



REQUEST FOR PROPOSAL

FOR

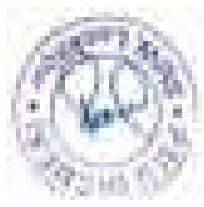
“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”

(RFP NO. D.680/EE/23 Dated: 06/11/2023)

VOLUME-I

INSTRUCTION TO BIDDERS

Lucknow Municipal Corporation



Disclaimer

The information contained in this **Request for Proposal** (hereinafter referred to as "RFP") document provided to the Bidders, by **Lucknow Municipal Corporation/ Lucknow Nagar Nigam, Uttar Pradesh** or any of their employees or advisors, is provided to the Bidder(s) on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided. The purpose of this RFP document is to provide the Bidder(s) with information to assist the formulation of their proposals. This RFP document does not purport to contain all the information each Bidder may require. This RFP document may not be appropriate for all persons, and it is not possible for ULB, their employees or advisors to consider the business/ Investment objectives, financial situation and particular needs of each Bidder who reads or uses this RFP document. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP document and where necessary obtain independent advice from appropriate sources. ULB, their employees and advisors make no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the RFP document. ULB may, in their absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this RFP document.

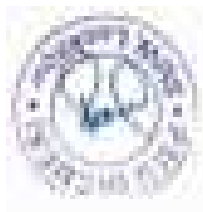
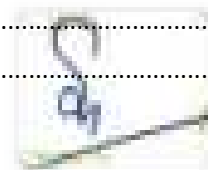
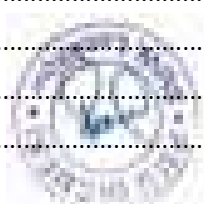


Table of Contents

1. Background & Project Area	6
2. Proposed Project	8
3. Eligible Bidders	10
4. Additional Requirements for submitting Proposal by a Consortium	11
5. Conflict of Interest	12
6. Number of Proposals	13
7. Validity of Proposal	13
8. Proposal Preparation Cost	13
9. Earnest Money Deposit (EMD)	13
10. Format and Signing of Proposal	14
11. Original Document to be submitted by the Bidder	15
12. Proposal Due Date	16
13. Bidder's Responsibility	17
14. Pre-Proposal Meeting	18
15. Opening of Proposals and Clarifications	18
16. Evaluation	19
17. Execution of Concession Agreement	21
18. Performance Security	21
19. Cost of RFP document	22
20. Empanelment	22
Appendix – A	24
Appendix – B	27
Appendix – C	28
Appendix D1	33
Appendix D2	35
Appendix – E	38
Appendix – E1	40
Appendix – F	42
Appendix – G	51
Appendix – H	52
Appendix – I	55
Appendix – J	61



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i.) The Request for Proposal Document Contents

The RFP document includes following document

Volume-I	Instruction to Bidders
Volume- II	Project Information Memorandum
Volume-III	Draft Concession Agreement

ii.) Schedule of Bidding Process

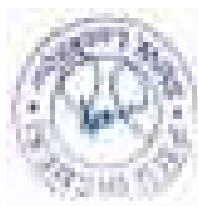
Tender Notice Number	
Notice Inviting Tender (NIT)	Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres
Date of Purchase/download of RFP Documents	11/11/2023 by 5:00 PM
Submission of Pre-Bid Queries by prospective Bidders	16/11/2023 up to 5:00 PM
Pre-Bid Meeting date and venue	Prebid meeting Date: 17/11/2023 , Time: 4:00 PM Interested bidder must send their queries at envengrnnlko@gmail.com latest by 5:00 PM on 16.11.2023. Bidder can attend the Prebid Meeting both by physical as well as Online mode. The venue to attend Pre-bid meeting by physical mode shall be “Meeting Hall, Lucknow Municipal Corporation, Lalbag, Lucknow”. Bidder interested to attend Pre-bid meeting by online mode shall send their request to share the link at envengrnnlko@gmail.com latest by 5:00 PM on 16.11.2023.
Bid Due Date (Online submission)	Date: 25.11.2023 Time: up to 3:00 pm
Technical Bid- Opening Date and Time	Date: 25.11.2023 Time: at 5:00 pm
Bid Opening Place	Office of the Environment Engineer,

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Bid Validity	180 (One Hundred and Eighty Days) from the Bid- Due Date
Financial Bid Opening Date	To be informed after the evaluation of Technical Bid
Address: [Place of receipt of physical copy submission] Contact: E mail:	Office of the Environment Engineer, RR Workshop Road, Lucknow.
Cost of Tender (RFP) Document	The cost of tender documents is INR. 50000.00 (Rupees Fifty Thousand Only) which is non – refundable and shall be paid through Demand Draft in favour of the Commissioner, Municipal Corporation of Lucknow, payable at Lucknow.
Earnest Money Deposit/ Bid Security	Bid Security of Rs. Two Crores Thirteen Lacs Only (2.13 Crores) refundable not later than 180 (One Hundred Eighty) days from the Bid Due Date in form of a Demand Draft or Fixed Deposit Receipt (FDR) or Bank Guarantee (BG) from any Scheduled/Nationalized Bank in India drawn in favor of the Commissioner, Municipal Corporation of Lucknow and payable at Lucknow, India and the validity period of the demand draft or FDR should be of 180 (one hundred and eighty) days and for Bank Guarantee (BG) the validity should not be less than 180 (one hundred and eighty) inclusive of a claim period of 30 (thirty) days.
Hard Copy submission	25/11/2023 Time: Up to 5:00 pm
Bidders barred from bidding of this tender	Single bidders / Consortium partners under suspension, debarred, blacklisted, by Gol, GoUP, PSUs, or whose contracts stand terminated as on Bid Due Date are ineligible to apply for this tender.

Note:

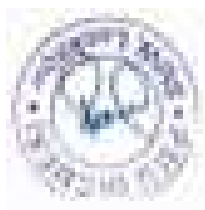
1. If the Bid Due Date happens to be Public Holiday, then Bid will be opened on the next working day at the same venue and time
2. The bidder may submit the EMD and cost of tender documents through either online or offline mode
3. Financial Bid to be uploaded online only and no hard copy to be submitted
4. EMD amount mentioned in NIT shall not be deemed to be equal to 2% of project cost.



“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Section – I

Instructions to Bidders



“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

1. Background & Project Area

1.1 Background

Lucknow, the capital of Uttar Pradesh, is located at It was established in 1884 as Lucknow Municipal Board. The city stretches to an area of around 631 Sq Km.

Table no. 1 provides broad details of the Project Area:

Table 1: General Profile of LMC Area

Particulars	Zone – II	Zone – V	Zone – VIII
Population (2023)	384699	352196	497983
Projected Population (2031)	447451	409646	579214
No. of Households (2023)	73082	66907	94603
Area (sq. km)	12.276	52.426	135.449
No. of Wards	11	9	13
Total Road/street Length (Km)	257.286	1561.354	1558.318
K.C Drains upto 45 cm (kms) (to be cleaned once in week)	129	781	779
Drains above 45cms and upto 1 meters (to be cleaned once in 15 days)	21.05	53.11	52.8

The Municipal Corporation of Lucknow (LMC) is responsible for providing municipal and civic services within its jurisdiction. One of the major components is scientific management of solid waste in compliance with Solid Waste Management (SWM) Rules 2016 and other applicable rules as well as regulations.

The Collection & Transportation (C&T) of solid waste is a vital cog in the wheel for overall success of a SWM system for public health and hygiene. LMCC intends to do the C&T of solid waste (SW) which shall comply with the SWM Rules 2016 and has adopted higher efficiency standards as per the good industry practice.

LMC intends to harness private sector specialization in technical know-how, higher capital efficiency and good labor productivity for delivering C&T services of solid waste on a sustainable basis.

1.2 The Project Area

The Project Area is 200.15 sq.km and consists of three Zones namely Zone-2, Zone-5 and Zone-8. The zone wise wards are mentioned in the table 2 below:

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”

Table 2: Project Area Details

Zone	Name	No. of Wards	Area (Sq. Km.)
1	Zone – 2	11	12.276
4	Zone – 5	9	52.426
7	Zone – 8	13	135.449

It must be noted that all the zones except Zone 2, have newly added areas and hence will be susceptible to probability of higher rates of population and economic growth which in turn would impact both the quantity and composition of SW generated in these areas.

The base map below depicts the Project Area for Package 2

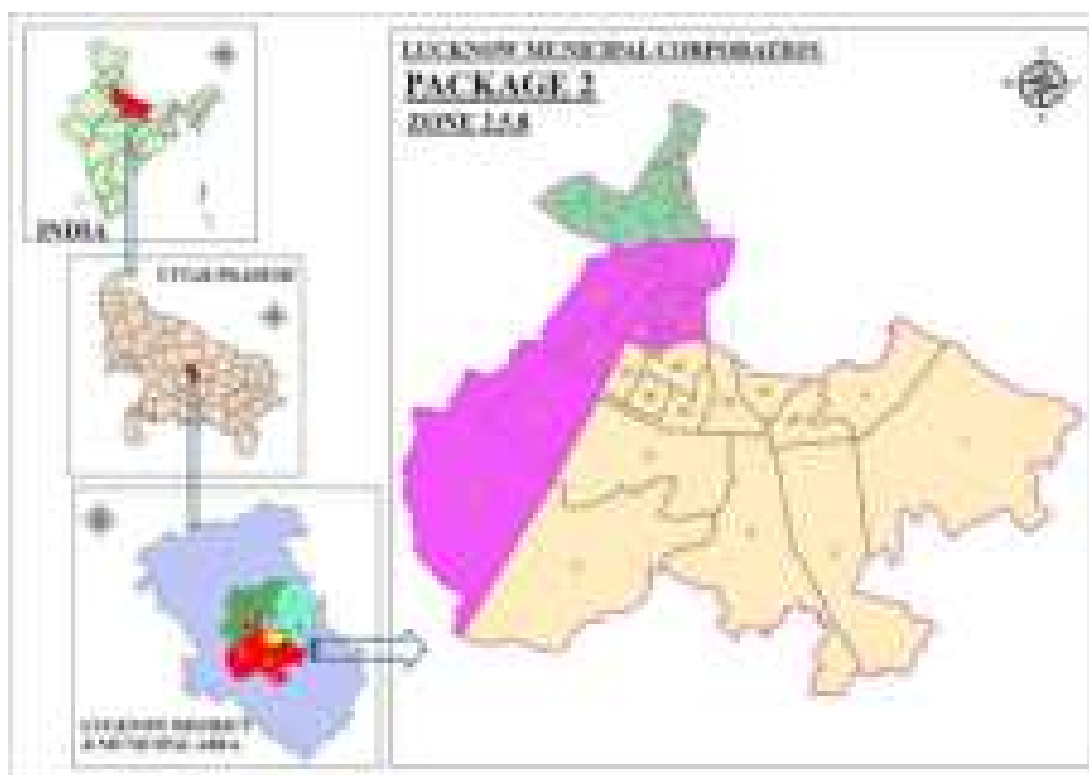


Figure 1: Project Area Map (Battery Limit)

The indicative projected population is appended in Table 3 below. However, the prospective bidder can use their own scientific method and other sources while assessing the projected population and estimating the infrastructure requirements

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thereon

Table 3: Zone wise indicative projected population

Zone	Projected Population (in Number)			
	2026	2031	2041	2051
Zone 2	405616	447451	550364	676948
Zone 5	371346	409646	503865	619754
Zone 8	525060	579214	712433	876293
Total	1302022	1436311	1766662	2172995

Source: LMC

2. Proposed Project

2.1 The Solid Waste Management Rules, 2016 (herein after referred to as “SWM Rules”) mandate that Urban Local Bodies (ULB) shall do door to door collection and Transportation of MSW. ULB shall also carry out treatment and disposal of Municipal Solid Waste (MSW) in a scientific manner in waste processing and engineered sanitary landfill facilities. SWM Rules also mandate that MSW shall be treated and only inert / non-biodegradable material should be landfilled.

2.2 In view of providing clean and environment friendly waste management services in city Lucknow Municipal Corporation (LMC) intends to invite bid under a **Design-Build - Operate - Transfer (DBOT)** Concession framework (hereinafter referred to as “the Project”) for a Concession period of 10 years after Appointed Date and extendable to 5 years. The extension in contract period will be solely dependent upon concessionaire performance in First 10 years of contract period.

2.3 Major scope of works to be executed by the successful bidder in the city are as listed below:

- Door to Door Collection of segregated MSW from Household, commercial, institutional and other area and its transportation to the MRF/designated site on daily basis.
- Design, Develop and Operation & Maintenance of MRF cum Transfer station/PCTS/FCTS and recovery of recyclables.
- Secondary Transportation of wet and dry waste separately to designated processing site.
- Manual Road/Street /pavement / footpath / paved path /cycle track sweeping, and Removal of garbage, litter, silt and blockages from street sides and transportation of sweeping Waste to designated disposal site/collection centres.
- Cleaning of drain size upto 45cm shall be done on a weekly basis, and drains above 45 cm and up to 1.0 meter shall be cleaned once every 15 days and are required to transport the collected silt to designated disposal sites or collection

- centres. Drains covered with sone or slab shall also be cleaned periodically by manual/mechanical system.
- f. Collection & Transportation of Horticulture Waste to designated processing site.
 - g. Collection & Storage of Domestic Hazardous Waste to designated collection center.
 - h. Collection of user charges from households, commercial establishment, institutional establishment & BWG's on behalf of Lucknow Municipal Corporation and deposit it into Escrow account of Lucknow Municipal Corporation.
 - i. Build, Operate & Maintain workshop for maintenance of vehicle/equipment.
 - j. Setup a command-and-control centre cum control room for online monitoring and equipped with emergency response mechanism.

The Project also entails the Concessionaire to obtain all necessary statutory consent and clearances required for implementation of the Project, carry out IEC Activities, and ensure Environmental Health and Safety (EHS) compliance and safe handing over of the DHW to the authorized agency.

2.4 The proposed model for Collection and Transportation of SW is “Cost of Service Delivery Model” (KPI based) instead of normally used “Tipping Fee Model”. The main reason is to shift the Concessionaire’s focus on minimization of Solid Waste (SW) sent to processing and disposal site by way of various interventions like Decentralized Processing Units, creating public awareness & participation through IEC activities. The Concessionaire shall focus on measurable Key Performance Indicators (the “KPIs”) which shall be constantly monitored by the PMC and the Authority.

2.5 The Authority intends to create and implement a performance-based payment mechanism wherein the payment shall made on the basis of evaluation of actual performance of the Concessionaire by the PMC , in terms of KPIs detailed out in Schedule 14 of Draft Concession Agreement Volume III of this RFP

2.6 The concessionaire shall be paid by the on a monthly basis for the services provided by concessionaire in the project area on the basis of rates quoted in financial bid. The expenditure for this project comprises of wages, diesel and consumables whose price levels may change over the project period. Hence, to account for these changes in price levels, the Initial Quote shall be rebased as per the formula mentioned in Schedule 16 of the Draft Concession Agreement of this RFP. Further to this, the detailed payment and penalty mechanism is mentioned in Schedule 14 of the Draft Concession Agreement of this RFP document.

2.7 LMC shall provide to concessionaire the existing vehicles not more than Five (5) years old for immediate handholding and smooth start of work. The Concessionaire shall be responsible to procure all shortfall vehicle and equipment before COD and during active

operation period as per approved operation plan submitted in accordance to clause 4.2.1(a) of concession agreement. For more clarity, concessionaire shall be responsible to procure all the vehicle and equipment required for door-to-door collection of waste, Secondary transportation of segregated waste from MRF cum transfer facility to designated processing Plant, equipment required for Road sweeping, vehicles required for transportation of sweeping silt, equipment required for Drain Cleaning, vehicles required for transportation of drain silt and vehicle required for transportation of horticulture waste at their own cost and financing arrangement. The specification and quantity of such vehicles/equipment shall be approved by LMC before their procurement.

Whereas, LMC shall be responsible to provide 100% capital grant for construction of MRF cum PCTS, MRF cum FCTS, MRF cum Static Compactor Transfer Station & supply, erection and commissioning of required machinery for these facilities. Concessionaire shall be responsible to construct such facility in accordance to the provisions of this agreement on the basis of detailed specification, as built drawing approved by LMC. Concessionaire shall also be responsible for operation & maintenance of project component including supply of manpower, fuel, minor tools and tackles.

2.8 Deleted

2.9 The brief scope of work is set out in Appendix A and the detailed scope of work has been set out in the Project Information Memorandum.

2.10 The proposals would be evaluated on the basis of the evaluation criteria set out in this RFP document as per Appendix D in order to identify the successful Bidder for the Project (hereinafter referred to as “Successful Bidder”). The Successful Bidder would then have to enter into a Concession Agreement with the ULBs and perform the obligations as stipulated therein, in respect of the Project.

2.11 Terms used in this RFP document, which have not been defined herein, shall have the meaning ascribed thereto in the Concession Agreement.

3. Eligible Bidders

3.1 Bidders who fulfil the pre-qualification criteria indicated in Appendix D are eligible to submit Technical and Financial Proposal in response to this RFP Document.

3.2 The Bidders eligible for participating in the qualification process shall be any one of the following two categories:

Category 1: A single Business Entity meeting the qualification criteria as set out in Proof of Qualification

Category 2: In case the Bidder, which is a Business Entity, (hereinafter referred to as “Lead Member”) does not individually fulfil qualification criteria as set out in Proof of

Qualification, the same may be procured from a suitably qualified operators, (hereinafter referred to as "Operators"), with whom a valid Memorandum of Understanding (hereinafter referred to as "MoU") formalizing such an arrangement should be in place. The Operator must also be a Business Entity. This joint entity shall hereinafter be referred to as "Consortium".

The term Bidder used hereinafter would therefore apply to both the above-mentioned categories.

3.3 Only those Bidders who's Technical Bids meet the Minimum Technical Capability and Minimum Financial Capability Criteria shall be further evaluated on the basis of Evaluation Criteria as set out under Appendix D of the RFP. Bidders who's Bid do not meet the aforesaid Minimum Technical Capability and Minimum Financial Capability Criteria shall be rejected.

3.4 Any entity, which has earlier been barred/backlisted by ULBs / Government of Uttar Pradesh/any other government agency from participating in any project being undertaken by ULB / Government of Uttar Pradesh/ any other government agency (insert abbreviated name of state), would not be eligible to submit a Proposal, if such bar/blacklisting subsists as on the Proposal Due Date.

3.5 The Selected Bidder shall be required to incorporate a wholly owned SPV under the Companies Act, 2013 to act as the Concessionaire. Where the Bidder is a Consortium; it shall, in addition to forming an SPV as its wholly owned company (if it is the Selected Bidder), comply with the following additional requirements:

4. Additional Requirements for submitting Proposal by a Consortium

4.1 Number of members in consortium shall not exceed 2 (two).

4.2 Wherever required, the Proposal shall contain the information required of each of the members of the Consortium.

4.3 The members of the Consortium shall furnish Power of Attorney duly signed by authorized representative(s) of the members.

4.4 The Application should include a brief description of the roles and responsibilities of individual members, particularly with reference to financial, technical and O&M obligations;

4.5 The Proposal shall be signed by the duly authorized signatory of the Lead Member and shall be legally binding on all the members of the Consortium.

4.6 The Consortium shall submit a MoU as part of its Proposal. The MoU shall, inter alia, include the following:

- a) Convey the intent of the Lead Member to incorporate a wholly owned SPV under the Companies Act, 2013 to act as the Concessionaire, with the Operator/operators. In case the Project is awarded to the Consortium or joint venture Company, as the case

may be, Concessionaire would enter into a Concession Agreement with the LMC and shall subsequently carry out all the responsibilities as Successful Bidder in terms of the Concession Agreement.

- b) The Parties undertake that they shall collectively hold 100% shareholding of the paid up Equity of the SPV [as defined in Concession Agreement] share capital of the concessionaire commencing from the Execution Date of the concession agreement until expiry of five years thereafter, and shall hold at least 51% (fifty one per cent) shareholding of the subscribed and paid up equity of the Concessionaire at all times during the remaining Concession Period i.e. from expiry of aforesaid five years period until end of concession period. Further, in case of Consortium bidding entity, besides the foregoing shareholding requirement, the bidding Consortium shall ensure that the Lead Member thereof holds at least 51% shareholding in the paid up equity capital of the Concessionaire during Lock-in-Period, and the other members of consortium shall hold during Lock in Period minimum 25% (twenty Five per cent) shareholding in the paid up equity capital of the Concessionaire; and after the expiry of Lock-in -Period, the Lead Member shall be required to hold at least 26% shareholding in the paid up equity capital of the Concessionaire commencing from the expiry of Lock-in-Period until expiry of concession period with the aggregate shareholding of the Consortium member in the Concessionaire shall not be less than 40%. No change in shareholding of the selected bidder [either single Bidding Entity/ Bidding] as set out herein and (as to be reiterated in the Joint Bidding Agreement) in the Concessionaire shall take place.
- c) Clearly set out the roles and responsibilities of each Member of the Consortium for implementing the Project.
- d) Include a statement to the effect that the members of the Consortium shall be jointly liable for the implementation of the Project in accordance with the terms of the Concession Agreement.
- e) In naming the Lead Member and the Operator of the Consortium, it should include their successors and permitted assigns.

A copy of the MoU should be submitted as part of the Proposal. The MoU entered into between the Members of the Consortium should be specific for the Project and should contain the above requirements, failing which the Proposal would be liable to be considered as non-responsive.

5. Conflict of Interest

- 5.1. A Bidder shall not have a conflict of interest that may affect the Selection Process or the Work (the “Conflict of Interest”). Any Bidder 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 Bidder's Proposal, without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise.

5.2. The Authority requires that the Agency provides professional, objective, and impartial solution and at all times hold the Authority's interest's paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Agency 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.

5.3. A Bidder eventually appointed for this Project shall be disqualified from subsequently providing goods or works or services related to the implementation of any other LMC Project and any breach of this obligation shall be construed as Conflict of Interest; provided that the restriction herein shall not apply after a period of 1 (one) year from the completion of this assignment.

6. Number of Proposals

Each bidder can submit only one proposal for a single work in response to this RFP. Any bidder who submits more than one proposal, whether individually or as part of a consortium, will be disqualified, and this action may also lead to the disqualification of the entire consortium.

7. Validity of Proposal

The Proposal shall remain valid for a period not less than 180 days from the Proposal Date (hereinafter referred to as "Proposal Validity Period"). LMC reserves the right to reject any Proposal, which does not meet the requirements.

8. Proposal Preparation Cost

The Bidder shall be responsible for all the costs associated with the preparation of its Proposal and its participation in the bidding process. LMC will not be responsible or in any way be liable for such costs, regardless of the conduct or outcome of the Proposal.

9. Earnest Money Deposit (EMD)

9.1 Each Proposal shall be accompanied by **EMD of Rs. Rs 2,13,00,000 /- (Rupees Two Crore Thirteen Lacs Only)**, which shall be valid for a minimum period of 180 days (one hundred and eighty) from the bid due date, in the form of a demand draft/ bank guarantee (as per format attached at Appendix H) issued by a Scheduled Commercial Bank in India having a branch in Lucknow, in favour of "**Lucknow Municipal Corporation**", payable at

Lucknow (“Bid Security”) and refundable not later than 180 (one hundred and eighty) days from the Bid Due Date, except in the case of the Selected Bidder whose Bid Security shall be retained till it has provided a Performance Security in terms hereof.

9.2 The EMD shall be either in the form of a Bank Guarantee / banker’s cheque/FDR drawn in favour of the **MUNICIPAL COMMISSIONER, LUCKNOW MUNICIPAL CORPORATION**, on any Nationalized/scheduled bank and payable at Lucknow.

9.3 The EMD of every unsuccessful Bidder would be returned within a period of 2 weeks from the date of LMC announcement of the Successful Bidder. The EMD submitted by the Successful Bidder would be released upon furnishing of the Performance Security, by way of an irrevocable Bank Guarantee, issued by a scheduled bank/nationalised bank located in India in favour of **MUNICIPAL COMMISSIONER, LUCKNOW MUNICIPAL CORPORATION** for due and punctual performance of the obligations relating to the Project.

9.4 The EMD shall be forfeited in the following cases:

- a) If the Bidder withdraws its Proposal during the interval between the Proposal Due Date and expiration of the Proposal Validity Period.
- b) If the Successful Bidder fails to provide the Performance Security within the stipulated time or any extension thereof provided by LMC; and
- c) If any information or document furnished by the Bidder turns out to be misleading or untrue in any material respect.

10. Format and Signing of Proposal

10.1 The Proposal and all related correspondence and documents should be written in English. Supporting documents and printed literature furnished by the Bidder with the Proposal may be in any other language provided that they are accompanied by certified translations of the pertinent passages in English language. Supporting materials, which are not translated into English, may not be considered for the purpose of interpretation and evaluation of the Proposal, the English language translation shall prevail.

10.2 The currency for the purpose of the Proposal shall be the Indian Rupee (INR). If the Proposal is submitted in any other currency, LMC reserves the right to use suitable exchange rate for the purpose of uniformly evaluating all Proposals.

10.3 The Bidder would provide all the information as per this RFP. LMC would evaluate only those Proposals that are received in the required format and are complete in all respects.

10.4 The bidder shall upload the Technical Bid and Financial Bid in the respective links for the **“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to**

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”

designated processing facility/disposal site/collection centres” in the website <https://etender.up.nic.in>

10.5 Each Proposal shall comprise the following:

A. Part I Submission

- a. Covering letter in the format set out in Appendix B
- b. Details of the Bidder in the format set out in Appendix C
- c. Copy of the certificate of registration issued by the authority concerned (In case of a registered firm or society), Proof of qualification, Work Completion Certificates (for experience in Similar Projects), Financial Capability of the Bidder as set out in Appendix D.
- d. Power of Attorney set out in Appendix E (Applicable both for Single Business Entity and Consortium). Power of Attorney set out in Appendix E1 (only in case of Consortium).
- e. Memorandum of Understanding entered between Lead Member and Operator as set out in Clause 4.6 and format set out in Appendix F (only in case of Consortium)
- f. Anti – Collusion Certificate as per Appendix G
- g. Proof of Qualification in the format set out in Appendix D
- h. Tender Fee in the form of demand draft for Rs. **50,000.00 (Rupees Fifty Thousand only)** in favour of **MUNICIPAL COMMISSIONER, LUCKNOW MUNICIPAL CORPORATION**, Payable at Lucknow
- i. Technical Proposal as per format set out in Appendix I
- j. Copy of Earnest Money Deposit as per Clause no. 9

B. Part II Submission

- a. Financial Proposal in the format set out in Appendix J of this RFP

10.6 Aforesaid Technical Bid and Financial Bid shall be uploaded in the respective links for the **“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”** in the website <https://etender.up.nic.in>

10.7 The Proposal, scanned and uploaded shall be typed or written in indelible ink and each page shall be initiated by an authorized signatory of the Bidder, as applicable. All the alterations, omissions, additions, or any other amendments made to the Proposal shall also be initiated by the person(s) signing the Proposal.

11. Original Document to be submitted by the Bidder

11.1 Original Document to be Submitted by the Bidder: The Bidder shall be required to

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”

submit the following documents in Original in sealed envelope after the Bid Due Date but prior to the date of Opening of the Technical Bid as specified in the Bid document, in the office of the **MUNICIPAL COMMISSIONER, LUCKNOW MUNICIPAL CORPORATION**, on the address as mentioned in clause 9.2:

- a) DD/ Pay Order towards Cost of Bid Document
- b) Bid Security for an amount and in the form as specified in Clause no. 9
- c) Power of Attorney authorizing the signatory of bid to commit the Bidder in accordance with Appendix E and Appendix E1
- d) Litigation History in the format as specified in clause 6 of Appendix C
- e) Memorandum of Understanding entered between Lead Member and Operator as set out in Clause 4.6 and format set out in Appendix F (only in case of Consortium)

11.2 The queries and Original Document as mentioned under Clause 10 must be submitted to the following address:

Kind attention : **Environmental Engineer, Lucknow Municipal Corporation**
Address : Triloknath Marg, Lalbagh, Lucknow-226001

11.3 The envelope shall indicate the name and address of the Bidder

11.4 The envelope shall clearly bear the following identification

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”

“Submitted by
Name,
Address
Contact Phone No. of the Applicant”

12. Proposal Due Date

12.1 Proposals should be submitted before 5.00 PM IST of Proposal Due Date, in the LMC and form as detailed in this RFP. Only e-tenders will be accepted. Proposals submitted through speed post, facsimile transmission or telex will not be accepted.

12.2 LMC may, in exceptional circumstances, and at its sole discretion, extend the above Proposal Due Date by issuing an Addendum. Any Addendum thus issued will be sent in writing to all those who have purchased the RFP document and would also be posted on the website. The same will also be communicated to those who have downloaded the

RFP document from the website and have duly intimated this fact to LMC giving their particulars including address for communication by fax.

- 12.3 It is desirable that each Bidder submits its Proposal after visiting the Project Site for ascertaining the location, surroundings, or any other matter considered relevant.
- 12.4 Bidders would be granted permission by LMC for visit of the Project Site on receipt of a formal written request, reasonably in advance of the proposed date of visit as mentioned in the Schedule of Bidding Process.
- 12.5 At any time prior to the Proposal Due Date, LMC may, for any reason, whether at its own initiative or in response to clarifications requested by any Bidder, modify the RFP document by the issuance of Addenda. Any Addendum thus issued will be sent in writing to all those who have purchased the RFP document and would also be posted on the website. The same will also be communicated to those who have downloaded the RFP document from the website and have duly intimated this fact to LMC giving their particulars including address for communication by fax.

13. Bidder's Responsibility

- 13.1 The Bidder is expected to examine carefully the contents of all the documents provided. Failure to comply with the requirements of RFP shall be at the Bidder's own risk.
- 13.2 The Bidder is expected to examine carefully the current condition of solid waste management in Zone-2, Zone-5 & Zone-8 of Lucknow and tenderer shall make his own assessment of resources required to meet the service level benchmarks/scope of work defined in this tender.
- 13.3 It shall be deemed that prior to the submission of Proposal, the Bidder has:
- a) made a complete and careful examination of terms & conditions/requirements, and other information set forth in this RFP document;
 - b) Have visited the city/site and have done his own assessment of existing situation of solid waste management.
 - c) have satisfied it-self with local conditions, topography of the land, drainage, accessibility, logistics, work environment etc. or any other condition affecting his price/rates before quoting their rates.
 - d) received all such relevant information as it has requested from LMC; and
 - e) made a complete and careful examination of the various aspects of the Project including but not limited to:
 - i.) the Site and any other property relating to the Project;
 - ii.) status of clearances
 - iii.) existing facilities and structures;
 - iv.) the conditions of the access roads and utilities in the vicinity of the Project Site;

- v.) all other matters that might affect the Bidder's performance under the terms of this RFP document.

13.4 LMC shall not be liable for any mistake or error or neglect by the Bidder in respect of the above.

14. Pre-Proposal Meeting

14.1 To clarify and discuss issues with respect to the Project and the RFP, LMC may hold Pre-Proposal meeting.

14.2 Prior to the Pre-Proposal meeting, the Bidders may submit a list of queries, if any, to the Project requirements and/or the Concession Agreement. Bidders must formulate their queries and forward the same to LMC prior to the meeting. LMC may, in its sole discretion or based on inputs provided by Bidders, amend the RFP.

14.3 Bidders may note that LMC will not entertain any deviations to the RFP at the time of submission of the Proposal or thereafter. The Proposal to be submitted by the Bidders would have to be unconditional and the Bidders would be deemed to have accepted the terms and conditions of the RFP with all its contents including the Concession Agreement. Any conditional Proposal shall be regarded as nonresponsive and would be liable for rejection.

14.4 LMC will endeavour to hold the Pre-Proposal meeting as per the schedule of bidding process. The details of the meeting will be separately communicated to the Bidders.

14.5 Attendance of the Bidders at the Pre-Proposal meeting is not mandatory.

14.6 All correspondence / enquiries should be submitted to the following in writing by fax/registered post / courier:

Kind attention	: Environmental Engineer, Lucknow Municipal Corporation
Address	: Triloknath Marg, Lalbagh, lucknow-226001
E-mail	: envengrnnlko@gmail.com
Phone No	: +91-8726796666

15. Opening of Proposals and Clarifications

15.1 LMC would open the Proposals on any working day within 3 days of the Proposal Due Date for the purpose of evaluation.

15.2 LMC reserves the right to reject any Proposal not submitted on time and which does not contain the information/documents as set out in this RFP document.

15.3 To facilitate evaluation of Proposals, LMC may, at its sole discretion, seek clarifications in writing from any Bidder regarding its Proposal. The request for such clarification or substantiation and the response shall be in writing or by facsimile. No material change in the substance of the Proposal would be permitted by way of such clarification/substantiation.

15.4 Information relating to the examination, clarification, evaluation, and recommendation of the Proposal shall not be disclosed to any person not officially concerned with the process. LMC will treat all information submitted as part of the Proposal in confidence and would require all those who have access to such material to treat the same in confidence. LMC will not divulge any such information unless it is ordered to do so by any authority pursuant to applicable law or order of a competent court or tribunal or any Government Authority that has the power under law to require its disclosure.

16. Evaluation

16.1 Proposal Evaluation: Part I Submission

16.1.1 The Part I Submission of the Proposal would first be checked for responsiveness with the requirements of the RFP. The Proposal would be considered as responsive if it meets the following conditions:

- a) it is received / deemed to be received by the Proposal Due Date including any extension thereof.
- b) it contains all the information and documents as requested in the RFP.
- c) it contains information in formats specified in this RFP.
- d) it mentions the Proposal Validity Period as set out in Clause 7.
- e) it provides information in reasonable detail. (“Reasonable Detail” means that, but for minor deviations, the information can be reviewed and evaluated by LMC without communication with the Bidder). LMC reserves the right to determine whether the information has been provided in reasonable detail.
- f) There are no inconsistencies between the Proposal and the supporting documents.

A Proposal that is substantially responsive is one that conforms to the preceding requirements without material deviation or reservation. A material deviation or reservation is one;

- a) which affects in any substantial way, the scope, quality, or performance of the Project, or
- b) which limits in any substantial way, inconsistent with the RFP, LMC’s rights or the Bidder’s obligations under the Concession Agreement, or
- c) which would affect unfairly the competitive position of other Bidders presenting substantially responsive Proposals.

16.1.2 In case the Proposal is found to be responsive, Part I Submission would be evaluated in accordance with the criteria for qualification of Bidders set out in Appendix D, based on the Proof of Experience submitted by the Bidders and such Bidders would be Qualified Bidders.

- 16.1.3 The Technical Proposal of the Qualified Bidders would be evaluated for adequacy of design and operations so as to comply with the conditions set out in Concession Agreement.
- 16.1.4 As part of the evaluation of the Part I Submission, LMC may also request the Bidder to submit clarifications.
- 16.1.5 The evaluation of the Part II Submission would be taken up only after Part I Submission is found to meet the requirements of this RFP. LMC reserves the right to reject the Proposal of a Bidder without opening the Part II Submission if, in its opinion, Part I Submission is not substantially responsive with the requirements of this RFP.
- 16.2 Proposal Evaluation: Part II Submission
- 16.2.1 Part II Submission of all the Bidders whose Part I Submission meets the requirements of the RFP will be evaluated. The format for quoting the Financial Proposal is set out in Appendix J and Volume III of this RFP. The Bidders would be required to submit their proposal as per this format.
- 16.2.2 Selection Methodology
- 16.2.3 Scoring and bid evaluation will be done as per criteria set out in Appendix D2.
- 16.2.4 The Bidder ranked first in accordance with the above procedure would be declared as the Preferred Bidder.
- 16.2.5 In case there are two or more Bidders quoting the same best Financial Proposal, LMC may in such case call all such Bidders for negotiations and select the Preferred Bidder on the outcome of the negotiations. The selection in such cases shall be at the sole discretion of LMC.
- 16.2.6 If the bidder submits the lowest bid, the successful bidder will be requested to provide rates along with proper justification. If the justification is deemed valid, the contract will be awarded to the successful bidder. However, if the justification is found to be unsatisfactory, the successful bidders will be invited for a negotiation. It is important to note that LMC retains the right to reject or cancel the bid at any given point in time.
- 16.3 LMC reserves the right to reject any Proposal, if:
- a) at any time, a material misrepresentation is made or discovered; or
 - b) the Bidder does not respond promptly and diligently to requests for supplemental information required for the evaluation of the Proposal. Rejection of a Proposal by LMC as aforesaid would lead to the disqualification of the Bidder. If the Bidder is a Consortium, then the entire Consortium would be disqualified/ rejected. If such disqualification / rejection occur after the Proposals have been opened and the Preferred Bidder gets disqualified / rejected, then LMC reserves the right to:
 - a. either select the next best Bidder, or

- b. take any such measure/s as may be deemed fit in the sole discretion of LMC, including Annulment of the bidding process.

16.4 In the event of acceptance of the Preferred Bidder with or without negotiations, LMC shall declare the Preferred Bidder as the Successful Bidder. LMC will notify the Successful Bidder through a Letter of Acceptance (hereinafter referred to as “LoA”) that its Proposal has been accepted.

17. Execution of Concession Agreement

17.1 The Successful Bidder shall execute the Concession Agreement within 4 weeks of the issue of LoA or within such further time as LMC may agree to in its sole discretion.

17.2 Failure of the Successful Bidder to comply with the requirements of Clause 9.3 or Clause 16 shall constitute sufficient grounds for the annulment of the LoA, and forfeiture of the EMD. In such an event, reserves the right to

- a) either invite the next best Bidder for negotiations, or
- b) take any such measures as may be deemed fit in the sole discretion of LMC, including annulment of the bidding process.

18. Performance Security

18.1 The Successful Bidder shall furnish Performance Security of amount **equivalent to 5%** of yearly contract value by way of an irrevocable Bank Guarantee issued by a scheduled /nationalized bank in favour of **MUNICIPAL COMMISSIONER, LUCKNOW NAGAR NIGAM**, as required under the Concession Agreement. If yearly contract value gets escalated in succeeding year of operation, concessionaire shall submit the PBG of extended value.

18.2 The Performance Security shall be in the form of an irrevocable Bank Guarantee in favour of **MUNICIPAL COMMISSIONER, LUCKNOW NAGAR NIGAM**, as per the format set out in the Draft Concession Agreement. The Performance Security shall be kept valid for a period of 24 months from the Appointed Date.

18.3 The Performance guarantee shall be forfeited and en-cashed in the following cases:

- a) If the Successful Bidder withdraws from the project midway during the project term
- b) If during the project term, there Successful Bidder is found to charge user fees which were not agreed.
- c) Any other act or acts of the successful bidder which renders the project un-operational and **LUCKNOW MUNICIPAL CORPORATION**, establishes sufficient reasons to forfeit the Performance Guarantee.
- d) If the bidder fails to meet the service levels as agreed.

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19. Cost of RFP document

- 19.1 The RFP document can be downloaded from <https://etender.up.nic.in>. The cost of RFP document is **Rs. 50,000.00 (Rs. Fifty Thousand Only)**. The Proposals must accompany with cost of RFP document in the form of a bank draft in favour of **“LUCKNOW MUNICIPAL CORPORATION”** of **Rs. 50,000.00 (Rs. Fifty Thousand Only)**. The Bidders may also obtain a hard copy of the RFP from the office of **MUNICIPAL COMMISSIONER, LUCKNOW MUNICIPAL CORPORATION**. The Bidders purchasing the hard copy of the RFP must attach the copy of Receipt along with the Proposal.
- 19.2 To assist in the examination, evaluation, and comparison of Proposals, LMC may utilize the services of consultant(s) or advisor(s)
- 19.3 Notwithstanding anything contained in this RFP, LMC reserves the right to accept or reject any Proposal, or to annul the bidding process or reject all Proposals, at any time without any liability or any obligation for such rejection or Annulment, without assigning any reasons thereof.

20. Empanelment

Lucknow Municipal corporation has invited bid by dividing entire city in Three (3) packages. The successful bidder (L1 Bidder) of all three packages shall be considered as empanelled agencies for future reference.

In case, concessionaire of any package does not perform any part or whole of work and receive less than 60% mark in KPI for continuous three (3) months, LMC shall be free to get the work done by other empanelled agency at the risk and cost of concessionaire of that package.

A committee comprising of Municipal Commissioner, all additional Municipal Commissioner, Chief Engineer (Civil), Chief Engineer (E&M), Chief Finance Officer, Environment Engineer & PMC representative shall be authorised to examine the level of default, necessity to engage other agency and initiate the proceed for awarding the work to another empanelled agency.

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Section – II

Appendices

Appendix – A

Brief Scope of Work

The Brief Scope of Work for the Bidder is as set out below.

1. Major scope of works to be executed by the successful bidder in the city are as listed below:
 - a. Door to Door Collection of Segregated MSW from Household, commercial, institutional and other area and its transportation to the MRF/designated site on daily basis.
 - b. Design, Develop, construct and Operate & Maintain MRF cum Transfer station/PCTS/FCTS and recovery of recyclables.
 - c. Secondary Transportation of wet and dry waste separately to designated processing site
 - d. Manual Road/Street /pavement / footpath / paved path /cycle track sweeping, and Removal of garbage, litter, silt and blockages from street sides and transportation of sweeping Waste to designated disposal site/collection centres.
 - e. Cleaning of drain size upto 45cm shall be done on a weekly basis, and drains above 45 cm and up to 1.0 meter shall be cleaned once every 15 days and are required to transport the collected silt to designated disposal sites or collection centres. Drains covered with sone or slab shall also be cleaned periodically by manual/mechanical system.
 - f. Collection & Transportation of Horticulture Waste to designated processing site.
 - g. Collection & Storage of Domestic Hazardous Waste to designated collection center.
 - h. Collection of user charges from households, commercial establishment, institutional establishment & BWG's on behalf of Lucknow Municipal Corporation and deposit it into Escrow account of Lucknow Municipal Corporation.
 - i. Build, Operate & Maintain workshop for maintenance of vehicle/equipment.
 - j. Setup a command-and-control centre cum control room for online monitoring and equipped with emergency response mechanism

The Project also entails the Concessionaire to obtain all necessary statutory consent and clearances required for implementation of the Project, carry out IEC Activities, and ensure Environmental Health and Safety (EHS) compliance and safe handing over of the DHW to the authorized agency.

Work shall be done essentially as per guidelines of MSW Rule 2016, Swachh Bharat Mission-2, CPHEEO manual and guideline amended thereupon during concession

period.

2. **Financing:** The Concessionaire shall procure shortfall of vehicle and equipment/assets for door-to-door collection, Secondary transportation, Road sweeping & transportation of sweeping silt, Drain Cleaning, transportation of drain silt and transportation of horticulture waste at their own cost and financing. All the specification and quantity of such vehicles/equipment shall be approved by LMC. Whereas, LMC shall be responsible to provide 100% capital grant for construction of MRF cum PCTS, MRF cum FCTS, MRF cum Static Compactor Transfer Station & supply, erection and commissioning of required machinery for these facilities. Concessionaire shall be responsible to construct such facility in accordance to the provisions of this agreement on the basis of detailed specification, as built drawing approved by LMC. Concessionaire shall also be responsible for operation & maintenance of project component including supply of manpower, fuel, minor tools and tackles.

The part of Operations & Maintenance cost would be recovered from sale of Recyclable recovered at MRF to ensure project sustainability. The shortfall in O&M cost shall be provided by LMC in the form of “O&M Fee” as quoted by successful bidder.

3. The Successful Bidder would design, procure, finance, construct, operate and maintain the Project during the Concession Period on a Design-Build – Operate – Transfer (DBOT) Concession basis. The Project would be transferred back in good running condition to the LMC at the end of the Concession Period.
4. The Successful bidder shall be provided O&M Fee as per manner prescribed in Article 8 of Volume III i.e., Concession Agreement. The Successful Bidder shall at its cost, expenses and risk make remaining required financing arrangements, in a timely manner as would be necessary to implement the Project, and to meet all of its obligations under the Concession Agreement.
5. The Successful Bidder shall adhere to the Construction Requirements and achieve Commercial Operations Date (COD) on or before the Scheduled Project Completion Date, as specified in the Concession Agreement.
6. The Successful Bidder may undertake Construction Works by itself or through a Contractor possessing requisite technical, financial and managerial expertise /capability; but in either case, the Successful Bidder shall remain solely responsible to meet the Construction Requirements, as specified in the Concession Agreement.
7. The Successful Bidder shall operate and maintain the Project in accordance with the O&M Requirements as set out in the Concession Agreement.
8. The Successful Bidder shall, at all times, ensure that all aspects of the Project and

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processes employed in the construction, operation and maintenance thereof shall conform with the laws pertaining to environment, health and safety aspects including rules such as SWM Rules, policies and guidelines related thereto.

9. Procurement of all machine, equipment and vehicles, which are under concessionaire part of procurement, should be done on approval of LMC and PMC.

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Appendix – B

Covering Letter

(On the Letterhead of the Bidder or Lead Member in case of a Consortium)

Date:

To

MUNICIPAL COMMISSIONER

Lucknow Municipal Corporation

Lucknow, Uttar Pradesh.

Sub: RFP for “Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Dear Sir,

Being duly authorized to represent and act on behalf of (Herein after referred to as “the Bidder”), and having reviewed and fully understood all of the Proposal requirements and information provided and collected, the undersigned hereby submits the Proposal on behalf of for the Project as specified in the RFP, with the details as per the requirements of the RFP, for your evaluation.

We confirm that our Proposal is valid for a period of ----- days from Proposal Due Date.

We also hereby agree and undertake as under:

Notwithstanding any qualifications or conditions, whether implied or otherwise, contained in our Proposal we hereby represent and confirm that our Proposal is unqualified and unconditional in all respects and we agree to the terms of the proposed Concession Agreement, a draft of which also forms a part of the RFP document provided to us.

Yours faithfully,

For and on behalf of (Name of Bidder)

Duly signed by the Authorised Signatory of the Bidder

(Name, Title and Address of the Authorised Signatory)

Appendix – C

Details of Bidder

(On the Letter Head of the Bidder or Lead Member in case of a Consortium)

1. Details of Bidder.
 - a. Name of Bidder
 - b. Address of the office(s)
 - c. Date of incorporation and/or commencement of business
2. Brief description of the Bidder's main lines of business.
3. Details of individual(s) who will serve as the point of contact / communication for LMC with the Bidder:
 - a. Name:
 - b. Designation:
 - c. Company/Firm:
 - d. Address:
 - e. Telephone number:
 - f. E-mail address:
 - g. Fax number:
 - h. Mobile number:
4. Name, Designation, Address and Phone Numbers of Authorised Signatory of the Bidder:
 - a. Name:
 - b. Designation:
 - c. Company/Firm:
 - d. Address:
 - e. Telephone number:
 - f. E-mail address:
 - g. Fax number:
 - h. Mobile number:
5. In case of a Consortium:
 - a. The information above (1-4) should be provided for all the members of the Consortium.
 - b. A copy of the MOU, as envisaged in the RFP document should be attached to the Bid.
 - c. Information regarding role of each member should be provided as per table below:

Sl. No.	Name of Member	Role*	Percentage of equity in the Consortium
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“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

1.			
2.			
3.			

* The role of each member, as may be determined by the Bidder should be indicated.
The following information shall also be provided for each member of the Consortium

Name of Bidder/ member of Consortium:

No.	Criteria	Yes	No
1.	Has the Bidder/ constituent of the Consortium been barred by the [Central/ State Government, or any entity controlled by them], from participating in any project[s] (DBOT or otherwise)?		
2.	If the answer to 1 is yes, does the bar subsist as on the date of Bid.		
3.	Has the Bidder/ constituent of the Consortium paid liquidated damages of more than 5% 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 Bidder and each of the members of its consortium (where applicable) disclosing material non-performance or contractual non-compliance in past projects, contractual disputes and litigation/ arbitration in the recent past are given below (Attach extra sheets, if necessary)

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Appendix D

Proof of Qualification

1. Minimum Qualification Criteria

The Bidder must satisfy following Qualification Criteria for experience in order to qualify for the Project.

- a. Successfully operating and maintaining for at least one year i. one Municipal Solid Waste door to door collection project of capacity 140000 Household or ii. Two Municipal Solid Waste door to door collection project of capacity 94000 Household or iii. Three Municipal Solid Waste door to door collection project of capacity 70000 Household of Municipal Solid Waste during last Seven FY.

AND

- b. Successfully operating and maintaining for at least one year i. one Municipal Solid Waste Secondary Transportation project of capacity 350 TPD or ii. Two Municipal Solid Waste Transportation project of capacity 235 TPD or iii. Three Municipal Solid Waste Transportation project of capacity 180 TPD of Municipal Solid Waste during last Seven FY.

2. Details of Experience

The Bidder should furnish the details of eligible experience as set out below:

S No.	Qualification Criteria for Experience	Project Name	Location	Year of Commissioning	Capacity	Operational Since FY
1	Operating and maintaining Door to Door Collection of MSW of (input Household handled in numbers)					
2	Operating and maintaining Secondary transportation of MSW of (input waste handled in TPA)					
3	Sweeping and Cleaning of Roads (input KM-Passes Per Day or Labour supplied for sweeping per day)					
4	Cleaning, Desilting, Removal of Obstruction and					

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

	Maintenance of Drains (input KM Per Day or Labour supplied for Drain cleaning per day)					
5	Operation and Maintenance of MRF (capacity in MT/day)					
6	Operation and Maintenance of Transfer Station (capacity in MT/day)					

3. Supporting Documents

The bidder must provide Copy of contract agreement /work orders and successful completed performance certificate by competent Authority.

Note:

1. The Bidder should provide the details mentioned above based on its own experience or its subsidiary (ies) or its parent company. Experience of the Bidder's associate company (ies) will also be considered for evaluation of the Experience of the Bidder.
2. The financial year would be the same as the one normally followed by the Bidder for its annual Report / annual financial statement.
3. In case of consortium separate sheets shall be used for each consortium member.

4. Financial Capability

4.1. Financial Capability of the Bidders would be evaluated on the basis of the following:

- a. Net worth as at the end of the most recent financial year that is FY 2022-23
- b. Average turnover for the last three completed financial years that is FY 2020-21, FY 2021-22 & FY 2022-2023. The Bidder should provide information regarding the above based on audited Annual accounts for the respective financial years. The financial year would be the same as the one normally followed by the Bidder for its Annual financial statement.

4.2. The Proposal must be accompanied by the audited Annual financial statements of the Bidder for the last three financial years.

5. Evaluation Criteria for Financial Capability

5.1. For the purpose of Qualification, a Bidder would be required to satisfy the Financial Capability measured on the following criteria:

- a) Net worth of the Bidder as at the end of FY 2022-23 shall be at least equal to Rs. 10.65 Crores (Rupees Ten Crores Sixty-Five Lakh only), and

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- b) The Average Turnover of the Bidder for the last three financial years that is FY 2020-21, FY 2021-22 & FY 2022-2023 shall be at least equal to Rs. 31.95 Crores (Rupees Thirty-One Crores Ninety-Five Lakh only)

Here

Net Worth shall mean the sum of subscribed and paid- up equity and reserves from which shall be deducted the sum of revaluation reserves, miscellaneous expenditure not written off and reserves not available for distribution to equity shareholders)

Turnover shall mean gross sales or gross revenue, as defined by the Indian Accounting Standards published by the Institute of chartered Accountants of India (ICAI).

The Bidder must satisfy above-mentioned parameters for Financial Capability in order to qualify for the Project.

6. Special Conditions for Consortium

- 6.1. The Lead member of the Consortium should meet the Minimum required project capacity of similar nature of work in proportion to the partnership in consortium but not less than 51% and other party should meet in proportion to the partnership in consortium but not less than 26% of required project capacity related to similar nature of work in India during the last Five years.
- 6.2. In case of Consortium the Lead member should meet the required turnover in the 3 financial years (FY 2020-21, FY 2021-22 & FY 2022-2023) in proportion to the partnership in consortium but not less than 51 %. Other Member should meet the required turnover in the 3 financial years (FY 2020-21, FY 2021-22 & FY 2022-2023) in proportion to the partnership in consortium but not less than 26 %.

7. Other Conditions

- 7.1. The Bidder should provide the details mentioned above based on its own Financial and technical Capability. Financial and Technical Capability of the Bidder's parent company or associate company can be considered for computation of the Financial and technical Capability of the Bidder.
- 7.2. The financial year would be the same as the one normally followed by the Bidder for its Annual Report / Annual financial statement.

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Appendix D1

Financial Capability of the Bidder

(In Rs. crore)

S. No.	Applicant Type	Net worth (Applicable for application through Option III)	Annual Turnover for preceding three Financial Years (Rs. In Cr)		
			2022-23	2021-22	2020-21
		31st March, 2023 (Rs. In Cr)			
1	Single Entity				
2	Consortium				
	Lead Member				
	Consortium Member 1				

Certificate from the Statutory Auditor

This is to certify that(name of the Applicant) has Average Annual Turnover of Rs. (Rupees.....only) for the last three Financial Years / has a Net worth of Rs.Crores as on 31st March, 2023

(Name and Signature of the Auditor/C. A along with registration number as applicable and Seal

Instructions:

1. The Bidder shall attach copies of the balance sheets, financial statements and Annual Reports for 3 (three) years preceding the Bid Due Date. The financial statements shall:
 - a. reflect the financial situation of the Bidder and its Associates where the Bidder is relying on its Associate's financials;

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

- b. be audited by a statutory auditor; Bidder to provide copy of the last 3 years Audited Financial Statement
- 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).

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Appendix D2

PROCEDURE FOR BID EVALUATION

1. TECHNICAL EVALUATION CRITERIA:

SI No		Criteria	Weightage (%)	Maximum Marks
(i)	Firms General Experience	Firms General Experience & Experience in Similar Assignments.	55%	55
a	Experience of Projects in similar eligible sector	Experience in Door-to-Door Collection of Municipal Solid Waste. (Cumulative of Max 3 project) <i>Subject to Maximum 20 Marks</i> Marks Obtained: - Xx10 marks; X= Project of 140000 HH to 190000 HH Xx15 marks; X= Project of 190000 to 240000 HH Xx20 marks; X= Project completed of 240000 HH & Above	20	20
b	Experience of Projects in similar eligible sector	Experience in Secondary Transportation of Municipal Solid Waste. (Cumulative of Max 3 project) <i>Subject to Maximum 15 Marks</i> Marks Obtained: - Xx5 marks; X= Project of 354 TPD to 478 TPD Xx10 marks; X= Project of 478 TPD to 602 TPD Xx15 marks; X= Project of 602 TPD & Above	15	15
c	Experience of Projects in similar eligible sector	Experience in Manual sweeping of Roads. (Cumulative of Max 3 project) <i>Subject to Maximum 10 Marks</i> Marks Obtained: - Xx5 marks; X= Project of 1353 KM/Day to 1827 KM-passes/Per Day or Deployment of 1353 Labour/Day to 1827 Labour/Day Xx7.5 marks; X= Project of	10	10

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

		1827 KM-passes /Day to 2300 KM/Day or Deployment of 1827 Labour/Day to 2300 Labour/Day Xx10 marks; X= Project of 2300 KM-passes /Day Or Deployment of 2300 Labour/Day & Above		
d	Experience of Projects in similar eligible sector	Experience in Cleaning and Maintenance of Drains. (Cumulative of Max 3 project) <i>Subject to Maximum 5 Marks</i> Marks Obtained: - Xx2 marks; X= Project of 150 KM/Day to 202 KM/Per Day or Deployment of 150 Labour/Day to 202 Labour/Day Xx3.5 marks; X= Project of 202 KM/Day to 255 KM/Day or Deployment of 202 Labour/Day to 255 Labour/Day Xx5 marks; X= Project of 255 KM/Day or Deployment of 255 Labour/Day & Above	5	5
e	Experience of Projects in similar eligible sector	Experience in O & M of MRF Centres of Municipal Solid Waste. (Cumulative of Max 3 project) <i>Subject to Maximum 5 Marks</i> Marks Obtained: - Xx2 marks; X= Project of 124 to 167 TPD Xx3.5 marks; X= Project of 167 to 211 TPD Xx5 marks; X= Project of 211 TPD & Above	5	5
(ii)	Approach & Methodology	Approach & Methodology for proposed assignment	20%	20
		Project Understanding	2	2
		Approach and Methodology for Project Operations	6	6
		Procurement Plan and Manpower Deployment Schedule including organization chart	5	5
		Takeover Plan	1	1

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

		IEC Plan & EHS Plan	1	1
		Disaster Management Plan	1	1
		O & M Plan and Action Plan for Complaint Redressal System	3	3
		Implementation Schedule and Action Plan for MIS	1	1
(iii)	Financial Strength	Financial strength	25%	25
		Average Annual Turnover of last 3 consecutive years i.e., 2019-20, 2020-21 & 2021-22 (As per the bank / CA statement) <i>Subject to Maximum 15 Marks</i> Marks Obtained: - Xx5 marks; X= Turnover between Rs. 32 Cr. To Rs. 43 Cr. Xx10 marks; X= Turnover between More than Rs. 43 Cr. to Rs. 54 Cr. Xx15 marks; X= Turnover More than Rs. 54 Cr.	15	15
		Net Worth for FY 2022-23(As per the bank / CA statement) <i>Subject to Maximum 10 Marks</i> Marks Obtained: - Xx5 marks; X= Net-Worth between Rs. 10.65 Cr. To Rs. 14 Cr. Xx7.5 marks; X= Net-Worth between More than Rs. 14 Cr. To Rs. 18 Cr. Xx10 marks; X= Net-Worth More than Rs. 18 Cr.	10	10

Note: Project shall either completed, or for ongoing project, at least one year satisfactory completion certificate is mandatory.

2. Evaluations of Bids

- A. Technical proposal of all the responsive bidders shall be evaluated based on the criteria set out in clause 1 of Appendix D2. Bidders scoring more than 70% marks shall qualify for financial bid evaluation.
- B. In the financial bid, bidder should propose the Tipping fee as given in format for financial bid.
- C. The Technically qualified Bidder demanding the lowest Tipping Fee Rate from the LMC would be declared Successful.

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Appendix – E

FORMAT FOR POWER OF ATTORNEY FOR SIGNING OF PROPOSAL

(On Stamp paper of Rs.100.00 value)

POWER OF ATTORNEY

Know all men by these presents, We..... (name and address of the registered office) do hereby constitute, appoint and authorize Mr. / Ms.....(name and residential address) who is presently employed with us and holding the position ofas our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to “RFP for **Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres**” (hereinafter referred to as “the Project”), on behalf of the LMC including signing and submission of all documents and providing information / responses to LMC in all matters in connection with our Proposal for the Project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall always be deemed to have been done by us.

Dated this the Day of 20XX

For

(Name and designation of the person(s) signing on behalf of the Bidder / Lead Member in case of Consortium)

Accepted

Signature)

(Name, Title and Address of the Attorney)

Date:

Note:

1. To be executed by the Lead Member in case of a Consortium.
2. In case of Bidders who are not resident in India, the Power of Attorney may be submitted on plain paper attested by any authorised officer of the Embassy of India and

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

duly stamped by the Department of Stamps & Registration, Government of-----
(name of state).

3. 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.
4. Also, wherever required, the Bidder should submit for verification the extract of the charter documents and 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 Bidder.
5. In case an authorized Director of the Bidder signs the Proposal, a certified copy of the appropriate resolution conveying such authority may be enclosed in lieu of the Power of Attorney.

"Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres."

Appendix – E1

FORMAT FOR POWER OF ATTORNEY FOR DESIGNATING LEAD MEMBER OF CONSORTIUM

(On a Stamp Paper of Rs 100.00 value)

POWER OF ATTORNEY

Whereas, **MUNICIPAL COMMISSIONER, Lucknow Municipal Corporation & Lucknow Nagar Nigam** (hereinafter referred to as "Authority") has invited proposals from Bidders for taking up **"Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres"** (here in after referred to as "the Project").

Whereas, the Consortium being one of the Bidders is interested in bidding for the Project and implementing the Project in accordance with the terms and conditions of this Document, and

Whereas, it is necessary under this Document for the members of the Consortium to designate the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's Proposal for the Project or in the alternative to appoint one of them as the Lead Member who, would have all necessary power and authority to do all acts, deeds and things on behalf of the Consortium, as may be necessary in connection with the Consortium's Proposal for the Project.

NOW THIS POWER OF ATTORNEY WITNESSETH THAT;

We, M/s and M/s (the names and address of the registered offices), do hereby designate M/s being one of the members of the Consortium, as the Lead Member of the Consortium, to do on behalf of the Consortium, all or any of the acts, deeds or things necessary or incidental to the Consortium's Proposal for the Project, including submission of Proposal, participating in conferences, responding to queries, submission of information/ documents and generally to represent the Consortium in all its dealings with LMC, any other Government Agency or any person, in connection with the Project until culmination of the process of bidding and thereafter till the Concession Agreement is entered into with LMC.

We hereby agree to ratify all acts, deeds and things lawfully done by the Lead Member and our said attorney pursuant to this Power of Attorney and that all acts' deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us/Consortium.

Dated this theDay of..... XX

.....

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

(Executants)

(TO BE EXECUTED BY BOTH MEMBERS OF THE CONSORTIUM)

- i.) Note: 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 (for a body corporate).

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Appendix – F

MEMORANDUM OF UNDERSTANDING

Between

[First Member]

And

[Second Member]

THIS MEMORANDUM OF UNDERSTANDING (hereinafter called “MOU”) made and entered into this day of the month of2022, by and among:

[Name & complete address of First/Leading Member] (hereinafter called “[short name/acronym]”), which expression shall include its successors, legal representatives and permitted assigns;

[Name and complete address of Second Member] (hereinafter called the “[short name/acronym]”), which expression shall include its successors, legal representatives and permitted assigns;

[Name and complete address of Third Member] (hereinafter called the “[short name/acronym]”), which expression shall include its successors, legal representatives and permitted assigns;

(All of the above for the purpose of this MOU shall hereinafter individually called the “Member” and collectively called the “Members”)

WHEREAS,

- a) **MUNICIPAL COMMISSIONER, Lucknow Municipal Corporation & Lucknow Nagar Nigam** (hereinafter referred to as “Authority”) has invited proposals from Bidders for taking up **“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”** (hereinafter referred to as "the Project").

- b) the Members hereby intend to join hands to form an unincorporated association for the sole purpose of, preparation and submission of joint proposal as required to be submitted to the Client for carrying out the Services for the Project. In case of acceptance of proposal by the Client, the members shall perform the Services as shall be agreed through Joint Venture/ Consortium [Use which is appropriate] Agreement and the contract to be entered between the Client and the Joint Venture/Consortium.

NOW, THEREFORE, the Members confirm their understanding (hereinafter called the "Association") as follows:

8. DEFINITIONS AND INTERPRETATION

8.1 Definitions

The following words and expressions shall have the meanings assigned to them, except where the context otherwise requires:

- 8.1.1 **"Association"** means the understanding formed between the Members in accordance with this MOU;
- 8.1.2 **"Client"** means the person, firm, company or body named as client in the Joint Venture/Consortium Agreement and none other, except its legal successors and permitted assigns;
- 8.1.3 **"Contract"** means the Contract between the Client and the Joint Venture/Consortium for the provisions of professional services for the Project;
- 8.1.4 **"Country"** means [State the name of the "India"] where the Project is located;
- 8.1.5 **"Consortium"** means the consortium to be formed between the Members for the Project;
- 8.1.6 **"Consortium Agreement"** means the formal agreement to be entered between the Consortium Members, upon acceptance of proposal for the Project;
- 8.1.7 **"Proposal"** means the proposal to be prepared and submitted by the Members in response to the Invitation, by the Client;
- 8.1.8 **"Services"** means all the services to be performed by the Members in accordance with the Proposal or Contract, as the case may be;
- 8.1.9 **"Representative"** means the person nominated by the Members(s) of the Joint Venture/Consortium through Power of Attorney to sign the Proposal and the Contract on behalf of and in the name of that Member. The signature of Representative shall bind each Member in respect of all obligations and liabilities it assumes under the Joint Venture/ Consortium Agreement.

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

8.1.10 **“Leading Member”** means the Member which will take the lead in the management of the Association’s affairs under this MOU and which will provide the Association’s Representative for liaison with the Client and, unless otherwise agreed by the Members, the Services Manager for direction of the conduct of the Services;

8.1.11 **“Day”** means the period between any one midnight and the next, and **“month”** means a period of one month according to the Gregorian calendar commencing with any day in the month; and

8.1.12 **“Document”** means written, drawn, typed, printed, magnetized or photographic material which is capable of being copied.

8.2 Interpretation

8.2.1 Words importing the singular also include the plural and the masculine includes the feminine and vice-versa where the context requires.

8.2.2 The headings in this MOU shall not be taken into consideration in its interpretation.

8.2.3 Unless otherwise stated, all references to clauses/sub-clauses are references to clauses/sub-clauses numbered in the Conditions and Terms of this MOU and not to those in any other document attached or incorporated by them.

9. ASSOCIATION/UNDERSTANDING

9.1 The Members hereby intend to join hands to form an unincorporated association for the purpose of:

- ✓ preparing and submitting the Proposal to the Client;
- ✓ providing any further information, the Client may require or negotiating with the Client on any matters requiring negotiation in connection with the Proposal;
- ✓ Entering into a formal Joint Venture/Consortium Agreement, stipulating in detail the relations between the Members on the basis of this MOU and in accordance with the Concession Agreement with the Client, if the Proposal is accepted; the Services shall be rendered jointly by the Members in accordance with a Joint Venture/Consortium Agreement to be signed by the Members. The Joint Venture/Consortium Agreement shall be signed prior to commencing the Work and shall be based upon the terms of the Contract signed between the Joint Venture/Consortium and the Client; and
- ✓ performing all the Work to be undertaken for the project by the Joint Venture/Consortium under the Concession Agreement.

9.2 The Members hereby appoint the Leading Member and, pursuant to Clause 3.6, the representative of the Association.

9.3 The Parties agree that the proportion of shareholding among the Parties in the Concession shall be as follows:

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

First Party:

Second Party:

9.4 The Parties undertake that they shall collectively hold 100% shareholding of the paid-up Equity [as defined in Concession Agreement] share capital of the concessionaire commencing from the Execution Date of the concession agreement until expiry of five years thereafter, and shall hold at least 51% (fifty-one per cent) shareholding of the subscribed and paid-up equity of the Concessionaire at all times during the remaining Concession Period i.e. from expiry of aforesaid five years period until end of concession period. Further, in case of Consortium bidding entity, besides the foregoing shareholding requirement, the bidding Consortium shall ensure that the Lead Member thereof holds at least 51% shareholding in the paid up equity capital of the Concessionaire during Lock-in-Period, and the other members of consortium shall hold during Lock in Period minimum 10% (ten per cent) shareholding in the paid up equity capital of the Concessionaire; and after the expiry of Lock-in -Period, the Lead Member shall be required to hold at least 26% shareholding in the paid up equity capital of the Concessionaire commencing from the expiry of Lock-in-Period until expiry of concession period with the aggregate shareholding of the Consortium member in the Concessionaire shall not be less than 51%. No change in shareholding of the selected bidder [either single Bidding Entity/ Bidding] as set out herein and (as to be reiterated in the Joint Bidding Agreement) in the Concessionaire shall take place.

9.5 Unless otherwise agreed in writing by the Members, this MOU shall not terminate if a Member changes its name or is taken over by, or merged with, another company or partnership provided that such successor name, company or partnership is an independent professional firm acceptable to the Client.

10. PROPOSAL SUBMISSION

10.1 The Members shall make all reasonable endeavors to obtain from the Client the award of the Services Agreement in accordance with the conditions of the Invitation.

10.2 The preparation and submission of the Proposal shall be undertaken jointly by the Members. The Members shall be required to provide their respective information and document on the required format to the Leading Member. The Leading Member shall co-ordinate and finalize the preparation of the Proposal and its submission to the Client. The Members shall cooperate with the Leading Member. The Members shall perform with all reasonable skill, care and diligence their respective functions, as agreed between the Members, allotted by the Policy Committee until the award of the Services Agreement to the Joint Venture/Consortium or until the provisions of Sub-Clause 16.1 have been satisfied.

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

10.3 Once the Proposal has been submitted to the Client, no changes may be made or additional information or explanations given without the consent of all the Members until the Service Agreement is signed and have become effective.

10.4 The Members shall enter into a formal Joint Venture/Consortium Agreement, stipulating in detail the relations between the Members on the basis of this MOU and enter into the Contract, if it is awarded in accordance with the Proposal, or the Proposal as amended, subsequent to its submission, by agreement between the Client and the Joint Venture/Consortium.

10.5 Upon the execution of this MOU, each of the Members shall grant a Power of Attorney in favour of a person nominated by it as its Representative. Under the Power of Attorney granted to him, the Representative of a Member shall thereby have authority to sign the Proposal and the Concession Agreement on behalf of and in the name of that Member. The signature of its Representative shall bind each Member in respect of all obligations and liabilities it assumes under this MOU.

10.6 The Representative of the Leading Member shall be the representative of the Association for the purpose of correspondence and discussion with the Client on matters involving the interpretation of the Proposal and alterations to it and to the Services to be performed.

11. PERFORMANCE OF THE SERVICES

11.1 The Services shall be carried out by each Member in accordance with the terms and conditions as set out in the MOU and the Concession Agreement. In the event of any inconsistency between the terms of this MOU and the Concession Agreement regarding performance of the Work, the terms of Concession Agreement shall prevail.

11.2 Each Member shall be responsible for fulfilling the obligations in accordance with the terms of Concession Agreement.

11.3 The apportionment between the Members of MOU shall be recorded and amended in the Joint Venture/Consortium Agreement.

11.4 Any alterations or additions to be carried out under the Concession Agreement shall be made only with the instruction or consent of the Client. Responsibilities for carrying out additional obligations shall be agreed between the Members, subject to the consent of the Client, if required by the Concession Agreement.

12. LANGUAGE AND LAW

12.1 This MOU shall be written and interpreted in English Language and the law which is to be applied to this MOU shall be the law of India.

13. EXCLUSIVITY

13.1 Unless otherwise agreed by the Members, no Member shall engage in any activity related to the Services, unless otherwise agreed by the Members, other than as a Member of this Understanding and in accordance with the terms and conditions of this MOU. Each Member warrants that its subsidiaries and other firms or individuals over which it has control will comply with this requirement.

14. EXECUTIVE AUTHORITY

14.1 No Member shall have authority to bind or to make any commitment on behalf of any other Member unless such authority is expressed in writing by the Members jointly, or by a Member individually in regard to the (other) Member.

14.2 From the date of this MOU until the award of the Concession Agreement or until this MOU shall terminate in accordance with its terms, whichever is the earlier, the following matters shall require the unanimous consent of the Members:

- a) for the purpose of submitting the Proposal, the respective responsibilities and obligations to be undertaken by the Members, subject to the conditions of the Invitation or TOR;
- b) for the purpose of submitting the Proposal, the prices and terms and conditions of payment comprised in the Proposal as applicable to the Members, subject to the conditions of the Invitation; and
- c) any communication to, or response to communication from, the Client either written or oral and any commitment of any kind to the Client or any other party in connection with the Proposal.

15. DOCUMENTS

15.1 All documents and/or information forwarded by either Member to the other for the preparation of Proposal shall remain sole and exclusive property of the Member which provided the same including the intellectual property rights.

15.2 Upon expiration/termination of MOU, each Member shall:

- a) return to the other, all such documents and/or materials including computer diskettes and all copies thereof that are jointly prepared by the MOU Members; and
- b) certify that all such documents and information and all copies have been returned to such receiving Member.

16. PERSONNEL

16.1 Each Member shall be obliged to depute as much of their personnel as are needed in timely accomplishment of the proposal for a specific project and subsequently carrying out of the project. Unless specifically agreed otherwise, under the arrangement of MOU, no employee shall be considered on its strength.

"Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres."

17. ASSIGNMENT AND THIRD PARTY

17.1 No Member shall assign, sell, transfer or in any way encumber its interest under this MOU, or its interests in any sums payable by the Client, without first obtaining the consent in writing of other Member.

18. SEVERABILITY

18.1 If any part of the provisions of this MOU is found in any way to be void or not applicable, such part of the provisions shall be deemed to be deleted and remainder provisions of MOU shall continue in force and effect.

19. MEMBER IN DEFAULT

19.1 In the event of insolvency of a Member, the other Member hereby irrevocably constituted and appointed attorney-in-fact for such insolvent Member to act for it in all matters affecting performance of the Service Agreement to be entered with the Client.

20. DURATION OF THE UNDERSTANDING

20.1 This MOU shall come into force and effect on the date of signing of this MOU by the Members.

20.2 Unless otherwise terminated earlier, this MOU shall expire on the date when;

- a) the Proposal is not accepted by the Client; or
- b) the Members entered into Joint Venture/Consortium Agreement, following acceptance of Proposal by the Client.

21. LIABILITY

21.1 Each of the Members warrants that it will indemnify and keep indemnified the other Member against all legal liabilities arising out of or in connection with the performance, or otherwise, of its obligations under this MOU.

21.2 In the event of it being alleged by one Member in writing that any legal liability is attributable to the other Member or to the Members, the Members shall use reasonable endeavors to reach agreement on the liabilities to be borne by each of the Members, and in the event of the Members failing to so agree, a proper apportionment shall be determined by resolution in accordance with Clause 19.

22. PROMOTIONAL AND PROJECT COSTS, PROFITS/ LOSSES AND REMUNERATION

22.1 Each Member shall bear and pay all of its costs and expenses incurred in connection with this MOU and all other activities concerning job acquirement prior to the signing of Joint Venture/Consortium Agreement except as otherwise agreed upon in writing.

23. FINANCIAL ADMINISTRATION AND ACCOUNTING

"Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres."

23.1 Each Member shall be responsible for keeping its own account in respect of payments due to it and for its own financial affairs generally. Each Member shall be responsible for dealing with its own income tax affairs, and its own social security affair: where relevant, and for accounting accordingly to the relevant authorities.

24. Dispute Resolution

24.1 Any dispute arising in connection with this MOU which cannot be resolved by the Parties in accordance with the terms of this MOU shall be settled amicably through negotiations, failing which the matter shall be referred to LMC for seeking their advice.

25. NOTICES

25.1 Notices under the MOU shall be in writing and will take effect from receipt at the address stated of the each of Member. Delivery can be by hand or facsimile message against a written confirmation of receipt or by registered letter or courier.

26. SOLE AGREEMENT AND VARIATION

26.1 This MOU is the sole understanding between the Members and supersedes any previous understandings between them relating to the matters referred to herein. Variations and addenda may be made to this MOU, including the admission of new Member (s) to the Association, by written instrument which shall be effective upon being signed by all Members (or on their behalf by their Representatives), provided that if a Member is considered by the other Member to be in default pursuant to Clause 12 of this agreement and signature is not required.

IN WITNESS WHEREOF the Members hereto have executed this MOU in [State name of place] on the day, month and year first above written.

1. Signed for and on behalf of

[Name of the Leading Member]

Signature _____

Name: _____

Designation: _____

Date: _____

Seal

2. Signed for and on behalf of

[Name of the Member]

Signature _____

Name: _____

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Designation: _____

Date: _____

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Appendix – G

Format for Anti-Collusion Certificate

Anti-Collusion Certificate

We hereby certify and confirm that in the preparation and submission of our Proposal, we have not acted in concert or in collusion with any other Bidder or other person(s) and also not done any act, deed or thing which is or could be regarded as anti-competitive.

We further confirm that we have not offered nor will offer any illegal gratification in cash or kind to any person or agency in connection with the instant Proposal.

Dated thisDay of....., 20XX

.....

(Name of the Bidder)

.....

(Signature of the Authorised Person)

.....

(Name of the Authorised Person)

Note:

1. On the Letter head of the Bidder
2. To be executed by both members in case of Consortium

Appendix – H

Format for Bank Guarantee for Bid Security

(Refer Clauses 9.1)

B.G. No.

Dated:

1. In consideration of you, Lucknow Nagar Nigam, having its office at _____, (hereinafter referred to as LMC, which expression shall unless it be repugnant to the subject or context thereof include its successors and assigns) having agreed to receive the Bid of _____ [insert the name of the Bidder/Name of Consortium with name of Lead Member] and having its office at _____ [and acting on behalf of its Consortium, if applicable] (hereinafter referred to as the "Bidder" which expression shall unless it be repugnant to the subject or context thereof include its/their executors administrators, successors and assigns), for the Project of **"Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres."** (hereinafter referred to as "the Project") pursuant to the RFP Document dated ***** issued in respect of the Project and other related documents (hereinafter collectively referred to as "Bidding Documents"), we [Name of the Bank] having our registered office at _____ and one of its branches at _____ (hereinafter referred to as the "Bank"), at the request of the Bidder, do hereby in terms of Clause 7.1 of the RFP Document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfillment and compliance of the terms and conditions of the Bidding Documents (including the RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to LMC an amount of **Rs. _____** (**_____ Only**) as bid security (hereinafter referred to as the "Bid Security") as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfill or comply with all or any of the terms and conditions contained in the said Bidding Documents.
2. Any such written demand made by LMC stating that the Bidder is in default of the due and faithful fulfillment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective

of whether the claim of LMC is disputed by the Bidder or not, merely on the first demand from LMC stating that the amount claimed is due to LMC by reason of failure of the Bidder to fulfill and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its Bid open during the Bid validity period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding **Rs.**

_____/ - (Rupees _____ Lakh
Only).

4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred eighty) days from the Bid Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between LMC and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that LMC shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfillment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Bidding Documents, and the decision of LMC that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between LMC and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.
6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
7. In order to give full effect to this Guarantee, LMC shall be entitled to treat the Bank as the principal debtor. LMC shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the Bids or the Bid validity period or the period for conveying acceptance of Letter of Intent by the Bidder or the period for fulfillment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to LMC, and the Bank shall not be released from its liability under these presents by any exercise by LMC of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of LMC or any

indulgence by LMC to the said Bidder or by any change in the constitution of LMC or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.

8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch who shall be deemed to have been duly authorised to receive the said notice of claim.
10. It shall not be necessary for LMC to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which LMC may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or un realised.
11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of LMC in writing.
12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorised and has full power to execute this Guarantee for and on behalf of the Bank.

Signed and delivered by _____ Bank

By the hand of Mr./Ms _____, its _____ and authorised official.

(Signature of the Authorised Signatory)

(Official Seal)

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Appendix – I

Guidelines and Format for Technical Proposal

In preparing the Initial Implementation and Operational Plan (IIOP), Bidders shall review the RFP in full including the Project Information Memorandum and Draft Concession Agreement and its schedules 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 comply with the Technical Specifications and O&M Requirements as set out in Schedules of the Draft Concession Agreement. The IIOP shall also be in compliance with the applicable laws, including the SWM Rules 2016.

The Concessionaire shall design the IIOP for the Project Scope covering the following items, in not more than 100 pages:

Sl. No.	Components	Weightage
1	Project Understanding	2
2	Approach and Methodology for Project Operations	6
3	Procurement Plan and Manpower Deployment Schedule including organization chart	5
4	Takeover Plan	1
5	IEC Plan & EHS Plan	1
6	Disaster Management Plan	1
7	O&M Plan and Action Plan for Complaint Redressal System	3
8	Implementation Schedule and Action Plan for MIS	1
Total		20

1. Project Understanding

The Bidder shall provide their understanding of the Project with respect to the Project Area as specified under Project Scope (Schedule 1).

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

2. Methodology for Project Operations

The Bidder shall provide their methodology for carrying out Project Operations as specified under Project Scope (Schedule 1) adhering to KPIs as per Schedule 14 of the Draft Concession Agreement (DCA). The Bidder may request for any additional data from the Authority 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 preparing route plans for collection and transportation of waste. The Bidder shall also provide sample calculations for estimating infrastructure and manpower requirement for primary collection (ward level and street wise), street sweeping, secondary collection and transportation for various sources as specified under Project Scope (Schedule 1). The Bidder shall adhere to the SWM Rules, 2016 and CPHEEO Manual while formulating methodology for Project Operations.

3. Procurement Plan and Manpower Deployment Plan

The Bidder shall provide Procurement Plan and Manpower Deployment Plan for Project Operations 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 specify their action plan for utilising the available temporary manpower with the Authority to the maximum extent possible. The Bidder shall provide procurement and deployment schedule in Gantt Chart inclusive of replacement of Project Assets during the entire project period.

4. 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
---------	----------	-----	-------------------------	------------------------	------------

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

1					
2					
N					

5. Implementation Schedule

The Bidder shall conform to the Implementation Schedule as specified in Volume II B of this 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.

6. 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.

7. IEC Plan

The Bidder shall provide their methodology for creating awareness regarding solid waste management activities. The Bidder shall also specify type (including virtual platforms and social media) and frequency of IEC Programmes. The Bidder shall also provide framework for outcome evaluation of IEC activities. The Bidder can also provide their successful experience in previous projects.

8. Disaster Management Plan

The Bidder shall provide a broad outline for carrying out Project Operations during the time of disaster. The Bidder shall also specify explicit measures to be adopted in their Approach and Methodology for Project Operations as specified under Schedule 18 of the Draft Concession Agreement.

9. 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.

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Sl. No.	Project Asset	Number	Servicing Detail*	Frequency of servicing**	Frequency of Replacement^s
1.	Tricycle				
2.	E-Rickshaw				
3.	Refuse Compactor Bin (1.1 cubic meter)				
4.	Refuse Compactor Bin (0.66 cubic Meters)				
5.	Refuse Compactor (14 Cubic Meters)				
6.	Refuse Compactor (8 cubic meters)				
7.	Refuse Compactor (6 cubic meters)				
8.	Auto Tipper (1800 Lit.)				
9.	Auto Tipper (2500 Lit.)				
10.	Auto Tipper (3600 Lit.)				
11.	Equipment for Horticulture Waste				
12.	Tipper Truck (10 cubic meters)				
13.	Bin Washer				

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

14.	Vehicle Workshop				
15.	Domestic Hazardous Waste Depositing Centre				
16.	MIS System				
17.	Personal Protective Equipment				
18.	Any other asset proposed to be used by the Concessionaire				

* 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.

10. 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 Concession 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

11. Action Plan for Complaint Redressal System

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

The Bidder shall provide a broad outline for setting up Complaint Redressal System as described in Schedule 9 of the Draft Concession Agreement. 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 Authority 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.

12. Action Plan for MIS

The monitoring and evaluation of Concessionaire’s Performance will be based on the output of MIS. The Bidder shall provide a broad outline for setting up MIS for ascertaining the ‘Parameter/Data for Evaluation’ as per the monitoring and evaluation framework set out in Schedule 10 of the Draft Concession Agreement. The Bidder shall elaborate on the tools (software and hardware) to be used for automated/non-automated reporting mechanism [Refer Schedule 10 of the Draft Concession Agreement: Management Information System (MIS)]. The Bidder shall also propose their innovative ways of effective reporting of Project Activities. The Bidder can also provide their successful experience in previous projects

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”.

Appendix – J

FORMAT FOR FINANCIAL PROPOSAL

(On the Letterhead of the Bidder or Lead Member in case of a Consortium)

Date:

To

**MUNICIPAL COMMISSIONER,
Lucknow Municipal Corporation
Lucknow.**

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres”.

Dear Sir,

We are pleased to submit our Financial Proposal for “Selection of Contractor for Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres”

Sr. No.	Description	Unit	Quantity	Rate (in Rs.)	Amount
1	First Year O&M Fee Required for Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/ disposal site/ collection centres.	Per MT	537		

"Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres."

2	Unit charge for Roads Sweeping by Manual means, cleaning of footpath and removal of Litter. Sweeping Passes in each Km of Road Length.	Per KM passes /day	2255		
3A	Unit charge for Cleaning of drain size upto 45cm including transportation of collected silt to designated disposal sites or collection centres.	Per KM/day	241		
3B	Unit charge for Cleaning of drain size above 45cm and up to 1.0 meter including transportation of collected silt to designated disposal sites or collection centres.	Per KM/day	8.5		
3C	Unit Charge of lifting and Transportation of collected Street Sweeping and Drain Silt Waste to designated disposal Site or Collection Centres	Per MT	53		

Note: Quantity may vary +/- 20%

We have reviewed all the terms and conditions of the Request for Proposal (RFP) Document and will undertake to abide by all the terms and conditions contained therein. We hereby declare that there are, and shall be, no deviations from the stated terms in the RFP Document.

Yours faithfully,

For and on behalf of (Name of Bidder)

Duly signed by the Authorized Signatory of the Bidder

(Name, Title and Address of the Authorized Signatory)



REQUEST FOR PROPOSAL

FOR

“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”

(RFP NO. D.680/EE/23 Dated: 06/11/2023)

VOLUME – II

Project Information Memorandum (PIM)

Lucknow Municipal Corporation

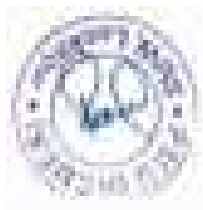


Table of Contents

1	Project Overview	2
1.1	Project Financing	2
2	Project Coverage Area & its detail	2
2.1	Basic Information of Lucknow Nagar Nigam & Demographic Profile	3
2.1.1	Location Map.....	3
3	Solid Waste Management in Lucknow City	3
3.1	Basic Information of Project Area (Zone - 2, Zone - 5 & Zone - 8)	4
3.1.1	Basic Information of Zone - 2.....	4
3.1.2	Basic Information of Zone - 5.....	5
3.1.3	Basic Information of Zone - 8.....	6
4	Project Components.....	7
5	Scope of the Project.....	9
5.1	Preparation of Detailed Project Report:	9
5.2	General recommendation and Guidelines for Waste Collection, Transportation	10
5.3	Storage of Segregated waste	11
5.4	Segregation of Recyclable/ Non-Biodegradable Waste:	11
5.5	Primary collection & Transportation of waste	11
5.6	Transportation of Waste	12
5.7	Work shop for maintenance	12
5.8	Command Control & Response Mechanism.....	12
5.8.1	Minimum Technical Specifications.....	12
5.8.2	Equipment / Facilities at Customer Handling Cells.....	12
5.8.3	Staffing Pattern at Customer Handling Cells	13
5.8.4	Complaint Resolution Mechanism	13
6	Annexures	14
6.1	Annexures - I Detail of Existing Infrastructure & Required infrastructure.....	14
6.2	Annexure - II Equipment and Machinery - Monitoring and Tracking of C&T Operation	15
6.3	Annexure - III Manpower Required for Primary Collection.....	16
6.4	Annexure - IV Manpower Required for Material Recovery Facility	16
6.5	Annexure - V Manpower Required for Green waste & Debris.....	16
6.6	Annexure - VI Manpower Required for Manual Road Sweeping and Drain Cleaning	16
6.7	Annexure - VII Manpower Required for Mechanised Road Sweeping.....	16
6.8	Annexure - VIII Existing Transfer Station Details	17
6.9	Annexure - IX Details of Existing MRF Centre.....	17
6.10	Annexure - X List of existing PCTS.....	17
6.11	Annexure - XI List of existing Open Dumping Points	17

1 Project Overview

The existing Solid Waste Management system lacks adequate infrastructure facilities to meet the norms stipulated in the Solid Waste Management Rules 2016. Lucknow Nagar Nigam immediately needs augmentation of its Solid Waste management systems to comply with SWM Rules 2016. Lucknow Nagar Nigam proposes to set up a solid waste management system by way of awareness campaign, segregation, collection, transportation of municipal waste.

This project information Memorandum is prepared to guide the bidder to prepare the bid as per existing condition and scope of work. Bidder may propose their own methodology, type of vehicles, process and equipment's for Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Project Area (Package 1) to designated processing facility/disposal site/collection centres. However, the methodology, proposed out come and service level to be achieved shall adhere to the principals of MSW Rule 2016, Guideline of SBM-2 and CPHEEO Manual.

1.1 Project Financing

LMC shall provide to concessionaire the existing vehicles not more than Five (5) years old for immediate handholding and smooth start of work. The Concessionaire shall be responsible to procure all shortfall vehicle and equipment before COD and during active operation period as per approved operation plan submitted in accordance to clause 4.2.1(a) of concession agreement. For more clarity, concessionaire shall be responsible to procure all the vehicle and equipment required for door-to-door collection of waste, Secondary transportation of segregated waste from MRF cum transfer facility to designated processing Plant, equipment required for Road sweeping, vehicles required for transportation of sweeping silt, equipment required for Drain Cleaning, vehicles required for transportation of drain silt and vehicle required for transportation of horticulture waste at their own cost and financing arrangement. The specification and quantity of such vehicles/equipment shall be approved by LMC before their procurement.

Whereas, LMC shall be responsible to provide 100% capital grant for construction of MRF cum PCTS, MRF cum FCTS, MRF cum Static Compactor Transfer Station & supply, erection and commissioning of required machinery for these facilities. Concessionaire shall be responsible to construct such facility in accordance to the provisions of this agreement on the basis of detailed specification, as built drawing approved by LMC. Concessionaire shall also be responsible for operation & maintenance of project component including supply of manpower, fuel, minor tools and tackles.

The part of Operations & Maintenance cost would be recovered from sale of Recyclable recovered at MRF to ensure project sustainability. The shortfall in O&M cost shall be provided by LMC in the form of "O&M Fee" as quoted by successful bidder.

2 Project Coverage Area & its detail

Lucknow, a sprawling metropolis, encompasses a vast municipal area spanning 619 square kilometers. This extensive urban landscape is meticulously organized into eight distinct zones, further sub-divided into a total of 110 wards, showcasing the city's administrative efficiency and structured layout.

According to recent reports, Lucknow's population in 2021 reached an impressive 4 million, demonstrating its status as a thriving urban center. Within this demographic, the male-female ratio is well-balanced, with males comprising 52% and females constituting 48% of the total population. This equitable distribution underlines the city's commitment to inclusivity and gender balance.

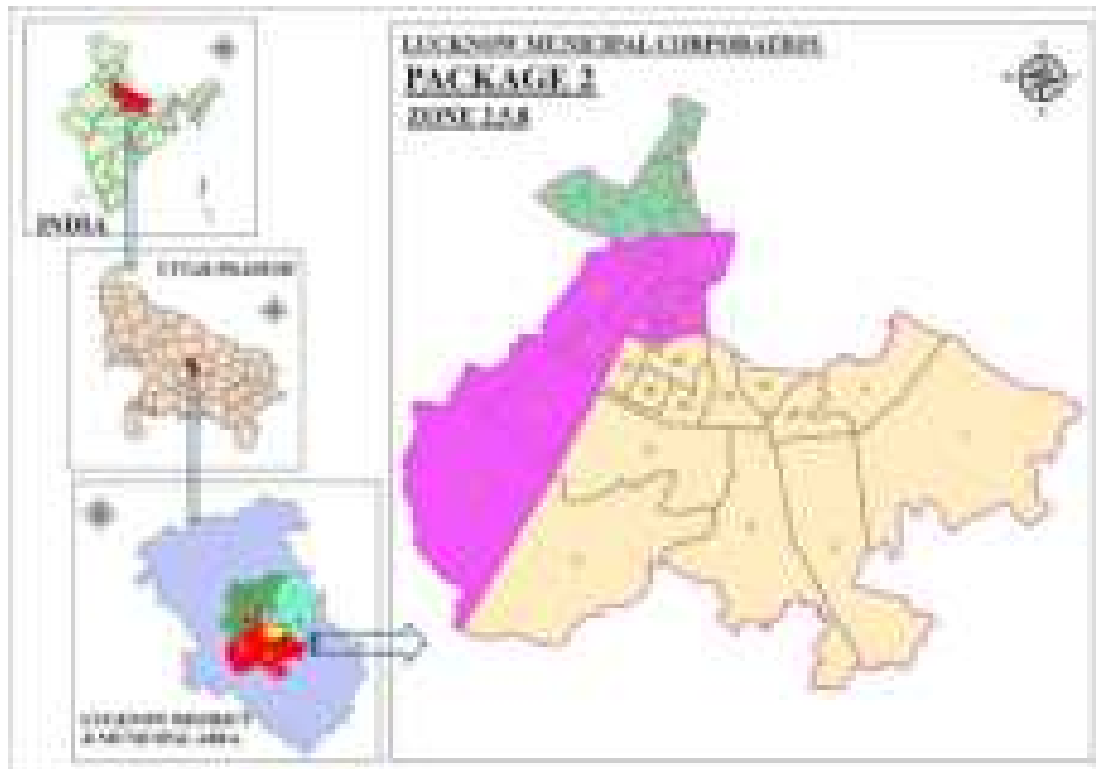
The city's population density is noteworthy, standing at an average of 8048 individuals per square kilometre. This metrics underscores the dynamic and vibrant nature of Lucknow, with its bustling streets and lively neighbourhoods teeming with activity.

Geographically, Lucknow is positioned at coordinates 26°51'N latitude and 80°57'E longitude. Nestled at an elevation of approximately 123 meters (404 feet) above sea level, the city enjoys a commanding perspective over its surroundings, offering breathtaking vistas of the Gomti River and the neighbouring regions.

2.1 Basic Information of Lucknow Nagar Nigam & Demographic Profile

Lucknow, is divided into eight zones, further segmented into 110 administrative wards. As of the 2011 Census of India, Lucknow's population stood at an impressive 2,815,601, with of 1,470,133 men and 1,345,468 women. Currently, Lucknow accommodates a total of 569,898 households.

2.1.1 Location Map



3 Solid Waste Management in Lucknow City

The city of Lucknow grapples with a significant waste management challenge, generating approximately 2000 metric tons (MT) of waste daily. This translates to an average per capita waste generation of around 550.0 grams, as indicated in the Operational Guidelines of October 2021 (Chapter 6, Page 43). The waste stream in the city is diverse, encompassing residential, commercial, institutional, industrial, construction and demolition waste, as well as street sweeping waste.

Breaking down the daily waste generation, individual households are the primary contributors, accounting for 1525.2 MTD. Commercial and institutional sources generate an additional 257.3 MTD. Sweeping and drain silts constitute approximately 178.3 MTD, while green waste adds around 35.5 MTD. Construction and demolition waste, a notable concern, amounts to approximately 267.3 MTD.

3.1 Basic Information of Project Area (Zone - 2, Zone - 5 & Zone - 8)

3.1.1 Basic Information of Zone - 2

Zone 2 encompasses 11 wards (8, 21, 26, 46, 58, 61, 78, 79, 90, 104, 107) and spans across an area of 12.276 square kilometers. The current estimated population in this zone is 3,84,698 with a total of 73,081 households in these wards. Looking ahead to 2031, the projected population is expected to rise to 4,47,450, indicating substantial growth in this zone. With this this population base, the waste generation is estimated to reach 191.6 metric tons per day (MTD) in the foreseeable future.

In terms of waste generators, there are 365 domestic bulk waste generators contributing to the waste stream. Additionally, there are 100 commercial bulk generators in this zone. This data underscores the importance of strategic waste management planning to handle the varying scales and types of waste generation in Zone 2 effectively.



Ward wise detail of zone 2 is as presented below.

S No	Zone Name	Ward No	Area	Household	Population	Waste Generation
1	Zone-2 (11 Wards)	8	1.500	7705	40559	20.20
		21	1.118	6480	34108	16.99
		26	0.848	5995	31559	15.72
		46	1.431	7776	40935	20.39
		58	1.397	6816	35880	17.87
		61	0.641	6082	32016	15.95
		78	1.244	6909	36368	18.11
		79	1.378	7015	36929	18.39

		90	0.617	5906	31087	15.48
		104	0.668	5940	31266	15.57
		107	1.436	6457	33991	16.93
	Total		12.276	73081	384698	191.6

3.1.2 Basic Information of Zone - 5

Zone 5 encompasses 9 wards (10, 18, 23, 25, 36, 41, 45, 54, 65) and spans across an area of 52.426 square kilometers. At present, the estimated population in this zone stands at 352196, with a total of 66,909 households within these wards. Looking forward to 2031, there is an anticipated surge in population, projected to reach 409646. This expansion is accompanied by an anticipated rise in waste generation, projected to reach 166.5 metric tons per day (MTD) in the coming years.



S No	Zone Name	Ward No	Area	Household	Population	Waste Generation
1	Zone-5 (9 Wards)	10	25.806	7361	38749	18.32
		18	8.145	7952	41857	19.79

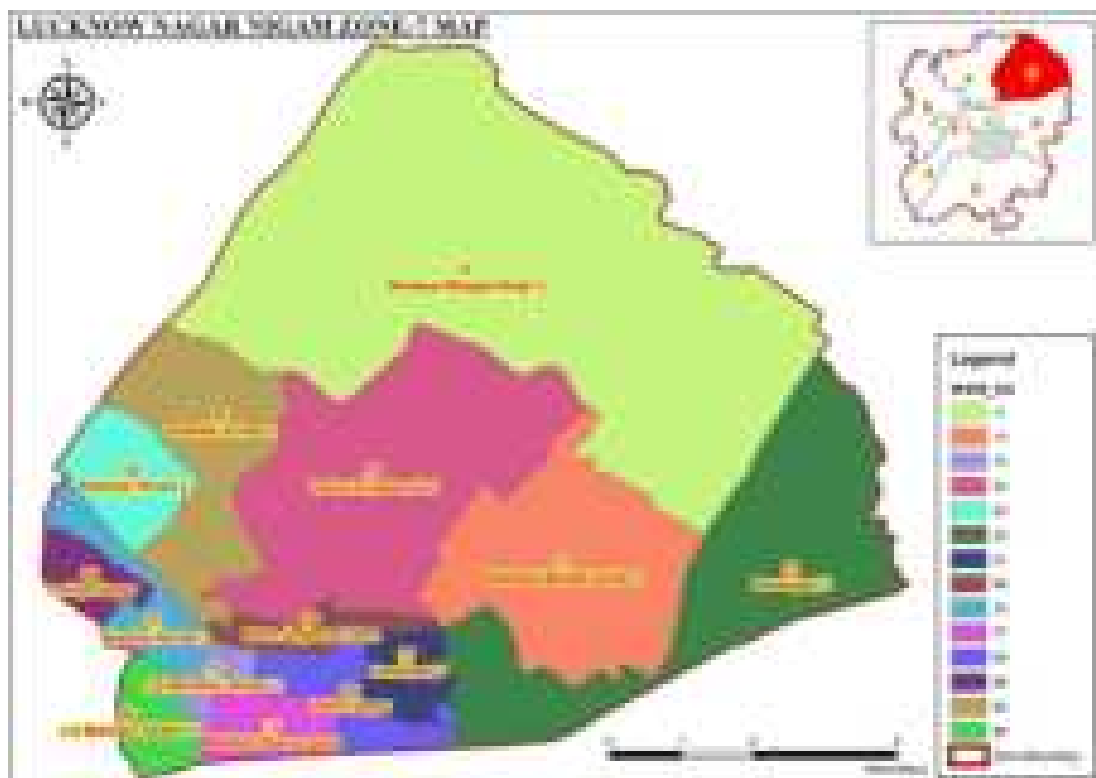
		23	1.096	7360	38741	18.32
		25	1.225	8024	42236	19.97
		36	6.257	6600	34744	16.43
		41	2.050	7828	41204	19.48
		45	3.496	7545	39714	18.78
		54	1.974	7006	36879	17.43
		65	2.377	7233	38072	18.00
		100	25.806	7361	38749	18.32
	Total		52.426	66909	352196	166.5

When examining waste generators, it's observed that there are 335 domestic bulk waste generators, constituting a significant portion of the waste stream. Additionally, the commercial sector, especially malls, plays a pivotal role, with 593 bulk waste generators in this category. Alongside, there are 59 commercial bulk waste generators, further highlighting the diverse sources of waste within Zone 5. This data underscores the critical need for meticulous and strategic waste management planning to effectively address the varying scales and types of waste generation within this zone. Such planning is essential to ensure sustainable and efficient waste management practices in the face of substantial urban growth and development.

3.1.3 Basic Information of Zone - 8

Zone 8 encompasses 13 wards (1, 2, 3, 4, 5, 6, 19, 29, 30, 35, 56, 60, 64) and spans across an area of 135.449 square kilometers. Currently, this zone is estimated to house a population of 4,97,983 with a total of 94,602 households spread across these wards. Looking ahead to 2031, a notable population surge is anticipated, with projections indicating a figure of 5,79,213. This growth trajectory highlights the dynamic nature of Zone 8, with substantial urban development on the horizon.

This expansion is accompanied by an expected increase in waste generation, estimated to reach 231.60 metric tons per day (MTD) in the years to come.



Upon closer examination of waste generators, it becomes evident that there are 473 domestic bulk waste generators, forming a substantial portion of the waste stream. Furthermore, there are 71 commercial bulk waste generators within Zone 8. Ward wise detail of zone 8 is tabulated below

S No	Zone Name	Ward No	Area	Household	Population	Waste Generation
1	Zone-8 (13 Wards)	1	30.800	7788	40994	19.07
		2	19.885	7163	37708	17.54
		3	18.469	7661	40328	18.76
		4	7.721	7034	37025	17.22
		5	25.663	7772	40914	19.03
		6	14.619	7281	38326	17.83
		19	3.505	7030	37007	17.21
		29	3.606	6981	36748	17.09
		30	2.402	7887	41517	19.31
		35	1.942	6883	36230	16.85
		56	1.488	6712	35333	16.43
		60	2.590	7238	38102	17.72
		64	2.761	7172	37751	17.56
	Total		135.449	94602	497983	231.60

4 Project Components

The various components of proposed project of Integrated Solid Waste Management system are based on the assessment of the existing deficiencies and mandatory requirement as per MSW Rules 2016.

- A. Door to Door Collection of MSW from Household, commercial, institutional and other area and its transportation to the MRF/designated site on daily basis.

- ✓ This component involves the systematic & segregated collection of Municipal Solid Waste (MSW) from diverse sources including households, commercial establishments, institutions, and other areas. This process is conducted on a daily basis, ensuring that waste is gathered efficiently from various points and transported to Material Recovery Facilities (MRF) or designated sites for further processing.

- B. Design, Develop and Operation & Maintenance of MRF cum Transfer station/PCTS/FCTS and recovery of recyclables.

- ✓ This step encompasses the entire lifecycle of a Material Recovery Facility (MRF) coupled with a Transfer Station. It involves the conceptualization and planning of the facility, and its ongoing operation and maintenance whereas it's construction will be responsibility of LMC. The primary goal of the MRF is to sort and segregate recyclable materials from the waste stream. Additionally, this component includes the recovery of recyclable materials, contributing to sustainable waste management practices.
- ✓ Concessionaire shall be responsible to operate MRF facility at Transfer Station/FCTS/PCTS or any other designated site by the Authority.
- ✓ Concessionaire shall be allowed to sell the recyclable waste to Kabadiwala/ Secondary market and shall retain sales realizations towards overall financial sustainability of the project.
- ✓ Concessionaire shall record monthly return for the sales realization from the sale of such dry waste with the Authority
- ✓ Concessionaire shall be responsible for complying applicable laws on sale or disposal of such waste.
- ✓ Any E- Waste recovered while segregation at MRF, the segregated E-waste shall belong to LMC and shall be handed over to LMC. Concessionaire shall not claim any revenue out of the E-waste received at MRF.
- ✓

- C. Secondary Transportation of wet and dry waste to to designated processing site
- ✓ Once the waste is processed at the MRF or designated sites, it undergoes a secondary transportation process. This entails the movement of both wet (organic) and dry (non-organic) waste to designated processing sites. This phase ensures that the waste reaches its final destination for appropriate treatment and disposal.
- D. Manual Road/Street /pavement / footpath / paved path /cycle track Sweeping, and Removal of garbage, litter, silt and blockages from street sides and transportation of sweeping Waste to designated disposal site/collection centres.
- ✓ This component focuses on the physical cleaning of various public spaces such as roads, streets, pavements, footpaths, paved paths, and cycle tracks. It involves both manual and mechanized methods to sweep and clean these areas. In addition, it encompasses the removal of garbage, litter, silt, and any blockages from the sides of streets. The collected waste is then transported to designated disposal sites or collection centers.
- E. Cleaning of drain size upto 45cm shall be done on a weekly basis, and drains above 45 cm and up to 1.0 meter shall be cleaned once every 15 days and collected silt shall be transported to designated disposal sites or collection centres. Drains covered with stone or slab shall also be cleaned periodically by manual/mechanical system.
- This task involves the regular cleaning of drains at defined interval to ensure that the drains remain clear and functional. The silt and waste extracted from these drainage systems then shall be transported to designated disposal sites or collection centers for appropriate disposal.
- ✓ .
- F. Collection & Transportation of Horticulture Waste to designated processing site.
- ✓ This activity focuses on the collection and transportation of horticulture waste to designated processing sites. This includes organic waste generated from landscaping and gardening activities. Proper handling and disposal of horticulture waste contribute to sustainable waste management practices.
- G. Collection & Storage of Domestic Hazardous Waste to designated collection center.
- ✓ This component addresses the specific handling of hazardous waste generated within households. It involves the collection and storage of domestic hazardous waste in designated collection centers, ensuring that potentially harmful materials are managed in a controlled and secure manner.
- H. Collection of user charges from households, commercial establishment, institutional establishment & BWG's on behalf of Lucknow Municipal Corporation and deposit it into Escrow account of Lucknow Municipal Corporation.
- ✓ This function involves the systematic collection of user charges from various sources including households, commercial establishments, institutional setups, and Bulk Waste Generators (BWGs). These charges are collected on behalf of the Lucknow Municipal Corporation and are subsequently deposited into an Escrow account dedicated to the corporation. This ensures that the funds are appropriately allocated for the management and maintenance of the waste management system.
- I. Build, Operate & Maintain workshop for maintenance of vehicle/equipment.
- J. Setup a command-and-control centre cum control room for online monitoring and equipped with emergency response mechanism.

5 Scope of the Project

The scope of the Project includes the following:

The Successful Bidder would design, procure, finance, construct, operate and maintain the Project during the Concession Period on a Design- Build - Operate - Transfer (DBOT) Concession basis. The Project would be transferred back to the ULBs at the end of the Concession Period.

5.1 Preparation of Detailed Project Report:

The Project Information Memorandum is only being provided for the purpose of reference of the Bidders. The Concessionaire shall within 1 months of the signing of Agreement provide LNN with a Detailed Project Report ensuring compliance of the same with the proposed C&T Plan, and detailing out the design, drawings, specifications and cost estimates of all the items. The Concessionaire shall have the liberty to suggest different equipment for collection, transportation of waste, provided however the DPR must adhere to the C&T Plan as detailed out in the Project Information Memorandum.

- a) Approvals for the Project:
 - i. Obtaining Environmental clearances from MoEF/SEIAA as the case may be.
 - ii. AAI clearance if required.
 - iii. Water allocation, construction power for project and any other clearances.
 - iv. Renewal/ obtaining of all project related clearances required for the project.
 - v. And all other clearances and permits as are required to be procured for the implementation of the Project in terms of the Concession Agreement
- b) Collection of Waste: Door to door collection of waste from all the wards under project area. The door to door collection to include all government office complexes, non-government office complex, authorized colonies, unauthorized regularized colonies, all market/ commercial/ institutional places, slums and even from undesignated points by means of deployment of suitable vehicles. This shall also include by-lanes, lanes and streets. The bidder shall also be responsible for collection of waste from road side litterbins, horticulture waste, Drain Silt, Sweeping Waste etc. All the collection vehicles shall be fitted with GPS devices and shall be conned with central server established at command & control center for their monitoring. All the household, shop, establishments shall be provided with RFID tags and one RFID reader with each collection vehicle to record attendance. System shall automatically record and transfer data to central server.

Concessionaire shall ensure separate collection & transportation of Domestic Bio-medical and domestic hazardous waste as per relevant Rules and standards.
- c) Transportation of Waste:

MSW collected from Door to Door shall be transported to waste processing and landfill site either directly from primary collection vehicles or through secondary transportation vehicles. All the Transportation vehicles shall be fitted with GPS devices and shall be connected with central server established at command & control center for their monitoring.

The operator shall keep in reserve sufficient number of transport vehicles for any unforeseen eventuality/festival/fair /important events/ emergency conditions.
- d) MRF cum Transfer facility: The Concessionaire shall be responsible for operation of MRF cum Transfer facility. Such facilities shall be established by Authority as per design and drawing prepared by concessionaire and approved by Authority. during the tenure of the Concession Agreement, the Authority shall, at the request of the Concessionaire, make available additional MRF and Waste transfer facility, if it becomes necessary because of increased quantum of waste or project area, in accordance with the terms of the Concession Agreement.

- e) Drain Cleaning: Clearing and uprooting rank vegetation, grass, bushes, shrubs, saplings and trees, removal of stumps of trees cut if any and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, including removal and disposal of top organic soil and any kind of temporary, permanent, RCC, PCC and other solid obstruction from the drains. Excavation and removal of silt or silt mixed with sand in slushy condition from drain bed including lift and disposing off the same.
- f) Road Sweeping: The Operator shall ensure to conduct sweeping and cleaning of the roads of project area with carriage way up to 7 mtrs including service roads, Arterial Roads (streets, narrow streets, gullies) footpaths, road berms, central verge, curb channels, curb stones gully etc., which means complete solution for RoW (right of way) of roads up 7.0 m carriage way, the objective is to keep the areas litter and dust free for 24x7.
- g) Segregation of Waste:
 - i. Segregation of waste at source as well as at the MRF cum transfer station.
 - ii. Recovery of recyclable materials at MRF centres.
- h) Domestic Hazardous & Domestic bio-medical waste
 Concessionaire shall ensure separate collection & transportation of Domestic Bio-medical and domestic hazardous waste and also ensure disposal of such waste as per relevant Rules and standards.
- i) Transportation of waste generated from Road Sweeping and Drain Cleaning Activity:
 The Concessionaire shall be responsible for Transportation of waste generated from sweeping of roads and cleaning of drains falling within Zone-4 area. Sweeping of roads and Cleaning of drains is part of scope of work.
- j) Procurement of Equipment/ Machinery: All procurement of equipment, vehicles and machinery required for door to door collection, Transportation, manual waste sweeping & drain cleaning shall be done by the Concessionaire within the stipulated time period. The Concessionaire shall also be responsible for installation of equipment and machineries and testing of the same.

5.2 General recommendation and Guidelines for Waste Collection, Transportation

The successful bidder shall design detailed plan/DPR for collection, transportation, drain cleaning & road sweeping activity in accordance to the provisions mentioned in Schedule 1 of DCA and provisions mentioned hereunder.. Concessionaire shall prepare fleet deployment schedule and route chart however type of vehicles shall match to the requirements of DPR.

The activities covered under proposed collection & Transportation system are as given below

1. Storage of Segregated waste
2. Segregation of Other waste
3. Primary Collection and transportation of waste including Domestic Hazardous & Domestic Bio-medical waste
4. Drain cleaning
5. Manual & Mechanised Road Sweeping
6. Secondary transportation

Concessionaire shall prepare his own detailed plan for door-to-door collection, Transportation drains cleaning & road sweeping including route plan, vehicle deployment plan, schedule of work, scheduled maintenance plan and work plan in case of emergency.

On the basis of waste carrying capacity of vehicles, concessionaire shall assign fixed area for door to door collection of waste, drain cleaning & road sweeping that is Vehicle Traverse Area (VTA) to each

vehicle. Proposed system shall be based on 100% door to door collection. Litter bins shall be proposed on main roads and market for storage of litter.

Process flow & work plan to be adopted for proper implementation of SWM scheme in the Lucknow City



5.3 Storage of Segregated waste

It is desirable that no waste should be allowed to be thrown on the streets, footpaths, open spaces, drains or water bodies, nallas, etc.

Waste should be stored at source of waste generation in three bins/ bags, one for food waste/ bio-degradable waste and another for recyclable waste such as papers, plastic, metal, glass, rags etc. and a bin/bag for domestic hazardous waste.

Domestic Hazardous Waste such as used batteries, containers for chemicals plastics pesticides, discarded medicines and other toxic or hazardous household waste, if and when produced, should be kept separately from the above two streams of waste and will be transported on call basis.

5.4 Segregation of Recyclable/ Non-Biodegradable Waste:

A quarterly program of conducting awareness campaign in various wards of the city utilizing the ward committees, local NGOs and resident welfare association shall be planned. Simple literature may be developed for bringing in the awareness, which may be publicized through media using cable network, and group meetings in different areas through NGOs. The sanitation supervisors may also create awareness during their field visits.

As soon as the awareness campaign picks up, the concessionaire may direct households, shops and establishments not to mix recyclable waste with domestic food/bio-degradable waste and instead store recyclable/non-bio degradable wastes in a separate bin or bag at the source of waste generation.

5.5 Primary collection & Transportation of waste

- For primary collection of waste two types of vehicles are proposed. Concessionaire will be free to select any capacity of vehicles for door to door collection mounted with twin buckets for segregated collection of biodegradable and non-biodegradable waste. Auto tripper would be used to collect waste from household near major roads.

- The waste collected from the Household will be transferred to designated transfer station. Two types of road side containers are proposed: -
 - 1100 litre CP bins - These bins will cater the requirement of commercial as well as domestic waste of household along major road and dual carriage and RCV will collect these waste directly.
 - 2 x100 litre twin Bins- The bins will be used to avoid littering along the road of project area. The waste from these bins shall be transferred to RCV directly.

Mode of Operation: Each auto tipper will collect the waste from door step and will transfer the waste to MRF cum transfer facility. The road side containers shall be lifted directly by RCV and it will be directly going to Material Recovery Facility while street and drain silt may be stored at designated Collection Point or it may be directly transferred to disposal site.

It is proposed that each Auto tipper shall have two sweepers and Manual Rickshaw/E-Rickshaw shall have one sweeper with each vehicle to collect the waste from houses and put it into vehicles. Concessionaire is free to devise his own plan for labour and fleet deployment based on his own assessment of labour efficiency. Each sweeper shall be given a fixed number of houses of particular beat from where they need to collect the domestic waste.

Proposed timing of entire operation can be summarized as under: -

Door to Door collection from houses	: 6.00 Am to 02.00 PM
Collection of non-domestic waste and Litter bins	: 10:00 AM to 6:00 PM
Collection of waste from 1.1 cum community bins	: 6:00 AM to 2:00 PM
Manual Sweeping Starting Time:	
April to September	: 05:00 AM
October to March	: 05:30 AM

5.6 Transportation of Waste

Waste collected from Households, Shops, offices, Commercial areas, restaurant, sabzi market, fruit/vegetable shop and meat/fish shop shall be transferred separately in segregated manner to designated processing site.

5.7 Work shop for maintenance

The Public-Private Partnership (PPP) partner will establish a dedicated workshop for the maintenance of vehicles and equipment used in the integrated solid waste management system. This facility will serve as a crucial hub for servicing, repairs, and upkeep, ensuring that all vehicles and equipment remain in optimal working condition. The workshop will play a vital role in ensuring the seamless operation and efficiency of the entire waste management process, contributing to the overall success and sustainability of the project.

5.8 Command Control & Response Mechanism

5.8.1 Minimum Technical Specifications

The approximate area of the complaint handling cell shall be about 100 -200 Sq. ft., where one customer care executive can sit with 4-5 customers at a given point of time.

5.8.2 Equipment / Facilities at Customer Handling Cells

The equipment / facilities to be provided at each Customer Handling Cell are proposed as follows:

S. No.	Equipment / Implement	Number
1.	Computer with in-built modem & fax software	1
2.	Printer	1
3.	Telephone (land line)	1
4.	Wireless/ Mobile phone	1

5.	Complaint log book	1
6.	Table	1
7.	Chairs	4-5
8.	Office Stationery	As Required

5.8.3 Staffing Pattern at Customer Handling Cells

The staffing pattern to be provided at each Customer Handling Cell is as follows:

S. No.	Staffing Aspect	Details
	Total Number	1 -2 Operating staff
	Type of staff	1 Customer support executive, supervised by all department heads Graduate with good communication skills and with prior experience in customer services; With working knowledge of computers

5.8.4 Complaint Resolution Mechanism

The proposed Complaint Resolution mechanism is as follows:

- Every complaint (whether written / telephonically) will be given a reference number and will be communicated to the complainant.
- Each complaint will then be directed to the pertinent department head. All department heads will make effort.
- To resolve all complaints within 24 hours of registration.
- Complaints when resolved, the message will be sent to the complaint cell executive with a copy to the complainant.
- All complaints and their status will be available in the computerized database, which could be accessed by all department heads at their office. All records of complaints in the database will be maintained for a period as desired by municipal authority. Each record in the database will carry the complaint number, description, time of complaint registration and time of complaint redressal, pertinent official (who resolved the complaint).

6 Annexures

6.1 Annexures - I Detail of Existing Infrastructure & Required infrastructure Existing Infrastructures at Lucknow Nagar Nigam

➤ For Zone - 2

Sl. No.	Description	Qty to be Procured	Unit	Existing Vehicle at Zone-2
1	Diesel/CNG Auto Tippers of capacity up to 3600 liter with suitable twin compartments including fabrication hydraulic lifting and unloading arrangement.	47	Nos.	22
2	Tricycle with 8*40 /E Rickshaw with suitable twin compartments including fabrication hydraulic lifting and unloading arrangement..	193	Nos.	87
3	Sweeping tools (Metal tray and metal plate, long handled brooms, shovels and protective gears).	327	Nos	0
4	Carcass Lifting Vehicles	1	Nos	0
5	Online Monitoring System			
6	IEC Activities			
	Material Recovery Facility			
1	MRF cum FCTS required	1	Nos	0
2	MRF structure	3	Nos	2
3	MRF Machineries & Equipment	3	Nos	0
4	Portable Compactor	9	Nos.	0
5	Front End Loader with Tractor Attachment	3	Nos	2
6	Leachate Suction Machine for Leachate Collection from MRF Centres	2	Nos	0
C	Drain Cleaning			
1	50 HP Tractor with Trolley for Collection of Silts	5	Nos	4
2	Robo for Cleaning of Waste from Drain	2	Nos	2
3	Super Sucker Machines for Cleaning of Drains	1	Nos	0
D	Collection & Transportation of Green Waste			
1	35 HP Tractor with Trolley for Collection of Green Waste	1	Nos	1

➤ For Zone - 5

Sl. No.	Item Schd.	Description	Qty to be Procured	Unit	Existing Vehicle at Zone-5
1	NS	Diesel/CNG Auto Tippers of capacity up to 3600 liter with suitable twin compartments including fabrication hydraulic lifting and unloading arrangement.	87	Nos.	25
2	NS	Tricycle with 8*40 /E Rickshaw with suitable twin compartments including fabrication hydraulic lifting and unloading arrangement..	59	Nos.	59
3	NS	Sweeping tools (Metal tray and metal plate, Long handled brooms, shovels and protective gears).	254	Nos	0
4	NS	Carcass Lifting Vehicles	1	Nos	0
5	Annex	Online Monitoring System			
6	Annex	IEC Activities			
		Material Recovery Facility			
1	NS	MRF cum FCTS required	1	Nos	0
2	NS	MRF structure	3	Nos	1
3	NS	MRF Machineries & Equipment	3	Nos	0
4	NS	Portable Compactor Bins	8	Nos.	7
5	NS	Front End Loader with Tractor Attachment	3	Nos	0
6	NS	Leachate Suction Machine for Leachate Collection from MRF Centres	2	Nos	0
C		Drain Cleaning			

1	NS	50 HP Tractor with Trolley for Collection of Silts	4	Nos	3
2	NS	Robo for Cleaning of Waste from Drain	2	Nos	1
3	NS	Super Sucker Machines for Cleaning of Drains	1	Nos	0
D		Collection & Transportation of Green Waste			
1	NS	35 HP Tractor with Trolley for Collection of Green Waste	1	Nos	1

➤ For Zone - 8

Sl. No.	Description	Qty to be Procured	Unit	Existing Vehicle at Zone-8
1	Diesal/CNG Auto Tippers of capacity up to 3600 liter with suitable twin compartments including fabrication hydraulic lifting and unloading arrangement.	130	Nos.	43
2	Tricycle with 8*40 /E Rickshaw with suitable twin compartments including fabrication hydraulic lifting and unloading arrangement..	62	Nos.	62
3	Sweeping tools (Metal tray and metal plate, Long handled brooms, shovels and protective gears).	349	Nos	0
4	Carcass Lifting Vehicles	1	Nos	0
5	Online Monitoring System			
6	IEC Activities			
	Material Recovery Facility			
1	MRF cum FCTS required	1	Nos	0
2	MRF structure	3	Nos	2
3	MRF Machineries & Equipment	3	Nos	0
4	Portable Compactor Bins	11	Nos.	10
5	Front End Loader with Tractor Attachment	3	Nos	3
6	Leachate Suction Machine for Leachate Collection from MRF Centres	2	Nos	0
C	Drain Cleaning			
1	50 HP Tractor with Trolley for Collection of Silts	9	Nos	9
2	Robo for Cleaning of Waste from Drain	2	Nos	2
3	Super Sucker Machines for Cleaning of Drains	1	Nos	0
D	Collection & Transportation of Green Waste			
1	35 HP Tractor with Trolley for Collection of Green Waste	1	Nos	1

6.2 Annexure - II Equipment and Machinery - Monitoring and Tracking of C&T Operation

S. No.	Qt.	Particulars	Nos	Zone		
1	2	3	4	Zone – 2	Zone – 5	Zone – 8
1	NS	RFID Tag with Survey & Installation	No	73082	66907	94603
2	NS	RFID Machine	No	47	87	130
3	NS	GPS with Installation of any Make	No	47	87	130
4	NS	Biometric attendance machine (4 Nos at MRF	No	4	4	4
5	NS	Software for One Years for Operation and Maintenance	No	1	1	1
6	NS	Computer and Peripherals for Monitoring System with UPS	No	6	6	6
7	NS	CCTV Camera with DVR Facility	Lot	1	1	1
8	NS	Printer	No	1	1	1

9	NS	Tables & Chairs	Lot	1	1	1
10	NS	Stationary Items (Pen, Register) Fan Lights Paper weight Dustbin & etc	Lot	1	1	1

6.3 Annexure - III Manpower Required for Primary Collection

Sl.	Particulars	No of Man power		
		Zone – 2	Zone – 5	Zone – 8
1.	Labour Door to Door Collection	327	254	349
2.	Driver Auto Tipper	50	92	138
3.	Sanitary Supervisor	19	17	24
4.	Sanitary sub-Inspector	5	5	6
5.	Sanitary Inspector	2	2	2
6.	Project Manager	1	1	1
7.	Project Head	1	1	1

6.4 Annexure - IV Manpower Required for Material Recovery Facility

Particulars		No of MRF		
		Zone – 2	Zone – 5	Zone – 8
	Driver for Mini Loader	4	3	4
	Labour	24	18	24
	Supervisor cum operator	4	3	4
	Security	8	6	8

6.5 Annexure - V Manpower Required for Green waste & Debris

Particulars		No of Man power		
		Zone – 2	Zone – 5	Zone – 8
	Helper for Collection of Debris	17	14	19
	Driver for Collection of Debris	16	13	21
	Sanitary Supervisor	2	1	2
	Sanitary Inspector	1	1	1
	Project Manager	1	1	1

6.6 Annexure - VI Manpower Required for Manual Road Sweeping and Drain Cleaning

Particulars		No of Man power		
		Zone – 2	Zone – 5	Zone – 8
	Labour Street sweeping, Drain cleaning	381	1272	1268
	Sanitary Supervisor	19	63	63
	Sanitary sub-Inspector	1	3	3
	Sanitary Inspector	1	1	1
	Public Health Engineer/ Environmental engineer/ Civil Engineer Level Assistant Engineer	1		

6.7 Annexure - VII Manpower Required for Mechanised Road Sweeping

Deleted

6.8 Annexure - VIII Existing Transfer Station Details

Sl. No.	NAME	AREA
1.	Purania TS	1.30 acres
2.	Dayal Chauraha	1.1 acres

6.9 Annexure - IX Details of Existing MRF Centre

The construction of the sheds has been successfully completed. The chosen contractor is now tasked with the responsibility of setting up the entire Material Recovery Facility (MRF) center. This entails the installation, organization, and operation of all the necessary components and equipment within the constructed sheds. The contractor is expected to ensure that the MRF functions efficiently and effectively for the sorting and processing of recyclable materials, contributing to the success of the waste management project.

6.10 Annexure - X List of existing PCTS

➤ Zone - 2

Sl. no.	Zone	WARD	LOCATION	NO. OF PCTS
1	2	Labour Colony Ward	RAJAJI PURAM-1, ALITARANG	1
2	2	HERDEEN RAI NAGAR WARD	RAJAJI PURAM-2, MOHAN BHOG	2
3	2	Rajendra Nagar	Shubhas Marg Navyug College (Raniganj)	1
4	2	KuwarJyoti Prasad	Multistory	0
5	2	Rajendra Nagar	Dugawa Chowki	1

➤ Zone - 5

Sl no.	Zone	WARD	LOCATION	NO. OF PCTS
1	5	CHITRA GUPT NAGAR	Galla Mandi	2
2	5	SAROJINI NAGAR FIRST	KAPOORTHALA	1
3	5	OM NAGAR	Yadav Loha bhandar	2
4	5	Guru Govind Singh	Sec H Park	1

➤ Zone - 8

Sl no.	WARD	LOCATION	NO. OF PCTS
1	SHARDA NAGAR 2	SOUTH CITY	4
2	HIND NAGAR	SHUBHAM PALACE	1
3	Ibrahimpur 1	Vrindavan sector 8 A	1
4	VIDYAWATI1	SABHAGAR	2
5	VIDYAWATI 2,3	Madari Kheda	2
6	Ibrahimpur 1	Vrindavan Sector 8c, Amity School	1

6.11 Annexure - XI List of existing Open Dumping Points

➤ Zone - 2

SI No.	Zone	Ward Name	Open Dumping Points
1	2	MALVIYA NAGAR	GAS GODAM
2	2	MALVIYA NAGAR	GURSED ROAD
3	2	AISHBAGH	GUNGA BEHRA
4	2	AISHBAGH	RAM NAGAR
5	2	AISHBAGH	PRAKASH PURAM (BHADEWA)
6	2	RAJAJI PURAM	KARBALA
7	2	RAJAJI PURAM	C- BLOCK
8	2	RAJAJI PURAM	MARCHARI
9	2	RAZA BAZAR	JANTA NAGRI
10	2	YAHYAGANJ	JUBLIEE
11	2	YAHYAGANJ	CHUNGI
12	2	RAZA BAZAR	NAWABGANJ
13	2	YAHYAGANJ	SUBHASH COMPLEX
14	2	KUNWAR JYOTI	SACHIVALAYA
15	2	AMBEDKAR NAGAR	INDUSTRIAL AREA
16	2	RAZA BAZAR	MURTJA
17	2	KUNWAR JYOTI	ALAM NAGAR STATION

➤ Zone - 5

SI No.	Zone	Ward Name	Open Dumping Points
1	5	KRISHNA NAGAR TANKI	CHITRAGUPT NAGAR
2	5	TEJI KHERA	KHESARI KHERA
3	5	KANAUSI PULL	KHESARI KHERA
4	5	GURUDWARA	RAMJI LAL NAGAR
5	5	KABRISTAN	GEETAPALLI
6	5	SABJI MANDI	BABU KUNJ BIHARI
7	5	BADA BARHA	GURU GOVIND SINGH

➤ Zone - 8

SI No.	Zone	Ward Name	Open Dumping Points
1	8	Kharika Ist	Mohari Bag
2	8	Kharika 2nd	Kanshiram maidan
3	8	Ibrahimpur Ist	Durgapuri
4	8	ibrahimpur 2nd	Panchamkhera
5	8	vidyawati 3rd	Behind the Bulet
6	8	Sharada nagar ist	Dangal Maidan
7	8	Raja Pasi Bijli Lika Ist	Burger points near Nala
8	8	Raja pasi Bijli Lika 2nd	Tahsheel wala maidan
9	8	vidyawati 3rd	Baudh vihar shanti upvan
10	8	Hind nagar	SKD HOSPITAL
11	8	Hind nagar	Mata ji ki Bagiya
12	8	Ibrahimpur 2nd	Behind DPS

13	8	Sharada nagar 2nd	South city
14	8	Vidyawati Ist	Kila ganw
15	8	Vrindavan	Vrindavan-Sec 06
16	8	Vrindavan	Vrindavan-Sec 02
17	8	Vrindavan	Vrindavan-Sec 07
18	8	Kharika Ist	Shani mandir Teli bag
19	8	Vidyawati Ist	Ram leela Maidan



(Volume-III)

DRAFT CONCESSION AGREEMENT

Between

Lucknow Municipal Corporation

acting through

Its authorised Officer on this behalf

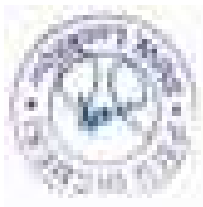
AND

(Concessionaire)

For

““Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”

(RFP NO. D.680/EE/23 Dated: 06/11/2023)



Issued on ----- 2023



Table of Contents

ARTICLE 1.....	4
1 DEFINITIONS AND INTERPRETATION.....	4
1.1 Definitions.....	4
1.2 The Standards	12
1.3 Interpretation.....	12
1.4 Measurements and arithmetic conventions.....	13
1.5 Ambiguities and Discrepancies.....	13
1.6 Priority of Agreements, Articles and Schedules	14
ARTICLE 2.....	15
2 CONCESSION.....	15
2.1 Grant of Concession.....	15
2.2 Concession Period.....	15
2.3 Extension in Concession Period	15
2.4 Acceptance of Concession.....	16
ARTICLE 3.....	17
3 PROJECT FACILITIES & SITE.....	17
3.1 Handover of Project facilities & Site.....	17
3.2 Rights, Title and Use of the project facilities & Site.....	17
3.3 Peaceful Possession.....	18
3.4 Applicable Permits.....	18
ARTICLE 4.....	19
4 Conditions Precedents	19
4.1 Authority's Conditions Precedent	19
4.2 Concessionaire / Selected bidder's Conditions Precedent	19
4.3 Damages for delay by the Authority	20
4.4 Damages for delay by the Concessionaire	21
ARTICLE 5.....	23
5 PROJECT MONITORING CONSULTANT.....	23
5.1 Appointment.....	23
5.2 Payments to Project Monitoring Consultant	23
5.3 PROJECT MONITORING CONSULTANT - SCOPE OF WORK	23
5.4 Scope of Services of the Project Monitoring Consultant.....	23
5.5 Obligations during Implementation Period.....	23

5.6	Active Operations Period.....	24
5.7	Obligations during Operations Period.....	27
5.8	Awareness Campaign	30
5.9	General Obligations	30
ARTICLE 6		31
6	CONCESSIONAIRE'S OBLIGATIONS	31
6.1	Performance Security	31
6.2	Financing Arrangement.....	31
6.3	Project Implementation: Construction Works	35
6.4	Project Implementation: Operation and Maintenance.....	35
6.5	Awareness Campaign	37
6.6	Insurance.....	37
6.7	Environmental Compliance	37
6.8	Land Use.....	38
6.9	Sale/Distribution of Recyclables.....	38
6.10	General Obligations.....	38
6.11	No Breach of Obligations.....	39
6.12	Maintenance of Records	39
ARTICLE 7		40
7	AUTHORITY's OBLIGATIONS	40
7.1	AUTHORITY's OBLIGATIONS.....	40
7.2	Specific Obligations	40
7.3	General Obligations	41
ARTICLE 8		42
8	PAYMENT OF CAPITAL GRANT & O&M FEE	42
8.1	Payment of Capital Grant.....	42
8.2	Payment of O&M Fee	43
8.3	Mechanism of Payment.....	44
8.4	User Charges	45
8.5	Revenue from Sale of Recyclable	47
8.6	Performance evaluation of services provided in the Concession Area	47
8.7	Performance based Payment.....	47
8.8	Payment of Incentive to the Concessionaire	47
8.9	Other Conditions.....	48

ARTICLE 9	49
9 ESCROW ACCOUNT.....	49
9.1 Escrow Account.....	49
9.2 Deposits into Escrow Account.....	49
9.3 Withdrawals during Concession Period.....	49
9.4 Withdrawals upon Termination.....	50
ARTICLE 10.....	51
10 Insurance.....	51
10.1 Notice of the Authority.....	51
10.2 Evidence of Insurance Cover	51
10.3 Remedy for failure to insure.....	51
10.4 Waiver of Subrogation.....	52
10.5 Concessionaire's waiver	52
10.6 Application of Insurance Proceeds.....	52
10.7 No Breach of Insurance Obligation.....	52
ARTICLE 11.....	53
11 Accounts & Audits.....	53
11.1 Audited accounts.....	53
11.2 Appointment of auditors	53
11.3 Certification of claims by Statutory Auditors	54
11.4 Set-off.....	54
11.5 Dispute resolution	54
ARTICLE 12.....	55
12 FORCE MAJEURE AND CHANGE IN LAW.....	55
12.1 Force Majeure Event.....	55
12.2 Notice of Force Majeure Event	56
12.3 Performance of Obligations	56
12.4 Termination due to Force Majeure Event	57
12.5 Liability for other losses, damages etc.....	59
12.6 Change in Law.....	59
ARTICLE 13.....	61
13 EVENTS OF DEFAULT AND TERMINATION.....	61
13.1 Events of Default	61
13.2 Risk and Cost work in case of concessionaire event of Default	63

13.3	Termination due to Event of Default	64
13.4	Rights of AUTHORITY on Termination.....	66
13.5	Accrued Rights of Parties	67
ARTICLE 14.....		68
14	HANDBACK OF PROJECT FACILITIES	68
14.1	Ownership	68
14.2	Concessionaire's Obligations	68
14.3	AUTHORITY's Obligations	68
ARTICLE 15.....		69
15	DISPUTE RESOLUTION	69
15.1	Amicable Resolution.....	69
15.2	Arbitration.....	69
15.3	Performance during Dispute	70
ARTICLE 16.....		71
16	REPRESENTATIONS AND WARRANTIES.....	71
16.1	Representations and Warranties of the Concessionaire.....	71
16.2	Representations and Warranties of AUTHORITY	72
16.3	Obligation to Notify Change	72
ARTICLE 17		73
17	MISCELLANEOUS	73
17.1	Assignment and Charges	73
17.2	Interest and Right of Set Off.....	73
17.3	Governing Law and Jurisdiction	73
17.4	Waiver	74
17.5	Survival	74
17.6	Amendments	74
17.7	Notices.....	74
17.8	Severability	75
17.9	No Partnership	75
17.10	Language	75
17.11	Exclusion of Implied Warranties etc.....	76
17.12	Counterparts	76
SCHEDULE "1"		77
SCHEDULE "2"		92

SCHEDULE “3”	115
SCHEDULE “4”	117
SCHEDULE “5”	118
SCHEDULE “6”	119
SCHEDULE “7”	121
SCHEDULE “8”	128
SCHEDULE “9”	138
SCHEDULE “10”	149
SCHEDULE “11”	158
SCHEDULE “12”	171
SCHEDULE “13”	179
SCHEDULE “14”	180
SCHEDULE “15”	199
SCHEDULE “16”	210
SCHEDULE “17”	213
SCHEDULE “18”	214
SCHEDULE “19”	219
SCHEDULE “20”	221
SCHEDULE “21”	224
SCHEDULE “22”	225
SCHEDULE “23”	226

(To be printed on a Non-Judicial Stamp Paper of Rs.100/-)

THIS AGREEMENT is made on this day of....., 20..... at Lucknow, Uttar Pradesh, India.

BETWEEN

Lucknow Nagar Nigam, a body constituted under the Municipal Act, having its office at Lucknow acting through its **Municipal Commissioner** (hereinafter referred "the Concessioning Authority" which expression shall unless excluded by or repugnant to the context, be deemed to include its successors and assigns); **OF THE FIRST PART termed as Authority**

AND

..... [Name of the SPV incorporated by the selected bidder/ bidders in case of consortium], a company incorporated in India under the Companies Act of 2013 and having its registered office at..... [address] duly represented through its Authorized

Person Mr./Ms._____,(----- Designation, if applicable) by a Board Resolution dated----- or by a Power of Attorney dated-----executed in his favour, (hereinafter referred to as the “Concessionaire”), which expression shall, unless repugnant to the context or meaning thereof, mean and include its successors and assigns) of the SECOND PART;

AND

M/s_____, a company incorporated under the provisions of Companies Act, 2013, having its Registered Office at _____, duly represented through its Authorized Person Mr./Ms. _____,(----- Designation, if applicable) by a Board Resolution dated----- or by a Power of Attorney dated-----executed in his favor, in its capacity as the Confirming Party to this Agreement (Hereinafter referred to as the ‘Preferred Bidder’ which expression shall, unless the context otherwise requires, include its successors, and administrators) of the THIRD PART.

OR

The Consortium of (i) M/s _____having its registered Office at _____, (ii) M/s _____having its registered office at _____,(iii) M/s _____having its registered office at _____, in their capacity as the confirming party to this Agreement (hereinafter referred to as the ‘Selected bidder’ which expression shall, unless the context otherwise requires, include its successors) duly represented through M/s_____, the Lead Member of the consortium, through its Authorized signatory Mr./Ms. _____of the FOURTH PART

MUNICIPAL COMMISSIONER, Lucknow Nagar Nigam, Concessionaire and the Confirming Party are hereinafter referred to individually as the “Party” and collectively as the “Parties”

WHEREAS,

- A. Urban Local Body (hereinafter referred to as “ULB”) of Lucknow is responsible for providing municipal and civic services, which includes the collection, transportation and disposal of Municipal Solid Waste generated in the city and road sweeping and drain cleaning in municipal area.
- B. The Ministry of Environment and Forests (MoEF), Government of India (GoI), has formulated the Solid Wastes Management Rules 2016 ("MSW Rules 2016"), which makes it mandatory for every municipal authority to implement a scientific solid waste management system wherein the Municipal Solid Waste is collected, transported, duly processed and the residual inert/non-biodegradable solid wastes disposed in an Engineered Sanitary Landfill (as hereinafter defined).

- C. **AUTHORITY** desires to establish a system of **Selection of Contractor for “Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”** as per SWM Rules 2016, at Lucknow Nagar Nigam in Uttar Pradesh, on a long-term Design, Build, Operate and Transfer (DBOT) basis.
- D. **AUTHORITY** carried out extensive project development work in connection with the Project (as hereinafter defined).
- E. **AUTHORITY** had invited competitive proposals from eligible Bidders for implementing the Project and in response thereto **AUTHORITY** received proposals from several persons including the Concessionaire for implementing the Project.
- F. **AUTHORITY**, after evaluating the aforesaid Proposals accepted the Proposal submitted by the Concessionaire and issued Letter of Acceptance No. _____ dated _____ to the Concessionaire for developing the Project.
- G. The Parties hereto are required to enter into the Concession Agreement being these presents to record the terms, conditions and covenants of the Concession.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS: -

ARTICLE 1

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

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

Act and Rules: The term "said Act" and "said Rules" shall mean and include the Municipal Act 2000 amended upto date and Rules framed there under from time to time, the Solid Waste Management Rules 2016 and all those/labour laws/ relevant laws and rules mentioned above/applicable to the contract.

Action against bidder: AUTHORITY shall take action against the bidder, if any worker of the bidder or any his/her employee mixes segregated waste at any point of collection, or fails to pick up waste as per the specified time schedule.

"Additional Cost" shall mean the additional capital expenditure and/or the additional operating costs or both as the case may be, which the Concessionaire would be required to incur as a result of Change in Law OR Change in Scope of work or delay on an account of non-fulfillment of obligations either during Construction period or during O&M period contained in this agreement in time by **AUTHORITY**

"Agreement" shall mean this Agreement, and include any amendments hereto made in accordance with the provisions hereof.

"Agreement Date" shall mean the date of this Agreement.

"Applicable Law" shall mean all laws in force and effect, including MSW Rules, as of the date hereof and which may be promulgated or brought into force and effect hereinafter in India including judgments, decrees, injunctions, writs or orders of any court of record, as may be in force and effect during the subsistence of this Agreement and applicable to the Project/the Concessionaire.

"Applicable Permits" shall mean all clearances, permits, authorisations, consents and approvals required to be obtained or maintained by the Concessionaire under Applicable Law, in connection with the construction, operation and maintenance of the Project during the subsistence of this Agreement.

"Appointed Date" shall mean the date on which all condition precedents are met or the date of start of Door-to-Door collection & Transportation work whichever is earlier.

"Arbitration Act" shall mean the Arbitration and Conciliation Act, 1996 and shall include any amendment to or any re-enactment thereof as in force from time to time.

"Bank" means a nationalized/scheduled bank incorporated in India

"Bank Rate" means the rate of interest specified by the Reserve Bank of India from time to time in pursuance of section 49 of the Reserve Bank of India Act, 1934 or any replacement of such Bank Rate for the time being in effect

“Bio-degradable waste” means the waste of plant and animal origin e.g. kitchen waste, food & flower waste, leaf litter, kitchen-garden waste, animal dung, fish/meat waste and any other material that gets decomposed by the action of living organism, as defined in SWM Rules 2016.

“Bio-medical Waste” shall have the meaning ascribed to it under the Biomedical Wastes (Management & Handling) Rules, 1998.

“Book Value” shall mean the cost of the fixed assets incurred by the Concessionaire for the Project, net of accumulated depreciation computed on straight line basis in accordance with the rates specified in Companies Act, 1956 and as determined by an independent firm of chartered accountants mutually agreed upon and appointed by the Parties.

Bulk generator means the owner, occupier or any other person representing owners and occupiers of housing society / housing complexes, restaurants; hotels, markets, industrial estates, parks, garden, traffic islands etc. and shopping complexes / malls and includes any government or public office building, or other users such as clubs, gymkhanas, marriage halls, recreation/ entertainment complexes hospitals, educational institutions, commercial establishments or other establishment sources / premises etc.

“Change in Law” means the occurrence of any of the following after the date of Bid:

- (i) The enactment of any new Indian law including laws related to environment;
- (ii) The repeal, modification or re-enactment of any existing Indian law
- (iii) A change in the interpretation or application of any Indian law by a court of record.

Provided that Change in Law shall not include:

- (i) Coming into effect, after the Appointed Date, of any provision or statute which is already in place as of the Appointed Date,
- (ii) 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 Appointed Date which is a matter of public knowledge,

“Change in Ownership” means a transfer of the direct and/or indirect legal or beneficial ownership of any shares, or securities convertible into shares, that causes the aggregate holding of the Selected Bidder, in the total Equity to decline below 100% until expiry of five years from date of execution of the concession agreement, and below 51% (fifty one per cent) thereof at any time during the remaining Concession Period, provided that any material variation (as compared to the representations made by the Concessionaire during the bidding process for the purposes of meeting the minimum conditions of eligibility or for evaluation of its application or Bid, as the case may be,) in the proportion of the equity holding of selected bidder or any member thereof to the total Equity, if it occurs prior to completion of the Concession Period, shall constitute Change in Ownership;

“COD” shall mean the commercial operations date of the Project which shall be the date on which the Project Monitoring Consultant has issued the Provisional Readiness Certificate or the Readiness Certificate in accordance with the provisions of this agreement.

“Collection” means lifting and removal of municipal solid waste (MSW) from designated collection points or any other location.

“Collection at Source” means the collection of municipal solid waste by the bidder directly from the premises of any building, bulk generators or common premises of a group of buildings etc.

“Construction Requirements” shall mean collectively the MRF cum Transfer station.

“Construction Works” shall mean all works and things required to be constructed by the Concessionaire, pursuant to the Construction Requirements and O&M Requirements.

Contract: The term "Contract" shall mean and include (i) NIT (ii) Terms and conditions of Contract (iii) Tender Form (iv) Form of acceptance (v) Form of agreement (vi) Additional or modified clauses added on account of the pre-bid meeting (vii) Mutually accepted conditions in writing signed by both the parties; AUTHORITY and Contractor. Thus, the Contract means the agreement between the successful Bidder (The Bidder to whom the work order is given) and AUTHORITY as recorded in the article of agreement signed by the successful Bidder and AUTHORITY, including all appendices, attachment and documents mentioned therein. The successful Bidder then becomes the Concessionaire/ service provider of the project/work.

“Contractor” shall mean any Person with whom the Concessionaire has entered into/may enter into any material contract in relation with the Construction Works and O&M Requirements.

“Contract Amount”: The term "Contract Amount" shall mean the sum quoted by the Contractor in his offer and accepted by the Company.

“Concessionaire”: concessionaire shall mean the “the name of the SPV formed by Bidder/Consortium.....”and includes its successors and permitted assigns expressly approved by ULB

“Conditions Precedent” shall have the meaning set forth in Article 4

“Door Step Collection” shall mean collection of MSW from residential units, slums, vegetable/ fruit markets, slaughter house, fish/ chicken/ mutton shops, commercial and institutional areas, Marriage gardens/Hall, Thela/Khomcha, industrial area, public places and streets and any other areas, within the Lucknow Municipal Area, not excluded elsewhere in this document.

“Disposal Site” shall mean the designated land at Shivari used by the Authority for disposal of collected solid waste by the Concessionaire;

“Disaster” shall mean catastrophe, mishap, calamity or grave occurrence in any Project Area, arising out of natural or manmade causes or by accident or negligence which causes substantial loss of life or human suffering or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area;

“Drawings” shall mean all of the drawings, designs, calculations and documents pertaining to the Project in accordance with the Construction Requirements and O&M Requirements.

“Emergency” shall mean a condition or situation that is likely to endanger the safety of the individuals on or about the Project Facilities or which poses an immediate threat of material damage to any of the Project Facilities.

“Encumbrance” shall mean any encumbrance such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations and shall include without limitation any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Project, physical encumbrances, claims for any amounts due on account of taxes, cesses, electricity, water and other utility charges and encroachments on the Project Facilities.

“Engineered Sanitary Landfill” shall mean the area within the Waste Processing and Landfill Facility, designed with protective measures against pollution of ground water, surface water and air fugitive dust, wind-blown litter, bad odor, fire hazard, bird menace, pests or rodents, greenhouse gas emissions, slope instability and erosion, and utilitised for disposal of inert/non processable residue coming out of Waste processing plant.

“Environment and Social Impact Assessment Plan” shall have the meaning set forth in Schedule 8

“Excluded Waste” waste material of the nature that the Project Facilities are not designed or authorized to receive, manage, process and dispose which includes C&D Waste, Hazardous Waste, Bio-medical Waste, Treated Bio-medical waste.

“Escrow Account” means an account opened with a nationalized bank, prior to start of work, in which all inflows and outflows of cash on account of capital and revenue receipts and expenditure shall be credited and debited, as the case may be, in accordance with the provisions of this Agreement.

“Estimated Project Cost” shall mean project cost estimated in DPR prepared by Concessionaire and approved by AUTHORITY as per provisions of concession agreement.

“Expiry Date” shall mean the date on which Post Closure Period ends.

“Financial Closure” shall mean a legally binding commitment of equity holders (of consortium) and debt financiers (Banks/Financial Institution) to provide or mobilize funding for the project where such funding must account for the whole of estimated project capital expenditure;

“Financing Documents” shall mean collectively the documents evidencing Lenders’ commitment to finance the Project.

“Financial Institution (FI)” shall mean a scheduled bank, and any other Financial Institution defined or notified under the Reserve Bank of India Act.

1934;

Financial Statement shall mean in relation to a company, includes

- (i) a balance sheet as at the end of the financial year;
- (ii) a profit and loss account, or in the case of a company carrying on any activity not for profit, an income and expenditure account for the financial year;
- (iii) cash flow statement for the financial year;
- (iv) a statement of changes in equity, if applicable; and
- (v) any explanatory note annexed to, or forming part of, any document referred herein from (i) to (iv) above;

“Financial Year” shall mean the period commencing from April 1 of any given year to March 31 of the succeeding year.

“Force Majeure” or **“Force Majeure Event”** shall mean an act, event, condition or occurrence as specified in Article 12.

“GoI” shall mean the Government of India.

“GoUP” shall mean the Government of Uttar Pradesh.

Good Industry Practice: The term shall mean exercise of that degree of skill, diligence prudence & foresight in compliance with the undertakings and obligations as under the agreement which would reasonably and ordinarily are expected of a skilled & experienced persons engaged in the implementation, operations and maintenance or supervision or monitoring thereof of any of them of a project similar to this project

“Government Agency” shall mean GoI, GoUP, AUTHORITY or any state government or 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 Facilities 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.

“Hazardous Waste” shall have the meaning as defined under the Hazardous Wastes (Management and Handling) Rules, 1989 and as amended thereto.

“Horticultural Waste” shall mean the leaves, tree branches, garden waste generated from households, public places and commercial establishments in the project area;

“Hot Spots” shall mean those locations/ commercial places/ public places within the Project Area experiencing high foot fall, which maybe market places, bus stands, banks of water bodies/ canals, areas under the bridges & flyovers, railway stations, malls, recreation centers and those places where littering is high and frequent as listed in the approved MIOP and subsequent amendments thereof;

“Household” refers to the "Sources of Domestic Waste." In the case of a G+3 house with a kitchen on each floor, depending on the family size, it may be regarded as distinct

households.

“IEC Activities” shall mean the activities to be performed by the Concessionaire during the Concession Period;

Inert Solid Waste means any solid waste or remnant of processing whose physical, chemical and biological properties make it suitable for sanitary land filling.

“Implementation Period” shall mean the period from the Agreement Date to COD.

“Project Monitoring Consultant” shall mean the Project Monitoring Consultant appointed by AUTHORITY and shall have the meaning ascribed thereto in Article 5

“Lenders” shall mean financial institutions, banks, funds and trustees for bond holders or debenture holders, who have provided funds to the Concessionaire for financing any part of the Project.

“Material Adverse Effect” shall mean a material adverse effect on (a) the ability of the Concessionaire to exercise any of its rights to perform/discharge any of its duties/obligations under and in accordance with the provisions of this Agreement and/or (b) the legality, validity, binding nature or enforceability of this Agreement.

“Material Breach” shall mean a breach by either 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.

“Micro Implementation and Operation Plan (MIOP)” shall mean the detailed Project Implementation and Operation Plan to be submitted by the Concessionaire to the Authority and IE, covering the micro level details of the Project operation like street wise, ward wise and zone wise infrastructure provisioning and service delivery thereon for achieving the performance standards as per the Schedule 18;

“Mobilization Period” shall mean the period between date of issuance of LOA and issuance of Completion Certificate. It indicates the time given for putting all manpower, vehicle, equipment and machinery in place to commence the operation as agreed by the Concessionaire in MIOP;

Municipal Solid Waste: Municipal Solid Waste includes commercial, residential and other waste generated within the limits of AUTHORITY either in solid or semi-solid form excluding industrial hazardous waste but including treated bio-medical waste. The term Solid Waste shall further mean the Municipal Solid Waste as described under the SWM Rules 2016 notified by MoEF, Govt. of India, notified on 8 April, 2016, generated in the Concession area by all generators which includes domestic/residential, commercial, institutional, green waste generated in the work area inclusive of private markets, recreation centers, public places and from the places of occasional accumulation of such solid waste.

“Monthly Reports” shall constitute the reports to be submitted monthly as defined in the Schedule 15

“O&M” means the operation and maintenance of the Project and includes all matters connected with or incidental to such operation and maintenance and provision of services and facilities in accordance with the provisions of this Agreement

“O&M Requirements” shall mean the requirements as to operation and maintenance of project facilities set forth in **Schedule 2**.

“Operations Period” shall mean the period commencing from COD and ending at the expiry of the Concession /Termination;

Party or Parties mean Lucknow Nagar Nigam and the Contractor/ Service provider who has been assigned the work. **“Parties”** shall mean the parties to this Agreement and **“Party”** shall mean either of them, as the context may admit or require.

“Performance Security” shall mean the guarantee for performance of its obligations to be procured by the Concessionaire in accordance with this agreement.

“Person” shall mean (unless otherwise specified or required by the context), any individual, company, corporation, partnership, joint venture, trust, unincorporated organisation, government or government body or any other legal entity.

“Preliminary Notice” shall mean the notice of intended Termination by the Party entitled to terminate this Agreement to the other Party setting out, inter alia, the underlying Event of Default.

“Project” shall mean design, financing, construction, operation and maintenance of the Project Facilities such as MRF cum TS in accordance with the provisions of this Agreement.

“Project Assets” means all physical and other assets relating to and forming part of the Site including (a) rights over the Site, Right of Way or otherwise; (b) tangible assets such as civil works and equipment/ vehicles including foundations, roads and pavements, drainage works, electrical systems, communication systems and administrative offices, transport vehicles; (c) Project Facilities situated on the Site; (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 authorisations relating to or in respect of the Project

“Project Monitoring Consultant” shall mean a reputed Person being a firm, company or a body corporate appointed in accordance with this agreement for supervision and monitoring of compliance by the Concessionaire with the Construction Requirements and O&M Requirements, more particularly to undertake, perform and carry out the duties, responsibilities, services and activities set forth in this agreement which can also be termed as project Management Consultant that is **“PMC”**

“Project Facilities” shall mean all the amenities and facilities, including transportation vehicles and (a) Transfer Points, (b) MRF, (c) The machinery and equipment procured, installed and operated and (f) all other project related physical assets (g) and any other offsite facilities created for the Project.

Public place includes any road, arch road, viaduct, lane, footway, alley or passage, highway, causeway, bridge, square alley or passage whether a thoroughfare or not over which the public have a right of passage, and such places to which the public has access such as parks, gardens, recreation grounds, playgrounds, beaches, water bodies, water courses, public plazas and promenades, government and municipal buildings, public hospitals, markets, slaughter houses, courts, etc.

“Readiness Certificate” shall mean the certificate issued by Project Monitoring Consultant certifying, inter alia, that:

- (i) The Concessionaire has procured/constructed all the facilities for door to door collection, MRF.
- (ii) The Concessionaire has obtained all approvals necessary for door to door collection, MRF.

“Remuneration” shall mean all fees, costs, charges and expenses payable to the Project Monitoring Consultant in accordance with the terms of his appointment.

“Rupees” or “Rs.” refers to the lawful currency of the Republic of India.

The Services means all activities direct or ancillary to the work like guarding, up keeping, operating and maintaining the vehicles, equipment, systems and related infrastructure required performing the Work assigned to the successful bidder / Contractor in a specified manner for a specified period for fulfilling the desired performance. The services will include for door to door collection, operation of MRF as per SWM Rules 2016, on a long-term Design, Build, Operate and Transfer (DBOT) basis; for Municipal Solid Waste.

SPV means Special Purpose Vehicle Company.

“Specifications and Standards” means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Project, and any modifications thereof, or additions thereto, as included in the design and engineering for the Project submitted by the Concessionaire to, and expressly approved by, the Authority

“SWM Rules” shall mean the Solid Wastes Management Rules, 2016 and includes any amendments thereto.

“SPCB” State Pollution Control Board: specifically, State Pollution Control Board.

“Tax” shall mean and includes all taxes, fees, cess, levies that may be payable by the Concessionaire under Applicable Law.

Technical offer: The term shall mean the details of the technical and financial eligibility of the bidder; acceptance of the terms and condition of the project / work and undertakings regarding the same; project plan and operational details including identification of activities, resources requirement and details of type, capability, quality and quantity; methodology of work; plan of resources deployment; implementation plan and evaluation of the results. This will be contained in a separate cover.

“Termination” shall mean early termination of this Agreement pursuant to Termination Notice or otherwise in accordance with the provisions of this Agreement but shall not, unless the context otherwise requires, include expiry of this Agreement due to efflux of time in the normal course.

“Termination Date” shall mean the date specified in the Termination Notice as the date on which Termination occurs.

“Termination Notice” shall mean the notice of Termination by either Party to the other Party, in accordance with the applicable provisions of this Agreement.

“Termination Payment” means the amount payable by the Authority to the Concessionaire upon Termination in accordance with the provisions of this Agreement.

“Tests” shall mean the tests to be carried out in accordance with the Construction Requirements or the O&M Requirements.

“O&M Fee/O&M Fee” shall mean the amounts payable by AUTHORITY to Concessionaire in accordance with **Article 8**.

“O&M Fee Statement/O&M Fee statement” shall have the meaning as ascribed thereto in **Article 8**.

“O&M Fee/O&M fee Rate” shall mean the amounts payable per tonne of Municipal Solid Waste entering at waste processing site as set out in **Schedule 19**.

Transportation means conveyance of Municipal Solid Waste from place to place hygienically through specially designed transport system, so as to prevent foul odour, littering, spillage unsightly condition and accessibility to vectors.

“UPSPCB” shall mean Uttar Pradesh State Pollution Control Board.

“Waste generators” all residential, commercial establishments, institutions and other sources/ generators of MSW, located within the service area of AUTHORITY and generating MSW as defined in SWM Rules, 2016.

OTHER DEFINITIONS of TERMS: As defined in the SWM Rules 2016 of MoEF, Govt. of India.

1.2 The Standards

The Goods, vehicles, equipment, systems and services provided under the Tender/Contract shall conform to the standard as specified in the technical specifications;

In specific, Vehicles should conform to Euro IV standards of emission and above - up graded from time to time as per statutory requirement

Where no standards are specified for particular goods, vehicles, equipment, services, they should conform to the latest minimum Bureau of Indian Standards specifications if prescribed for the product, machinery, equipment, services required in the tender, if not prescribed under BIS they should conform to the latest ISO standard.

Or the authoritative latest standards used in the country of origin, appropriate to the specified goods, vehicles, equipment systems, and services.

A declaration will be submitted by the bidder / contractor for the above with the certification of the authorized agency of the origin

1.3 Interpretation

In this Agreement, unless the context otherwise requires,

- (a) any reference to a statutory provision shall include such provision as is from time to time modified or re-enacted or consolidated so far as such modification

or re-enactment or consolidation applies to, or is capable of being applied to any transactions entered into hereunder;

- (b) references to Applicable Law shall include the laws, acts, ordinances, rules, regulations, notifications, guidelines or bylaws which have the force of law;
- (c) the words importing singular shall include plural and vice versa, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organisations or other entities (whether or not having a separate legal entity);
- (d) the headings are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;
- (e) the words "include" and "including" are to be construed without limitation;
- (f) any reference to day, month or year shall mean a reference to a calendar day, calendar month or calendar year respectively;
- (g) the Schedules to this Agreement form an integral part of this Agreement as though they were expressly set out in the body of this Agreement;
- (h) any reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference;
- (i) references to recitals, Articles, sub-articles, clauses, or Schedules in this Agreement shall, except where the context otherwise requires, be deemed to be references to recitals, Articles, sub-articles, clauses and Schedules of or to this Agreement;
- (j) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or by Project Monitoring Consultant shall be valid and effectual only if it is in writing under the hands of duly authorized representative of such Party or Project Monitoring Consultant in this behalf and not otherwise;
- (k) 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;

1.4 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.

1.5 Ambiguities and Discrepancies

In case of ambiguities or discrepancies within this Agreement, the following shall apply:

- a) between two Articles of this Agreement, the provisions of specific Articles relevant to the issue under consideration shall prevail over those in other Articles;
- b) between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;
- c) between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail;
- d) between any value written in numerals and that in words, the latter shall prevail

1.6 Priority of Agreements, Articles and Schedules

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;
- b) Any Subsequent amendments issued during bidding process, prior to signing of Concession agreement;
- c) Technical Schedules;
- d) The Project Information Memorandum;
- e) In addition to provisions of sub Article 1.5 (a), in case of ambiguities or discrepancies within this Agreement, the following shall apply:
 - (i) Between the Articles of this Agreement and the Schedules, the Articles shall prevail and between Schedules and Annexes, the Schedules shall prevail;
 - (ii) Between any two Schedules, the Schedule relevant to the issue shall prevail;

ARTICLE 2

2 CONCESSION

2.1 Grant of Concession

Subject to and in accordance with the terms and conditions set forth in this Agreement, the Concessioneing Authority hereby grants and authorizes the Concessionaire to investigate, study, design, engineer, procure, finance, construct, operate and maintain the Project Facilities and to exercise and / or enjoy the rights, powers, benefits, privileges, authorizations and entitlements as set forth in this Agreement ("the Concession").

2.2 Concession Period

The Concession is hereby granted for a period of 10 years of active operation period extendable for another 5 years, commencing from the Appointed Date and ending on the Expiry Date ("the Concession Period") during which the Concessionaire is authorised to design, finance, construct, operate and maintain the Project Facilities in accordance with the provisions hereof.

Provided that

- a) in the event of the Concession being extended by the Authority beyond the said period of Ten years in accordance with the provisions of this Agreement, the Concession Period shall include the period/aggregate period by which the Concession is so extended as per the applicable rules in force, and
- b) in the event of Termination, the Concession Period shall mean and be limited to the period commencing from the Appointed Date and ending with the Termination Date.
The word "Design" is limited to Design of Door-to-Door Collection system, decentralized Material recovery facilities, Transfer stations, any modification in route plan for collection transportation or any other modification proposed by concessionaire but only after duly approved and accepted by PMC/ **AUTHORITY**.

2.3 Extension in Concession Period

Contract period can be extended for a period of 5 years after successful completion of initial 10 years contract period. The extension in contract period will be solely dependent upon concessionaire performance in First 10 years of contract period and subsequent mutual consent of all parties. For further clarification, the concessionaire would be eligible for extension if he receives more than 80% marks in performance evaluation criteria as set out in Schedule-14 in minimum 80% contract months in initial 10 years contract period.

2.4 Acceptance of Concession

In consideration of the rights, privileges and benefits conferred upon the Concessionaire, and other good and valuable consideration expressed herein, the Concessionaire hereby accepts the Concession and agrees and undertakes to perform / discharge all of its obligations in accordance with the provisions hereof.

ARTICLE 3

3 PROJECT FACILITIES & SITE

3.1 Handover of Project facilities & Site

- a. **AUTHORITY** shall, within 15 days from the Agreement Date, handover to the Concessionaire on as-is-where-is basis, vacant and peaceful physical possession of the project facilities and Site, for the purpose of implementing the Project.
- b. The efforts will be made by the **AUTHORITY** to handover the project facilities and Site to the Concessionaire free of encumbrances. However, in case of any delay in handing over of the site to the Concessionaire, the **AUTHORITY** shall only consider suitable extension of time for the execution of the work. It should be clearly understood that the **AUTHORITY** shall not consider any revision in contract price or any other compensation whatsoever viz. towards idleness of Contractor's labour, equipment etc.
- c. If **AUTHORITY** fails to handover existing sites or existing sites are not sufficient, Authority will handover additional patch of lands.
- d. The information about the public utilities (whether over ground or underground) like electrical/ telephone/ water supply lines, OFC Cables, open drain etc. is the responsibility of contractor to ascertain the utilities that are to be affected by the works through the site investigation and collection of information from the concerned utility owners.
- e. The **AUTHORITY** shall be responsible to obtain necessary approval from the respective authorities for shifting/ re-alignment of existing public utilities. However, the concessionaire shall assist the **AUTHORITY** for liaising in obtaining the approval from the concerned authorities.

3.2 Rights, Title and Use of the project facilities & Site

- a) The Concessionaire shall have the right to the use of the Project facilities & Site in accordance with the provisions of this Agreement and for this purpose, it may regulate the entry into and use of the same by third parties.
- b) The Project site and Project Facilities shall be and continue to be the property of **AUTHORITY**.
- c) The Concessionaire shall not part with or create any Encumbrance on the whole or any part of the Project Facilities, including the Site save and except as set forth and permitted under this Agreement.
- d) The Concessionaire shall not, without the prior written approval of **AUTHORITY**, use the Project Facilities for any purpose other than for the purpose of the Project and purposes incidental or ancillary thereto.

3.3 Peaceful Possession

AUTHORITY hereby warrants that:

- a) The Site together with the necessary right of way/way-leaves
 - i. has been acquired through the due process of law
 - ii. belongs to, or has been leased to **AUTHORITY** and is vested in **AUTHORITY** and that **AUTHORITY** has full powers to hold, dispose of and deal with the same consistent, inter alia, with the provisions of this Agreement and that the Concessionaire shall, in respect of the Site, have no liability regarding any compensation payment on account of land acquisition or rehabilitation/resettlement of any Persons affected thereby.
- The Concessionaire shall, subject to complying with the terms and conditions of this Agreement, remain in peaceful possession and enjoyment of the Project Facilities & Project Site during the Active Operations Period, and

In the event the Concessionaire is obstructed by any Person claiming any right, title or interest in or over the Site 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 any interest in/charge on the Site or any part thereof, **AUTHORITY** shall, if called upon by the Concessionaire, defend such claims and proceedings and also keep the Concessionaire indemnified against any consequential loss or damages which the Concessionaire may suffer, on account of any such right, title, interest or charge.

3.4 Applicable Permits

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.

The Concessionaire shall be responsible to obtain necessary approvals at its own cost.

ARTICLE 4

4 Conditions Precedents

Save and except as expressly provided in Articles 4, 6, 9, 12 and 13 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 condition's precedent specified in this Clause 4 (the "Conditions Precedent").

4.1 Authority's Conditions Precedent

The Authority shall within 30 (thirty) days from the Commencement Date satisfy the following conditions precedent:

- a) Provide list of MRF, Transfer station, Landfill Sites, Dump Yards, and Processing Plants where Solid Waste is to be transported or finally disposed of;
- b) Termination or transfer, as the case maybe, of all the existing contracts entered into by the Authority in relation to the collection, transportation and disposal of Solid Waste as specified in Schedule 1 within the Project Area;
- c) Calibration of the weighbridge at the Site(s) and accordingly certified to that effect and ensure that such weighbridge is operational;
- d) Appointment of Project Monitoring Consultant (PMC) or authorising a team of officials of the Authority to act as PMC till the appointment of PMC.

4.2 Concessionaire / Selected bidder's Conditions Precedent

4.2.1 The Conditions Precedent required to be satisfied by the Concessionaire prior to the Appointed Date shall be deemed to have been fulfilled when the Concessionaire shall have:

- a. prepare Micro Implementation & operation plan (MIOP) within 2 months of the signing of Agreement based on the SBM-2 Guidelines, SWM Rule 2016 and Project Information Memorandum. The Concessionaire may suggest different equipment for collection, recovery of recyclables, provided the DPR must adhere to the outcome as desired in MSW Rule 2016, Swachh Bharat Mission-2, CPHEEO manual and C&T Plan as detailed out in the Project Information Memorandum (Volume II).
- b. obtained approval from the Project Monitoring Consultant on the following:
 - i. detailed project report covering the adopted MRF cum PCTS/ MTS technology, detailed construction drawings & plans, and Construction Milestones as per provisions of the Agreement;
- c. obtained approval from the Authority for the following:
 - i. on the detailed Construction Plan comprising of details delineating the Site for construction of Project Facilities and ensuring continued use of the Site for managing MSW by AUTHORITY till COD;

- d. procured all the Applicable Permits specified in **Schedule 7** unconditionally and if subject to conditions, the all such conditions required to be fulfilled by the date specified therein shall have been satisfied in full and such Applicable Permits are in full force and effect;
- e. Obtain all other requisite approvals required for the Project from various Statutory Authorities;
- f. executed and procured execution of the Escrow Agreement;
- g. delivered to the Authority a confirmation from the Selected Bidder / each of the Consortium member, in original, of the correctness of their representations and Warranties set forth in Clause 16.1.
- h. Undertake the Additional Works in accordance with terms hereof, to the satisfaction of the Authority
- i. Prepare MIOP and procure approval of Authority thereon, and upon approval of Authority thereon, commence the MSW works in the municipal area of AUTHORITY.
- j. Repair & modify if required, install mercenaries and make operational the existing MRF cum Transfer.

4.2.1 Each Party shall make all reasonable endeavours to satisfy the Conditions Precedent within maximum 90 days including all extensions in respect thereof and shall provide the other Party with such reasonable cooperation as may be required to assist that Party in satisfying the Conditions Precedent for which that Party is responsible

Provided that upon request in writing by the Concessionaire, the Authority may, in its discretion, waive or further extend the time limit of any of the Conditions Precedent set forth in this Clause 4.2 provided the required waiver/ extension is not because of concessionaire event of default. For the avoidance of doubt, the Authority may, in its sole discretion, grant any waiver hereunder with such conditions as it may deem fit.

- a. The Parties shall notify each other in writing at least once a month on the progress made in satisfying the Conditions Precedent. Each Party shall promptly inform the other Party when any Condition Precedent for which it is responsible has been satisfied.
- b. Provided however that neither Party shall be entitled to terminate this Agreement if non-fulfilment of condition precedent by either party is result and/or consequence of Force Majeure event

4.3 Damages for delay by the Authority

In the event that (i) the Authority does not procure fulfilment of any or all of the Conditions Precedent set forth in Clause 4.1.1 within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by the Concessionaire or due to Force Majeure, the Authority shall pay to the

Concessionaire Damages in an amount calculated at the rate of 0.2% (zero point two per cent) of the Performance Security for each day's delay until the fulfilment of such Conditions Precedent, subject to a maximum of 20% (twenty percent) of the Performance Security.

Any delay by the Authority in the fulfilment of any or all of the Conditions Precedent set forth in Clause 4.1.1, save and except for reasons attributable in whole or parts to the Selected Bidder/Concessionaire or Force Majeure; beyond a period of 220 (two hundred twenty) days from the date of this Agreement or such later date as mutually agreed between the Parties, would entitle the Concessionaire to terminate this Agreement ;provided the Concessionaire has issued a written notice to Authority allowing 60 days remedy period for curing such default/delay, and the default remains un-remedied upon the expiry of such cure period.

In such an event of termination, the Authority shall

- (i) release the Performance Security, subject to any outstanding dues payable to the Authority by the Concessionaire in terms hereof; provided however that in the event the Authority's failure to fulfill its Conditions Precedent is attributable to the Concessionaire's default, the Authority shall forfeit the Performance Security as damages; and
- (ii) In the event the access to and right of way in respect of the land parcels comprising the Project Site shall have been granted to the Concessionaire in terms hereof on or before such date of termination; then the Project Site shall immediately revert to the Authority, free and clear from any encumbrances and along with all associated easementary rights, irrespective of any outstanding mutual claims between the parties or any third-party claims;

4.4 Damages for delay by the Concessionaire

- a) In the event that (i) the Concessionaire does not procure fulfillment of any or all of the Conditions Precedent set forth in Clause 4.2.1 within a period specified in respect thereof, and (ii) the delay has not occurred as a result of failure to fulfill the obligations under Clause 4.2.1 or other breach of this Agreement by the Authority, or due to Force Majeure, the Concessionaire shall pay to the Authority Damages in an amount calculated at the rate of 0.2% (zero point two per cent) of the Performance Security for each day's delay until the fulfillment of such Conditions Precedent, subject to a maximum of 20% (twenty percent) of the Performance Security.
- b) Notwithstanding anything to the contrary in the event delay referred to in aforesaid clause 4.3 (a) above, exceeds a period of 220 (two hundred twenty) days from the date of this Agreement or goes beyond such later date as may be mutually agreed between the Parties for fulfillment of condition precedent, then the Authority would be entitled to terminate this Agreement in accordance with the provisions hereto.

In such an event, notwithstanding anything to the contrary contained in the Agreement, the Authority shall, without prejudice to any other right or remedy that may be available to the Authority under this Agreement, be entitled to

- (i) forfeit/invoke and appropriate the Performance Security;
- (ii) In the event the access to and right of way in respect of the land parcels comprising the Project Site shall have been granted to the Concessionaire in terms hereof on or before such date of termination; then the Project Site shall immediately revert to the Authority, free and clear from any encumbrances and along with all associated easementary rights, irrespective of any outstanding mutual claims between the parties or any third-party claims;
- (iii) Without prejudice to and notwithstanding anything to the contrary set out in the foregoing, the Parties may by mutual agreement, instead of terminating the Agreement, decide to extend the time for fulfilling the Conditions Precedent.

ARTICLE 5

5 PROJECT MONITORING CONSULTANT

5.1 Appointment

AUTHORITY shall appoint a project monitoring consultant (PMC).

The scope of work of PMC is bid process management, project monitoring during construction phase and project monitoring during O&M phase for a period of 10 Yrs.

5.2 Payments to Project Monitoring Consultant

All fees, costs, charges and expenses payable to the Project Monitoring Consultant shall be paid by AUTHORITY in accordance with the terms of its appointment within 15 days of receiving an invoice from PMC.

5.3 PROJECT MONITORING CONSULTANT - SCOPE OF WORK

- 5.3.1 The Project Monitoring Consultant is expected to play a positive and independent role in discharging its functions, thereby facilitating the smooth implementation and operation of the Project. Broadly, the role of the Project Monitoring Consultant shall encompass:
- 5.3.2 Verification and random checks of collection, Transportation work.
- 5.3.3 Verification and random checks of weighment and Testing of the MSW at the Processing and Landfill Site.
- 5.3.4 Independently review, monitor and where required by the Agreement, to approve the design, construction, operation and maintenance of the Project Facilities to ensure compliance by the bidder with the Operations Plan, Design Requirements, Construction Requirements and O&M Requirements,
- 5.3.5 Report to the Parties on the various physical, technical and financial aspects of the Project based on inspections, site visits and Tests,
- 5.3.6 Assist the Parties in arriving at an amicable settlement of disputes, should the need arise, and
- 5.3.7 Review matters related to safety and environment management measures adopted by the bidder for the Project.

5.4 Scope of Services of the Project Monitoring Consultant

The services to be provided by the Project Monitoring Consultant shall be in accordance with the applicable provisions of agreement made between AUTHORITY and PMC and also as per the general obligations of this Agreement are specified in this section.

5.5 Obligations during Implementation Period

The Project Monitoring Consultant would monitor, in accordance with Good Industry Practice, the progress in implementation of micro implementation Plan for Collection, MRF and ensure compliance with the Operation & Maintenance

Requirements. For this purpose, the Project Monitoring Consultant shall undertake, interalia, the following activities and where appropriate make suitable suggestions:

- (a) Provide administration of the contract in full and in complete accordance with applicable laws;
- (b) Act on the AUTHORITY's behalf as the AUTHORITY's representative regarding all contact with the Concessionaire unless expressly indicated otherwise;
- (c) Designate tests on materials and/or equipment;
- (d) Review and check the route plan, vehicle deployment plan, scheduled maintenance plan, emergency maintenance protocol, manpower deployment plan, Plan for online monitoring of Door to Door collection and transportation;
- (e) Review, approve or disapprove MOP and other plan/submissions of the Concessionaire to determine compliance and conformance with the requirements of the Agreement;
- (f) Provide the services of a full-time resident project representative during the period commencing from 7 (seven) days from the date of appointment of the PE until the expiry of the PMC's appointment;
- (g) Provide the services of experts to check the quality of materials and the workmanship during the procurement phase of C&T work, including the following:
 - (i) Waste transportation vehicles;
 - (ii) Litter bins
- (h) Address issues relating to specific site conditions, design modifications, or Concessionaire disputes.

The PMC shall prepare and submit to AUTHORITY, Fortnightly Progress Reports including the following:

- (a) Daily progress of works;
- (b) Issues, if any, with regard to the works along with the details of the action taken for the resolution of the same;
- (c) Photographic record of progress of works over the previous week.

The PMC shall provide all other services as normally provided by an engineer in charge.

5.6 Active Operations Period

During this period the Project Monitoring Consultant would monitor, in accordance with Good Industry Practice, the operations and maintenance activities undertaken by the Concessionaire so as to ensure compliance with the O&M Requirements. The specific activities to be undertaken would include the following:

- (a) Provide administration of the contract in full and in complete accordance with applicable laws;
- (b) Act on the AUTHORITY's behalf as the AUTHORITY's representative regarding all contact with the Concessionaire unless expressly indicated otherwise;
- (c) Designate tests on materials and/or equipment;
- (d) Review and approve test results and materials and/or equipment used;
- (e) Interpret the requirements of the contract and make decisions regarding performance of the Concessionaire. The PMC shall inform and advise the AUTHORITY, in a timely manner all matters relating to the execution, progress, and completeness of works;
- (f) 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 PMC may require inspection or testing of such work, whether or not such work be then fabricated, installed, or completed;
- (g) Review, approve or disapprove drawings, samples, and other submissions of the Concessionaire to determine compliance and conformance with the requirements of the Agreement;
- (h) Provide the services of a full-time resident project representative during the period commencing from 7 seven days from the date of appointment of the PE until the expiry of the PMC's appointment;
- (i) In addition to the daily responsibilities, conduct a general inspection of the Project Facilities at least once a month and as and when exigencies require to ascertain conformity with Construction Requirements and O&M Requirements;
- (j) Provide the services of experts to check the quality of materials and the workmanship during the construction of the Landfill Facility
- (k) Inspect the quality of compost being sold or otherwise disposed outside the Site
- (l) Inspect and certify composition of the Residual Inert Matter
- (m) Address issues relating to specific site conditions, design modifications, or Concessionaire disputes.
- (n) Review the O&M Plans submitted by the Concessionaire from time to time and assist the Concessionaire in finalising the same. The Project Monitoring Consultant shall also consult AUTHORITY prior to finalisation of the O&M Plans;
- (o) Periodically review the O&M Manual for adequacy;

- (p) Monitor Operation and Maintenance activities (including maintenance of Project Facilities and equipment, standards of service, safety and environmental issues) and the overall quality of O&M activities so as to ensure compliance by the Concessionaire with the O&M Requirements, O&M Plan and O&M Manual;
 - (q) Review and ascertain the cost variation arising as a result of Change in Law and determine the Additional Cost;
 - (r) Undertake a quarterly review of the various records and registers to be maintained by the Concessionaire and suggest suitable remedial measures/ procedures, where necessary.
- 5.6.1 The PMC shall attend regular meetings (“Project Review Meetings” or “PRMs”) with the AUTHORITY and the Concessionaire, to be held at least once in every month during the Active Operations Period to report on progress and quality of work performed by the Concessionaire and to discuss problems or other pertinent matters relating to the work. The IC shall take notes at the meetings and provide a copy of the PRM minutes to each person who attended the meeting.
- 5.6.2 The PMC shall prepare and submit to AUTHORITY, Monthly Project Reports including the following:
- (a) Report on Tests
 - (b) Report on notices issued
 - (c) Issues, if any, with regard to the works along with the details of the action taken for the resolution of the same;
 - (d) Photographic record of progress of works over the previous week.
- 5.6.3 Attend meetings with the AUTHORITY and the Concessionaire, to be held at intervals as mutually decided upon by the Parties, to discuss problems or other pertinent matters relating to the Project. The PMC shall take notes at the meetings and provide a copy of the minutes of such meetings to each person who attended the meeting.
- a) Review of the Operations Plan submitted by the Concessionaire in accordance with of the Agreement.
 - b) Monitoring and reporting to AUTHORITY on whether the bidder has complied with the timelines for activities as specified in the Operations Plan in (a) above;
 - c) Verify and report to AUTHORITY whether (i) the New Project Facilities comply with the Design Requirements (ii) Existing Project Facilities comply with the Construction Requirements and (iii) the Project Facilities comply with all Applicable Laws including SWM Rules 2016.
 - d) Issue Provisional/Readiness Certificate in accordance with the of this Agreement;
 - e) The Project Monitoring Consultant shall undertake, interalia, the following activities and where appropriate:

- (i) Require suspension of whole or any part of the Construction Works if in its reasonable opinion the same does not conform to the Construction Requirements;
- (ii) Require clearing of any construction site of all construction equipment, surplus materials, debris and temporary installations as per applicable provisions of this Agreement.
- (iii) Review the monthly progress report submitted by the bidder during the Implementation Period and its conformity with the Operations Plan, report on the same to the AUTHORITY and suggest corrective measures, if any.
- (iv) If during the course or upon review / inspection undertaken by the PMC, it transpires that either of the Parties is in breach/ default of any of its obligations under the Agreement, the Project Monitoring Consultant shall, under intimation to both the Parties, require the defaulting Party to remedy such breach/ default within time frame as may be felt suitable by the PMC.

5.7 Obligations during Operations Period

5.7.1 Monitoring of Collection & Transportation

The Project Monitoring Consultant's prime responsibility would be to monitor the operations at the weighbridge, MRF Cum TS/MTS/Standalone TS/ Door to Door collection & IEC activities at Zones. For this purpose, the Project Monitoring Consultant shall undertake, inter alia, the following activities:

- a) Verification of Door-to-Door Collection and segregation of waste at source.
- b) Verification of trips/household coverage and segregation at MRF.
- c) Verification of User Charges Collection.
- d) Verification of online monitoring system.
- e) Verification of the records generated at the weighbridge.
- f) Issue "Notice to Remedy" in event of observing non-compliance to O&M Requirements;
- g) If during the course or upon review/inspection undertaken by the Project Monitoring Consultant or otherwise, it transpires that either of the Parties is in breach/default of any of its obligations under the Agreement, the Project Monitoring Consultant shall, under intimation to both the Parties, require the defaulting Party to remedy such breach/default within such time and in such manner as the Project Monitoring Consultant may deem fit and, in each case, the same shall be recorded.

5.7.2 Conducting Random Inspections

The Project Monitoring Consultant shall conduct random inspections of the Project Facilities as well as the operations as follows:

- a) The random inspections may be carried out by visual assessment with careful observation of the specific object/item for identification and for quantification of the deficiencies or damages of the Project Facilities and operation and

maintenance of the Project Facilities. For this purpose, the Project Monitoring Consultant can use photographs with time and place record.

- b) During the random inspections, the Project Monitoring Consultant would monitor, in accordance with Good Industry Practice, the operations and maintenance activities undertaken by the Contractor so as to ensure compliance with the O&M Requirements;
- c) Issue “Notice to Remedy” in the event of non-compliance to O&M Requirements and recording the same.
- d) Record and report to the AUTHORITY on the incidents of Material Breach or Persistent Breach of O&M Requirements;

5.7.3 Random inspection of Project Facilities

The Project Monitoring Consultant shall undertake inspection of the Project Facilities, Facility Site and Workshop Site in such frequency and sample selection as mentioned in the table below:

Table 1: Random inspection of Project Facility

S. No	Project Facilities	Frequency of inspection	Sample selection requirement
1	Facility Site	Once a Month	–
2	Workshop Site	Once a Month	–
3	Collection and Cleaning Vehicles & Equipments	Once a Month	A minimum sample of 10 % of each category of vehicles deployed in the Concession Area. There should not be repetition of the same set of vehicles in the next round of inspection.

5.7.4 Hand back and Transfer of Project Facilities to AUTHORITY

At the time of hand back and transfer of the Project Facilities to AUTHORITY at the end of Concession Period, the Project Monitoring Consultant shall:

- a) Monitor the compliance with the Hand back and Transfer Requirements as provided in Chapter 10 of this Agreement and
- b) Issue a certificate of compliance on satisfactory completion of Hand back and Transfer Requirements by the bidder.

5.7.5 Maintenance of Records

- a) The Project Monitoring Consultant would be required to participate in the Project review meetings held from time to time by the Parties, which are ordinarily expected to be held once a month during the Implementation Period and once every two months during the Operations Period as also to participate in emergency or extra-

ordinary meetings of the Parties held to deal with any Emergency, Force Majeure Event or other exigencies.

5.7.5.1 The Project Monitoring Consultant shall maintain record of the activities undertaken by it in discharge of its functions and responsibilities. This would include records in respect of the following:

- a. Manpower deployed and other organizational arrangements of the Project Monitoring Consultant;
- b. Inspections undertaken and notices/instructions issued to the bidder;
- c. Review compliance by the bidder with the Agreement;
- d. Force Majeure Events;
- e. Material and Persistent Breach of O&M Requirements and Events of Default by the Parties; and
- f. Compliance by the bidder with Hand back and Transfer Requirements

5.7.5.2 The Project Monitoring Consultant would be required to verify/issue the following reports to the Parties:

Table 5-1 Reports issued by PMC

Period/Event	Verification	Applicable report to be issued by the Project Monitoring Consultant
1. Implementation Period	<ul style="list-style-type: none"> - Review monthly progress report submitted by the Contractor - Issue "Notice to Remedy" in event of non-compliance by the Contractor - Issue Provisional/ Readiness Certificate 	-
2. Monitoring of Door-to-Door collection & Transportation	<ul style="list-style-type: none"> - Verify the attendance of concessionaire at door step - Monitoring of Transfer point 	- Monthly Inspection Report
3. Random Inspections of Project facilities	<ul style="list-style-type: none"> - Advise AUTHORITY on penalties payable by the Contractor 	Monthly Inspection Report
4. Force Majeure/ Material and Persistent Breach of O&M Requirements/Events of Default.	<ul style="list-style-type: none"> - Issue "Notice to Remedy" in event on non-compliance <p>Record Events of Default, Material/Persistent Breach of O&M Requirements, Force Majeure Events</p>	
5. Hand back and Transfer of Project Facilities	<ul style="list-style-type: none"> - Specify list of works/jobs to be carried out by the Contractor. - Specify list of items to be handed back and transferred 	- Issue of compliance certificate of Hand back and Transfer Requirements

- | | | |
|--|--|--|
| | <p>back to AUTHORITY by the Contractor.</p> <ul style="list-style-type: none">– Verify compliance by the Contractor with Hand back and Transfer Requirements | |
|--|--|--|

5.7.6 Material and Persistent Breach of O&M Requirements

The Project Monitoring Consultant shall monitor the performance of the Contractor and report on incidence of material and persistent breach of O&M requirements with reference to the compliance and tolerance criteria as laid out in of the O&M Requirements:

5.8 Awareness Campaign

The Project Monitoring Consultant shall review the Awareness Campaign programme conducted by the bidder.

5.9 General Obligations

The Project Monitoring Consultant shall carry out such other functions as may be specifically assigned to it under the agreement including certification of adequacy of insurance and verification of termination payments.

ARTICLE 6

6 CONCESSIONAIRE'S OBLIGATIONS

In addition to and not in derogation or substitution of any of its other obligations under this Agreement, the Concessionaire shall have the following obligations:

6.1 Performance Security

- (a) The Concessionaire shall, for due and punctual performance of its obligations hereunder relating to the Project under construction phase, deliver to AUTHORITY, simultaneously with the execution of this Agreement, a bank guarantee from a nationalised bank/scheduled bank acceptable to AUTHORITY, in the form as set out in **Schedule 20**, ("Performance Security") for a sum of Rs. Equivalent to 5% of yearly O&M fee amount of respective year
- (b) The Performance Security shall be kept **valid for entire project period from the Appointed Date**.

Provided that if the Agreement is terminated due to any event other than a Concessionaire Event of Default, the Performance Security if subsisting as of the Termination Date shall, subject to AUTHORITY's right to receive amounts, if any, due from the Concessionaire under this Agreement, be duly discharged and released to the Concessionaire.

6.2 Financing Arrangement

LMC shall provide to concessionaire the existing vehicles not more than Five (5) years old for immediate handholding and smooth start of work. The Concessionaire shall be responsible to procure all shortfall vehicle and equipment before COD and during active operation period as per approved operation plan submitted in accordance to clause 4.2.1(a) of concession agreement. For more clarity, concessionaire shall be responsible to procure all the vehicle and equipment required for door-to-door collection of waste, Secondary transportation of segregated waste from MRF cum transfer facility to designated processing Plant, equipment required for Road sweeping, vehicles required for transportation of sweeping silt, equipment required for Drain Cleaning, vehicles required for transportation of drain silt and vehicle required for transportation of horticulture waste at their own cost and financing arrangement. The specification and quantity of such vehicles/equipment shall be approved by LMC before their procurement.

Whereas, LMC shall be responsible to provide 100% capital grant for construction of MRF cum PCTS, MRF cum FCTS, MRF cum Static Compactor Transfer Station & supply, erection and commissioning of required machinery for these facilities. Concessionaire shall be responsible to construct such facility in accordance to the provisions of this agreement on the basis of detailed specification, as built drawing approved by LMC. Concessionaire shall also be responsible for operation & maintenance of project

component including supply of manpower, fuel, minor tools and tackles.

The part of Operations & Maintenance cost would be recovered from sale of Recyclable recovered at MRF to ensure project sustainability. The shortfall in O&M cost shall be provided by LMC in the form of "O&M Fee" as quoted by successful bidder. AUTHORITY shall provide O&M fee as per the financial bid parameters as mentioned below;

TIPPING FEE (Amount in Rupees)

Sr. No.	Description	Unit	Quantity	Rate (in Rs.)	Amount
1	First Year O&M Fee Required for Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/ disposal site/ collection centres.	Per MT	537		
2	Unit charge for Roads Sweeping by Manual means, cleaning of footpath and removal of Litter. Sweeping Passes in each Km of Road Length.	Per KM passes /day	2255		
3A	Unit charge for Cleaning of drain size upto 45cm including transportation of collected silt to designated disposal sites or collection centres.	Per KM/day	241		
3B	Unit charge for Cleaning of drain size above 45cm and up to 1.0 meter including transportation of collected silt to designated disposal sites or collection centres.	Per KM/day	8.5		
3C	Unit Charge of lifting and Transportation of collected Street Sweeping and Drain Silt Waste to designated disposal Site or Collection Centres	Per MT	53		

(a) Preparation of DPR & Operation plan

- (i) The Concessionaire shall prepare DPR and MIOP in accordance to the SWM Rule 2016, SBM-2 Guidelines and PIM as in Volume -2 of RFP. It must include plan for source segregation, GIS based Route plan for door-to-door collection, Manpower deployment plan, resource deployment plan, Scheduled and emergency Maintenance plan, Material recovery and its management Plan and any other plan as asked by Authority/PMC. DPR

shall also include design, drawing and estimate of MRF cum Transfer facilities.

- (ii) The DPR prepared by Concessionaire shall be subject to review by the Project Monitoring Consultant, AUTHORITY as hereinafter provided in clause (b).

(b) Review of DPR

- (i) The Concessionaire shall promptly and in such sequence as is consistent with the Construction Requirements, submit three copies of DPR & MIOP to the Project Monitoring Consultant and AUTHORITY.
- (ii) By forwarding the DPR to the Project Monitoring Consultant and AUTHORITY pursuant to the preceding clause (i), the Concessionaire shall be deemed to have represented that it has verified and determined that the DPR, Designs, Drawings and all other content of DPR are in conformity with the Construction and O&M Requirements.
- (iii) Within 15 days of receipt of the DPR & MIOP, Project Monitoring Consultant shall review the same taking into account, inter alia, comments of AUTHORITY, if any, thereon, and convey its comments/observations to the Concessionaire on the conformity of DPR with Construction and O&M Requirements. If the comments/observations of the Project Monitoring Consultant indicate that the DPR is not in conformity with the Construction Requirements, the DPR shall be revised by the Concessionaire to the extent necessary and resubmitted to Project Monitoring Consultant for further review within 15 days. The Project Monitoring Consultant, AUTHORITY shall give its observations and comments, if any, within 15 (Fifteen) days of receipt of such revised DPR & MIOP, which shall be taken into account by the Concessionaire while finalising the DPR & MIOP.
- (iv) If, within the period stipulated in the preceding clause (iii), the Project Monitoring Consultant does not respond to the DPR submitted to it by the Concessionaire the Concessionaire shall be entitled to proceed with the Project on the basis of such DPR submitted by it to the PMC, and intimate the same to AUTHORITY. The same should be highlighted in the periodic reporting by the Concessionaire.
- (v) Notwithstanding any review or failure to review by or the comments / observations of the Project Monitoring Consultant or AUTHORITY, the Concessionaire shall be solely responsible for the adequacy of the DPR & MIOP and their conformity with the Construction and O&M Requirements, and shall not be relieved or absolved in any manner whatsoever of any of its obligations hereunder.
- (vi) The Concessionaire shall be responsible for delays in meeting the Construction Requirements caused by reason of any DPR not being in

conformity with the Construction Requirements, and shall not be entitled to seek any relief in that regard from AUTHORITY.

- (vii) The Concessionaire shall in consultation with the Project Monitoring Consultant finalize an implementation schedule for the Project in accordance with the Construction Requirements.
- (viii) Within 90 (ninety) days of issue of Readiness Certificate or Provisional Readiness Certificate, as the case may be, the Concessionaire shall furnish to AUTHORITY three copies of "as built" Drawings of the Construction Works which have been completed as on COD, in a manner as set out in Construction Requirements.

(c) Procurement and Supply of Vehicles

The Concessionaire shall be responsible to procure all shortfall vehicle and equipment before COD and during active operation period as per approved operation plan submitted in accordance to clause 4.2.1(a) of concession agreement. For more clarity, concessionaire shall be responsible to procure all the vehicle and equipment required for door-to-door collection of waste, Secondary transportation of segregated waste from MRF cum transfer facility to designated processing Plant, equipment required for Road sweeping, vehicles required for transportation of sweeping silt, equipment required for Drain Cleaning, vehicles required for transportation of drain silt and vehicle required for transportation of horticulture waste at their own cost and financing arrangement.

- i. Demand of Vehicles to start Door to door collection of waste, Project Facility, Drain Cleaning and Workshop shall be procured by concessionaire on the basis of demand raised by his MIOP & DPR and approved by authority.
- ii. Demand of Vehicles after expiry of natural life of vehicles, replacement vehicle will be provided by Concessionaire on his own cost.
- iii. Any additional requirement of vehicles in case of increase in project area or because of increase in population shall be provided by concessionaire.
- iv. All the existing vehicles which are not more than five years old, shall be taken over by the concessionaire for operation. Any repair/rectifications /paintings required shall be responsibility of concessionaire. No charges shall be claimed by concessionaire on account of these rectifications

In case of any dispute in the conditions of vehicle being handed over, a committee comprising of members from Authority, PMC and concessionaire will take final decision upon number and type of replacement vehicles to be provided.

The Project shall be deemed to be complete and ready to receive Municipal Solid Waste only when the Provisional Readiness Certificate or the Readiness Certificate is issued by the Project Monitoring Consultant in accordance with the provisions hereof.

Provided if COD is delayed beyond 60 days of the Scheduled Project Completion Date, AUTHORITY shall, subject to the provisions of **Article 4**, be entitled to terminate this Agreement and to appropriate the Performance Security

6.3 Project Implementation: Construction Works

- (a) Concessionaire shall be responsible for preparing design, “GOOD FOR CONSTRUCTION Drawings” for construction/modification of MRF cum transfer facilities and installation of required machineries.
- (b) Concessionaire shall be responsible for preparation of Bill of Quantities and specifications.
- (c) Construction of MRF cum PCTS, MRF cum FCTS, MRF cum Static Compactor Transfer Station shall be done by concessionaire in accordance to the provisions of this agreement as per approved detailed specification described in DPR prepared by concessionaire and approved by LMC according to the provisions of this agreement. Concessionaire shall be responsible for operation & maintenance of project component including supply of manpower, fuel, minor tools and tackles.

6.4 Project Implementation: Operation and Maintenance

- (a) The Concessionaire shall operate and maintain the Project Facilities in accordance with the O&M Requirements. Concessionaire shall prepare O&M plan before start of work in accordance with the scope of work as mentioned in RFP and minimum operation & Maintenance standards set out in schedule 1 of this concession agreement and thereafter before start of each financial year and get approval of Authority and PMC.
- (b) The Concessionaire must undertake operations and maintenance of the Project Facilities by itself and no subletting of entire work shall be allowed. The Concessionaire shall remain solely responsible to meet the O&M Requirements.
- (c) The Concessionaire shall, during the Active Operations Period;
 - (i) have requisite organisation and designate and appoint suitable officers/representatives as it may deem appropriate to supervise the Project, to deal with the Project Monitoring Consultant/AUTHORITY and to be responsible for all necessary exchange of information required pursuant to this Agreement;
 - (ii) for the purposes of determining that the Construction Works and Project Facilities are being maintained in accordance with the Construction Requirements and O&M Requirements, the Concessionaire shall with due diligence carry out all necessary and periodical Tests in accordance with the instructions and under the supervision of the PMC. The Concessionaire shall maintain proper record of such Tests and the remedial measures taken to cure the defects or deficiencies, if any, indicated by the Test results.

- (iii) Conduct all Tests to ascertain compliance with Construction Requirements and O&M Requirements.
- (iv) suspend forthwith the whole or any part of the Construction Works upon receiving a written notice from the PMC, who may require the Concessionaire to suspend the activities in whole or part if in the reasonable opinion of the PMC, the operations are being carried on in a manner that is not in conformity with the O&M Requirements.
- (d) In the event the Concessionaire has failed to operate and maintain the Project in accordance with the O&M Requirements, and such failure has not been remedied despite a notice to that effect issued by the Project Monitoring Consultant or AUTHORITY ("Notice to Remedy"), AUTHORITY may, without prejudice to any of its other rights/remedies under this Agreement, be entitled to operate and maintain the Project or cause to repair and maintain the Project Facilities at the risk and cost of the Concessionaire. The Concessionaire shall reimburse all costs incurred by AUTHORITY on account of such operation and maintenance or repair and maintenance within 7 days of receipt of AUTHORITY's claim therefore.
- (e) The Concessionaire shall be deemed to be in material breach of O&M Requirements if the Project Monitoring Consultant acting reasonably and in accordance with the provisions of this Agreement, has determined that due to breach of its obligations by the Concessionaire:
 - (i) there has been failure/undue delay in carrying out scheduled/planned maintenance or the scheduled/planned maintenance has not been carried out in accordance with the O&M Requirements;
 - (ii) the maintenance of the Project Facilities or any part thereof has deteriorated to a level which is below the acceptance level prescribed by the O&M Requirements;
 - (iii) there has been a serious or persistent let up in adhering to the O&M Requirements and thereby the Project Facilities or any part thereof is not safe for operations;
 - (iv) There has been persistent breach of O&M Requirements. For avoidance of doubt, persistent breach shall mean:
 - a. any breach of O&M Requirements by the Concessionaire which has not been remedied by the Concessionaire despite a Notice to Remedy in respect thereof issued by the PMC/AUTHORITY;
 - b. recurrence of a breach by the Concessionaire, during the pendency of Notice to Remedy by the PMC/AUTHORITY requiring the Concessionaire to remedy a breach, and

- c. repeated occurrence of a breach notwithstanding that earlier breaches have been remedied pursuant to Notice to Remedy or otherwise.

Upon occurrence of a material breach of O&M Requirements, AUTHORITY shall, without prejudice to and notwithstanding any other consequences provided therefore under this Agreement, be entitled to terminate this Agreement.

6.5 Awareness Campaign

- i. Based on section of the Operation Plan, the Concessionaire shall design undertake Awareness Campaigns as specified in this section.
- ii. The Concessionaire shall submit an annual program of Awareness Campaign to the Project Monitoring Consultant and AUTHORITY within the first month of each calendar year clearly notifying the components & expenditure under each head of expense.
- iii. The concessionaire shall with the assistance of AUTHORITY educate the generators of MSW about the service that is being provided by the Concessionaire and shall provide and distribute information about the rights and responsibilities of the generators of MSW.
- iv. The Concessionaire shall notify the generators of MSW in its Concession Area about the details of the new services (if any) to be provided in accordance with this Agreement.
- v. The Concessionaire shall also instruct the generators of MSW from time to time about MSW placement and delivery requirements, including provisions for special collections.
- vi. The Concessionaire shall duly inform the generators of MSW about the phone numbers of the Complaint Redressal Centre.
- vii. The Concessionaire shall organize quarterly awareness drives for two bin system for Biodegradable substance and non-biodegradable substance for segregation of MSW at source.
- viii. The Concessionaire shall organize quarterly awareness drive for segregation and proper disposal of Hazardous wastes & Recyclable substances.

6.6 Insurance

The Concessionaire shall as be specified in Article 10 of this agreement, at its cost and expense, purchase and maintain by due re-instatement or otherwise, during the Concession Period all insurances in respect of the Project Facilities in accordance with the Good Industry Practice. The Concessionaire shall maintain a register of entry in order of premiums paid towards the Project Facilities and proof of payments made shall be submitted to AUTHORITY whenever requested for.

6.7 Environmental Compliance

The Concessionaire shall, at all times, ensure that all aspects of the Project Facilities and processes employed in the construction, operation and maintenance thereof shall conform with the laws pertaining to environment, health and safety aspects including

rules such as MSW Rules, policies and guidelines related thereto. The Concessionaire shall obtain and maintain from time to time all necessary clearances from the SPCB or any other similarly empowered Government Agency and for this purpose shall carry out the necessary environmental impact assessment studies and implement appropriate environment management plans in respect of the Project Facilities.

6.8 Land Use

The Concessionaire shall ensure optimum utilisation of the Site and shall not use the same for any purpose unconnected or which is not incidental to the Project or related activities.

6.9 Sale/Distribution of Recyclables

- (a) The Concessionaire shall be free to sell or otherwise dispose of the recyclables, at such price and to such Persons and using such marketing and selling arrangements and strategies as it may deem appropriate subject to meeting the O&M Requirements.

6.10 General Obligations

The Concessionaire shall at its own cost and expense:

- (a) investigate, study, design, construct/ renovate, operate and maintain the Project Facilities in accordance with the provisions hereof;
- (b) obtain all Applicable Permits as required by or under the Applicable Law and be in compliance thereof at all times during the Concession Period;
- (c) comply with Applicable Law governing the operations of project facilities, Collection of MSW & Transportation of MSW at all times during the Concession Period;
- (d) ensure and procure that any contract relating to the Project, entered into by the Concessionaire for implementing the Project in accordance with this Agreement contains provisions that would entitle a nominee of AUTHORITY to step into such contract/s at AUTHORITY's discretion, in place and substitution of the Concessionaire, pursuant to the provisions of this Agreement
- (e) endeavor to sell all recyclables in a manner which is not detrimental to the environment;
- (f) endeavor to improve the ancillary conditions and infrastructure related to the Project including assistance to informal recycling workers,
- (g) 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;
- (h) make efforts to maintain harmony and good industrial relations among the personnel employed in connection with the performance of its obligations under this Agreement and shall be solely responsible for compliance with all labour laws and solely liable for all possible claims and employment related liabilities of

its staff employed in relation with the Project and hereby indemnifies AUTHORITY against any claims, damages, expenses or losses in this regard and that in no case and shall for no purpose shall AUTHORITY be treated as employer in this regard;

- (i) make its own arrangements for construction materials and observe and fulfill the environmental and other requirements under the Applicable Law and Applicable Permits;
- (j) be responsible for all the health, security, environment and safety aspects of the Project at all times during the Concession Period.
- (k) ensure that the Project Facilities remain free from all encroachments and take all steps necessary to remove encroachments, if any;
- (l) upon receipt of a request thereof, afford access to the Project Facilities to the authorised representatives of AUTHORITY for the purpose of ascertaining compliance with the terms, covenants and conditions of this Agreement.
- (m) pay all Taxes, duties and outgoings, including utility charges relating to the Project Facilities.

6.11 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:

- (a) Force Majeure Event, subject to Article 8.3;
- (b) AUTHORITY Event of Default;
- (c) Compliance with the instructions of the Project Monitoring Consultant/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;
- (d) Closure of the Project Facilities or part thereof with the approval of the Project Monitoring Consultant / AUTHORITY.

6.12 Maintenance of Records

The Concessionaire shall maintain records of the quantum (measured in tonnes) of biodegradable substance, non-biodegradable, recyclable and green waste substance, duly countersigned by the Project Monitoring Consultant and provide monthly, quarterly and annual reports of the same to the Project Monitoring Consultant, AUTHORITY.

ARTICLE 7

7 AUTHORITY's OBLIGATIONS

7.1 AUTHORITY's OBLIGATIONS

In addition to and not in derogation or substitution of any of its other obligations under this Agreement, AUTHORITY shall have the following obligations:

7.2 Specific Obligations

- a) LMC shall be responsible to provide 100% capital grant for construction of MRF cum PCTS, MRF cum FCTS, MRF cum Static Compactor Transfer Station & supply, erection and commissioning of required machinery for these facilities.
- b) AUTHORITY shall provide O&M Fee as per the provisions of this agreement.
- c) AUTHORITY shall provide land for setting up MRF cum PCTS/ MTS/ Standalone TS.
- d) The barest minimum Land in the Concession Area for vehicles maintenance work shop to the concessionaire, during the contract period.
- e) AUTHORITY shall also provide premises for parking purpose within concession area. This area can be provided as small areas where in the concessionaire can park their vehicles.
- f) The Concessionaire shall erect fencing, construct roads/ office and other infrastructure & services as required for effective implementation of the contract and install other services as necessary to safe and effective completion of the work. Such movable and immovable infrastructure shall be transferred to AUTHORITY as applicable in working conditions, on completion of the contract period or at the time of termination of contract.
- g) The successful bidder will use these premises for organizing, inspecting, monitoring and controlling the work including receipt of the complaints directly from citizens to be redressed within 24 hours.
- h) AUTHORITY shall not provide any additional infrastructure or services to the contractor on this account, such as printing, stationary, electricity, water supply, telephone. The contractor shall make their own arrangement and the charges for all such services will have to be borne by the contractor.
- i) AUTHORITY shall grant in a timely manner all such approvals, permissions and authorizations which the Concessionaire may require or is obliged to seek from AUTHORITY under this Agreement, in connection with implementation of the Project and the performance of its obligations. Provided where authorization for availment of utilities such as power, water, sewerage, telecommunications or any other incidental services/utilities is required, within thirty days (30) days from receipt of request from the Concessionaire to make available such authorisation.

- j) Authority shall furnish with the necessary collection machinery and equipment and responsible for procuring and supplying the machinery and equipment necessary for waste collection.

7.3 General Obligations

AUTHORITY shall:

- (a) Where appropriate provide necessary assistance to the Concessionaire in securing Applicable Permits;
- (b) Observe and comply with all its obligations set forth in this Agreement.

ARTICLE 8

8 PAYMENT OF CAPITAL GRANT & O&M FEE

8.1 Payment of Capital Grant

LMC shall provide 100% capital grant for construction of MRF cum PCTS, MRF cum FCTS, MRF cum Static Compactor Transfer Station & required machinery for these facilities. AMC shall provide capital cost as capital grant to concessionaire through running bills.

The Grant shall be credited to the Escrow Account in the form of payment made for actual work done as per the procedure set out in Article 8.1.2.

8.1.1 MEASUREMENTS OF WORKS

Measurement of work shall be done as per the actual progress of work and standards of work done by concessionaire and approved by PMC and LMC.

8.1.2 PAYMENTS

Concessionaire shall prepare monthly running Bill for the work actually done during previous month on the basis of BOQ prepared by Concessionaire and approved by LMC in DPR.

The bill shall be submitted by concessionaire on or before 7th day of each month. The Concessionaire shall submit three numbers of hard copies and one soft copy for all bills, after certification of bills by PMC and LMC. Payment shall be made after deducting applicable taxes on the basis of prevailing taxation rules of GOI. The payment due to the concessionaire shall be made within Thirty days of bill submission.

All running payments shall be regarded as payments by way of advance against the final grant/payment only and not as payments for work actually done and completed and / or accepted by LMC and shall not preclude the recovery for bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the Contract, or any part thereof, in this respect, or the accruing of any claim, nor shall it conclude, determine or affect in any way the powers of the AMC under these conditions or any of them as to the final settlement and adjustments of the accounts or otherwise, or in any other way vary/ affect the contract. The final bill for grant shall be submitted by the contractor within three months of the completion of work, otherwise LMC's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on contractor

Each Running Bills should be accompanied by two sets of at-least 20 (twenty) photographs as per direction of Project in charge taken from various points depicting status of work as on Report/ Bill date along with Monthly Progress Report for the concerned month in the pro-forma to be given/ approved by Engineer-in-Charge. Intermittent progress Photographs as and when required shall also be provided by the Contractor at his own cost as per direction of Engineer-in-Charge. No payment of running account bill shall be released unless it is accompanied by progress photographs and Monthly Progress Report as above

8.2 Payment of O&M Fee

(a) Subject to the provisions of this Agreement 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, AUTHORITY agrees and undertakes to pay to Concessionaire, the O&M Fee/O&M Fee calculated in accordance with **Schedule 14**. All the payments and revenues to concessionaire shall accrue to Escrow account only and can be appropriated only thereafter.

(b) PAYMENT & PENALTY CALCULATION MODULE

The payment to the contractor for Door-to-Door collection work is based on the quantum of waste (tonnage) delivered at doorstep of processing plant/plants whereas, the payment of road sweeping shall be done on the basis of KM passes cleaned and the payment of drain cleaning shall be done on the basis of per KM cleaned. Payments will be made after deducting penalty as per key performance indicator defined in Schedule-14

All the monthly payment bills will be linked with the real time-based reporting of deployed vehicles on VTS, attendance and working hours of deployed man power and other data fetched into the ICT system related to door-to-door collection. The Concessionaire will be required to put POI based vehicle Tracking System or other such technology-based application that may generate real time report of movement of deployed vehicles for every point to point (door to door collection) in real time. Thus, the Concessionaire is required to do following action for raising its' bill:

For every bulk waste generator, the data will be fetched in real-time by RFID /QR code/other suitable method installed at the source of collection.

For every non bulk waste generator (Household for door-to-door collection), the Concessionaire will be required to generate POI at center point of each lane and road and each such POI shall preferably serve at cluster of 15 units each on the routes defined for waste collection of the area. Thus, the VTS deployed by the Concessionaire in each vehicle will provide real time data while providing the collection service. Any missed scanned data will be considered as non-service to that cluster (number of units) and incur not only deduction for the same but also penalty may be imposed for continued failure as per the provisions related to performance indicators in service level bench mark and incur penalty.

The payment to the contractor for Door-to-Door collection, Road Sweeping & Drain Cleaning work is based on the number of clients served as per key performance indicator. The contractor is required to provide the services as per the SLAs defined. This Payment module will be enabled to generate payment reports capturing performance of the contractor depending on various performance SLAs and KPIs like missed properties for collection, time schedule compliance, no. of trips, route compliance, etc. For the Door to Door Garbage

Collection penalties are levied if the vehicles do not start and end the collection activity in time, if the vehicle/waste collector misses any society/building (missed POI), if the contractor has not deployed the number of vehicles/personnel as defined for a particular zone, etc.

The Concessionaire shall also prepare a statement of daily units covered for Door-to-Door Collection, Road Sweeping and Drain Cleaning and get it duly certified by the Project Monitoring Consultant in the manner as set out in the O&M Requirements. The Concessionaire shall, on the 5th day of every Month or in case the 5th day of a Month is a holiday then on the following working day of such Month, submit to AUTHORITY /PMC a statement ("O&M Fee & Work Statement") providing the following details, in the manner as set out in the O&M Requirements:

- (i) Total number of individual HH, commercial units and Bulk generators covered under Door-to-Door collection for the previous Month
 - (ii) quantity of recovery of recyclables for the previous Month along with proof;
 - (iii) Amount of O&M Fee for all three heads ie. Collection & transportation, Manual Sweeping & Drain Cleaning, for the previous Month calculated in accordance with **Schedule 19**.
- (c) The Concessionaire shall receive O&M Fee only for the component for which service has been provided actually.
- (d) The door-to-Door collection, Manual Sweeping and Drain Cleaning shall be started on or before 3 months of Date of signing the Agreement.

8.3 Mechanism of Payment

- (a) In accordance to the performance indicator linked for payment for scope of services as per PART-A, PART-B, PART-C, the invoice raised will be considered only for the work actually done as per KPI & service level benchmark defined for the relevant package/part/component and deductions, penalty shall be imposed for failure to deliver the services as per **Schedule 14**.
- (b) The Contractor must submit the Monthly invoice supported by the ICT based reports by 5th of every month along with previous month EPF & ESIC paid challans (ECR) with payment receipt of each worker. LMC will pay 70% of the amount within two week (14) working days upon submission of bills.
- (c) PMC/LMC shall make complete verification of work along with due scrutiny of records and shall arrive at Monthly invoice Payable after deduction of performance-based penalty arrived at on basis of KPI's

described in **Schedule 14** and spot penalties and other penalties (if applicable)

Monthly invoice Payable (MIP) = Monthly Invoice (MI) - performance based penalty (PP) - spot penalties and other penalties

LMC shall release balance amount after deducting the penalties and payments already made in accordance with clause 8.2 (b), up to 7th of next month. The bills shall be paid after due scrutiny of records and marks obtained in KPI described in **Schedule 14**. LMC shall make deduction and levy penalty for the Contractor's failure to perform and maintain Service Level Benchmarks and performance indicators.

- (d) Deductions from the Payment will be made if available towards Income Tax, Service Tax and Royalties etc as per provisions of the statutory authorities, in force from time to time in the State of Uttar Pradesh. The Contractor is expected to include all such charges at the time of bidding submission. Any new taxes, increase in such tax's imposed/ applicable during the contract period shall be reimbursed by LMC as per actuals after submitting the proof of the same.
- (e) Any delay in making any payment in accordance with the O&M Fee Statement shall, without prejudice to any other consequences under this Agreement, entail payment of interest on the amount in default at prevailing annual prime lending rate of State Bank of India calculated for the duration of delay. The period of delay shall be counted from 90 days after; the day of submission of the O&M Fee Statement.
- (f) All payments to the Concessionaire shall be made in Escrow account by way of Cheque/electronic transfer. All payments to AUTHORITY if applicable shall be made by way of demand draft in favor of MUNICIPAL COMMISSIONER, LUCKNOW NAGAR NIGAM.
- (g) Price Adjustments will be made in accordance and as described in **Schedule 16**.

8.4 User Charges

- a) Subject to the provisions of this Agreement 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, AUTHORITY agrees and allow concessionaire to collect user charges at the rates as fixed in Schedule 22 and deposit the same in Authorities escrow account. However, nothing in this clause makes AUTHORITY responsible for collection of user charges. It is sole responsibility of concessionaire to collect user charges.

- b) AUTHORITY will be responsible to create suitable mechanism to issue penalty and challans to non-payee users for non-payment of user charges. List non-payees shall be provided by concessionaire with the proof of service provided in at least 26 days in a month.
- c) All the revenues from user charges shall be deposited into Authority Escrow account only and which will be used by Authority for payment of Tipping Fee.
- d) The target for collection of user charge as percentage in operation plan and revised every year shall be as under:

Year	Minimum Achievement Percentage
1 st	---
2 nd	45%
3 rd	50%
4 th	55%
5 th	60%
6 th Onwards	65%

- e) Concessionaire shall ensure to collect user charge according to target set out in Clause 8.5 (d). If concessionaire fails to collect the user charge in accordance to target, Percentage of **such shortfall amount will be deducted from monthly running bill of the concessionaire as tabulated below.**

Year	Percentage of shortfall amount to be deducted from monthly bill
1 st	---
2 nd	20%
3 rd	40%
4 th	60%
5 th	80%
6 th Onwards	100%

- f) If concessionaire provide IOT based evidence of providing door to door collection services continuous for three (3) consecutive months to the particular consumers and even though such consumers do not agree to pay user charges, concessionaire shall prepare the list of such defaulter consumers (month wise and ward wise) and promptly handover to LMC. The enforcement team of LMC shall strive and provide support to recover the use charge from such consumers. Amount recovered from such consumer shall be reimbursed to concessionaire subject the maximum amount

equals to shortfall user charge collection penalty deducted from the bill of particular month.

- g) If concessionaire collects the user charge more than the target, 10% of such excess collection amount shall be paid as incentive to concessionaire.

8.5 Revenue from Sale of Recyclable

- i. Concessionaire shall be allowed to sell the recyclable waste to Kabadiwala/ Secondary market and shall retain 50% of net profit towards overall financial sustainability of the project and share balance 50% with Lucknow Municipal Corporation.
- ii. Concessionaire shall record monthly return for the sales realization from the sale of such dry waste with the Authority
- iii. Any E- Waste recovered while segregation at MRF, the segregated E-waste shall belong to LMC and shall be handed over to LMC. Concessionaire shall not claim any revenue out of the E-waste received at MRF.
- iv. All the revenues to concessionaire from sale of recyclable shall accrue to Escrow account only and can be appropriated only thereafter.

8.6 Performance evaluation of services provided in the Concession Area

Daily Work Performance Evaluation for doorstep collection, transportation of Bio degradable, Non-biodegradable, Recyclable & Green waste to TS/MRF/Dustbins, Road sweeping and Drain cleaning shall be as per KPI defined in Schedule-14 .

8.7 Performance based Payment

- a) The net payment based on performance evaluation of doorstep collection, transportation of Bio degradable, Non-biodegradable, Recyclable & Green waste, etc. will be as per KPI and penalty procedure defined in Schedule-14.

8.8 Payment of Incentive to the Concessionaire

Incentive shall be paid to the Concessionaire as per the following conditions:

- a) Incentive trigger: The payment of incentive shall be applicable, only if the Concessionaire is not levied any penalty for three consecutive months
- b) In Case, the Concessionaire is not levied any penalty for the month of May, June and July. Then the Concessionaire is eligible for incentive payment for the May- July block as follows:
- c) Incentive Payment = $1\% * \{(50\% \text{ of MQ of May} + 50\% \text{ of MQ of June} + 50\% \text{ of MQ of July})\}$
- d) The month of August shall be considered for the next cycle of incentive payment if applicable

8.9 Other Conditions

- a) In case of inspection by Project Monitoring Consultant on particular day after the work is completed, if work is not found satisfactory on measurement through marks/points, the amount in accordance to the loss of points for that day, shall be deducted from the monthly running bills
- b) In case of AUTHORITY's representative not available for the joint inspection with the PMC, the evaluation carried out by the Project Monitoring Consultant shall be taken for processing the payment.

ARTICLE 9

9 ESCROW ACCOUNT

9.1 Escrow Account

- 9.1.1 The Concessionaire shall, prior to the Appointed Date, open and establish an Escrow Account with a Bank (the “Escrow Bank”) in accordance with this Agreement read with the Escrow Agreement.
- 9.1.2 The nature and scope of the Escrow Account shall be fully described in the agreement (the “Escrow Agreement”) to be entered into amongst the Concessionaire, the Authority, the Escrow Bank.

9.2 Deposits into Escrow Account

- 9.2.1 The Concessionaire shall deposit or cause to be deposited the following inflows and receipts into the Escrow Account:
- a. All funds received from AUTHORITY, if any
 - b. all funds constituting the Financial Package;
 - c. all and any other revenues from or in respect of the Project including the proceeds of any rentals, deposits, capital receipts or insurance claims; and
 - d. all payments by the Authority, after deduction of amounts specified for post closure activity

9.3 Withdrawals during Concession Period

- 9.3.1 The Concessionaire shall, at the time of opening the Escrow Account, give irrevocable instructions, by way of an Escrow Agreement, to the Escrow Bank instructing, inter alia, that deposits in the Escrow Account shall be appropriated in the following order every month, or at shorter intervals as necessary, and if not due in a month, then appropriated proportionately in such month and retained in the Escrow Account and paid out therefrom in the month when due:
- a. all taxes due and payable by the Concessionaire for and in respect of the Project;
 - b. O&M Expenses, subject to the ceiling, if any, set forth in the Financing Agreements;
 - c. O&M Expenses and other costs and expenses incurred by the Authority in accordance with the provisions of this Agreement, and certified by the Authority as due and payable to it;
 - d. License fees & revenue due and payable to the Authority;
 - e. monthly proportionate provision of Debt Service due in an Accounting Year;
 - f. all payments and Damages certified by the Authority as due and payable to it by the Concessionaire, including repayment of Revenue Shortfall Loan;

- g. monthly proportionate provision of debt service payments due in an Accounting Year in respect of Subordinated Debt;
- h. any reserve requirements set forth in the Financing Agreements; and
- i. balance, if any, in accordance with the instructions of the Concessionaire.

9.3.2 The Concessionaire shall not in any manner modify the order of payment specified in Clause 9.3.1, except with the prior written approval of the Authority.

9.4 Withdrawals upon Termination

9.4.1 Notwithstanding anything to the contrary contained in this Agreement, all amounts standing to the credit of the Escrow Account shall, upon Termination, be appropriated in the following order:

- a. all taxes due and payable by the Concessionaire for and in respect of the Project;
- b. 90% (ninety per cent) of Debt Due excluding Subordinated Debt;
- c. outstanding License Fees;
- d. all payments and Damages certified by the Authority as due and payable to it by the Concessionaire, including repayment of Revenue Shortfall Loan [if any];
- e. retention and payments relating to the liability for defects and deficiencies set forth in Article 29;
- f. outstanding Debt Service including the balance of Debt Due;
- g. outstanding Subordinated Debt;
- h. incurred or accrued O&M Expenses;
- i. any other payments required to be made under this Agreement; and
- j. balance, if any, in accordance with the instructions of the Concessionaire:

Provided that no appropriations shall be made under Sub-clause (j) of this Clause 9.4.1 until a Vesting Certificate has been issued by the Authority.

9.4.2 The provisions of Clause 9.3 to Clause 9.4 and the instructions contained in the Escrow Agreement shall remain in full force and effect until the obligations set forth in Clause 9.4.1 have been discharged.

ARTICLE 10

10 Insurance

The Concessionaire shall at its cost and expense, purchase and maintain by due re-instatement or otherwise, during the Concession Period all insurances in respect of the Project Facilities in accordance with the Good Industry Practices. The Concessionaire shall also affect and maintain such insurances as may be necessary for mitigating the risks that may devolve on the Authority as a consequence of any act or omission of the Concessionaire during the Construction Period. The Concessionaire shall procure that in each insurance policy, the Authority shall be a co-insured and that the insurer shall pay the proceeds to insurance into the Escrow Account. For the avoidance of doubt, the level of insurance to be maintained by the Concessionaire after repayment of Senior Lenders' dues in full shall be determined on the same principles as applicable for determining the level of insurance prior to such repayment of Senior Lenders' dues.

10.1 Notice of the Authority

No later than 45 (forty-five) days prior to commencement of the Construction Period and the Operation Period, as the case may be, the Concessionaire shall by notice furnish to the Authority, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Clause 10. Within 30 (thirty) days of receipt of such notice, the Authority may require the Concessionaire to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

10.2 Evidence of Insurance Cover

All insurances obtained by the Concessionaire in accordance with this Article 10 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 15 (fifteen) days of obtaining any insurance cover, the Concessionaire shall furnish to the Authority, notarized true copies of the certificate(s) of insurance, copies of insurance policies and premium payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Concessionaire to the Authority. The Concessionaire shall maintain a register of entry in order of premiums paid towards Insurance of the Project Facilities.

10.3 Remedy for failure to insure

If the Concessionaire shall fail to effect and keep in force all insurances for which it is responsible pursuant hereto, the Authority shall have the option to either keep in force any such insurances, and pay such premium and recover the costs thereof from the Concessionaire, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Concessionaire.

10.4 Waiver of Subrogation

All insurance policies in respect of the insurance obtained by the Concessionaire pursuant to this Article 10 shall include a waiver of any and all right of subrogation or recovery of the insurers thereunder against, inter alia, the Authority, and its assigns, successor, underrating and their 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 or in any way connected with any loss, liability or obligation covered by such policies of insurance.

10.5 Concessionaire's waiver

The Concessionaire hereby further releases, assigns and waives any and all rights of recovery against, inter alia, the Authority, and its assigns, undertaking, and their 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, liability or obligations 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.

10.6 Application of Insurance Proceeds

Subject to the provisions of the Financing Documents and unless otherwise provided herein, the proceeds of all insurance policies received shall be promptly applied by Concessionaire towards repair, renovation, restoration or re-instatement of the Project Facilities or any part thereof which may have been damaged or destroyed. The Concessionaire shall designate the Authority as the beneficiary for the assets under ownership of the Authority and may designate the Senior Lenders as the beneficiaries for the assets under the Concessionaire ownership or assign the insurance policies in their favour as security for the financial assistance provided by them to the Project. The Concessionaire shall carry such repair, renovation, restoration or re-instatement to the extent possible in such manner that the Project Facilities after such repair, renovation, restoration or re-instatement to the extent possible in the same condition as it were prior to such damage or destruction, normal wear and tear accepted.

10.7 No Breach of Insurance Obligation

If during the Concession Period, any risk which has been previously insured becomes un-insurable due to the fact that the insurers have ceased to insure such a risk and therefore insurance cannot be maintained / re-instated in respect of such risk, Concessionaire shall not be in breach of its obligations regarding insurance under this Agreement.

ARTICLE 11

11 Accounts & Audits

11.1 Audited accounts

- 11.1.1 The Concessionaire shall maintain books of accounts recording all its receipts (including all O&M Fee and other revenues derived/collected by it from or on account of the Project and/or its use), income, expenditure, payments (including payments from the Escrow Account), assets and liabilities, in accordance with this Agreement, Good Industry Practice, Applicable Laws and Applicable Permits. The Concessionaire shall provide 2 (two) copies of its Balance Sheet, Cash Flow Statement and Profit and Loss Account, along with a report thereon by its Statutory Auditors, within 90 (ninety) days of the close of the Accounting Year to which they pertain and such audited accounts, save and except where expressly provided to the contrary, shall form the basis of payments by either Party under this Agreement. The Authority shall have the right to inspect the records of the Concessionaire during office hours and require copies of relevant extracts of books of accounts, duly certified by the Statutory Auditors, to be provided to the Authority for verification of basis of payments, and in the event of any discrepancy or error being found, the same shall be rectified and such rectified account shall form the basis of payments by either Party under this Agreement.
- 11.1.2 The Concessionaire shall, within 30 (thirty) days of the close of each quarter of an Accounting Year, furnish to the Authority its unaudited financial results in respect of the preceding quarter, in the manner and form prescribed by the Securities and Exchange Board of India for publication of quarterly results by the companies listed on a stock exchange.

11.2 Appointment of auditors

- 11.2.1 The Concessionaire shall appoint, and have during the subsistence of this Agreement as its Statutory Auditors, a firm chosen by it from the mutually agreed list of 10 (ten) reputable firms of chartered accountants (the "Panel of Chartered Accountants"). All fees and expenses of the Statutory Auditors shall be borne by the Concessionaire.
- 11.2.2 The Concessionaire may terminate the appointment of its Statutory Auditors after a notice of 45 (forty-five) days to the Authority, subject to the replacement Statutory Auditors being appointed from the Panel of Chartered Accountants.
- 11.2.3 Notwithstanding anything to the contrary contained in this Agreement, the Authority shall have the right, but not the obligation, to appoint at its cost from time to time and at any time, another firm (the "Additional Auditors") from the Panel of Chartered Accountants to audit and verify all those matters, expenses, costs, realizations and things which the Statutory Auditors are required to do, undertake or certify pursuant to this Agreement.

11.3 Certification of claims by Statutory Auditors

Any claim or document provided by the Concessionaire to the Authority in connection with or relating to receipts, income, payments, costs, expenses, accounts or audit, and any matter incidental thereto shall be valid and effective only if certified by its Statutory Auditors.

11.4 Set-off

11.4.1 In the event any amount is due and payable by the Authority to the Concessionaire, it may set-off any sums payable to it by the Concessionaire and pay the balance remaining. Any exercise by the Authority of its rights under this Clause shall be without prejudice to any other rights or remedies available to it under this Agreement or otherwise.

11.5 Dispute resolution

11.5.1 In the event of there being any difference between the findings of the Additional Auditors and the Statutory Auditors, such Auditors shall meet to resolve the differences and if they are unable to resolve the same, such Dispute shall be resolved by the Authority by recourse to the Dispute Resolution Procedure.

ARTICLE 12

12 FORCE MAJEURE AND CHANGE IN LAW

12.1 Force Majeure Event

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 results in Material Adverse Effect shall constitute Force Majeure Event:

- (a) earthquake, flood, inundation and landslide
- (b) Epidemic& Pandemic
- (c) storm, tempest, hurricane, cyclone, lightning, thunder or other extreme atmospheric disturbances
- (d) fire caused by reasons not attributable to the Concessionaire or any of the employees, Contractors or agents appointed by the Concessionaire for purposes of the Project;
- (e) acts of terrorism;
- (f) strikes, labour disruptions or any other industrial disturbances not arising on account of the acts or omissions of the Concessionaire or the Contractor
- (g) action of a Government Agency having Material Adverse Effect including but not limited to
 - (i) acts of expropriation, compulsory acquisition or takeover by any Government Agency of the Project/Project Facilities or any part thereof or of the Concessionaire's or the Contractor's rights in relation to the Project,
 - (ii) any judgment or order of a court of competent jurisdiction or statutory authority in India made against the Concessionaire or the Contractor in any proceedings which is non-collusive and duly prosecuted by the Concessionaire, and
 - (iii) any unlawful, unauthorised or without jurisdiction refusal to issue or to renew or the revocation of any Applicable Permits, in each case, for reasons other than Concessionaire's or the Contractor's breach or failure in complying with the Project Requirements, Applicable Laws, Applicable Permits, any judgment or order of a Governmental Agency or of any contract by which the Concessionaire or the Contractor as the case may be is bound.
- (h) early termination of this Agreement by AUTHORITY for reasons of national emergency or national security.

- (i) any failure or delay of a Contractor caused by any of the sub-clauses (f) and (g) hereinabove, for which no offsetting compensation is payable to the Concessionaire by or on behalf of the Contractor.
- (j) War, hostilities (whether declared or not), invasion, act of foreign enemy, rebellion, riots, weapon conflict or military actions, civil war, ionising radiation, contamination by radioactivity from nuclear fuel, any nuclear waste, radioactive toxic explosion, volcanic eruptions, any failure or delay of a Contractor caused by the events mentioned in this sub-clause for which no offsetting compensation is payable to the Concessionaire by or on behalf of the Contractor

12.2 Notice of Force Majeure Event

- (a) As soon as practicable and in any case within 7 days of the date of occurrence of a Force Majeure Event or the date of knowledge thereof, the Affected Party shall notify Project Monitoring Consultant and the other Party of the same setting out, inter alia, the following in reasonable detail:
 - (i) the nature and extent of the Force Majeure Event;
 - (ii) the estimated Force Majeure Period;
 - (iii) the nature of and the extent to which, performance of any of its obligations under this Agreement is affected by the Force Majeure Event;
 - (iv) the measures which the Affected Party has taken or proposes to take to alleviate/mitigate the impact of the Force Majeure Event and to resume performance of such of its obligations affected thereby; and
 - (v) any other relevant information concerning the Force Majeure Event, and /or the rights and obligations of the Parties under this Agreement.
- (b) As soon as practicable and in any case within 5 days of notification by the Affected Party in accordance with the preceding clause (a), the Parties shall along with the PMC, meet, hold discussions in good faith and where necessary conduct physical inspection/survey of the Project Facilities in order to:
 - (i) assess the impact of the underlying Force Majeure Event,
 - (ii) to determine the likely duration of Force Majeure Period and,
 - (iii) to formulate damage mitigation measures and steps to be undertaken by the Parties for resumption of obligations, the performance of which shall have been affected by the underlying Force Majeure Event.
- (c) The Affected Party shall during the Force Majeure Period provide to the other Party and the Project Monitoring Consultant regular (not less than weekly) reports concerning the matters set out in the preceding clause (b) as also any information, details or document, which the other Party may reasonably require.

12.3 Performance of Obligations

If the Affected Party is rendered wholly or partially unable to perform any of its obligations under this Agreement because of a Force Majeure Event, it shall be

excused from performance of such obligations to the extent it is unable to perform the same on account of such Force Majeure Event provided that:

- (a) due notice of the Force Majeure Event has been given as required by the preceding **Clause 12.2**;
- (b) the excuse from performance shall be of no greater scope and of no longer duration than is necessitated by the Force Majeure Event;
- (c) the Affected Party has taken all reasonable efforts to avoid, prevent, mitigate and limit damage, if any, caused or is likely to be caused to the Project Facilities as a result of the Force Majeure Event and to restore the Project Facilities, in accordance with the Good Industry Practice and its relative obligations under this Agreement;
- (d) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party and the Project Monitoring Consultant written notice to that effect and shall promptly resume performance of its obligations hereunder, the non-issue of such notice being no excuse for any delay for resuming such performance;
- (e) the Affected Party shall continue to perform such of its obligations which are not affected by the Force Majeure Event and which are capable of being performed in accordance with this Agreement; and
- (f) any insurance proceeds received shall be, subject to the provisions of Financing Documents, entirely applied to repair, replace or restore the assets damaged on account of the Force Majeure Event, or in accordance with Good Industry Practice.

12.4 Termination due to Force Majeure Event

(a) Termination

- (i) If a Force Majeure Event, excluding events described under **Clauses 12.1(f), 12.1(g) and 12.1(h)**, continues or is in the reasonable judgment of the Parties likely to continue beyond a period of 120 days, the Parties may mutually decide to terminate this Agreement or continue this Agreement on mutually agreed revised terms. If the Parties are unable to reach an agreement in this regard, the Affected Party shall after the expiry of the said period of 120 days, be entitled to terminate this Agreement.

Notwithstanding anything inconsistent contained in this Agreement, if a Force Majeure Event is an event described under **Clauses 12.1(f), or 12.1(h)**, and the same subsists for a period exceeding 365 days, then either Party shall be entitled to terminate this Agreement.

Provided that AUTHORITY may at its sole discretion have the option to terminate this Agreement any time after the occurrence of any event described under **Clauses 12.1(f) or 12.1(h)**.

(b) Termination Notice

If either Party, having become entitled to do so, decides to terminate this Agreement pursuant to the preceding clause (a), it shall issue Termination Notice setting out;

- (i) in sufficient detail the underlying Force Majeure Event;
- (ii) the Termination Date which shall be a date occurring not earlier than 60 days from the date of Termination Notice;
- (iii) the estimated Termination Payment including the details of computation thereof and;
- (iv) any other relevant information.

(c) 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;

- (i) the Termination Payment, if any, payable by AUTHORITY in accordance with the following **clause (d)** is paid to the Concessionaire on the Termination Date and
- (ii) the Project Facilities are handed back to AUTHORITY by the Concessionaire on the Termination Date free from all Encumbrance.

(d) Termination Payment

Upon Termination of this Agreement due to a Force Majeure Event, Termination Payment shall be made to the Concessionaire by AUTHORITY in accordance with the following:

- (i) If Termination is due to a Force Majeure Event, described under **Clauses 12.1(a) to 12.1(e)**, no Termination Payment shall be made by AUTHORITY to the Concessionaire but, the Concessionaire shall be entitled to receive and appropriate
 - (a) the proceeds of any amounts under insurance policies and
 - (b) the amounts in the Sinking Fund Account
- (ii) If Termination is due to the occurrence of any event described under **Clauses 12.1(f), 12.1(g) or 12.1(h)**, AUTHORITY shall pay to the Concessionaire Termination Payment equal to 100 % of the Book Value of total assets as on the Date of Termination Notice less the capital grants provided by AUTHORITY, adjusted on the basis of PLR of SBI at the time of termination. The Concessionaire would also be allowed to appropriate the amounts in the Post Closure Performance Account.
- (iii) If Termination is due to the occurrence of any event described under **Clause 12.1(i)**, AUTHORITY shall subject to the certification of PMC, pay to the Concessionaire, Termination payment equal to 100 % of the Book Value of total assets as on the Date of Termination Notice less the capital grants provided by AUTHORITY, adjusted on the basis of PLR of SBI at the

time of termination. The Concessionaire would also be allowed to appropriate the amounts in the Post Closure Performance Account.

Provided AUTHORITY shall be entitled to deduct from the Termination Payment any amount due and recoverable by AUTHORITY from the Concessionaire as on the Termination Date.

12.5 Liability for other losses, damages etc.

Save and except as expressly provided in this **Article 12**, neither Party hereto shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event.

12.6 Change in Law

(a) Change in Law shall mean the occurrence or coming into force of any of the following, after the Appointed Date:

- (iv) The enactment of any new Indian law including laws related to environment;
- (v) The repeal, modification or re-enactment of any existing Indian law
- (vi) A change in the interpretation or application of any Indian law by a court of record.

Provided that Change in Law shall not include:

- (iii) Coming into effect, after the Appointed Date, of any provision or statute which is already in place as of the Appointed Date,
 - (iv) 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 Appointed Date which is a matter of public knowledge,
- (b) 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 direct consequence of a Change in Law, the Concessionaire is obliged to incur Additional Costs, and AUTHORITY shall subsequently reimburse to the Concessionaire 100% of such Additional Costs.
- (c) Upon occurrence of a Change in Law, the Concessionaire may, notify AUTHORITY and the Project Monitoring Consultant of the following:
- (i) The nature and the impact of Change in Law on the Project
 - (ii) In sufficient detail, the estimate of the Additional Cost likely to be incurred by the Concessionaire on account of Change in Law
 - (iii) The measures, which the Concessionaire has taken or proposes to take to mitigate the impact of Change in Law, including in particular, minimizing the Additional Cost

- (iv) The relief sought by the Concessionaire
- (d) Upon receipt of the notice of Change in Law issued by the Concessionaire pursuant to preceding sub-clause, AUTHORITY and the Concessionaire shall along with the Project Monitoring Consultant hold discussions and take all such steps as may be necessary including determination/certification by the Project Monitoring Consultant of the quantum of the Additional Cost to be borne and paid by AUTHORITY.
- (e) AUTHORITY shall within 30 days from the date of determination of quantum of Additional Cost, provide relief to the Concessionaire in the manner as mutually agreed upon by the Parties.

ARTICLE 13

13 EVENTS OF DEFAULT AND TERMINATION

13.1 Events of Default

Event of Default shall mean either Concessionaire Event of Default or AUTHORITY Event of Default or both as the context may admit or require.

(a) Concessionaire Event of Default

a) AUTHORITY at any time may terminate the contract by giving written notice to the bidder.

If the Bidder/ Contractor becomes bankrupt or otherwise insolvent, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to AUTHORITY.

If the Bidder/ Contractor creates events of default of any of the terms and conditions governing the contract or any clause of the contract including those of operation clauses of house-to-house collection, deployment of right type of vehicles and compactors, transportation of waste, recovery of recyclables etc.

If it is proved that the Contractor is intentionally and deliberately violating the provisions of the contract.

b) AUTHORITY requires that the Bidders under this tender observe the highest standards of ethics during the procurement and execution of such Contracts. In pursuance of this policy, AUTHORITY defines for the purposes of this provision, the terms set forth as follows:

“Corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of the public official in the procurement process or in contract execution; and

“Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or execution of the contract to the detriment of AUTHORITY, and includes collusive practice among Bidders (prior to or after Tender submission) designed to establish Contract Prices at artificial non-competitive levels and to deprive AUTHORITY of the benefits of the free and open competition.

c) If the bidder indulges in Corrupt or Fraudulent Practices, it gets disqualified for tendering or AUTHORITY may at any point of time terminate the contract by giving written notice to the Bidder, even after the work is started, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the AUTHORITY.

d) In case of failure to clarify or improve the work to the utmost satisfaction of AUTHORITY, letter of termination will be sent to the bidder.

e) If the order /contract is cancelled / terminated after commencing the work, on account of the reasons and / or failure of the Contractor to perform up to the standard as evaluated, Contractor shall;

- Hand over the entire infrastructure, sheds, cabins built, services provided by the service provider, in the premises given by AUTHORITY to an authorized representative of AUTHORITY; without any compensation.
- Hand over vehicles, equipment, procured for use immediately again to an authorized representative of AUTHORITY; without any compensation.

AUTHORITY may/shall assign the entire work and its set up to the next willing bidder or any other company or individual for operations of the services along with infrastructure, places and all vehicles and equipment acquired from the Contractor, at the risk and cost of the bidder.

Any of the following events shall constitute an Event of Default by the Concessionaire ("Concessionaire Event of Default") unless such event has occurred as a result of one or more reasons set out in this agreement:

- (i) The Concessionaire has failed to adhere to the Construction Requirements and such failure, in the reasonable estimation of the PMC, is likely to delay achievement of COD beyond 60 days of the Scheduled Project Completion Date;
- (ii) The Concessionaire has failed to achieve COD within 60 days of the Scheduled Project Completion Date because of the reasons attributed to failure in functioning of concessionaire;
- (iii) At any time during the Concession Period, the Concessionaire fails to adhere to the Construction Requirements or O&M Requirements or O&M standards as stated in approved DPR and this agreement and has failed to remedy the same within 30 days;
- (iv) Deleted;
- (v) The Concessionaire is in Material Breach of any of its obligations under this Agreement and the same has not been remedied for more than 30 days;
- (vi) Any representation made or warranty given by the Concessionaire under this Agreement is found to be false or misleading;
- (vii) A resolution for voluntary winding up has been passed by the shareholders of the Concessionaire;
- (viii) Any petition for winding up of the Concessionaire has been admitted and liquidator or provisional liquidator has been appointed or the Concessionaire has been ordered to be wound up by Court of competent jurisdiction, except for the purpose of amalgamation or reconstruction with the prior consent of AUTHORITY, provided that, as part of such amalgamation or reconstruction and the amalgamated or reconstructed entity has unconditionally assumed all surviving obligations of the Concessionaire under this Agreement.
- (ix) A default has occurred under any of the Financing Documents and any of the Lenders has recalled its financial assistance and demanded payment

of the amounts outstanding under the Financing Documents or any of them as applicable;

- (x) The Concessionaire has abandoned the Project Facilities;
- (xi) The Concessionaire has unlawfully repudiated this Agreement or has otherwise expressed an intention not to be bound by this Agreement;
- (xii) The Concessionaire has suffered an attachment levied on any of its assets which has caused or is likely to cause a Material Adverse Effect on the Project and such attachment has continued for a period exceeding 90 days.

(b) AUTHORITY Event of Default

a) The Contractor may at any times request for termination of the contract if desired on default on the part of AUTHORITY; such as non-payment of bills or resistance from citizens and it does not get resolved by AUTHORITY, by giving written communication to AUTHORITY, the Contractor may hand over the vehicles, equipment, bins, and fixed assets created by them to AUTHORITY.

b) In case of termination /cancellation of the contract after commencing the work when AUTHORITY asks to do so on account of AUTHORITY's inability to continue, all the infrastructure, vehicles, equipment, containers brought by the Contractor may be taken over by the AUTHORITY; if requested by the Contractor; at the mutually agreed rates.

Any of the following events shall constitute an event of default by AUTHORITY ("AUTHORITY Event of Default"), when not caused by a Concessionaire Event of Default or Force Majeure Event:

- (i) AUTHORITY has failed to make any payments to the Concessionaire and more than 90 days have elapsed since such default. Interest shall be paid at the rate of 8% for the days elapsed after 90 days' time period;
- (ii) AUTHORITY is in Material Breach of any of its obligations under this Agreement and has failed to cure such breach within 90 (ninety) days of receipt of notice thereof issued by the Concessionaire;
- (iii) AUTHORITY has unlawfully repudiated this Agreement or otherwise expressed its intention not to be bound by this Agreement;
- (iv) AUTHORITY has unreasonably withheld or delayed grant of any approval or permission which the Concessionaire is obliged to seek under this Agreement, and thereby caused or likely to cause Material Adverse Effect;
- (v) Any representation made or warranties given by the AUTHORITY under this Agreement has been found to be false or misleading.

13.2 Risk and Cost work in case of concessionaire event of Default

Lucknow Municipal corporation has invited bid by dividing entire city in Three (3) packages. The successful bidder (L1 Bidder) of all three packages shall be considered

as empanelled agencies for future reference.

In case, concessionaire of any package does not perform any part or whole of work and receive less than 60% mark in KPI for continuous three (3) months, LMC shall be free to get the work done by other empanelled agency at the risk and cost of concessionaire of that package.

A committee comprising of Municipal Commissioner, all additional Municipal Commissioner, Chief Engineer (Civil), Chief Engineer (E&M), Chief Finance Officer, Environment Engineer & PMC representative shall be authorised to examine the level of default, necessity to engage other agency and initiate the proceed for awarding the work to another empanelled agency.

13.3 Termination due to Event of Default

(a) Termination for Concessionaire Event of Default

- (i) Without prejudice to any other right or remedy which AUTHORITY may have in respect thereof under this Agreement, upon the occurrence of a Concessionaire Event of Default, AUTHORITY shall, subject to the provisions of this Agreement, be entitled to terminate this Agreement in the manner as set out under this agreement.

Provided however that upon the occurrence of a Concessionaire Event of Default as specified under this agreement, AUTHORITY may terminate this Agreement by issue of Termination Notice in the manner set out under this agreement.

- (ii) If AUTHORITY decides to terminate this Agreement pursuant to preceding **clause 13.2 (i)**, it shall in the first instance issue Preliminary Notice to the Concessionaire. Within thirty (30) days of receipt of the Preliminary Notice, the Concessionaire shall submit to AUTHORITY in sufficient detail, the manner in which it proposes to cure the underlying Event of Default (the "Concessionaire's Proposal to Rectify"). In case of non-submission of the Concessionaire's Proposal to Rectify within the said period of 30 days, AUTHORITY shall be entitled to terminate this Agreement by issuing Termination Notice, and to appropriate the Performance Security, if subsisting:
- (iii) If the Concessionaire's Proposal to Rectify is submitted within the period stipulated therefore, the Concessionaire shall have further period of 30 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, AUTHORITY shall be entitled to terminate this Agreement, by issue of Termination Notice and to appropriate the Performance Security, if subsisting

(b) Termination for AUTHORITY Event of Default

- (i) Without prejudice to any other right or remedy which the Concessionaire may have in respect thereof under this Agreement, upon the occurrence of AUTHORITY Event of Default, the Concessionaire shall be entitled to terminate this Agreement by issuing Termination Notice.
- (ii) If the Concessionaire decides to terminate this Agreement pursuant to preceding clause (i) it shall in the first instance issue Preliminary Notice to AUTHORITY. Within 30 days of receipt of Preliminary Notice, AUTHORITY shall forward to the Concessionaire its proposal to remedy/ cure the underlying Event of Default (the "AUTHORITY Proposal to Rectify"). In case of non-submission of AUTHORITY Proposal to rectify within the period stipulated therefore, Concessionaire shall be entitled to terminate this Agreement by issuing Termination Notice.
- (iii) If AUTHORITY Proposal to Rectify is forwarded to the Concessionaire within the period stipulated therefore, AUTHORITY shall have further period of 30 days to remedy/ cure the underlying Event of Default. If, however AUTHORITY fails to remedy/ cure the underlying Event of Default within such further period allowed, the Concessionaire shall be entitled to terminate this Agreement by issuing Termination Notice.

(c) Termination Notice

If a Party is having become entitled to do so decide to terminate this Agreement pursuant to the preceding sub article (a) or (b), it shall issue Termination Notice setting out:

- (i) in sufficient detail the underlying Event of Default;
- (ii) the Termination Date which shall be a date occurring not earlier than 60 days from the date of Termination Notice;
- (iii) the estimated termination payment including the details of computation thereof; and,
- (iv) any other relevant information.

(d) 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;

- (i) until Termination the Parties shall, to the fullest extent possible, discharge their respective obligations so as to maintain the continued operation of the Project Facilities;
- (ii) the termination payment, if any, payable by AUTHORITY in accordance with the following **sub - article (f)** is paid to the Concessionaire on the Termination Date; and
- (iii) the Project Facilities are handed back to AUTHORITY by the Concessionaire on the Termination Date free from any

Encumbrance along with any payment that may be due by the Concessionaire to AUTHORITY.

(e) 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 in breach shall compensate the other Party for any direct costs/consequences occasioned by the Event of Default which caused the issue of Termination Notice.

(f) Termination Payments

Upon Termination of this Agreement on account of AUTHORITY Event of Default, the Concessionaire shall be entitled to withdraw the Performance Security, if subsisting, and receive from AUTHORITY, termination payment equal to 120% of the Book Value of total assets of project as on Termination Date and amounts in the Post Closure Performance Account less the capital grants received by concessionaire adjusted on the basis of PLR of SBI at the time. Cost of valuator in such case shall be borne by AUTHORITY.

Upon Termination of this Agreement on account of Concessionaire Event of Default, Concessionaire shall be entitled to receive from AUTHORITY termination payment equal to 80% of the estimated project cost as approved by AUTHORITY less grants received by concessionaire and adjusted on the basis of PLR of SBI as on the Termination Date less the penalties imposed by AUTHORITY for event of default.

Here **Estimated Project Cost** shall mean project cost estimated in DPR prepared by Concessionaire and approved by AUTHORITY.

13.4 Rights of AUTHORITY on Termination

- (a) 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:
 - (i) enter upon and take possession and control of the Project Facilities i/c vehicles, workshop etc. forthwith;
 - (ii) prohibit the Concessionaire and any person claiming through or under the Concessionaire from entering upon/ dealing with the Project Facilities;
- (b) Notwithstanding anything contained in this Agreement, AUTHORITY shall not, as a consequence of Termination or otherwise, have any obligation whatsoever including but not limited to obligations as to compensation for loss of employment, continuance or regularisation 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 hand back

of the Project Facilities by the Concessionaire to AUTHORITY shall be free from any such obligation.

13.5 Accrued Rights of Parties

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 damages and other rights and remedies which it may have in law or contract. The 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.

ARTICLE 14

14 HANDBACK OF PROJECT FACILITIES

14.1 Ownership

Without prejudice and subject to the Concession, the ownership of the Project Facilities, including all improvements made therein by the Concessionaire, shall at all times remain that of AUTHORITY.

14.2 Concessionaire's Obligations

14.2.1 **Transfer of the movable and immovable assets by the bidder; after Completion of the Contract i.e., 10 Years after COD or as extended thereupon, to the ULB**

- i. The Contractor shall at the end of the Contract period hand back vacant and peaceful possession of the Project Facilities to ULB free of cost and in good operable condition.
- ii. AUTHORITY may decide to extend the contract or announce completion; a letter to this effect shall be given by AUTHORITY. On acceptance of the extension a new contract agreement shall be signed and the work shall continue un-interruptedly with use of same vehicles, equipment and infrastructure etc.

14.2.2 **All Vehicles, Workshops, Offices, Communication arrangements etc. and immovable infrastructure/ facilities: On completion of the contract period, unless it is extended, the bidder will transfer All Vehicles, Workshop, Offices, Communication arrangements etc. and immovable infrastructure/ facilities to ULB, in working conditions, free of cost.**

14.2.3 The Concessionaire hereby acknowledges AUTHORITY's and ULB's rights specified in this agreement enforceable against it upon Termination and its corresponding obligations arising there from. The Concessionaire undertakes to comply with and discharge promptly all such obligations.

14.3 AUTHORITY's Obligations

AUTHORITY shall, subject to AUTHORITY's right to deduct amounts from the Performance Security towards;

- (i) carrying out works/jobs listed under Scope of work, which have not been carried out by the Concessionaire,
- (ii) purchase of items, which have not been handed back to ULB along with the Project Facilities which were part of approved DPR/Plan, and
- (iii) any outstanding dues, which may have accrued in respect of the Project during the Concession Period, duly discharge and release to the Concessionaire the amounts in the Post Closure Performance Account in accordance with this agreement.

ARTICLE 15

15 DISPUTE RESOLUTION

15.1 Amicable Resolution

- (a) Save where expressly stated to the contrary in this Agreement, any dispute, difference or controversy of whatever nature between the Parties, howsoever arising under, out of or in relation to this Agreement, including those arising with regard to acts, decision or opinion of the Project Monitoring Consultant (the "Dispute") shall in the first instance be attempted to be resolved amicably in accordance with the procedure set forth in **clause (b)** below.
- (b) Either Party may require such Dispute to be referred to the MUNICIPAL COMMISSIONER (or the Person holding charge) and the Director of the Concessionaire for the time being, for amicable settlement. Upon such reference, the two shall meet at the earliest mutual convenience and in any event within 15 days of such reference to discuss and attempt to amicably resolve the Dispute. If the Dispute is not amicably settled within 15 (fifteen) days of such meeting between the two, either Party may refer the Dispute to arbitration in accordance with the provisions of **Article 15.2** below.

15.2 Arbitration

(a) Procedure

Subject to the provisions of **Article 15.1**, any Dispute which is not resolved amicably shall be finally settled by binding arbitration under the Arbitration Act. The arbitration shall be by a panel of three arbitrators, one to be appointed by each Party and the third to be appointed by the two arbitrators appointed by the Parties. The Party requiring arbitration shall appoint an arbitrator in writing, inform the other Party about such appointment and call upon the other Party to appoint its arbitrator. If within 15 days of receipt of such intimation, the other Party fails to appoint its arbitrator, the Party seeking appointment of arbitrator may take further steps in accordance with Arbitration Act.

(b) Place of Arbitration

The place of arbitration shall be Lucknow, .

(c) English Language

The request for arbitration, the answer to the request, the terms of reference, any written submissions, any orders and awards shall be in English and, if oral hearings take place, English shall be the language to be used in the hearings.

(d) Enforcement of Award

The Parties agree that the decision or award resulting from arbitration shall be final and binding upon the Parties and shall be enforceable in accordance with

the provisions of the Arbitration Act subject to the rights of the aggrieved parties to secure relief from any higher forum.

15.3 Performance during Dispute

Pending the submission of and/or decision on a Dispute and until the arbitral award is published, the Parties shall continue to perform their respective obligations under this Agreement without prejudice to a final adjustment in accordance with such award.

ARTICLE 16

16 REPRESENTATIONS AND WARRANTIES

16.1 Representations and Warranties of the Concessionaire

The Concessionaire represents and warrants to AUTHORITY that:

- (a) it is duly organised, validly existing and in good standing under the laws of India;
- (b) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- (c) it has taken all necessary corporate and other action under Applicable Laws and its constitutional documents to authorise the execution, delivery and performance of this Agreement;
- (d) it has the financial standing and capacity to undertake the Project;
- (e) this Agreement constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (f) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under or accelerate performance required by any of the terms of the Concessionaire's Memorandum and Articles of Association or any Applicable Laws or any covenant, agreement, understanding, decree or order to which it is a party or by which it or any of its properties or assets are bound or affected;
- (g) there are no actions, suits, proceedings or investigations pending or to the Concessionaire's knowledge threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may constitute Concessionaire Event of Default or which individually or in the aggregate may result in Material Adverse Effect;
- (h) 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 Agency which may result in Material Adverse Effect;
- (i) it has complied with all Applicable Laws 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 Material Adverse Effect;
- (j) subject to receipt by the Concessionaire from AUTHORITY of any amount due under any of the provisions of this Agreement, in the manner and to the extent provided for under the applicable provisions of this Agreement all rights and interests of the Concessionaire in and to the Project Facilities shall pass to and vest in AUTHORITY on the Termination Date free and clear of all Encumbrances without any further act or deed on the part of the Concessionaire or AUTHORITY;
- (k) no representation or warranty by the Concessionaire contained herein or in any other document furnished by it to AUTHORITY or to any Government Agency in

relation to Applicable Permits contains or will contain any untrue statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;

- (l) no bribe or illegal gratification has been paid or will be paid in cash or kind by or on behalf of the Concessionaire to any person to procure the Concession.
- (m) Without prejudice to any express provision contained in this Agreement, 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 Project Facilities, and the information provided by AUTHORITY, and has determined to its satisfaction the nature and extent of risks and hazards as are likely to arise or may be faced by the Concessionaire in the course of performance of its obligations hereunder.
- (n) The Concessionaire also acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth above and hereby confirms that AUTHORITY shall not be liable for the same in any manner whatsoever to the Concessionaire.

16.2 Representations and Warranties of AUTHORITY

AUTHORITY represents and warrants to the Concessionaire that:

- (a) AUTHORITY has full power and authority to grant the Concession;
- (b) AUTHORITY has taken all necessary action to authorise the execution, delivery and performance of this Agreement;
- (c) This Agreement constitutes AUTHORITY's legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (d) There are no suits or other legal proceedings pending or threatened against AUTHORITY in respect of the Project Facilities or the Project.

16.3 Obligation to Notify Change

In the event that any of the representations or warranties made/given by a Party cease to be true or stands changed, the Party who had made such representation or given such warranty shall promptly notify the other of the same.

ARTICLE 17

17 MISCELLANEOUS

17.1 Assignment and Charges

- (a) 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 AUTHORITY.
- (b) The Concessionaire shall not create nor permit to subsist any Encumbrance over the Project Facilities except with prior consent in writing of AUTHORITY, which consent AUTHORITY shall be entitled to decline without assigning any reason whatsoever.
- (c) Restraint set forth in clauses (a) and (b) above shall not apply to:
 - (i) liens/encumbrances arising by operation of law (or by an agreement evidencing the same) in the ordinary course of business of the Concessionaire;
 - (ii) Pledges/hypothecation of goods/ moveable assets, revenue and receivables as security for indebtedness, in favour of the Lenders and working capital providers for the Project;
 - (iii) Assignment of Concessionaire's rights and benefits under this Agreement to or in favour of the Lenders as security for financial assistance provided by them.

17.2 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 be 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 prime lending rate of State Bank of India per annum from the due date for payment thereof until the same is paid to or otherwise realised 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 agreement shall neither be deemed nor construed to authorise 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.

17.3 Governing Law and Jurisdiction

This Agreement shall be governed by the laws of India. The Courts at Lucknow shall have jurisdiction over all matters arising out of or relating to this Agreement.

17.4 Waiver

- (a) Waiver by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:
 - (i) 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;
 - (ii) shall not be effective unless it is in writing and executed by a duly authorised representative of such Party; and
 - (iii) shall not affect the validity or enforceability of this Agreement in any manner.
- (b) 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.

17.5 Survival

Termination of this Agreement

- (a) shall not relieve the Concessionaire or AUTHORITY of any obligations already incurred hereunder which expressly or by implication survives Termination hereof, and
- (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall 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.

17.6 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 no amendment or modification hereto shall be valid and effective unless agreed to by all the Parties hereto and evidenced in writing.

17.7 Notices

Unless otherwise stated, notices to be given under this Agreement including but not limited to a 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 set forth below:

If to AUTHORITY:

Municipal Commissioner

LUCKNOW NAGAR NIGAM

And

Chief Executive Officer
Lucknow Smart City Limited

If to the Concessionaire:

The Managing Director,

-----,

-----,

Fax No. -----

Or such 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

- (i) 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
- (ii) in the case of any communication made by telex or facsimile, when transmitted properly addressed to such telex number or facsimile number.

17.8 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.

17.9 No Partnership

Nothing contained in this Agreement shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.

17.10 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.

17.11 Exclusion of Implied Warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties and any representation by any Party not contained in a binding legal agreement executed by the Parties.

17.12 Counterparts

This Agreement may be executed in two counterparts, each of which when executed and delivered shall constitute an original of this Agreement but shall together constitute one and only the Agreement.

IN WITNESS WHEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED SEALED AND DELIVERED

For and on behalf of LUCKNOW NAGAR NIGAM by: (Signature) (Name) (Designation)	For and on behalf of CONCESSIONAIRE by: (Signature) (Name) (Designation)
In the presence of : 1)	 2)

SCHEDULE “1”

Scope of Collection and Transportation of Solid Waste

Project Scope is Collection & Transportation of Solid Waste, Manual Street Sweeping, Horticulture Waste, Desilted Waste & Storage of Domestic Hazardous Waste in Package-2 (Zone 2,5,8) to the Designated Processing Facility/ Dump Site/ Depositing Centers.

Major scope of works to be executed by the successful bidder in the city are as listed below:

- a. Door to Door Collection of MSW from Household, commercial, institutional and other area and its transportation to the MRF/designated site on daily basis.
- b. Design, Develop and Operation & Maintenance of MRF cum Transfer station/PCTS/FCTS and recovery of recyclables.
- c. Secondary Transportation of wet and dry waste to to designated processing site
- d. Manual Road/Street /pavement / footpath / paved path /cycle track Sweeping, and Removal of garbage, litter, silt and blockages from street sides and transportation of sweeping Waste to designated disposal site/collection centres.
- e. Cleaning of drain size up to 45cm shall be done on a weekly basis, and drains above 45 cm and up to 1.0 meter shall be cleaned once every 15 days. Collected silt shall be transported to designated disposal sites or collection centres. Drains covered with sone or slab shall also be cleaned periodically by manual/mechanical system.
- f. Collection & Transportation of Horticulture Waste to designated processing site.
- g. Collection & Storage of Domestic Hazardous Waste to designated collection center.
- h. Collection of user charges from households, commercial establishment, institutional establishment & BWG's on behalf of Lucknow Municipal Corporation and deposit it into Escrow account of Lucknow Municipal Corporation.
- i. Build, Operate & Maintain workshop for maintenance of vehicle/equipment.
- j. Setup a command-and-control centre cum control room for online monitoring and equipped with emergency response mechanism

The Concessionaire shall execute project based on the guidelines established in this schedule for effective implementation of the system in close coordination with Authority and IE through regular monitoring and reporting.

The Scope of Collection and Transportation of Solid Waste is appended hereunder:

1.1 Daily Door to Door / Street Level Primary Collection & Transportation System of Solid Waste

Door to Door/ Street level Primary collection of Solid Waste from Households as notified by the Authority.

- a) The Concessionaire shall be responsible for providing time table bound door to door primary SW collection services in the Project Area.
- b) The Concessionaire shall be responsible to collect pre-segregated and/or unsegregated waste (as per KPIs) from waste generators. The Concessionaire shall segregate the waste in three separate streams namely Bio-Degradable, Non-Biodegradable and Domestic Hazardous Waste and store separately in suitable bins (biodegradable waste in green colour bin, non-biodegradable waste in blue/white colour bin, domestic hazardous and sanitary waste in black box or bag).
- c) The Concessionaire shall create beat of each service area for undertaking activity.
Each beat shall be assigned to one waste collector. Beat information shall be provided in tabular form as well as in GIS map duly verified/approved by IE/Authority shall mention starting point, start time, waiting points, waiting time on route and end time of the specified Route. This shall be displayed on the Board at each street to display time- table of primary collection & transportation vehicles to allow residents avail the facility at prescribed time. This shall be also made accessible to general public on the web-based application and at the Authority's website or as agreed and accepted in MIOP
- d) The door-to-door service level collection shall be done by Auto-Tippers with minimum 1.8 cum capacity and E-rickshaws, having facility of hydraulically operated hopper, covering mechanism, hooter/siren and having two compartments for dry and wet waste. In addition to this, the two boxes for the collection of Domestic Hazardous Waste & Sanitary Waste shall be attached on the backside of these primary collection vehicles
- e) The Concessionaire shall directly transfer biodegradable (Wet Waste) from Auto Tippers & E-rickshaws to the nearest Decentralized wet waste processing site or to the dedicated Mobile Transfer Station (MTS) or FCTS or any other site designated by Authority for Wet Waste Collection. (Mobile Transfer Station shall mean Refuse Collector cum Compactor Vehicle henceforth referred to as MTS)
- f) The Concessionaire shall directly transfer Non-biodegradable (Dry Waste) from

- Auto Tippers & E-rickshaws to Recycling Centers or to the dedicated Mobile Transfer Station (MTS) or FCTS or any other site designated by Authority for Dry Waste Collection.
- g) In case MTS is not stationed at the designated location at that point of time for any reason, then the loaded Auto Tipper/E-Rickshaw shall go to the next designated location of the ' MTS or FCTS ' to unload the waste.
 - h) MTS engaged in this service shall not receive and transport waste received from any 'other' source except designated auto tippers / E-Rickshaw collecting waste from door to door/ street level operations.
 - i) MTS shall transport the segregated SW directly to Centralized Compost Plant, Bio-gas plant, Waste to Energy plant, SLF or any other site / plant as designated by the Authority.
 - j) There should be no inter - mixing of waste from various sources during the primary collection & transportation of waste
 - k) Narrow streets that cannot be serviced by Auto Tipper of 1.8 cum capacity, an E-Rickshaw having facilities as mentioned in point (d), compatible with Mobile Transfer Station (referred to as MTS) shall be deployed
 - l) Smaller, narrow and congested streets/lanes where even Auto Tipper/ E-Rickshaw cannot operate, vantage point/s shall be designated at the start of the locality/street where Auto Tipper/ E-Rickshaw are to be parked and the driver of vehicle shall carry a whistle and walk in the locality to announce arrival of vehicle for collecting solid waste.
 - m) Auto tippers/E-rickshaw engaged in this service shall collect the waste only from households and not from any other source. Auto tippers/E-rickshaws shall not dump/lift the waste from any Dhalao /open site or any other location in any circumstances and shall transfer waste only in the nearest MTS, FCTS, Decentralized Compost Sites, Recycling Centers etc. as specified by the Authority
 - n) The E-Rickshaws and Auto Tippers shall directly transport the minimum guaranteed segregated waste to the decentralized processing units as per the MIOP.
 - o) The Concessionaire shall be responsible for collecting segregated domestic hazardous waste and sanitary waste from the households. The waste shall be collected in black box attached to each auto tipper and e-rickshaws and transport

it to the HDPE Bins of 360 Litre Capacity placed at every Secondary Collection Point

- p) One Deposition Centre for DHW shall be established for every 20 sq. km. of area.

The Authority shall be responsible to provide these DHW Deposition Centers for safe storage of DHW. The Authority shall notify SPCB authorized Concessionaire separately, from time to time, who shall be responsible for transportation of the domestic hazardous waste and its safe disposal. The detailed mechanism for establishment of DHW Depositing Centers are mentioned in Schedule 6

- q) User charges shall be levied on the 'users' for providing 'Door to Door Collection Services' as per Rate of User Charges notified by Authority from time to time.
- r) The Concessionaire shall collect such user charges from the prescribed households as per the directions of Authority and same shall be deposited in authority Escrow Account.
- s) Concessionaire shall collect user charge as per minimum threshold limit mentioned in Clause 8 of RFP.
- t) The list of users and payment collection status shall be shared with Authority in monthly reporting.
- u) Concessionaire shall ensure that all vehicles shall be fitted with jingle approved by LMC.

1.2 Collection and Transportation of Solid Waste from Commercial Establishments

- a) The Concessionaire shall be responsible for providing time table bound Primary SW collection service from Commercial Establishments (Vegetable Market, Fruit Market, Daily Market, Fish Market, Street Vendors etc.), Hotels, Restaurants, Banquet Hall, Institution, Other Commercial Establishments, Bulk Waste Generators (BWGs) and any other establishment as notified by the Authority
- b) The Concessionaire shall provide route plan with Time Table for each primary collection vehicles. Route plan shall clearly mention Ward, Area/Locality and street etc. which shall be provided in tabular form as well as in GIS map duly verified/approved by IE/Authority
- c) Auto tippers/E-rickshwas with mechanical "Bin - Lifting" capability to lift 240

litter bin / 120 litre bin (AT 1.8 with Bin lifting Capability) shall collect the SW and transfer the wet waste directly to decentralized compost sites and dry waste to the designated Recycling Centers or to dedicated MTS or FCTS or any other site designated by Authority.

- d) Concessionaire shall plan to collect SW from Markets, Hotels, Dhabas, Restaurants, Banquet Hall, Farm House, Schools, Colleges & other Commercial Establishments in coinciding with opening time of these establishments.
 - e) Auto tippers/E-rickshwas engaged in this service shall collect the waste only from Commercial establishments. Auto tippers/E-rickshwas shall not dump/lift the waste from any Dhalao /open site or any other location in any circumstances and shall transfer waste only in the nearest MTS, FCTS, Decentralized Compost Sites, Recycling Centers etc. as specified by the Authority
 - f) MTS shall transport the segregated SW directly to Centralized Compost Plant, Waste to Energy plant, SLF or any other site / plant as designated by the Authority.
 - g) There should be no inter - mixing of waste from various sources during the primary collection & transportation of waste
 - h) The user charges shall be levied on the commercial establishment for providing Collection Services 'as per Rate of User Charges notified by Authority from time to time.
 - i) The Concessionaire shall collect such user charges from the prescribed Commercial Establishments as per the directions of Authority.
 - j) Concessionaire shall collect user charge as per minimum threshold limit mentioned in Clause 8 of RFP.
 - k) The list of users and payment collection status shall be shared with Authority in monthly reporting.
- No lifting of waste shall be allowed using JCB and Dumper combination after three months of COD.
- m) Open dumping point shall be eliminated within one year from COD.

1.3 Collection & Transportation of Horticulture and Garden Waste from colonies or public places

- a) The Concessionaire shall be responsible for the collection and transportation of horticulture/garden waste generated from public places, specific colonies/localities using Auto tippers 1.8 Cum.
- b) The Concessionaire shall deploy separate vehicles for collection and transportation of horticultural/garden waste.
- c) The Concessionaire shall deposit green waste at designated green waste management centres (nurseries) and transport other type of waste to designated disposal site by the Authority
- d) Concessionaire shall be responsible for increasing the collection as per directions given by the Authority during the seasonal variation
- e) Waste collected using this service shall not (in any condition) be unloaded in Secondary Collection Points or any other sites/ points
- f) Green waste shall not be mixed with any other kind of waste

1.4 Manual Street Sweeping, Collection and Transportation of Street Sweeping Waste

- a) The Concessionaire shall be responsible for the manual sweeping of roads of carriageway upto 7.0 m width (2 Lane) within the Project Area as per KPI mentioned in Schedule 14
- b) The Concessionaire shall do manual sweeping of roads as per yardstick mentioned in CPHEEO manual / operation plan approved by authority..
- c) The work shall also include picking, removal and disposal of loose materials/debris/rubbish/litter deposited on or along the carriage way, service lane, central verge and footpath, by deploying required manpower as necessary, at least once or more as per requirement of site in a day.
- d) The Concessionaire shall be responsible for cleaning of bell mouth (s) and gully grating (s) to ensure smooth flow of storm water during rains or otherwise throughout the year
- e) The Concessionaire shall ensure workes Safety at work site during working hours. The loose materials/debris/rubbish such as leaves, articles etc. that have fallen from vehicles or from any other source (s), from the road, service lane, footpath & central verge surface shall be removed by engaging/ deploying manpower to keep it neat and clean.
- f) The Concessionaire shall deploy at least 1 labor per Km-lane length of road

equipped with necessary tool and equipments like broom, belcha, wheel barrow etc. for sweeping and picking the littered material from the road surface/service lane and footpath/central verge

- g) The performance shall be verified by IE/Authority on the basis of total road length to be swept on daily basis and actual road length swept by the Concessionaire. The verification of work shall be done on the basis of log sheet, personal tracker report and as per Schedule 14.4
- j) Concessionaire shall be responsible to transfer the 'street sweeping waste' done manually into specified (colour-black) 1.1 cu m covered RC bins to be provided by the Concessionaire at Secondary Collection Points (SCP) at Street Corners
- l) The Concessionaire shall in a time bound plan transport street sweeping waste from SCPs to the designated disposal site or any other site as specified by the Authority using Refuse Compactors of min 8 cum capacity having mechanical "Bin-Lifting" capability to lift 1.1 cum bins.
- m) The Concessionaire shall transport the sweeping waste directly to designated disposal site by the Authority
- n) The Concessionaire shall ensure that the Street Sweeping Waste shall not be mixed with any other type of waste from collection till disposal.

1.5 Cleaning, Collection and Transportation of Silt Generated during De-silting of Drains upto 1.0 meter.

- a) The concessionaire is responsible for the de-silting of drains upto 1.0 meter including the collection, transportation and disposal of silt generated from these drains.
- b) The Concessionaire shall share their 'Action Plan for de-silting of drains upto 1.0 meter. The Concessionaire may also make specific online/offline requisitions for providing contingency services.
- c) Based on the Action Plan for de-silting, the Concessionaire shall make its plan to lift the 'silt' so collected by the staff of Authority and deposited alongside de-silted drains within 4 hours by using either Auto Tipper 1.8 or by TATA 407 or equivalent as per the area requirement to achieve the optimum target for collection & transportation of silt.
- f) Auto Tipper of 1.8 cum capacity shall transport the collected drain silt (less than 4ft.) only into the specified covered black colored containers of 4.5 cum capacity

provided by the Concessionaire at the designated Secondary Collection Points (SCPs) or at any other suitable location as per the requirement. These containers shall not be used for any other type of waste.

- g) Silt from these containers shall be transported using a hook loader to designated disposal site or any other site/ treatment plant by the Authority.
- h) TATA 407 or equivalent shall collect the drain silt directly from streets and transport the collected silt directly to designated disposal site or any other site/ treatment plant by the Authority.
- i) Drain silt collected using this service shall not be unloaded onto the , open site, street corner bins, ground or other points or mixed with any other type of waste.
- j) The minimum required vehicles/assets i.e. Auto Tipper, TATA 407 or equivalent, black coloured containers of min 4.5 cum capacity and Hook Loader are mentioned in schedule 2. The Concessionaire needs to maintain the reciprocative balance in the infrastructure for both kind of mechanism as per the requirement of the area.

1.6 Minimum Waste Guaranteed to Decentralized Processing Facilities:

- a) The Concessionaire shall be responsible for providing the required quantum of segregated waste to the proposed Bi-CNG facility and other decentralized facilities which shall remain operational during the Concession Period.
- b) In addition to this, Concessionaire shall also be responsible for providing the additional required quantum of segregated bio-degradable & plastic waste to the processing facilities to be set-up by the Authority in future.
- c) Concessionaire in consultation with Authority shall setup one recycling center in each ward at FCTS or any other designated site by the Authority. Recycling centers may be increased in consultation with Authority
- d) Concessionaire in consultation with Authority shall collaborate with RWAs, Waste Management Agencies (WMAs), NGOs for maximum channelization of plastic waste for recycling and co-processing
- e) Concessionaire shall provide weekly plastic waste collection drive in RWAs and high footfall areas for maximum recycling in each ward.
- f) Wet and Dry waste collected from door-to-door system and from

commercial establishments shall be transferred only to designated 'decentralized compost pits' and 'recycling centers' with proper Operations and Maintenance as per O&M Requirements as set out in the MIOP

- g) There shall also be a provision for the households to directly deposit or sell their recyclable dry waste to the Concessionaire at these recycling centers at pre- notified rates. A weighing scale and counter shall be provided at each recycling unit for daily records and reporting on weekly or monthly basis to Authority
- h) Only 'inert' non-recyclable waste shall be allowed to be transported to the designated Landfill Site or any other designated sites by the Authority.
- i) Concessionaire shall be allowed to sell the recyclable waste to Kabadiwala/Secondary market and shall retain sales realizations towards overall financial sustainability of the project.
- j) Concessionaire shall record monthly return for the sales realization from the sale of such dry waste with the Authority
- k) Concessionaire shall be responsible for complying applicable laws and taxes on sale or disposal of such waste.

1.7 Management of Secondary Collection Points (SCPs)

- a) The Concessionaire shall provide covered and different coloured bins depending upon type of waste received and the capacity as agreed in MIOP
 - i. Biodegradable- green color bin (min capacity 1.1cu m)
 - ii. Street sweeping waste - brown color bin (min capacity 1.1cu m)
 - iii. Non-biodegradable – blue color bin (min capacity 1.1cu m)
 - iv. Drain Silt - Black colour bin (min capacity 4.5 cu m)
 - v. DHW & Sanitary Waste – Black Colour HDPE Bins of 360 Litre Capacity
- b) The SCPs shall be handed over to Concessionaire on as-is-where-is-basis by LMC at the start of the Contract
- c) From the date of handover till the end of Contract, Concessionaire shall be fully responsible for carrying out upgradation, management and upkeep of all the secondary storage/ collection points (SCPs).

d) Concessionaire shall carryout modification of civil structures of MRF & FCTS

or TS or PCTS, including repairs and re-furbishing of roof and walls; laying flooring, providing shutter/door/gate; external & internal plaster; internal & external white wash/paint etc.

- e) 1.1cum (minimum capacity) RC bins shall be placed in the existing & FCTS or any other designated secondary storage points along the roads/streets as per CPHEEO Guidelines, and shall be used only for the temporary storage on day-to-day basis. There shall be three colour coded RC bins at each point/location for the storage of Biodegradable, Non-Biodegradable and Street Sweeping Waste.
- g) There shall be no mixing of different kinds of wastes (i.e. SW, street sweeping waste, drain silt, green waste and C&D waste)
- h) All the Recycling Centres, FCTS /TS/PCTS (where waste is coming more than 8 ton) shall be manned 24x7
- i) The manpower deployed at SCPs shall be equipped with personal protective equipment (PPEs).
- j) Concessionaire shall have no rights to display advertisements on any of the SCPs.
- k) Waste shall not be littered on the floor or outside of SCPs at any point of time.
- l) Bins shall not be overflowing and shall be covered when they are filled with waste.
- m) Bins from SCPs shall be taken out at the time of unloading into Refuse Compactor only.
- n) Adequate number of additional bins shall be provisioned to receive excess waste.
- o) Bins need to be maintained so that there are no breakages, cracks, leakages, toppling of bins and dislocation of covers. The Concessionaire shall maintain adequate number of spare bins and ensure repair and replacement of damaged bins within 24 hours.
- p) Log of reporting's of damaged bins shall be maintained by Concessionaire at SCPs which is subject to audit /inspection by IE/Authority.
- q) Auto tipper/E-Riskshaws shall not be allowed to dump/lift the waste from

SCPs and open sites.

- r) Non-conforming waste including the C&D waste shall not be allowed to be dumped at the SCPs including and open sites.
- s) Inert waste shall not be littered outside the SCPs at any time
- t) If non-conforming waste is found, Concessionaire shall transport such waste to the designated disposal site by the Authority.
- u) The Concessionaire shall ensure that the area within 15m radius from the periphery of the Secondary collection points shall be kept clean all the times.
- v) Bins shall be cleaned, washed and disinfected (with approved disinfectants) at least once in a week while painting of all project assets shall be done once in every six months.
- w) Garbage stored at the secondary collection points should not be visible to public in any circumstances.
- x) The Project Implementation Mechanism & the model of the sanitation work presently given in the bid is with the objective of non-visibility of waste during its storage, secondary collection & transportation and to achieve highest level of sanitation standards. This can be achieved by elimination of 1.1 cum capacity RC bins over a period of time and their subsequent replacement by setting up of smaller size Fixed Compactor Transfer Stations by the Concessionaire depending upon the quantity of waste generation. This system shall be continuously evolved & improved upon during the concession period in consultation with the Authority.
- y) The clearing schedule of bins shall ensure that the bins are emptied at least once in a day but may be twice in a day depending on the requirement.
- z) The Concessionaire shall prepare Operation and Maintenance Manual for maintenance of Project Assets to be set out in the MIOP

1.8 Secondary Transportation of Solid Waste

- a) Dedicated Mobile Transfer Stations (MTS) and FCTS shall be deployed at specified locations to receive the remaining segregated wet and dry waste from the Auto Tippers/ E-rickshaw engaged in street-level and door-to-door collection of Solid Waste from households and commercial establishments as

per the approved route plans.

- b) MTS engaged in this service shall not receive and transport waste received from any other source except designated Auto tippers / E-Rickshaw collecting segregated solid waste from door to door/ street level operations.
- c) Depending upon the type of waste, the waste collected from MTS & FCTS shall directly be transfer to Centralized Waste Processing Facilities (such as Compost Plant, Waste to Energy plant), designated SLF site or any other site/ plants as designated by the Authority
- d) From the RC bins at SCPs, designated Refuse Compactors shall transport segregated Bio-degradable & Non-Biodegradable to Centralized Waste Processing Facilities (such as Compost Plant, Waste to Energy plant), designated SLF site or any other site/ plants as designated by the Authority.
- e) Depending upon the type of waste, some Mobile Compactor shall be designated for transportation of wet waste (Green Colour) and other Compactor of same capacity shall be designated for dry waste (Blue Colour)
- f) Minimum numbers of MTS and FCTS shall be installed as per the Schedule-13.
- g) Design of MTS and FCTS shall allow unloading of waste from primary collection vehicles in smooth way without any littering of waste and consuming minimum time
- h) The Concessionaire shall clear the spilled solid waste near the Mobile/Fixed Transfer Stations while transferring the waste from SCPs so that no spillage is left. Disinfectant shall be used after the cleaning process at that location
- i) Concessionaire shall also make provision for standby MTS to address breakdowns, maintenance or failure equivalent to 15% of total requirement.
- j) The Concessionaire shall complete the civil construction work of FCTS as per the drawing & design approved by Authority. The Authority shall provide the land & cost for construction of FCTS..
- k) Concessionaire shall install the CCTV Cameras at the FCTS locations. Concessionaire shall be responsible for reporting of waste collection and disposal including number plate of Auto tippers/E-rickshaws etc. delivering waste in each trip which shall be inspected by the Authority from time to time

as and when required.

- l) Concessionaire shall comply with the minimum specification for the installation of FCTS as per Schedule-2 with due approval by IE/Authority
- m) Concessionaire shall introduce the upgraded version of specification at FCTS from time to time under the directions of IE/Authority.
- n) The Concessionaire shall setup FCTS as specified in Schedule-2 to receive segregated solid waste from Primary Collection Vehicles as per approved route plans
- o) After achieving COD, the mode of transport of segregated SW shall only be through MTS or FCTS and under no circumstances, any other mode of transport shall be allowed.
- p) There shall be no inter-mixing of segregated waste during entire phase of Collection and Transportation
- q) Concessionaire shall maintain a reciprocative balance between the MTS and FCTS but should not go below minimum number as prescribed in Schedule 13

1.9 Mechanical Bin Washer

- a) Concessionaire shall carry out washing of all the secondary storage bins on a weekly basis. Time table for bin washing shall be provided by the Concessionaire.
- b) Concessionaire shall deploy minimum number of mechanical bin washers fitted with GPS as per Schedule-13

1.10 Implementing IEC for better sanitation and waste management

The detailed Scope of Work, Role & Responsibilities of Concessionaire regarding implementation of IEC is mentioned in schedule 11

1.11 Other Conditions

- a) The Concessionaire shall provide support to IE in daily monitoring of Project Operations with due approval from Authority. The Concessionaire shall assign supervisors throughout the Concession Period as per MIOP.
- b) The Concessionaire shall be responsible to prepare and develop the Micro Implementation Operation Plan (MIOP) for the collection and transportation of solid waste from households, bulk waste generators, commercial establishments etc. and shall submit the draft MIOP within 45 days from the Commencement date which shall in turn be evaluated by the Authority

and IE.

- c) The Concessionaire shall provide services as per Project Scope for 365 days in a year irrespective of any National Holidays, weekly holidays, Festivals and Political Force Majeure
- d) In case of any event of Political Force Majeure continuing for more than 3 working days, the Concessionaire shall notify the Authority and IE about its inability to render its services.
- e) In consultation with the Authority, the Concessionaire shall establish a system for integration of the informal waste collectors to facilitate their participation in solid waste management activities as per SWM Rules 2016 & SBM Guidelines.
- f) The Concessionaire shall prepare an O&M Plan and give a list of activities under preventive maintenance for Project Assets. The O&M Plan shall be approved by the Authority and IE. If such preventive maintenance schedule needs any modifications during the Concession Period, the Authority and IE shall approve such modifications.
- g) All services in the project area must conform to the provisions of Solid Waste Management Rules 2016, any amendment thereto in future and also as per other applicable rules/laws
- h) The Concessionaire shall put more emphasis on night conservancy works with the due approval of the Authority.
- i) The Concessionaire in consultation with the Authority and IE, shall identify the location of Hotspots along with the coordinates for hot spots clearance during the preparation of MIOP.
- j) The Concessionaire shall deploy one vehicle per ward for collection and transportation of carcasses to the designated facility/ site as prescribed by the Authority during the preparation of MIOP
- k) The Concessionaire shall maintain a Priority Services team comprising of five workers along with vehicles for activities which shall not be limited to street sweeping, removal of waste from SCP and sanitation, removal of horticultural waste, removal of desilted waste, removal of carcass if any. The Concessionaire shall appoint one nodal person for coordination with

Authority and IE. The Priority services shall be done within two hours of receipt of any request from the Authority/IE

- l) The Concessionaire shall adhere the applicable laws/norms for the procurement and deployment of project infrastructure/ assets etc.
- m) All the project assets shall be painted with anti-corrosive primer & paints of best quality as per the specified color by the Authority.
- n) Complaint number, public slogan, message should be promptly written in all the project assets.
- o) In case of break down/shut down of Waste to Energy plant or any other Centralized Waste Processing Facility, Concessionaire shall make an arrangement for the transportation of segregated solid waste to designated SLF site or any other designated site/plant by the Authority.
- p) In case, Refuse Removal Truck (RRT) is used in the emergency circumstances (viz. during the shutdown of Waste to Energy plant or any other Centralized Waste Processing Facility), then density system for each specified waste shall be applicable during the weighing at weighbridge.
- q) The Concessionaire shall be exclusively responsible for undertaking primary and secondary collection and transportation of segregated solid waste as specified in the scope of work only and not for carrying other types of wastes. If additional infrastructure deployed by the Authority, it shall always be for the facilitation of the collection process. The primary collection vehicles engaged by the Authority such as Tractor Trolleys, Auto tippers and bullock carts etc. will be totally discontinued from the work of collection of solid waste coming under scope of the Concessionaire
- r) The Concessionaire shall ensure that there is 24*7 real time monitoring of core KPI's as ascribed in Schedule 14. The MIS system shall be compatible with the existing MIS system of the Authority. The software for the MIS system shall be provided by the Authority.
- s) The concessionaire shall ensure weekly cleaning of collection & Transportation vehicles in workshop.

SCHEDULE “2”

Schedule 2: Minimum Technical Specification of Project Assets¹

2.1 Technical Specifications of E-rickshaw

S.no	Description	Specification
1	Type of Electric cart	Fully Electric, battery automated hopper covering mechanism from top having two compartments for carrying wet and dry waste separately with a hooter, compatible with mobile/ fixed transfer station and one black box attached on the backside of vehicle for DHW
2	Chassis Construction	MS frame with 2mm thickness cross-members connecting them fabricated using MS square pipes of suitable size with anticorrosive paint.
3	Dimensions of cart	Overall length : 2760 mm Overall width : 1120 mm (5% tolerance for both)
4	Maximum Speed	25 kmph
5	Motor	1250-1500 W/48V BLDC motor
6	Transmission	Single central axis differential five both forward and reverse direction
7	Ground Clearance	160 mm to 170 mm
8	Rear cargo Box	1) Not less than 1400 mm* 1000 mm* 450 mm (L*B*H) 2) overall dimensions should be fabricated using MS sheet, MS square pipes of suitable thickness and size 3) Rear door near foldable single door arrangement 4) Side door foldable single door arrangement 5) Both side doors should be made of M.S sheet of thickness
9	Pay load	Not less than 500 kgs
10	Running capacity	Not less than 60 km per charge
11	Speed of the vehicle	Less than 25 km/hr
12	Grade ability (climbing ability)	7 degree (maximum)
13	Brake system	Double rear drum pedal type
14	Wheel and tyres	Front: 90/90 * R12-01 Nos and Back 14.5/70/12- 2 Nos and one spare tyre
15	Battery capacity	Lithium Ion Battery pack (Cell Model 18650) 48 V

¹The standards mentioned for equipment is the minimum requirement. Any higher standards are acceptable with the permission of the Authority and IE

		and 40 AH make : subha
16	Seating capacity	Cushioned seat to accommodate 2 person
17	Cabin	Weather Proof complete metal enclosed cabin with wind screen glass for driver protection with necessary frame structure for protection from heat
18	Dry weight	Not less than 300 kgs
19	Suspension	Front: Telescopic 29MM heavy duty hydraulic shocker Rear: Leaf spring with hydraulic shocker
20	Charger	Axiom Brand India make fast Charger 6 Amp
21	Accessories	1) GSM SIM Tracker with 1 year warranty 2) Head lamp, front and rear indicators 3) Fire extinguishers 4) First Aid Kit 5) Functional safety by providing circuit breaker

a) Fitness/compliance test as per the Ministry of Road transport and highways GSR No.

709 (E) dated 8 October 2014

b) Compliance certificate for the following test to be carried out as per the safety standards for E-Rickshaw/E-carts as per the Ministry of Road Transport and Highways notification No. S.O. 2590 (E) dated 8 October 2014

c) The Concessionaire is required to deploy licensed operators for operating e- rickshaw

2.2 Technical Specifications of CNG based Auto Tipper (1.75 cum) and Auto Tipper (2.5 Cum) & 3.6 cum

S.no	Description	Specification
1	Type of Tipper Cart for 1.75 cum	Motorized vehicle with hydraulically operated hopper covering mechanism from top having two compartments for carrying wet and dry waste separately with a hooter, compatible with mobile/ fixed transfer station. These vehicles will have one black box attached to back side of each vehicle for separate collection of DHW
2	Type of Tipper Cart for 2.5 cum	Motorized vehicle with hydraulically operated hopper having one compartment for carrying desilted waste, compatible with mobile/ fixed transfer station.
3	Make of Chassis	BSVI
4	Type of Chassis Frame	Conventional
5	Type of Chassis	Chassis with Facecowl
6	Type of Fuel	CNG

7	Vehicle Emission Compliance	BS-VI
8	Fuel Consumption (declared by OEM as certified by Test Agency under Rule 115 of CMVR 1989) (Kmpl)	28.49
9	Speed, Max (Km/Hr)	70
10	Max Engine Power BHP (BHP@rpm)	26
11	Rated RPM at Max Engine Power	4000
12	Max Engine Torque (N-M@rpm)	51
13	Rated RPM at Max Engine Torque	51
14	Main Engine Aspiration	Natural Aspiration
15	No of Cylinder in Main Engine (Nos)	2
16	Fuel Tank Capacity (Ltrs)	70 litre
17	Gradeability of Vehicle with load (%)	24
18	Ground Clearance (mm)	160 millimeter
19	Wheel Base (mm)	2250 millimeter
20	Kerb Weight (Kg)	990 kilogram
21	Gross Vehicle Weight (Kg)	1630 kilogram
22	Type of BIS MARKED Vehicle Tyre	Radial
23	Chassis Transmission System	Manual
24	Number of Speed/ Forward Gears	5
25	Type of Steering	Manual
26	Turning Radius Min (mm)	4625 millimeters
28	Speed Governors/ECU	Yes
29	Front Vehicle Brake	Disc brake Hydraulic
30	Rear Vehicle Brake	Drum brake hydraulic
31	Type of Clutch	Single plate dry
32	Tipping Angle (Degree)	89
33	Tipper Container capacity/ Volume (cubic metres)	1.8
34	Tipper Container Material	Mild Steel
35	Size Of Front Tyres (mm)	145R12-8PR Radial
36	Size Of Rear Tyres (mm)	145R12-8PR Radial
37	Size of Wheel (mm)	304.8 millimeter
38	Tipper body Pivot length (mm)	618 millimeters
39	Tipper body Length (mm)	2375 millimeter
40	Tipper Body Height (mm)	675 millimeters
41	Overall Height of Tipper from Ground (mm)	1568 millimeter
42	Body Plate Thickness (mm)	1.6
43	Main Frame Thickness (mm)	3 millimeters
44	Hydraulic System	Yes
45	Tipping Hydraulic Cylinders (Make)	Reputed make
46	Hydraulic System Driven by	Main Engine

47	Thickness of sheet from tipper Collector Container Made (mm)	1.6 millimeter
48	Dumping Height (mm)	1222 millimeter
49	Engine Oil Pressure Level Indicator in Control Panel	Yes
50	Fuel Gauge Indicator in Control Panel	Yes
51	Engine Cooling Liquid Temperature Indicator in Control Panel	Yes
52	Locking/Unlocking of Tipper Discharge Container	Yes
53	Lowering/Lifting of Tipper Discharge Container	Yes
54	Paint	Paint and painting process shall be superior quality to ensure long lasting structure resistant to
55	ABS Fitted	No
56	Operating Hour Meter	No
57	Counter Weight	No
21	Accessories	<ul style="list-style-type: none"> • GSM SIM Tracker with 1 year warranty • Head lamp, front and rear indicators • Fire extinguishers • First Aid Kit

Certification	
Chassis Certification	ARAI or any Agency Approved by Govt. Of India
At the time of supply of the equipment, the chassis should not be more than 6 months old	Yes
Generic Parameters	
Type of TIPPER	Garbage Tipper
Type of TIPPER if other tipper ,please declare type of Tipper,	3.6 Cum
Type of Chassis Frame	Semi Integral
Category of Vehicle for which Chassis to be used	Light Capacity Commercial Vehicles
Type of Fuel	CNG
Vehicle Emission Compliance	BS-VI

Fuel Consumption (Kmpl)	30 ± 10%
Speed, Max (Km/Hr)	80 ± 5%
Max Engine Power BHP (BHP@rpm)	44 hp & Above
Max Engine Torque (NM@rpm)	105 NM & Above
Main Engine Aspiration	Turbocharged Intercooled, Natural Aspirated
No of Cylinder in Main Engine (Nos)	3 or Above
Fuel Tank Capacity (Ltrs)	40 liter or above
Gradeability of Vehicle with load(%)	30 ± 5%
Ground Clearance (mm)	175 millimeter or above
Wheel Base (mm)	2350 millimeter or above
Kerb Weight (Kg)	1300 kilogram ± 5%
Gross Vehicle Weight (Kg)	2500 kilogram ± 5%
Type of BIS MARKED Vehicle Tyre	Radial
Number of Speed/ Forward Gears	5
Type of Steering	Power Operated
Turning Radius,Min (mm)	5850 mm or Lower
Speed Governors/ECU	Yes
Front Vehicle Brake	Disc
Rear Vehicle Brake	Drum
Tipping Angle (Degree)	80 to 85
Constructional Parameters	
Size Of Tyres (mm)	185 R 14
Size of Wheel (mm)	185 millimeter
Tipper body Pivot length (mm)	2500 millimeter or above
Tipper body Length (mm)	2500 millimeter or above

Tipper Body Height (mm)	1145 millimeter or above
Overall Height of Tipper from Ground (mm)	2100 millimeter \pm 5%
Body Plate Thickness	1.5 or Above
Main Frame Thickness (mm)	3 millimeter or above
Hydraulic System	Yes
Tipping Hydraulic Cylinders(Make)	Reputed Make / Brand
Hydraulic System Driven by	Power Pack Unit
Tipper Container Material	Mild Steel
Thickness of sheet from tipper Collector Container Made (mm)	1.6 millimeter
Dumping Height (mm)	1500 millimeter or above
Engine Oil Pressure Level Indicator in Control Panel	Yes
Fuel Gauge Indicator in Control Panel	Yes
Engine Cooling Liquid Temperature Indicator in Control Pane	Yes
Locking/Unlocking of Tipper Discharge Container	Yes
Lowering/Lifting of Tipper Discharge Container	Yes
Performance Parameters	
Standard Sparewheel and Tool Kit	Yes
Warranty Time (Month)	12 month
No. Of Free Service (Nos)	3
Battery Warranty (Months)	12 month

Warranty Distance (Km) (Unlimited during warranty Period)	Yes
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a)) Fitness/compliance test as per the Ministry of Road transport and highways GSR No.

709 (E) dated 8 October
2014

b) Compliance certificate for the following test to be carried out as per the safety standards for Auto Tippers/ Tipper Cart as per the Ministry of Road Transport and Highways notification No. S.O. 2590 (E) dated 8 October 2014

c) The Concessionaire is required to deploy licensed operators for operating Auto Tippers

2.3 Technical Specifications of Refuse Compactor Bins of 1.1 m³ Capacity

a) General: Steel Solid waste Containers for waste collection shall be provided with 4

Castor Wheels made of one virgin piece of minimum 200 mm dia and 50 mm width shall have 360 degree with Blocking System. The Solid waste Collection Bins shall be of 1100 Ltrs Capacity as per DIN Standards. These should be closed type hygienic bins meeting DIN Standards. These Bins should be provided with Bin Cover which opens automatically when the Bin Lifter lifts the Bin onto the machine hopper. For this purpose, the Bins should be provided with special link arrangements, which are operated by the Compactor Bin Lifter. The Bin construction should be of Pressed Steel Sections for ensuring adequate structural strength required for handling with the

Compactor Bin Lifter. Bin shall be designed to be easily handled by two Bin Handlers. b) Capacity: 1100 Litre (1.1 m³)

c) Base Material Body: Mild Steel of minimum 2 mm thickness d) Lid: Mild Steel

e) Dead weight: Minimum 115 kgs (Approx)

f) Load capacity: Minimum 600 kgs (Approx.)

g) Other Requirements:

i. Four heavy duty swivel castors (360° turning)

ii. Adjustable spring supported lid for easy opening and closing

- iii. Rubber Profile on the lid, which should protect fingers before closing the lid of sections min. 3 cms between body and lid
- iv. Handles on body
- v. Handle on the lid
- vi. Painted Green / Blue/ Black as specified. Bins shall be painted with primer and anti-corrosive paints from inside and outside.
- vii. All the bin locations should be provided with rigid concrete surface.

2.4 Technical Specifications of Refuse Compactors (14 cum capacity)

- a) General: The Refuse Compactor Vehicle shall be of universal type and suitable for changing fields of operation. It should be easy to handle and should allow the operating personnel to operate the vehicle with minimum physical effort and maximum safety. The vehicle should be capable of automatically loading and unloading solid waste from closed containers of 1100 litres capacity as quick as possible. secs, with facility for automatic opening of Bin Lid / Cover when in fully lifted condition in compactor hopper, with inbuilt link arrangement of Bins.

- b) The Loading Height should not be more than 950mm – 1 metre from the ground level.

The body should consist of: Front bearings, ejection panel, Tailgate with hopper, slide plate, packer plate and Bin lifter.

- c) The Volume of compactor would be 14 cum. The Tailgate hopper volume will be minimum 1.75 cum. Simultaneous automatic working of the compaction cycle should be possible while unloading from 1.1 cum bins. No damage to the Bin should occur.

The Compaction operation should be able to operate during loading / unloading from the Bins and during the travel of the truck.

- d) Refuse Collection Body: The refuse collection body should be in torsion-free steel construction of capacity 14 cum. The bottom, the sidewalls and the top must form a box-type design. The sidewalls as well as the top should be in reinforced frame steel construction. The tailgate bearing and automatic tailgate locking should be integrated into the rear frame of the body. At its front, a traversing bar should be welded to the bottom and top, which serves as a bearing for the telescopic ejection cylinder.

- i. Roof panelling thickness: minimum 3 mm
 - ii. Side panelling thickness: minimum 4 mm
 - iii. Flooring thickness: minimum 4 m
 - iv. Rear cross bar thickness: minimum 6 mm
 - v. Superstructure Member thickness: Box section minimum 4 mm
 - vi. Base Frame Member thickness: minimum 6 mm
- e) Ejection Panel: The ejection panel shall run on a synthetic guide block within the lateral longitudinal guides of the boat-type bottom group of the refuse collection body and must be operated by a telescopic hydraulic ram. It must act during loading as a resistance for the refuse compaction process. The ejection plate shall be wear resistant steel plate of minimum 4 mm thickness of suitable grade with adequate strength to meet the operational requirements. The withdrawal of the ejection panel during the loading process shall be through hydraulic control to ensure optimum compaction.
- f) Tailgate: The tailgate should form the main part of the refuse collection vehicle. The Tailgate should comprise of three main groups: The tailgate with hopper should form the basic structure to which the functional parts, slide plate and packer plate are attached. It should be equipped with Automatic-locking system through long hole and hooks. This locking-system should be completely liquid-proof between tailgate and body by using double lip rubber seal. The hopper should be able to take the refuse from the solid waste bins. The hopper should have a capacity of minimum 1.75 cum.
- g) Tailgate Hopper: Material of construction- Domex/ Hardox steel. The packer plate should be made of special steel of suitable grade.
- i. Side panelling thickness: minimum 3 mm
 - ii. Rear side of hopper plate thickness: minimum 6 mm
 - iii. Hopper bottom plate thickness: minimum 6 mm
 - iv. Superstructure Member thickness: minimum 6 mm
- h) Lifter System: 1. The lifter should be reliable with proven technology. There should be optimum system for the collection of various types of refuse within one collection point and its low rake rail should permit the hand loading of bulk refuse items as well as the easy emptying of wheel bins. Tipping of 1.1 m³ container and simultaneously operation of the compacting mechanism must be

possible without moving back the lifter. It should be possible to undertake simultaneous operation of compaction and loading/unloading or compaction and movement of truck to save operational time. The lifter should be able to unload Solid waste from bin of 1100 Litre capacity. The bin lifter shall be suitable to lift the standard containers (HDPE Bins/ Metal Bins) of size 120 liter, 240 liter, 600 liter and 1100 liters.

- i) A safety valve shall be provided in the system to avoid sudden descent of bin lifter in case of failure in hydraulic system or failure of automatic system.
- j) Chassis: Make: TATA/ Ashok Leyland/ Eicher/ Bharat Benz/ Mahindra
- k) GVW: Minimum 16200 Kg or Equivalent
- l) Unladen kerb weight of Chassis: 4000 – 4500 kg
- m) Permissible garbage weight: 8000 kg
- n) Wheel Base: minimum 4200 mm
- o) Engine: Minimum 180 HP, BS-VI model
- p) Transmission: 5 speed synchromesh gear box
- q) Steering: Power steering
- r) Tyres: 10.00 x 20- 16 PR, Front-2, rear-4, Spare-1(Lockable)
- s) Dumping Operation: Tailgate Operation: Tailgate opening and closing for dumping should be controlled from driver's cabin Optional hand lever for manual operation. The tailgate hydraulic valves should be electro-hydraulic/ electro-pneumatic for rugged operation
 - i. Ejector Plate operation: This operation should be controlled from driver's cabin Optional hand lever for manual operation. The ejector plate hydraulic valve should be electro-hydraulic/ electro-pneumatic.
 - ii. Safety Features: Hose burst valve shall be fitted to the system to prevent the tailgate descending in the event of the hydraulic failure. There shall be a bodyprop provided on the tailgate to hold the tailgate in the open position for safety of workshop personnel when entering the body for maintenance or repair.
- t) Painting the entire unit shall be painted with two coats of superior quality anti- corrosive primer with two coats of approved quality paint to ensure long lasting, resistance to rust, weathering and breakage. The color shade should be purchaser's choice. The compactor shall meet with all statutory requirements of

Motor vehicles act and SWM Rules 2016 and specifications mentioned in the SBM portal.

2.5 Technical Specifications of Refuse Compactors (8 cum capacity)

- a) General: The Refuse Compactor Vehicle (RCV) should be a universal type and suitable for changing fields of operation. It should be easy to handle and should allow the loading personnel to operate the vehicle with minimum physical effort and maximum safety. Hand lever arrangement for operation of Compaction Cycle should be provided along with the electronic push button operating system. The vehicle should be capable of automatically unloading solid waste from closed containers of 1.1cum capacity bins within 15 sec, with facility for automatic opening of Bin Lid / Cover when in fully lifted condition in compactor hopper, with inbuilt link arrangement of Bins.

- b) The Loading Height should not be more than 950mm - 01metre from the ground level.

The body should consist of Front bearings, ejection plate, Tailgate with hopper, slide plate, packer plate and Bin lifter. The bidder will have to specify the make of important component along with technical specifications. Regarding quality of steel and other material relevant Code (if any) should be followed.

- c) The Volume of compactor would be 8 cum. The Tailgate hopper volume will be minimum 1 cum. Simultaneous automatic working of the compaction cycle should be possible while unloading from 1.1 cum bins. No damage to the Bin should occur. The Compaction operation should be able to operate during loading / unloading from the Bins and during the travel of the truck.

- d) Refuse Collection Body: The refuse collection body should be in torsion-free steel construction of capacity 8 m³. The bottom group, the sidewalls and the top must form a box-type design. The sidewalls as well as the top should be in reinforced frame steel construction. The tailgate bearing and automatic tailgate locking should be integrated into the rear frame of the body. At its front, a traversing bar should be welded to the bottom and top, which serves as a bearing for the telescopic ejection cylinder.

- i. Roof panelling thickness: minimum 3 mm
- ii. Side panelling thickness: minimum 4 mm
- iii. Flooring thickness: minimum 4 mm

- iv. Rear cross bar thickness: minimum 6 mm
 - v. Superstructure Member thickness: Box section minimum 4 mm
 - vi. Base Frame Member thickness: minimum 6 mm
- e) Ejection Plate: The ejection plate should run on a synthetic guide block within the lateral longitudinal guides of the boat-type bottom group of the refuse collection body and must be operated by a telescopic hydraulic ram. It must serve during loading as a resistance for the refuse compaction process. The ejection plate should be of steel plate of minimum 4 mm thickness and of suitable grade to meet the operational requirements. A hydraulic control unit should regulate the withdrawal of the ejection panel during the loading process, so that the compaction is optimized. The mechanism should consist of a profile-reinforced, wear-resisting plate of great sturdiness and the guide frame with the guide blocks. Alignment of ejection plate should be proper during forward & reverse movement.
- f) Tailgate: The tailgate should form the main part of the refuse collection vehicle. The Tailgate should be made of by three main groups: Tailgate with Hopper: The tailgate with hopper should form the basic structure to which the functional parts, slide plate and packer plate should be attached. The tailgate shall unlock automatically and raise, to permit ejection of refuse from RCV hopper when hydraulic valve is actuated. It should be equipped with Automatic-locking system between tailgate and RCV Hopper body through long hole and hooks. This locking-system should be completely liquid- proofed between tailgate and body by using double lips rubber seal.
- g) The hopper should be able to take the refuse from the solid waste bins of 1100/600 litre liters capacity. The hopper should have a capacity of minimum 1.10 m³. At its top, it should be fixed to the refuse collection body by means of two slotted hinges and should be supported by two hydraulic rams and two locking hooks mounted to the rear frame of the body. These bearing points and the locking hook should take up the compression forces. The profile-reinforced side walls of the frame should constitute the bearing for the two hydraulic rams which automatically release the locking mechanism and then lift the loading system for refuse discharge up to the final stop. The hopper used to take in the refuse should be permanently welded in between the side walls and should consist of highly solid fine-grained constructional steel made of High resistance steel. The carriage

plate should be robust profile reinforced steel construction supplied with a wear-resistant cover plate made of high resistant Steel. The thickness of side plate should be of suitable grade material. It should be actuated by two hydraulic cylinders and must run on suitable number of sliding blocks. At the bottom end of the slide plate a moveable packer plate should be Embedded. The packer plate should consist of highly solid steel and the strongly Reinforced lateral bearing arms for the attachment of the hydraulic rams. It should clear the hopper and initiate the primary compaction within the hopper. On completion of the swivel movement the compaction of the refuse and its transportation into the refuse collection body should begin. The packer plate should be made of special High resistance steel of suitable grade and should be actuated by 2 hydraulic cylinders.

- i. Side panelling thickness: minimum 3 mm
 - ii. Rear side of hopper plate thickness: minimum 6 mm
 - iii. Hopper bottom plate thickness: minimum 6 mm
 - iv. Superstructure Member thickness: minimum 6 mm
- h) Lifter System: The Lifter System should be capable of lifting and unloading solid waste from 1100 ltrs. capacity bins. It should be light weight for high legal payloads. It should be reliable system with proven technology. There should be optimum system for the collection of various types of refuse within one collection point and its low rake rail should permit the hand loading of bulk refuse items as well as the easy emptying of wheel bins. Tipping of 1.1 m³ container and simultaneously working of the compacting mechanism must be possible without moving back the lifter. This should be done without any damages to the container. During compaction operation, loading / unloading of bins and travel of Truck should be able to operate continuously to continue to save operation time. The Tailgate lifting and closing as well as the compaction operation will be controlled with Hydraulic Lever System placed on rear side of the vehicles. The lifter system shall be provided with four cylinders i.e. two cylinders for leveling and lifting of Bin, and two cylinders for tipping operation.
- i) Mounting: The lifter should be integrated at the rear end of the tailgate.
 - j) Chassis: Make: TATA/ Ashok Leyland/ Eicher/ Bharat Benz/ Mahindra
 - k) GVW: Minimum 11000 Kg

- l) Wheel Base: minimum 3900 mm
- m) Engine: Minimum 120 HP, BS-VI model
- n) Transmission: 5 speed synchromesh gear box
- o) Steering: Power steering
- p) Tyres: 8.25 x 20 - 16 PR, Front-2, rear-4, Spare-1(Lockable)
- q) Dumping Operation:
- r) Tailgate Operation:
 - i. Tailgate opening and closing for dumping should be controlled from driver's cabin Optional hand lever for manual operation. The tailgate hydraulic valves should be electro-hydraulic/ electro-pneumatic for rugged operation
 - ii. Electric: Automatic operation (continuous cycle) by pushing electric operated push-button, compacting mechanism should be running till you switch off through the push button. Optional Manual operation by hand lever facility to be provided. The automatic cycles should be controlled with 4 proximity switches together with the hydraulic integrated control-group. Further 2 emergency stop switches should be provided.
 - iii. The control system should be only operated by hydraulic and electric.
Optionally one should be also able to operate the whole compactor with a hand- lever, which comes out directly from the main-control-block
 - iv. Emergency electric stops to be provided. Signal-system to the driver's cab to be provided on each side there should also be 1 switch for the signal system to the driver's cab. The system should encompass all installations relevant for the functioning of the entire bodywork and the distribution voltage should be tapped from the electrical system of the chassis vehicle.
- s) Safety Features: Hose burst valve shall be fitted to the system to prevent the tailgate descending in the event of the hydraulic failure. There shall be a body prop provided on the tailgate to hold the tailgate in the open position for safety of workshop personnel when entering the body for maintenance or repair.
- t) Painting The entire unit shall be painted with two coats of superior quality anti- corrosive primer with two coats of approved quality paint to ensure long lasting, resistance to rust, weathering and breakage. The color shade should be purchaser's choice.

2.6 Technical Specifications of Fixed Compactor Transfer Stations with Shifting Mechanism

Concessionaire shall be responsible to design and construct Civil shed of min 20x20 meters depending upon the area of site for positioning of 2 portable container units of min 16 cum capacity each with hook loader. Once the hydraulic shovel bucket is filled with SW, it shall transfer the SW to the compaction system. Then, this compaction system will hydraulically charge and compact the solid waste and further push the waste in to detachable container of min 16 cum capacity. Once the detachable container is filled with the compacted SW, it shall be transported to the designated site by using the hook loader compatible with the container of min 16 cum capacity

The Hydraulic Compaction Container Coupling consists of a pair of hydraulically operated Hook with lever which pulls, align and attaches the container to the compactor unit before loading the garbage into the container. After the container is loaded, the Hydraulic Coupling releases the container which is detached from the compactor before lifting by the Hook Loader.

The Container opening is provided with a sliding steel gate. The Gate is lifted by a hydraulic vertical mechanism before loading the garbage into the container. After the container is loaded, the hydraulic vertical mechanism pushes the container sliding gate downward and closes the opening. The complete operation is controlled by means of push buttons.

Two types of FCTS are suggested which are as follows:

1. FCTS with Detachable Container

- Hydraulic loading shovel bucket of 1.5 cum
- Compaction system lying on the ground level
- Detachable container of min 16 cu m capacity
- At one SCP, min 01 Hook Loader and 02 detachable containers shall be deployed.

2. FCTS with Non-Detachable Container

- Integrated unit of compaction Head
- Hydraulic loading bucket of min 16 cum capacity
- Waste transportation by compatible Hook Loader from one place to another.
- At one SCP, min 02 Integrated units shall be deployed.

S.no	Description	Specification
1	Type of Fuel	Diesel
2	Chassis Make	EICHER/TATA/AL/M&M
3	Chassis Model Number	Reputed Make
4	Chassis Type	Heavy Motor Vehicle with Face Cowl
5	Engine Capacity (cc)	Min 6693
6	Vehicle Emission Compliance	BS-VI
7	Chassis Gross Vehicle Weight	28000 kilogram
8	Kerb Weight	Min 6160
9	Pay Load Capacity	Min 18 tonne
10	Max Engine BHP	200
11	Max Engine Torque (N-m@rpm)	850
12	Maximum Speed of Vehicle (kmph)	80
13	No of Speed/ Forward Gears (Nos)	6
14	Braking Distance	Min 30 meter
15	Gradeability of Vehicle (%)	23
16	Wheel Base	Min 5050 millimeter
17	Engine Aspiration System	Turbocharged Intercooler
18	Mount Type	Chassis Mounted
19	Fuel Tank Capacity	Min 350 liter
20	Power Take off Unit	Yes
21	Number of Axles (nos)	3
22	Number of Front Tyres (nos)	2
23	Number of Rear Tyres (nos)	8
24	Hydraulic Tank Capacity	170 liter
25	Hydraulic pump filter (micron)	Min 25
26	Operating pressure	140 bar
27	Arm Cylinder (nos)	2
28	Jib cylinder (nos)	1
29	Container and boom locking cylinder	Double acting type
30	Jib Cylinder/Slide Cylinder(Doble Acting ,Equipped with Counter Balance Valve hoses,tubes and Fittings	Yes
31	Lifting hook with necessary reinforcement (with complete test report)	Yes
32	Stablizers at Suitable Location along the rear of vehicle to ensure Stability of the Vehicle during loading /	Yes
33	Lifting /Dumping Capacity of Hook Loader (to be checked with test report by buyer)	18000 kilogram
34	Type of Hydraulic pump in Hook Loader	Vane type
35	Hooklift Length	Min 5200 millimeter

36	Hooklift Height (from the bottom of the hookbar)	Min 1500 millimeter
37	Dumping Angle (degree)	45
38	Tipping Time	Min 40 second
39	Refuse container volume (Cu-m)	Min 16 cum
40	Floor Plate Thickness of Container	6 millimeter
41	Side Plate Thickness of Container	5 millimeter
42	Material for Container Body (COR-TEN Steel)	Yes
43	Type of Rollers	Heavy Duty on Rear side
44	Overall Size of Container (L x W x H) (mm)	Min 6000x2400x2300
45	Weight of Container	Min 3650 kilogram
46	Volume of charge chamber of Fixed compactor (Cu-m)	3
47	Operating pressure of Fixed compactor	Min 180 bar
48	Compaction thrust of Fixed compactor	Min 320 kiloNewton
49	Power of electrical motor of Fixed compactor	Min 11 kiloWatt
50	Phase of Power Supply (nos.)	3
51	Capacity of hydraulic operated bucket	Min 2500
52	Floor Thickness of charge box	8 millimeter
53	Side thickness of charge box	6 millimeter
54	Charge Box Opening length	Min 1800 millimeter
55	Charge Box Opening width	Min 850 millimeter
56	Cycle Time	Min 40 second
57	Boost Force	Min 340 kiloNewton
58	Weight of Fixed Compactor	Min 4600 kilogram
59	Loading Height	3800 millimeter
60	Number of Hydraulic Cylinders (nos)	9
61	Capacity of hydraulic Pump (cc/rev)	Min 10
62	Oil Cooler	Oil Cooler completely integrated to the Hydraulic Power Pack
63	Length of Electric Cable	20 meter

64	Accessories	<ul style="list-style-type: none"> • PLC based Control unit Control panel with main switches • Emergency stop button • Safety device (provision of automatic locks/ safety valves) • Functional control for compaction unit • Hydraulic Compaction Container Coupling • Minimum two numbers of guide plates for roll-On roll-off for one container • Hydraulic Vertical Container Gate • Opening/Closing Mechanism • Functional light and 75% full warning indication • Lecheate collection Tray/drainage system • Fire extinguishers • First Aid Kit
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- a) Chassis Certification as per ARAI/VRDE/ICAT
- b) Compliance certificate by submitting Form 22-A for pollution standards, safety standards of components and road worthiness as per CMVR Rules
- c) Availability of test reports for all critical components from the manufacturer or OEM of Hydraulic Pumps, Hydraulic Cylinders, power takeoff unit, Electric Motor etc shall be from any ILAC /NABL accredited / Central Govt Lab
- d) Registration to Local RTO (Regional Transport Office)/ RTA (Regional Transport Authority) by Seller
- e) Hydraulic cylinder and hydraulic pump used conforming of ISO/IS specifications
- f) Welding of structure should be conformed to relevant IS standards
- g) Furnish Test Certificate for Lifting Capacity / Dumping Capacity/ Stability of Hook
Loader from any ILAC /NABL accredited / Central Govt Lab

2.7 Technical Specifications of Tipper Truck (10 cum capacity with Stainless steel lining- 4mm)

- a) The vehicle shall be rugged and durable, shall incorporate the latest technological features offered by the manufacturer/ supplier; the vehicle should be suitable to be used to load around 10 cum solid waste and unload it by tipping the load body or by suitable arrangement; the vehicle should have provision to transport the garbage in covered and packed condition. The equipment should confirm to the following specifications.
- b) Basic Specification: Any HCV chassis with cab and load body should meet the following specifications:

Gross vehicle weight	Minimum 16000 Kg
Engine Fuel efficient	Turbo charged 4-stroke, 6- cylinder inter cooler BS - VI Max Output: above 180 KW @2800rpm Max torque: above 400 Nm @1600 rpm
minimum turning radius	7 m \pm 2%
Steering	Right hand drive, power
Frame	Ladder type heavy duty frame with riveted/bolted cross members, side members of channel sections.
Ground Clearance	Above 250 mm
Cab	All steel fully forward control driver's cab. Cabin should have minimum two nos. foam padded adjustable seats having seat belts. Cab should have all standard accessories like openable side windows. rear view door mirrors, laminated windscreen, two speed windshield wipers, fuel gauge, multiple warning lamps and buzzer
Painting	Paint and painting process shall be superior quality to ensure long lasting structure resistant to rust weathering and breakage

Load Body	<p>Rugged and suitable to carry 10 cum solid waste with hydraulically operated top to load garbage from top and cover while transportation. It should have hinged tail gate openable hydraulically to unload the garbage by tipping the load body with a front-end tipping unit or by any other suitable arrangement. The body is to be fabricated from cold formed M.S. sections to reduce weight and should have welding by C02 MIG welding process to minimize in - built stresses</p> <p>a. Thickness of M.S sheets should be as under Min 4 mm, Sides: Min 3 mm, Top: Min 2.6 mm Floor Min 4 mm, Sides: Min 3 mm, Top: Min 2.6 mm</p>
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2.9 Technical Specifications of Horticultural Waste Removal Vehicle

Lifting Moment	9.2 mt
Number of hydraulic extension booms	2
Maximum hydraulic out reach	8.0 metre
Slewing Range	400 degree
Stabilizer Spread	R2 manual operated outriggers
Maximum Lifting capacity	1120 kg @ 8.0 meter
Maximum Lifting capacity @ 2.3metre	5580 kg
Operating pressure	315 bar
Pump capacity	30 to 45 litres/min
Crane dead weight	1200 kg
Control	Floor
Attachment	Orange peel bucket
Code 4	Additional hydraulic circuit for attachment
Paint protection	KTL coating
Safety Load Holding Valves	Load holding valve is used to prevent the normal lowering of crane due to internal leakages in the control valve. Load holding valve controls all the movements of the boom, i.e., load lifting, load holding, load lowering and prevents the
Tipper capacity	16-ton GVW truck with tipping capacity

2.10 Technical Specifications of Carcass Waste, hot spot-on priority service wasteremoval vehicle

Type of Tipper	Garbage Tipper
Main Engine Capacity	702 cc
Make Of Chassis	Fully Company Built-Up Box Tipper
Type Of Chassis Frame	Ladder Type Frame with Inverted Hat Section Long Members
Category Of Vehicle for Which Chassis To Be Used	Light Capacity Commercial Vehicles
Type Of Chassis	Chassis with Face cowl
Type Of Fuel	Diesel
Vehicle Emission Compliance	BS-VI
Fuel Consumption (Declared by OEM As Certified By Test Agency Under Rule 115of CMVR 1989)	21.5 Litre/Hr
Speed, Max	60 Km/Hr
Main Engine Power BHP@rpm	16 HP @ 3200 RPM BHP@rpm
Engine Torque Max@ Rpm	39 NM @ 1800 - 2200 RPM NM@rpm
Main Engine Aspiration	Natural Aspiration
No. Of Cylinder In Main Engine	2 Nos
Fuel Tank Capacity	30 Ltrs
Length Of Chassis	3800 mm
Width Of Chassis	1500 mm
Height Of Chassis	1845 mm
Gradeability Of Vehicle with Load (%)	16.38
Gradeability Of Vehicle without Load(%)	18
Ground Clearance	160 mm
Wheel Base	2100 mm
Kerb Weight	720 Kg
Gross Vehicle Weight	1700 Kg
No Of Axle	2 Nos
Axle Configuration (No. Of Outside Tyre X No. Of Driving Tyre)	4x2
Type Of Front Axle and Suspension System	Rigid Beam Axle with Parabolic Leaf Spring & 2 Nos. Double Acting Telescopic Hydraulic Shock
Type Of Rear Axle and Suspension System	Banjo Type Live Axle with Parabolic Leaf Spring & 2 Nos. Double Acting Telescopic Hydraulic Shock
Type Of BIS MARKED Vehicle Tyre	Radial
Size Of Front Tyres	145 R 12 - 8PR mm
Size Of Rear Tyres	145 R 12 - 8PR mm
Size Of Wheel	4J x 12 mm
Chassis Transmission System	Manual
No. Of Speed/ Forward Gears	4
Type Of Steering	Manual
Turning Radius, Min	4300 mm
Speed Governors	No
ABS Fitted	No

Front Vehicle Brake	Disc Brake Hydraulic, Dual Circuit Diagonal Split with Tandem Master Cylinder Acting on all Wheels with Automatic Wear
Rear Vehicle Brake	Drum Brake Hydraulic, Dual Circuit Diagonal Split with Tandem Master Cylinder Acting on all
Type Of Clutch	170mm Single Plate Dry Friction Diaphragm Type
Tipper Body Pivot Length	1546 mm
Tipper Body Length	2165 mm
Tipper Body Height	670 mm
Overall Height Of Tipper From Ground	1489 mm
Tipping Angle	48 Degree
Tipper Container Capacity/Volume	2.0 Cu. M
Body Plate Thickness	2.0 mm
Main Frame Thickness	3.0 - 4.0 mm
Pneumatic System	No
Hydraulic System	Yes
Tipping Hydraulic Cylinders (Make)	Reputed Make
Hydraulic System Driven By	Main Engine
Auxiliary Diesel Engine for Hydraulic And Pneumatic Operation	No
Tipper Container Material	Mild Steel
Thickness Of Sheet from Tipper Collector Container Made	2.0 mm
Dumping Height	352 mm
Engine Oil Pressure Level Indicator in Control Panel	Yes
Engine Cooling Liquid Temperature Indicator in Control Panel	Yes
Fuel Gauge Indicator in Control Panel	Yes

Operating Hour Meter	No
Standard Spare wheel And Tool Kit	Yes
Locking/Unlocking of Tipper Discharge Container	Yes
Lowering/Lifting of Tipper Discharge Container	Yes
Paint	Automotive Paint

SCHEDULE “3”

3 Schedule 3: Parking Areas & Workshop for maintenance of C&T vehicles

The Authority shall provide area for vehicle maintenance and parking space/area in the Central Zone for operation on an “as-is-where-is basis” condition for use during the concession period.

3.1 Workshop for maintenance of C&T vehicles.

- a) The Concessionaire shall setup dedicated workshop for repair and maintenance including the servicing of Collection & Transportation vehicles.
- b) The Authority shall identify the following land for the workshop in the project area which shall be made available to the Concessionaire for setting up the workshop.
- c) Land for the workshop or parking sites shall be provided to the Concessionaire on a nominal rent @Rs. 1/ - 100 sq. m. per annum. The land shall remain the property of Authority and shall be given to the Concessionaire for the use during concession period on an “as-is-where-is basis” condition.
- d) In case, the land allocated by the Authority is not suitable to concessionaire, Concessionaire shall make their own arrangement of land (to set up the workshop) at its own cost.
- e) The Concessionaire shall maintain the workshop site properly and shall be fully equipped to provide services at par with Good Industry Practice with all arrangements to meet emergency situations as per applicable laws.
- f) The Concessionaire shall carry out maintenance and painting of the workshop site at least once in a year.
- g) Apart from the workshop site, the Authority shall provide at least 2-3 parking sites. h) Minimum following infrastructure to be installed at Workshop:

Table 1: List of Minimum Equipment required for the Workshop

S. No.	Facility/Equipment
1.	Office
2	Engine Room
3	Tool Storage and oil/lubricant, spares storage facility
4	Welding Facility

5	5 HP Air Compressor and jet cleaning machine
6	Washing Facility for vehicles
7	Hydraulic Lifting System
8	Battery Changing machine having capacity of 12 volt, 6 batteries, battery tester such as hydrometer, volt meter etc.
9	Tube vulcanizing machine tyre inflator
10	Pneumatic grease pump, grease gun etc

3.2 General Conditions- Manpower Deployment

- a) All manpower deployed on the project shall wear prescribed dress comprising of:
 - o For Men: Cap, T-shirt/Shirt, fluorescent Jacket, Trouser, Shoes, hand gloves, mask
 - o For Women: Cap, Salwar Suit, fluorescent jacket, shoes, hand gloves, mask
- b) Concessionaire shall provide at least 3 sets of uniform to the workers in every 1 year.
- c) The Concessionaire shall finalize colour code of dress in consultation with IE/Authority.

Dress colour may be different for different activities.

- d) The Concessionaire shall deploy minimum number of employees, supervisory and managerial staff as per Schedule-13.
- e) Concessionaire shall provide identity cards with photo signed by the concerned authority of Concessionaire.
- f) Concessionaire shall deploy the bio - metric attendance system for keeping attendance of all the staff. Daily attendance shall be made available to the Authority on daily basis as per Schedule-9

SCHEDULE “4”

4 Schedule 4: Project Milestones

Sl. No.	Indicative Milestone	Timeline (Days)
1	Issuance of LoA	0
2	Signing of Concession Agreement - Commencement Date	15
3	Appointment of IE/ Equivalent Group of Officer	30
4	Submission of Draft MIOP	60
5	Review & Comments to be given by IE (with approval of the Authority)	65
6	Submission of Revised MIOP (Version I)	82
7	Second Review & Comments to be given by IE (with approval of the Authority)	85
8	Submission of Final MIOP and Approval by Authority	90
9	Achievement of Financial Closure	90
10	Completion of Handing Over of Zone to Concessionaire – Commercial Operation Date (COD)	90

SCHEDULE “5”

Schedule 5: Details of Minimum Waste Quantity to be delivered to decentralized units and centralized processing plant

The Concessionaire shall be required to deliver 100 MT minimum guaranteed segregated waste to Bio-CNG Plant on daily basis with the tolerance level of $\pm 15\%$, of operation on Monthly Collection Target of Waste (SW+ Street Sweeping + Silt) of the mentioned value which shall be amended in case of waste diversion increases to the new decentralized facility. The concessionaire shall ensure that the waste delivered shall not exceed the desired density of particular type of waste. The waste not conforming to the density criteria shall be discounted for the computation of minimum guaranteed waste.

If Concessionaire is fails to achieve the Monthly Collection Target of Waste (SW + Street Sweeping + Silt) to be transported at Centralized Processing Facilities, then the penalty shall be calculated on total default. For example, if the Performance of Concessionaire in 1st year of operation on monthly target is 80 % and default is 20%, then Monthly penalty shall be F= 20% of IMQ

SCHEDULE “6”

Schedule 6: Domestic Hazardous Waste Depositing Centers

- a) Concessionaire shall be responsible for collecting segregated Domestic Hazardous Waste from the households on bi-weekly basis and transport it to the DHW Depositing Centre for its safe storage. The concessionaire shall notify the timing and schedule of receipt of DHW waste collection.
- b) As per SWM Rules 2016, One DHW Depositing Centre shall be established for every 20 sq. km. of area. The Authority shall identify suitable location where the DHW depositing center can be established. Authority shall be responsible to provide fully developed DHW Deposition Centre to the Concessionaire.

Table 2: Required no. of Domestic Hazardous Waste Depositing Centers (As per SWM Rules, 2016)

Particulars	Numbers
Area (Sq. km)	98
Nos. to be established as per rules	5
Area Requirement (sq. m)	98

- c) The DHW Depositing Centres shall be maintained by Concessionaire during the Concession Period. The Concessionaire shall provide adequate manpower and infrastructure for the functioning of Deposition Centres as specified under KPIs.
- d) The Authority shall make arrangements with DPCC to ensure that DHW is collected from the DHW Depositing Centers and transported to the DPCC designated disposal facility/ site as identified by DPCC. The timings and frequency of clearance of waste in DHW Depositing Centers shall be decided by the Authority.
- e) The Concessionaire shall safely keep the DHW at the DHW Depositing Centers and shall handover the DHW to the agency appointed by the Authority.
- f) The Concessionaire shall run IEC activities for waste generators for separate storage of DHW and its safe disposal.
- g) The DHW Depositing Centre shall comply with the below mentioned requirements
- i. Must be completely enclosed
 - ii. Must have decontaminated area for personnel and equipment

- iii. The building units should be chemically compatible with the hazardous waste
 - iv. Must have a leak detection system to indicate any failure in the integrity of floor.
 - v. It must be open from 8.00 am to 8.00 pm to receive the DHW
- h) The above provides only indicative requirements of “Domestic Hazardous Waste Depositing Centres”. The Authority in consultation with IE and DPCC shall develop detailed guidelines for management of DHW Depositing Centres with detailed specifications of the each and every component

SCHEDULE “7”

Compliance Requirements

7.1 Legal Compliance Requirements

Sl. No.	PERMIT	AGENCY
1	Permits for driver	
	Permanent driving license depending on	Transport Department, GNCTD
2	Permits for Vehicles	
a	Vehicle Registration	Transport Department, GNCTD
b	Fitness Certificate	Transport Department, GNCTD
c	Pollution Control Certificates	Transport Department, GNCTD
d	Driving license ³	Transport Department of GNCTD or any State/UT of India
3	Water & Sewer Connection	Delhi Jal Board (DJB)
4	Application for PAN and other tax registrations including Service Tax	Concerned Department of Government of India and GNCTD
5	Clearance for employing Labour – Primary Employer	Commissioner of Labour
6	Employment of migrant Labour	Commissioner of Labour
7	Fire safety equipment	GNCTD / Police Department
8	Working in night shifts	Authority / Police Department
9	Insurance of Vehicles	Any concerned Insurance Company
10	Any other applicable permit	Concerned Authority

7.2 Acts, Amendments and Regulatory Institutions

S. No.	Act	Provisions under the Act
National Policies		
1	National Green Tribunal	National Green Tribunal was constituted in 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal rights relating to environment and giving relief and compensation for damages to persons and property. The tribunal has

		<p>The Water Act, 1974; The Water Cess Act, 1977; The Forest Conservation Act, 1980; The Air Act, 1981; The Environment Protection Act, 1986; The Public Liability Insurance Act, 1991; and The Biological Diversity Act, 2002</p>
2	Central Pollution Control Board	<p>Central Pollution Control Board (CPCB) is a statutory organization under the Ministry of Environment, Forests and Climate Change (MoEFCC) which was established for the control of water, air and noise pollution, land degradation and hazardous substances and waste management. The specific functions of CPCB include the following:</p> <ol style="list-style-type: none"> 1. Advise the Central Government on matters concerning prevention, control and abatement of water and air pollution; 2. Co-ordinate the activities of SPCB's and provide them with technical and research assistance; 3. Establish and keep under review quality standards for surface and groundwater as well as for air quality; 4. Planning and execution of national programme for the prevention, control and abatement of pollution through the Water and Air Acts and 5. The CPCB is responsible for the overall
3	The Air (Prevention and Control of Pollution) Act, 1981, amended in 1987	<p>These laws address the prevention and control of air pollution. Under section 21 of this Act, it is mandatory to obtain consent from Pollution Control Board to establish or operate any industrial operation. Activities involving emission of pollutants like establishing batch mixing plants require consent from</p>
4	The Water (Prevention and Control of Pollution) Act 1974 and further amendments	<p>An act to provide for the prevention and control of water pollution, and for the maintaining or restoring of wholesomeness of water, for the establishment, with a view to carrying out the purposes aforesaid, of Boards for the prevention and control of water pollution, for conferring on and assigning to such</p>

		functions in the country. The Act was amended in
5	The Environment (Protection) Act, 1986, as amended (EPA Rules 1986, as amended thereafter).	<p>Popularly known as EP Act, it is an umbrella legislation that supplements existing environmental regulations. This law essentially links pollution and natural resource issues. Salient features of the Act are the following:</p> <ol style="list-style-type: none"> 1. Section 6 empowers the Government of India to make rules to regulate environmental pollution by stipulating standards and maximum allowable limits to prevent air, water, noise, soil and other environmental pollutants 2. Section 7 prohibits operations that emit pollutants in excess of standards 3. Section 9 regulates handling of hazardous substances and identifies persons responsible for discharges and pollution prevention. 4. Empowered by the EP Act, the Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India has issued various notifications such as Hazardous Wastes (Management & Handling) Rules, 1989; Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989; Noise Pollution
6	Central Motor Vehicle Act and Rules, 1989 and further amendments	<p>The Act provides in detail the legislative provisions regarding licensing of drivers/conductors, registration of motor vehicles, control of motor vehicles through permits, special provisions relating to state transport undertakings, traffic regulation, insurance, liability, offences and penalties, etc. For exercising the legislative provisions of the Act, the Government of</p>
7	Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and further	<p>This law addresses handling of hazardous substances that fall under specified schedules and necessitates authorization for such facilities from State Pollution Control Board. Projects attracting these rules will have to follow the guidelines for handling and disposal of hazardous wastes.</p>
8	Solid Waste Management	<p>This notification by Ministry of Environment and Forest lays down the methods of handling Solid</p>

	amendments	Management (SWM) and its scientific disposal in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000. These rules are apply to every urban local body, outgrowths in urban agglomerations, census towns, notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbases, Ports and harbours, defence establishments, special economic zones, State and Central government organisations, places of pilgrims, religious and historical importance, and to every domestic,
9	The Noise (Regulation and Control) Rules, 2000 as amended in October 2002 As per the Environment (Protection) Act (EPA) 1986 the ambient noise	The ambient air quality standards in respect of noise for different areas/zones namely industrial, commercial, residential or silence areas/zones are specified in the Schedule of these rules. An area comprising not less than 100 metres around hospitals, educational institutions and courts may be declared as silence area/ zone as per these rules. The noise levels in any area/ zone shall not exceed the ambient air quality standards in respect of noise as specified in the Schedule.
	areas like, commercial, residential and silence	
11	Bio Medical Waste Management Rules 2016 and further	This notification by Ministry of Environment and Forest lays down the method of collection of hospital waste,
12	The Batteries (Management and Handling) Rules 2001 & further amendments	These rules apply to every manufacturer, importer, dealer, recycler, auctioneer, consumer and bulk consumer involved in manufacture, processing, sale, purchase and use of batteries or components thereof. Registration of importers with CPCB and registration of dealer with SPCB for a period of 5 years with the provision of renewal system. The new batteries shall

13	The Petroleum Act and Rules, 1934 & its amendments	An Act to consolidate and amend the law relating to the import, transport, storage, production, refining, blending, or reclaiming by recycling of petroleum and
14	E-Waste (Management and Handling) Rules, 2016 and further amendments	The rules prescribe procedures for manufacture, dealer, refurbished, and Producer Responsibility Organization for collection, dismantling, recycling, and disposal of electronic wastes and requires authorization of the State Pollution Control Board for the same whereas single authorization of CPCB for Extended Producer Responsibility
15	Plastic waste Management Rules 2016 and amendments thereof	<p>These rules apply to every waste generator, local body, Gram Panchayat, manufacturer, Importers and producer. Plastic waste, which can be recycled, shall be channelized to registered plastic waste recycler which shall conform to the Indian Standard: IS 14534:1998. The non-recyclable waste shall be used for road construction as per Indian Road Congress guidelines or energy recovery or waste to oil etc. Waste Generators including institutional generators, event organisers shall take steps to minimize generation of plastic waste and segregate plastic waste at source in accordance with the SWM Rules 2016 and not to litter the plastic waste, handover segregated waste to authorized agency and pay user fee as prescribed by AUTHORITY and spot fine in case of violation. The rules mandate the registration of producers, Importers and Brand Owners with CPCB/DPCC under Extended Producers Responsibility. (EPR)</p> <p>The Ministry of Environment, Forest and Climate Change, Government of India (MoEF), has notified the Plastic Waste Management Amendment Rules, 2021 vide Gazette Notification dated 12th August 2021, which prohibits 20 identified single use plastic items which have low utility and high littering potential. The rule has increased the</p>

16	Guidelines on Extended Producers Responsibility on plastic packaging, 2021 under Plastic Waste Management Rules, 2016 and further amendments	<p>Ministry of Environment, Forest and Climate Change has notified the Regulations for Extended Producers Responsibility on plastic packaging under Plastic Waste Management Rules, 2016 as amended till date. Under the framework, modalities have been fixed for producers/brand owners and importers of plastic products for implementing the EPR framework, in consonance with State Urban Development Departments/Urban Local Bodies/Central Pollution Control Board/State Pollution Control Boards/Committees and other stakeholders involved in the plastic value chain.</p> <p>The regulation set out the roles and responsibilities of Producers, Importers, Brand Owners (PIBOs), CPCB/SPCBs/PCCs, recyclers and waste processors for effective implementation of EPR.</p> <p>The regulation allows for sale and purchase of surplus extended producer responsibility certificates, thus setting up a market mechanism for PWM. The Regulation prescribe a framework for levy of environmental compensation based upon polluter pays principle, with respect to non-fulfilment of</p>
18	Public Liability Insurance Act, 1991 and further amendments	<p>According to this notification, all the Major Accident Hazard (MAH) units handling chemicals in excess of the threshold quantities referred to in the MSIHC Rules, 1989 are mandated to take an insurance policy and deposit an equal amount in the Environment Relief Fund (ERF) to ensure immediate payment to the</p>
19	Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013 and further amendments	<p>This act prohibits construction of insanitary latrines and employment or engaging of manual scavenger for the purpose of manual scavenging. No person, local Authority or any agency shall, from such date as notified by the State Government (which shall not be later than one year from the date of commencement of this Act), engage or employ, either directly or</p>

20	The National Environment Tribunal Act, 1995 and further amendments	This act provides for strict liability for damages arising out of any accident occurring while handling any hazardous substance and for the establishment of a National Environment Tribunal for effective and expeditious disposal of cases arising from such accident, with a view to giving relief and compensation for damages to persons, property and the environment and for matters connected there with or incidental thereto.
21	Pollution Control Law, 2010 and further amendments	CPCB published fifth edition of "Polluter Control Acts, Rules & Notifications" under which several notifications, recently amended rules and notifications have been incorporated which includes Schedule VI of Environment (Protection) Rules 1986, Hazardous Waste Management and Handling) Rules 1989, the Noise Pollution (Regulation & Control) Rules 2000, Recycled Plastic Manufacturer, Sale and Usage Rules, 1999. Several other amendment notifications issued on EIA, Coastal Regulation Zone (CRZ), Committees constituted pursuant to the Hon'ble Supreme Court orders, utilization of flyash have also been

SCHEDULE "8"

Schedule 8: Environmental Health and Safety Plan

S No	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
1.	Collection: a. Open burning of waste in public places b. Primary collection vehicles overloaded with waste, resulted in road littering during waste collection c. Sound limits for vehicles and sanitary workers who perform door to door collection of solid waste	a) Air emissions- PM2.5, PM10, SO2, NOx, & CO b) Noise pollution	a. Prohibition on open burning of waste b. Primary collection vehicles will carry the waste only as per designed capacity & will not be overloaded/over spilled waste. c. Provision of door-to-door collection of the waste in different streams at pre-defined timings d. Vehicles involved in collection should have Pollution under Control (PUC) Certificates. Vehicles should possess most recently completed PUC certificates with them. e. All primary collection vehicles to carry First Aid kit and should be given proper training on how to handle medical emergencies. f. All the vehicles should undergo periodic maintenance as per O&M plan. g. Provision of Personal Protective Equipment such as mask, gloves, goggles, safety shoes/gum boots/ reflector jackets h. Proper lubrication will be provided to	a. Motor Vehicle Act & Rules. b. Environment Protection Act 1986 c. Air Act, 1981 d. The Noise Rules, 2000 e. SWM Rules 2016	Concessionaire

S. No.	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
			<p>minimize squeaking noise due to friction for primary collection vehicles</p> <p>i. During primary collection schedule the alert (whistle or bell) by the sanitary worker to collect the waste should not exceed the prescribed noise limits.</p> <p>j. Most optimum route to be adopted with minimum no. of vehicles with the help of GIS mapping and apps for general public</p> <p>k. The sound from vehicles should not be more than 80 decibels</p>		
2.	<p>Secondary Storage Points:</p> <p>a) Open bins, or common points for waste disposal</p> <p>b) No clear distinction of bins for storage of wet & dry waste</p>	<p>a) Soil Contamination</p> <p>b) Unaesthetic view</p> <p>c) Conditions for breeding of mosquitoes and grazing by cattle</p> <p>d) Odour nuisance</p> <p>e) Hinderance to general public</p> <p>f) Health hazards</p>	<p>a) Prohibition on open dumping and littering on roads/public places</p> <p>b) Regular & timely collection of waste from secondary storage points (such as & FCTS) at least twice in a day to prevent degradation of waste & thus generation of odour</p> <p>c) Adequate number of additional bins in & FCTS for excess waste as and when required by the waste generators</p>	<p>a. Environment Protection Act 1986</p> <p>b. SWM Rules 2016</p>	Concessionaire

S. No.	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
	<p>c) Storage of waste for longer duration at Secondary collection points</p> <p>d) Waste burning at secondary collection points</p>		<p>d) Regular bin washing and maintenance in & FCTS to be done.</p> <p>e) Closed type container & bins in & FCTS with clear distinction for wet waste, dry waste and street sweeping waste should be used for collection of waste so as to avoid mixing of different types of waste.</p> <p>f) Sanitizing the bins around 2m periphery of surrounding area by usage of lime or bleaching powder (disinfection), so that there will be no harm for public.</p> <p>g) In case of odour, usage of sanitizers to reduce the odour nuisance</p> <p>h) Provision of Bins with lids/cover in in & FCTS</p>		

3	Domestic hazardous waste collection centres		a) Separate collection and storage plan for Domestic Hazardous Waste b) Timely disposal of DHW from collection centres to Hazardous waste disposal facility. c) Stringent safety and emergency measures to be in place at the collection centres to avoid	a. Central or State Pollution Control Board b. SWM Rules, 2016 c. EP Act, 1986	Authority and maintenance of collection centres to be done by Concessionaire
S. No.	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
			any accidents d) Clear specification of hazardous waste items generated from HH and awareness to be created on the same on how to store the waste.	d. Hazardous Wastes Management & Handling Rules, 2016	
	Collection & transportation of domestic hazardous waste at DHW Centres	Accidental release of hazardous chemicals into environment during transportation	a) DHW collection vehicles shall be enclosed type, container proof and should have display of hazard information b) Minimum safety equipments to be installed in the DHW transportation vehicles. c) Emergency numbers to be displayed on vehicles in case of emergency situations		Concessionaire in coordination with authority

4	Workshop or Municipal Garage for daily upkeep and maintenance of vehicles	<p>a) There shall be adequate workshop facilities for the maintenance not only of their fleet of vehicles, but also of containers, handcarts, etc.</p> <p>b) Workshop shall have electricity, water and consumables</p> <p>c) The workshop should have minimum safety related equipments.</p>	SWM Rules, 2016	Authority and Concessionaire
		<p>d) There should be first aid centre inside the workshop area to attend the emergencies</p> <p>e) The site should contain numbers to nearby hospitals, ambulance numbers, fire station numbers for display at various locations</p> <p>f) It should have adequate technical staff (trained men and women), spares, and preventive maintenance schedules to ensure that at least 80% of the vehicles run on the road each day and the downtime is minimized to the extent possible</p> <p>g) The depots of the garage should carry spare parts of vehicles, compactors, and other equipment, according to the service</p>		

S. No.	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
			<p>waste water</p> <p>k) Green belt and noise absorbing plants to avoid air, noise pollution.</p> <p>l) Proper disposal of scrap materials, equipments, batteries</p>		
5.	<p>Disposal:</p> <ul style="list-style-type: none"> Accidental vehicle spillage Solid waste disposal in water bodies Disposal of plastics in aquatic system/water bodies Leakage from e-rickshaw and bins, compactors, 	<p>a) degradation surface and ground water quality</p> <p>b) Contaminates nearby water bodies/lakes</p> <p>c) Creates unaesthetic and ill effects for nearby local residents</p>	<p>a) No leakage of leachate is allowed from any waste carrying vehicles including e-rickshaws. All vehicles shall have leachate collection tank, irrespective of its type and carrying capacity.</p> <p>b) Waste shall be transported in closed vehicles</p> <p>c) Waste shall be transported as per the designed capacity of the vehicles</p> <p>d) Prohibition on disposal of plastics or solid waste in water bodies</p> <p>e) Regular cleaning of roads & drains and removal of collected waste to the designated processing facilities or disposal site without mixing the segregated waste</p> <p>f) Regular monitoring of incoming waste</p>	<p>a) Water – Pollution Control Act 1974</p> <p>b) EP Act 1986</p> <p>c) SWM Rules 2016</p>	Concessionaire

S. No.	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
	wastes clog drains and channels causing flooding				
6.	Social issues or benefits of development project	a) Unaesthetic view, heavy noise & traffic congestion b) Odour problems c) Local labour – construction d) Indirect employment	a) Local people will be preferred for employment. b) Movement of transportation vehicles will be scheduled according to type of area c) Continuous exposure to air & noise pollution will be prevented d) Uniform For Men: Cap, T-shirt/Shirt, fluorescent Jacket, Trouser/pant, Safety Shoes as per IS 15298 (Part 1&2):2011/ISO 20345, hand gloves, mask e) Uniform For Women: Cap, Salwar Suit/Saree, fluorescent jacket, shoes, hand gloves, mask. f) Concessionaire shall provide at least 2 sets of dress to the workers every six months. g) Periodical Health check-up for the	a) Minimum Wages Act b) Indian Labour Act. c) Indian Motor Vehicles Act & Rules	Concessionaire

S. No.	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
			<p>cover insurance for the employees</p> <p>i) Proposed project will require manpower during construction/implementation phase thereby creating job opportunities.</p> <p>j) Improvement in transport, communication facilities, lifestyle and social status etc. due to ancillary development.</p> <p>k) Waste will not be stored at concession area for more than 12 hours</p> <p>l) Covered bins & vehicles to minimize odor, flies, mosquitoes & pathogen breeding on littering waste</p> <p>m) The Concessionaire shall use appropriate safeguards for the personnel manning the DHW Deposition Centers as per the law of the safeguards required under Atomic</p>		
7.	Occupational health & safety impacts during collection & transportation	a) Health impacts of exposure to a variety of harmful materials of waste related	<p>a) Hazard Identification & Risk Assessment analysis shall be prepared for all activities of C&T related jobs.</p> <p>b) Impact mitigation measures shall be</p>	<p>a) Motor Vehicle Act & Rules.</p> <p>b) SWM Rules 2016</p>	Concessionaire

S. No.	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
	waste	<p>pollutants.</p> <p>b) Accidental spillage by moving vehicles.</p> <p>c) Cut & Bruises during handling of Waste.</p> <p>d) Allergies from pathogen and airborne dust</p>	<p>implemented for all significant risks identified.</p> <p>c) All centers of labour contact points shall be provided with First Aid and other requirements.</p> <p>d) Emergency Preparedness plans shall be prepared and implemented for all manpower working centers and its field extension centers.</p> <p>e) An Environment Health & Safety policy shall be prepared and implemented throughout the activities area.</p> <p>f) Adequate manpower manager staff shall be provided to listen into the manpower related grievances.</p> <p>g) Workers will be provided with PPE such as mask, gloves, shoes & goggles</p> <p>h) Periodical health check-up and minimum health insurance cover for the employees.</p> <p>i) Proper training will be provided regarding maintenance of Health</p>	c) EP Act 1986	

S. No.	Activities	Potential Impacts Identified	Preventive, Control & Mitigation Measures	Applicable Legal Compliances	Responsible Agency
			<p>j) Tie-up with local hospital will be done to provide ambulance to handle emergency cases, if required</p> <p>k) Routine inspections, housekeeping and maintenance will be carried out at regular intervals</p> <p>l) Measures such as deferred timings and stretch breaks to be adopted</p>		

SCHEDULE “9”

Schedule 9: Management Information System (MIS)

- a) IE/Authority shall set-up a “secure online MIS” and “application for customer care center/control room” that facilitate effective monitoring of the project. This system shall be “automated” as per below mentioned methods or with further improvements to the methods as suggested. There shall be provision to feed the information “manually”, in case information is not obtained automatically. There are three major components of this system:
- MIS Reports that shall be delivered by the System
 - Customer Care Center/Control Room Application to receive customer complaints, Authority’s staff complaints, requests on phone calls, SMSs or emails.
 - Automation using GPS, RFID/RFID Reader, Photo & Request Update using “Mobile Applications”
- b) The Concessionaire shall also setup its own control room in the project area for its internal monitoring and supervision at its own cost. However, the report generated from control room setup by IE/Authority shall only be considered. The system shall be integrated with MIS System of Authority. The Concessionaire, IE and the Authority shall jointly monitor the control room for daily Project Operations. The Concessionaire shall be responsible for providing hardware and software system to enable real-time tracking of activities with due approval from Authority. The Authority, Concessionaire and IE shall deploy one representative respectively for MIS. The space (RDC Office) for the Control Room shall be provided by the Authority
- c) The Control Room shall have Dashboards for ward officers, deployed staff, vehicle depot, citizens etc. highlighting ward level performance with the volume of garbage generated and their overall cleanliness score
- d) The Concessionaire shall be responsible to provide data/information required for generating reports and project monitoring.

- e) The IE/Authority may suggest more reports/automation from time to time, to enhance the effective monitoring of the Project.
- f) The Concessionaire shall also set-up 24 X 7 Complaint Redressal System for handling complaints related to the Project Operations.
- g) The Concessionaire shall be responsible to Operate the Centralized MIS and Complaint Redressal System throughout the Concession Period

9.1 Reporting through MIS:

1. The Concessionaire shall be responsible for deploying required hardware and installing the Authority licensed software system for generating on demand automated reports for continuous monitoring of Project Operations. The System shall comprise of following, but not limited to the below mentioned.
2. The Concessionaire shall upload the File containing information about Action Plan for the Month. This will form the base for master information for automatically generating MIS reports
3. Daily Biometric Attendance System shall be installed at all the Ward/Division Offices within the Project Area.
4. The Concessionaire shall install GPS devices in all the Primary Collection Vehicles (Auto Tippers of 1.75 cum capacity), Secondary Collection Vehicles which shall enable real-time tracking of vehicles at the Control Room.
5. The Concessionaire shall install RFID Tags with unique codes in all E-Rickshaws, Containers at FCTS and RC bins or other bins and these unique codes shall be used in the MIS Reports.
6. The Radio Frequency Identification Device (RFID) tags in the RC vehicles and Hook Loaders shall be placed in such a way that the signal shall be transmitted to the Control Room only when the RC bins and Containers has been lifted and emptied by the RC vehicle and Hook Loaders.
7. The helpers travelling with the Secondary C&T vehicles shall take a minimum of two time and date stamped photographs along with the location (Latitude & Longitude) (Pre and Post unloading) of the bins and these photos shall be immediately transmitted to the control room via the dedicated app.
8. At the start of an activity by primary collection vehicles (Auto tipper & E-rickshaw) starting a route; or door to door waste collector starting a beat etc., the concerned person will send a START SMS to the system. System will acknowledge the receipt of such message to confirm logging.

9. Thereafter GPS system will take-over to see the progress of the activity and shall automatically prepare the process reports.
10. At the end of the Primary Collection Route (routes end at decentralized processing facilities/ MTS/ FCTS); the vehicle operator shall weigh and deliver the 'waste' to the designated site; and send SMS to the system about the quantity of segregated waste delivered and the overall assessment of quantum of waste collected (short/normal/excess). GPS will automatically detect stoppage at the designated decentralized processing facilities/ MTS/ FCTS to close the route. System will acknowledge close of route by sending SMS.
11. At the end of beat, the primary waste collector shall send the SMS for close of the beat along with no. of households left un-serviced (if any). System shall acknowledge the close of activity.
12. For collection of drain silt, there shall be no predefined route plan, and such activity shall be taken up on the basis of requisitions. The concessionaire shall develop an IT system that receives requisitions (on line or call center or SMS); the log of such requisitions will be required to be pushed on-line into the IT system of Authority for further monitoring. The operator shall complete such activity based on the requisition by sending SMS to the Authority's system to close it
13. When a secondary collection vehicle clears waste from secondary storage points or a recycling center, the operator through mobile based application, click a photo of the cleared points. The application shall automatically upload the clearing information & photo through GPS system. In addition, the mobile application shall allow the operator to record the type of waste cleared and also if any non-confirming waste (along with type) was found in the said Dhalao/ bin or any other secondary storage points. In case of recycling centers, the waste shall be weighed before transferring it to the secondary collection vehicles. The weight of recycled waste, thus cleared shall also be recorded through the mobile application.
14. When the secondary collection vehicle reaches the disposal site (SLF/ WTE/ WTC or any other site by the Authority), the vehicle shall be weighed at the weighbridge. The weighbridge operator shall send on-line report and the receipts at the disposal site into the Authority's system.
15. For FCTS/ Mobile Transfer stations, since the vehicles are connected to GPS, the system shall automatically note clearance / arrival at disposal site.
16. For Bin-washers, same method as (8), (9) and (10) above; except the fact that the

bin washing vehicle will not be required to end at disposal point.

17. For Inspection Reports, the concerned inspectors shall be provided with a mobile application for feeding and uploading inspection report in the system. The application will be GPS based, so that inspector shall record observations, and/or upload photo.
18. Concessionaire shall also be provided view (and download) access to the data and reports generated through MIS. Concessionaire shall get access to data/information only in respect of assigned project area.
19. Since the IT system of Authority/IE shall be generating the MIS reports, Concessionaire shall be allowed to download such reports from the system and submit to IE/Authority. The Concessionaire shall ensure proper logging of activities/reporting taking place in the system of Authority/IE.
20. However, in case or times of IT system of Authority/IE is not functional, for such period, certain basic monitoring reports (as may be prescribed by Authority/IE from time to time) shall be generated by concessionaire and submitted to IE/Authority.
21. The Concessionaire shall provide mobile-based geo-fenced cellular handsets to the supervising staff of primary collection and transportation which shall get activated/ deactivated once the personnel enters/ exits from his/her designated work periphery, which shall be detailed in the personnel wise beat plan in the Approved MIOP.
22. The Concessionaire shall also conduct manual supervision of activities, which cannot be tracked through automated system (Refer Schedule 14 on KPIs). The Concessionaire shall develop a mobile application to monitor the Project Operations on day to day basis.
23. The Concessionaire shall develop formats other than specified for arranging data into meaningful information. The formats shall be developed for automated and manual data by the Concessionaire, in consultation with IE/ Authority.
24. The data generated from automated systems and mobile application shall be directly accessible to IE and the Authority through control room as well web based and mobile based application dashboards. The Concessionaire shall also compile and submit the data in prescribed formats to IE and the Authority on daily basis.
25. The Concessionaire shall submit Daily, Weekly, Fort-nightly, Monthly and for any specific duration MIS Reports to the IE in the formats approved by the Authority.

26. IE shall compare the MIS Report with the Key Performance Indicators (KPIs) and report Daily, Weekly, Fort-nightly and Monthly Performance Report to the Authority.
27. IE shall be responsible to prepare Monthly Performance Reports and submit it to the Authority. The Monthly Report shall form basis for calculating monthly penalties and payments to the Concessionaire.
28. The reports shall be viewable on the server on the real time basis, so that IE/Authority shall have a clear view about the status of ongoing work.
29. Concessionaire and IE shall keep historical data from day one and throughout the project concession period for the purpose of effective project monitoring and efficiency comparisons
30. Indicative Reports showing summary overview of current operation shall be made available in formats as mentioned in Schedule- 14

9.2 Complaint Redressal System:

- a) The Concessionaire shall set-up a 24 X 7 Complaint Redressal System for handling complaints and requests related to Project Operations. Concessionaire shall put a detailed Standard Operating Plan (SOP) in place to elaborate the System
- b) Customer Care center shall be manned by concessionaire staff
- c) The Concessionaire shall provide online platform for the logging and tracking the complaints and requests. The Concessionaire shall also enable the system to register the complaints and requests through SMS and provide the status through Automated SMS
- d) The Concessionaire shall install a minimum of 10 (ten) dedicated phone lines with short code numbers and staff in the Control Room to receive complaint and requests from Public. The waiting time shall not be more than 2 minutes for any call. While the customer is waiting, a recorded voice message indicating that complains and requests can be logged by SMS or on web shall be played.
- e) The Concessionaire shall maintain records of Complaints and requests received that includes name, date, time, location, type of complaint/requests and the subsequent action taken to solve the complaint and requests. This record shall be verified by IE and the Authority
- f) All calls shall be recorded and shall be reviewed for the quality of interaction

of their staff with the customers. This recording shall be made available to IE and the Authority.

- g) Complaint redressal shall be done by the Concessionaire within 6 hours of receipt of any complaint/requests regarding daily operational activities. The Concessionaire shall redress any complaint related to infrastructure replacement within 24 hours of receipt of complaint.
- h) Control Room shall be staffed adequately to receive and resolve the complaints on specified time. Control room shall be operational from 7 am till 10 pm on all working days

9.2.1 SMS to Receive Complain

- a) Short code SMS service shall be deployed by Concessionaire to receive complains/requests in structured SMS form.
- b) Similar Short code-based SMS service shall be deployed by Concessionaire to receive requests from the staff of Authority for on demand service.
- c) User friendly web-based application shall be created to receive complains from the public and Authority

9.2.2 Workflow to Track Status

- a) Each complaint request shall be assigned with unique ticket number.
- b) Each complaint shall be forwarded via-SMS to the concerned operator with a copy to reporting supervisor.
- c) Once ticket is closed, it shall be updated in the database. In case complaint is not addressed within specified time, reason for delay along with likely resolution time shall be updated in database.
- d) Status of complaint if completed or not completed (along with reason and likely date of addressing) shall be provided to the customer on or before the specified date.
- e) Similar system shall be in place for request/complaint ticket for the Authority's staff.
- f) Status shall also be made online using ticket number and customer phone number.
- g) Current status of all open and closed complaints shall be visible online and user shall be able to view their status by date or/ and complain number etc.
- h) On completion of work – SMS shall be sent back to the customer indicating completion of work. Systems shall have provision to take customer feedback based on the level of satisfaction for the service provided.

- i) Daily summary report of Zone Wise, Sub-Zone, Ward Wise shall be provided to designated staff of the Authority. These reports shall be auto-generated from the customer complaint database

9.3 Unique numbering System for Project Assets

As a precursor for automation, a unique numbering system shall be followed for marking all Secondary Collection Points/ Project Assets in such a manner so that all such points are uniquely identified across the project area. This numbering shall be referred in all time-table/customer complainant redressal systems and other communications.

Following are some examples for unique numbering:

- a) For uniquely identify the bin number 120 in Zones, Ward 55: LMC/Z-1/W55/B120
- b) For uniquely identify the 2nd container at the Fixed Transfer point, Ward 55: LMC/Z-1/W55/F101-1

The final numbering mechanism shall be approved by the IE/Authority

9.4 GPS in All Vehicles

The Concessionaire shall install GPS system in all the vehicles with following device specification or better:

- a) General Specifications:
 - i. Dual band GPRS (900/1800 Mhz).
 - ii. On-board Storage of at least 2 days of data.
 - iii. Internal battery to sustain operation for at least 10 hours with a minimum recording at interval of 30s and reporting at intervals of minimum of 120s.
 - iv. A minimum reporting interval of 30s.
 - v. Alerts on external power disconnection.
 - vi. Internal antenna or antenna wire enclosed in metal sheath.
 - vii. IP 65 enclosure (i.e. water proof for occasional sprays of water and dust proof).
 - viii. Device should be hidden – minimum of -161db gain for GPS antenna.
 - ix. Ability to work against sustained external voltage of upto 33v and handle transient of as high as non-spike 55v/6000 Joules spikes (To work in presence of hydraulics, falling battery).

- x. Digital Input: 2 minimum. Changes to digital input must be communicated immediately – i.e. changes should not be missed because it falls in between recording interval. On the other hand transients (< 1-2s) must be discarded.
- xi. Analog Input: 1 minimum
- b) Accessories:
 - i. Must be able to detect engagement of bin's raising/lowering.
 - ii. Must be able to detect raising/lowering of tipper's body
- c) Protocol:
 - i. Commands for controlling devices via SMS and protocol/data format must be shared with IE/Authority and vendor must warrant that the users can choose to use their software to work with devices without paying anything extra.
 - ii. Must be able to detect engagement of bins
 - iii. Over the air control of device – including server to which devices communicate with
- d) GPS Running Requirement
 - i. 98% of installed GPS shall be operational all the time.
 - ii. Any non-operational GPS shall be replaced within 24 hours of time of non- functioning.
 - iii. If any GPS is not operational (within the above limits), driver shall be provided with android/Mobile Application enabled phone with location tracking capability and same shall be monitored by Concessionaire

e) Vehicle Tracking Management System

Vehicle tracking management system (VTMS) with GPS, GSM, RFID, M2M, and/or LOT sensors (as per requirement) shall be installed along with innovative mobile and web-based applications to improve the ground-level mechanisms for waste collection and efficient processing and recycling of waste

- I. Real time tracking of vehicles/fleet
- II. Complete audit trail of movement of vehicles
- III. Alerts-Over speed, excess stoppage time, excess fuel withdrawn
- IV. Fleet Summary Report – Stoppage, Speed Violations, Idle Time, Fuel Consumption

- V. Alerts for fuel thefts, tampering, geo-fencing violations
- VI. Web enabled live map with history playback and route replay

f) RFID (Radio Frequency Identification Reader)

- i. RFID tag in non-breakable, non-temper & non-removable enclosure shall be fixed on all key project assets by the Concessionaire. Key assets shall include (but not limited to):
 - ii. 1.1 cum RC bin
 - iii. Container of 5 cum/10 cum/16 cum
 - iv. E-Rickshaw
 - v. Equipments
- vi. RFID tag should contain information such as Asset type, Asset no., purchase date, insurance details, servicing schedules, date of replacement if any, any other information.
- vii. Vehicle RFID Tags shall store Information in RC and Containers and Insurance details, in structured format.
- viii. The Concessionaire shall provide (2 RFID Readers per ward) including inbuilt display to read RFID tag information. These readers shall be fitted with GPRS module and information shall be relayed to the asset records on server indicating asset information.
- ix. Concessionaire shall replace the damaged RFID Tag within the 24 hours' time of non-functioning. New RFID tag in place of damaged tag shall be fixed with the same information.

g) Mobile Application for Reporting from site

The Concessionaire in consultation with IE/Authority shall provide robust mobile applications to report the site conditions. Following are minimum requirements:

- i. Mobile application shall be able to send information to control room about the ground situation along with "Photo", "Geo-Tag (latitude-longitude) and Status update.
- ii. Citizens connect by integration with Mobile App
- iii. This mobile application shall work even when GPRS connectivity is not there and the moment GPRS connectivity is available, data shall be uploaded to the servers.
- iv. Data collected from this application shall not be alterable by the originator.

Adequate encryption shall be supplied for the same

- v. Track cleanliness score and overall performance of various wards with the Authority
- vi. Report incidents in form of tickets to Command Control

Center vii. This application shall be used for (but not limited to):

(A) Report Arrival of Collection Vehicles at Secondary Collection Points by sending photograph of street (along with marked timetable on ground) about the arrival.

(B) Report Arrival of Refuse Compactors for clearing of bins and Hook Loaders for cleaning of Containers from Secondary Collection Points with photographs

(C) Reporting after clearing Silt with photographs

(D) Reporting after clearing horticulture waste with photographs

(E) Reporting after clearing road sweeping with photographs

(F) Reporting after clearing of Secondary Collection Points

(G) Reporting of any other site condition with photographs

- viii. Concessionaire shall be responsible for providing Android phone, SIM with data connection to all its drivers, supervisors and any other staff who are designated for reporting from ground with mobile based application. Non-reporting shall be automatically treated as no work completed

ix. Concessionaire shall also train all their staff to use the application. h) **Bio-Metric Attendance**

The Concessionaire shall deploy biometric attendance system for all the Ward/Division Offices under the Project Area, to report staff attendance. Following are minimum requirements:

1. Bio-Metric Attendance System that is fitted with GPRS/any other mechanism
shall display each record instantaneously to the central server
2. For staff who have missing finger prints (at times reported by few workers), alternate fool proof system shall be deployed.
3. Bio-metric machines shall be deployed at all offices and attendance points

(mobile-bio-metric devices for open points)

4. Only records received from bio-metric attendance shall be treated as valid records for staff reporting – in reports generated from servers

9.5 MIS Reporting Formats

Indicative Formats for the MIS reporting system are mentioned in the Schedule-15.

SCHEDULE “10”

Schedule-10 Scope of Work for Project Monitoring Consultant

PMC shall appoint relevant staff/personnel for daily monitoring of Project Implementation and Operations after the signing of its PMC Service Agreement with the Authority or the Authority assigned Institution. PMC shall appoint minimum staff for monitoring of Project

Implementation and Operations activities as given below:

Sl. No.	Key	Nos*
1	Project Director / Team Leader	1
2	IT/MIS Manager	1
3	Manager-Contract Management	1
4	IEC Specialist/ Social Development	1
5	Zonal Monitoring Supervisors	16
	Total	20

*Indicative

The Appointment of Project Monitoring Consultant doesn't mean Authority withdrawal/curtail its Rights from this Agreement. Authority shall without prejudice to and notwithstanding any other consequences provided therefore under this Agreement, depending upon the nature of the obligation in respect of which a breach has occurred, be entitled to either levy a penalty or take suitable action as per the Vol-II (A) of Draft Concessionaire Agreement

10.1

Objective:

- a) Act independently, as per the provisions of Concession Agreement and review all activities associated with Project Implementation and Operation to ensure compliance to the Concession Agreement;
- b) Assist Parties to this Concession Agreement in arriving at an amicable solution of any project implementation and operational issue, if any;
- c) Report to Authority on the technical and financial aspects of the Project on daily/continuous basis; and
- d) Act, if required on behalf of the Authority and fulfil various reporting requirements regarding Project Implementation and Operation, except on decision making.

10.2 Role of the Independent Engineer

The Project Monitoring Consultant("PMC") is expected to play a positive and independent role in discharging its functions, thereby facilitating the smooth Project Implementation and Operation of the Project during the Implementation Period and Concession Period. The Project Monitoring Consultant shall oversee the assigned activities as per this Schedule. Broadly, the role of the Project Monitoring Consultant shall be:

- a) Appraise the MIOP and shall make recommendations to the Authority for its approval.
- b) Review the activities associated with, but not limited to, Project Design, Project Plan, Procurement of Project Assets, Quality of Project Assets, DHW Depositing Centre Design, Vehicle Parking and Workshop Design, Project Implementation Schedule, Construction Supervision, Operation and Maintenance Manual, Project Monitoring, Financial Closure Document, Insurance, EHS, Applicable Consent and Clearances and Project Scope of Concessionaire to ensure compliance as per the Approved MIOP;
- c) Report to the Authority on the various physical, technical and financial aspects of the Project based on daily/continuous basis;
- d) Assist the Parties on arriving at an amicable settlement of disputes, as the case may be;
- e) Review matters related to social issues and Health, Safety and Environment and report the Authority
- f) PMC Shall continuously monitor, on daily basis, the operations of the project activities, authenticate the daily reports submitted by the Concessionaire and generate its own report for checking of the Concessionaire's report and satisfy itself and report to Authority.

10.3 Scope of Services

The scope of services to be provided by the Project Monitoring Consultant is detailed in the subsections of this clause. In addition to the services as detailed hereunder, the PMC shall also discharge duties as desired by Authority time to time.

10.3.1 Preparatory Phase

- a) On receipt of Draft MIOP from the Concessionaire, the Project Monitoring

Consultant shall review the submitted documents for any changes, or modifications, if any

- b) Shall ensure that the MIOP submitted by the Concessionaire is in compliance with the Scope of Work of the Concessionaire as well as various Project requirements of the Agreement, including those specified in the Concession Agreement, suggest to the Concessionaire for any changes and shall make recommendation to the Authority for approval.
- c) The Project Monitoring Consultant shall present its review in writing to the Authority and seek its suggestions as well as approval for the proposed modifications in MIOP. Thereafter a joint meeting shall be facilitated with both the concerned Parties to convey the details of the proposed modifications.
- d) The PMC shall send a notice in this effect to the Parties for the proposed modification.

All these activities shall be completed within 15 working days post submission of Draft MIOP by the Concessionaire.

- e) The PMC shall ensure that the Concessionaire submits the revised MIOP within seven days from the receipt of such notice.
- f) Thereafter the Independent Engineer shall review the modified MIOP and/or supporting documents sent to it by the Concessionaire and notify within 7 (seven) days of receiving such documents to the Authority for final approval
- g) The PMC shall review and appraise to the Authority and seek approval from the Authority for incorporating changes sought by the Concessionaire to the Approved MIOP. The Authority shall approve the revised MIOP within a period of 7 (seven) days post receipt of revised MIOP.
- h) Constantly monitor the progress of MIOP Preparation and other activities and appraise Authority of progress achieved by Concessionaire on the first working day of every week.

10.3.2 Handing Over Phase

The PMC would monitor, in accordance with Good Industry Practice and relevant KPIs, the progress during the Procurement of machinery, equipment, vehicles, manpower etc. required for the project along with the phase wise handing over of the project area to the Concessionaire. For this purpose, the Project Monitoring Consultant shall undertake, inter alia, the following activities:

- i) Shall monitor the progress of project with respect to procurement of

- project moveable assets and their technical specifications;
- ii) Shall monitor the deployment of required project staff and manpower for the project operation and ensure reasonable absorption of existing casual/temporary workers of the Authority
 - iii) Shall assist the Authority in issuing of wellness/worthiness certificates for moveable assets for handing over to the Concessionaire
 - iv) Shall assist the Authority, wherever required in administration of the Concession Agreement in full and in accordance with applicable laws;
 - v) Shall attend regular meetings (“Project Review Meetings” or “PRMs”) with the Authority and the Concessionaire, to be held at least once in every two weeks during the procurement and handover Period to report on progress and quality of work performed by the Concessionaire and to discuss problems or other pertinent matters relating to the work.
 - vi) The PMC shall take notes at the meetings and provide a copy of the minutes to each person who attend the meeting.
 - vii) Designate tests on solid waste and/or equipment and if the situation warrants shall instruct the Concessionaire to conduct test in recognized laboratory;
 - viii) Interpret the document requirements and make decisions regarding performance reporting by the Concessionaire for compliance. The PMC shall inform and advise the Authority, in a timely manner all matters relating to the implementation and progress of the Works on fortnightly basis;
 - ix) Review, approve or disapprove in consultation with the Authority, plan, report and any other document of the Concessionaire to enforce compliance and conformance with the requirements of Concession Agreement;
 - x) Whenever considered necessary or advisable to ensure supervision of corrective action to be taken for reformation of defective work, the PMC may require inspection or testing of such work, and shall report to the Authority about the compliance or non-compliance;
 - xi) Provide the services of experts to check the quality of materials and

the workmanship as per the Approved MIOP

- xii) Reviews all the activities by Concessionaire and ensure conformity of the same with the Approved MIOP
- xiii) Address issues relating to site specific conditions, design modifications, or
Concessionaire disputes.
- xiv) Issue Readiness Certificate/ Provisional Readiness Certificates to the Concessionaire for various activities specified in the Agreement after approval from the Authority;
- xv) Ensure the Concessionaire has sent necessary notices/pamphlets/posters/advertisement to RWAs/ NGOs/ citizens about the impending handover of the Project Area to the Concessionaire.
- xvi) The PMC shall prepare and submit to Authority, Progress Reports including the following:
 - a. Weekly progress of works;
 - b. Slippages, if any, in the procurement schedule vis-à-vis planned schedule and the reasons thereof;
 - c. Schedule for the succeeding week;
 - d. Issues, if any, with regard to the works along with the details of the action taken for the resolution of the same;
 - e. Photographic record of progress of works over the previous week.

10.3.3 Concession Period

During this period the Project Monitoring Consultant would monitor, in accordance with Good Industry Practice, the Project Operations & Maintenance activities undertaken by the Concessionaire so as to ensure compliance with the O&M Requirements as per the Concession Agreement. The specific activities to be undertaken would include the following:

- i) PMC shall be responsible for verification of enumerated data of all the households (done by the Concessionaire) within the Project Area. The PMC shall be responsible for preparing formats for data enumeration and get it approved from Authority within 7 working days from COD.

The Concessionaire shall collect data related to address, number of members, GPS coordinates, contact number etc. On submission of this data by the Concessionaire, PMC shall use this data to evaluate KPIs.

- ii) PMC shall ensure that the monitoring of Project Operations is done on daily basis as per the Approved MIOP. The PMC shall share the daily, weekly, fortnightly and monthly report with the Authority.
- iii) The PMC shall deploy adequate manpower for monitoring of KPIs on continuous basis; PMC shall be responsible for conducting general inspection of the Project Area on daily basis, pay surprise visits as and when situation demands to ascertain conformity with Concessionaire's Project Scope.
- iv) The PMC shall also appoint one representative from their side, who shall be responsible for tracking daily Project Operations and compiling daily, weekly, fort-nightly and monthly MIS at Control Room
- v) Provide administration of the contract in full and in complete accordance with applicable laws;
- vi) Review and approve test results on solid waste, materials, vehicles and/or equipment used;
- vii) Interpret the requirements of the Concession Agreement and consult Authority regarding performance of the Concessionaire. The PMC shall inform and advise the Authority, in a timely manner all matters relating to the Project Operation and Maintenance;
- viii) Review work which fails to comply with the specifications and requirements of the Agreement.
- ix) Review, approve or disapprove in consultation with the Authority, plan, report or any other document of the Concessionaire to enforce compliance and conformance with the requirements of the Agreement;
- x) PMC shall be responsible for certifying the quantity and quality of waste diversions to Decentralized Processing Facilities
- xi) Address issues relating to site specific conditions, C&T Plan modifications, or Concessionaire disputes

- xii) Review the SOPs and O&M Manual as per the Schedule 16 from time to time and assist the Concessionaire in finalizing the same. The Project Monitoring Consultant shall also consult Authority prior to finalization of the documents;
- xiii) Monitor Operation and Maintenance activities (including maintenance of Project Assets, KPI linked performance, safety and environmental issues) and the overall quality of Project Operation activities so as to ensure compliance by the Concessionaire with the O&M Requirements, O&M Plan and O&M Manual;
- xiv) As the case may be, PMC shall undertake rebasing of IAQ and MQ in accordance with this Concession Agreement
- xv) As the case may be, PMC/Authority shall undertake calculation for unexpected increase in the waste quantity as defined under Schedule 5
- xvi) PMC shall monitor the deployment of infrastructure and manpower by Concessionaire for Emergency Situations
 - a. In case of occurrence of Disaster, PMC shall facilitate and monitor implementation of Disaster Management Plan as per MIOP
 - b. PMC shall monitor implementation and progress of IEC Plan as per MIOP
- xvii) Undertake a quarterly review of the various records and registers to be maintained by the Concessionaire and suggest suitable remedial measures/ procedures, where necessary.

10.3.4 Meetings, Records and Reporting

- i) The PMC shall attend regular meetings (“Project Review Meetings” or “PRMs”) with the Authority, and the Concessionaire, to be held at least once in every month during the Concession Period to report on progress and quality of work performed by the Concessionaire and to discuss problems or other pertinent matters relating to the work. The PMC shall be solely responsible to provide a copy of the PRM minutes to each person who attended the meeting.
- ii) The Project Monitoring Consultant shall, in the ordinary course, maintain record of the activities undertaken by it in discharge of its

functions and responsibilities. This would include records but not limited to in respect of the following:

1. Manpower deployed and other organizational arrangements of the Independent Engineer;
2. Review Report of documents submitted to it by the Concessionaire
3. Inspections undertaken, and notices/ instructions issued to the Concessionaire;
4. Review of compliance with Project Requirements and O&M Requirements;
5. Concessionaire's Payments
6. Change in Law;
7. Force Majeure Events;
8. Breaches and defaults by the Parties; and
9. Handback Requirements
10. The Independent Engineer would be required to the following reports to the Client / Authority / Parties:
11. MIOP Completion Report
12. Financial Closure Report
13. Asset Procurement Report
14. Employee Report
15. Asset Registry Report
16. Monthly Progress Report (MPR)
17. Tariff Rebasing Report
18. Report on Payment for Unexpected Increase in Quantity
19. Accident Report
20. DHW Disposal Report
21. Weekly Complaint Redressal Report
22. Service Addition or Deletion Report
23. Waste Quantity Report to Decentralized Units Disposal Facility/ dump site
24. Insurance Report
25. Legal Encumbrance Report
26. EHS Compliance Report
27. Daily Project Asset Availability Report

- 28. IEC Report
- 29. Contract Administration/ Deviation Report
 - 30. Daily, Weekly, Monthly and Quarterly Performance Report

10.3.5 Capacity Building

Organizing Workshops and Seminars for capacity building of Client and other stakeholders at their own risk and cost. At least one in every six months during the entire tenure of PMC

Note: In case Project Monitoring Consultant(PMC) has not been appointed, a team of Authority officials authorized by Competent Authority shall act as PMC till the appointment of PMC

SCHEDULE “11”

Schedule-11: Scope of IEC Activities

11.1 Introduction

This Schedule shall be referred to as a guidance note for developing the awareness amongst the citizens of the project area about the need of keeping their city clean by following SWM Rules 2016 and cooperating with the Concessionaire in achieving the objectives of Project.

The community participation is important to:

- a) Achieve the principles of reducing, reusing, and recycling waste.
- b) Discouraging littering of waste on streets and into drains, open spaces, water bodies,
- c) Promotes storage of waste at source, segregated as biodegradable, non-bio- degradable and domestic hazardous waste
- d) Achieve increased level of awareness about the efficient methods of waste management among the public through involvement of RWAs, or NGOs.
- e) Develop the habit of paying user charges

11.2 Agency for Carrying out IEC activity

The concessionaire shall carryout the IEC activity or alternatively may hire appropriate agency having proven credentials in IEC activity. The hired agency by the concessionaire may be NGO, Trust, CBO or Body Corporate. In case the concessionaire hires agency other than itself then that agency must possess at least following credentials in activities:

- a) Design and Implementation of household surveys, assessment and reporting
- b) Community awareness building for behaviour change and Information Education Communication (IEC) Programs related to solid waste management, sanitation, health and hygiene, economic and social well-being of rag pickers, sanitary workers, vulnerable groups etc. livelihood, composting etc.
- c) Capacity Building of local groups on livelihood, social safeguard, sanitation,

health and environment impact due to improper disposal and handling of solid waste.

- d) The agency shall impart project specific training to them prior to deployment.

Whenever services of the hired agency staff are found/noticed unsatisfactory by Authority they shall be removed/terminated by the concessionaire immediately as per direction of Competent Authority.

11.3 Program Objectives

a) Awareness Generation

The following objective would be attained through production of IEC materials and its usages at different level:

- i. Create awareness among the community, and prepare residents for upcoming project, inform about SWM rule 2016, source segregation, health and environment impacts, roles of Authority and Concessionaire in the project, etc. through web site, mass media communication strategies such as newspapers releases, hoardings, glow sign boards, radio, TV, street plays, etc. with the approval from the Authority and other concerned departments
- ii. Design IECs best suitable to reinforce the messages given by agencies involved in implementation of PPP SWM in towns or other local initiatives at Authority level.

b) Door to Door Waste Collection

- i. Establish a working and sustainable model at the ward level to develop habit amongst residents for storing wet, dry and domestic hazardous waste separately
- ii. In case in the area where provisioning of community bins in form of FCTS has been made, awareness shall be generated for disposing waste in segregated fashion; and,
- iii. Facilitate awareness amongst beneficiaries about paying for improved service standard and motivating beneficiaries for payment.
- iv. Undertake programme in a phased manner to ensure community participation in waste segregation. For this purpose, regular meetings shall be arranged by the concessionaire in consultation with ward level authority,

with representatives of local resident welfare associations, local groups etc.

- v. Promote home/community composting and recycling at community level for maximum recovery of waste at source. For this purpose, engage local samitis, RWAs, NGO, colony wise designated representative who are familiar with ward or who have taken similar initiatives before for better continuity in promotional activities through regular workshops, stakeholder/RWA meetings, award ceremony, information booklet and brochures. Most importantly, the engaged entity in consultation with Concessionaire shall be in continuous contact with the public either through whatsapp groups or weekly visits for maintaining the trust in people
- c) Social Safeguard of Sanitary Workers: Training of sanitary workers for improved health and economic status of sanitary workers through regular use of personal protective equipment (PPE)/ protective gears.
- d) Income Generation through Waste: Training and handholding of informal waste pickers to be active members of private operators for door to door collection of segregated waste and its disposal at identified locations.
- e) Target Groups:

The Concessionaire is expected to network, coordinate and consult with the following target groups and beneficiaries:

- i. Authorities for promoting Zonal level Program and support consultations
- ii. Authority officials
- iii. Mayor/Chairman
- iv. All ward councillors in Program ward/Officials of Authority
- v. Education Department
- vi. Health Department
- vii. Pollution Control Department
- viii. Officials of leading newspapers within city
- ix. Senior citizen forum, RWAs, NGOs, clubs, local samities, or any other influential groups
- x. Colleges, and institutes, National Social Service (NSS), National Cadet Corps (NCC), Scouts and Guide, Eco-clubs in schools, etc.
- xi. Men, women, and children in wards including poverty pockets
- xii. Local samities or groups (newly formed within the Program or existing)
- xiii. School Principals, Teachers, and Children in wards

- xiv. Hotel Association
- xv. Identified Informal waste pickers.
- xvi. Formal and informal waste traders
- xvii. Maid servants (male and female)
- xviii. Sanitary workers, security persons placed at sanitary land filled sites, related persons
- xix. Any others, as per need and requirements

f) Suggested Approach

The Concessionaire can facilitate discussions amongst residents and local groups through brochures, pamphlets, and any other appropriate methods to disseminate identified information to individuals. The following are some of the proposed approach and methodologies for awareness generation but not limited to. The Concessionaire is expected to explore the suggested approach best suitable to local needs and requirements. Other local innovations and related initiatives if any will be appreciated.

g) Baseline Survey/ data collection

Conduct baseline survey to assess the socio-economic status of target groups, willingness and affordability of resident to pay, formal and informal traders involved in collection of plastic and other waste. This baseline information would help the Authorities to decide the user's fees as per economic status and category of users such as shops, hotels, dharamshalas, temples, vegetable mandi, marriage halls/gardens, hotels/restaurants, etc.

h) Stakeholders Analysis

- i. Any intervention will affect stakeholders differently; some of the stakeholders can influence the decision-making process. It is important therefore to identify stakeholders who might have a negative impact (such as informal waste pickers) and those who can influence the decision-making process (such as business owners and neighbours of project area. Concessionaire need to consider the proposed list of stakeholders and related categories for doing the stakeholder analysis.
- ii. Concessionaire shall assess who are the different stakeholders in the project; does the project threaten the interest of certain stakeholders; what potential conflicts among the stakeholders can the project create etc. These

would help to include messages in IEC materials and organise training programs accordingly.

i) Stakeholders Consultation

- i. Organise formal or informal process of consultation with resident in city locations or through door-to-door initiatives. The main objective is to establish meaningful interaction between municipal officers, citizens, and other stakeholders and to obtain consensus on a concrete plan of action. Representative groups should be consulted to ascertain their perceptions of the SWM services, their expectations, willingness to support and participate in the SWM program and willingness to pay for the services, the mode of payment, and the periodicity of payment.
- ii. The most effective way to ensure that the right messages reach all participants is to launch a door-to-door awareness campaign. This step is very important. At all stages of the project, it establishes continuing contact with the participants, provides feedback, and builds a bond between the project and the beneficiaries. It kills any space for rumour mongering and builds the confidence of the people, who begin to believe that the project means to deliver the goods.
- iii. The Concessionaire shall facilitate the initial ward cleaning with support from the Authority to develop confidence and faith amongst households that some good practices on SWM will start in their area. This can be an entry point activity in the ward for starting a door to door solid waste collection system.
- iv. Religious leaders play a significant role in changing people's minds.
- v. Recommendation from a well-respected religious leader to keep surroundings clean, avoid littering, and manage waste as advised by the NGO will go a long way toward improving the situation in urban areas.
- vi. Coordinate with hotel and market associations, institutions, etc. to ensure solid waste collection time best suitable to local needs and active participation in collection of user's fees.

j) Community Organization

- i. Identify Swachta-Samities/RWAs that are taking some initiatives at the local

level with limited technical skills and resources. The NGO can reorganize the group, and do the required capacity building and utilise their resources in initiating door to door solid waste collection with support from sanitary workers not employed by Authority or working on contract, informal waste workers etc. In the absence of existing groups, it is expected to form new such groups. These groups can be named as 'SWACHH Group' in each ward or for other Authorities as well.

- ii. The group formed at the zonal/unit/ward level as the case may be will be ultimately responsible to ensure door to door solid waste collection, source segregation, separate storage of recyclables for recycling, home/community composting, payment for the services, maintenance of the secondary storage points (/community bins) etc.

1. Awareness activities

- a) Implement campaign within educational institutions especially regarding source segregation, health and environment impact. Organise regular meetings with principals, teachers, and students to explain the need for change and the usefulness to society of new ways to manage waste. The message can be reinforced by holding essay, debate, or drawing and painting competitions, wealth out of waste products on the subject and publicizing the winning contestants. The leading schools could be persuaded to work as role models for other schools in taking up awareness campaigns in the city through their students. Conduct online sessions/workshops by experts on various issues and topics of sustainable waste management practices. Develop comic books for students on the subject. Such campaigns should be highly publicized, and other schools should be persuaded to follow suit.
- b) Prepare hoardings/glow sign boards and do wall writing with approval of Authority at prominent locations on source segregation and health and environment impact. In addition, other mass media communication strategy can be used for community awareness on identified topics at large such as, TV and radio audio and visual spots.
- c) Organise regular street plays for awareness about waste management and motivate non-participating residents. The main objectives of this tool of

communication will be to

- d) Attract residents to participate in the on-going SWM program. Emphasize the importance of segregation, home/community composting, recycling and final disposal of solid waste and in keeping streets clean
- e) Drive home the importance of solid waste reduction and waste recycling and discourage use of plastics in daily life.
- f) Disseminate and promote the information on the benefits of composting wet waste and kitchen waste.

2. Door to Door segregated Solid waste Collection:

The Concessionaire should conduct door-to-door waste collection in all wards in a phased manner as per MIOP. The following activities are proposed for implementation with support from Authority and private operator:

- a) Identifying wards, colonies, or areas where there is no proper mechanism of street sweeping and door-to-door solid waste collection, where the Authority has future plans to initiate door-to-door collection of household waste; or where any local groups have taken initiatives using their own resources. The areas identified will be finalized in consultation with the officials from Authority
- b) Facilitate developing working model for segregated storage of household waste in separate containers/bins only. This is essential to develop habits for disposing household waste at the appropriate place. It is important to collect waste in segregated form. But depending upon the situation of the city and mind set of residents, developing proper disposal habits and paying for the facility is more important.
- c) Concessionaire shall ensure proper disposal of collected waste from the bins in any other Secondary Storage Points located on identified locations in RWAs and market areas
- d) Facilitate Authority to remove Dustbins from the ward and pilot a Dustbins free zone.
- e) The team of waste collector from private operator will be responsible for watering the plant regularly and its fencing.
- f) Supervise a waste collection team with support from SWACHH Group.

This waste collection team and supervisor of concessionaire will be expected to review whether waste is segregated at source or not with support from agency. The supervisor needs to request HH to give waste in segregated form only as much as possible. Additionally, organise weekly collection drives for plastic waste.

- g) The waste collection team need to compile daily information on source segregation in a prescribed format. This will help to assess the trend whether waste is segregated at source or not.
 - h) Concessionaire will be expected to make provision for giving award to HHs, hotel and market associations etc. for giving segregated waste and payment of user's charges on a regular basis.
 - i) Create a help-line and a mechanism for receiving public complaints and addressing them quickly.
 - j) Forming small working groups represented by Authority officials, Concessionaire and ward councillors for monthly review, documenting the initiatives taken, and monitoring the public grievances.
 - k) Preparation of operation and maintenance plan and ensure its timely completion as per schedule.
3. Social safeguard of waste collector and sanitary workers:
- a) Ensure capacity building of rag pickers, sanitary workers, vehicle drivers, guards/security person for use of protective gear, health and environment impact due to improper handling and disposal of solid waste.
 - b) Promote use of protective gears amongst sanitary workers engaged SWM Service, and make them aware about health and economic impact.
 - c) Monitor and document use of protective gears amongst sanitary workers and rag pickers as per identified PPE (personal protective equipment) safeguard checklist. Plan motivational campaigns for its regular use as per need.
4. Capacity building of local groups
- a) Organise training program for SWACHH group, and RWAs to motivate the community toward waste management is important for ensuring the sustainability of a system. All stakeholders need to be oriented toward segregation at source and to understand the problems and health issues

concerned with inefficient disposal of solid waste.

- b) Rag pickers and itinerant waste retrievers should preferably be involved for door to door collection of source-segregated waste. Rag pickers need to be educated on the ill effects of abusing alcohol and drugs, rummaging through solid waste piles without safety gear, contracting infections through unsafe handling of waste, and so forth.
- c) Training in the right method of segregation and collection of waste should be given. They should also be taught to manage their time and to follow the route plan for each sector. They should be taught soft skills to interact with residents and to promote congenial working relations with their partners.
- d) Target groups should domestic maids, hotel/restaurant workers, RWA's.

5. Expected Outcomes:

The following are the main expected outcomes of awareness programs and capacity building of local groups:

- a. Door-to-door collection of waste in segregated form for onward processing;
- b. Increased knowledge of community at large about the importance of proper disposal of waste and its health, environmental and economic benefits

Production of compost from bio-degradable waste and utility items from plastic waste linked to market/other appropriate, increased livelihood opportunities for the informal waste workers and recyclers.

- c. Community participation and developing habit of paying user charges
- d. Compliance of SWM rules 2016

6. Support to be provided by Authority

Authority will support the Concessionaire in following issues:

- a. Support to Concessionaire in coordinating and networking at zonal level departments and agencies if required regarding follow-up of pending issues, and handling of grievances
- b. Facilitate in identifying the gaps in implementation of awareness

activities at field level

c. Monitoring, supervision, and review of Concessionaire's activities on a monthly basis. The Authority officials should be involved in the whole process since its inception. This will include on job trainings, regular support, monitoring, and supervision. Authority involvement will ensure a sense of ownership, which is essential to ensure sustainability of the SWM mechanism.

7. Monitoring and Reporting Requirements

Monitoring System the Concessionaire is expected to conduct the internal monitoring of the activities to assess their effectiveness in field. The IE will provide the basic monitoring indicators. In addition to this, regular monitoring of the IEC activities will be done by Authority through regular field visits as well as monthly and quarterly review meetings at zone and ward level. In-charge IEC activities of Concessionaire will review reports and documents submitted and prepare feedback and comments to improve the quality of their submissions. He/ She will prepare quarterly report on performance of Concessionaire functioning with technical support from IE.

8. Reporting System

The Concessionaire will implement activities described above in accordance with the approved work plan during the contract period however for the sake of clarity here the IEC activity shall be carried out for the first three years after signing of the contract. The Concessionaire shall maintain daily records of the progress with regard to the works carried out. These will form the basis of periodic reports and returns as may be required by the IE. The reports to be submitted to AUTHORITY by Concessionaire are as under:

Table 3: Reports and returns for IEC activities

S.no	Deliverables	Number of	Duration	Topic
1	Action Plan	2	During MIOP submission	Schedule of activities

2	Monthly Progress Reports	2	Tenth day of each month	Brief summary of activities taken up (including type, brief, location, date, no. of stakeholders sensitized, photographs etc.), progress encountered during the preceding month achieved and problem
3	Quarterly Progress reports	2	Two weeks after completion of the quarter	Reports which provide detailed assessments of the progress achieved, problems encountered and results of
4	Community level training reports	2	Within ten days after the completion of each training program	Topics, objectives, brief details of various sessions, copy of presentations, outcomes, suggestions, analysis, feedback, participants registration list and
5	Baseline Reports	2	Ten days after achieving COD	Survey finding, census data
6	A final Report	2	One month prior to the completion of assignment	Compliance activities undertaken, main achievements, suggestions, constraints, successful case study etc
7	Documents inclusive of IEC materials	Two hard and soft copies	One month prior to the completion of assignment	All documents/materials produced during assignment period
8	Copies of all data sheets used for the collecting information and data	I set	One month prior to the completion of assignment	All data sheets and documents collected

9	Directory of SWACHH group	2 sets	One month prior to the completion of assignment	Name of the key functionaries, phone numbers and address with photo if possible
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Above reports shall be submitted to Authority after its verification and approval from Concessionaire. The verification of all above report shall be carried out by concerned in-charge from Private Operator.

9. Action Plan for Awareness Generation on SWM

Above are some of the awareness generation activities which may change according to changing needs of the Program requirements. During the Implementation Period and Concession Period, some new activities can be added as per the identified requirements. The Concessionaire is expected to prepare a detailed action plan for carrying out at least the following activities for awareness generation as a part of the MIOP and get it approved by IE and Authority for implementation.

Table 4: Proposed IEC Action Plan for Solid Waste Management Activates

S.no	Activity /Issues	Indicators
Output-1 Component: Improved and increased solid waste management services through awareness Generation		
1.1	Baseline survey within the project area	Data on no. of HH/ commercial establishments, rag pickers etc. Socio economic status, health problems faced by sanitary workers, perception about the protective gears, status of health
1.2	Public Consultations	With various stakeholders in each lanes of the ward across towns (formal)
1.3	Formation of SWACH Group	With various stakeholders in each lanes of the wards across the towns. RWA's and other large housing infrastructure
1.4	SWM school campaign	Identify number of secondary government and private schools interested to participate for information dissemination at home and peer group.
1.5	Awareness through mass media	Display of hoardings/glow sign boards on source segregation and health and environment impact
		Transmission of awareness messages/audio visual spots through popular channels, FM on source segregation and health and environment
1.6	Street Plays	Street plays on prime hot spots, during

		level training, rallies, competitions, public consultations etc
Output-2 Component: Door to Door Solid waste collection, domestic hazardous waste, waste storage at secondary storage points and handling of grievances		
2.1	Door to Door Solid waste Collection	Door to door collection of segregated waste, separate storage of DHW, collection and deposition at collection centres. Gradual increase in source segregation. Disposal of segregated waste at secondary collection points. Creation of helpline for grievance handling
Output-3 Component: Engagement with Local Community for Promoting Home Composting, Community Composting, Recycling etc.		
3.1	Engagement with Local Community such as RWAs, NGO, local sanities, any other influential groups	Conduct workshops, stakeholder meeting, designate colony level representative for promoting Home Composting, Community Composting, Recycling etc. for maximum waste
Output-4 Social Safeguard to sanitary workers		
4.1	Use of protective gears during handling of solid	Enhanced awareness and active participation
4.2	Health Insurance	Enhanced awareness and active
4.3	Enumeration of Rag pickers	
Output-5 Capacity building of Local Groups		
5.1	Orient Sanitary workers on use of PPP and health concerns, good behavior, practices and right methods of segregation and collection of	Enhanced awareness and increased health benefits
5.2	Orient sanitary workers and rag pickers on various welfare schemes related to education, health, employment etc	Increased awareness and improved well being

SCHEDULE “12”

Schedule 12: Guideline for Social Safeguard

12.1 Introduction

- a) This schedule is part of the Concession Agreement (CA) under the Request for Proposal (RFQ cum RFP) through the PPP model. The social safeguard requirements for the project components as specified in this Schedule
- b) Avoidance of Interference: The Concessionaire shall not interfere unnecessarily or improperly with the access to and use and occupation of all roads, footpaths and any other property in the Project Area
- c) The Concessionaire shall indemnify and hold the Authority harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

12.2 Handling and Management of solid waste

- a) Organize house-to-house collection of waste or through bin collection in FCTS or any other secondary storage points as the case may be on regular pre- informed timings and schedule by using bell ringing of musical vehicle (without exceeding permissible noise levels);
- b) Ensure that, waste (solid waste, dry leaves) is not burnt;
- c) Ensure that, stray animals do not move around waste bins in FCTS or any other secondary storage points. Such bins in , FCTS or any other secondary storage points should be provided with heavy lid.
- d) Ensure to remove all SW deposited in bins in FCTS or any other secondary storage points on a daily basis and transfer it to decentralized/centralized processing facilities or disposal site wherever applicable, so that there is no nuisance/ odour problem in any locality due to waste bins/waste transfer points
- e) Concessionaire shall ensure providing adequate protective gears including hand gloves and gum boots to all sanitary workers engaged in collection and handling of solid waste.

12.3 Secondary Collection of Waste

- a) A storage facility shall be so placed that it is accessible to users;

- b) Wastes stored are not exposed to open atmosphere and shall be aesthetically acceptable and user-friendly;
- c) Concessionaire needs to ensure that no bins or containers in FCTS or any other secondary storage points, wherever placed, shall overflow with the waste at any point of time.
- d) Bins in FCTS or any other secondary storage points for storage of bio- degradable wastes shall be painted green, those for storage of recyclable wastes shall be painted white/blue and those for storage of other wastes shall be painted black;
- e) Concessionaire ensures to train their sanitary workers to avoid manual handling of waste. If unavoidable due to constraints, manual handling shall be carried out under proper precaution with due care for safety of workers by regular use of required protective gears.

12.4 Transportation of Solid waste

- a) Vehicles used for transportation of waste shall be properly covered so that the waste is not visible to public, nor exposed to open environment preventing their scattering.
- b) Concessionaire shall ensure that the vehicles engaged in waste transportation follow the permissible speed limits and other road safety norms.

12.5 Engagement of staff and labour

Concessionaire shall make arrangements for the engagement of all staff and labor, local or otherwise, and for their payment and extending other facility in compliance to the Applicable Law. The Concessionaire shall be encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from places not limited to but near to geography.

12.6 Rates of Wages and Conditions of Labour

- a) The Concessionaire shall pay rates of wages and observe conditions which are not lower than the minimum wage as notified by GOUP time to time
- b) The Concessionaire shall inform their personnel about their liability to pay personal income taxes in respect of such of their salaries, wages, allowances, and any benefits as are subject to taxes under the Laws of the Country for the time

being in force, and the Concessionaire shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.

- c) Concessionaire shall be exclusively liable for payment of all dues not limited to the statutory dues and wages payable to the manpower/employees engaged by the Concessionaire without any liability on the Authority

12.7 Persons in the Service of the Authority

The Concessionaire may recruit or absorb temporary sanitary workers from the outgoing concessionaire.

12.8 Labour Laws

- a) The Concessionaire shall comply with all the relevant labor Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.
- b) The Concessionaire shall require his employees to obey all applicable Laws, including those concerning safety at work and shall do needful for the compliance.
- c) Concessionaire shall follow and implement all statutory provisions on labor (including not employing or using children as labor and equal pay for equal work), health, safety, welfare, sanitation and working conditions. The Concessionaire shall base the employment relationship upon equal opportunity and fair treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment or retirement, and discipline. The Concessionaire shall provide equal wages and benefits to men and women for the work of equal value or type.

12.9 Working Hours

- a) All morning shift workers shall report for the duty on or before 6 AM every day;
- b) The workers shall not be made to work outside the normal working hours stated in the employment terms & condition (appointment letter), unless:
 - i. Otherwise stated;
 - ii. The Project Monitoring Consultant gives consent, or

- iii. The work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Concessionaire shall immediately inform IE and seek consent.

12.10 Facilities for Staff and Labour

The Concessionaire shall provide welfare facilities for the Personnel. The Concessionaire shall not permit any of the Concessionaire Personnel to maintain any temporary or permanent living inside the premises of project assets area.

12.11 Medical and Accidental Facilities

- a) The Concessionaire shall at all times take all reasonable precautions to maintain the health and safety of the employed personnel. In collaboration with local health authorities, the Concessionaire shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at the project area.
- b) The Concessionaire shall appoint a Safety Officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the Authority to issue instructions and take protective measures to prevent accidents. Throughout the contract period, the Concessionaire shall provide whatever is required by this person to exercise this responsibility and Authority.
- c) The Concessionaire shall send, to IE, details of any accident as soon as practicable after its occurrence. The Concessionaire shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as IE may reasonably require.
- d) If covid, malaria or other insect-borne diseases be prevalent in the Project area, the Concessionaire shall provide his staff and labor with suitable medical safety procedures, prophylactics, equip living accommodation with screens and bed-nets, and carry out spraying with approved sanitizers, as appropriate and to the IE's satisfaction
- e) The Concessionaire shall be responsible for the safety of the labor employed by him and he shall be liable for payment of necessary compensation in the case of accidents as per Workers Compensation Act.

- f) When excavations have been made or obstacles have been put in public thoroughfares or in places where there is likelihood of accidents, the Concessionaire shall comply with any requirement of law on the subject and shall provide suitable Hoarding- Lighting, watchmen when and where necessary or by any duly constituted Authority, for protection of works and safety and convenience of the public or others. In case of excavations on roads, a traffic diversion plan should be made and got approved by the concerned authorities.
- g) It shall be the Concessionaire's sole responsibility to protect the public and its employees against the accident from any cause and he shall indemnify the Government against any claims for damages for injury to person or property, resulting from any such accidents and the Concessionaire shall, where the provisions of the Workmen's Compensation Act apply, take steps to properly insure against any claims thereafter.
- h) When an accident occurs at any solid waste collection, segregation, storage, processing, treatment and disposal facility or landfill site or during the transportation of such waste, which results in the death of any of the workmen employed by the Concessionaire which is so serious as to be likely to result in the death of any such workmen, the Concessionaire shall within 24 hours of the happening of such accidents, intimate the Authority in writing, the fact of such accident. The Concessionaire shall indemnify Authority against all loss or damage sustained by the Authority resulting directly or indirectly from Concessionaire's failure to give intimation in the manner aforesaid including the penalties or fines if any payable by the Government or Authority as a consequence of Authority's failure to give notice under the Workmen's Compensation Act or otherwise conform to said Act in regard to such accident.
- i) In the event of an accident in respect of which compensation may payable under the Workmen's Compensation Act VIII of 1923 whether by the Concessionaire. Concessionaire by the Government as principal it shall be lawful for the Competent Authority to retain out of moneys due and payable to the Concessionaire. Concessionaire such sum or sums of money as may, the opinion of the Competent Authority shall be final in regard or all matters arising under this clause.

- j) The Concessionaire shall provide and maintain upon the Works and the Site sufficient, proper and efficient life-saving appliances and first-aid equipment to the approval of the IE and in accordance with the requirements of ILO Convention No.62. The appliances and equipment shall be available for use at all times during the Contract Period.

12.12 Supply of Drinking Water and Sanitation

- a) The Concessionaire shall so far be reasonable, having regard to local conditions, provide on the Site and at his expense an adequate supply of drinking water for the use of Contractor's staff and work people, together with sanitary facilities (portable toilets or latrines), to the satisfaction of the IE.

12.13 Measures against Insects and Pest Nuisance

The Concessionaire shall at all times take the necessary precautions to protect the Concessionaire's Personnel employed on the project area from insect and pest nuisance, and to reduce their danger to health. The Concessionaire shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

12.14 Prohibition of Alcoholic Liquor and Drugs

The Concessionaire shall not, otherwise than in accordance with the Laws of the Country, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift barter or disposal thereto by Contractor's Personnel.

12.15 Festivals and Religious Customs

The Concessionaire shall respect the Country's recognized festivals, days of rest and religious or other customs.

12.16 Funeral Arrangements

The Concessionaire shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of his local employees who may die while engaged upon the Works.

12.17 Prohibition of Forced or Compulsory Labour

The Concessionaire shall not employ "forced or compulsory labor" in any form. "Forced or compulsory labor" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

12.18 Prohibition of Child Labour

- a) The Concessionaire shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.
- b) The Concessionaire shall not employ any child to perform any work, including work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, moral, or social development. "Child" means a child below the statutory minimum age specified under applicable National, provincial or local law.

12.19 Employment Records of Workers

The Concessionaire shall keep complete and accurate records of the employment of labor at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and shall be available for inspection by the Engineer during normal working hours.

12.20 Workers Organizations

Concessionaire shall enable alternative means for the Concessionaire's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. Concessionaire shall not discourage the Concessionaire's Personnel from forming or joining workers' organizations of their choosing or from bargaining collectively, and shall not discriminate or retaliate against the Concessionaire's Personnel who participate, or seek to participate, in such organisations and bargain collectively. The Concessionaire shall engage with such workers' representatives. Workers' organisations are expected to fairly represent the workers in the workforce.

12.21 Non-Discrimination and Equal Opportunity

The Concessionaire shall not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements. The Concessionaire shall base the employment relationship on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline. Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination.

12.22 Insurance for Contractor's Personnel

The Concessionaire shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Concessionaire or any other of the Contractor's Personnel. The insurance shall cover the Employer and the Engineer against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, Sickness, disease or death of any person employed by the Concessionaire or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel. The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be affected by the Subcontractor, but the Concessionaire shall be responsible for compliance with this sub Article. In addition to any other insurance required to be taken out by statutory requirements (e.g. Workmen's Compensation Act 1923), the Concessionaire shall take out an Accident Insurance in favour of each workman employed by him on the Works. Provided that, in respect of any persons employed by any Sub- Contractor, the Concessionaire's obligations to insure as aforesaid under this sub Article shall be satisfied if the Sub-Concessionaire shall have taken out Accident Insurance in respect of Concessionaire's workmen employed on the works and the Concessionaire shall require such Sub-Concessionaire to produce to the Employer, when required, such policy of Accident Insurance and the receipt for the payment of the current premium

SCHEDULE “13”

Schedule 13: Minimum Infrastructure and Manpower Requirements during the Concession Period

- 13.1 The Authority has estimated minimum number of requirements of project vehicles and manpower for the management of SW generated from the households, commercial establishments, streets and drain etc; through door to door/street level collection system as defined in Project information memaurandum. Number of vehicles and manpower has been calculated on the basis that Concessionaire shall cover 100% of households & commercial establishments. Concessionaire may change the requirements as per operation plan but shall deploy minimum number of vehicles/equipment and manpower.
- 13.2 The vehicle and manpower mentioned in PIM/Technical Schedules are the minimum number required deployed for execution of work. However, in case a need arises Concessionaire shall deploy the additional requirement of work for effective management of sanitation services.

SCHEDULE “14”

Schedule 14: Key Performance Indicators, Penalty & Payment Calculations, Evaluation

14.1 Key Performance Indicators

The table below enumerates the Components of C&T and their respective weightages on the basis of the proportion of O & M costs.

Table 1: Weightages of Components

Sl. No.	Component of C&T	Weightage (%)
1	Primary Collection	30
2	Street Sweeping & Silt Collection	28
3	Secondary Collection & Transportation	16
4	Management Information System (MIS)	3
5	Workshop	2
6	Complaint Redressal	12
7	Compliances	5
8	IEC Activities	4
9	Development Phase	NA
10	Procurement Phase	NA
11	Transition Phase	NA
12	Disaster Management	NA
Total		100

For each of these components, KPIs are created and sub weightages assigned to them as per criticality of operation. An example is enumerated in the table below:

Table 2: Weightage Calculation for KPIs

Sl. No.	Component	Weightage (W)	Key Performance Indicators	Criticality of Operation Value (C)	Sub weightage Calculation (%) C/W*100
1	Street Sweeping & Collection	28	Timely Street sweeping on daily basis	7	7/ 28 *100 = 25 %
2			Minimum required deployment of Manpower	7	7/ 28 *100 = 25 %
3			Minimum required Deployment of tools and safety gears for Street Sweeping	7	7/ 28 *100 = 25 %
4			Minimum required deployment of wheel barrows & other equipment as per	4	4/ 28 *100 = 14.29 %
5			Collection & Transportation of desilted waste to the designated location as per	3	3/ 28 *100 = 10.71 %
6	Total			28	100 %

The following table provides the total number of KPIs for all components and their respective sub weightages along with tentative timelines, evaluation parameters and penalty mechanism.

Table 3: Key Performance Indicators

	Component		Time line (Days)	Weight age (As per proportion of O&M costs)		Key Performance Indicators (KPIs)	Core (1)/ Non-Core (0) Activity	Parameter for Evaluation	Weight age (As per criticality of operation) WCO	Sub Weight age (As per criticality of operation)	Assigned Target (A) From COD (months)	Tolerance Level (T)	Actual Performance	Performance Slabs & Penalty (P)	Penalty (F) calculation per day Example of Slab I	Surcharge on penalties & Incentives
1	LoI - CA Signing		0-30	NA	1	Signing of CA	1		NA	NA	NA	NA		Bid Security forfeiture		
2	Development Phase		31-90	NA	2	Submission of Draft MIOP	1		NA	NA	NA	NA		After 45 days from signing of CA: Rupees 30000 per day	NA	
3	Procurement Phase		31-105	NA	3.1	1) Procurement of Movable Assets 2) Manpower Recruitment	1	Submission of Financial Closure document & Purchase Order	NA	NA	NA	NA		After 75 days from signing of CA: Rupees 40000 per day	NA	
4	Transition Phase	Hand over Phase I	106-120	NA	4.1	1) Zone wise area takeover by Concessionaire from GCC	1	Taking Over Note to be jointly signed by parties.	NA	NA	NA	NA		HAP I: After 90 days from signing of CA: (IAQ/365)* 2 per day	NA	
		Hand over Phase II	121-135	NA	4.2	2) Simultaneous deployment of Infrastructure & Manpower	1		NA	NA	NA	NA		HAP II: After 105 days from signing of CA: (IAQ/365)* 2 per day	NA	
5	Operation & Maintenance Phase	Primary Collection	136-3057	30	5.1	Minimum required deployment of Manpower	1	Numbers	6	20.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		Slab I : (A-T-P) <= 10 % : 02 % Penalty Slab II :10% < (A-T-P) <= 20 % ; 7 % Penalty Slab III : 20% < (A-T-P) <= 30 % ; 12 % Penalty Slab IV : 30% <(A-T-P) <=40 % ; 17 % Penalty Slab V : 40% <(A-T-P) <=50 % ; 22 % Penalty Slab VI : 50% <(A-T-P) <=60% ; 27 % Penalty Slab VII : 60% <(A-T-P) <=70 % , ; 32 % Penalty Slab VIII : 70% <(A-T-P) <=100 % , ; 100 % Penalty	F= P % of 20% of 24 % of Daily Invoice Value	(a) In case of the Concessionaire being in the same penalty slab (from 10 % to 50 %), as per Schedule 17, for two consecutive months for any KPI, the penalty rate for that specific KPI shall be doubled and in case of three consecutive months of being in the same penalty slab, the penalty rate for the next slab shall be applicable as per Schedule 17. Beyond a period of three months, if the Concessionaire is still in the same penalty slab or higher for non- performance/ breach of Core KPIs, the IE in consultation with the Authority may opt for either termination as set forth in Article 13. (b) For the 50% <(A-T-P) <=70 % slab, in case of two consecutive
					5.2	Minimum required deployment of E-Rickshaws & Tricycles	1	Numbers	6	20.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%				
					5.3	Collection of solid waste (Pre Segregated + Unsegregated) from Households <i>Tolerance level is only for segregated waste</i>	1	Coverage	5	16.67	Months 00- 01 : (10+90)% Months 01- 02 : (20+80) % Months 02- 03 : (30+70)% Months 03- 04 : (40+60)% Months 04- 05 : (50 +50)% Months 05- 06 : (60 +40)% Months 06- 07 : (70 +30)% Months 07- 08 : (80 +20)% Months 08- 09 : (85 +15)% Months 09- 10 : (90 +10)% Months 10- 11 : (95	Months 00- 01 : 10 % Months 01- 02 : 10 % Months 02- 03 : 10 % Months 03- 04 : 10% Months 04- 05 : 10% Months 05- 06 : 10% Months 06- 07 : 5% Months 07- 08 : 5 % Months 08- 09 : 5 % Months 09- 10 : 5% Months 10- 11 : 5% Months 11- 12 : 5%			F= P % of 16.67% of 24 % of Daily Invoice Value	
					5.4	Collection of solid waste from Market Areas	1	Frequency (Minimum 3 times daily)	3.0	10.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 10 % of 24 % of Daily Invoice Value	
					5.5	Supplying segregated minimum guaranteed solid	0	Daily Quantity	2	6.67	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 6.67% of 24 % of Daily Invoice Value	
					5.6	Collection of Horticultural waste from Parks & Roadsides.	0	Frequency (Minimum 2 times daily)	2	6.67	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 6.67 % of 24 % of Daily Invoice Value	

Sl. No.	Component		Time line (Days)	Weight age (As per proportion of O&M costs)	Sub Sl. No.	Key Performance Indicators (KPIs)	Core (1)/ Non-Core (0) Acitivity	Parameter for Evaluation	Weight age (As per criticality of operation) WCO	Sub Weight age (As per criticality of operation)	Assigned Target (A) From COD (months)	Tolerance Level (T)	Actual Performance (P)	Performance Slabs & Penalty	Penalty (F) calculation per day Example of Slab I	Surcharge on penalties & Incentives
6					5.7	Collection & Deposition of Domestic Hazardous waste at assigned DHW Deposit Center	0	Minimum Twice a week	2	6.67	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 6.67 % of 24 % of Daily Invoice Value	(c) For the 70% <(A-T-P) <=100 % slab, in case of two consecutive months, a surcharge of 50 % would be applicable over and above the total the penalty imposed. Beyond a period of three months, if the Concessionaire is still in the same penalty slab for Core KPIs, the IE in consultation with the Authority may opt for termination as set forth in Article 13.
					5.8	Provisioning & maintenance of Separate Compartments in tricycles and e-rickshaw for Dry and Wet solid waste.	0	Numbers	2	6.67	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 6.67 % of 24 % of Daily Invoice Value	
					5.9	Installation of Signage Boards on Streets and establish vantage points	0	Numbers	2	6.67	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 6.67 % of 24 % of Daily Invoice Value	
		Street Sweeping, Drain Cleaning & Collection		28	6.1	Timely Street sweeping on daily basis	1	Frequency (Minimum Twice)	7	25	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		Slab I : (A-T-P) <= 10 % : 02 % Penalty Slab II :10% < (A-T-P) <= 20 % ; 7 % Penalty Slab III : 20% < (A-T-P) <= 30 % ; 12 % Penalty Slab IV : 30% <(A-T-P) <=40 % ; 17 % Penalty Slab V : 40% <(A-T-P) <=50 % ; 22 % Penalty Slab VI : 50% <(A-T-P) <=60% ; 27 % Penalty Slab VII : 60% <(A-T-P) <=70 % , ; 32 % Penalty Slab VIII : 70% <(A-T-P) <=100 % , ; 100 % Penalty	F= P % of 25 % of 26 % of Daily Invoice Value	
					6.2	Minimum required deployment of Manpower	1	Numbers	7	25	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 25 % of 26 % of Daily Invoice Value	
					6.3	Timely Drain Cleaning on daily basis	1	Daily as per schedule	7	25	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 25 % of 26 % of Daily Invoice Value	
					6.4	Minimum required deployment of wheel barrows & other equipment as per MIOP	1	Numbers	4	14.29	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 14.29 % of 26 % of Daily Invoice Value	
					6.5	Collection and transportation of desilted waste to the designated location as per MIOP	1	As per MIOP	3	10.71	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 10.71 % of 26 % of Daily Invoice Value	
		Secondary Collection & Transportation		16	7.1	Clearing and disinfection of bins as per MIOP subject to the condition that no bins are overflowing	1	Frequency (Minimum Twice Daily)	3	18.75	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		Slab I : (A-T-P) <= 10 % : 02 % Penalty Slab II :10% < (A-T-P) <= 20 % ; 7 % Penalty Slab III : 20% < (A-T-P) <= 30 % ; 12 % Penalty Slab IV : 30% <(A-T-P) <=40 % ; 17 % Penalty Slab V : 40% <(A-T-P) <=50 % ; 22 % Penalty Slab VI : 50% <(A-T-P) <=60% ; 27 % Penalty Slab VII : 60% <(A-T-P) <=70 % , ; 32 % Penalty Slab VIII : 70% <(A-T-P) <=100 % , ; 100 % Penalty	F= 2 % of 18.75 % of 24 % of Daily Invoice Value	
					7.2	Transportation of segregated waste via minimum required deployment of functional vehicles	1	Numbers	2	12.5	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 12.5 % of 24 % of Daily Invoice Value	
					7.3	Minimum required deployment of manpower	1	Numbers	2	12.5	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 12.5 % of 24 % of Daily Invoice Value	
					7.4	Designated number of functional closed bins- in specified color-for wet solid waste, dry solid waste, street sweeping solid waste, silt, etc. as per MIOP	1	Numbers	1	6.25	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 6.25 % of 24 % of Daily Invoice Value	

Sl. No.	Component		Time line (Days)	Weight age (As per proportion of O&M costs)	Sub Sl. No.	Key Performance Indicators (KPIs)	Core (1)/ Non-Core (0) Acitivity	Parameter for Evaluation	Weight age (As per criticality of operation) WCO	Sub Weight age (As per criticality of operation)	Assigned Target (A) From COD (months)	Tolerance Level (T)	Actual Performance (P)	Performance Slabs & Penalty	Penalty (F) calculation per day Example of Slab I	Surcharge on penalties & Incentives
8					7.5	Bin replacement (Broken/Stolen) within 24 hours	0	Numbers	1	6.25	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 6.25 % of 24 % of Daily Invoice Value	
					7.6	Bin washing as per MIOP	0	Frequency (Fortnightly once)	1	6.25	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= 2 % of 4.17 % of 24 % of Daily Invoice Value	
					7.7	Provisioning of Top Cover for Secondary C&T vehicles	0	Numbers	1	6.25	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 6.25 % of 24 % of Daily Invoice Value	
					7.8	Supplying segregated minimum guaranteed solid waste to processing facility as per Schedule 6 of Vol II	1	Quantity & Quality (density) as per Schedule 6 of Vol II B of the RFP	5	31.25	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%			F= P % of 31.25 % of 24 % of Daily Invoice Value	
		MIS		3	8.1	Submission of Reports with periodicity & format as prescribed in MIOP and/ or requested by IE/	1	Numbers	1.5	50.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		Slab I : (A-T-P) <= 10 % : 02 % Penalty Slab II :10% < (A-T-P) <= 20 % ; 7 % Penalty Slab III : 20% < (A-T-P) <= 30 % ; 12 % Penalty	F= P % of 50 % of 3 % of Daily Invoice Value	
					8.2	Provision of minimum required Manpower & Infrastructure	0	Numbers	1.5	50.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		Slab IV : 30% <(A-T-P) <=40 % ; 17 % Penalty Slab V : 40% <(A-T-P) <=50 % ; 22 % Penalty Slab VI : 50% <(A-T-P) <=60% ; 27 % Penalty Slab VII : 60% <(A-T-P) <=70 % , ; 32 % Penalty Slab VIII : 70% <(A-T-P) <=100 % , ; 100 % Penalty	F= P % of 50 % of 3 % of Daily Invoice Value	
Work shop		2		9.1	Provision of minimum required Infrastructure for functioning of	0	Numbers	1	50.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05- 120: 5%		Slab I : (A-T-P) <= 10 % : 02 % Penalty Slab II :10% < (A-T-P) <= 20 % ; 7 % Penalty Slab III : 20% < (A-T-P) <= 30 % ; 12 % Penalty	F= P % of 50 % of 2 % of Daily Invoice Value		
				9.2	Provision of minimum required Manpower for functioning of workshop as per MIOP.	0	Numbers	1	50.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		Slab IV : 30% <(A-T-P) <=40 % ; 17 % Penalty Slab V : 40% <(A-T-P) <=50 % ; 22 % Penalty Slab VI : 50% <(A-T-P) <=60% ; 27 % Penalty Slab VII : 60% <(A-T-P) <=70 % , ; 32 % Penalty Slab VIII : 70% <(A-T-P) <=100 % , ; 100 % Penalty	F= P % of 50 % of 2 % of Daily Invoice Value		

183 | Page

10		Complain t Redressa l		12	10.1	Redressal of all complaints within 6 hours except 10.2	1	Numbers	6	50.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		Slab I : (A-T-P) <= 10 % : 02 % Penalty Slab II :10% < (A-T-P) <= 20 % ; 7 % Penalty Slab III : 20% < (A-T-P) <= 30 % ; 12 % Penalty Slab IV : 30% <(A-T-P) <=40 % ; 17 % Penalty Slab V : 40% <(A-T-P) <=50 % ; 22 % Penalty Slab VI : 50% <(A-T-P) <=60% ; 27 % Penalty Slab VII : 60% <(A-T-P) <=70 % , ; 32 % Penalty Slab VIII : 70% <(A-T-P) <=100 % , ; 100 % Penalty	F= P % of 50 % of 12 % of Daily Invoice Value		
					10.2	Redressal of complaints for Replacement/ Retrofitment/ Repairing of Assets within 24 hours	1	Numbers	4	33.33	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05- 120: 5%		F= P % of 33.33 % of 12 % of Daily Invoice Value			
					10.3	Functional 24*7 Call Centre (IVRS)	1	Number of Complaint Addressed Successfully +	2	16.67	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		F= P% of 16.67 % of 12 % of Daily Invoice Value			
11				Complia nce s	5	11.1	Legal compliances	1	Certificati on	1.5	30.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05-120: 5%		Slab I : (A-T-P) <= 10 % : 02 % Penalty Slab II :10% < (A-T-P) <= 20 % ; 7 % Penalty Slab III : 20% < (A-T-P) <= 30 % ; 12 % Penalty Slab IV : 30% <(A-T-P) <=40 % ; 17 % Penalty Slab V : 40% <(A-T-P) <=50 % ; 22 % Penalty Slab VI : 50% <(A-T-P) <=60% ; 27 % Penalty Slab VII : 60% <(A-T-P) <=70 % , ; 32 % Penalty Slab VIII : 70% <(A-T-P) <=100 % , ; 100 % Penalty		F= P % of 30 % of 5 % of Daily Invoice Value
						11.2	EHS Compliances	1	Visual Inspection &	1.5	30.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05- 120: 5%		F= P % of 30 % of 5 % of Daily Invoice Value		

184 | Page

Sl. No.	Component		Time line (Days)	Weight age (As per proportion of O&M costs)	Sub Sl. No.	Key Performance Indicators (KPIs)	Core (1)/ Non-Core (0) Acitivity	Parameter for Evaluation	Weight age (As per criticality of operation) WCO	Sub Weight age (As per criticality of operation)	Assigned Target (A) From COD (months)	Tolerance Level (T)	Actual Performance (P)	Performance Slabs & Penalty	Penalty (F) calculation per day Example of Slab I	Surcharge on penalties & Incentives
12								Sampling						Slab VI : 75% <(A-T-P) <=100 % : 100 %		
					11.3	Non- mixing of C&D waste/ Horticultural waste/Biomedical waste/ hazardous waste Drain Silt with solid	1	Visual Inspection & Sampling	1	20.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05- 120: 5%			F= P % of 20 % of 5 % of Daily Invoice Value	
					11.4	Regular inspections of Workshop, Server Room & Complaint Redressal System	0	Certification	1	20.00	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05- 120: 5%			F= P % of 20 % of 5 % of Daily Invoice Value	
		4		12.1	Conducting Information, Education and Communication Activities as per Schedule 11 & MIOP	1	4 campaigns per zone per month with Authority	1.5	37.50	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05- 120: 5%		Slab I : (A-T-P) <= 10 % : 02 % Penalty Slab II :10% < (A-T-P) <= 20 % ; 7 % Penalty Slab III : 20% < (A-T-P) <= 30 % ; 12 % Penalty Slab IV : 30% <(A-T-P) <=40 % ; 17 % Penalty Slab V : 40% <(A-T-P) <=50 % ; 22 % Penalty Slab VI : 50% <(A-T-P) <=60% ; 27 % Penalty Slab VII : 60% <(A-T-P) <=70 % , ; 32 % Penalty Slab VIII : 70% <(A-T-P) <=100 % , ; 100 % Penalty	F= P % of 37.50 % of 4 % of Daily Invoice Value		
				12.2	Coverage of Door to Door Campaigns as per MIOP	1	IE certification based on attendance sheet	1.5	37.50	Months 01- 04: 90% Months 05-120: 100%	Months 01- 04: 10 % Months 05- 120: 5%			F= P % of 37.50 % of 4 % of Daily Invoice Value		
				12.3	Achieving segregation upto 100 % at HH level in 12 months and maintenance of 100 % thereafter	0	Numbers	1	25.00	Months 00- 01: (10+90) % Months 01- 02: (20+80) % Months 02- 03: (30+70) % Months 03- 04 : (40+60)% Months 04- 05 : (50 +50)% Months 05- 06 : (60 +40)% Months 06- 07 : (70 +30)% Months 07- 08 : (80 +20)% Months 08- 09 : (85 +15)% Months 09- 10 : (90 +10)% Months 10- 11 : (95 +5)% Months 11- 12 : (100 +0)% Months 13- 120 : (100 +0)%	Months 00- 01 : 10 % Months 01- 02 : 10 % Months 02- 03 : 10 % Months 03- 04 : 10% Months 04- 05 : 5% Months 05- 06 : 5% Months 06- 07 : 5% Months 07- 08 : 5 % Months 08- 09 : 5% Months 09- 10 : 5% Months 10- 11 : 5% Months 11- 12 : 5% Months 13-120 : 5%			F= P % of 25 % of 4 % of Daily Invoice Value		
T				100				100								
13	Disaster Management			NA	13.1	Adequate allocation of manpower & infrastructure as per MIOP		As per MIOP						After 30 days from signing of CA: Rupees 25000 per day		
				NA	13.2	Performance during disasters as per approved plan		As per MIOP						40% of daily payment		Incentive payment for satisfactory performance throughout the disaster

185 | Page

14.2 Penalty and Payment Mechanism

- a) For the Development and Procurement Phases, no weightages or tolerance levels have been assigned. The penalties imposed for these phases are lump sum in nature (Refer Table No. 3)
- b) For the Handing Over Phase, the penalty per day will be $(IAQ/365) * 2$ (Rupees)-
cumulative default.....
- c) The O&M Phase has been divided into one to two time periods against which different targets and tolerance levels have been assigned for all the KPIs as shown in the table below (except for 5.3 and 12.3) in Table 3:

Sl. No.	Time Period (Months)	Tolerance Levels
1	0-4	10 %
2	5-120	5 %

- d) Formula for Monthly Penalty = $R * W_{CO} * PP$

Where:

R = Penalty Rate as per Penalty Slabs specified in Table 4 of Schedule 17

W_{CO} (Weightage as per criticality of operation) = $W_{KPI} * W_{Comp}$

W_{KPI} = Sub-weightage of KPI

W_C = Weightage of Component

PP = Performance based Payment (Monthly)

- e) For all the KPIs and their different time periods, six levels of Penalty Slabs have been created as seen in table 3 with higher penalty charges for higher penalty slabs.
- f) In case of consistently high deficiency levels, the surcharge on penalty would be implemented as specified in Table 3.
- g) Calculating Monthly Payment: An Example for the Time Period 5-96 months
1. Let us assume that the Daily Work Value (DWV) of the Concessionaire is Rupees 5000.
 2. The following table illustrates monthly penalty calculation for some specific KPIs for the time period Months 5-96 from the date of signing of COD
 5. It has been further assumed that for the remaining KPIs, there is no deficiency in performance.

Table 4: Penalty Calculation

Sl. No.	Component	Key Performance Indicators	Assigned Target (A %)	Tolerance Level (T%)	Actual Performance	Deficiency (D %) = A-T-P	Penalty Calculation (INR)
1	Primary Collection	Minimum required deployment of Manpower	100	5	71	24	69
2	Street Sweeping & Silt Collection	Timely Street sweeping on daily basis	100	5	76	18	80.5
3	Secondary Collection & Transportation	Transportation of segregated waste via minimum required deployment	100	5	8	87	100
4	Management Information System (MIS)	Provision of minimum required Manpower & Infrastructure	100	5	71	24	17.25
5	Workshop	Provision of minimum required Manpower for functioning of workshop as per MIOP.	100	5	81	14	5.50
6	Complaint Redressal	Redressal of complaints for Replacement/ Retrofitment/ Repairing of Assets within 24	100	5	47	48	93.99
7	Compliances	Non- mixing of C&D waste/ Horticultural waste/Biomedical waste/ hazardous waste/ Drain Silt with solid waste	100	5	81	14	5.50
8	IEC Activities	Conducting Information, Education and Communication Activities as per Schedule 11 & MIOP	100	5	20	75	75.00

The Total Monthly payment to be made to the Concessionaire is illustrated in the table below:

Table 5: Monthly Payment

Sl. No.	Component	Value (Rupees)
1	Daily Work Value	5000
2	Total Particular Day Penalty	446.74
3	Actual Performance based payment	4553.26

14.3 Evaluation Mechanism during O&M Phase (Post COD)

- a) The evaluation of the performance of the Concessionaire during the O&M Phase based on KPIs shall be done by the Project Monitoring Consultant(IE) daily throughout the Concession period.
- b) The IE shall calculate and maintain records of the daily performance of the Concessionaire (Daily Performance Report-DPR) both online & offline (hard and soft copies) which shall be accessible to both the Authority and the Concessionaire.
- c) The IE shall compile and aggregate the DPRs of the Concessionaire into a Monthly Performance Report (MPR) and based on that calculate the monthly penalty and payment. The MPR both online & offline (hard and soft copies) shall be accessible to both the Authority and the Concessionaire
- d) The abstracts of the DPRs and MPRs shall be uploaded on the public interface of the MIS system for the citizens to access.
- e) The evaluation parameters for the KPIs have been clustered into three categories on the basis of their mode of evaluation:
 - i) Automatic Verification (Real Time) based on MIS, GPS, RFID. And Internet of Things (IoT) devices
 - ii) Manual Verification to be implemented by a team of Monitoring Supervisors (MS) reporting to the IE
 - iii) Combination of Automatic and Manual Verification.
- f) The following KPIs shall be monitored and evaluated by the IE via Automatic Verification:

- i) Collection of solid waste from Market Areas
 - ii) Collection of Horticultural waste from Parks & Roadsides.
 - iii) Supplying segregated minimum guaranteed solid waste to processing units (through weigh bridge/ weighing arrangements of the Authority). Further the quality parameter i.e. the density of solid waste has to be measured and evaluated as per the frequency to be determined in the MIOP. Any deviation in either minimum quantity of waste guaranteed to be delivered or its quality shall be treated as deficiency of the KPI no. 7.8 and evaluated accordingly for payments and penalties.
 - iv) Minimum required deployment of Manpower – Primary C&T
 - v) Minimum required deployment of E-Rickshaws & Tricycles
 - vi) Collection of Silt overflowing from drains & canals
 - vii) Minimum required deployment of Manpower – Secondary Collection & Transportation.
 - viii) Minimum required manpower for Street Sweeping
 - ix) Minimum required deployment of wheel barrows & other equipment as per MIOP
 - x) Transportation of segregated waste via minimum required deployment of functional vehicles (Compactors)
 - xi) Minimum required functioning of workshop
 - xii) Proper functioning of Call Centre
 - xiii) Non-redressal of solid waste removal request & garbage overflow complaints within 6 hours
 - xiv) Non-servicing of infrastructure & manpower related complaints within 24 hours
- g) The following KPIs shall be monitored and evaluated by the IE via Manual Verification:
 - i) Collection of solid waste (Pre-Segregated + Unsegregated) from Households
 - ii) Collection & Deposition of Domestic Hazardous waste at assigned DHW Deposit Centre
 - iii) Installation of Signage Boards on Streets and establish vantage points

- iv) Timely Street sweeping on daily basis
- v) Provisioning of Top Cover for all secondary C&T vehicles
- vi) Regular inspections of Workshop, Server Room & Complaint Redressal System
- vii) Non-mixing of C&D waste/ Horticultural waste/Drain Silt with solid waste
- viii) Coverage of Door to Door Campaigns
- ix) Conducting Information, Education and Communication
- Activities x) Increase in proportion of segregation at HH level
- h) The following KPIs shall be monitored and evaluated by the IE via a combination of Automatic & Manual Verification:
 - i) Clearing of bins as per MIOP
 - ii) Disinfection of bins as per MIOP
 - iii) Bin washing as per MIOP
 - iv) Bin replacement (Broken/Stolen) within 24 hours
 - v) Designated number of functional closed bins- in specified color- for street sweeping solid waste, silt, dry solid waste, wet solid waste etc.
 - vi) Provisioning of Separate Compartments in tricycles and e-rickshaw for
Dry and Wet solid waste.
 - vii) EHS

14.4 Evaluation Process and Data Requirement

- a) The Indicative Evaluation and Monitoring Process to be adopted by the IE as well as

Indicative Data Requirements is given in the table below:

Table 6: Indicative KPI Evaluation Process

Key Performance Indicators (KPIs)	Parameter / Data for Evaluation	Indicative Method for Performance Calculation	Indicative Method for Performance Monitoring by IE	Data Source	Data Collection Frequency
Collection of solid waste Pre-Segregated + Unsegregated) from Households	Coverage	(Total no. of HHs segregating waste/ Total no of HHs) *100	Monitoring Supervisors to maintain quarterly records of HHs segregating waste along with georeferencing	Monitoring Supervisor/ Control Room	Daily
Collection of solid waste from Market Areas	Frequency (Minimum 3 times daily in different	(Actual trips/ Minimum Trips as per MIOP) *100	GPS monitoring of Vehicles, RFID & Videography	Control Room	Daily thrice
Collection of Horticultural waste from Parks & Roadsides.	Frequency (Minimum 2 times daily in different time	(Actual trips/ Minimum Trips as per MIOP) *100	GPS monitoring of Vehicles, RFID & Videography	Control Room	Daily twice
Collection & Deposition of Domestic Hazardous waste at assigned DHW Deposit Center	Frequency Twice a week	(Actual Trips/ Total specified Trips as per MIOP) *100	Cross checking of both HHs and the Concessionaire, georeferencing and videography evidence	Monitoring Supervisor/ Control Room	Biweekly
Supplying segregated minimum guaranteed solid waste to decentralized units and centralized	Daily Quantity	(Actual Quantity supplied /Quantity to be supplied as per MIOP/) *100	Daily Feedback from Centralized & Decentralized Units	Control Room	Daily

Key Performance Indicators (KPIs)	Parameter / Data for Evaluation	Indicative Method for Performance Calculation	Indicative Method for Performance Monitoring by IE	Data Source	Data Collection Frequency
Minimum required deployment of Manpower – Primary Collection	Numbers	(Actual deployed/ minimum required) * 100	Access data from biometric attendance records.	Control Room	Daily
Minimum required deployment of E-Rickshaws & Tricycles	Numbers	(Actual deployed/ minimum required) *100	Access data from RFID tags	Control Room	Daily
Installation of Signage Boards on Streets/ wall	Numbers	(Actual Installations in good condition/ Total Installations reqd.) *100	Fortnightly/ Monthly Visual Inspection	Monitoring Supervisor	Fortnightly
Collection of waste & silt from drains & canals	Frequency	(Total no of preidentified hotspots cleaned in specified time period/ Total no. of preidentified	GPS monitoring of Vehicles, RFID & Videography	Control Room	Daily
Minimum required deployment of Manpower-street sweeping	Numbers	(Actual deployed/ minimum required) * 100	Access data from biometric attendance records	Control Room	Daily
Minimum required Deployment of tools for Street Sweeping	Numbers	(Total deployed/ minimum required) *100	Access data from RFID tags via MIS	Control Room	Daily

Minimum required deployment of wheel barrows & equipment as per MIOP	Numbers	(Actual Deployment/ Minimum reqd. deployment as per MIOP)	Access data from RFID tags	Control Room	Daily
Key Performance Indicators (KPIs)	Parameter / Data for	Indicative Method for	Indicative Method for	Data Source	Data Collection Frequency
Timely Street sweeping on daily basis	Frequency (Minimum 2 times daily in different time	(Actual no. of sweeping rounds/ minimum required as per MIOP) *100	Visual Inspections on daily basis along with photographic evidence inclusive of date and coordinates/ Drones.	Monitoring Supervisor/ Control Room	Daily twice
Clearing and disinfections of bins as per MIOP subject to the condition that no bins are	Frequency (2/3 times a day)	(No. of bins cleared/ Total no of bins) *100	RFID tags along with photographic/ videographic evidence inclusive of GPS coordinates and date.	Control Room & Monitoring Supervisor	Daily twice/thrice
Bin washing as per MIOP	Frequency (Fortnightly once)	(No. of bins washed/ Total no of bins) *100	RFID tags along with photographic evidence inclusive of GPS	Control Room & Monitoring Supervisor	Fortnightly
Transportation of segregated waste via minimum required deployment of functional vehicles	Numbers	(Actual Deployment/ Minimum reqd. deployment as per MIOP) *100	Access data from RFID tags & GPS & Videography	Control Room	Daily
Minimum required deployment of manpower	Numbers	(Actual deployed/ minimum required as per	Access data from biometric attendance	Control Room	Daily

Key Performance Indicators (KPIs)	Parameter / Data for	Indicative Method for	Indicative Method for	Data Source	Data Collection Frequency
Designated number of functional closed bins- in specified color-for street sweeping solid waste, silt, dry solid waste, wet solid	Numbers	(Actual Deployment/ Minimum reqd. deployment as per MIOP) *100	Access data from RFID tags	Control Room & Monitoring Supervisor	Daily
Bin replacement (Broken/Stolen) within 24 hours	Numbers	(Actual Replacement/ Replacement Requests) *100	Access data from RFID tags	Monitoring Supervisor	Daily
Provisioning of Top Cover for all Secondary C&T vehicles	Numbers	(Actual No. of SCPs & WB with Top Cover/ Total no of deployed) *100	Visual Inspection via random sampling plus photographic records.	Monitoring Supervisor	Daily
Provisioning of Separate Compartments in tricycles and e-rickshaw for Dry and Wet solid	Numbers	(Actual No. of vehicles with compartments/ Total no of vehicles) *100	Access data from RFID tags	Control Room & Monitoring Supervisor	Daily
Submission of Reports with periodicity & format as prescribed in MIOP and/ or requested by IE/ Authority	Frequency	(No. of reports submitted on time/ Total reports to be submitted on time) *100	Receipt of Reports with periodicity & format as prescribed in MIOP and/ or requested by IE/ Authority (in both soft and hard copy)	Control Room	Daily/ Weekly/ Monthly
Provision of minimum	Numbers	Actual deployed/ minimum required) * 100	Access data from Biometric attendance, RFID and	Control Room	Weekly

Key Performance Indicators (KPIs)	Parameter / Data for	Indicative Method for	Indicative Method for	Data Source	Data Collection Frequency
Manpower & Infrastructure -MIS			inspections		
Provision of minimum required Infrastructure for functioning of workshop as per MIOP.	Numbers	(Actual deployed/ minimum required as per MIOP) * 100	Procurement Data, RFID and visual inspections	Control Room	Daily
Provision of minimum required Manpower for functioning of workshop as per	Numbers	(Actual deployed/ minimum required as per MIOP) * 100	Access data from biometric attendance records.	Control Room	Daily
Functional 24*7 Call Centre (IVRS)	Number of Complaints Addressed within 24 hours	(Positive Feedback/ Total Feedback) * 100	Access data from MIS	Control Room	Daily
Redressal of all complaints within 6 hours except	Numbers	(No. of Complaints Addressed within 6 hours/ No. of complaints registered in 6 hours+ backlog) *100	Access data from MIS and IVRS database	Control Room	Daily
Redressal of complaints for Replacement/ Retrofitment/ Repairing of Assets within 24	Numbers	(No. of Complaints Addressed within 24 hours/ No. of complaints registered in 24 hours+ backlog) *100	Access data from MIS	Control Room	Daily

Key Performance Indicators (KPIs)	Parameter / Data for	Indicative Method for	Indicative Method for	Data Source	Data Collection Frequency
Regular inspections of Workshop, Server Room & Complaint Redressal System	Score	Inspection score out of 100	Visual Inspection	Monitoring Supervisor	Weekly
Legal Compliances	Monthly certification	Actual no. of Certifications issued/ total no. of Certifications)	Visual Inspection, Biometric & Inventory data, procurement data of consumables	Control Room & Monitoring Supervisor	Monthly
Non-mixing of C&D waste/ Horticultural waste/Drain Silt	Daily certification	(Actual no. of Certifications issued/ total no. of Certifications) *100	Visual Inspection & Random Sampling	Monitoring Supervisor	Daily
EHS Compliances	Daily certification	Actual no. of Certifications issued/ total no. of Certifications)	Visual Inspection, Biometric & Inventory data, procurement data of consumables	Control Room & Monitoring Supervisor	Daily
Conducting Information, Education and Communication Activities as per Schedule 11 & MIOP	IE certification	(Total no. of campaigns held/ No. of campaigns specified in MIOP) *100	IE certification based on attendance sheet, Photographs & GPS coordinates	Monitoring Supervisor	Daily
Achieving segregation upto 100 % at HH level in 6 months and maintenance of 100	(Total no. of HHs segregating waste/ Total no of HHs)*100	(Total no. of HHs segregating waste/ Total no of HHs) *100	Monthly record of HHs segregating waste.	Monitoring Supervisor	Daily

Key Performance Indicators (KPIs)	Parameter / Data for	Indicative Method for	Indicative Method for	Data Source	Data Collection Frequency
Conducting Information, Education and Communication Activities	4 campaigns per zone per month with Authority & IE	(Total no. of campaigns held/ No. of campaigns specified in IAP) *100	IE certification based on attendance sheet, Photographs & GPS coordinates	Monitoring Supervisor	Daily

14.5 Evaluation Mechanism during Disasters

a) The occurrence of Disaster in the Project Area shall be notified by the National Disaster

Management Authority of
India.

b) Post official notification, the Disaster Management KPIs shall become effective in place of O&M KPIs and evaluation shall be on the basis of those specific KPIs for the entire duration of the Disaster.

The Disaster Management KPIs shall primarily focus on primary and secondary collection & transportation of waste to designated facility/ site, collection and transportation of horticultural waste and debris to designated facility along with deployment of adequate manpower and infrastructure

SCHEDULE “15”

Reports

1. Door to Door/Street level Primary Solid Waste Collection Service

Table 1: Deployment of Waste Collection Vehicles

Route No.:			Route No.:		
Vehicle Type:			Vehicle Type:		
Ward:			Ward:		
Halt point	Time	Area to be serviced	Halt point	Time	Area to be serviced
Recycling Center		ID of Recycling Center	Recycling Center		ID of Recycling Center
End point		Compactor Location ID	End point		Compactor Location ID

Table 2: SCP's / Street Corner bins situated in areas covered in Door to Door/Street level collection system

ID: Ward/ Location	Capacity of Solid Waste (no. of bins)	Capacity of Silt (no. of bins)	Whether it receives waste from non-street level areas as well?	No. of times per day - to be cleared	Schedule d clearing time(s)

Table 3: Recycling Centers situated in areas covered in Street level collection system

ID: Ward/ Location	No. of Staff to be deployed	Open Timings	Weigh-bridge capacity	Computerized (Y/N)	Nature of dry waste that is accepted

2. Collection of Solid Waste from Commercial Establishments/ Market Areas

Table 4: Deployment of Waste Collection Vehicles

Route No.:			Route No.:		
Vehicle type:			Vehicle Type:		
Ward:			Ward:		
Halt point	Time	Area to be serviced	Halt point	Time	Area to be serviced
Recycling Center		ID of Recycling Center:	Recycling Center		ID of Recycling Center:
End point		Compactor Location ID:	End point		Compactor Location ID:

Table 5: Compacting Servicing Stations for solid waste collection from commercial establishments

ID: Ward/ Location	Mobile/ Fixed	Capacity	Whether it receives waste from non- commercial establishment	No. of times per day – to be cleared	Scheduled clearing time(s)

Table 6: SCP's / Street Corner bins situated in commercial areas/ markets

ID: Ward/ Location	Capacity of Solid Waste (no. of bins)	Capacity of Silt (no. of bins)	Whether it receives waste from non- commercial l	No. of times per day – to be cleared	Scheduled clearing time(s)

Table 7: SCP's / Street Corner bins specifically for drain silt

ID: Ward/ Location	Capacity of Silt (no. of bins)	Whether it receives waste from non- commercial establishment	No. of times per week – to be cleared	Days of week when to be cleared	Scheduled clearing time(s)

3. Clearing Service of Recycling Centers

Table 8: Clearing Service of Recycling Centers

Rout No.:			Rout No.:		
Vehicle type:			Vehicle Type:		
Ward:			Ward:		
Waste type collected by vehicle:			Waste type collected by vehicle:		
Halt point	Time	Location ID to be serviced	Halt point	Time	Location ID to be serviced
End point		Disposal Location ID:	End point		Disposal Location ID:

4. Bin Washing Schedule

Table 9: Bin Washing Schedule

Location ID	No. of Bins at location	Date of proposed washing	Time of proposed washing

5. Vehicle Servicing Schedule

Table 10: Vehicle Servicing Schedule

Vehicle Registration	Type of Vehicle	Date of proposed washing	Date of proposed

6. Fleet Deployment for the Month

Table 11: Fleet Deployment for the Month

Reg.No. Make	Vehicle Type	Volume (cu m)	SW Capacity (MT)	Green waste capacity (MT)	Silt Capacity (MT)

7. Plan for deployment of manpower-

Table 12: On Vehicles (including secondary transportation vehicles, Hook Loaders etc.)

Employee ID:	Name of Employee	Father's Name	Designation	Mobile No	Vehicle Reg No. or which deployed

Table 13: On Static Compactors

Employee ID:	Name of Employee	Father's Name	Designation	Mobile No	Location ID on which deployed

Table 14: On Recycling Centers

Employee ID:	Name of Employee	Father's Name	Designation	Mobile No	Location ID on which

Table 15: Supervisory Manpower

Employee ID:	Name of Employee	Father's Name	Designation	Mobile No	Area of Supervision

8. Daily (Real Time) Reports

Following reports are generated daily on real time basis.

a) Report on Door-to-Door Collection from Households

Date_____

Colony/ Locality (covered under door to door) _____

Table 16: Household collection report

Waste Collector ID*	Service Area/Beat	No of Households	No of Households	Time period during which

* Waste Collector ID shall be designed in such a manner that it reflects the linkage with type of vehicle that waste collector is assigned to (Motorized tricycle/E-rickshaws, Auto Tipper etc.)

Table 17: Exception reports (Not serviced Areas)

Service Area/Beat No.	No of Households in beat	Whether serviced previous day?	Reason for non-service	Action taken for remedy

Table 18: Motorized Vehicles deployment for door-to-door collection (Report from GPS data - real-time)

Route No. Vehicle type	Vehicle Reg. No Driver Name Driver Tel No	Scheduled start time Actual Start time**	Scheduled end time Actual End time*	Drivers' report on waste collection	Quantity of Recyclable waste delivered at Recycling
				<Report sent Visa SMS at the end of route>	

* Excess/ Normal/ Short, **SMS shall be sent by driver at the start of route

Table 19: Exception Report on vehicle deployment (Where Vehicle has not been deployed within 1 hour of scheduled start time)

Route No	Scheduled start time	Likely start time	Reason for delay	Remedial action

Table 20: Summary report of the trips

Type of vehicle	Total nos. of route	Nos. of routes	Normal Weight Routes No.	Short Weight Route No

Table 11: Report of SCP's/ Street Corner bins servicing the colony/ locality

Location ID	Scheduled clearing time	Actual Clearing time	Cleared by- Vehicle Reg. No Driver Name Driver Mobile	Time of arrival at SLF/ disposal site	Whether non-confirming waste in SCP's	Upload photo with date & time stamp

Table 22: Exception Report of SCP (Where SCP has not been cleared within 1 hour of scheduled time)

Location ID	Scheduled clearing	Likely clearing time	Reason for delay	Remedial action

Table 23: Report of Recycling Centers servicing the colony/ locality

Location ID	Schedule d clearing time	Actual Clearing time	Cleared by- Vehicle Reg. No Driver Name Driver Mobile	Quantity of Recyclabl e waste cleared	Whether non-confirming waste in the Center (Y/N)	Upload photo with date & time stamp

b) Collection and Transportation of SW from All Markets, Hotels, Dhabas, Restaurant, Banquet Hall, Institution, Farm House & Other Commercial Establishment

Date_____Ward No. _____

Name of Market / Commercial or Institutional Area _____

Table 24: Deployment of Primary Collection & Transportation Vehicles for waste collection from such entities (Report from GPS data- real-time report)

Route No Vehicle type	Vehicle Reg. No Driver Name Driver Tel No	Scheduled start time Actual Start time	Scheduled end time Actual End time	Drivers' report on waste collection enroute Excess /Normal/	Quantity of Recyclable waste delivered at Recycling

**Table 25: Exception Report on deployment of Primary Collection & Transportation Vehicles
(Where Vehicle has not been deployed within 1 hour of scheduled start time)**

Route No	Scheduled start time	Likely start time	Reason for delay	Remedial Action taken

Table 26: Summary report of the trips

Type of vehicle	Total nos. of route	Nos. of routes serviced	Normal Weight Routes No.	Short Weight Route No	Excess Weight Route No

Table 27: Report of SCP's/ Street Corner bins servicing the market/area

Location ID	Scheduled clearing time	Actual Clearing time	Cleared by- Vehicle Reg. No Driver Name Driver Mobile	Time of arrival at SLF /disposal	Whether non- confirming waste in Dhalao?	Upload photo with date & time stamp

Table 28: Exception Report of SCP Clearance (Where SCP has not been cleared within 1 hour of scheduled time)

Location ID	Scheduled clearing time	Likely Clearing time	Reason for delay	Remedial action

Table 29: Report of Recycling Centers servicing the market etc.

Location ID	Scheduled clearing time	Actual Start time	Cleared by- Vehicle Reg. No Driver Name Driver Mobile	Quantity of Recyclable waste delivered at Recycling center	Whether non- confirming waste in the Center	Upload photo with date & time stamp

c) Report on Street Level Primary SW Collection System

Date_____Ward _____

Table 30: Primary Collection & Transportation Vehicles deployment for street level collection (Report from GPS data- real-time report)

Route No Vehicle type	Vehicle Reg. No Driver Name Driver Tel No	Scheduled start time Actual Start time	Scheduled end time Actual End time	Drivers' report on waste collection enroute Excess /Normal/ Short	Quantity of Recyclable waste delivered at Recycling center

Table 31: Exception Report on vehicle deployment (Where Vehicle has not been deployed within 1 hour of scheduled start time)

Route No.	Scheduled start time	Likely start time	Reason for delay	Remedial action

Table 32: Summary report of the trips

Type of vehicle	Total nos. of route	Nos. of routes serviced	Normal Weight Routes No.	Short Weight Route No	Excess Weight Route No

Table 33: Report of SCP's/ Street Corner bins servicing the colony/ locality

Location ID	Scheduled clearing time	Actual Clearing time	Cleared by- Vehicle Reg. No Driver Name Driver Mobile	Time of arrival at SLF/ disposal site	Whether non- confirming waste in SCP's	Upload photo with date & time stamp

Table 34: Exception Report of SCP Clearance (Where SCP has not been cleared within 1 hour of scheduled time)

Location ID.	Scheduled clearing time	Likely clearing time	Reason for delay	Remedial action

Table 35: Report of Recycling Centers servicing the colony/ locality

Location ID	Scheduled clearing time	Actual Clearing time	Cleared by- Vehicle Reg. No Driver Name Driver Mobile	Quantity of Recyclable waste cleared	Whether non- confirming waste in the Center	Upload photo with date & time stamp

d) Report on Compactor Stations

Date_____

Ward No._____

Table 36: Report of Fixed Compactor Station

Compactor Location ID	Scheduled clearing time(s)	Actual clearing time(s)	Time of arrival at SLF / disposal site	Hook Loader Reg No Driver Name Driver Mobile

Table 37: Report on Mobile Transfer Stations

Location ID	Vehicle Reg. No Driver Name Driver Mobile	Scheduled clearing time	Actual Clearing time	Time of arrival at SLF / disposal site

Table 38: Exception Report of Compactor Clearance (Where compacting station/Point has not been cleared within 2 hour of scheduled time)

Location ID.	Scheduled clearing time	Likely clearing time	Reason for delay	Remedial action Taken

e) Report on Collection and Transportation of Horticulture Waste:

Date _____ Ward no. _____

Table 39: Primary Collection & Transportation vehicles deployment for street level collection of Horticulture Waste (Report from GPS data–real-time report)

Route No Vehicle type	Vehicle Reg. No Driver Name Driver Tel No	Scheduled start time Actual Start time	Scheduled end time Actual End time	Drivers' report on waste collection enroute Excess

**Table 40: Exception Report on Primary Collection & Transportation vehicles deployment
(Where Vehicle has not been deployed within 1 hour of scheduled start time)**

Route No	Scheduled clearing time	Likely clearing time	Reason for delay	Remedial action taken

Table 41: Overall performance self-assessment of Ward

Estimated quantity of Horticulture Waste expected from ward (MT)	(a)
Horticulture Waste Collected at Street level (MT)	(b)
Approximate quantity of Horticulture waste that could not be collected	(c=a-b)
Collection Efficiency	(d=b/a in %)

**f) Report on Collection and Transportation of Street Sweeping Waste/
Clearing of Bins**

Date _____ Ward No. _____

Table 42: Report of Dhalao/ Street Corner bins designated for sweeping silt

Location ID	Scheduled clearing time	Actual Clearing time	Cleared by- Vehicle Reg. No Driver Name Driver Mobile	Time of arrival at SLF/ disposal site	Whether non- confirming waste in SCP's	Upload photo with date & time stamp

Table 43: Exception Report of CSP Clearance (Where SCP has not been cleared within 1 hour of scheduled time)

Location ID.	Scheduled clearing time	Likely clearing time	Reason for delay	Remedial action

Table 44: Exception report where sweeping silt was found to be disposed in non-confirming manner (e.g. disposed in Dhalao meant for solid waste)

Location ID	Nature of Non-conformity	Approximate quantity of silt	Upload photo with date and time stamp	Remedial action taken

g) Report on collection and disposal of Drain Silt

Date _____ Ward No. _____

Table 45: Report of Clearing of Drain silt as requisitioned by LMC staff (Report from GPS data – real-time report)

Requisition ID Date and time of Requisition	Street ID and Name	Scheduled Clearing date and time	Actual Clearing date and time	Requisition - OPEN/ CLOSED	Cleared by- Vehicle Reg. No Driver Name Driver Mobile	Time of arrival at SLF / Disposal

Table 46: Exception Report of Drain silt clearance (Where silt has not been cleared within 1 hour of scheduled time)

Requisition ID Date and time of Requisition	Street ID and Name	Scheduled clearing date & time	Likely clearing date & time	Reason for delay	Remedial action taken

Table 47: Exception report where Drain silt was found to be disposed in non-confirming manner (e.g. disposed in SCP meant for Solid Waste)

Location ID	Nature of Non-conformity	Approximate quantity of silt found	Upload photo with date and time stamp	Remedial action taken

h) Bin washing Report

Table 48: Bin washing undertaken during the day

Location ID	No of Bins at location	Washing Time	Mechanical Washer Reg. No	Driver Name Tel No

Table 49: Exception report of Bins not washed in last week (to be submitted once a week – Every Sunday for last week)

Location ID	No of Bins at location	Last washing date	Reason for default	Remedial action

i) Report of Complaints Redressal System (real-time)

Date_____Ward No. _____

Table 50: Report of complaints and their closure

Complaint ID Time	Source- Phone/ email/ SMS	Nature of complaint	OPEN/CLOSED	If Closed, How addressed?	Date of redressal/ closure

9. Consolidated Report of Zone (Generated at the end of the day)

Table 51: Summary Report of Deployment of Vehicles/ Infrastructure

Main Activity	No of Routes/items to be serviced in the day	No of Routes/items actually serviced	No of Vehicles to be deployed in the day	No of vehicles actually deployed in the day	No of Manpower to be deployed	No of Manpower actually deployed
Door-to-door /street level collection						
Collection of SW etc. from Commercial etc.						
Collection of horticulture waste						
Collection of drain silt						
Collection of Sweeping Waste						
Clearing of Dhalao/ bins/ open sites						
Clearing of Fixed Compactor						
Collection of small dead animals						

Table 52: Summary Report of Support services

Main Activity	Expected/ received transactions /	Actual No of Transactions processed/	Unit (of transactions)	No of Manpower to be deployed for support	Actual no of manpower deployed
Workshop			Cleaning of vehicle Repair of vehicles		

Customer care (Redressal of complaints)			Complaint calls/ email/SMS Requisitions		
IT System			Receipt of Field reports: e.g- Vehicle deployment report Dhalao/bin clearing report Route servicing report Manpower deployment Fixed Compactor		

10. Inspection Report of SCP's, Open Sites, Street Corner Bins and other infrastructures. (Once a month)

Table 53: Conditions of SSC's

Location ID	Date of inspection	Physical Condition	Signboard	Paint	Flooring	Bins	Littering outside the Dhalao & Any Other	Washing date(s)

Table 54: Conditions of Fixed Compacting Stations

Location ID	Date of inspection	Physical Condition	Signboard	Paint	Flooring	Bins	Any Other	Washing date(s)

Table 55: Conditions of Street Corner Bins

Location ID	Date of inspection	Physical Condition	Signboard	Paint	Flooring	Littering Around bins	Any Other	Washing date(s)

Table 56: Conditions of Mobile Transfer Stations (Refuge Collector cum Compactors)

The Dust/cloud formation during Street sweeping of roads	Date of inspection	Vehicle Condition	Any damage	Paint & signage	Is GPS functional or not	Last Service date

Non-cleaning of bell mouths and gully gratings						

Table 57: Conditions of Auto-tippers (4-Wheeler & 3-Wheeler)

Vehicle Registration No.	Date of inspection	Vehicle Condition	Any damage	Paint & signage	Is GPS functional or not	Last Service date

Table 58: Conditions of Hook-loader vehicles

Vehicle Registration No.	Date of inspection	Vehicle Condition	Any damage	Paint & signage	Is GPS functional or not	Last Service date

Note: The Monthly Action Plan of works for the next month shall be submitted on 28th of preceding month. This shall be submitted in soft form (the file shall be uploaded in MIS which shall generate reports automatically) as prescribed by PMC/Authority.

SCHEDULE “16”

Price Adjustment

1. Price Escalation/Adjustment formula

The initial quoted price shall be adjusted for increase or decrease in rates and price of labour, plant and machinery & spare components, materials, fuel and lubricants in accordance with the following principles and procedures as per the formula given below in yearly basis. The amount certified in each payment certificate shall be adjusted by applying respective rebasing factor to the payment amounts due. The rebasing shall be done on quarterly basis.

The various cost components are assumed as follows;

- a. 5% towards CNG Component.
- b. 15% towards HSD/Fuel and Lubricant Component.
- c. 35% towards labour Component.
- d. 25% towards plant and /spares Component.
- e. 20% towards other local Material Component

A. The MQ shall be rebased as per the following formula:

$$T_n = T_0 + 0.85 \times [T_0 \times W_1 \times ((G_1 - G_0)/G_0) + T_0 \times W_2 \times ((D_1 - D_0)/D_0) + T_0 \times W_3 \times ((L_1 - L_0)/L_0) + T_0 \times W_4 \times ((P_1 - P_0)/P_0) + T_0 \times W_5 \times ((C_1 - C_0)/C_0)]$$

Where:

T_n = Monthly Quote for the nth rebasing

T_0 = IMQ as on the date of the bid submission

G_1 = The price of CNG on the last date of the year previous to the one under consideration to which a particular monthly rebasing is related, at the existing consumer pumps of IGL at Delhi,

G_0 = The price of CNG at the Existing consumer pump of IGL at Delhi, on the date of submission of Bids

D_1 = The price of High-Speed Diesel (HSD) on the last date of the year previous

to the one under consideration to which a particular Monthly rebasing is related, at the existing consumer pumps for Delhi as notified by Oil PSUs,

D0 = The price of High-Speed Diesel (HSD) on the date of submission of Bids, at the existing consumer pumps for Delhi as notified by Oil PSUs,

L1 = The Minimum Wages of unskilled adult male mazdoor on the last date of the year previous to the one under consideration to which a particular monthly rebasing is related, as notified by the GNCTD,

L0 = The Minimum Wages of unskilled adult male mazdoor, on the date of submission of Bids, as notified by the GNCTD.

P1 = The all India average Wholesale Price Index for heavy machinery and parts on the last date of the year previous to the one under consideration to which a particular monthly rebasing is related, as published by Ministry of industrial Development, Government of India, New Delhi.

P0 = The all India average Wholesale Price Index for heavy machinery and parts on the date of submission of Bids, as published by Ministry of industrial Development, Government of India, New Delhi.

C1 = The all India average Wholesale Price Index (all Commodities) on the last date of the year previous to the one under consideration to which a particular monthly rebasing is related, as published by Ministry of industrial Development, Government of India, New Delhi.

C0= The all India average Wholesale Price Index (all Commodities) parts on the date of submission of Bids, as published by Ministry of industrial Development, Government of India, New Delhi

W1 = Weightage towards CNG shall be 05 (Five) percent;

W2 = Weightage towards HSD/Fuel shall be 15 (Fifteen) percent

W3 = Weightage towards Labour Component shall be 35 (Thirty Five) percent;

W4 = Weightage towards Plant and /Spares Component shall be 25 (Twenty Five) percent

W5 = Weightage towards other Component shall be 20 (Twenty) percent

The above weightages have been fixed in terms of the ratio of expected O&M costs of the Concessionaire.

- B. The period from the date of COD till the last day of that calendar month shall not be considered for rebasing. Thereafter, on achieving of COD, the rebasing of MQ shall be effected from the 1st date of next month.
- C. All the MQ rebasing computation done by the IE shall be shared with the
Concessionaire after the approval from the Authority.
- D. Revised MQ shall be calculated only for the work carried out within the stipulated time or extension granted by the Authority.
- E. Various cost components mentioned above are pre decided and shall not be amended during entire contract period and no claim shall be entertained from the Concessionaire after award of work.
- F. Any changes in methodology or policy or law by the Government relating to calculation of fuel or wages or any other item shall be deemed to have been reflected in the above component taken in rebasing and the Concessionaire shall not be eligible to invoke Change in Law as per Article 9.
- G. To the extent that full compensation for any rise or fall in the costs to the Concessionaire is not covered by the provisions of this or other clauses, the unit rates and prices for such factors, shall deem to be included in the above exercise of MQ rebasing in costs and the Concessionaire shall not be liable to claim for any such factor.

Taxes

GST is not applicable in this contract. In case in further, it GST is imposed that should be borne by Municipal corporation Lucknow Any other Taxes is extra as actual basis.

SCHEDULE “17”

Disaster Management Framework

- a) The Concessionaire shall prepare the Disaster Management Plan pertaining to Collection & Transportation of Solid Waste in Project Area as per the guidelines provided in/ by:
- I. National Disaster Management Authority/ State Disaster Management Authority
 - II. Technical Note on Solid Waste Management during Emergencies by WHO Regional Office for South-East Asia based in New Delhi India.
 - III. Any other relevant documents vetted by the Authority
- b) The Concessionaire shall prepare Disaster Management Plan pertaining to Collection & Transportation of Solid Waste in Project Area for the following types of Disasters (as per applicability):
- i. Hydro- Meteorological (Examples: Cyclones, Droughts, Floods)
 - ii. Geological (Examples: Earthquake)
 - iii. Chemical, Industrial & Radiological
 - iv. Accidents (Example: Urban Fire, Vehicular Accidents, Poisoning, Blast at Domestic Hazardous Waste Deposition centres)
 - v. Biological (Examples: Diseases, Pests, exposure to biological vectors spread by organic waste)
- c) The Concessionaire shall focus on critical activities like collection and disposal of waste from primary and secondary sources, collection and disposal of horticultural waste and desilted waste, redeployment of manpower and infrastructure as well as rerouting of collection & transportation routes if applicable.
- d) The Concessionaire shall specify the requirements for additional manpower and infrastructure if any. Moreover, the requirements from the authority in terms of logistics & management shall be clearly specified.
- e) The Disaster Management Plan prepared by the Concessionaire shall be in sync with the overall Delhi Disaster Management Plan, 2016-2017 prepared by the Authority, GNCTD
- f) The payment mechanism during Disasters will be based on Disaster Management KPIs which shall be finalized by the IE & the Authority on the basis of the Disaster Management Plan to be included in the MIOP

SCHEDULE “18”

Micro Implementation and Operation Plan

a) This schedule provides an indicative framework for preparation of MIOP. The Concessionaire shall prepare Draft Seasonal Action Plan (SAP) on the basis of MIOP. The Seasonal Action Plan shall be submitted by the Concessionaire before 15 working days prior to start of monsoon season. (SAP should be for three period's 1. Summer Period, 2. Monsoon Period, 3. Winter Period). PMC shall review and suggest modifications in the plan in consultation with Authority within seven working days, if any. Concessionaire has to submit final SAP within seven working days.

b) The Concessionaire has to formulate OP for the following activities, but not limited to:

1. Consent, Clearances and Approval

The Concessionaire shall prepare a list of consent and clearances required for the Project. The Concessionaire shall define the relevant body and timeline for each consent and clearance.

2. Labour Absorption

The Concessionaire may absorb the manpower of the existing Concessionaire for performing its operations to the extent possible.

3. Route Plan/Beat-wise Plan for Primary Collection

Concessionaire shall prepare micro level route /beat-wise plan for all the wards. The Plan shall specify location, dedicated timing, manpower, supervisory staff and infrastructure, allocated secondary collection points for waste storage for each route/beat. The Concessionaire shall also take into account extraordinary circumstances and make modifications in the plan accordingly.

4. Route Plan for Collection of DHW

Concessionaire shall be responsible for collecting segregated domestic hazardous waste from the households on bi-weekly basis and transport it to the Deposition Centre for its safe storage. Concessionaire shall prepare micro level route /beat-wise plan for bi-weekly collection of DHW which shall be accommodated in primary collection

5. Plan for Removal of horticultural waste

The Concessionaire shall prepare plan for removal of horticultural waste from colonies and road sides in the project area. The removal should be done with the help of designated vehicles. The concessionaire should also be prepared for emergency situations for removal of garden and horticultural waste.

6. Asset Deployment Schedule

The Concessionaire shall prepare an Asset Deployment Schedule. The Schedule shall specify the asset deployed for all the activities as required for fulfilling the Project Scope.

7. Allocation of Priority Services Team

Concessionaire shall deploy a Priority Services team consisting of six workers and one vehicle for extraordinary circumstances. The Concessionaire shall nominate one nodal person under MIOP for each ward that shall be responsible for allocation of the Priority Services Team. Priority Services Team should be assembled within two hours.

8. Waste Diversion:

The Concessionaire shall fulfil the obligation of providing the required quantity of biodegradable and recyclable waste to the decentralized units. In this respect, the Concessionaire shall refer section 5.1 under PIM, prepare a list of decentralized units and update the list, as the case may be. The Concessionaire shall define the capacity of decentralized plants, respective waste diversion quantities and the planned sources, from where the waste shall be diverted. The Concessionaire shall also prepare plan for setting up of ward wise recycling centres and other means to divert maximum waste at decentralized level

9. Operation and Maintenance Plan for DHW Deposition Centres

Concessionaire is also responsible for the operation and maintenance of DHW Deposition Centres. The Concessionaire shall deploy necessary manpower for the functioning of DHW Deposition Centres. The Plan shall include the no. of deposition centres, dedicated locations attached with the centre and the quantity of DHW. The Concessionaire shall indicate the schedule for the secondary transportation of DHW to Hazardous Waste Facility. The Authority shall be responsible to take note of the

schedule, and organise secondary transportation of DHW.

10. Collection of User Charges

Concessionaire shall be responsible for the collection of user charges from households as well as commercial establishments for providing door to door collection services. The Concessionaire shall prepare IEC Plan for creating awareness regarding solid waste management activities. Concessionaire shall specify frequency of IEC program, type of activity, date, location, population coverage and maintain records of activities including photographic evidences.

11. Management Information System

The Concessionaire shall set-up a real-time monitoring system for tracking the daily Project Activities. The Concessionaire shall prepare MIS Formats for reporting the performance to IE and Authority on daily, weekly and monthly basis. The Concessionaire shall prepare a list of all moveable assets, bins and equipment's along with its RFID no. The Concessionaire shall also specify space requirement for setting-up centralised Control Room in MIOP.

12. Complaint Redressal System

The Concessionaire shall set-up Complaint Redressal System for handling complaints related to Solid Waste. The Concessionaire shall prepare daily log of complaints received, action taken and complaints closed. The Concessionaire shall also display telephone nos. of concerned officials at public locations.

13. Financial Model

The Concessionaire shall submit a soft copy (excel format) of the Financial Model for this Project

14. Asset Maintenance Schedule (O&M plan)

The Concessionaire shall prepare a maintenance schedule for all the project assets. The Schedule shall be made for all the vehicles, equipment's, secondary storage points and bins. The Schedule shall contain the GPS no., date of purchase of asset, servicing schedule and servicing report. The Concessionaire shall also specify the replacement schedule for the project assets. The Schedule shall be align with the KPIs.

15. Garbage Free Vulnerable Points

The Authority shall identify the Garbage Vulnerable Points which needs to be cleared

and maintained on daily basis as Garbage Free Vulnerable Points. Concessionaire shall prepare a maintenance schedule for maintaining the specified areas as Garbage Free Vulnerable Points.

16. Disaster Management Plan

The Concessionaire shall prepare Disaster Management Plan as per the conditions given in Schedule 19.

17. IEC Plan

The Concessionaire shall prepare IEC Plan for creating awareness regarding solid waste management activities. Concessionaire shall specify frequency of IEC programmes, type of activity, date, location, population coverage and maintain records of activities including photographic evidences.

18. Carcass Disposal

The Concessionaire shall deploy one vehicle for collection and transportation of carcasses to the designated facility/ site as prescribed by the Authority during the preparation of MIOP

19. Night Conservancy works

The Concessionaire shall deploy required manpower and infrastructure to perform night conservancy which shall include a minimum of 50 (fifty) percent of mechanized street sweeping and clearance of SCP's.

Indicative Norms to be considered by the Concessionaire while preparing MIOP

S.no	Activity	Indicative Norms
1.	E-rickshaw	Once e- rickshaw for collection from 300 HH per trip (as per Authority recommendation) with one driver and one labour.
2.	Auto Tippers of 1.8 cum Capacity	Once auto tipper for collection from 600 HH per trip (as per Authority recommendation) with one driver and two labours.
3.	Manual Sweeping	Roads having carriageway width upto of 22 ft (Two Lane) and below by deploying sweepers according to the yardstick mentioned in CPHEEO manual / operation plan approved by authority.

4.	Cleaning and transportation of desilted waste from drains	Cleaning and transportation of desilted waste of Storm Water Drains upto 1.0 meter as per yardstick mentioned in CPHEEO manual / operation plan approved by authority.
5.	Secondary Collection bins	Green for wet waste, blue for dry waste, brown for street sweeping waste and black for DHW & Sanitary Waste. Bins should be placed on approval of the Authority and based on public needs.
6.	MTS and FCTS/TS/PCTS	The FCTS contains civil structure, detachable containers and hook loaders. The MTS is movable refuse compactors for direct transferring of waste from primary collection vehicles. Both MTS & FCTS/TS/PCTS shall maintain a reciprocative balance but should not go below minimum number
7.	Back up	Minimum 10% backup on the vehicle infrastructure for C&T operations

SCHEDULE “19”

PAYMENT OF TIPPING FEE

2.0 Tipping Fee

2.1 “Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”

TIPPING FEE

(Amount in Rupees)

Sr. No.	Description	Unit	Quantity	Rate (in Rs.)	Amount
1	First Year O&M Fee Required for Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/ disposal site/ collection centres.	Per MT	537		
2	Unit charge for Roads Sweeping by Manual means, cleaning of footpath and removal of Litter. Sweeping Passes in each Km of Road Length.	Per KM passes /day	2255		
3A	Unit charge for Cleaning of drain size upto 45cm including transportation of collected silt to designated disposal sites or collection centres.	Per KM/day	241		
3B	Unit charge for Cleaning of drain size above 45cm and up to 1.0 meter including transportation of collected silt to designated disposal sites or collection centres.	Per KM/day	8.5		
3C	Unit Charge of lifting and Transportation of collected Street Sweeping and Drain Silt Waste to designated disposal Site or Collection Centres	Per MT	53		

Note: Quantity may vary +/- 20%

1. Tipping Fee for Door-to-Door Collection, Segregation at MRF of MSW = $TF \times W \times F$
Where,

TF is the Tipping Fee Rate per MT of waste transported to Processing Plant

W is the actual Weight of waste Transported to Processing Site

F is **Multiplication Factor for performance-based payment equals to the ratio of** Total Marks obtained and Total Marks designated for 100% performance of work in Schedule 8 of this Concession Agreement.

SCHEDULE “20”

Performance Security for Operation & Maintenance Requirements

The AUTHORITY

LUCKNOW NAGAR NIGAM

Lucknow, Uttar Pradesh

WHEREAS

2. (The “Concessionaire”) and the LUCKNOW NAGAR NIGAM (the “Authority”) have entered into a Concession Agreement dated (the “Agreement”) whereby AUTHORITY has agreed to the Concessionaire undertaking the *Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres*, subject to and in accordance with the provisions of the Agreement.
3. The Agreement requires the Concessionaire to furnish a Performance Security to AUTHORITY in a sum of Rs..... (Rupees only) (The “Guarantee Amount”) as security for due and faithful performance of its obligations, under and in accordance with the Agreement, towards Construction and Operation & Maintenance of the Project (as defined in the Agreement).
2. Wethrough our Branch at (The “Bank”) have agreed to furnish this Bank Guarantee by way of Performance Security.

NOW THEREFORE, The Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Concessionaire’s obligations during the Operation & Maintenance Period, under and in accordance with the Agreement, and agrees and undertakes to pay to 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 AUTHORITY shall claim, without 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 AUTHORITY, under the hand of the Additional AUTHORITY, stating 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 AUTHORITY shall be the sole judge as to whether the Concessionaire is in default in due and faithful performance of its obligations during the Operation & Maintenance 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 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, 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 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, fulfillment 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 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 AUTHORITY, and the Bank shall not be released from its liability and obligation under these presents by any exercise by 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 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 AUTHORITY in respect of or relating to the Agreement or for the fulfillment, 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 will remain in force until 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 this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Performance Security will be valid for 12 months and shall be renewed before its expiry till the end of concession period.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of 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 authorized 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 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 for a period of one year and six months from the date hereof or until it is released earlier by 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)

(Address)

NOTES:

The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.

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 “21”

Date: _____

LETTER OF AUTHORISATION

To Whomsoever it may Concern

This is to confirm that to pursuant to the Concession Agreement dated_____ entered into between the AUTHORITY and_____ (“the Concessionaire”), the Concessionaire has been authorised to **“Door-to-Door Collection, Transfer and Secondary Transportation of Municipal Solid Waste, Road/Street Sweeping and transportation of sweeping Waste, Drain cleaning & transportation of silt, Collection & Transportation of Horticulture Waste and Collection & Storage of Domestic Hazardous Waste, in Zone 2, 5, 8 (Package 2) to designated processing facility/disposal site/collection centres.”** for the city of LUCKNOW and for that purpose, to apply for and obtain all approvals, licenses and permits required therein and to avail the utilities such as power, water, telecommunication and any other incidental utilities or services required in connection therewith.

Yours faithfully,

MUNICIPAL COMMISSIONER

LUCKNOW NAGAR NIGAM,

LUCKNOW

SCHEDULE “22”

घर - घर से प्रत्येक दिन अपशिष्ट संग्रहण के लिए दैनिक दर (रुपय में)

SCHEDULE "23"

Schedule 23: Escrow Agreement

This Project Escrow Agreement (this "Escrow Agreement") is entered into on _____ by and among:

1. **THE LUCKNOW MUNICIPAL CORPORATION**, represented by its Commissioner _____ and having its principal office at _____ (hereinafter referred to as the "Authority" (which expression shall, unless excluded by or repugnant to the context, be deemed to include its administrators, successors and assigns) OF THE ONE PART;
2. [Please insert name of the company], a company incorporated under the provisions of the Companies Act, 1956/2013 with CIN [•] and having its registered office at [•], Delhi, (hereinafter referred to as the "**Concessionaire**" (which expression shall, unless repugnant to the context or meaning thereof, include its success or sand permitted assigns) OF THE SECOND PART;
3. [Please insert name of the Bank], a Bank incorporated under the provisions of the Banking Regulation Act 1949 established and amended in 2013, and the Bank is in the list of Scheduled Banks of the Reserve Bank of India, having its registered office at [•],(hereinafter referred to as the "Escrow Agent" (which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) OF THE THIRD PART
4. The Authority, the Concessionaire and Escrow Agent are herein after referred to individually as the "Party" and collectively as the "Parties";

WHEREAS:

- A. According to the concession agreement entered into on _____ between Authority and the Concessionaire (the "Concession Agreement"), the Authority and the Escrow Agent shall establish an Escrow Account for the benefit of the Concessionaire. The

Authority shall fund such account (pursuant to the terms of this Agreement), which shall serve to secure Authority's payment obligations towards the Concessionaire under the Concession

Agreement.

- B. The Escrow Agent is willing to serve as an escrow agent in accordance with the terms and conditions of this Agreement.
- C. Unless otherwise defined herein, all capitalized terms shall have the meaning ascribed to them in the Concession Agreement.

NOW, THEREFORE, the Parties hereto agree as follows:

1. ESCROW ACCOUNT ("PROJECT ACCOUNT")

i. Appointment

The Authority and the Concessionaire hereby appoint the Escrow Agent to serve as the escrow agent for the purposes of this Agreement and subject to the terms of this Agreement and the Escrow Agent hereby accepts this appointment.

ii. Escrow Account

Within 15 (Fifteen) Working Days from the date of Financial Closure hereof, the Authority and the Escrow Agent shall establish an escrow bank account denominated in Indian Rupees for the benefit of the Concessionaire (the "PROJECT ACCOUNT").

iii. Deposit and Replenishment Request

a. Within thirty (30) days of signing of the Escrow Agreement ("Project Account Agreement"), the Authority shall deposit an amount equal to 2 (two) months of the applicable Monthly Quote (the "Initial Escrow Amount") into the Escrow Account;

b. In the event that the amount in the Project Account falls below 50% (fifty percent) of the Initial Escrow Amount, the Escrow Agent shall send a written request ("Replenishment Request") to the Authority to replenish the Project Account and with a copy to the Concessionaire for the same.

c. The Authority shall replenish the Escrow Account so that the amount

present in the Escrow Account equals to two months of the applicable MQ and thereafter the Escrow Agent shall intimate the Concessionaire.

- d. The amount equal to two months of the applicable MQ and any other deposits made (if applicable) shall be referred to as the "Escrow Amount".

iv. Identification and Separation

The Escrow Agent shall clearly identify in its records the Escrow Account as an escrow account and shall keep the funds standing to the credit of the Escrow Account segregated from and not commingled with the Escrow Agent's own funds or the funds of any of its other customers or third parties.

v. Fees

- a. The Fees to be paid to the Escrow Agent for the establishment and management of the Escrow Account shall be borne equally by the Authority and the Concessionaire.
- b. Any payment made by the Authority under this Agreement shall be made from the following account or from such other account which Authority may designate from time to time:

Bank:

Account number:

BIC (SWIFT):

Address of Bank:

vi. Escrow Account Statements

The Escrow Agent shall provide monthly statements regarding the Escrow Account to

Authority and the Concessionaire.

2. ESCROW AMOUNT

- i. The Escrow Agent shall hold the Escrow Amount in escrow for the sole benefit of the Concessionaire. The Escrow Agent shall not release any of the Escrow Amount for any person other than the Concessionaire. In

particular, the Escrow Agent shall not accept any requests for withdrawals or transfers of the Escrow Amount from the Authority for the benefit of Authority or any third party, unless it is made in accordance with this Agreement.

- ii. The Escrow Agent shall not apply any right of set-off against the Escrow Amount, grant any lien over the Escrow Amount, or apply any fee or deduction in relation to the Escrow Amount.
- iii. At the end of each anniversary of COD year, the Escrow Agent shall transfer into an account of the Authority as the Authority shall designate, any amount exceeding an amount equivalent to two months of the applicable MQ and any other deposits made (if applicable).

3. PAYMENT

- i. Each month, the Concessionaire shall raise the FP and PP invoices (two copies each) and send it to the Authority/ IE, with a copy to Escrow Agent as per the sub Article 8.
- ii. The Escrow Agent shall make the relevant payment to the Concessionaire based on the recommendation of the Authority within a period of 30 [thirty] days.
- iii. At the end of the Concession Period or on the Termination Date, as the case may be, the Authority shall send instructions to the Escrow Agent requesting him to release and transfer any due and payable amounts to the Concessionaire and any remaining amounts to be transferred to Authority.

4. OBLIGATIONS OF THE ESCROW AGENT

- I. The obligations of the Escrow Agent under this Agreement are subject to the following terms:
 - a. The duties of the Escrow Agent are only as herein specifically provided and
are purely administrative in nature.

- b. The Escrow Agent shall neither be liable for, nor chargeable with knowledge of, the terms and conditions of any other agreement, instrument or document in connection herewith, including, without limitation, the Concession Agreement, and shall be required to act in respect of the Escrow Account only as provided in this Agreement. This Agreement sets forth all the obligations of the Escrow Agent with respect to any and all matters pertinent to the Escrow Account contemplated hereunder and no additional obligations of the Escrow Agent shall be implied from the terms of any other agreement.
 - c. The Escrow Agent shall incur no liability in connection with the discharge of its obligations under this Agreement or in connection therewith, except such liability as may arise from the Escrow Agent's negligence, willful misconduct or otherwise from any breach of this Agreement. Such liability, however, shall not exceed the amount on the Escrow Account outstanding at the date of the said breach by the Escrow Agent;
- II. In the event that the amount in Escrow Account falls below 50 (fifty) % of the value of two months of the applicable MQ or on payment to the Concessionaire for two months, whichever is earlier, the Escrow Agent shall send a written request ("Replenishment Request") to the Authority to replenish the Project Account and shall intimate the Concessionaire for the same.
- III. Thereafter the Escrow Agent shall notify the Concessionaire about the replenishment of Escrow Account by the Authority.
- IV. The Escrow Agent shall not be required to perform any acts which will violate any laws or regulations applicable in India and in the NCT of Delhi;
- V. In the event of any bankruptcy proceedings or enforcement proceedings against any of the Parties pursuant to applicable laws or regulations, the Escrow Agent shall, notwithstanding the provisions of this Agreement, act and perform in accordance with the applicable laws or regulations.

5. REPRESENTATIONS AND WARRANTIES

Each Party represents and warrants that, as of the date hereof and in the foreseeable future:

- i. has the authority to enter into this Agreement;
- ii. this Agreement constitutes a legally valid and binding obligation, enforceable against it in accordance with its terms;
- iii. its entry into and/or performance under this Agreement will not be in breach of any express or implied terms of any contract with or other obligation to any third party; and
- iv. it is solvent and able to perform all of its obligations under this Agreement.

6. MISCELLANEOUS

I. Notices

Any notice or other communication to be given or made under this Agreement to the Parties shall be in writing. Except as otherwise provided in this Agreement, such notice, request or other communication shall be delivered by registered mail or facsimile to the Party(ies) at the following addresses

AUTHORITY:

The Escrow Agent: _____

The Concessionaire: _____

II. Entire Agreement

This Agreement constitutes the entire agreement and understanding between the Parties with respect to its subject matter (i.e. escrow arrangement) and replaces and supersedes all prior agreements, arrangements, undertakings or statements regarding such subject matter.

III. Amendments

No variation of or amendment to this Agreement shall be effective unless made in writing and executed by all the Parties hereto.

IV. Assignment

Neither this Agreement nor any of the rights or obligations hereunder may be assigned by a Party without the prior written consent of the other Parties.

V. Severability

Whenever possible, each provision of this Agreement shall be interpreted in such a way as to be effective and valid under law, but if any provision of this Agreement is unenforceable or invalid under law, such provision shall be ineffective only to the extent of such unenforceability or invalidity, and the remaining provisions of this Agreement shall continue to be binding and in full force and effect.

VI. Confidentiality

Unless otherwise determined by a competent jurisdiction, the Parties, their employees, representatives and agents shall keep the provisions of this Agreement strictly confidential and, except as may be required by law, shall make no disclosure thereof to any person, except the Parties' respective legal counsel and professional advisers, without the prior written consent of the other Parties.

VII. Termination

This Agreement shall be automatically terminated upon the expiry of the Concession Period, as defined in the Concession Agreement, or on the Termination of the Concession Agreement. It may also be terminated earlier if Authority and the Concessionaire agree to terminate the Agreement and send a termination notice to the Escrow Agent.

VIII. Dispute Resolution Mechanism

- a. This Agreement shall be governed by and construed in accordance with the laws of India and the laws of the NCT of Delhi
- b. If any dispute arises out of or in connection with this Agreement, this dispute shall not affect the Parties' duty to continue the performance of all of their non- disputed obligations.
- c. If any dispute arises, either Party shall give notice to the other Parties of the same, whereupon the Parties shall meet promptly and in a good faith to attempt to reach an amicable settlement.

- d. All disputes not settled amicably pursuant to sub-Article above shall be heard by the Delhi High Court at New Delhi;

7. Withdrawals upon Termination

Upon Termination or Expiration of the Concession Agreement, all amounts standing to the credit of the Escrow Account shall, notwithstanding anything in this Agreement, be appropriated and dealt with in the following order:

- a) all taxes due and payable by the Concessionaire for and in respect of the Project;
- b) outstanding Payments;
- c) all payments and Damages certified by the Authority as due and payable to it by the Concessionaire pursuant to the Concession Agreement;
- d) any other payments required to be made under the Concession Agreement; and
- e) balance, if any, in accordance with the instructions of the Authority:

IN WITNESS WHEREOF, each Party has duly executed this Agreement in four (4) originals on the date set out on the first page hereof.

SIGNED SEALED AND DELIVERED

For and on behalf of the Authority by

(Signature) (Name) (Designation)

SIGNED, SEALED AND DELIVERED

For and on behalf of CONCESSIONAIRE by

SIGNED, SEALED AND DELIVERED In

the presence of.

1)