as possible and its adverse effects controlled/minimized;

(iv) disturbance or damage or destruction to property of third party by operations of the Waste Processing Facilities is controlled/minimized;

(v) data relating to the operation and maintenance of Waste Processing Facilities is collected, recorded and available for inspection by respective agencies.

(vi) all materials used in the maintenance, repair and replacement of any of the Waste Processing Facilities shall meet the Construction Requirements;

(vii) the personnel assigned by the Concessionaire have the requisite qualifications and experience and are given the training necessary to enable the Concessionaire meet the O&M Requirements.

(viii) Manual Scavenging not permitted in processing plant.

**2. Operations and Maintenance Manual and O&M Plans**

(a) Prior to making application for the Readiness Certificate for the Project the Concessionaireshall finalize in consultation with the IE cum PMC/ Project Engineer/PMU:

(i) the O&M Manual (including the formats for the reports to be submitted during theActive Operations Period and the Post Closure Period)

(ii) the O&M Plan for the first year of operations.

(b) The concessionaire shall submit to the IE cum PMC/ Project Engineer/PMU and the Authority an annual O&M Plan for the next year of operations or may inform only the changes made in the existing O&M Plan, if any, prior to one month of every year after COD.

The format for recording shall be finalized in consultation with the IE cum PMC/ Project Engineer/PMU, and the same shall be documented as part of the O&M Manual. A sample format is enclosed belowfor reference at Annexure I.

In the event that the weigh-bridge provided specified in clauses above is not in operation, the concessionaire has to make alternative arrangements for weighing oftrucks at his own cost and expense and in a manner acceptable to the IE cum PMC/ Project Engineer/PMU and the Authority. Under unavoidable circumstances, with the written consent of the IE cum PMC/ Project Engineer/PMU, the concessionaire may use the following to estimate quantity delivered.

$$W = WAVG*N$$

**Where,**

W, is the weight of Municipal Solid Waste supplied during the period for which the weigh-bridge was inoperable,

WAVG, is the average weight of Municipal Solid Waste carried per truck based on the data available for the six Months prior to the Month in which the weigh-bridge was operable,

N, is the number of truck-loads of Municipal Solid Waste received at the Processing Facility during the period for which the weigh-bridge was inoperable.

## 3. Acceptance of Municipal Solid Waste

The Concessionaire shall collect MSW from Project Coverage area and supply collected MSW to the facility as per the agreed delivery schedule as per clause.

Apart from visual inspection procedure, the procedure to be adopted for sampling and testing of non-Municipal Solid Waste received at the Processing Facility to ascertain whether it contains Hazardous and/or Bio-medical Waste shall be finalized by the Parties and the procedure documented as part of the O&M Manual.

The concessionaire shall establish requisite laboratory and testing facility required for testing waste quality, leachate and other environmental monitoring required as the prevailing regulations/ guidelines including SWM Rules, 2016 and Manual on MSW Management, published by MoUD.

## 4. Mandatory Facilities

During the Active Operations Period and until the handover of the Waste Processing Facility, the Concessionaire shall, unless suitably modify with consent of the Authority or the IE cum PMC/ Project Engineer/PMU and duly document the O&M Plan and/or O&M Manual, operate and maintain the Waste Processing Facilities as detailed in the manual. The Manual shall cover the various operationalaspects which could be exhaustive but including the following:

- Green Belt

- Fencing
- Quality Control Laboratory
- Internal Roads
- Lighting and other electrical works
- Waste Collection and Transport
- Weigh Bridge
- Waste Receipt
- Waste Inspection
- Waste Weighing
- Waste Acceptance Criteria
- Waste Unloading
- MSW Processing Machinery
- Storm Water Drainage System
- Leachate Collection
- Water Supply System

| **Sl. No.** | **Description of Mandatory Facility** | **Operation and Maintenance Standard** |
|---|---|---|
| 1 | Weigh Bridge | ▪ Calibration certification from manufacturer/ independent certification agency (approved by theIndependent Consultant) to be renewed every year<br>▪ Maximum period of non-operation: 5 days in a quarter of year<br>▪ Data recording and reporting format to be decided in consultation with the Independent Consultant |
| 2 | Municipal Solid Waste Inspection Area | ▪ Leachate drain around the Municipal Solid Waste Inspection Area is free from clogging and allows unobstructed flow of leachate. Maintain shape & scope of the leachate drains in the designed manner during the lifetime<br>▪ No cracks/ruptures in the top RCC layer |
| 3 | Pulverization & Additive / Binder Storage and Mixing Room | ▪ Regular preventive maintenance of conveyors, pulverize, mixer, drier etc.<br>▪ Room shall be regularly maintained for leakage, painting etc. |
| 4 | RDF Conversion Room as applicable | ▪ Regular preventive maintenance of conveyors, machinery like hydraulic press, moulds / dyes, drier etc.<br>▪ Room shall be regularly maintained for leakage, painting etc. |
| 5 | RDF Storage Room as applicable | ▪ Room shall be regularly maintained for leakage, painting etc. |
| 6 | Storm Water Drainage System | ▪ All storm water drains are free from clogging and allows unobstructed flow of water<br>▪ Maintain shape & scope in the designed manner during the lifetime<br>▪ No stagnation of rain water on the Site |

| Sl. No. | Description of Mandatory Facility | Operation and Maintenance Standard |
|---|---|---|
| 7 | Leachate Collection and Drainage System | ▪ No overflow of leachate from the Leachate Collection Tanks<br>▪ Cracks or leaks in the leachate collection and drainage system to be sealed immediately<br>▪ Should be free from clogging and allows unobstructed flow of leachate |
| 8 | Leachate Treatment Plant | ▪ Maximum period of shut-down: 24 hrs.<br>▪ Treated leachate to meet standards as specified in table below<br>▪ No untreated leachate to be let out from the Site, unless it meets the standards as set out in the table of this Schedule |
| 9 | Water Supply System | ▪ Water for drinking purposes to meet IS :10500;<br>Water supply for gardening and flushing to meet Inland Surface Water standards as per Central Public Health and Environmental Engineering<br>▪ Organisation (CPHEEO) |
| 10 | Quality Control Laboratory | ▪ Quality and calibration certification from manufacturer/independent certification agency (approved by the Independent Consultant) to be renewed every year<br>▪ Maximum period of non-operation: 5 days in a quarter of year<br>▪ Data recording and reporting format to be decided in consultation with the Independent Consultant and to form part of the O&M Plan and/or O&M Manual. |
| 11 | Internal Roads | ▪ The main roads shall be pot-hole free and in good motorable condition |
| 12 | Lighting and other electrical works | ▪ Minimum lux level of 20 in the area of operation (in case of 2 shift operations) |
| 13 | Boundary Wall and Fencing | ▪ Any breach in the boundary wall and fencing to be brought to the notice of the IE cum PMC/ Project Engineer/PMU immediately and to be sealed within 1 day<br>▪ Boundary wall and fencing to be inspected at least once every week and rejects (paper, plastics etc.), if any, found trapped in the fencing to be removed promptly |
| 14 | Green Belt | ▪ Maintained in accordance with O&M Plan and O&M Manual and as per recommendation of EC/CTE/CTO/ standard guidelines |
| 15 | Windrow Platform | ▪ Leachate drain around the Municipal Solid Waste Inspection Area is free from clogging and allows unobstructed flow of leachate. Maintain shape & scope of the leachate drains in the designed manner during the lifetime<br>▪ No cracks in the top RCC layer |

In order to ensure safe application of compost, the following specifications for compostquality shall be met, namely:-

**5. Weighment, Acceptance and Rejection of Municipal Solid Waste**

**Weighment of Municipal Solid Waste**

The Concessionaire shall provide for a weigh-bridge in accordance with the Construction Requirements for Weighment of the Municipal Solid Waste received at the Processing Facility post Collection and Transportation by him.

The Concessionaire shall record at least the following data:

(b) Date of operation
(c) Registration number of the truck supplying Municipal Solid Waste/ Lorry number

(d) Total weight of the truck
(e) Time of entry of the truck
(f) Zone/ circle/ ward from which Municipal Solid Waste has been collected
(g) Empty weight of the truck
(h) Net weight of Municipal Solid Waste
(i) Time of exit of the truck

| Parameters | Organic Compost (FCO 2009) | Phosphate Rich Organic Manure (FCO 2013) |
|---|---|---|
| (1) | (2) | (3) |
| Arsenic (mg/Kg) | 10.00 | 10.00 |
| Cadmium (mg/Kg) | 5.00 | 5.00 |
| Chromium (mg/Kg) | 50.00 | 50.00 |
| Copper (mg/Kg) | 300.00 | 300.00 |
| Lead (mg/Kg) | 100.00 | 100.00 |
| Mercury (mg/Kg) | 0.15 | 0.15 |
| Nickel (mg/Kg) | 50.00 | 50.00 |
| Zinc (mg/Kg) | 1000.00 | 1000.00 |
| C/N ratio | <20 | Less than 20:1 |
| pH | 6.5-7.5 | (1:5 solution) maximum 6.7 |
| Moisture, percent by weight, maximum | 15.0-25.0 | 25.0 |
| Bulk density ($g/cm^3$) | <1.0 | Less than 1.6 |
| Total Organic Carbon, per cent by weight, minimum | 12.0 | 7.9 |
| Total Nitrogen (as N), per cent by weight, minimum | 0.8 | 0.4 |
| Total Phosphate (as $P_2 0_5$) percent by weight, minimum | 0.4 | 10.4 |
| Total Potassium (as $K_2 0$), percent by weight, minimum | 0.4 | - |
| Colour | Dark brown to black | - |
| Odour | Absence of foul Odor | - |
| Particle size | Minimum 90% material should pass through 4.0 mm IS sieve | Minimum 90% material should pass through 4.0 mm IS sieve |
| Conductivity (as dsm-1), not more than | 4.0 | 8.2 |

**Standards are for Inland Surface Water but it should be for Land Disposal**.

| S. No | Parameter | Standards ( Mode of Disposal ) | | |
|---|---|---|---|---|
| | | Inland surface water | Public sewers | Land disposal |
| (1) | (2) | (3) | (4) | (5) |
| 1. | Suspended solids, mg/l, max | 100 | 600 | 200 |
| 2. | Dissolved solids (inorganic) mg/l, max. | 2100 | 2100 | 2100 |
| 3 | pH value | 5.5 to 9.0 | 5.5 to 9.0 | 5.5 to 9.0 |
| 4 | Ammonical nitrogen (as N), mg/l, max. | 50 | 50 | - |
| 5 | Total Kjeldahl nitrogen (as N), mg/l, max. | 100 | - | - |
| 6 | Biochemical oxygen demand (3 days at $27^0$ C) max.(mg/l) | 30 | 350 | 100 |
| 7 | Chemical oxygen demand, mg/l, max. | 250 | - | - |
| 8 | Arsenic (as As), mg/l, max | 0.2 | 0.2 | 0.2 |
| 9 | Mercury (as Hg), mg/l, max | 0.01 | 0.01 | - |
| 10 | Lead (as Pb), mg/l, max | 0.1 | 1.0 | - |
| 11 | Cadmium (as Cd), mg/l, max | 2.0 | 1.0 | - |
| 12 | Total Chromium (as Cr), mg/l, max. | 2.0 | 2.0 | - |
| 13 | Copper (as Cu), mg/l, max. | 3.0 | 3.0 | - |
| 14 | Zinc (as Zn), mg/l, max. | 5.0 | 15 | - |
| 15 | Nickel (as Ni), mg/l, max | 3.0 | 3.0 | - |
| 16 | Cyanide (as CN), mg/l, max. | 0.2 | 2.0 | 0.2 |
| 17 | Chloride (as Cl), mg/l, max. | 1000 | 1000 | 600 |
| 18 | Fluoride (as F), mg/l, max | 2.0 | 1.5 | - |
| 19 | Phenolic compounds (as $C_6H_5OH$) mg/l, max. | 1.0 | 5.0 | - |

Note : While discharging treated leachates into inland surface waters, quantity of leachates being discharged and the quantity of dilution water available in the receiving water body shall be given due consideration.

* The Treated Leachate should comply with the standards laid down by SWM rules/CPCBguidelines

for discharge of waste water or other relevant guidelines for discharge of waste water.

**Weighbridge System Malfunction Categories:**

***Category – 1***

***Minor malfunctions (24 hours):*** *If the weighing system malfunctions or encounters technical problems, the Operator must mandatorily fix it within* ***24 hours****.*

***During this downtime:*** *Solid waste will be weighed at a KMDA-approved private weighbridge outside the site. Such Weighment shall be done only under the direct supervision of the IE cum PMC/ Project Engineer/PMU or his authorized supervisor. The operator will be responsible for all costs associated with using this external weighbridge. KMDA will not cover these costs. No penalty till 24 hours.*

***Category – 2A***

***Medium Level Breakdown (up to 5 days):*** If due to reasons beyond the reasonable control of the operator the weighing system is in-operational for more than 24 hours, a penalty of ₹15,000 per day shall be imposed to the processed waste till the 5th day. Also, *Solid waste will be weighed at a KMDA-approved private weighbridge outside the site during this time. Such Weighment shall be done only under the direct supervision of the IE cum PMC/ Project Engineer/PMU or his authorized supervisor. The operator will be responsible for all costs associated with using this external weighbridge.*

***Category – 2B***

***Medium Level Breakdown (Between 5th to 7th day):*** If due to reasons beyond the reasonable control of the operator the weighing system is in-operational for more than 5 days, a penalty of ₹25,000 per day shall be imposed to the processed waste till the 7th day. Also, *Solid waste will be weighed at a KMDA-approved private weighbridge outside the site during this time. Such Weighment shall be done only under the direct supervision of the IE cum PMC/ Project Engineer/PMU or his authorized supervisor The operator will be responsible for all costs associated with using this external weighbridge. KMDA will not cover these costs.*

***Category - 3***

***Major breakdowns (beyond 7 days):*** *For severe breakdowns exceeding* ***7 days****, a penalty of* ***₹50,000 per day*** *will be applied to the processed weight and also a show cause letter will be issued. If in any case breakdown period exceeds* ***20 days,*** a penalty of ***₹1,00,000 per day*** shall be imposed to the processed waste. Also, *Solid waste will be weighed at a KMDA-approved private weighbridge outside the site during this time. Such Weighment shall be done only under the direct supervision of the IE cum PMC/ Project Engineer/PMU or his authorized supervisor The operator will be responsible for all costs associated with using this external weighbridge. KMDA will not cover these costs.*

*Furthermore, fresh* ***Weighbridge Calibration Certificate*** *has to submit duly after repairing of the same to EIC in each case.*

## 6. Routine Maintenance Standards

In order to ensure smooth and uninterrupted operations, routine maintenance of the ProjectFacilities shall include but not be limited to:

a) Prompt repairs of the weigh-bridge, leachate collection drainage and treatment system, electrical items, drains, internal roads, lighting and fencing;

b) Replacement of equipment/consumables, horticultural maintenance and repairs to equipment, structures and other civil works which are part of the Project Facilities;

c) Maintaining the shape, scope, full cross-section of the storm water drainage system and leachate collection and drainage system;

d) Keeping the Project Facilities in a clean, tidy and orderly condition and taking all practical measures to prevent damage to the Project Facilities or any other property on or near the Site;

e) Undertaking maintenance works in accordance with the O&M Plan and O&M Manual;

f) Preventing, with the assistance of law enforcement agencies, where necessary, any unauthorised entry to and exit from and any encroachments including any encroachments on the Site;

g) Taking all reasonable measures for the safety of all the workmen, material, supplies and equipment brought to the Site. Explosives, if any, shall be stored, transported and disposed of by the Concessionaire in accordance with Applicable Laws/Applicable Permits.

The following standards in order of preference shall be adopted in consultation with the IE cum PMC/ Project Engineer/PMU, unless otherwise specified:

a) SWM Rules, 2016 and its subsequent amendments

b) Manual on Municipal Solid Waste Management published by CPHEEO

c) Any other standards specified by statute and Applicable Laws

d) Bureau of Indian Standards (BIS)

e) Any other standard acceptable international / national guidelines, procedures etc.

The Concessionaire, for the purpose of routine maintenance shall, in consultation with the IE cum PMC/ Project Engineer/PMU, set forth such criteria as to conform to good international standards and Good Industry Practice for sound maintenance of the Project Facilities.

The Concessionaire shall regularly carry out the necessary preventive maintenance activities for the Project Facilities to ensure adherence to the Construction Requirements/ specifications.

## 7. Emergency Maintenance

The Emergency Response Protocol ("ERP") shall be developed by the Concessionaire in line with Factories Act. This shall be a part of the O&M Manual developed by the Concessionaire.

The ERP shall set out steps to be taken and measures to be adopted by the Concessionaire in responding to dealing with Emergency including those situations related to vehicle accidents involving personal injuries or fatalities, property damage and force majeure as follows:

a) In the event of an Emergency, the Concessionaire shall immediately carry out an inspection of the area affected by the Emergency. Where Emergency has necessitatedclosure of the Project Facilities or part thereof, the Concessionaire shall promptly carry out any repair works necessary to restore the Project Facilities to safe condition and in any event shall carry out such works before the affected area of the

Project Facilities isre-opened to for normal operations.

b) The Concessionaire shall ensure that sufficient staff, plant, equipment and materials, including without limitation medical assistance are available to respond to Emergency within reasonable period at all times during the Active Operations Period.

In case of Emergency, the Concessionaire shall, upon due intimation in writing to the Authority, shall:

a) carry out such emergency maintenance and repairs as may be required to repair the damages and where required under the supervision of the police in order to ensure thatthe Project Facilities are returned to normal operating standards as quickly as possible

b) take all necessary measures to minimize pollution in accordance with the procedure specified in the O&M Plan/ Environmental Management Plan.

c) Submit a report to IE cum PMC/ Project Engineer/PMU / the Authority from time to time.

## 8. Reporting

a) The Concessionaire shall ensure that the Authority and IE cum PMC/ Project Engineer/PMU is provided with adequate information and forewarned of any event or any other matter affecting the Project Facilities to enable them to control/minimize any adverse consequences.

b) The frequency and formats for the reports with respect to waste received, processed, rejects generated and disposed to land fill, compost produced / sold and energy generated / sold and any other relevant data like usage of supporting fuels if any, to be submitted and form part of the O&M Plan and O&M Manual.

c) The following data should form part of the reports submitted by the Concessionaire:

(i) Circle wise quantity of Municipal Solid Waste received
(ii) Municipal Solid Waste characterization at the frequency of **1 sample every 6000 MT** of input and output waste.
(iii) Leachate generation

d) The Concessionaire shall furnish to the Authority two copies of "as-built" Drawings of any construction undertaken after COD.

**Annexure I:**

**SAMPLE FORMAT OF LOG BOOK AT RECEIPT POINT OF SANITARY LANDFILLSITE**

| **Date: ----------** | | | **Shift : ------** | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| **Time Hrs.** | **Vehicle number** | **Driver name** | **Initial Wt. (T) (with waste-vehicle in):** | **Final Wt. (T) (without waste – vehicle out)** | **Weight ofwaste Received (T): --** | **Waste disposal location:** | **Presence of hazardous /bio-medical waste:** | **If yes, specifywaste unloading place:** | **Waste Acceptance** |
| | | | | | | (specify cell no, location, temporary marking etc.) | Yes/No | (earmark a specific placefor unloading contaminated wastes — for segregating hazardous/ biomedical wastes) | **Acceptable /Not Acceptable** (Use rubber stamp) |

**Signature of Shift In-charge**

*This is a n i ndicative format; final format shall be as approved by the Authority/ Project Engineer / IE cum PMC/ Project Engineer/PMU.

**Operations and maintenance requirements of disposal facility – Sanitary landfill Facility**

**1. General**

(a) The Concessionaire shall comply with the O&M Requirements for landfill facility as set out in this Schedule. In doing so, the Concessionaire shall ensure that the Landfill Facilities areoperated and maintained to the applicable regulations, standards and specifications and also meet the other requirements, if any, set out in the Agreement.

(b) In the design, planning and implementation of all works and functions associated with the operation and maintenance of the Landfill Facility, the Concessionaire shall take all such actions and do all such things (including without limitation, organizing itself, adopting measures and standards, executing procedures including inspection procedures, and engaging concessionaires, if any, agents and employees) in such manner, as will:

(i) Ensure to accommodate mixed waste from the existing disposal site
(ii) ensure the safety of personnel deployed on and users of the Landfill Facility or partthereof;

(iii) keep the equipment and machinery employed at the Landfill Facility from undue deterioration and wear;
(iv) permit unimpaired performance of statutory duties and functions of any party in relation to the Project;

(c) During the Concession Period, the Concessionaire shall, in respect of the Landfill Facility, ensure that:
(i) applicable and adequate safety measures are taken;
(ii) adverse effects on the environment and to the owners and occupiers of property and/or land in the vicinity of the Landfill Facility, due to any of its actions, is minimised;
(iii) any situation which has arisen or likely to arise on account of any accident or other emergency is responded to as quickly as possible and its adverse effects controlled/minimised;
(iv) disturbance or damage or destruction to property of third party by operations of the Landfill Facility is controlled/minimised;
(v) data relating to the operation and maintenance of the Landfill Facility is collected, recorded and available for inspection by the IE cum PMC/ Project Engineer/PMU / the Authority / other regulatory agencies.
(vi) all materials used in the operation, maintenance of any of the Landfill Facility shall meet the Construction Requirements;
(vii) the personnel assigned by the Concessionaire have the requisite qualifications and experience and are given the training necessary to enable the Concessionaire meet the O&M Requirements.

**2. Operations and Maintenance Manual and O&M Plans**

The Concessionaire shall finalize the O&M Plan and the O&M Manual for the Landfill Facility in consultation with the IE cum PMC/ Project Engineer/PMU / the Authority.

**3. Sampling and Testing**

Unless modified with mutual consent by the Parties, the Residual Inert Matter shall be sampled and tested in the manner as set out below:
The Residual Inert Matter proposed to be taken to the Landfill Facility shall be placed in heaps of almost uniform size of sizeable quantity. The chemist shall take ten random samples from each of these heaps. These random samples shall then be thoroughly mixed and a single random sample taken and tested as per the procedure set out in Appendix 1 of this Schedule in the presence of the Authority/IE cum PMC/ Project Engineer/PMU or his authorized representative. In case the composition of this single random sample satisfies the criteria set out in Article of this Schedule, it shall be deemed as being "Fit for Landfilling".

The Concessionaire shall be solely responsible for the composition of the material disposed in the Landfill Facility.

**4. Weighment**

The Concessionaire shall provide for a weighbridge for weighing waste before disposal intoSLF.

The Concessionaire shall not take any Residual Inert Matter into the Landfill Facility withouthaving obtained the "Fit for Landfilling" certificate from the IE cum PMC/ Project Engineer/PMU or his authorized representative. The Concessionaire shall plan his operations in a manner such that the Landfill Waste is taken into the Landfill Facility only in the daytime during normal operationsor as mutually agreed upon between the Authority and the Concessionaire.

The Concessionaire shall record the following minimum data with regard to the Landfill Waste:

(a) Date of operation
(b) Total weight of the truck + landfill-able waste

(c) Time of entry of the truck
(d) Empty weight of the truck
(e) Time of exit of the truck

In the event that the weigh-bridge provided in accordance with sub-clause 4.1 hereinabove is not in operation, the Concessionaire shall make an alternate arrangement for weighing of waste prior to disposal in SLF at his own cost and expense at a KMDA-approved private weighbridge outside the site. Such Weighment and transport of the Residual Inert Matter shall be done only under the direct supervision of the IE cum PMC/ Project Engineer/PMU or his authorized supervisor.

The procedure for Weighment of the Landfill Waste and certification by the IE cum PMC/ Project Engineer/PMU or his authorized representative shall be as set out in the O&M Plan and the O&M Manual.

## 5. Landfill Operation

### 5.1. Monsoon cover liner

The Concessionaire shall provide an intermediate liner or the monsoon cover liner, as per SWM Rules, 2016, to take care of the monsoon season before the onset of monsoon leaving only a temporary shed for operations during non-raining period of the day.

### 5.2. Daily Cell Cover

On each day during the Active Operations Period, the Concessionaire shall compact the Landfill Waste and cover the same ("Daily Cell Cover") in the manner as specified in SWM Rules, 2016.

### 5.3. Landfill Closure and Final Cover

(a) The Concessionaire shall demonstrate the actual stability by considering the strength parameters of compacted inert material.
(b) The concessionaire shall inform the IE cum PMC/ Project Engineer/PMU / the Authority at least one year in advanceabout the exhaustion of landfill, providing the following details:
  (i) The estimated quantity of Landfill Waste that can be Land filled in future
  (ii) The probable date till which Municipal Solid Waste can be accepted by the Waste Processing Facility
  (iii) The plan for laying the final cover ("Final Cover") for the Landfill Facility

(c) The Concessionaire shall provide the Final Cover in accordance with SWM Rules, 2016.

### 5.4. Vegetative cover

(a) The Concessionaire shall, in accordance with SWM Rules ensure the provision of a vegetative cover after laying of the Final Cover.
(b) The selection of the varieties of plants /grass to be planted shall be decided in consultationwith the IE cum PMC/ Project Engineer/PMU/ the Authority and shall form part of the Post Closure Maintenance Plan.

### 5.5. Leachate Collection and Removal System ("LCRS")

(a) The Concessionaire shall ensure that there is no run-on/ run-off to and from the facility.
(b) The Concessionaire shall ensure that all leachate drains are free from clogging and allows unobstructed flow of leachate.
(c) Only treated leachate to be let out from the site, which shall meet the standards prescribed under SWM Rules, 2016.

### 5.6. Provisions for Landfill Gas Recovery/Venting System

**5.6.1.** The Concessionaire shall examine the requirement of providing Landfill Gas Recovery / Venting System in consultation with the IE cum PMC/ Project Engineer/PMU and if found necessary make suitableprovisions to avoid any potential hazard to the environment.

The SWM Rules, 2016 and other applicable guidelines prevailing guidelines prevent the disposal of bio-degradable waste into landfills. However, based on the level of segregation achieved and waste characteristics disposed off into landfill, the requirement of gas recovery venting system may be designed.

### 5.7. Post-Closure Maintenance Plan

The Authority/ may appoint the Concessionaire to maintain the Landfill Facility during the Post Closure Period in accordance with the Post-Closure Maintenance Plan on mutually agreed terms.

At least three months prior to the completion of any Financial Year during the Post Closure Period, the Concessionaire shall prepare and submit for review and approval by the IE cum PMC/ Project Engineer/PMU/ the Authority, the Post Closure Maintenance Plan for the subsequent Financial Year.

Post-closure maintenance shall be in accordance with Applicable Laws and shall involve periodical inspections, of at least once every three months, of the Landfill Facility to monitor land surface care, leachate collection, and methane control by way of flaring and to maintain flaring equipment.

Post-closure maintenance shall also involve investigations for detection of adverse environmental impacts, if any, and implementation of measures for mitigation of the same.

## 6. Environment Monitoring System

Monitoring shall be carried out in the following four zones:

(a) On and within the Engineered Sanitary Landfill
(b) In the unsaturated subsurface zone (vadose zone) around the Engineered Sanitary Landfill.
(c) In the ground water (saturated) zone around the Engineered Sanitary Landfill.
(d) In the atmosphere/local air above and around the Engineered Sanitary Landfill.

The quality of air (at the gas control facilities within the Site, at buildings on or near the Engineered Sanitary Landfill and along any preferential migration paths) shall meet the standards ("Acceptable Levels") as set out in Table below.

| Sl. No. | Description | Acceptable Levels |
|---|---|---|
| 1 | $SO_2$, $NO_2$, PM10, PM2.5, $O_3$, Pb, CO, $NH_3$, $C_6H_6$, BaP (particulate phase), As and Ni | National Ambient Air Quality Standards, CPCB (2009) |
| 2 | Methane ($CH_4$) | $CH_4$ gas generated at landfill site shall not exceed 25 per cent of the lower explosive limit (LEL) |

The quality of ground water (one source in the upstream of Engineered Sanitary Landfill and three sources on the downstream of Engineered Sanitary Landfill, within 50 m from the site and to a depth tapping the entire unsaturated zone and minimum 4 m down in confined aquifer) in the saturated zone shall meet the standards ("Acceptable Levels")* as set out in Table below:

| Sl. No. | Parameter | IS 10500:2012, Edition 2.2 (2003-09) Desirable Limit (mg/l except for pH) |
|---|---|---|
| 1 | Arsenic | 0.01 |
| 2 | Cadmium | 0.01 |
| 3 | Chromium (as $Cr^{6+}$) | 0.05 |
| 4 | Copper | 0.05 |
| 5 | Cyanide | 0.05 |
| 6 | Lead | 0.05 |
| 7 | Mercury | 0.001 |
| 8 | Nickel | - |
| 9 | Nitrate as NO3 | 45.0 |
| 10 | pH | 6.5-8.5 |
| 11 | Iron | 0.3 |
| 12 | Total hardness (as $CaCO_3$) | 300.0 |
| 13 | Chlorides | 250 |
| 14 | Dissolved solids | 500 |
| 15 | Phenolic Compounds (as C6H5OH) | 0.001 |
| 16 | Zinc | 5.0 |
| 17 | Sulphate (as SO4) | 200 |

***** *The Acceptable Levels should correspond to applicable statutory norms/rules*

The frequency of monitoring shall be as per the Table below.

| Sl. No. | Description | Frequency |
|---|---|---|
| **During Active Operations Period** | | |
| 1 | Leachate quantity | As per UT DD PCC Consent to Operate (Authorization) |
| 2 | Leachate quality | As per UT DD PCC Consent to Operate (Authorization) |
| 3 | Ground water quality – within the site | As per UT DD PCC Consent to Operate (Authorization) |
| 4 | Ground water quality – outside the site | As per UT DD PCC Consent to Operate (Authorization) |
| 5 | Air Quality | As per UT DD PCC Consent to Operate (Authorization) |
| **During Post Closure Period** | | |
| 1 | Movement of the Engineered Sanitary Landfill cover | As per UT DD PCC Consent to Operate (Authorization) |
| 2 | Leachate quantity | As per UT DD PCC Consent toOperate (Authorization) |
| 3 | Leachate quality | As per UT DD PCC Consent toOperate (Authorization) |
| 4 | Ground water quality – within the site | As per UT DD PCC Consent toOperate (Authorization) |

| | | |
|---|---|---|
| 5 | Ground water quality – outside the site | As per UT DD PCC Consent toOperate (Authorization) |
| 6 | Air Quality | As per UT DD PCC Consent toOperate (Authorization) |
| 7 | Gas quality | As per UT DD PCC Consent toOperate (Authorization) |

## 7. Mandatory Facilities

The Concessionaire shall, unless suitably modified in the O&M Plan and/or the O&M Manual, operate and maintain the mandatory facilities in accordance with the standards set out in the Table below.

| Sl. No. | Description of Mandatory Facility | Operation and Maintenance Standard |
|---|---|---|
| 1 | Weigh Bridge | ▪ Calibration certification from manufacturer/ independent certification agency (approved by the Independent Consultant) to be renewed every year<br>▪ Maximum period of non-operation: 5 days<br>▪ Data recording and reporting format to be decided in consultation with the IE cum PMC/ Project Engineer/PMU and to form part of the O&M Plan and/or O&M Manual. |
| 2 | Storm Water Drainage System | ▪ All storm water drains are free from clogging and allows unobstructed flow of water<br>▪ Maintain shape & scope in the designed manner during the lifetime<br>▪ No stagnation of rain water on the Landfill Facility |
| 3 | Leachate Collection and Drainage System | ▪ No overflow of leachate from the Leachate Collection Tanks<br>▪ Cracks or leaks in the leachate collection and drainage system to be sealed immediately<br>▪ Should be free from clogging and allows unobstructed flow of leachate<br>▪ No untreated leachate shall be let out from the Site unless it meets the standards as set out in the RFP<br>▪ document |
| 4 | Water Supply System | ▪ Water for drinking purposes to meet IS 10500<br>▪ Water supply for gardening and flushing to meet Inland Surface Water standards as per Central Public Health and Environmental Engineering Organization (CPHEEO) |
| 5 | Quality Control Laboratory | ▪ Quality and calibration certification from manufacturer/ independent certification agency (approved by the Independent Consultant) to be renewed every year<br>▪ Maximum period of non-operation: 5 days<br>▪ Data recording and reporting format to be decided |
| 6 | Internal Roads | ▪ The main roads shall be pot-hole free and in good motorable condition |
| 7 | Lighting and otherelectrical works | ▪ Adequate lighting system to achieve the lux levels, specified in the Indian Standard Codes (latest versions) of SP — 30 and IS 6665 — 1972 for the different working areas (in case of 2 shift operations) |
| 8 | Boundary Fencing | ▪ Any breach in the boundary fencing to be brought to the notice of the IE cum PMC/ Project Engineer/PMU immediately and to be sealed within 1 day<br>▪ Boundary fencing to be inspected at least once every week and rejects (paper, plastics etc.), if any, found trapped in the fencing to be removed |

| Sl. No. | Description of Mandatory Facility | Operation and Maintenance Standard |
|---|---|---|
| | | promptly |
| 9 | Green Belt | ▪ Maintained in accordance with O&M Plan and O&M Manual |

## 8. Reporting

(a) The Concessionaire shall ensure that the Authority and IE cum PMC/ Project Engineer/PMU is provided with adequate information and forewarned of any event or any other matter affecting the Project Facilities to enable them to control/minimize any adverse consequences.
(b) The frequency and formats for the reports to be submitted shall be finalized in consultation with the IE cum PMC/ Project Engineer/PMU and form part of the O&M Plan and O&M Manual.
(c) The following data should form part of the reports submitted by the Concessionaire:
  (i) Residual Inert Matter quality test reports
  (ii) Leachate generation
  (iii) Emission of greenhouse gases
  (iv) Ground Water quality (both within and outside the Site)
  (v) Waste processed per month
  (vi) Breakdowns and repairs
  (vii) Waste converted to energy

(d) The Concessionaire shall also maintain a system for tracking the location of Landfilling operations within the Engineered Sanitary Landfill on a daily basis.
(e) The Concessionaire shall furnish to the Authority three copies of "as-built" Drawings of any construction undertaken after COD.

## 9. Routine Maintenance Standards

9.1. In order to ensure smooth and uninterrupted operations, routine maintenance of the ProjectFacilities shall include but not be limited to:

(a) prompt repairs of the weigh-bridge, leachate collection drainage and treatment system, electrical items, drains, internal roads, lighting and fencing;
(b) replacement of equipment/consumables, horticultural maintenance and repairs to equipment, structures and other civil works which are part of the Project Facilities;
(c) maintaining the shape, scope, full cross-section of the storm water drainage system and leachate collection and drainage system;
(d) keeping the Project Facilities in a clean, tidy and orderly condition and taking all practical measures to prevent damage to the Project Facilities or any other property on or near the Site;
(e) undertaking maintenance works in accordance with the O&M Plan and O&M Manual;
(f) preventing, with the assistance of law enforcement agencies, where necessary, any unauthorised entry to and exit from and any encroachments including any encroachments on the Site;
(g) taking all reasonable measures for the safety of all the workmen, material, supplies and equipment brought to the Site. Explosives, if any, shall be stored, transported and disposed of by the Concessionaire in accordance with Applicable Laws/Applicable Permits.

9.2. The following standards in order of preference shall be adopted in consultation with the IE cum PMC/ Project Engineer/PMU, unless otherwise specified:

(a) SWM Rules, 2016 and its subsequent amendments
(b) Manual on Municipal Solid Waste Management published by CPHEEO

(c) Any other standards specified by statute and Applicable Laws
(d) Bureau of Indian Standards (BIS)
(e) Any other standard acceptable international / national guidelines, procedures etc.

9.3. The Concessionaire, for the purpose of routine maintenance shall, in consultation with the IE cum PMC/ Project Engineer/PMU, set forth such criteria as to conform to good international standards and Good Industry Practice for sound maintenance of the Project Facilities.

9.4. The Concessionaire shall regularly carry out the necessary preventive maintenance activitiesfor the Project Facilities to ensure adherence to the Construction Requirements/ specifications.

## 10. Emergency Maintenance

10.1. The Emergency Response Protocol ("ERP") shall be developed by the Concessionaire in line with Factories Act. This shall be a part of the O&M Manual developed by the Concessionaire.

10.2. The ERP shall set out steps to be taken and measures to be adopted by the Concessionairein responding to dealing with Emergency including those situations related to vehicle accidents involving personal injuries or fatalities, property damage and force majeure as follows:

(a) In the event of an Emergency, the Concessionaire shall immediately carry out aninspection of the area affected by the Emergency. Where Emergency has necessitated closure of the Project Facilities or part thereof, the Concessionaire shall promptly carry out any repair works necessary to restore the Project Facilities to safe condition and in any event shall carry out such works before the affected area of the Project Facilities is re-opened to for normal operations.

(b) The Concessionaire shall ensure that sufficient staff, plant, equipment and materials, including without limitation medical assistance are available to respond to Emergency within reasonable period at all times during the Active Operations Period.

10.3. In case of Emergency, the Concessionaire shall, upon due intimation in writing to the Authority , shall:

(a) carry out such emergency maintenance and repairs as may be required to repair the damages and where required under the supervision of the police in order to ensure that the Project Facilities are returned to normal operating standards as quickly as possible
(b) take all necessary measures to minimize pollution in accordance with the procedure specified in the O&M Plan/ Environmental Management Plan.
(c) Submit a report to IE cum PMC/ Project Engineer/PMU / the Authority from time to time.

## 11. Reporting

(a) The Concessionaire shall ensure that the Authority and IE cum PMC/ Project Engineer/PMU is provided with adequate information and forewarned of any event or any other matter affecting the Project Facilities to enable them to control/minimize any adverse consequences.

(b) The frequency and formats for the reports with respect to waste received, processed, rejects generated and disposed to land fill, compost produced / sold and energy generated / sold and any other relevant data like usage of supporting fuels if any, to be submitted and form part of the O&M Plan and O&M Manual.

(c) The following data should form part of the reports submitted by the Concessionaire:

(i) Circle wise quantity of Municipal Solid Waste received
(ii) Municipal Solid Waste characterization
(iii) Leachate generation

(d) The Concessionaire shall furnish to the Authority two copies of "as-built" Drawings of any construction undertaken after COD.

## 12. Maturity Test

Maturity tests shall include the following two tests. The Concessionaire shall carry out MaturityTests as per procedure set out below to ascertain whether the Residual Inert Matter is fit for Landfilling. Only the Residual Inert Matter which has passed the following two tests shall be termed as fit for Landfilling:

12.1. Starch Iodine Test

The Concessionaire shall carry out Maturity Test as per procedure set out below to ascertain whether the Residual Inert Matter is fit for Landfilling. Only the Residual Inert Matter which is completely degraded is termed as Fit for Landfilling.

| **To determine the maturity of the composting sample** | |
|---|---|
| Reagents & Chemicals | i. 35% perchoric acid (v/v)<br>ii. 2% Iodine solution<br>iii. Dissolve 4 gms of iodine (AR grade) and 8 gms of Potassium iodide in 500 ml distilled water |

| **Objective** | **To determine the maturity of the composting sample** |
|---|---|
| Method | 1. Weigh 1 gm of air-dried sample in a 100ml beaker<br>2. Add 20ml of 35% perchloric acid beaker, keep the mixture to react for 20 minutes<br>3. Filter the slurry through Whatman No. 542 filter paper in a 250 ml conical flask<br>4. Add 2 ml of iodine solution to the filtrate and observe the colour change |
| **Results**<br>Golden Yellow Colour<br>Reddish Brown Colour<br>Greenish Blue to Blue Colour | Indicates complete degradation Indicates incomplete degradation Indicates no degradation |

**Carbon – Nitrogen Ration (CN Ratio) Test**

The samples shall be tested for the C/N ratio (Organic water-soluble Carbon/ Organic water- soluble nitrogen). The C/N ratio shall be less than 7. If this acceptance criterion is not fulfilled all the heaps of Residual Inert Matter is "**not fit for landfilling**" and further stabilization is required. They will be recycled back to the treatment facility. The Test of C/N Ratio will be carried out regularly on daily basis. The results of the tests should be documented on daily basis and certifiedby the IE cum PMC/ Project Engineer/PMU.

The Analysis Procedure for finding the C/N Ratio for the MSW is based on the following Standards:

**Carbon / Nitrogen Ratio: IS 10158, 1982, Reaffirmed 1995, Serial No 4 and 6. The procedureas laid down in the standard to be followed.**

**SCHEDULE 5**
**SAFETY REQUIIREMENTS**
*(See Article 5.1)*

## 1. Guiding principles

1.1. Safety Requirements aim at reduction in injuries, loss of life and damage to property resulting from accidents on or about the Project, irrespective of the person(s)at fault.

1.2. Safety Requirements apply to all phases of construction, development, operation and maintenance with emphasis on identification of factors associated with accidents, consideration of the same, and implementation of appropriate remedial measures.

1.3. Safety Requirements include measures associated with safe movement, safety management, safety equipment, fire safety, enforcement and emergency response, with particular reference to the Safety Guidelines specified in Annex-l of this Schedule.

## 2. Obligations of the Concessionaire

The Concessionaire shall abide by the following:

(a) Applicable Laws and Applicable Permits;
(b) Provisions of this Agreement;
(c) Relevant Standards/Guidelines contained in nationally accepted codes; and
(d) Good Industry Practice.

## 3. Safety measures during Operation and Maintenance Period

3.1. The Concessionaire shall develop, implement and administer a safety programme for the Project Facilities, which shall include correction of safety violations and deficiencies, and all other actions necessarytoprovideasafeenvironmentinaccordancewiththisAgreement.

3.2. The Concessionaire shall keep a copy of every FIR recorded by the Police with respect to any accident occurring on or about the Project. In addition, the Concessionaire shall also collect data for all cases of accidents not recorded by the Police. The information so collected shall be summarised and submitted to the Authority at the conclusion of every[month/quarter].

3.3. The Concessionaire shall submit to the Authority before the [31$^{st}$(thirty first) March] of each year, an annual report (in 3 (three) copies) containing, without limitation, a detailed listing and analysis of all accidents of the preceding Financial Year and the measures taken by the Concessionaire pursuant to the provisions of Clause 3.1 of this Schedule for averting or minimising such accidents in future.

4. Costs and expenses

Costs and expenses incurred in connection with the Safety Requirements set forth herein, including the provisions of Clause 2 of this Schedule, shall be borne by the Concessionaire in accordance with the provisions of Article 5.1.

**Annex – I**
(Schedule-5)
Safety Guidelines

**1. System integrity**

In the design of the Project Facilities, particular care shall be taken to minimize the likely incidence of failure.

**2. Safety management**

A safety programme shall be prepared by the Concessionaire once every year to bring out clearly the system of management of checks and maintenance tolerances for various elements comprising the Project and compliance thereof. The programme shall also bring out the nature and extent of staff training and awareness in dealing with such check sand tolerances. [2(two)] copies of the programme shall be sent to the Project Engineer within [15 (fifteen)] days of the close of every year.

**3. Emergency**

A set of emergency procedures shall be formulated to deal with different emergency situations and the operations staff shall be trained to respond appropriately during emergency through periodic simulated exercises as laid down in a manual for management of disasters (the "**Disaster Management Manual"**) to be prepared and published by the Concessionaire prior to [Project COD]. The Concessionaire shall provide5 (five) copies each of the Disaster Management Manual to the Authority and the Project Engineer no later than[30(thirty)] days prior to Project COD.

**4. Fire safety**

4.1. To prevent fire in the Project, the Concessionaire shall use fire resistant materials in the construction thereof and shall avoid use of materials which are to some extent flammable, or which emit smoke and harmful gases when burning.

4.2. To deal with incidents of fire, the Concessionaire shall provide a hydrant based fire-fighting system in conformity with the Good Industry Practices.

**5. Surveillance and Safety Manual**

The Concessionaire shall, no later than [60 (sixty)] days prior to [Project COD], evolve and adopt a manual for surveillance and safety of the Project, in accordance with Good Industry Practice, and shall comply therewith in respect of the security and safety of the Project,includingitsgatecontrol,sanitation,fireprevention,environmentprotection.

**6. Watch and Ward**

The Concessionaire shall, at its own expense and in accordance with Good Industry Practice, provide and maintain all lighting, fencing, watch and ward arrangements for the safety of the Project and all persons affected by it.

**SCHEDULE 6**
**BANK GUARANTEE FOR O&M SECURITY**
*[on appropriate stamp paper]*

The Executive Engineer

Address:

**WHEREAS:**

A. …….. (the "**Concessionaire**"), the [Municipal Corporation/Cluster] (the "**Authority**") and the Municipality of [Urban Development and Municipal Affairs Department] (the **"Local Government**") have entered into a Concession Agreement dated _____ (the "**Agreement**") whereby the Authority have agreed to the Concessionaire undertaking the development and operation of solid waste management system at municipal dumpsite(s) on hybrid annuity basis at [Location], in the State of [Name of the State]" (the **"Project"**) subject to and in accordance with the provisions of the Concession Agreement.

B. The Agreement requires the Concessionaire to furnish a O & M Security to the Authority {of a sum of ₹[•] (Rupees_____)} (the "**GuaranteeAmount**") as security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Construction Period (as defined in the Agreement).

C. We, ……..through our Branch at (the "**Bank**") have agreed to furnish this Bank Guarantee by way of O & M Security.

NOW, THEREFORE, the Bank hereby, unequivocal, unconditionally and irrevocably, guarantees andaffirms as follows:

1. The Bank hereby unequivocal, unconditionally and irrevocably guarantees the due and faithful performance of the Concessionaire's obligations during the [Concession Period], under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Concessionaire, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Authority, under the hand of an officer not below the rank of Superintending Engineer / Executive Engineer, that the Concessionaire has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the judges as to whether the Concessionaire is in default in due and faithful performance of its obligations during the [Construction] Period under the Agreement and its decision that the Concessionaire is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Concessionaire, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Concessionaire for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Concessionaire and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Concessionaire before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this

Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Concessionaire contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Concessionaire, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Concessionaire or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Concessionaire under the Agreement.

7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force until the expiry of the construction period or compliance of the conditions specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee, no later than 6 (six) months from the date of expiry of this Guarantee, all rights of the Authority under thisGuarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The O & M Security shall cease to be in force and effect when the Concessionaire shall have expended on Project construction and or O & M period an aggregate sum not less than 100% (one hundred per cent) of the Bid Project Cost which is deemed to be ₹[•] (Rupees [•]) for the purposes of this Guarantee, and provided the Concessionaire is not in breach of this Agreement. Upon request made by the Concessionaire for release of the O & M Security along with the particulars required hereunder, duly certified by a statutory auditor of the Concessionaire, the Authority shall release the O & M Security forthwith.

9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred Branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect until the expiry of the construction period or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this …….day of …….., 20…… at ……..

SIGNED, SEALED AND DELIVERED
For and on behalf of the BANK by:

(Signature) (Name) (Designation) (Code Number)
(Address)

**NOTES:**

(i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.

(ii) The address, telephone number and other details of the Head Office of the Bank as well as of issuing Branch should be mentioned on the covering letter of issuing Branch.

## SCHEDULE 7
## THE SITES

Sites of the Project Facilities shall include the land, [buildings and structures].

[Note: Through suitable drawings and description in words, the land comprising the Project Sites shalleach be specified briefly but precisely. In the event there are any buildings or structures on the Project Site, the same shall be marked in the drawings and briefly described in words.]

An inventory of each Site including the land, buildings, structures, road works, trees and any other immovable property on, or attached to, the Site shall be prepared jointly by the Authority Representative and the Concessionaire.

Additional land required for ancillary buildings, extension/ addition to the Project Facilities or for construction of works due to change of Scope of Work shall be provided by the Authority in accordance with the Article of this Agreement. Upon provision, such land shall form part ofthe Site and vest in the Authority.

## SCHEDULE 8
## DRAWINGS

**Drawings**

In compliance with the obligations set forth in Article of this Agreement, the Concessionaire shall furnish to the Authority/Project Engineer, free of cost, all Drawings listed below:

[Note: The Authority shall list and describe in this Schedule all the Drawings that the Concessionaire is required to furnish under Article.]

**Additional Drawings**

If the Authority/Project Engineer determines that for discharging its duties and functions under this Agreement, it requires any drawings other than those listed hereinabove, it may by notice require the Concessionaire to furnish such drawings forthwith. Upon receiving a requisition to this effect, the Concessionaire shall promptly prepare and furnish such drawings to the Authority/Project Engineer as if such drawings formed part of this Schedule.

## SCHEDULE 9
## CONSTRUCTION COMPLETION SCHEDULE

### 1. Construction Completion Schedule

During Construction Period, the Concessionaire shall comply with the requirements set forth in this Schedule for each of the Project milestones and Scheduled Construction Completion Date (the "**Project Completion Schedule"**). Within [15 (fifteen)] days of the date of each Project Milestone, the Concessionaire shall notify the Authority of such compliance along with necessary particulars thereof.

This Project Milestones are to be submitted by the Concessionaire, prepared in Microsoft Project or in other similar software, upon getting the Work Order from the competent Authority. It will be scrutinized and approved by the state Level Task Force in Solid Waste Management under the Urban Development and Municipal Affairs Department, Government of West Bengal or any other Task Force or Committee as approved by the competent authority.

### 2. Project Milestone- I

Project Milestone-I shall occur on the date falling on the [60$^{th}$ (sixtieth) day] from the Executed Date (the "**Project Milestone-I**"). Prior to the occurrence of Project Milestone-I, the Concessionaire shall have commenced [soil testing, groundwater testing of Municipal Dumpsite(s)], development of Project Facilities and incurred an expenditure of not less than [5% (five per cent)] of the Bid Project Cost.

### 3. Project Milestone-II

Project Milestone-II shall occur on the date falling on the [120$^{th}$ (one hundred and twentieth) day] from the Executed Date (the **Project Milestone-II**). Prior to the occurrence of Project Milestone-II, the Concessionaire shall have commenced construction of the Project Facilities and expended not less than [30% (thirty per cent)] of the Bid Project Cost set forth in the Bid Project Cost and conveyed to the Authority/Project Engineer, the nature and extent of physical progress comprising such expenditure so as to enable the Authority/Project Engineer to determine that the physical progress is reasonably commensurate with the expenditure incurred.

### 4. Scheduled Construction Completion Date

The Scheduled Completion Date shall occur on the [4$^{th}$ (fourth) anniversary of the Executed Date]. On or before the Scheduled Construction Completion Date, the Concessionaire shall have completed the Project Facilities in accordance with this Agreement.

### 5. Extension of period

Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Construction Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

**SCHEDULE 10**
**ENVIRONMENT, HEALTH & SAFETY**

**1. Link to the Environment and Social Management Framework (ESMF) to be followed for Projects**

Environmental and Social Management Framework of Project:
http://-- - - -

**2. Requirements for preparation of ESHS Management Strategies and Implementation Plans (ESHS-MSIP)**

The Concessionaire shall submit comprehensive and concise Environmental, Social, Health and Safety Management Strategies and Implementation Plans (ESHS-MSIP). These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Concessionaire, and its sub concessionaires.

In developing these strategies and plans, the Concessionaire shall have regard to the ESHS provisions of the Concession Agreement including those as may be more fully described in the following:

a. Works Requirements described in Concession Agreement;
b. Environmental and Social Impact Assessment (ESIA);
c. Environmental and Social Management Plan (ESMP);
d. Consent Conditions (regulatory authority conditions attached to any permits or approvals for the project).

……

**Metrics for Progress Reports**

*The following Metrics should be used for regular reporting:*

*a. environmental incidents or non-compliances with Concession Agreement requirements,including contamination, pollution or damage to ground or water supplies;*
*b. health and safety incidents, accidents, injuries and all fatalities that require treatment;*
*c. interactions with regulators: identify agency, dates, subjects, outcomes (report the negative if none);*

*d. status of all permits and agreements:*
  *i. work permits: number required, number received, actions taken for those not received;*
  *ii. status of permits and consents:*

  - *list areas/facilities with permits required (quarries, asphalt & batch plants), dates of application, dates issued (actions to follow up if not issued), dates submitted to resident engineer (or equivalent), status of area (waiting for permits, working, abandoned without reclamation, decommissioning plan being implemented, etc.);*
  - *list areas with landowner agreements required (borrow and spoil areas, camp sites), dates of agreements, dates submitted to resident engineer (or equivalent);*
  - *identify major activities undertaken in each area this month and highlights of environmental and social protection (land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation);*
  - *for quarries: status of relocation and compensation (completed, or details of monthly activities and current status).*

*e. health and safety supervision:*

*i. safety officer: number days worked, number of full inspections & partial inspections, reports to construction/project management;*

*ii. number of workers, work hours, metric of PPE use (percentage of workers with full personal protection equipment (PPE), partial, etc.), worker violations observed (by type of violation, PPE or otherwise), warnings given, repeat warnings given, follow-up actions taken (if any);*

*f. worker accommodations:*

*i. number of expats housed in accommodations, number of locals;*

*ii. date of last inspection, and highlights of inspection including status of accommodations' compliance with national and local law and good practice, including sanitation, space, etc.;*

*iii. actions taken to recommend/require improved conditions, or to improve conditions.*

*g. HIV/AIDS: provider of health services, information and/or training, location of clinic, number of non-safety disease or illness treatments and diagnoses (no names to be provided);*

*h. gender (for expats and locals separately): number of female workers, percentage of workforce, gender issues raised and dealt with (cross-reference grievances or other sections as needed);*

*i. training:*

*i. number of new workers, number receiving induction training, dates of induction training;*

*ii. number and dates of toolbox talks, number of workers receiving Occupational Health and Safety (OHS), environmental and social training;*

*iii. number and dates of HIV/AIDS sensitization training, no. workers receiving training (this month and in the past); same questions for gender sensitization, flag lady/flagman training.*

*j. environmental and social supervision:*

*i. environmentalist: days worked, areas inspected and numbers of inspections of each part of the Facilities created, highlights of activities/findings (including violations of environmental and/or social best practices, actions taken), reports to environmental and/or social specialist/construction/site management;*

*ii. sociologist: days worked, number of partial and full site inspections of each part of the Facilities created, highlights of activities (including violations of environmental and/or social requirements observed, actions taken), reports to environmental and/or social specialist/construction/site management; and*

*iii. community liaison person(s): days worked (hours community center open), number of people met, highlights of activities (issues raised, etc.), reports to environmental and/or social specialist /construction/site management.*

*k. Grievances: list this month's and unresolved past grievances by date received, complainant, how received, to whom referred to for action, resolution and date (if completed), data resolution reported to complainant, any required follow-up (Cross-reference other sections as needed):*

*i. Worker grievances;*

*ii. Community grievances*

*l. Traffic and vehicles/equipment:*

*i. traffic accidents involving project vehicles & equipment: provide date, location, damage, cause, follow-up;*

*ii. accidents involving non-project vehicles or property (also reported under immediate metrics): provide date, location, damage, cause, follow-up;*

*iii. overall condition of vehicles/equipment (subjective judgment by environmentalist); non- routine*

*repairs and maintenance needed to improve safety and/or environmental performance (to control smoke, etc.).*

*m. Environmental mitigations and issues (what has been done):*

*i. dust: number of working bowsers, number of waterings/day, number of complaints, warnings given by environmentalist, actions taken to resolve; highlights of quarry dust control (covers, sprays, operational status); % of rock/muram/spoil lorries with covers, actions taken for uncovered vehicles;*
*ii. erosion control: controls implemented by location, status of water crossings, environmentalist inspections and results, actions taken to resolve issues, emergency repairs needed to control erosion/sedimentation;*
*iii. quarries, borrow areas, spoil areas, asphalt plants, batch plants: identify major activities undertaken this month at each, and highlights of environmental and social protection: land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation;*
*iv. blasting: number of blasts (and locations), status of implementation of blasting plan (including notices, evacuations, etc.), incidents of off-site damage or complaints (cross- reference other sections as needed);*
*v. spill cleanups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination);*
*vi. waste management: types and quantities generated and managed, including amount taken offsite (and by whom) or reused/recycled/disposed on-site;*
*vii. details of tree plantings and other mitigations required undertaken this month;*
*viii. details of water and swamp protection mitigations required undertaken this month.*

*n. compliance:*

*i. compliance status for conditions of all relevant consents/permits, for the Work, including quarries, etc.): statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance;*
*ii. compliance status of ESMP/ESIP requirements: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance*
*iii. other unresolved issues from previous months related to environmental and social: continued violations, continued failure of equipment, continued lack of vehicle covers, spillsnot dealt with, continued compensation or blasting issues, etc. Cross-reference other sections as needed.*

## 3. Requirements for the preparation of the Code of Conduct

The Concessionaire shall submit the Code of Conduct that will apply to the Concessionaire's employees and sub-concessionaires. The Code of Conduct shall ensure compliance with the ESHS provisions of the Concession Agreement, including those as may be more fully described in the following:

a. Works Requirements described in Concession Agreement;
b. Environmental and Social Impact Assessment (ESIA);
c. Environmental Management Plan (EMP);
d. Consent Conditions (regulatory authority conditions attached to any permits or approvals for the project).

## MINIMUM REQUIREMENTS FOR THE CODE OF CONDUCT

A minimum requirement for the Code of Conduct should be set out, taking into consideration the issues, impacts, and mitigation measures identified in:

- project reports e.g. ESIA/ESMP
- consent/permit conditions
- required standards including World Bank Group EHS Guidelines and PerformanceStandards
- national legal and/or regulatory requirements and standards (where these represent higher standards than the WBG EHS Guidelines and PS)
- relevant standards e.g. Workers‟ Accommodation: Process and Standards (Indian Standards, and in the absence of such Indian Standards those of IFC and EBRD)
- relevant sector standards e.g. workers accommodation
- grievances redress mechanisms.

The types of issues identified could include risks associated with: labor influx, spread of communicable diseases, sexual harassment, gender based violence, illicit behavior and crime, and maintaining a safe environment etc.

A satisfactory code of conduct will contain obligations on all project staff (including sub- concessionaires and day workers) that are suitable to address the following issues, as a minimum.
Compliance with applicable laws, rules, and regulations of the jurisdiction

1. Compliance with applicable health and safety requirements (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment)
2. The use of illegal substances
3. Non-Discrimination (for example on the basis of family status, ethnicity, race, gender, religion, language, marital status, birth, age, disability, or political conviction)
4. Interactions with community members (for example to convey an attitude of respect and non-discrimination)
5. Sexual harassment (for example to prohibit use of language or behavior, in particular towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)
6. Violence or exploitation (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading or exploitative behavior)
7. Protection of children (including prohibitions against abuse, defilement, or otherwise unacceptable behavior with children, limiting interactions with children, and ensuring their safety in project areas)
8. Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas)
9. Avoidance of conflicts of interest (such that benefits, Concession Agreement, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family, or personal connection)
10. Respecting reasonable work instructions (including regarding environmental and social norms)
11. Protection and proper use of property (for example, to prohibit theft, carelessness or waste)
12. Duty to report violations of this Code
13. Non retaliation against workers who report violations of the Code, if that report is made in good faith.

The Code of Conduct should be written in plain language and signed by each worker to indicate thatthey have:

- received a copy of the code;
- had the code explained to them;
- acknowledged that adherence to this Code of Conduct is a condition of employment; and
- understood that violations of the Code can result in serious consequences, up to and including dismissal, or referral to legal authorities.

**4. <u>Guidelines for staffing of a Core team of 3 people for implementation of theConcessionaire's ESHS obligations</u>**

| Sl. No. | Key Position | Minimum Qualifying Requirement | | |
|---|---|---|---|---|
| | | Total Work Experience (years) | Experience in Similar Works (years) | Minimum Education Qualification |
| 1. | Safety Specialist* | 10 | 5 | B.E. /B. Tech or Equivalent with Specialization / additional qualification in EHS related field. |
| 2. | Environmental Specialist & Health Expert* | 10 | 5 | B.E./B. Tech or Equivalentwith Specialization /additional qualification in Environment related field |
| 3. | Social Specialist* | 10 | 5 | Master's degree in SocialWork or equivalent |

* He/she should have worked as a sole expert for Urban Infrastructure projects. Experience in environment / safety / Social Risk Assessment, resettlement and rehabilitation and Management plans related to similar project would be preferred.

**5. Minimum Requirements and Guidelines for the preparation of the Screening Report**

The extent of assessment required to identify and mitigate the impacts largely depends upon the complexities of project activities. The scrutiny and screening will be based on a detailed Environment and Social Screening exercise, summarized in the following Format:

| Environment and Social information format for screening | | | |
|---|---|---|---|
| | Project Title: Implementing agency: Project cost:<br>Project components:<br>Project location (Area/ district) | | |
| | **Screening Criteria** | **Assessment of category (High/low)** | **Explanatory Note for categorization** |
| 1 | Is the project in an eco-sensitive area or adjoining an eco-sensitive area? (Yes/No) If yes, which is the area? Elaborate impactaccordingly. | | |
| 2 | Will the project create significant/ limited/ no social impacts?<br>• Involuntary land taking resulting in loss of income from agricultural land, plantation or other existing land-use.<br>• Involuntary land taking resulting in relocation of title holder or non-titleholder households.<br>• Any reduction of access to traditional and river dependent communities (to river and areas where they earn for their primary or substantial livelihood).<br>• Any displacement or adverse impact on tribal settlement(s).<br>• Any specific gender issues. | | |

| Environment and Social information format for screening | | | |
|---|---|---|---|
| | Project Title: Implementing agency: Project cost:<br>Project components:<br>Project location (Area/ district) | | |
| 3 | Will the project create significant / limited / no environmental impacts during the construction stage? (Significant / limited / noimpacts)<br>• Clearance of vegetation/ tree-cover<br>• Direct discharge of construction run-off, improper storage and disposal of excavation spoils, wastes and other construction materials adversely affecting water quality and flow regimes.<br>• Flooding of adjacent areas<br>• Improper storage and handling of substances leading to contamination of soil and water<br>• Elevated noise and dust emission<br>• Disruption to traffic movements<br>• Damage to existing infrastructure, public utilities, amenities etc.<br>• Failure to restore temporary construction sites<br>• Possible conflicts with and/or disruption to local community<br>• Health risks due to unhygienic conditions at workers" camps<br>• Safety hazards during construction | | |
| 4 | Will the project create significant / limited / no environmental impacts during the operational stage? (Significant / limited / no impacts)<br>• Flooding of adjacent areas<br>• Impacts to water quality due to effluent discharge<br>• Gas emissions<br>• Safety hazards | | |
| 5 | Do projects of this nature / type require prior environmental clearance either from the MOEF&CC or from a relevant department? (MOEF&CC/ relevant department/ No clearance at all) | | |
| 6 | Does the project involve any prior clearance from the MOEF&CC or State Forest department for either the conversion of forest land or for tree-cutting? (Yes/ No).<br><br>If yes, which? | | |
| 7 | Please attach photographs and location maps along with this completed Environmental Information Format for Screening. | | |
| **Overall assessment** | | | |

- Detailed explanation/ justification for arriving at specific category (high/ low) to be provided in the specified column

| | |
|---|---|
| (Designation) | (Designation) |
| (Address) | (Address) |

**SCHEDULE 11**
**TESTS**
*(See Article 14)*

**1. Schedule for Tests**

1.1. The Concessionaire shall, no later than [30 (thirty)] days prior to the likely completion of the Construction Period, notify the Authority/Project Engineer of its intent to subject the Project Facilities to Tests, and no later than [7 (seven)] days prior to the actual date of Tests, furnish to the Authority/Project Engineer detailed inventory and particulars of all works and equipment forming part of the Project Facilities.

1.2. The Concessionaire shall notify the Authority/Project Engineer of its readiness to subject the Project Facilities to Tests at any time after [7 (seven)] days from the date of such notice, and upon receipt of such notice, the Authority/Project Engineer shall, in consultation with the Concessionaire, determine the date and time for each Test and notify the same to the Authority who may designate its representative to witness the Tests. The Authority/Project Engineer shall thereupon conduct, or cause to be conducted, any of the following Tests in accordance with Article 14 and this Schedule.

**2. Tests**

5.1. In pursuance of the provisions of Article of this Agreement, the Authority/Project Engineer shall conduct, or cause to be conducted, the Tests specified in this Paragraph 2.

**5.2. Visual and Physical Test**

The Authority/Project Engineer shall conduct a visual and physical check of the Project Facilities, to determine that all works and equipment forming part thereof conform to the provisions of this Agreement.

**5.3. Trial run**

The Authority/Project Engineer shall require the Concessionaire to carry out or cause to be carried out a trial run of all equipment, facilities and systems to determine that the Project Facilities are in conformity with the provisions of this Agreement.

**5.4. Tests for equipment**

The Authority/Project Engineer shall conduct or cause to be conducted Tests, in accordance with Good Industry Practice, for determining the compliance of all systems and equipment comprising the Project Facilities.

**5.5. Environmental audit:**

The Authority/Project Engineer shall carry out a check to determine conformity of the Project with the environmental requirements set forth in Applicable Laws and Applicable Permits.

**5.6. Safety review:**

The Authority/Project Engineer shall carry out a safety audit of the Project to determine its compliance with the provisions of this Schedule and this Agreement.

**3. Agency for Conducting Tests**

All Tests set forth in this Schedule shall be conducted by the Authority/Project Engineer or such other agency or person as it may specify in consultation with the Authority.

## 4. Inspection by the Authority/Project Engineer

Upon successful completion of Tests, the Project Engineer shall submit an Inspection Report in accordance with the provisions of Article.

**SCHEDULE 12 A**
**FORMAT FOR [MILESTONE] COMPLETION CERTIFICATE**

**To whom it may concern**

In consideration of the requirements of conditions of the Agreement and the Concessionaire's application for a Completion Certificate, the Authority hereby grants the Completion Certificate.

This Completion Certificate is issued on the understanding that the conditions of the Agreement have been met except for minor outstanding work that does not affect the use and safety of the [Reclaimed Land/Project Facilities] and their intended use as certified by Authority through its letter dated [•].

Completion Certificate does not relieve the Concessionaire of any requirements or obligations within the Agreement.

Signed this …….. day of ……., 20 …… at ……...

| | |
|---|---|
| AGREED, ACCEPTED AND SIGNED | SIGNED, SEALED AND DELIVERED |
| For and on behalf of | For and on behalf of |
| Concessionaire by: | Authority by: |
| (Signature) | (Signature) |
| (Name) | (Name) |

**SCHEDULE 12 B**
**FORMAT FOR [MILESTONE] COMPLETION CERTIFICATE**

**No Claim Certificate**
(On company Letter-head)

Concessionaire's Name_____
[Address and Contact Details]
Concessionaire's Reference No._____ Date…….

To
**Error! Unknown document property name.**
[Complete address of the Procuring Entity]

Sub: Contract Agreement no. ---------- dated ----------for the supply of ----------

We have received the sum of ₹(Rupees _____only) as final settlement due to us for the supply of_____under the abovementioned contract agreement.

We have received all the amounts payable to us with this payment and have no outstanding dispute of any description whatsoever regarding the amounts worked out as payable to us and received by us.

We hereby unconditionally and without any reservation whatsoever, certify that we shall have no further claim whatsoever, of any description, on any account, against the **Error! Unknown document property name.**, under contract above. We shall continue to be bound by the terms and conditions of the contract agreement regarding its performance.

Yours faithfully,

Signatures of concessionaire or
officer authorised to sign the contract documents.
on behalf of the concessionaire
(Company Seal)

Date:__

**SCHEDULE 13**
**FORMAT FOR DAILY WEIGHT SHEET**

| | |
|---|---|
| **Weighbridge details** | |
| **Location** | |
| **Capacity** | |
| **Date** | |
| **Time in** | |
| **Time out** | |
| **Truck no.** | |
| **Tier weight (tons)** | |
| **Full weight (tons)** | |
| **Waste quantity (Full weight – tier weight)** | |