

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL
BENCH, NEW DELHI**

Original Application No. 543/2024

Raja Muzaffar Bhat

.....Petitioner

versus

Union Territory of Jammu & Kashmir & Ors.

.....Respondent

INDEX

S. No.	Particulars	Page No.
1.	Reply Affidavit on behalf of Respondent No. 10, M/s Syntech Bioenergy Pvt. Ltd.	1-23
2.	Annexure R-1: A copy of Tender bearing No. SMC/CSO/409/MSW P&D/T/2017 dated 24.04.2017	24-73
3.	Annexure R-2: Copy of revised letter of Intent/ Acceptance dated 11.12.2017.	74-76
4.	Annexure R-3: Copy of letter dated 16.01.2018 sent to Respondent No. 9 by Respondent No. 10.	77
5.	Annexure R-4: Copy of letter dated 14.10.2018 and 23.05.2018 sent to Respondent No. 9 by Respondent No. 10.	78-80
6.	Annexure R-5: Copy of order dated 05.03.2018 issued by the Assistant Director, H&UDD.	81
7.	Annexure R-6: Copy of the letter dated 24.05.2018 along with response to Pre- Bid Queries dated 02.06.2017	82-85

8.	Annexure R-7: Copy of the Letter dated 25.05.2018 sent to Respondent No. 9 by Respondent No. 10.	86-87
9.	Annexure R-8: Copy of the Status Report dated 14.12.2018 issued by the Respondent No. 10.	88
10.	Annexure R-9: Copy of letter dated 08.03.2019 sent to Respondent No. 9 by Respondent No. 10.	89-90
11.	Annexure R-10: Copy of the Correspondence dated 06.01.2020.	91-92
12.	Annexure R-11: Copy of Communication dated 08.02.2020 issued by the Respondent No. 9.	93-94
13.	Annexure R-12 (Colly.): Copies of the Letters dated 05.09.2020 and 10.09.2020.	95-97
14.	Annexure R-13: Copy of Letter of Respondent No. 10 dated 23.11.2020.	98-100
15.	Annexure R-14: Copy of Letter of Respondent No. 9 dated 30.12.2020	101
16.	Annexure R-15: Copy of Letter of Respondent No. 10 dated 01.01.2021.	102-103
17.	Annexure R-16: Copy of Letter dated 12.01.2021 issued by JERC.	104
18.	Annexure R-17: Copy of Letter dated 13.01.2021 issued by Respondent No. 9.	105
19.	Annexure R-18 (Colly.): Copies of Letters dated 10.06.2021 and 24.09.2021	106-108
20.	Annexure R-19: Copy of Letter dated 28.04.2022 issued by Respondent No. 9.	109
21.	Annexure R-20: Copy of Letters dated 09.05.2022 and 01.08.2022 issued by Respondent No. 10.	110-121
22.	Annexure R-21: Copy of the Show Cause Notice dated 22.12.2023 issued by Respondent No. 9.	122-125

23.	Annexure R-22: Copy of the Reply dated 04.01.2024 issued by Respondent No. 10.	126-136
24.	Annexure R-23: Copy of the Termination Notice dated 13.08.2024 issued by Respondent No. 9.	137-139
25.	Annexure R-24: Copy of the relevant portions of the Report furnished by Respondent No. 10 in response to the RTI filed by an RTI Applicant.	140-224
26.	Vakalatnama along with Board Resolution	225-226

Respondent No. 10

Through

Sikander Hyaat Khan, Advocate

G. Arudhra Rao, Advocate

E-mail: sikanderhyaat@hotmail.com

Phone: 7838246156

Place:

Dated:

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL PRINCIPAL
BENCH, NEW DELHI**

Original Application No. 543/2024

Raja Muzaffar Bhat

.....Petitioner

versus

Union Territory of Jammu & Kashmir & Ors.

.....Respondent

REPLY AFFIDAVIT ON BEHALF OF RESPONDENT NO. 10, M/S

SYNTECH BIOENERGY PRIVATE LIMITED

I, Kumail Hussain Ansari, s/o Shri Abid Hussain Ansari, aged 47, director and authorized representative of Syntech Bioenergy Pvt. Ltd., having its registered office at Church Lane, Sonwar, Srinagar, Jammu & Kashmir – 190001, do hereby solemnly affirm and declare as under:

1. That, I, in the capacity of the authorized representative of Syntech Bioenergy Pvt. Ltd., i.e., Respondent No. 10, am fully conversant with the facts of the case and hence, competent to swear this reply affidavit on behalf of Respondent No. 10.

Preliminary Submissions

I. Conspectus

2. That, the Respondent No. 10 is the Special Purpose Vehicle incorporated by the successful consortium of bidders who were awarded a Letter of Intent to execute the Waste-to-Energy Project at Achan, Srinagar in 2017.
3. That, the averments made in the captioned Original Application in respect of the Respondent No. 10 are limited to the factum of the delay in commissioning of the Waste-to-Energy Power Project proposed to be established at Achan, Srinagar, in view of the timelines that this Hon'ble Tribunal had set out in terms of its Order dated 12.12.2017 passed in "*Dr. Irfan Ahmad vs. Nawang Rigzin Jora & Ors.*". Accordingly, in terms of clause (vii) of the Prayer of the Applicants, it has been sought that environmental compensation be levied/imposed upon the Respondent No. 10 for non-compliance with the direction of this Hon'ble Tribunal in its Order dated 12.12.2017.
4. That shorn of details, it is most respectfully submitted, at the very outset, that the prayer qua the Respondent No. 10 ought not be granted as: -
 - (i) The Order dated 12.12.2017 is categorical in stating that compensation would be payable by the Project Proponent, computable on a daily basis, for any delay in commissioning of the Project after the execution of the Power Purchase Agreement. Whereas, the said PPA is yet to be finalised and vetted, let alone signed.

- (ii) Pertinently, the delay in execution of the Project is solely attributable to the lackadaisical conduct of the Respondent No. 9, Srinagar Municipal Corporation, i.e., the nodal agency for execution of the Project, which has outrightly neglected and flouted the timelines prescribed by this Hon'ble Tribunal from the date of passing of the order dated 12.12.2017.

II. Concise statement of facts

5. That, a brief factual matrix, relevant for adjudication of the present Petition is set out hereinbelow: -

A. Proceedings before the Hon'ble National Green Tribunal

- i. In 2013, the aforesaid case titled Dr. Irfan Ahmad vs. Nawang Rigzin Jora came to be filed before this Tribunal during the course of which, a committee of experts was constituted to give recommendations on the issue of waste management in Srinagar. The recommendations of the committee culminated into the floating of the Expression of Interest for Installation of Waste to Energy Plant of 5 MW capacity under the Design, Finance, Build, Own, Operate and Transfer mode, on 16.07.2015, which was re-tendered time and again.
- ii. This Hon'ble Tribunal disposed of O.A. No. 277 of 2013, along with M.A. No. 214 of 2016 and M.A. No. 823 of 2016 vide its Order dated 12.12.2017, wherein it was held as under: -

“.....

1. Within 7 days of the signing of the Power Purchase Agreement, the Project Proponent along with the State Official, shall demarcate site in question and would start the field work.

.....

3. The Project proponent shall complete the RDF Plant within a period of 12 months counted from 1 week after just demarcation and possession of the site.

.....

5. The entire Waste to Energy plant shall be completed and commissioned within 18 months from the date the PPA is signed.

.....

Ld. Counsel appearing for the State of Jammu & Kashmir submits that a draft agreement of the PPA has already been prepared and is being vetted by law department and the concerned ministry. Let that be done expeditiously and it should be signed without any further delay, now, to enable the project proponent to start the project which has been dragging for years without any justification.

.....”

A copy of the Order dated 12.12.2017 is already annexed with the Original Application as **ANNEXURE A-9** by the Applicant.

B. Issuance of the Tender and LOI

iii. On 24.04.2017, the Respondent No. 9 issued the Tender vide No. SMC/CSO/409/MSW P&D/T/2017 for “*Design, Finance, Build, Own, Operate an Integrated Waste Management Facility including energy generation and value recovery from MSW, operate and transfer after 25 years, at Achan, Srinagar*”. A copy of the Tender document is annexed herewith and marked as **ANNEXURE R-1**.

iv. It is as admitted fact that the Respondent No. 10, on 20.07.2017, (then, through the consortium lead bidder, M/s Highland Automotives Private Limited) submitted a comprehensive bid for award of the Tender and on 27.11.2017, and shortly thereafter on 11.12.2017, a Revised Letter of Intent/Acceptance, being the LOI bearing No. SMC/SWM/2017/600-611 was issued in its favor by Respondent No. 9. A copy of the LOI dated 11.12.2017 is annexed herewith and marked as **ANNEXURE R-2**.

C. Delays attributable to the Respondent and clarification on the aspect of deposit of Performance Guarantee

v. Shortly after the award of the Tender, on 16.01.2018, the Respondent No. 10 wrote to the Respondent No. 9 inter alia stating

that Waste to Energy Plant stood cleared and allotted to in line with directions of the Hon'ble NGT, the works have to commence shortly. Accordingly, the Respondent, being the nodal office for coordination and assistance in finalising all formalities, was requested to expedite the process for execution of the Power Purchase Agreement and the Concession Agreement along with demarcation and allotment of land for construction of the Project. A copy of the Letter dated 16.01.2018 is annexed herewith and marked as **ANNEXURE R – 3**.

- vi. On 14.02.2018 and 26.03.2018, the Respondent No. 10 wrote to the Respondent No. 9 in furtherance of the Letter dated 16.01.2018 requesting completion of requisite formalities to commence works on the Project. Receiving no response, the Respondent No. 10 was constrained to approach the then Hon'ble Minister for H&UDD vide letter dated 23.05.2018, seeking intervention in the matter as there was an inordinate delay in commencement of works in contravention of the timelines intimated to the Hon'ble NGT. Copies of the Letters dated 14.02.2018, 26.03.2018 and 23.05.2018 of Respondent No. 10 are annexed herewith and marked as **ANNEXURE R-4**.
- vii. In fact, on 05.03.2018, the Assistant Director (P&S), H&UDD wrote to the Respondent No. 9, *inter alia* directing it to prepare a draft PPA, Concession Agreement, Environment Impact

Assessment and submit the same to the Department within a week's time, pursuant to which the same would be vetted from other departments. It is pertinent to note that the directions were issued to be complied with, without further delay and to treat the matter as urgent. A copy of the Letter dated 05.03.2018 issued by the Assistant Director, H&UDD is annexed herewith and marked as **ANNEXURE R - 5**.

viii. It was only on 24.05.2018, i.e., after 5 months of the issuance of LOI, the Respondent reverted to the Petitioner, only responding by identifying and demarcating the site for construction of the Project without responding on other aspects of the formalities to be completed before commencement of the work. It is imperative to note, the Demarcation dated 24.05.2018, is, admittedly, a deviation from the site demarcated in the Tender floated by the Respondent. Pertinently, in the Response to Pre-Bid Queries dated 02.06.2017, the Respondent had itself, stated in response to a query that the site is plain land located within the existing infrastructure. A copy of the Letter dated 24.05.2018 along with Response to Pre-Bid Queries dated 02.06.2017 is annexed herewith and marked as **ANNEXURE R - 6**.

ix. On the next day itself, i.e., on 25.05.2018, the Respondent No. 10 wrote to the Respondent No. 9, promptly bringing to the Respondent's attention that there has been an omission in allotment

of the site as what was shown in the Tender is different from what was actually allotted to the Respondent No. 10 and the new site on the west wing of the land-fill site, is in fact, low-lying and waterlogged which will have to be filled, therefore, increasing costs of the Project. Accordingly, cooperation of the Respondent No. 9 was sought. A copy of the Letter dated 25.05.2018 is annexed herewith and marked as **ANNEXURE R – 7**.

- x. Whereas, the Project hit a roadblock and the same is an admitted stance of the Respondent No. 10, which, as per its own status report, published on 14.12.2018, highlighted that the PPA and the Concession Agreement were yet to be finalized and executed. A copy of the said status report is annexed herewith and marked as **ANNEXURE R - 8**.
- xi. In the meantime, draft copies of the PPA and the Concession Agreement were circulated to relevant stakeholders for vetting and comments were received to that effect but no significant steps were taken by the Respondent No. 9 to coordinate with the stakeholders in a timely manner. On 08.03.2019 the Respondent No. 10 was constrained to write to the Respondent in respect of issues regarding execution of the PPA and escalation of costs occurred on account of the delay. A copy of the Letter dated 08.03.2019 is annexed herewith and marked as **ANNEXURE R - 9**.

- xii. That thereafter, multiple correspondences were exchanged between the parties and other departments with respect to escalation of costs and grant of funds under the Viability Gap Funding (VGF) component of the Swachh Bharat Mission. However, there was still no progress in respect of finalization of the PPA.
- xiii. On 06.01.2020, the Respondent No. 9 wrote to the Principal Secretary, H&UDD, stating that the PPA was to be executed and tariff adoption was to be done by the JKSERC which stands abolished after enactment of the J&K Reorganization Act, 2019 and in view of the same, it was requested that necessary modifications be made to the PPA so that the process could be expedited since the project proponent was pressing hard to execute the PPA. Copy of the correspondence dated 06.01.2020 is annexed herewith and marked as **ANNEXURE R – 10**.
- xiv. It is pertinent to state that on 08.02.2020, Director, Planning, H&UDD wrote to the Respondent, *inter alia* seeking inputs as to whether the Tender was eligible for VGF and also regarding the payment of Performance Guarantee. On 08.02.2020 itself, the Respondent No. 9 wrote to the H&UDD, *inter alia*, responding to the communication of the Director, Planning, HUDD, stating that the bidder shall be asked to provide the performance guarantee after signing of the PPA. Copies of the communications dated

08.02.2020 is annexed herewith and marked as **ANNEXURE R-11 (Colly)**.

D. Further bottlenecks in completion of works

xv. In the interregnum, the Joint Electricity Regulatory Commission (“**JERC**”) was established. On 05.09.2020, the Respondent No. 9 wrote to the Respondent No. 10 intimating of the establishment of the JERC and accordingly advising that a petition be filed for adoption of tariff. On 10.09.2020, the Respondent No. 10 wrote to the Respondent highlighting the infrastructural bottlenecks in respect of the functioning of the JERC in the Union Territory, which was yet to become operational and accordingly stated that the entire process was facing an inordinate delay, thereby requesting that swift action be taken in the matter. Copies of the Letter dated 05.09.2020 and the response of the Respondent No. 10 dated 10.09.2020 are annexed herewith and marked as **ANNEXURE R-12 (Colly)**.

xvi. Instead, after a delay of another 2 months, on 23.11.2020, the Respondent No. 10 wrote to Respondent No. 9, *inter alia* stating that the Respondent No. 10 had not approached the JERC for approval of discovered tariff, resulting in unnecessary delays and that the Respondent No. 10 was required to complete formalities such as signing of the Concession Agreement and submission of

the performance guarantee. Thus, after almost two years of the Petitioner's incessant requests to finish all formalities, the Respondent proceeded to pin the blame on the Respondent No. 10 itself. Copy of the Letter dated 23.11.2020 is annexed herewith and marked as **ANNEXURE R-13**.

xvii. Ultimately, on 16.12.2020, the Respondent No. 10 approached JERC for adoption of tariff and vetting of the PPA. To the utter shock of the Petitioner, on 30.12.2020, the Respondent No. 9 wrote to the Respondent No. 10 again, reiterating the contents of its letter dated 23.11.2020. Copy of the Letter dated 30.12.2020 is annexed herewith and marked as **ANNEXURE R – 14**.

xviii. On 01.01.2021, the Respondent No. 10 wrote to the Respondent No. 9 intimating that it had in fact approached JERC and its response was awaited. It was further stated that for all this while the requirement of submission of the performance guarantee had been delayed by the Respondent itself, especially after it stated that the performance guarantee is to be given after the PPA is executed. Copy of the letter dated 01.01.2021 is annexed herewith and marked as **ANNEXURE R -15**.

xix. JERC vide letter dated 12.01.2021 wrote to the Principal Secretary, Power Development Department, with certain observations on the PPA and accordingly requested that the matter be examined in light

of the said observations and then be forwarded to the commission. Copy of the Letter dated 12.01.2021 is annexed herewith and marked as **ANNEXURE R-16**.

xx. In what came as yet another shock, Respondent No. 9 wrote to the Respondent No. 10 on 13.01.2021, stating formalities required to be fulfilled at JERC for vetting and adoption of tariff be sought in writing and forwarded to the Respondent and also the Tender or associated documents do not stipulate anywhere that the CA is subservient to PPA, therefore requesting Respondent to execute the CA and deposit the PBG. A copy of the Letter dated 13.01.2021 issued by the Respondent is annexed herewith and marked as **ANNEXURE R-17**.

xxi. The failure of the Respondent No. 9 to perform its role as the nodal agency becomes clearer by the fact that admittedly, on 10.06.2021, the Director Planning, HUDD wrote to Managing Director, JKPCCL requesting it to liaise with the Administration Department to resolve the issue in respect of the vetting of the PPA. On 24.09.2021, the Chief Engineer, JKPCCL wrote to the Respondent No. 10 along with a copy of the duly vetted PPA, *inter alia* advising the Respondent No. 10 to approach the JERC to get tariff adopted. Copies of the letters dated 10.06.2021 and 24.09.2021 are annexed herewith and marked as **ANNEXURE R-18**.

- xxii. The hypocritical behaviour of the Respondent becomes apparent on a perusal of newspaper reports of 17.08.2021, wherein the Respondent had gone on record to state before media and parliamentary delegation visiting the city that the PPA had been signed in respect of the Waste to Energy Project.
- xxiii. Whereas, on 28.04.2022, the Respondent No. 9 wrote to Respondent No. 10, stating that (a) the 5% Performance Bank Guarantee be submitted and the Concession Agreement be signed, (b) an application be moved for adoption of tariff in terms of the express provisions of the bid document and (c) after adoption of tariff, SMC would help Syntech with signing of the PPA with PDD. Copy of the Letter dated 28.04.2022 is annexed herewith and marked as **ANNEXURE R – 19**.
- xxiv. On 09.05.2022, the Respondent No. 10 wrote to the Respondent No. 9, giving a detailed response to Letter dated 28.04.2022 as to why the stipulations mentioned by you were incorrect and another reminder was sent vide letter dated 01.08.2022. Copies of the Letters dated 09.05.2022 and 01.08.2022 are annexed herewith and marked as **ANNEXURE R-20 (Colly.)**.
- xxv. Without dealing with the same, on 08.02.2023, the Respondent No. 9 wrote to the H&UDD in respect of the issue of tariff adoption for the PPA, seeking to convene a meeting between all interested

stakeholders to discuss certain amendments proposed by the JKPCCL.

xxvi. Instead of resolving issues and assisting and aiding the finalization of the Project in its capacity as the Nodal agency, the Respondent proceeded to issue a Show Cause Notice for Termination of the LOI dated 22.12.2023 calling upon the Respondent No. 10 to show cause as to why the LOI should not be cancelled on account of the same grounds as agitated in the Impugned Notice. A copy of the Show Cause Notice dated 22.12.2023 is annexed herewith and marked as **ANNEXURE R - 21**.

xxvii. On 04.01.2024, the Respondent No. 10 submitted its detailed response to the Show Cause Notice dated 22.12.2023, *inter alia* submitting: -

(a) That the Respondent was estopped from cancelling the Tender and demanding the performance guarantee at a belated stage after outlining that it would have to be furnished pursuant to execution of PPA.

(b) The cancellation of the Tender is beyond the financial competence of the Respondent.

(c) PERT Charts, designs and drawings had already been submitted as Annexure A4 of the bid documents in 2017.

A copy of the Reply dated 04.01.2024 is annexed herewith and marked as **ANNEXURE R – 22**.

xxviii. That, now, after 7 months of receiving the Reply dated 04.01.2024, the Respondent, by means of the cryptic Notice dated 13.08.2024, served later, has cancelled the Tender and the LOI, which has already been challenged before the Hon'ble High Court of Jammu & Kashmir and is to be taken up concurrently with the hearing before this Tribunal on 30.08.2024. A copy of the Notice dated 13.08.2024 is annexed herewith and marked as **ANNEXURE R – 23**.

xxix. Meanwhile, it is apposite to point out that on 07.05.2024, in response to an RTI Application addressed to the Respondent, submitted a detailed report containing the Respondent's stance on the issue of the Waste to Energy Project, including the factum that the sanction of the project was beyond its financial competence. A copy of the relevant portions of the report is annexed herewith and marked as **ANNEXURE R – 24**.

III. Grounds

5. The prayer of the Applicant in terms of Clause (vii) ought not be granted for the following reasons.

- A. Environmental compensation is payable in terms of the Order dated 12.12.2017 only in the event of delay in commissioning of the Project of signing of the PPA.**
- i. That, the Order dated 12.12.2017 is categorical in stating that the waste to energy plant shall be completed and commissioned within 18 months from the date the PPA is signed and that the Project proponent shall be liable to pay environmental compensation of Rs. 50,000 per day in excess of 18 months. It has been held further that in the event of default the project is not completed in its entirety and power generation is not started in any case within 24 months then the Project proponent will be liable to environmental compensation at the rate of Rs. 50,000 per day for a period of default in addition to the penalties agreed for such default under the PPA.
- ii. It is discernible from the foregoing that signing of the PPA is a *sine qua non* for the levy or imposition of the environmental compensation. Whereas, it is a matter of record that the PPA is yet to be finalized, let alone signed, owing to the neglect and delay of the Respondent No. 9 as has been elucidated hereinafter.
- B. Notwithstanding, the delay in signing of PPA and commencement of the Project is attributable to Respondent No. 10/Project Proponent.**

- i. Respondent No. 10 submits that shortly after the issuance of the LOI, by medium of various letters dated 16.01.2018, 14.02.2018 and 26.03.2018 written to the Respondent, the Respondent No. 10 had sought the Respondent No. 9's assistance and intervention towards completing all requisite formalities necessary for execution of the process. Whereas, even the H&UDD through the Assistant Director, had to write to the Respondent on 05.03.2018, to expedite the process. In fact, owing to SMC's neglect, the Respondent No. 10 had to write to the Minister, H&UDD, vide letter dated 23.05.2018 seeking his intervention, whereafter, only on 24.05.2018, the Respondent reverted to the Petitioner, merely, demarcating the site for commencement of works, without commenting on the execution of agreement(s), after almost 6 months of the issuance of the LOI.
- ii. In addition to its failure to respond to the various correspondences issued by the Respondent No. 10 seeking its timely intervention to execute formalities, the Respondent No. 9 has itself, in terms of the communication dated 08.02.2020, made it clear that the Performance Guarantee is required to be furnished after the execution of the PPA. It is clear from the record that the Respondent, at no juncture, since the issuance of the LOI, either responded to the Petitioner's request to finish all formalities, nor

did it operate on the belief that the Performance Guarantee had to be submitted before execution of the PPA.

- iv. It bears further mention that as per Clause 2D of the Tender it was the duty of the Respondent No. 9, in its capacity as the nodal agency, to assist the Respondent No. 10 in executing works as per the Tender. However, the SMC has failed to discharge its duties as nodal agency.
- v. Further, delays have also occurred on account of the administrative difficulties pursuant to abolition of the erstwhile JKSERC which later stood replaced by the JERC after the abrogation of Article 370 and change of regulatory framework in the UT of J&K and such delay is beyond the control of Respondent No. 10.

Para-wise Reply

6. That, Paras 1-2 pertain to the description of the arrayed parties in the present application and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
7. That, Paras 3-4 pertain to background of the present dispute and are matters of record and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
8. That, Paras 5-6 pertain to the description of the landfill site at Achan, Srinagar and constitute matter of record and are admitted inasmuch they are not in contradiction to the contents of the present Reply.

9. That, Paras 7-8 pertain to alleged violations of dumping waste at Achan Landfill by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
10. That, Paras 9-10 pertain to alleged violations of dumping waste at Achan Landfill by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
11. That Paras 11-12 pertain to alleged violations of dumping waste at Achan Landfill by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
12. That Paras 13-14 pertain to alleged violations of dumping waste at Achan Landfill by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
13. That, Paras 15-16 pertain to alleged violations of dumping waste at Achan Landfill by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
14. That, Paras 17-20 pertain to alleged violations of dumping waste at Achan Landfill by the local bodies and other Respondents and are admitted

inasmuch they are not in contradiction to the contents of the present Reply.

15. That, Paras 21-23 pertain to alleged non-compliance of special provisions pertaining to hilly areas under the Solid Waste Management Rules, 2016 by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
16. That, Paras 24-26 pertain to alleged non-compliance of special provisions pertaining to hilly areas under the Solid Waste Management Rules, 2016 by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
17. That, Paras 27-30 pertain to alleged violations of the timelines set in Action Plan for Municipal Solid Waste Management, J&K, 2018 by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
18. That, Paras 31-33 pertain to alleged violations of the Bio-Medical Waste Management Rules, 2016 by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
19. That, Paras 34-37 pertain to alleged violations of the Bio-Medical Waste Management Rules, 2016 by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.

20. That, Paras 38-41 pertain to alleged violations of the Bio-Medical Waste Management Rules, 2016 by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
21. That, Paras 41-44 pertain to alleged violations of the Bio-Medical Waste Management Rules, 2016 by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
22. That, Paras 45-50 pertain to alleged violations of the Plastic Waste Management Rules, 2016 by the local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
23. That Paras 51-56 pertain to violations of the Water (Prevention and Control of Pollution) Act, 1974 caused to due to discharge of leachate from landfill to Anchar Lake attributable to local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
24. That Paras 57-60 pertain non-compliance of the Order of this Tribunal dated 12.12.2017 in respect of setting up of a waste management plant at the landfill site attributable to local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.

25. That Paras 61-65 pertain non-compliance of the Orders of this Tribunal in respect of setting up of a waste management plant at the landfill site attributable to local bodies and other Respondents and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
26. That contents of Paras 66-69 pertain to the factum of passing of the Order dated 12.12.2017 and are admitted inasmuch they are not in contradiction to the contents of the present Reply.
27. That contents of Paras 70-73 pertain to the factum of passing of the Order dated 12.12.2017 and are admitted inasmuch they are not in contradiction to the contents of the present Reply. However, it is reiterated that no culpability exists on the part of Respondent No. 10 for the recorded delay caused in setting up of the power plant and commissioning of the project since the official respondents have been lackadaisical in their conduct towards implementation of the Order of this Tribunal dated 12.12.2017. On multiple occasions after the issuance of the LOI, the Respondent No. 10 has sought to push the nodal agency, Respondent No. 9, to finalize all requisite formalities in respect of the Project and the apathy of the Respondent No. 9 is reflected in the fact that it has failed to get the draft PPA vetted and finalized until date. The proponent cannot be held responsible for such omissions and negligence of the SMC.


28. That Grounds taken against the Respondent No. 10 are vehemently denied and contested on the afore-stated grounds and nothing shall be admitted on grounds of non-traverse.
29. That in light of the above submissions, it is respectfully prayed that this Hon'ble Tribunal be pleased to dismiss the present application qua the reliefs sought against the Respondent No. 10.



DEPONENT

VERIFICATION

Verified at Delhi on this 29th day of August, 2024 that the contents of the above affidavit are true and correct to the best of my knowledge and belief and nothing has been concealed therein.



DEPONENT

ANNEXURE R-1

**Integrated Solid Waste Management Project under Design,
Finance, Build, Own, Operate & Transfer (DFBOOT) Mode**

Tender Number: SMC/CSO/409/MSW P&D / T/2017

For

**Design, Finance, Build, Own, Operate an Integrated
waste management facility including energy
generation and value recovery from MSW, operate
and transfer after 25 years at Achan, Srinagar.**

Tendering Authority

**Commissioner
Srinagar Municipal Corporation,
Karan Nagar, Srinagar, J&K**

May 2017

Contents

1. Tender Notice.....	3
2. Scope of Work , Roles & Responsibilities	5
3. Instructions to Bidders (ITB)	14
4. Bidding Forms	25

1. Tender Notice

SMC/ CSO/P&D/T- 2017

Date: 24/04/2017

For on behalf of Srinagar Municipal Corporation, The commissioner of Srinagar municipal corporation, Srinagar is inviting tenders for setting up and operating an Integrated waste management facility at Achan, Srinagar. The online tenders and other relevant documents shall be uploaded on or before 06 June 2017.

Sub: Design, Finance, Build, Own an Integrated solid waste management facility including energy generation and value recovery from MSW for a capacity of about 500 ± 125 MT/day, Operate and Transfer (DFBOOT) after a period of 25 years to SMC at Achan.

I. Srinagar Municipal Corporation, Srinagar, J&K, is committed to upgrade its municipal solid waste management function as per requirement under MSW Rules 2016.

II. This tender call is to participate in a bid for setting up and operating an Integrated solid waste management facility including energy generation and value recovery from MSW under Design, Finance, Build, Own and Operate & Transfer after a period of 25 Years.

III. Tariff based competitive bidding is adopted for sale of power from the Integrated waste management plant including energy generation and value recovery from waste. The technically qualified bidders quoting the lowest levelized tariff over the entire concession period shall be awarded the project. The SMC expects the tariff to be in the range in which Power purchase agreements have been signed across India based on CERC guidelines.

IV. This is an E-tender and tenders must be electronically submitted (on-line) within the date and time published in e-procurement portal under Two cover system. First Cover tenders will be opened at prescribed time and date in the e-procurement portal.

E-tendering procedure

1. Tender documents may be downloaded from Government of Jammu & Kashmir e-Procurement website www.jktenders.gov.in under login for prospective bidders. After login please locate the tender notice and download copy of the tender. The tender can be downloaded in the portal within prescribed date and time published in the portal.

2. Aspiring Bidders who have not obtained the user ID & Password for participating in e-Procurement in Jammu & Kashmir, may now obtain the same from the website.

3. Any further information or clarification can be uploaded in to the e-portal website and clarifications will be issued on the website.

4. Corrigendum/ modification/corrections, if any, will be published in the website only.

V. Parties meeting following eligibility criteria may apply for this tender.

1. The Lead Bidder must be a company registered in India under the Indian Companies Act of 1956 and in existence for last 3 years.

For Tenderer

No. of corrections

For Commissioner, SMC-Srinagar

2. Annual Financial turnover of the consortium and net worth should be minimum Rs 50.00 Cr as of 31st March 2017.
3. Consortium of up to 3 parties including international entities is allowed, with clear roles & responsibilities as to management, technological and financial aspects.
4. The Bidder or its consortium member(s) should have planned, installed and commissioned at least one project of min 300 MT/day MSW Processing through energy generation from municipal solid waste in India or internationally. O&M of the facility should have been carried out for at least three year after commissioning.
5. Performance record of the Bidder in execution and operation of MSW projects will be a important criteria for qualification.
6. Tenderer should fulfill all statutory requirements under applicable Acts and Rules.

VI. Tender fee, EMD and timelines

1. The tender fee is Rs. 50,000 and shall be paid through Demand Draft in the name of Commissioner, Srinagar Municipal corporation, Payable at Srinagar. The scanned copy of the DD shall be uploaded on the E portal. The original shall be part of Technical documents.
2. Tender EMD of Rs 50 lakhs (Fifty lakhs)as Bank Guarantee from Nationalized or Schedule Bank of India shall be scanned and uploaded along with the tender. The Bank guarantee shall be in the name of Commissioner, Srinagar Municipal corporation, Srinagar.
3. The Original hard copy shall be delivered to Commissioner before the mentioned date else the tender would be considered non responsive and not opened.
4. Date of downloading tender document from e-portal: 24 April 2017 to 4 PM
5. Clarification for pre-bid queries: 12 May 2017 to 06 June 2017 till 4 PM.
5. Pre bid meeting: 12 May 2017 at 2.30 PM.
6. Online Bid submission end: 06 June 2017
7. Last date for receiving Hard copies of the tender: 08 June 2017 up to 4 PM
8. Opening of tender (Technical + EMD): 12 June 2017 at 2 PM in the presence of commissioner, SMC, Chief Accounting officer, SMC. The Bidders if willing to participate in the tender opening shall be part of the bid opening process.
9. Opening of financial Tender: To be decided on the day of opening technical bid. The Bidders if willing to participate in the tender opening shall be part of the financial bid opening process.
10. Place of opening technical bid : The office of Srinagar Municipal corporation, Srinagar

VII. Commissioner Srinagar Municipal Corporation, Srinagar, J&K, reserves the right to accept or reject any tender or all the tenders without assigning any reason.

Sd/-
Commissioner
Srinagar Municipal Corporation

2. Scope of Work , Roles & Responsibilities

Content	Page No.
A. Scope of Work	6
B. MSW quantity and Quality	7
C. Standards	9
D. Srinagar Municipal Corporation roles & responsibilities	9
E. Bidder & Project Awardee roles & responsibilities	10
F. Other conditions	15

A. Scope of Work

1. Design, Finance, Build, Own, Operate and transfer (DFBOOT) of the Integrated MSW Processing facility including energy generation and value recovery from MSW for 500 ± 125 MT/day and subsequent incremental quantities @ 4.00% per year after 25 years.
2. O&M of the above facility for 25 years (excluding installation and commissioning period). Post Closure care of sanitary landfill for 15 years.
3. The technology of Energy generation shall be followed for treatment & disposal of MSW. Emission standard as applicable at time of project execution shall be complied. The power plant shall be of minimum capacity of 5 MW keeping in view the growth of Srinagar and the waste generation. Pre Sorting of the waste to recover recyclables shall be undertaken. Maximum effort to recover materials and minimize landfill to less than 20% of incoming waste shall be undertaken.
4. Components/Equipments to be deployed at the Energy generation Plant should comply with approved/minimum Technical Standards as per International Electro-Technical Commission (IEC) and Bureau of Indian standards (BIS) or technical standards that are specified by Ministry of New & Renewable Energy (MNRE)/Ministry of Power (MoP)/Ministry of Urban Development (MoUD) as amended from time to time.
5. Mass burning of MSW in its raw form is not allowed.
6. Primary product recoveries shall be Energy using conditioned fuel / RDF / Fluff without chlorinated plastics.
7. Offered technology should be able to make use of received MSW with varying moisture content and having calorific value from 800 kCal per kg to 2200 kCal per kg.
8. SMC guarantees minimum quantity of 300 MT/day at present.
9. The concession period offered is of 25 years (excluding Installation and commissioning period), which may be extended on mutual agreement for a period to be decided by the SMC. The process for renewal of contract may begin one year before expiry of the first concession period.
10. Completion of project delivery and commissioning within 24 months from the date of agreement signing.
11. Periodic innovations and upgradation of the MSW processing technology for enhancement of operational efficiencies and value addition for recovered products.
12. Complete compliance with the statutory requirements for pollution control / pollution prevention as per requirement of MSW Rules 2016 and conditions imposed by State PCB/CPCB and other Government Agencies & regulatory authorities during construction and operations. Ensure compliance of the regulations notified after award of work as far as possible.
13. Meeting the standards for MSW derived products as laid down by respective Departments of Government. Work towards the use of bottom ash, fly ash and inert components for making blocks.
14. Periodic reporting for the progress of facility installation and its functioning/operations during the concession period
15. Safe upkeep and maintenance of the allotted land premises with required greenbelt and aesthetics of the overall site.
16. Filling of application(s) for grant of consent to establish, Environmental Clearance and

further authorization for project operation as required with concerned central government and state government departments, within one month of signing of agreement. Similarly applications will be made for power connection and other statutory clearances.

17. Help and participation in SMC's efforts for 4 -Rs, I.E.C. and cleanliness campaigns for the city and adjoining areas of valley.
18. Preparation of documents/project proposals for availing CDM benefits or any other environment conservation benefit from Central Government or from International Agencies.
19. Any other task relating to treatment of MSW as may be advised by the Municipal Authorities, arising out of special circumstances like large public gatherings, religious events and natural calamities.
20. All clearances from regulatory agencies required for the work shall be obtained by the bidder.
21. SMC shall allow the use of 10 hectare out of 15-hectare land area available with SMC at Achan site for period of concession for setting up the Municipal Solid waste processing facility and setting up sanitary landfill cells.
22. Land area that is allowed for use for setting up the processing facility and sanitary landfill cells will remain Property of Srinagar Municipal Corporation, Srinagar, J&K, all the time.
23. All the assets created under this contract will remain the property of the Project Awardee during the concession period and will be transferred to the SMC at the end of the concession period. All such assets while handing over will be in operating conditions and be well maintained.
24. Only movable assets can be mortgaged by the Project Awardee.
25. One set of drawings and all other documents relating to the works under contact shall be kept in the site office and made readily available for discussions, examinations of the Engineer or his representatives along with the testing equipment and machinery.
26. To ensure that the Project is able to Process & and handle entire MSW generated in the city with yearly incremental quantities.
27. Carrying out the job as per designs & drawings, technical specification/catalogue approved by ULB or their Consultants etc.
28. Submission of activity schedule and PERT chart for project installation and commissioning within 3 weeks of agreement signing for the first 24 months.
29. Submission of layout drawings within 4 weeks of agreement signing and subsequent provision of detail drawings including civil structural drawings for vetting.
30. Supply of as built drawings after completion for verification by SMC consultants.
31. Bidders are advised to visit and examine the site where the works are to be carried out and its surrounding with prior arrangement and obtain on their own all information and satisfy themselves as to the conditions prevalent there with respect to execution of works as per the scope of work. No claim in this regard, whatsoever on any accounts shall be entertained by the SMC in any circumstances.

B. MSW quantity and Quality

- i. The data on the Municipal Solid Waste generation and character is presented in this section. Composition of MSW given in the tender is broadly indicative and may vary

from season to season. The Bidders are advised to conduct due diligence studies and are advised to apply their own judgment in this matter.

- ii. For determining the technological appropriateness for mixed MSW, following range of material contents can be taken into consideration. MT for every 100 MT mixed MSW.

Sr.	Parameter	Min	Max
A	Moisture content %	35	65
B	Short term biodegradables%	30	45
C	Long term biodegradables %	05	15
D	Combustibles (including "c")	15	25
E	Plastics	03	7
F	Rubber & Leather	02	04
G	Metals & Glass	1.0	2.5
H	Stones, bricks, ceramics	7.5	10.00
I	Sand, Ash, Dust	5.00	8.00
J	Others	5.00	7.00
K	Overall calorific value k.cal / kg	780	1150

- iii. Quantity of waste received in last 1 year at Achan, Srinagar

S.N	Month	Total quantity received in Metric tons	Average quantity of waste received (TPD)
1	April 2015	10560	352
2	May 2015	12570	405
3	June 2015	15403	513
4	July 2015	14524	468
5	August 2015	13296	428
6	September 2015	11209	373
7	October 2015	11337	365
8	November 2015	9521	317
9	December 2015	10507	338
10	January 2016	9433	304
11	February 2016	9312	321
12	March 2016	8243	265
13	April 2016	10500	350
14	May 2016	12533	404
15	June 2016	10822	360
16	July 2016	5883	196
17	August 2016	5158	166
18	September 2016	7604	253
19	October 2016	8380	270
20	November 2016	8431	281
21	December 2016	9036	291
22	January 2017	7981	257
23	February 2017	8250	294

24	March 2017	9610	310
25	April	9900	330

iv. Composition of SMC Municipal Solid waste (as per waste study)

Only compostable waste

S. N	Waste Stream	% content
A.	Short term biodegradables	
I	Leafy matter, peels of fruits, vegetables, flowers, food residues	44.00
II	Dry grassy materials	5.20
III	Fish, meat, poultry bones, shells	3.00
IV	Soft paper	1.80
Sub Total (A):		54.00

Long Term Compostable or combustible waste

B.	Long term degradable / combustibles	
I	Corrugated boxes, Paper Products	6.40
II	Cloth & Textiles	5.00
III	Cotton, Jute, rags	4.80
IV	Hardy woody matters	3.80
Sub Total (B):		20.00

Recyclable wastes:

C.	Recyclables	
I	Plastic Products of all kinds	6.50
II	Rubber and leather	2.80
III	Metals(Fe, Tin, Al)	1.00
IV	Glass	0.50
Sub Total (C):		10.80

Miscellaneous wastes:

D.	Other Wastes	
I	Soil, Bricks, Stones, Debris	10.50
ii	Diapers, Sanitary Napkins	2.50
iii	Miscellaneous items	2.20
Sub Total (D):		15.20
Grand Total (A + B + C + D):		100.00

C. Standards

- i. The Bidder must meet Municipal Solid Waste (Management and Handling) Rules, 2016 and other Acts, Rules that may be imposed by Govt. Agencies /PCB/Courts from time to time.
- ii. All the relevant regulations/stipulations/guidelines etc given by CPHEEO/IPNM Task Force Report or any other scheme of State or Central Government will be met by the Project Awardee.
- iii. All materials and workmanship shall be of best quality conforming to latest IS Codes PWD/CPWD Specifications. The materials brought to work are subject to inspection by the SMC representative and only the approved materials shall be used. No work shall be covered up or put out of view without the approval of the SMC representative and the Project Awardee shall afford full opportunities and facilities for the SMC representatives to examine the work.

D. Srinagar Municipal Corporation roles & responsibilities.

The Srinagar Municipal Corporation, Srinagar, J&K will facilitate the following towards support for installation, commissioning of the MSW energy generation and value recovery including its Operation and maintenance at the Achan site.

- i. Provide motorable road upto the project site
- ii. Assist in permissions for sourcing of water both potable and for processing.
- iii. Provide Municipal solid waste at its cost MSW up to the tipping floor of processing facility. SMC guarantees a minimum of 300 TPD of MSW per day.
- iv. SMC will assure, to the extent possible that waste from excluded category are not delivered to processing site.
- v. The SMC will allot 10 Ha for the project. The land will be handed over for use for MSW processing and disposal without any charge. There will be no leasing of land, hence no lease rent is payable.
- vi. SMC will work with the Project Awardee to make joint efforts for greening the site in gradual manner.
- vii. The SMC officials will ensure proper coordination with Project Awardee and other stakeholders for execution and O & M of the project.
- viii. SMC shall assist the awardee in obtaining necessary approvals of the appropriate commission for setting up of the integrated waste management plant including energy generation and value recovery from municipal waste through the route of tariff based competitive bidding.
- ix. SMC shall assist the awardee in obtaining power purchase agreement (PPA) from Jammu Kashmir Power Development Department (JKPDD) for purchase of surplus power from the Energy generation plant on the levelised tariff quoted by the awardee for the entire concession period. The SMC expects the quoted levelised tariff to be in the range of CERC guidelines. The SMC would compare the quoted tariffs with other energy based projects from waste across the country before providing PPA.
- x. SMC shall assist the awardee in obtaining the connectivity with the JKPDD's system at appropriate voltage level under the provisions of the JKSERC (Terms and Conditions of Intra- State Open Access) Regulations, 2015.

E. Bidder & Project Awardee roles & responsibilities

I. Bidder Roles & responsibilities

- i. Execution and operations of the project is sole responsibility of bidder
- ii. Whenever required under Government regulations, it shall be incumbent on the successful Project Awardee to pay stamp duty on the contract agreement, as per prevailing rate and government ruling on the date of execution of the contract agreement.
- iii. On acceptance of the tender, the Project Awardee shall nominate an authorized representative as site - in charge who shall be responsible for day to day activities through out the execution period.
- iv. The constituents of partnership/ joint venture/ consortium of pre-qualified parties shall not be changed.
- v. The bidder should quote the capacity in MW to be generated by the Plant.
- vi. The bidder should quote levellized Tariff over the concession period

II. Project Awardee Roles and Responsibilities

a. During Project Execution

- i. The Project Awardee has to abide by the orders of Government, Court, NGT, regarding clustering and technologies.
- ii. Within 30 days from issue of the Letter of Acceptance the Project Awardee will submit to the SMC complete design, drawing and relevant documents along with his program to complete the works in the form of a PERT Chart and get it approved. The approved PERT chart shall be diligently and strictly followed with a view to complete the works as per schedule. The progress & planning of works shall be reviewed from time to time and be modified depending upon the exigencies of the work and stage of the works.
- iii. Necessary authorizations for the site and the project shall be obtained by the project Awardee. SMC and their consultants will render necessary assistance.
- iv. Adherence to the project installation and time schedule as specified under Scope of Work mentioned in the tender document has to be ensured.
- v. The Project Awardee will take necessary insurance for the project during transport, Installation and commissioning and thereafter for entire Concession Period for value of such assets as Investment made and for O & M requirements.
- vi. The project awardee shall execute the project as per the technical details provided.
- vii. From the commencement to the completion of the work the Project Awardee shall take full responsibility for all losses and damages if any, suffered to works, men or materials. In case of any damages, loss or injury happen to the works or to any part thereof or to any temporary works from any cause whatsoever the successful Project Awardee shall at its own cost repair and make good and in conformity in every respect with the requirement of the order. The SMC shall have no liability in this case.
- viii. The Project Awardee shall be responsible for the good conduct, competence, proper and prompt performance of the laborers employed by him.
- ix. In respect of all labor directly or indirectly employed on the works, the Project Awardee shall comply with all rules and regulations of Government or other local authorities.
- x. On completion of work, the Project Awardee shall submit two sets of as built drawings and soft copy of the drawings on the compact disc (CD).

- xi. Water required for, drinking shall be arranged by the Project Awardee.
- xii. Site office for the Project Management shall be constructed by the Project Awardee at their cost.
- xiii. A separate room with furniture / fixers and washroom etc will be provided by the Project Awardee for use by SMC 'officials, experts and monitoring personnel.
- xiv. Washrooms, change rooms, drinking water and eating place for workers shall be constructed at appropriate places by the project developer or subcontractors. Such structures, if permanent in nature, shall be reflected in Layout plan of the facility.
- xv. Drinking water shall be of Potable quality. Process requirement water can be from any other source.
- xvi. All the material used in construction, machineries & other equipments will be inspected & tested (whether testing is feasible) by a inspection agency appointed by SMC. All charges in this regard will be borne by Project Awardee.
- xvii. The Project Awardee shall pay the professional fees for a technical auditor identified by SMC for engineering vetting support.
- xviii. The responsibilities of project awardee with respect to energy dispatch are as follows:**

- a. The project awardee shall apply for connectivity with JKPDD under the provisions of the JKSERC (Terms and Conditions of Intra- State Open Access) Regulations, 2015, for connecting the energy generation plant with the JKPDD system at appropriate voltage level.
- b. Under the provisions of the Regulation JKPDD shall identify the station where connectivity shall be granted. The cost of additions and alterations of the infrastructure up to interconnection point and necessitated within the station including metering at interconnection point with Special Energy meters (SEM) shall be borne by the awardee of the project. The nearest interconnection point identified by JKPDD is 132/33 KV sub station Wanganpora.
- c. The relevant regulations of JKSERC shall be applicable to this project with respect to applicable charges, billing and metering.
- d. The awardee shall obtain necessary clearance from Inspection wing of JKPDD before commissioning the energy generation plant and connecting it with JKPDD system.
- e. The awardee shall provide access to the authorized personnels of JKPDD during execution of the project and during the operation period as and when required.
- f. The awardee shall operate the generating station and maintain Grid Security during the entire operation period strictly in accordance with the Indian Electricity Grid Code (IEGC)/State Electricity Grid Code (SEGC) Regulations.

b. During Operations & Maintenance

- i. Investigations at the site shall be carried out as per requirement of the state authorities.
- ii. All the O&M expenses including staff, fuel, maintenance, insurance, will be to the account of the successful bidder and they will not raise any claim to this effect on the Municipal Corporation.
- iii. The Project Awardee will provide all consumable materials and required staff for

operation and maintenance. The charges for power & water required during construction and testing period will be borne by the Project Awardee.

- iv. The Project Awardee shall comply with the provision of all rules, regulations and relevant acts prevailing during the agreement period and the rules and regulations, all amendments issued there under from time to time in the state of Jammu & Kashmir. Failure to do so shall amount breach of the contract and the SMC may at its discretion terminate the contract. The Project Awardee shall be liable for any pecuniary loss, liability arising on account of violation of the provision of the Acts.
- F. After award of the contract, should it appear to the SMC that
- a. The Project Awardee is not executing the order in accordance with the contract.
 - b. The Project Awardee is not adhering to the program as per the PERT chart or that Project Awardee is not proceeding fast enough to ensure the completion of the work by the time stipulated in the concession agreement or that such time has already expired.
 - c. The Project Awardee has refused to carry out the instruction of the authorized representatives of the SMC.
 - d. The Project Awardee has committed any other breach of the contract.

The SMC may at the expense of the Project Awardee take suitable action without prejudice to any other right of the SMC.

3. Instructions to Bidders (ITB)

Table of Clauses

A. General	Page No.
1. Scope of Tender	15
2. Eligibility of the Bidder	15
3. One Tender per Bidder	16
4. Cost of Tendering	16
5. Site Visit	16
B. Tender Documents	
6. Content of Tender documents	16
7. Clarification of Tender Document	16
8. Pre-bid meeting	17
9. Amendment of Tender documents	17
C. Preparation of Tenders	
10. Documents comprising the Tender	17
11. Tender prices	18
12. Tender validity	19
13. Earnest money deposit	20
14. Format and signing of Tender	20
D. Submission of Tenders	
15. Submission for Tenders	20
16. Deadline for submission of Tenders	21
17. Late Tenders	21
18. Modification and Withdrawal of Tenders	21
E. Tender opening and evaluation	
19. Opening of First Cover of all Tenders and evaluation to Determine Qualified Bidder	21
20. Opening of Second Cover Tenders of qualified tenders and evaluation	22
21. Process to be confidential	22
F. Award of contract	
22. Award criteria	23
23. Employer's right to accept any Tender and to reject any or all Tenders	23
24. Notification of award and signing of Agreement	24
25. Performance Security Deposit	24
26. Corrupt or Fraudulent Practices	24

A. General**1. Scope of Tender**

- i. The Commissioner Srinagar Municipal Corporation, referred to as SMC in these documents, invites tenders following two cover tender procedures, from eligible Bidders.
- ii. Scope of work is Design, Finance, Build, Own, operate and transfer (DFBOOT) the Integrated MSW Processing facility at Achan Srinagar.
- iii. The deciding parameter for this project is tariff for energy supply from the project. The SMC shall guarantee purchase of the surplus power at the bid price from the project awardee.
- iv. Delivery and Commissioning of the project in expeditious manner so as to treat and process the waste within 24 months from signing of the concession agreement.
- v. O&M of the above facility for a period of 25 years from commercial operations date with a post closure maintenance of 15 years for scientific landfill.

2. Eligibility of the Bidder:**a. Statutory**

- i. The Bidder should be registered in India under the Indian Companies Act of 1956 for at least 3 years. The bidder shall submit the company registration certificate along with the annexures for the same.
- ii. Consortium of up to 3 parties is allowed with specific roles and responsibilities of Project Management & Execution, Technical or Technological Assistance and Financial Support Members. Members of the consortium shall nominate one member as the Lead bidder. The lead bidder should hold greater than 51% equity. There can only be one lead bidder. Lead bidder has to be an Indian entity. A joint bidding agreement shall be provided on a stamp paper of Rs.200/- and duly signed by all the parties and notarized. Non-compliance of this may lead to rejection.
- iii. Bidders must submit all statutory documents like Company registration, IT PAN, Service Tax registration certificates along with the annexures.

b. Financial

- i. Financial turnover of the bidder or consortium should be minimum of Rs 50.00 Cr from any business and have a net worth of Rs 50.00 Cr as of financial year ending 31st March 2016.
- ii. The bidder provide a solvency certificate of minimum Rs 10.00 Cr

c. Technical

- i. The Bidder or the consortium members should have planned, constructed, installed and commissioned at least one MSW processing of minimum 300 MT/day capacity in a single ULB in India or abroad. They should have operated such an executed facility successfully for at least three years. The quantities of the MSW for qualifying project will be taken as per the quantity mentioned in the agreement or as certified by the Municipal Officer in charge of the project or actual certified weigh bridge record of any two quarter after commissioning of the project. The MSW processing treatment should have been carried for generation of energy.
 - ii. The tenderer should have knowledge and experience of ground level realities for MSW characterization, climatic conditions and socioeconomic scene of the project region.
 - iii. The technology offered should be well proven and acceptable under Indian conditions.
- d. Non-qualifying conditions:
- i. Pilot scale experimental projects of up to 50 TPD employing very high capital cost technology like Plasma Arc / Plasma Gasification/ or any other patented Technologies.
 - ii. Technologies that are not yet proven on commercial scale.
 - iii. Parties having poor track record of MSW project deliveries, event of willful defaults/delays and back out etc.
 - iv. Suppression of facts or misrepresentation of facts relating to consortium members and technological appropriateness and project O&M.
 - v. Past record of change of consortium members, financial collapse or mismanagement of the owning / operating company leading to project abandoning, dropping, closure etc.

3. One Tender per Bidder:

Each Bidder shall submit only one tender for this project. A Bidder who submits or participates in more than one Tender will cause all the proposals with the Bidder's participation to be disqualified. This applies to all sister companies, associates and subsidiaries of all the Bidders.

4. Cost of Tendering:

The Bidder shall bear all costs associated with the preparation and submission of his tender, and the Employer will in no case be responsible and liable for those costs.

5. Site visit:

Bidders are advised to visit and examine the site where the works are to be carried out and its surrounding and obtain for themselves on their own responsibility all information and satisfy himself with prior arrangement as to the conditions prevalent there with respect to execution of works as per the scope of work. No claim, whatsoever on any accounts shall be entertained by the Commissioner in any circumstances.

B. Tender documents

6. Content of Tender documents

- i. The set of tender documents consist of the Notice of tender, the scope of work the invitation to bid, the forms for bidding and the draft concession agreement.
- ii. The draft concession agreement shall be uploaded along with this document on the e-portal.
- iii. Terms and conditions of this tender will remain part and parcel of the Concession Agreement and supplementary agreement, if any.

7. Clarification of Tender Documents

A prospective Bidder requiring any clarification of the tender documents may notify the SMC by uploading in the e-portal website or sending a letter, fax or email to the tender inviting authority. The SMC will respond to any request for clarification that is received by uploading response on the e-procurement portal. No individual response shall be provided.

All correspondence, communications regarding this tender will be made with the tender calling authority only.

8 Pre bid meeting

- i. Pre-bid queries can be uploaded through E-Procurement portal upto 3 days before the scheduled pre-bid meeting.
- ii. The purpose of the Pre-bid meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage
- iii. Non-uploading of queries in the E-portal will not be a cause for disqualification of a Bidder.
- iv. Response to pre bid queries, clarifications sought and points raised in the pre-bid meeting would be provided within 3 days of the pre-bid meeting.
- v. Pre-bid meeting can be attended by:
 - a. Those who have downloaded the tender document from the e-procurement portal.
 - b. The person attending the pre-bid meeting shall bring authorization letter from the intending Bidder.
 - c. Usually Not more than 2 persons per intending Bidder are permitted to attend Pre-bid meeting
 - d. Unrelated or unconcerned parties with the tendering subject or tendering entities are not allowed to participate in the Pre-bid meeting.

9. Amendment of Tender documents

- i. Before the deadline for submission of tenders, the SMC may modify the tender documents by issuing addenda in the website.
- ii. Any addendum thus issued shall be part of the tender documents and shall be communicated in the website.
- iii. To give prospective Bidders reasonable time in which to take an addendum into account in preparing their tenders, the Employer shall extend as necessary the deadline for submission of tenders.

C. Preparation of Tenders

10. Documents comprising the Tender

- i. Submissions of Bidders proposal shall be done in two cover systems.
- ii. The first cover shall be the technical proposal forms and qualifying credentials. The technical bid documents shall be uploaded on the e-procurement website along with the scan of the EMD. Two hard copies of the technical bid in a sealed envelope would be submitted to the SMC before the closing date of the bid. This sealed envelope shall contain the original hard copy of the EMD bank guarantee.
- iii. The second cover shall be the Financial Bid. The financial bid would be uploaded in the E-procurement site and would be opened only for technically qualified Bidders. Financial bid shall not be submitted in hard copy.
- iv. Tenderer should submit information as per bidding forms(1 to 16) in this tender document. Below each form the Bidders authorized signatory shall sign in full, give name; provide designation and company seal should be affixed.
- v. Enclose copies of all statutory documents relating to status, licenses, permits etc.
- vi. Enclose the Power of Attorney for the authorized signatory on non judicial stamp paper of Rs. 100.
- vii. Please enclose Auditors certificate, Annual accounting statements regarding financials
- viii. Enclose any other documents as per Bidder assessment to strengthen and clarify the Bid.
- ix. Submission of vague documents, certificates or incorrect information in any aspect of the tender will not only disqualify the bidder but may lead to further legal action for misleading authorities.
- x. In case of consortium, basic details for all members must be given in applicable annexure separately for each member.
- xi. Conditional tenders, un-substantiated claims, offers, non-quantifiable benefits or hypothetical assumptions will not be considered.
- xii. Suggestion, objections, pre-conditions relating to land area for processing, accumulated waste, site conditions, geotechnical matters MSW Characterization topography etc. will not be entertained.
- xiii. Financial bid must be submitted in the prescribed format given with this document. Price quotation should be given in words and figures. In case of discrepancies in words and figures cost given in words will be considered.
- xiv. Incomplete tenders or tenders not fulfilling any of the conditions specified above are liable to be rejected without assigning any reason.
- xv. Bidder is expected to examine all instructions, forms, terms, clauses, and other information in the Tender Documents. Failure to furnish all information as required in the tender document or submission of bid not substantially to the tender documents in every respect will be at the Project Awardee/ Bidder's risk and may result in rejection of the bid.
- xvi. All witnesses and sureties shall be persons of status and probity and their full names, occupations and addresses shall be stated below their signatures
- xvii. The Bid and all the correspondence and documents shall be in English. Supporting documents and printed literature furnished by the bidder in another language shall be accompanied by an appropriate translation of the same into English language. For the

purpose of interpretation of the bid, the text in the English language shall prevail. The failure to comply with this condition may cause rejection.

- xviii. No alteration whatsoever shall be made in the text of the Bid form, by the bidder. Any remark / deviation or explanation should be sent in a covering letter. All pages of the tender document have to be signed by the authorized signatory and submitted.
- xix. Bidder is advised to read carefully all chapters and give complete information regarding his proposals, substantiating the same with calculations, drawings literature, with clear reference to any standards adopted, in such manner that there is no ambiguity or nothing is left to chance. All relevant information, so as to make the proposal understandable shall be 'given. Vague remarks and remarks like "will be given later" are not acceptable. If in the opinion of the tender evaluation committee the proposal is grossly incomplete, this will form sufficient reason for complete rejection of the tender on technical grounds.

11. Tender prices

- i. The concession shall be for the whole works as described in Scope of work and the tender price provided would be deemed to have been provided with full knowledge and understanding of the work by the Bidder.
- ii. All duties, taxes, and other levies payable by the bidder under the concession, or for any other cause, shall be included in the total Tender Price submitted by the Bidder.

12. Tender validity

- i. Tenders shall remain valid for a period not less than 180 days after the deadline date for tender submission. The SMC shall reject a tender valid for a shorter period as non-responsive.
- ii. In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the Bidders extend the period of validity for a specified additional period. The request and the Bidders' responses shall be made in writing or email. A Bidder may refuse the request without forfeiting his earnest money deposit. A Bidder agreeing to the request will not be required or permitted to modify his tender, but will be required to extend the validity of his earnest money deposit for a period of the extension.

13. Earnest money deposit

- i. Earnest Money Deposit shall be Rs. Fifty Lacs payable as Bank Guarantee issued by any nationalized/scheduled bank of India in favour of Commissioner, Srinagar Municipal Corporation, Srinagar, J & K.
- ii. Instruments having fixed validity issued as earnest money deposit for the tender shall be valid for 45 days beyond the validity of the tender.
- iii. Any tender not accompanied by an acceptable earnest money deposit and not secured as indicated in Sub-Clauses (i) and (ii) above shall be rejected by the SMC as non-responsive.
- iv. The earnest money deposit of unsuccessful Bidders will be returned within 30 days of the end of the tender validity period.

- v. The earnest money deposit of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security.
- vi. The earnest money deposit may be forfeited:
 - (a) if the Bidder withdraws the Tender after tender opening during the period of tender validity;
 - (b) if the Bidder does not accept the correction of the Tender Price, pursuant to Clause 24; or
 - (c) in the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - (i) Sign the Agreement; or
 - (ii) Furnish the required Performance Security Deposit

14. Format and signing of Tender

- i. The Bidder shall prepare and upload in the website on or before the closing date.
- ii. Tender shall be typed or written in ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the tender where entries or amendments have been made shall be initialed by the person signing the tender.
- iii. The Tender shall contain no alterations or additions, except those to comply with instructions issued by the SMC, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person signing the Tender.

D. Submission of Tenders

15. Uploading of tenders

The Bid shall be prepared and uploaded in the website before the closing date of tender.

16. Deadline for submission of the Tenders

- i. Tenders must be uploaded on the e-procurement website and hard copy of the technical submission shall be received at the SMC no later than last date of tender submission on the e-procurement website. In the event of the specified date for the submission of tenders being declared a holiday, the hardcopy of the tenders will be received up to the appointed time on the next working day.
- ii. The Employer may extend the deadline for submission of tenders by issuing an amendment, in which case all rights and obligations of the Employer and the Bidders previously subject to the original deadline will then be subject to the new deadline.

17. Late Tenders

There is no possibility of late tenders, as they will be rejected by the e-procurement system. Tenders received at SMC but not on e-procurement will be rejected.

18. Modification and Withdrawal of Tenders

- i. Bidders may withdraw their Tenders before the deadline prescribed in Clause 16 on the e-procurement website.
- ii. No Tender may be modified after the deadline for uploading of Tenders.
- iii. Withdrawal or modification of a Tender between the deadline for submission of Tenders and the expiration of the original period of Tender validity will result in the forfeiture of the earnest money deposit.

E. Tender opening and evaluation**19. Opening of First Cover (Technical Bid with EMD) of all Tenders and evaluation to determine qualified Bidders:**

- i. The SMC will open the First Covers of all the Tenders received including modifications for First Cover on the date and time as per tender condition. In the event of the specified date of Tender opening being declared a holiday, the tenders will be opened at the appointed time on the next working day.
- ii. The First Cover of Tenders for which an acceptable notice of withdrawal has been submitted shall not be opened.
- iii. Any Bidder who chooses to be present at the bid opening may do so. The SMC shall prepare minutes of the Tender opening.
- iv. The contents and quality of submissions in the first cover will be scrutinized for fulfillment of eligibility criteria and quality of submissions, necessary clarifications may be sought from tenderers.
- v. No conditional Tender bid will be acceptable.
- vi. The SMC is likely to constitute a Tender Committee, whose recommendation on technical proposal, financial Bid and further calculations will be considered for award of the project.
- vii. The tender committee will check bids determined to be substantially responsive for any arithmetical errors in computation and submission. Error will be corrected and where there is a discrepancy between amount in figures and in words, the figure in words will be considered.
- viii. To assist in the examination, evaluation, and comparison of Bids, Bidders may be asked for clarification of their Bids including breakdown of unit rates/prices. The request for clarification and the response shall be in the writing, but no change in the prices or substance shall be sought, offered or permitted except as required to confirm the correction of arithmetical errors discovered during the evaluation of Bids.
- ix. If the Tender evaluation committee is not satisfied regarding adherence to time schedule (as determined from track record), sustainability of the O&M operations, project viability calculations in such case the bidder may be asked to further prove his claims within the stipulated time. Failure to do so will result in disqualification of the tenderer.
- x. Tender submissions based on imaginary processes and benefits or claiming to Solve MSW problem free of cost will be subjected to thorough scrutiny of detailed record of past performance of the project. Untenable propositions shall be rejected and the proponent disqualified.

- xi. Imprudent calculations with regard to mass balance, energy balance, material recoveries processing capacities will be subjected to thorough scrutiny and backward calculations for ascertaining the appropriateness of technological proposal.
- xii. Tenderers attempting to delay the proceedings with prejudice mind and non-sustainable grounds may face disqualification.
- xiii. Post facto submission of documents will be allowed only for specifically asked subject by the tender evaluation committee
- xiv. Documentary evidences for qualification and marks should be supported by English translation wherever these are in any other vernacular language. If this is not done, such evidence shall be ignored.
- xv. Evaluation of technical marks shall be done as per the parameters specified in the table below. Overall marks for the Technical Evaluation is 100 out of which bidders have to secure minimum 60% marks. The Bidders would be invited to make a presentation, if required for giving technical marks, to assess their understanding of the project concept and technology proposed.

S r	Parameter	Criteria & Marks		Marks obtained by bidders				
				1.	2.	3.	4.	5.
1	Co. Registration	Min 5Yrs	2					
		5.1Yrs to 7Yrs	3					
		>7 Yrs	5					
2	Financial turn over	up to Rs 50 Cr	2					
		up to Rs.100 Cr	3					
		>100.00 Cr	5					
3	Net worth	up to Rs 50 Cr	2					
		up to Rs.100 Cr	3					
		>100.00 C	5					
4	MSW Qty Processed : MT/day	up to 500	10					
		up to1000	15					
		>1001	20					
5	Number of MSW processing facilities established,	1	5					
		2	10					
6	Capacity of the energy generation facility	5 MW	5					
		10 MW	10					
		15 MW or above	15					
7	Special features proposed in the project concept: Scientific leachate tr. Modernized Tr.Facl. Env. monitoring lab Weather & pollutant data, well planned facilities Greenbelt & overall aesthetics		5					
			5					
			5					
			5					
8	Understanding of Project	Average	5					

	Concept, responsiveness to tender and quality of submission	Good V.good	7 10					
9	Facility layout, transparency of operations and overall upkeep	Av. Good V.good	5 7 10					
	Total:		100					

- xvi. Expert team may visit actual working facility mentioned by the bidder at any stage between tender openings to the opening of the financial bid. Documentary evidences including Audio, Video, Multimedia presentation must be submitted with the technical proposal by all the tendering entities. In case of role model facility is from outside India then visit to overseas location may be made at the discretion of Commissioner & Secretary, Housing & Urban Development, Government of J & K. The Bidder will bear cost of visiting team to their role model facility.
- xvii. The technical evaluation may be completed in 45 days time including visit to the role model facilities indicated by the Bidders, if required.
- xviii. Financial bids of all Bidders securing more than 60% marks shall be opened.

20. Opening of Second Cover of qualified Bidders and evaluation(Financial Bid):

- i. The SMC will inform all the Qualified Bidders in the website the time, date fixed for the opening of the Second Cover containing the priced Tenders. The SMC will open the Second Covers of Qualified Bidders at the appointed time and date. In the event of the specified date of Second Cover opening being declared a holiday, the Second Covers will be opened at the appointed time on the next working day.
- ii. Tenders marked "MODIFICATION FOR SECOND COVER" shall be opened and the submissions therein upload in the website in appropriate detail.
- iii. The Bidders' names, the Tender prices, Tender modifications and withdrawals, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening.
- iv. The Employer shall prepare minutes of the Second Cover Tender opening, including the information disclosed to those present.

21. Process to be confidential

Information relating to the examination, clarification, evaluation, and comparison of Tenders and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of Tenders or award decisions may result in the rejection of his Tender.

F. Award of Contract

22. Award criteria

SMC will award the Contract to the Bidder whose Tender has been determined to be substantially responsive to the Tender documents and who has offered the lowest evaluated Tender Price.

23. SMC right to accept any Tender and to reject any or all Tenders

SMC reserves the right to reject any or all of the tender/bid, without assigning any reason whatsoever and his decision shall be final and binding. No Bidder shall have any claim arising out of such action.

24. Notification of award and signing of Agreement

- i. The Bidder whose Tender has been selected will be notified of the award by the SMC prior to expiration of the Tender validity period by e-mail or facsimile confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the tender price.
- ii. The notification of award will constitute the formation of the Contract, subject only to the furnishing of Performance Security Deposit.
- iii. The Agreement will incorporate all agreements between the Employer and the Successful Bidder. The Agreement shall be signed between the Employer and the Successful Bidder within 45 days from the date of issue of Letter of Acceptance to the Successful Bidder.
- iv. Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Tenders have been unsuccessful.

25. Performance Security Deposit

- i. The successful bidder will provide performance guarantee / security deposit of Rs 500.00 lac or 5 % of the agreed project costs whichever is higher in the form of BG within 4 weeks of issue of LOI but before signing of the agreement.
- ii. The effective duration of BG will be for a initial period of 2 years with further renewal up to the end of the contract i.e. 25 year. The amount of BG can be reduced suitably for future renewals as per mutual consent of the tendering authority.

26. Corrupt or Fraudulent practices

The SMC requires that the Bidders observe the highest standard of ethics during the procurement and execution of the concession. Canvassing in any form will render the bidder disqualified.

4. Bidding Forms

List of annexures

- i. Annexure 1: Declaration Indemnifying SMC
- ii. Annexure 2: Basic Information about bidder
- iii. Annexure 3: Company Details
- iv. Annexure 4: Technology Proposal
- v. Annexure 5: Data on reference plant
- vi. Annexure 6: Experience in O & M
- vii. Annexure 7: Work Accomplishment Certificates
- viii. Annexure 8: Additional information from Bidder may like to provide
- ix. Annexure 9: Bank Guarantee Format as per Bidder Bank
- x. Annexure 10: Auditor Certificate for Financial turnover
- xi. Annexure 11: Auditor Certificate for Net Worth
- xii. Annexure 12: Draft Power of Attorney
- xiii. Annexure 13: Draft Joint Bidding Agreement
- xiv. Annexure 14: Covering Letter for Financial Bid
- xv. Annexure 15: Financial Bid
- xvi. Annexure 16: Unit Cost Break up for Proposed Facility

Annexure 1: Declaration indemnifying the Srinagar Municipal Corporation to be furnished by the tenderer (On Rs100/- Non Judicial Stamp Paper)

I/We have read the general and special conditions of the contract which are appended to the Bid and I/we agree to the conditions laid therein if the contract is awarded to me/us.

1. I/We have also read the specifications, studied the preliminary details, and understood the scope of work included in the Bid and to be executed by us.
2. I/We have visited the site of work and am/are well acquainted with the local conditions, availability of the materials and labour and their prevailing market rates.
3. I/We agree to abide by the departmental rules regarding deductions made in the bills like income tax, sales tax, security deposits and cost of materials, if any
4. I/We shall not ask for revision of Tipping Fee rates due to any escalation in cost of materials or labour inputs during construction phase. The Tipping Fee rates quoted by me/us in this offer are for entire concession period with necessary escalation as stipulated.
5. I/We undertake to complete the work commission the project, carry out its O&M and hand-over the same within the stipulated/allotted time for the completion of the work in good workmanlike manner.
6. The Price Offer is valid for a period of 180 days from the date of opening of tender and declaration of the Awardee.
7. I/We stand guarantee for the rectification of the defects in the work if any to the full satisfaction of the SMC' Project Incharge and as per clauses of agreement.
8. I/We have no doubts or un-cleared ambiguities regarding the specifications, details in the preliminary, scope of the work, and have fully understood our responsibilities in executing and completing the work to the full satisfaction of the Commissioner
9. I/We have based our Bid rates having the full knowledge of the statement and facts.
10. I/We agree to the NIT provisions and there is No Deviation offered in our bids from the NIT.
11. We hereby indemnify Commissioner & Officials of Srinagar Municipal Corporation, Srinagar, J&K and their Consultants against any adverse effect due to Act Deed or Repercussions arising out of the tender work awarded to us.

Place : _____
 Date : _____
 Address : _____

Signature: _____
 Name: _____

Designation:
 Co. seal:

Witness :

Name : _____
 Address : _____

ANNEXURE-2:Basic Information about Bidder

1.	Name of the Company Name/Names of Directors Concerned key officials for this tender : Designation : Name of alternate official(s) :	
2.	Professional Qualification of Concerned Official dealing with SWM Project(s)	
3.	Name of the authorized person signing the tender and his / her designation	
4.	Place and address of the Business / Office & Administrative Office: Telephone Number : Fax Number : Mobile Number : E- mail ID : <u>Registered Office</u> Telephone Number : Fax Number : E- mail ID : Mobile No. :	
5.	Nature of the Core Business activities	
6.	Name of the Bankers and their full address	
7.	Financial Turnover of the Tenderer/ holding co. Av. annual T.O. in last 3 years	
8.	Net worth of the tenderer or holding Co.	
9.	Amount of Solvency Certificate which the tenderer holds (attach the copy issued by the bank during last 6 months)	
10.	Has the tenderer or his consortium members have been involved in litigations and regarding MSW project execution, commissioning or its O & M In India,If, yes give complete details on separate sheet	
11.	List of Technical & Scientific Staff	

12.	Is there any other Company firm involved as consortium member– if, yes give full details with the clear roles/responsibility	
13.	Is the applicant firm is an SPV or the tender using particulars of such SPV, then PI Give details of holding fir MP with percentage of equity holding by the tenderer	
14.	You executing MSW Processing & Projects in how many Cities in India and abroad. Pl. give location wise Project details	Location TPD Date of Award Status now
15.	In your Processing Project execution to what extent problem of MSW has been solved in a given city where you have implemented the said project.	
16.	List of Completed Projects and Performance certificates from relevant project owners and / or competent authorities	
17.	List of current Processing Projects in hand on BOOT/EPC/PPP basis(Pl.specify investment% by your firm)	

Place : _____
 Date : _____
 Address : _____

Signature: _____
 Name: _____

Designation:
 Co. seal:

ANNEXURE-3 Company Details**(Fill this form for every participating members of Consortium separately)**

1.	Name of the Company :	
2.	Address :	
3.	Chief Responsible Person	
4.	Telephone No. :	
5.	Fax No. :	
6.	E-mail	
7.	Status :	
8.	Date of Incorporation :	
9.	Date of starting Business :	
10.	Registration and empanelling :	
11.	Field of Professional Expertise :	
12.	Total experience in providing Project in related Fields :	
13.	Total number of Assignments completed in Last 5 years :	
14.	Total number of Assignments in hand :	

15.	Total number of key personnel:	
	(a) Professionals – Senior level:	
	(b) Professionals – Middle level:	
	(c) Professionals – Junior level:	

16. Annual Financial turn over (Rs Lacs)

Year	Turnover (Rs. in Lacs)	Net worth (Rs.Lacs)
2016 – 17		
2015 – 16		
2014 – 15		

Please enclose Auditor's Certificate regarding above and copy of audited balance sheet for the financial year ending 31st March 2017 only.

Place : _____
 Date : _____
 Address : _____

Signature: _____
 Name: _____

Designation:
 Co. seal:

ANNEXURE 4: Technological Proposal**Description Of Proposed Technology**

Please describe in detail regarding the basis of proposal indicating Energy generation Technology :

The Bidder shall submit their technical proposal clearly mentioning the following:

1. Bidder's understanding of the project concept
2. Bidder's experience in implementing BOOT/PPP projects and success history
3. Bidder's experience in implementing MSW Processing Projects under Indian/ Srinagar conditions in terms of climate, socio economical and waste Characteristics.
4. Approach and methodology for implementing of the proposed project
5. Flow chart, mass balance material recoveries, energy balance and time cycles for each process component by making use of following assumptions:
 - Total MSW as of Current level (2015): 500 TPD \pm 125 TPD, Incremental quantities @4%/Yr
 - Waste receiving and treatment on all the year round basis
 - Processing facility working minimum 330 /year
 - Land area available that can be allowed to be used 10 Ha max. for 25 yrs
6. Technology & Process details
7. PERT Chart of Schedule for implementation of the proposed project
8. Information on proven track record of MSW processing facility and energy and material recoveries.
9. Give clear description of appropriateness of technology for the present project.

Place : _____
 Date : _____
 Address : _____

Signature: _____
 Name: _____

Designation:
 Co. seal:

Annexure 5: Data on Reference plant

- i. Actual working results of reference plant, of not less than 300 TPD MSW mixed waste, and not from pick and choose dry recyclables.
- ii. Combustion temperatures at various stages.
- iii. Gaseous emissions concentrations and control mechanism.
- iv. Extent of bottom ash and fly ash generation and its disposal mechanism.
- v. Norms and Standards prescribed by the Authorities having approved such technology.
- vi. Track record of time lag between signing of agreements/ MOUs and project delivery.
- vii. Extent of Capex support and Opex support through Tipping Fee and / or Energy Tariff.
- viii. Number of similar projects contracts signed and progress of project execution for each contract.
- ix. Funding of such projects with grant-in-aids availed or expected.

Place : _____
Date : _____
Address : _____

Signature: _____
Name: _____

Designation:
Co. seal:

ANNEXURE 6 : EXPERIENCE IN OPERATION & MAINTANANCE OF MSW PROCESSING AND ENERGY GENERATION

* PI submit this for the concerned consortium member

Sr. No.	Name of Member including consortium member	Name of the Work And Qty of MSW MT in the given period	No. of Months of O&M	Remarks on performance and achievable objectives
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Place : _____
 Date : _____
 Address : _____

Signature: _____
 Name: _____

Designation:
 Co. seal:

ANNEXURE 7 : Work accomplishment certificates

Information regarding work completion and credentials

Sr. No.	Name of the Contract	Year of Contract	Qty of MSW	Certificate Sr.No. & issuing authority
1				
2				
3				
4				
5				

Note: Pl. enclose Project award and job completion as well as performance Status certificatesPlace : _____
Date : _____
Address : _____Signature: _____
Name: _____Designation:
Co. seal:

266

ANNEXURE 8 :ADDITIONAL INFORMATION TO JUSTIFY THE REASON TO AWARD PROJECT TO YOUR ORGANISATION

ANNEXURE 9: Format for Bank guarantee towards EMD & Performance Security as per the format of your Bankers

Annexure 10: Auditor Certificate for Annual Financial Turnover

To
The Commissioner
Srinagar Municipal Corporation, Srinagar, J&K

Sub: Financial Bid / Price Schedule for DBFOOT of MSW to energy generation and operations project at Srinagar

- i. Name of the Bidder/Lead Member:
- ii. Annual Financial Turnover has been taken of an Associate Company: Yes/No
- iii. If reply of above point 2 is 'Yes', name of the Associate company:
- iv. Please enclose a certificate of proof of Associate Company if included.
- v. Annual Turnover:

Year	Turnover (Rs. in Crore)
2015-16	
2014-15	
2013-14	

Date & Sign of statutory Auditor

Annexure 11: Auditor Net Worth Certificate

To
The Commissioner
Srinagar Municipal Corporation, Srinagar, J&K

Sub: Financial Bid / Price Schedule for DBFOOT of MSW to energy project at Srinagar

- i. Name of the Bidder/Lead Member:
- ii. Net Worth has been taken of an Associate Company: Yes/No
- iii. If reply of above point 2 is 'Yes', name of the Associate company:
- iv. Please enclose a certificate of proof of Associate Company if included.
- v. Net Worth as per latest Audited Balance Sheet:

Year	Net Worth (Rs. in Crore)

Date & Sign of statutory Auditor

Annexure 12: Draft Power of Attorney for signing of Application

Know all men by these presents, We, _____(Insert Company Name) having registered office at _____(Insert registered address) do hereby irrevocably constitute, nominate, appoint and authorize Mr./Ms. _____ Son/Daughter of Mr./Ms. _____ and presently residing at _____, who is presently employed with us and holding the position of _____ and/or Mr./Ms. _____ Son/Daughter of Mr./Ms. _____, who is presently employed with us and holding the position of _____ as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our application for pre-qualification and submission of our bid for the " _____ " **Project** proposed or being developed by Srinagar Municipal Corporation (SMC) (the "Authority") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in Pre-Applications and other conferences and providing information/ responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts including the Agreement/Contract Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the Authority in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/or till the entering into the Contract Agreement or any other agreement with the Authority.

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

IN WITNESS WHEREOF WE, _____, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF APRIL, 2012.

For XXX

Sd/-

Witnesses:

- 1.
- 2.

Accepted:

Annexure 13 : Draft JOINT BIDDING AGREEMENT

THIS JOINT BIDDING AGREEMENT is entered into on ____ day of _____, 2016

AMONGST

1. _____(Insert Company name), a company incorporated under the Companies Act, 1956 and having its registered office at _____(Insert registered address) (hereinafter referred to as the "**First Part**" which expression shall, unless repugnant to the context include its successors and permitted assigns)

AND

2. _____(Insert Company Name), a company incorporated under the Companies Act, 1956 and having its registered office at _____(Insert registered address), (hereinafter referred to as the "**Second Part**" which expression shall, unless repugnant to the context include its successors and permitted assigns)

The above mentioned parties of the FIRST, SECOND PART are collectively referred to as the "**Parties**" and each is individually referred to as a "**Party**"

WHEREAS,

(A) Srinagar Municipal Corporation (SMC), having its principal offices at Srinagar (hereinafter referred to as the "**Authority**" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) has invited applications (the "**Applications**") by its Invitation for Tender (IFT) No. dated.....(the "**Tender**") for " _____ (**the "Project"**) on DBFOOT mode.

(B) The Parties are interested in jointly bidding for the Project as members of a Consortium and in accordance with the terms and conditions of the Tender document and other bid documents in respect of the Project, and

(C) It is a necessary condition under the Tender document that the members of the Consortium shall enter into a Joint Bidding Agreement and furnish a copy thereof with the Application.

NOW

IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

In this Agreement, the capitalised terms shall, unless the context otherwise requires, have the meaning ascribed thereto under the RFQ.

2. Consortium

2.1 The Parties do hereby irrevocably constitute a consortium (the “**Consortium**”) for the purposes of jointly participating in the Bidding Process for the Project.

2.2 The Parties hereby undertake to participate in the Bidding Process only through this Consortium and not individually and/ or through any other consortium constituted for this Project, either directly or indirectly or through any of their Associates.

3. Covenants

The Parties hereby undertake that in the event the Consortium is declared the selected Bidder and awarded the Project, it shall incorporate a special purpose vehicle (the “**SPV**”) under the Indian Companies Act 1956 for entering into a Contract Agreement with the Authority and for performing all its obligations as the Contractor in terms of the Contract Agreement for the Project.

4. Role of the Parties

The Parties hereby undertake to perform the roles and responsibilities as described below:

- (a) Party of the First Part shall be the Lead member of the Consortium and shall have the power of attorney from all Parties for conducting all business for and on behalf of the Consortium during the Bidding Process and until the Appointed Date under the Contract Agreement when all the obligations of the SPV shall become effective and
- (b) Party of the Second Part shall be the Technical/Financial/ other member of the Consortium
- (c) Party of the Third Part shall be the Technical/Financial/ other member of the Consortium

5. Joint and Several Liability

The Parties do hereby undertake to be jointly and severally responsible for all obligations and liabilities relating to the Project and in accordance with the terms of the Tender documents and the Contract Agreement.

6. Shareholding in the SPV

6.1 The Parties agree that the proportion of shareholding among the Parties in the SPV shall be as follows:

First Party: _____ % (XXX percent)
Second Party: % (XXX percent)
Third Party : % (XXX percent)

6.2 The Party of the first part hereby undertake to hold a minimum of 51% (Fifty One percent) of the subscribed and paid up equity share capital of the SPV shall, at all times till the second anniversary of the date of commercial operation of the Project

6.3 Each Party other than party of the first part undertake that it shall hold a minimum of 10% (Ten percent) of the subscribed and paid up equity share capital of the SPV shall, at all times till the second anniversary of the date of commercial operation of the Project.

6.3 The Parties undertake that they shall comply with all equity lock-in requirements set forth in the Contract Agreement.

8. Termination

This Agreement shall be effective from the date hereof and shall continue in full force and effect until the signing of the Contract Agreement and in accordance with the Contract Agreement, in case the Project is awarded to the Consortium. However, in case the Consortium is either not prequalified for the Project or does not get selected for award of the Project, the Agreement will stand terminated in case the Applicant is not pre-qualified or upon return of the Earnest Money Deposit (EMD) by the Authority to the Bidder, as the case may be.

9. Miscellaneous

9.1 This Joint Bidding Agreement shall be governed by laws of the state.

9.2 The Parties acknowledge and accept that this Agreement shall not be amended by the Parties without the prior written consent of the Authority.

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

SIGNED, SEALED AND DELIVERED

SIGNED, SEALED AND DELIVERED

**For and on behalf of
LEAD MEMBER**

**For and on behalf of
SECOND PART**

In the presence of:

1.

2.

**Annexure 14 : Covering letter for FINANCIAL BID
(On Company letterhead)**

To,

**THE COMMISSIONER
Srinagar Municipal Corporation, Srinagar, J&K, Srinagar,J&K**

Sub: Setting up of Integrated MSW Processing and disposal facility

Ref: Tender Notice No SMC/MSW Proc/...../ 2015

Sir,

I / We declare:

- i that I / We/ am / are experienced in execution of MSW processing treatment project followed by their O & M.
 - ii that I / We will install adequate infrastructural facilities in terms of civil work, plant machinery sheds, structural work, manpower, electro mechanical machineries and equipments and that our establishment will be open for inspection by the representatives of ULB.
2. I / we hereby submit the technical proposal, EMD and Price quotation as per the Financial bid, followed by following two envelope system.

3. PERIOD OF DELIVERY

I / we do hereby undertake, that, in the event of acceptance of our bid, the services shall be provided as per Terms & Conditions given in the Tender.

4. I / We agree to abide by our offer for a period of 180 days from the date of opening or award of tender whichever is later. of Tender and that we shall remain bound by a communication of acceptance within that time.
5. I / We have carefully read and understood the terms and conditions of the tender and the conditions of the contract applicable to the tender and I / we do hereby undertake to provide services as per these terms & conditions. The financial deviations, if any, are clearly are mentioned in Annexure to this bid.
6. We certify that the Tenderer is a registered firm under Indian Companies Act of 1956 and the person signing the tender is duly authorised Officer,/Manager/ Director of the firm
7. Original copy of BG(Earnest Money) for Rs 100,00,000.00(Rupees One hundred Lacs only) has been enclosed along with the Technical Proposal in Envelope I.

8. I / We do hereby undertake, that, until a formal contract is prepared and executed, this bid together with your written acceptance thereof and placement of letter of intent awarding the contract, shall constitute a binding contract between us.
9. I / We do hereby undertake that finance for project delivery and operations will be borne by us.
11. This is expressly understood that energy sale will be the responsibility of the SMC or other agency authorized by them and sales and marketing of the other recovered products, if any, will be our responsibility and benefit derived from this activity will be to us, towards cost compensation mechanism.

Date: _____ **Signature of Tenderer:** _____

Name: _____

Designation _____

Seal:

Place: _____

Date: _____

**Annexure 15: Financial Bid / Price Schedule
(On Bidders Letter head)**

Ref. No. -----

Date: -----

To
The Commissioner
Srinagar Municipal Corporation, Srinagar, J&K

Sub: Financial Bid / Price Schedule for DBFOOT of MSW to energy generation project at Srinagar

Ref: Your tender notice No. SMC /MSW Proc /2017 of.... April 2017.

Dear Sir,

1. In response to the above, we hereby submit our Financial Bid/Price Schedule for the above-mentioned Project.
2. We have considered Planning, Fabrication, Construction, procurement of plant machinery equipments; their supply, Installation and Commissioning of 500± 125 MT/day processing facility for Srinagar city. The O&M of the facility is part of the project assignment.
3. Depending on the life cycle of Project Phases and Depreciation, the major repairs/replacements and maintenance (estimated at appx 10 year / cycle) has been taken into consideration by us.

Our Capital Expenditure Cost (CAPEX) works out as below:

(A) First Phase of 1 to 12 year: Rs..... (Say Rs..... lacs)

(B) Second Phase of 13th – 25 year: Rs.....(Say Rs..... lacs)

(C) Total: Rs..... (Say Rslacs)

4. We will charge to SMC from date of commissioning of the project. We understand that for evaluation the project power of 5.0 MW surplus power generation (exportable) at 330 days of operation per year during the 25 year.

Levellized Tariff for the concession period (25 years)= Rs. _____ per kWh

5. If we are successful in getting any additional fiscal incentives / grant-in-aids or other benefit from State / National /International sources, we will pay the government of Jammu & Kashmir @25.00 % (twenty five percent) of such receipts as and when this occurs.

6. We agree that this project is based on the levelised tariff quoted by us and the other clauses are for reference and future considerations only.

We hope you will find our financial offer / price bid most competitive.

Thanking you and looking forward to be associated with your esteemed Municipal Corporation.

For & on behalf of Tenderer

For Srinagar Municipal Corporation, Srinagar,

Signature

Signature

Name

Name

Designation

Designation

Seal

Seal

Witness

Witness

Annexure 16: Unit Costs Break of Proposed facility**Energy generation from MSW**

This is only for Information and items are indicative. Please modify as appropriate but with adequate information

Schedule 1:**1. Basic Infrastructure facilities for SWM facility: (Approx.)**

S N	Item of expenditure	Unit	Required Qty	Unit rate (Rs)	Amount Rs (Lac)
1	Boundary wall	r.m.	972		
2	Internal Roads	Sq M	7200		
3	Weigh bridge cap 40 T	Nos	1		
4	Gate control with computer & security (sets)	Unit	3		
5	Storm water drainage system & Leachate collection drains	r.m.	1240		
6	Water sourcing & distribution	Cum	200		
7	Workers rest room, creche, toilets	SqM	64		
8	Office and amenities (As per requirement of bidder. Bidder need to access the same before quoting)		220		
9	Green belt	SqM	10000		

Schedule 2:**2. Waste Receiving Arrangements (Approx.)**

Sr No.	Item of expenditure	Unit	Required Qty	Unit rate Rs	Amount Rs (Lacs)
1	Tipping floor	Sq M	1800		
2	sorting shed	Sq M	300		
3	Material lifting EOT crane	No	1		
4	Front end loader	No	1		
5	Covered Shed	Sq M	300		
6	Up front segregation unit Horizontal model with multiple segregation configurations	set	1 cap 40 TPH		

Schedule 3:**3. Civil & Infrastructure requirement for RDF**

Sr No	Item of expenditure	Unit	Required Qty	Unit rate Rs	Amount Rs (Lacs)
1	Concreted pad	Sq M	10000		
2	Foundations for monsoon shed	No.	As required		
3	Monsoon shed	Sq M	5000		

4	Foundation for machines shed (As per bidder design requirement)	Nos	As required		
5	Machine shed (As per bidder design requirement)	Sq M	300		
6	Foundation for refinement floor (As per bidder design requirement)	Nos	As required		
7	Product conditioning shed	Sq M	2200		
8	Product storage godowns (2 Nos)	Sq M	600		
9	Curing shed	Sq M	300		

Schedule 4:**4. Plant machinery for processing & conditioning of dry recyclables into RDF Production.**

S.N	Description of Machine	No	Quantity	Unit rate	Amount Rs (Lacs)
1	Feed Conveyor		1		
2	Magnetic separator		1		
3	primary shredder		1		
4	2 nd feeder		1		
5	Secondary shredder conveyor		1		
6	Sorting Conveyor		1		
7	Primary Crusher		1		
8	Conveyor to Secondary Crusher		1		
9	Magnetic Separator		1		
10	Secondary Crusher		1		
11	Crusher under Conveyor		1		
12	Pelletisation / baling units		2		
13	Electrification		As req.		
14	E. O. T Crane		1		

Schedule 5:**5. RDF to Energy**

Sr No	Item of Expenditure	Unit	Required Qty Capacity	Unit Rate Rs	Amount Rs Lacs
1	Energy generation from Refuse Derived Fuel Considering 150 - 200 TPD Input	MW	3 to 5 M.W.	-	-
	Total:				

Schedule 6:**6. organic waste to compost**

S.N	Item	Unit	Required capacity	Unit rate per ton	Amount in lacs
1	Composting of the organic waste	TPD	200- 300	-	-

--	--	--	--	--	--

8.Establishment of Q.C. lab and online env.monitoring system

S N	Item of Expenditure	Unit	Qty	Unit Rate Rs	Amount Rs Lacs
1	Q.C. lab as per requirement	Syst	As req	—	—
2	Installation of online pollution monitoring system For NOX/ SOX/ SPM/PDS/ Dioxin	Syst	As req	—	—
	Total:				

Schedule 9:

9.Power Connection & Electricals

S N	Item of Expenditure	Unit	Qty	Unit Rate Rs	Amount Rs Lacs
1	Power Connection for basic processing treatment of 500± 125 TPD MSW, Step down Transformer Power room etc	KVA	300	—	—
2	D.G.set for stand by use (a) 10 KVA (b) 100 KVA	No. No.	1 1	—	—
	Total:				

ANNEXURE R-2



**OFFICE OF THE COMMISSIONER,
SRINAGAR MUNICIPAL CORPORATION**

Phone: 0194-2470466; 2470465; Fax : 0194-2476931; E-mail: commissioner@smcsite.org

(Revised) Letter of Acceptance/Intent

The Managing Director,
Highland Automobiles Pvt. Ltd.,
Srinagar, Jammu & Kashmir

Subject: (Revised) Letter of Acceptance of the tender submitted for an Integrated waste management facility including energy generation and value recovery from MSW for a capacity of 500 ± 125 MT/day, to be implemented on an Design, Finance, Build, Own, Operate and Transfer (DFBOOT) basis after a period of 25 years at Achan.

Reference:

1. Tender call dated 24.04.2017 By the Srinagar Municipal Corporation
2. Your tender submission dated 20.07.2017 on E procurement portal of J&K
3. Technical evaluation committee meeting dated on 17.08.2017
4. Opening of the financial bid dated 9/9/2017
5. Cabinet decision No 207/ Cir/2017 dated 23. 10.2017

In supersession of Letter of Intent/Acceptance issued vide this office No: SMC/SWM/2017/572-84 dated 27/11/2017 and in pursuance of the Government Order No: 255-HUD of 2017 dated 22/11/2017, the Srinagar Municipal Corporation is pleased to inform you that your tender in consortium with **Key Stone Energy Systems LLP and Astria Infra Private Limited** submitted for Design, Finance, Build, Own an Integrated waste management facility including energy generation and value recovery from MSW, Operate and Transfer (DFBOOT) for a period of 25 years to SMC at Achan, Saidapora,

Srinagar has been accepted by the Competent Authority subject to fulfillment of codal formalities and following conditions:-

1. Establishment of Waste to Energy Plant (disposal of waste) at Landfill site Achan, Saidapora, Srinagar shall be under Design, Finance, Build, Own, Operate and Transfer (DFBOOT) basis.
2. Srinagar Municipal Corporation will earmark the land at landfill site Achan Saidapora, Srinagar and provide same to you for establishment of plant. However, your Company (Joint Venture) shall have no claim/right over the land provided to you by the Corporation for 25 years at the first instance.
3. The Power Development Department shall purchase the power to be generated from the Waste of Energy Plant during the operation period of the plant. The discovered rate/tariff per unit has been approved at Rs.7.65 per unit for a period of 25 years. However, the rates/tariff on which power shall be purchased will have to be adopted by the J&K State Electricity Regulatory Commission before signing the Power Purchase Agreement in terms of J&K Electricity Act, 2010.
4. The Corporation will get the Power Purchase Agreement vetted from Power Development Department, Finance Department, Law Department and J&K State Electricity Regulatory Commission before signing the formal agreement with bidder.
5. The Corporation will get the Concession Agreement vetted by Power Development Department and Law Department.

Also please note that:-

The levellized tariff will be payable as per the terms and conditions of the Tender document/RFQ, Power Purchase Agreement and Concession Agreement.

b) Any dispute, difference or claim that may arise at any point of time between the parties hereto or any person claiming under them, touching or arising out of or in respect of the work or subject matter thereof shall be referred to the arbitration of Commissioner/Secretary, Housing & Urban Development Department, J&K Government. The award of the arbitrator shall be final and binding on the parties.

c) In case at any stage during the installation or working of plant, any of the documents submitted by you with the tender are found not in consonance with the terms and conditions of tender document, your tender shall be deemed to have been rejected and this letter of intent/acceptance shall be deemed to have been withdrawn.

Yours faithfully

sd/

Commissioner
Srinagar Municipal Commissioner

No: SMC/SWM/2017/600-611

Date: 11/12/2017

Copy to:

1. Principal Secretary to the His Excellency the Governor of Jammu & Kashmir.
2. Principal Secretary to the Government Finance Department
3. Principal Secretary to the Hon'ble Chief Minister, Jammu & Kashmir State.
4. Commissioner,/Secretary to the Government, Power Development Department.
5. Secretary to Government Department of Law, Justice & Parliamentary Affairs
6. OSD to Hon'ble Deputy Chief Minister (Minister Incharge H&UDD) for information of Hon'ble Deputy Chief Minister.
7. Special Asstt. to Hon'ble Minister of State H&UDD for information of Hon'ble Minister.
8. Senior Law Officer, H&UDD for information.
9. Private Secretary to Chief Secretary for information of the Chief Secretary.
10. Private Secretary to Advisor to the Chief Minister.
11. Private Secretary to Commissioner Secretary to Government Housing and Urban Development Department for information of Commissioner/Secretary.
12. All Hon'ble NGT Constituted Committee Members

[Signature]
Joint Commissioner (Admn),
Srinagar Municipal Commissioner



Ref. No. HAPL/NTE/SMC/010

Dated 16/01/2018

The,
Commissioner
Srinagar Municipal Corporation
Srinagar Kashmir.

Subject: Waste To Energy Plant

Respected Sir,

As You are already aware that, Waste To Energy Plant at Achan Site of SMC's landfill site is cleared and stands allotted to us and with the directions from the National Green Tribunal, the works at the site has to commence shortly. It's requested that the designated site may be regulated soon under demarcations and other formalities, like the PPA and CA.

As we have already intimated the SMC and the NGT that the work commencement at the site would start by April 2018, it is important at this stage that the formalities should be over as we are only left with very less time.

Therefore, it is also requested to kindly expedite the procedure for the PPA and CA at the earliest and we also would request the SMC officials to kindly align an official visit to the site so that land in question is set for demarcation and measured for the same use, in order for us to plan and schedule necessary tests and data collection such as soil strata and soil bearing capacity.

Regards,



Copy To:

Commissioner Secretary Housing & Urban Development Department,
Govt of J&K.

Commissioner Secretary Power Development Department, Govt of J&K.



HIGHLAND AUTOMOBILES PVT. LTD.

(Authorised Dealers for Maruti Suzuki India Limited (Jammu & Kashmir))

REGISTERED AND CORPORATE OFFICE:

Ansari Complex Sonwar, Srinagar, Kmr. Ph.: 2500007 Fax: (0194) 2500016, 2500035

e-mail: highland_sgr@yahoo.com, highland.srn.sal1@marutidealers.com, highlandworks@yahoo.com

BRANCH OFFICE:

Chennai Itama, Bye Pass Road, Jammu Ph.: (0194) 2452680, 2452681, 2452682

ANNEXURE R-4 (COLLY.)

Ref. No.

HAPL/WTE/SMC/011

Dated

14.02.2018

The,
Commissioner,
Srinagar Municipal Corporation,
Karan Nagar, Srinagar, J&K.

Subject: Waste To Energy Plant At Landfill Site Achan.

Dear Sir,

As your goodself is already aware that the Waste To Energy Plant at Achan has to commence by this year April 2018 according to the directions of the Hon'ble National Green Tribunal, I am once again requesting for accelerating the process for Power Purchase Agreement and Concessional Agreement, as we are already in the middle of February and we are left with just six weeks before the actual activity can start at the site and moreover further delays in this regard can cause complications and miscalculations on achieving time bound targets for the development of the site and establishment of the plant.

In my last letter to your esteemed office, I did request that, SMC may please align an official visit with us to the site so that the plot on the land of the site in question can be officially identified and the process of demarcations can start, as we are also to conduct various tests with other formalities for the same.

It is therefore humbly requested once again, to kindly have these things done on priority so that the Waste To Energy Plant can be implemented and completed on time as per the already minuted scheduled plan.

Regards,

Kumari Srinagar Ansari

CEO

+91 9419006815

+91 9419006815

umailansari@astrixinfra.in



HIGHLAND AUTOMOBILES PVT. LTD.

(Authorised Dealers for Maruti Suzuki India Limited (Jammu & Kashmir))

REGISTERED AND CORPORATE OFFICE:

Ansari Complex Sonwar, Srinagar, Kmr. Ph.: 2500007 Fax: (0194) 2500096, 2500035

e-mail: highland_sgr@yahoo.com, highland.srn.sal1@marutidealers.com, highlandworks@yahoo.com

BRANCH OFFICE:

Channi Rama, Bye Pass Road, Jammu Ph.: (0194) 2462680, 2460495, 2462045

e-mail id: highland.jmu.sal1@marutidealers.com

Commissioner
14/2/18



Ref. No. HAPL/W&E/HG/UDD/017

Dated 23/05/2018

The,
Hon'ble Minister Housing & Urban Development Department,
Government of Jammu & Kashmir,
Civil Secretariat,
Srinagar,
Jammu and Kashmir.

Subject: Waste To Energy Plant At Landfill Site Achan.

Dear Sir,

As your goodself is already aware that the Waste To Energy Plant at Landfill Site Achan, Saidapora Srinagar has to commence. In this connection, I would like to take this opportunity to inform and request your goodself for the allocation, demarcation and allotment of land at the landfill site against our consortium by the medium of the Concessional Agreement, so that the preliminary test of soil, like capacity, design, strata, strength and other various steps can be initiated along with site construction and process for the setting up of the facility.

I have been requesting and informing, the Commissioner Srinagar Municipal Corporation, for the same repeatedly through the medium of written correspondence and communications since January 2018 but to my surprise till now he has not answered even one correspondence and neither his esteemed office is coming forward in providing us with any response till date. I on behalf of our consortium have been requesting SMC, that they may please align an official visit with us to the site so that the plot on the land of the site in question can be officially identified, demarcated and the work for the plant can start.



HIGHLAND AUTOMOBILES PVT. LTD.

(Authorised Dealers for Maruti Suzuki India Limited (Jammu & Kashmir))

REGISTERED AND CORPORATE OFFICE:

Ansari Complex Sonwar, Srinagar, Kmr. Ph.: 2500007 Fax: (0194) 2500096, 2500035

e-mail: highland_sgr@yahoo.com, highland.srn.sal1@marutidealers.com, highlandworks@yahoo.com

BRANCH OFFICE:

Channi Rama, Bye Pass Road, Jammu Ph.: (0194) 2462680, 2460495, 2462045

e-mail id: highland.jmu.sal1@marutidealers.com

Ref. No.....

Dated

As already we have been delayed for the project, its creating stagnancy in the process. As this plant compliance is before the Hon'ble National Green Tribunal, we must take steps for ensuring that there are no bottlenecks and any further delays in establishing the plant, as it is bound to create a negative image for the state and us, incase of slow process speed.

Therefore, I am requesting your goodself and your chair to kindly intervene in this matter, so that we can together work on this plant and we together can give the much needed waste to energy plant to the valley.

Looking forward for an earliest and positive approach in sorting out way forward.

Regards,


Kumail H. Ansari
CEO
+91 9906006815
+91 9906006815
kumailansari@astrixinfra.in

P.S: Attaching copies of the correspondence along with this communication.



HIGHLAND AUTOMOBILES PVT. LTD.

(Authorised Dealers for Maruti Suzuki India Limited (Jammu & Kashmir))

REGISTERED AND CORPORATE OFFICE:

Ansari Complex Sonwar, Srinagar, Kmr. Ph.: 2500007 Fax: (0194) 2500096, 2500035

e-mail: highland_sgr@yahoo.com, highland.srn.sal1@marutidealers.com, highlandworks@yahoo.com

BRANCH OFFICE:

Channi Rama, Bye Pass Road, Jammu Ph.: (0194) 2462680, 2460495, 2462045

Government of Jammu & Kashmir
Housing & Urban Development Department
Civil Secretariat,
Srinagar/Jammu

The Commissioner,
Srinagar Municipal Corporation,
Srinagar.

Dated: - 05-03-2018

No: HUD/Plan/33/CSS/2014

Subject: - Solid Waste Management Project Waste to energy plant at Land fill site Achhan Srinagar. Prep. Of draft power Purchase Agreement, Concessional Agreement, Environmental Impact Assessment report thereof.

Sir,

Kindly refer your letter No: SMC/SWM/705-07 Dated: 16-02-2018. In this context I am directed to request you to kindly prepare a draft of power Purchase Agreement, Concessional Agreement, Environmental Impact Assessment report, and submit the same to this Department within a week's time, in-able to discuss the same for its approval, & after that the same shall be got vetted from the respective departments viz Law, & Finance & other interrelated Departments with ought further delay, as the issue has been already delayed.

Matter may be treated as most urgent,

Yours faithfully


Assistant Director (P&S)

Housing and Urban Development Department

Copy to:-

1. Private Secretary to Financial Commissioner / H&UDD for Information of Financial Commissioner.
2. M/S Highland Automobiles PVT. Ltd. Ansari Complex Sonwar Srinagar For information.

**SRINAGAR MUNICIPAL CORPORATION,**Phone:0194-2470466; 2470465; Fax : 0194-2476931; E-mail: commissioner@smcsite.org

Managing Director,
Highland Automobiles Private Limited,
Srinagar.

Subject : Identification of land for establishment of Waste-to-Energy Plant.

Dear Sir,

The Srinagar Municipal Corporation is pleased to inform you that the land situated on the west side of dumping site Achan Srinagar, has been identified and demarcated for setting up of Waste-to-Energy plant. The site is depicted in site plan enclosed herewith.

Your are therefore, requested to take over the possession of the land at an earliest to commence the works for infrastructural set up of the plant.

Yours faithfully,



Commissioner,
Srinagar Municipal Corporation.

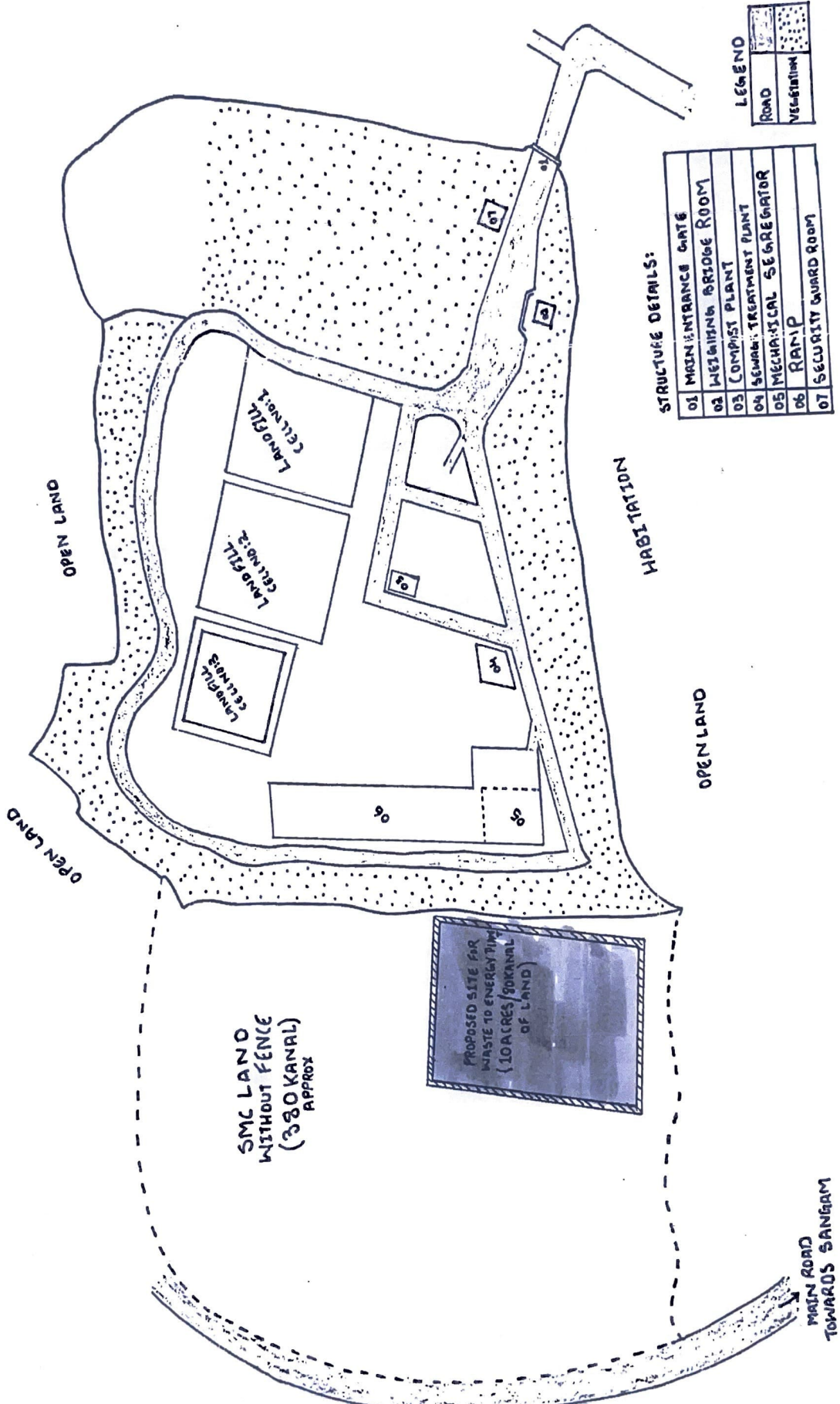
No: SMC/COM/SWMO/1004-05

Dated: 24th May, 2018

Copy to:

1. Financial Commissioner, Housing & Urban Development Department, J&K, Civil Sectt. Srinagar. This also takes reference to his DO No: PS/FC/HUDD/25/2018 dated 11/05/2018.

LAND FILL SITE - ACHAN



STRUCTURE DETAILS:

01	MAINTENANCE GATE
02	WEIGHING BRIDGE ROOM
03	COMPACT PLANT
04	SEWAGE TREATMENT PLANT
05	MECHANICAL SEPARATOR
06	RAMP
07	SECURITY GUARD ROOM

LEGEND

[Dotted pattern]	ROAD
[Stippled pattern]	VEGETATION

SMC LAND WITHOUT FENCE (380 KANAL) APPROX

PROPOSED SITE FOR WASTE TO ENERGY PLANT (10 ACRES / 60 KANAL OF LAND)

MAIN ROAD TOWARDS SANGRAM

OPEN LAND

NODIYATI TARIIDON

OPEN LAND

02.06.2017

R-G.

Response to the queries received on the Pre-bid meeting- 2 held on 02 June 2017 at Srinagar

S.N	Reference	Queries raised	Response
Eco Green Energy Private Limited, Gurgaon			
1	General	Please provide the Topo map of the site showing the reserved land for the WtE project in Cadd version.	The Topo map of the site would be shared with the interested bidders.
2	Existing Infrastructure	The SMC is working on setting up SLF – 3 at the Achan site. Will the SMC share the same with the successful bidder?	No. SMC requires this to handle the waste till the WtE plant is set up.
3	Existing Infrastructure	Can the successful bidder use the landfill gas generated at the existing SLF-1?	The successful bidder can use the methane gas generated at the SLF -1. SMC has not measured and will not assure the quantity of the quality of landfill gas.
4	Bidder roles and responsibilities	Please share the EIA clearance certificate obtained for the site.	The SMC has obtained clearance from Pollution control board to process existing waste and operate a scientific landfill. The clearance for the Waste to Energy project should be obtained by the WtE developer.
5	General	Please share the NGT proceedings copy on the project so that we understand if there are any restrictions on the technology.	The NGT has not imposed any constraints on the technology if they are compliant to MSW rules 2016 and the Tender document.
6	General	Please share the Draft PPA and draft concession agreement.	The Draft PPA and concession agreement would be shared on E procurement portal
7	General	Please share soil test and water test reports along with Geo technical investigation reports available if any	The bidder shall conduct the studies required for the project.
8	Existing Infrastructure	Please share technical specifications of existing segregation system machineries	The technical specifications of the existing segregation system is as follows 1. 30 mm sieving machine with 30 TPH capacity with feeding, accept and reject conveyors with

09	Performance guarantee Essel Infra Projects, New Delhi	We request that the performance guarantee for the project should be 5 crores but not 5% of the capex.	We have provided monthly average of 2 years in the tender document. The waste generation in summer increases up to 500 TPD and comes down to about 300 TPD in winters. The committed waste for the project would be 300 TPD. The waste to be supplied is mixed MSW. The composition of waste is provided in Tender document. The waste quantity is expected to grow at 4% per year.
10	Quantity of waste	What is the actual quantity of waste generated in Srinagar and what is the assured quantity of waste for the project?	hydraulic system. 2. Hydraulic baling system of 2.5 TPH capacity for baling the RDF. The performance guarantee would be Rs 5 crore.
	Quantity of waste	What is the quality of waste to be supplied to the project?	
11	Quantity of waste	What is the expected growth in the waste quantity?	
12	Existing infrastructure	Please clarify the land availability for this project in acres. What is the type of land available?	
13	General	What is the collection and transportation mechanism?	
14	Existing infrastructure	What are the existing infrastructure? Are there any litigations?	
15	Quantity of waste	What is the quantity given to the existing plant?	
16	Scope of work	Does scope include collection and transportation?	
17	General	The Tender document says only the movable assets can be mortgaged. We kindly request you to modify the same as all the assets except land can be mortgaged.	Tender conditions prevail.



Ref. No. HAAL/WTE/SMC/014



Dated 25/05/2018

The,
Commissioner,
Srinagar Municipal Corporation,
Karan Nagar, Srinagar,
J&K.

Subject: Allotment of Site for Waste To Energy Plant.

Dear Sir,

Kindly, recall our discussion regarding land allocation, for Srinagar Waste To Energy Project, at your esteemed office on 24th of May 2018, in connection with letter dated: 24th of May 2018, reference number: SMC/COM/SWMO/1004-05, wherein, I highlighted the omission of sight while allotting WTE Project Site to us, as it violates the tender rules, we were shown a different site/land by SMC officials during site visit at the time of the tender process demarcated for this project, please find the copy of the actual site map provided by SMC to us with this letter. Further more please note, the new site/changed site which is now allotted in the west wing of the landfill site is a low lying, water logged land, which will definitely increase our cost in the project DPR. As assured and agreed by your goodself that, we will be compensated for the landfilling activity at the west wing of landfill site/new/changed site, we are ready to take the new site possession as agreed by 31st of May 2018.

Therefore, it is humbly requested to have concerned departments from Srinagar Municipal Corporation officials available on site for this activity.

Respects,
Srinagar
Kumail Ansari
CEO

91 9906006815

91 9419006815

kumailansari@astrixinfra.in

HIGHLAND AUTOMOBILES PVT. LTD.

(Authorised Dealers for Maruti Suzuki India Limited (Jammu & Kashmir))

REGISTERED AND CORPORATE OFFICE:

Ansari Complex Sonwar, Srinagar, Kmr. Ph.: 2500007 Fax: (0194) 2500096, 2500035

e-mail: highland_sgr@yahoo.com, highland.srn.sal1@marutidealers.com, highlandworks@yahoo.com

BRANCH OFFICE:

Channi Rama, Bye Pass Road, Jammu Ph.: (0194) 2462680, 2460495, 2462045

e-mail id: highland.jmu.sal1@marutidealers.com



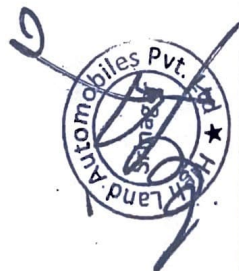
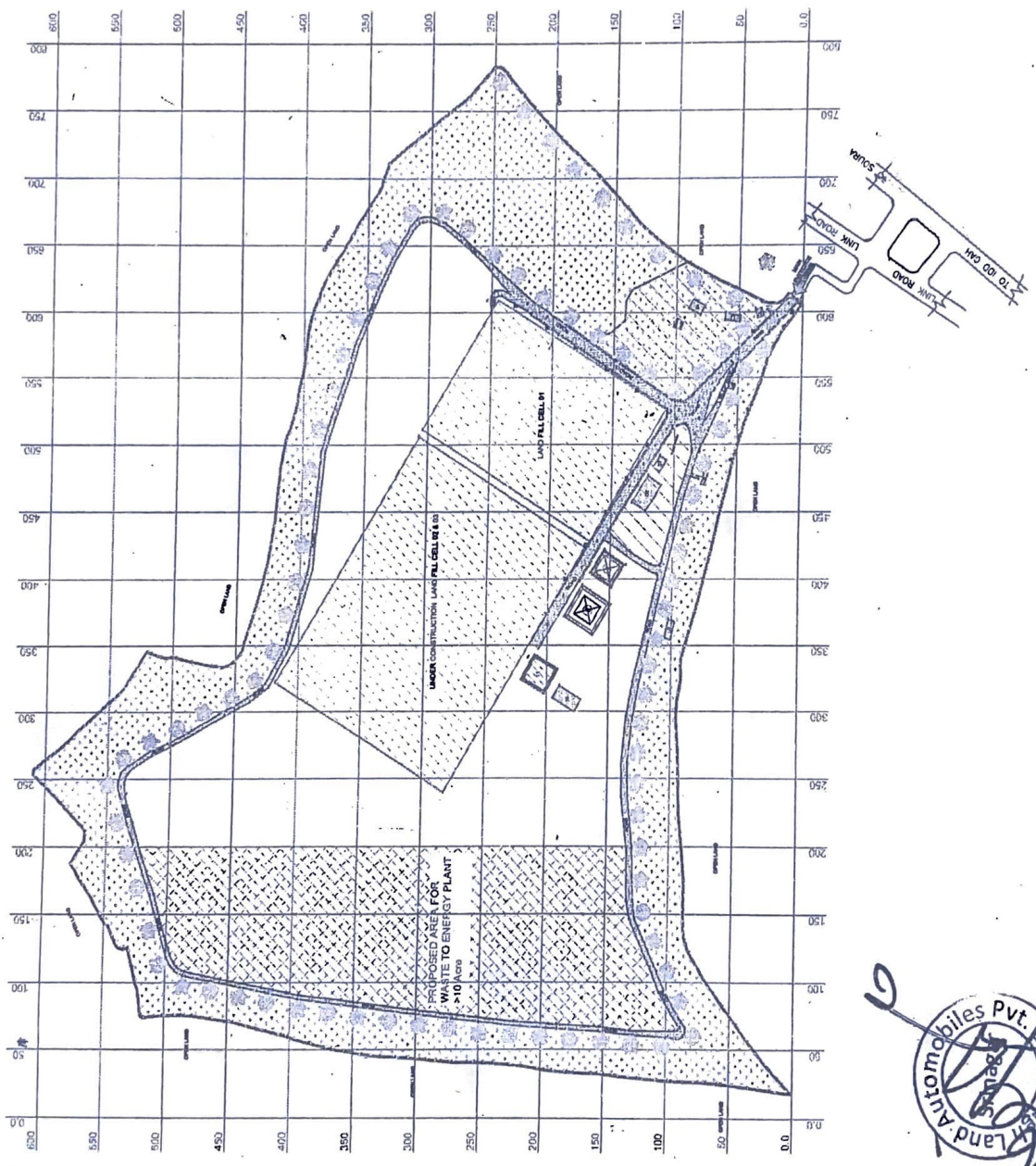
STRUCTURE DETAILS	
STRUCTURE 01	SECURITY ROOM
STRUCTURE 02	SAC SHED
STRUCTURE 03	POLICE QUARTER
STRUCTURE 04	MAINT. BIL. OFFICE
STRUCTURE 05	WORKING BRIDGE ROOM
STRUCTURE 06	PAULINE SITE OFFICE
STRUCTURE 07	ELECTRICAL PANEL ROOM
STRUCTURE 08	OFFICE CUB.
STRUCTURE 09	OFFICE CUB.
STRUCTURE 10	OFFICE CUB.
STRUCTURE 11	TEMPORARY HOLDING AREA
TOTAL AREA 833K 11 1/2 SQ SFT 24.8 ACRE	
POND DETAILS	
POND 1	RAIN WATER COLLECTION POND
POND 2	LEGISLATE POND

LEGEND	
BRICK WALL	[Symbol]
ROAD	[Symbol]
CONCRETE DRIVE	[Symbol]
STREET LIGHT	[Symbol]
ELECTRIC POLE	[Symbol]
CANOPY AREA	[Symbol]
LAND FILL CELL	[Symbol]
TITLE	[Symbol]
DEVELOPMENT	[Symbol]
AGENCY	[Symbol]
LAND FILL SITE ACHN	[Symbol]
DEVELOPMENT	[Symbol]

DATE: 11/11/08

ALL DIMENSIONS IN METERS

PROJECT NO. 1188



296

1	Name of the Project:-	Establishment of Waste to Energy project at Saidpora Achan, Srinagar
2	Department:-	Housing & Urban Development Department
3	Executing Agency:-	Srinagar Municipal Corporation
4	Sanctioned Cost (Rs. In Lakhs):-	Rs. 15000.00 lacs
5	Source of funding CSS/State/CAPEX/NABARD/Any other (please specify)	PPP Mode/VGF ✓
6	Funding pattern	PPP/VGF/Tariff Rate
7	Date of Start:-	NA
8	Target Date of Completion	24 months after signing of Power Purchase Agreement/Concession Agreement
9	Projects Details i. Objective ii. Components	The Waste-to-Energy is based on gasification technology by converting solid waste into energy, reducing the affects of harmful and ecological degradation and imbalance of dumping of solid waste. The key concern of the project is to address the problem of huge solid waste generated in the city by adopting scientific measures and reducing the ill effects of indiscriminate crude dumping and land filling.
10	Funds released upto 31.03.2018 (Rs. In Lakhs)	NA
11	Expenditure incurred upto 31.03.2018 (Rs. In Lakhs)	NA
12	Balance Cost required as on 01.04.2018 (Rs. In Lakhs)	NA
13	Opening balance as on 01.04.2018 (Rs. In Lakhs)	NA
14	Funds released during 2018-19 (Rs. In Lakhs)	NA
15	Actual Availability of funds during 2018.19 (Rs. In Lakhs)	NA
16	Expenditure incurred upto November 2018 (Rs. In Lakhs)	NA
17	Physical Status (component wise)	Levelling of land (allotted to the project proponent for establishment of Waste-to-Energy Plant at Achan) by way of earth filling in process.
18	Issues/Bottlenecks/Action to be taken (if any)	Power Purchase Agreement and Concession Agreement to be signed, which is under process.



Commissioner,
Srinagar Municipal Corporation.

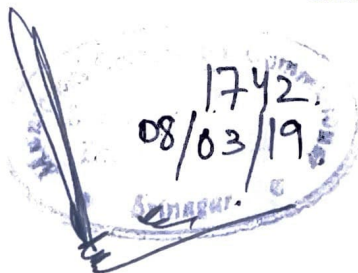
No: SMC/SWMO/COM/1652 dated: 14/12/2018



SYNTECH BIOENERGY PVT LTD

Ref. No: SPPL/WTE/SMC/002Dated: 08-03-2019

The,
Commissioner,
Srinagar Municipal Corporation,
Karan Nagar,
Srinagar,
J&K.



Subject: Issues regarding execution of Power Purchase Agreement, for Srinagar Waste To Energy Plant.

Dear Sir,

Syntech Bioenergy Private Limited is a Special Purpose Vehicle (SPV), Consortium/JV comprising of Highland Automobiles Pvt Ltd (Lead Bidder), Keystone Energy Systems LLP (Technology Partner) and Astrix Infra Pvt Ltd (Infra Services & Logistics Partner) for the establishment of Srinagar Waste To Energy Plant at Achan, Saidpora Srinagar. Kindly refer to the Govt Orders as under:

1. Cabinet Decision No: 207/Cir/2017 Dated: 23-10-2017. ✓
2. Govt Order No: 255-HUD of 2017 Dated: 22-11-2017. ✓
3. PS/FC/HUDD/25/2018 Dated: 11-05-2018 ✓
4. SMC/COM/SWMO/1004-05 Dated: 24-05-2018.
5. SMC/COM/SWM/1266-67 Dated: 30-07-2018.
6. SMC/COM/SWM/1376-78 Dated: 29-09-2018.
7. State Administrative Council Decision No: 24/2/2019 Dated: 14-01-2019. ✓
8. Govt Order No: 39-HUD of 2019 Dated: 23-01-2019. ✓

It is noteworthy, to mention that in July 2017, our Consortium that bid for the global WTE tender that was floated by the SMC, which after all procedures and stages got allotted to our Consortium from SMC by December 2017. Since January 2017, we have been continuously and repeatedly reminding SMC through written communications that the Power Purchase Agreement (PPA) along with other formalities, need to be finalized at the earliest so that the commencement of the Plant and Project can be implemented without delays or any bottlenecks and we were assured from time to time that the PPA will be finalized and executed with due course of time without any delay.

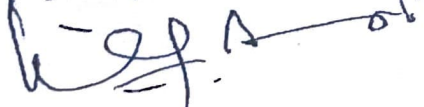
Although, following the latest Govt Order No: 39-HUD of 2019, Dated: 23-01-2019, is in place, which directed the Govt to execute the PPA with our (SPV) namely Syntech Bioenergy Pvt Ltd and also refer to the earlier Govt Order No: 255-HUD of 2017, Dated: 22-11-2017, point numbers 3 and 4, which states that, SMC will get the PPA vetted from Power Development Department, Finance Department, Law Department and JKSERC, but till date the PPA remains uncertain or no communication on the fate of the PPA is communicated to us. It is critical and important at this juncture, to refer to the **Hon'ble National Green Tribunal Original Application No. 277 of 2013 (M.A No. 214 of 2016 & M.A No. 823 of 2016) Dated: 12-12-2017** and **Original Application No. 634/2018 Dated: 18-09-2018**, emphasizing on early execution and signing of the PPA.]→

It is relevant to mention that, due to the delay in executing the PPA, we are subjected to huge losses and price escalations. As our SPV, which comprises of three JV Companies are unable to achieve financial closure due to the non-availability of the PPA. An exorbitant amount of money on account of land development at the site and daily running operational costs on our Consortium, which is amounting in Crores, is unjustified and unbearable to accommodate in the scope of the project and its feasibility.

Therefore, it is important to expedite the PPA execution on priority, so that already started infrastructural developmental works at the site can resume with out any further delays. As further delays and hindrances on formalities might push us to a stage, where we will be compelled to withdraw from this project and seek compensation for all the cost incurred so far.

I seriously hope that, these issues get resolved on time, so that this project can be taken to its logical conclusion, keeping in view of the already deteriorated environmental conditions prevailing in the beautiful city of Srinagar.

Regards,



Kumail H. Ansari
Chairman

+91 9906006815

+91 9419006815

kumailansari@astrixinfra.in

SRINAGAR MUNICIPAL CORPORATION

HEAD OFFICE: KARAN NAGAR, SRINAGAR

NO: SMC/COM/SWMO/ 2020

DATED: 06-01-2020

The Principal Secretary to Government,
Housing & Urban Development Department,
Civil Sectt., Jammu.

Subject: Modification to Government Order No: 255-HUD of 2017 dated 22/11/2017 and filing of petition thereafter before CERC.

Reference: Cabinet Decision No. 207/CIR/2017 dated 23/10/2017.

Sd/-

Consequent upon the approval of the State Cabinet, establishment of Waste-to-Energy Plant (disposal of waste) at landfill site Saidpora Achan was allotted in favour of single bidder namely, M/S. Highland Automobiles Pvt. Ltd., joint venture in consortium with Key Stone Energy Systems LLP and Astrix Infra Private Limited vide above said Government order, now an SPV titled M/S. Sintech Bioenergy Pvt. Ltd. (A copy of Government orders enclosed as Flag "A" & "B")

The relevant points i.e. No. 3 & 4 of the Government order No. 255-HUD of 2017 dated 22/11/2017 are reproduced as under:

Point No: 3

The Power Development Department shall purchase the Power to be generated from the Waste of Energy Plant during the operation period of the plant. The discovered rate/tariff per unit has been approved as Rs. 7.65 per unit for a period of 27 years. However, the rates/tariff on which power shall be purchased will have to be adopted by the J&K State Electricity Regulatory Commission before signing the Power Purchase Agreement in terms of J&K Electricity Act, 2010.

Point No: 4

The SMC will get the Power Purchase Agreement vetted from Power Development Department, Finance Department, Law Department and J&K State Electricity Regulatory Commission before signing the agreement with bidder.

It is pertinent to mention here that, the Power Purchase Agreement stands vetted by PDD, Finance Department & Law Department. As per the Government order, the discovered tariff/rate of Rs 7.65 per unit was to be adopted by J&K SERC before signing the PPA. However, due to some unavoidable circumstances the PPA could not be adopted by J&K SERC including no availability of the quorum of the said commission.

In terms of Jammu and Kashmir Reorganisation Act, 2019 dated 5th August, 2019, the nomenclature of erstwhile State of Jammu and Kashmir was changed into a Union Territory. As per the Table 1 & 3 of Fifth Schedule of the Reorganisation Act, 2019, some State laws were repealed and Central Laws were made applicable to the UT of Jammu and Kashmir. The Jammu & Kashmir State Electricity Act, 2010 has been repealed and the Central Electricity Act, 2003 was made applicable. The J&K SERC was established under the provisions of J&K Electricity Act, 2010. After the J&K Reorganisation Act, 2019, the Government of Jammu and Kashmir has abolished number of Commissions including J&K State Electricity Regulatory Commission vide Government Order No.1146-GAD of 2019 dated 23/10/2019 (Copy enclosed as Flag "C").

The Letter of Intent (LOI) to the successful bidder/Project Proponent was issued in December 2017 and the project was to be completed within a period of 24 months but due to non-adoption of discovered tariff/rate of power by SERC, the project has not moved as expected. After the abolishment of J&K SERC, now, the Power Purchase Agreement is to be adopted by the Central Electricity Regulatory Commission (CERC), New Delhi in terms of J&K Reorganisation Act r/w ~~with~~ Central Electricity Act, 2003.

The Project Proponent is pressing hard to execute the PPA, so that the project can be commissioned.

In view of the above, it is requested that necessary modification in the Government order No. 255-HUD of 2017 dated 22/11/2017 be incorporated in the PPA in terms of J&K Reorganisation Act, 2019 r/w Central Electricity Act, 2003 i.e. replacement of J&K State Electricity Regulatory Commission (J&K SERC) by Central Electricity Regulatory Commission (CERC) and J&K Electricity Act, 2010 by Central Electricity Act 2003 so that further process is expedited.

Yours faithfully,


Khurshid Ahmad Sanai (KAS),
06/07/2020
Commissioner,
Srinagar Municipal Corporation.

**SRINAGAR MUNICIPAL CORPORATION,**Phone 0191-2470466, 2470465 Fax 0191-2476911, E-mail smc@srinagar.gov.in

The Principal Secretary to Government,
Housing & Urban Development Department,
Civil Sectt., Jammu.

Subject: Release of Viability Gap Funding (VGF) for 500 TPD Waste-to-Energy Plant.

Reference: i) Director Planning (H&UDD) No. HUD/Plan/33/CSS/2014-II dated 8/2/2020.
ii) This office Nos. SMC/COM/SWMO/2310 dated 10/10/2019 & SMC/COM/SWMO/2562 dated 29/11/2019

Sir.

In connection with the subject, the detailed report as sought is furnished as under:-

Reply to point No. 1

That vide order dated 13/1/2015, the Hon'ble National Green Tribunal in a case titled Dr Irfan Ahmad v/s Nawang Rigzin Jora & others, amongst other directions, constituted a team of experts to suggest a practical solution to waste management in the Srinagar city. The said constituted committee suggested installation of WtE plant in its 2nd meeting held on 29/6/2015 as better option. Accordingly, the constituted committee in its 3rd meeting held on 29/6/2015 amended, corrected and finalized draft Expression of Interest/Tender Notice for installation of WtE Plant having capacity of 5MW generation capacity of electricity on DFBOOT mode. The tender document was prepared by the Project Consultant namely, Tide Technocrats, Bangalore. The technology to be adopted in the WtE plant was open and it depended upon the bidders as to what kind of technology is preferred by them. Therefore, without having any particular technology of WtE plant and cost estimates thereof, the DPR was not probably preferred. However, if agreed, the project proponent can be asked to submit DPR or the services of the Project Consultant can be utilized for preparation of the DPR if the document is essentially required for processing the case further.

Reply to point No. 2

It is fact that the project is on DFBOOT mode and all the investment has to be made by the project proponent. However, the Annexure 15 (point No. 5) forming part of tender document reads that if the project proponent is successful in getting any additional fiscal incentives/grant-in-aids or other benefits from State/National/International sources, the project proponent shall pay the Government of J&K @ 25% of such receipts as and when this occurs.

Reply to point No. 3

Once the PPA is signed by the parties, the bidder shall be asked to provide performance guarantee/security deposit of Rs. 500 lacs or 5% of the agreed project cost.

Reply to point No. 4

As per the technical opinion sought from the project consultant, namely, Tide Technocrats, the project consultant has referred point 10.2.1 of the SBM(U) guidelines dated 5/10/2017 provides for and encourages PPP mode in the SWM Projects. Section 10.2.2 states that Government of India funds can be used as VGF. The consultant further has further referred the SBM guidelines Section 10.2.8 states that for PPP projects the State Government shall follow its own policy and rules for approval.

Yours faithfully,



Commissioner.



Srinagar Municipal Corporation.

No: SMC/COM/SWMO/2814-15

Dated: 8/2/2020

Copy to:

1. Director Planning, Housing & Urban Development Department, Jammu for information. This is in reference to his as above.

OFFICE OF THE COMMISSIONER
SRINAGAR MUNICIPAL CORPORATION

Room No. 01 Commissioner Block, Central Office, Karan Nagar Srinagar, 190010
Phone: 0194-2470466 Fax: 0194-2476931 email: commissioner-smc@jk.gov.in

The Managing Director,
Syntech Bio-energy Pvt.Ltd.
Sonwar, Srinagar.

Subject: Establishment of waste-to-Energy Plant at Saidapora, Achan.
Reference: This office Nos. SMC/COM/SWMO/2883-85 dated: 06.03.2020,
SMC/COM/SWMO/2893-95 dated: 16.03.2020 & SMC/COM/SWMO/179-
81 dated: 18.07.2020.

Sir,

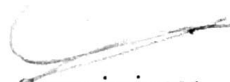
In connection with the subject, please be informed that vide No. S.O.1984 (E) dated: 18.06.2020, the Central Government has constituted a Joint Electricity Regulatory Commission (JERC) for the Union Territories of Jammu and Kashmir and Ladakh. The adoption of tariff of Srinagar Waste-to Energy Plant shall now be the jurisdiction of JERC instead of CERC or erstwhile JK SERC.

You are therefore, advised to immediate file the petition before the JERC for adoption of discovered tariff/rates to avoid any further loss of time as the project already stand delayed for want of adoption of tariff by the Commission, which could pave a way for execution of Power Purchase Agreement (PPA) by the stakeholders.

Any assistance as may be required for filing of petition before the JERC from this end shall be made available to you on your written request.

MATTER URGENT.

Yours Faithfully,



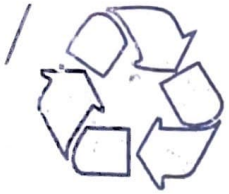
Commissioner,
Srinagar Municipal Corporation.

No: SMC/PS/COM: 5162 62

Dated: - 05/09/2020

Copy to the:

01.Principal Secretary to Government, Housing & Urban Development Department
Civil Sectt. Jammu/Srinagar for kind information.



SYNTECH BIOENERGY PVT LTD

Personal Section of Commissioner
Srinagar Municipal Corporation

Ref. No:

SBPL/WTE/SMC/107

Dated: 10/09/2020

Receipt No.

Date

Time

Encl.

The,
Commissioner,
Srinagar Municipal Corporation,
Karan Nagar, Srinagar,
Jammu & Kashmir.

Subject: Establishment of Srinagar Waste To Energy Plant at Saidapora, Achan Srinagar.

Reference: Letter No: SMC/PS/COM/3762-63.
Dt: 05/09/2020

Respected Sir,

In reference with the above referred letter dt: 05/09/2020, wherein your chair has instructed me for filing of the tariff adoption petition before the Joint Electricity Regulatory Commission (JERC), UT of J&K. In this regard, I would like to inform your goodself, few issues regarding the same, as under:

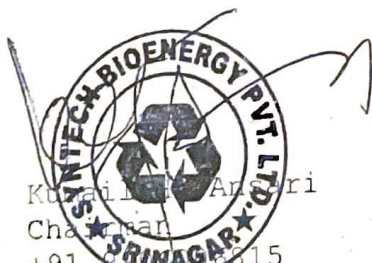
1. Although, the JERC notification vide number: S.C 1984 (E) dated: 18.06.2020 is in place. Chairman along with Member Technical and Member Finance for the Commission have also taken oath.
- ② JERC office location is yet to be finalized, along with its staff members and other important personals from PDD. This entire activity might take minimum 8 to 12 months to be setup in order and under procedure.
- ③ Panel of advocates and technical engagements for the Commission along with procedural code and amendment to the Electricity Act of 2010 to 2003 will also be a time consuming factor.
4. Our approved PPA needs modifications with regards to the State Reorganisation Act 2019 following the abrogation of Article 370, which I have been continuously reminding your esteemed office through written communications but till now we have not received any word on the same.

5. The MNRE Guidelines on RE Projects and the Tender Document for the Srinagar WtE Plant mandates that, the signing of the PPA must be within 45 days after the issuance of LOI/LOA and despite repeated reminders there is no action taken on this. It is important to mention that, the negotiated discovered tariff is already under the prescribed tariff norms as declared by the Govt. of India. By virtue of the clarifications on adoption of discovered tariff before any Electricity Regulatory Commission, the tariff is already deemed adopted. In other words, adoption of discovered tariff in our regard before an Electricity Regulatory Commission is primarily just incidental.
6. The tariff adoption petition that is referred above primarily comprises of the total project cost and the technical parameters, which has to be covered under our approved and attested DPR, which will only happen once the PPA is signed. Unless the DPR is present with the petition, it will be incomplete.

It is therefore requested that, the PPA must be modified; H&UDD and Law deptt must be consulted on priority for this action at the earliest. The PPA must be signed in order for us to achieve financial closure, so that the stalled civil works and infrastructural activity will resume at the site and our company can start fresh negotiations with the financial lenders and our equity partners.

For any clarification please feel free to call upon me.

Regards,



Kumail Ansari

Chairman

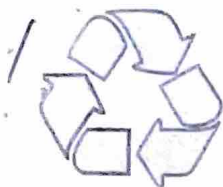
+91 9419006815

+91 9419006815

email: kumailansari@astrixinfra.in

306

ANNEXURE R-13



Ref. No: SBPL/WTE/SMC/020

Dated: 23.11.2020

*Received
Stamp
Copy
23-11-20*

The,
Commissioner,
Srinagar Municipal Corporation,
Karan Nagar, Srinagar,
Jammu & Kashmir.

Subject: Establishment of Srinagar Waste To Energy Plant at Saidapora, Achan Srinagar.

Reference: Letter No: SMC/COM/SWMO/519-20.
Dated: 23/11/2020.

Respected Sir,

I request you to take note of our following point-wise replies in response to your above referred letter:

1. As conveyed to you during our numerous interactions with you, we are in no position to approach the concerned Electricity Regulatory Commission due to the following reasons:
 - a) We haven't yet received any update on the modifications and the copy of the signed Power Purchase Agreement (PPA) with regards to the abrogation of Article 370 and State Reorganisation Act of 2019, from your side. So approaching ERC for Tariff Adoption is out of question without the approved PPA, inline with the Union Territory Laws.
2. We are in agreement with your statement that the tender conditions do not state grant of any VGF and accordingly we do not stake any claim for that. However, we are seeking due compensation for the Earth/Land Filling Work done by us on behalf of the SMC on a different piece of low-lying marshy land that has been allotted to us for the project, in violation of the tender conditions outside the "Existing Infrastructure" and "Scope of Tender".

3. As far as the submission of the PBG of Rs. 500 lacs or 5% against signing of the Concessionaire Agreement (CA) is concerned, that has to be decided on the approved project cost, unfortunately since the main binding agreement, the PPA has not been signed till date, how can the Concessional Agreement (CA) be signed. Moreover, on this matter please refer to the SMC's letter no: SMC/COM/SWMO/2814-15, dated: 8/2/2020; Point No. 3: "Once the PPA is signed by the parties, the bidder shall be asked to provide performance guarantee/security deposit of Rs. 500 lacs or 5% of the agreed project cost". A contradiction of SMC's earlier response regarding the same matter will not only complicate the process but will embark a senseless direction. However, Syntech Bioenergy is ready to submit the PBG against signing of the Concessionaire Agreement (CA) anytime, as you desire but only after signing of the Power Purchase Agreement (PPA) and receiving compensation for the land-filling/earth works job done by us on SMC's behalf on the changed allotted project site.

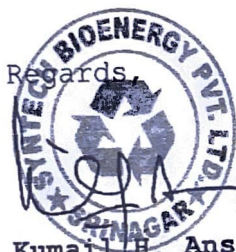
4. Further, in case your esteemed office has not been updated, I would like to inform you that to resolve the above issues and few more, we attended an official meeting on 27.10.2020 chaired by the Chief Secretary at Civil Secretariat Srinagar, where Principal Secretary Power and Principal Secretary HUDD were also present. Following were the points of discussion:

- a. Due to inordinate delay in the project and also due to the extra cost of earth/landfilling, the project cost has considerably increased.
- b. It was decided that the Electricity Regulatory Commission would be approached jointly by all parties together. Both JKPDD & H&UDD would be duly represented by their respective representatives while approaching the commission along with us.
- c. It was also agreed that before approaching the Electricity Regulatory Commission, there would be a follow-up meeting between the Principal Secretary Power, Principal Secretary and Syntech Bioenergy at Civil Secretariat Jammu, on 10th November, 2020 to decide on the draft PPA and tariff calculations.

- d. Unfortunately, the follow-up meeting that was to be held at Civil Secretariat Jammu on the 10th of November 2020 could not be scheduled to other more pressing engagements and non-availability of the Principal Secretary H&UDD. I along with my team, are however eagerly waiting in Jammu since 10th November 2020 for the follow-up meeting and we are in a position to attend the meeting any day at a short notice.

I hope you would appreciate our sincerity and eagerness to complete the project and would use your good office to finalize the PPA, so that the project can be commissioned within 18 months, as per NGT's order dated 12.12.2017.

Assuring you our best and sincere services all time.



Kumail H. Ansari

Chairman

+91 9906006815

+91 9419006815

kumailansari@astrixinfra.in



No: SMC/COM/SWMO/ 658-59
Dated: 30/12/2020

The Managing Director,
Syntech Bio-energy Pvt. Ltd.,
Srinagar

Subject: Establishment of Waste-to-Energy Plant at Achan, Srinagar.
Reference: This office Nos. SMC/COM/SWMO/2893-95;
SMC/COM/SWMO/179-81 dated 18/7/2020;
SMC/PS/COM/3762-63 dated 5/9/2020 &
SMC/COM/SWMO/519-20 dated 23/11/2020.

Sir,

In continuation to this office above referred letters on the subject, there seems no headway on your part to file petition before the Joint Electricity Regulatory Commission (JERC) for adoption of discovered rates/tariff, which is unnecessarily delaying the project execution.

Besides, you were also advised to fulfill all the formalities comprised in the Tender Document/NIT which include submission of 5% Performance Bank Guarantee and signing of Concession Agreement. The delay in submission of Bank Guarantee and signing of Concession Agreement are important conditions of the contract and your perpetual failure on this account shall attract forfeiture of EMD or even cancellation of the contract.

You are therefore, afforded an opportunity to accelerate the process for filing of the petition for adoption of discovered rates/tariff before the JERC and complete all other formalities within 15 days time period.

Yours faithfully,

Gazanfar Ali (KAS),
Commissioner,
Srinagar Municipal Corporation.

Copy to:

1. Director Planning, Housing & Urban Development Department,
Civil Sectt., Jammu for information.



Ref. No: SBPL/WTE/SMC/022

Dated: 01.01.2021

The,
Commissioner,
Srinagar Municipal Corporation,
Karan Nagar, Srinagar,
Jammu & Kashmir.

Subject: Establishment of Srinagar Waste To Energy Plant at Achan, Saidpora, Srinagar.

Reference: Letter No: SMC/COM/SWMO/658-59. Dt: 30/12/2020.
Letter No: SMC/COM/SWMO/519-20. Dt: 23/11/2020.

Respected Sir,

Kindly refer to the above letter numbers, regarding the subject cited above. The contents of both the letters are same and also refer to my previous letter number: SBPL/WTE/SMC/020, dt: 23/11/2020, wherein I have already given point-by-point response to your earlier letter. In continuation with this letter that, I received today from your esteemed office; I am once again giving my response point wise.

Firstly I have already approached the Joint Electricity Regulatory Commission (JERC) at Jammu, as per your instructions, the Hon'ble Commission is in possession of my letter number: SBPL/WTE/JERC/021, dt: 16/12/2020 for the vetting and tariff adoption process. JERC is currently working on it and I am waiting for the response from their side on the matter. Let me also update your goodself that, the Power Purchase Agreement (PPA) has to be approved and vetted by the JERC first, once the PPA gets a final approval from the Commission, the PPA has to signed by the parties and only then the tariff adoption process can take place before the JERC and I have been saying this on record for last 3 years now.

Secondly regarding the Performance Bank Guarantee issue against the Concessional Agreement (CA), this activity can only be endorsed once the Tripartite Agreement the PPA is signed; so that the approved project cost is ascertained. The commission will also certify our DPR and actual project cost at the time of tariff adoption. Unfortunately the PPA between the parties is not signed till date, then how can the project cost be established and vetted. To make this point clear for understanding please refer to the SMC's letter number: SMC/COM/SWMO/2814-15, dt: 08/02/2020; Point No. 3: **"Once the PPA is signed by the parties, the bidder shall be asked to provide Performance Bank Guarantee/Security Deposit of Rs. 500 Lacs or 5% of the agreed project cost"**. However, Syntech Bioenergy is ready to submit the PBG against execution of the CA anytime as and when SMC desires but only after the signing of the PPA and receiving compensation towards the land-filling/earth works job under infrastructural activities done by Syntech Bioenergy on behalf of the SMC for the changed project site, which happens to be outside the scope of the tender.

Thirdly as I have already mentioned in my previous letter that, to resolve all the issues and bottlenecks regarding the above-mentioned subject, there was an official meeting held on 27/10/2020, under the chairmanship of the Chief Secretary in the conference room at Civil Secretariat, Srinagar, wherein both the Principal Secretaries; PDD and H&UDD were also present along with me and all the issues regarding the subject were deliberated in length and detail. I would request your goodself to seek a detailed report and the minutes of meeting from Director Planning H&UDD of this meeting and requesting your goodself to share it with me also.

I hope my response is elaborative in accordance with the present status of the documentation and formalities regarding the establishment of Srinagar Waste To Energy Plant at Achan, Saidpora, Srinagar.

Assuring you our best and sincere services all time. For any further clarifications please feel free to call upon me.

Regards,



+91 9906006815

+91 9419006815

kumailansari@astrixinfra.in

OFFICE OF THE JOINT ELECTRICITY REGULATORY COMMISSION FOR J&K AND LADAKHEmail: - jercjkl@gmail.com

Phone No: - 0191-2470160

The Principal Secretary to Government,
Power Development Department,
Civil Secretariat,
J&K, Jammu.

No: JERC/Tech/20-21/ 01/ 15

Dated: - 12 -01-2021

Subject:- **Vetting and Tariff adoption of the Power Purchase Agreement (PPA).**

Sir,

Syntech Bioenergy Pvt Ltd, vide application dated 16-12-2020, has approached this Commission through its Chairman Sh. Kumail H. Ansari, for vetting of Power Purchase Agreement (PPA) and tariff adoption. The tripartite draft agreement annexed with the application is between J&K Power Development Department, J&K Housing and Urban Development Department and M/s Syntech Bioenergy Pvt Ltd (Copy enclosed).

In the matter following has been observed:-

- ① The name of the petitioner consortium, i.e. M/S Syntech Bioenergy Pvt Ltd does not figure in the Government order No. 255-HUD of 2017 dated 22-11-2017 issued by the Housing and Urban Development Department.
- ② It is also to be reviewed as to whether there is any need to get the ibid Government order modified in view of the fact that State Electricity Regulatory Commission does not exist now and J&K Electricity Act 2010 has been also repealed.
- ③ It is not known as to whether J&K Power Development Department or JKPCCL will enter into PPA with the party.
- ④ It is not known whether the draft agreement has been vetted by PDD, Law Department and Finance Department.
- ⑤ It is required to be ascertained from Srinagar Municipal Corporation (SMC) regarding whether the project is still alive and is being aided by Government of India in the form of Viability Grant Funding (VGF).

Accordingly, I am directed to request you that the matter may be examined with reference to above observations and comments of the department may be forwarded to this Commission.

Yours faith fully,



V. K. Dhar (KAS) 12/01/2021
Secretary JERC



No: SMC/COM/SWMO/ 687-00
Dated: 13/1/2021

The Managing Director,
Syntech Bioenergy Pvt. Ltd.,
Sonwar, Srinagar.

Subject: Establishment of Srinagar Waste to Energy Plant at Achan.
Reference: Your letter No. SBPL/WTE/SMC/022 dated 1/1/2021.

Sir,

In response to your above referred letter, the formalities which are required to be fulfilled at JERC for vetting and adoption of discovered rates/tariff for Srinagar Waste-to-Energy Plant be sought in writing and forwarded to this office for initiation of due course of action for smooth execution of WtE Plant at Srinagar.

Furthermore, there is no condition or conditions stipulated anywhere in the Tender Document, Pre-bid meeting deliberations, LOI or so on that the execution of Concession Agreement (CA) is subservient to the Power Purchase Agreement (PPA), therefore, you are required to ensure CA is executed forthwith and the Performance Bank Guarantee of agreed value of money is deposited by you without consuming any further time.

It is also to be mentioned here that with regard to the allotment of site for establishment of WtE plant, there has been no site change and also no commitment on compensation for any infrastructural activity undertaken or to be undertaken by your SPV. All investment on this project shall have to be borne by Syntech Bioenergy Pvt. Ltd., as the project is allotted on DFBOOT basis.

Yours faithfully,


Gazanfar Ali (KAS),
Commissioner,
Srinagar Municipal Corporation.

Copy to:

Principal Secretary to Govt., Housing & Urban Development Department for kind information. Copy of communication received from project developer is also enclosed herewith for kind perusal.

Government of Jammu & Kashmir
Housing & Urban Development Department
Civil Secretariat, Srinagar

The Managing Director,
J&K Power Development Corporation,
Jammu.

ANNEXURE R-18 (COLLY)

No. HUD/Plan/33/2014-II/CSS

Dated 10.06.2021

Subject:- Vetting & Tariff adoption of Power Purchase Agreement
(PPA) - Establishment of Waste to Energy Plant at Achan
Srinagar.

Sir,

Kindly refer to your letter No. MD/JKPCL/174-75 dated 01.06.2021 regarding the subject cited above. In this context it is stated that copy of the revised PPA agreement duly vetted by the Law Department was also submitted to Power Dev. Department and Joint Electricity Regulatory Commission (JERC)UT of J&K.

In view of above, you are requested to kindly liaise with your Admn. Deptt. and resolve the issue at the earliest. As regards the documents sought for examination of the case, the same can be furnished after receiving the requisition from the Power Dev. Department.

Yours faithfully,

M.I. Pakchiwal

10/6/2021

(M.I. Pakchiwal)

Director Planning

Housing & Urban Dev. Department

Copy to the:-

1. Secretary Technical PDD, Civil Sectt. Srinagar.
2. PS to Prpl. Secy. Power Dev. Deptt. for information of the Prpl. Secretary PDD.
3. PS to Prpl. Secy. H&UDD for information of the Prpl. Secy. H&UDD



**OFFICE OF THE CHIEF ENGINEER
JAMMU & KASHMIR POWER CORPORATION LIMITED**

Regd. Offices: SLDC Building Narwal Gladni Jammu/ PDD Complex, Bemina,
Srinagar

Tel. No. 0191-2474233, e-mail:- cejkpcl@gmail.com

**M/S Syntech BioEnergy Pvt. Ltd.,
Srinagar.**

No. CE/JKPCL/T-W2E/ 1053-55

Dated: - 24-09-2021

Subject: Vetting and Tariff Adoption of Power Purchase Agreement (PPA) –
Establishment of Waste to Energy Plant at Achan, Srinagar.
Reference: Minutes of the Cost Engineering Committee meeting of JKPCL held
on 07-09-2021.

Dear Sir,

In reference to the above captioned subject, as per para D.VIII, page 10 of the bid document and in line with the decisions taken in the Cost Engineering Committee meeting of JKPCL held on 07-09-2021, you are hereby advised to approach JERC for J&K and Ladakh as early as possible and get the tariff adopted by the JERC. Duly vetted draft PPA received from H&UDD vide communication No. HUD/Plan/33/2014-II/CSS dated 28-04-2021 is attached herewith.

You are further advised to keep JERC informed about the proposed modifications of clause 2.2 of the draft PPA which has been taken up with H&UDD vide Managing Director, JKPCL letter No. MD/JKPCL/T-23/616-618 dated 23-09-2021 (Copy enclosed) in pursuance to the decisions of Cost Engineering Committee, which are reproduced as under:

i. Article 2.2 of the draft PPA has been proposed to be amended as under:

"JKPCL shall pay tariff to the Project Developer during a financial year at a price equivalent to average pooled purchase price (annual emerged per unit purchase rate of JKPCL) of power during that financial year. The remaining charges i.e. Rs. 7.65 per unit and differential pooled purchase price of JKPCL shall be paid by SMC/ H&UDD to the Project Developer".

ii. It was also proposed to add clause 2.7 and 2.8 after clause 2.6 " which are reproduced as under:-

- 2.7 If Project obtains any Renewable Energy Certificate, same shall accrue to JKPCCL and JKPCCL agrees to purchase the power produced by the waste-to-energy plant at a price equivalent to the average pooled purchase price of power. However, the other modus operandi in that case (as an example) will be as under:

Average pooled purchase price of power, let us say Rs. 3.50 Per unit plus the cost of the Renewable Energy Certificate (e.g. Rs.1.00 per unit or as applicable). The differential amount (the price finalized by the H&UDD, reduced by (Rs. 3.50 + Rs.1.00)= Rs.4.50) i.e. Rs. 7.65 per unit minus Rs. 4.50 = Rs. 3.15 per unit) is to be borne by H&UDD for payment to the Project Developer.

- 2.8 Any additional Fiscal Incentives/ Grant-in-Aid or other benefit from UT/National/ International sources, the developer will pay to JKPCCL @25% (twenty five % of such receipts as and when this occurs. (Clause 5. Of Schedule-2 of PPA). The same shall be shared with JKPCCL/H&UDD.

Yours Sincerely



(Er. Bashir Ahmad Dar)
Chief Engineer (Trading)
JKPCCL Jammu



Copy to:-

1. Managing Director, JKPCCL for information.
2. Director Planning, Housing and Urban Development Department, J&K for information. He is requested to facilitate the developer and provide all logistical facilities in line with para D.VIII, page 10 of the bid document stating that the responsibility to get tariff adopted by JERC lies with the developer and the responsibility of the SMC is 'to assist' in getting the tariff adopted.



The Managing Director,
Syntech Bioenergy Pvt. Ltd.,
Sonwar, Srinagar.

Subject: Waste to Energy Project – Srinagar.

Sir,

Apropos to the subject and for smooth execution of the Waste-to-Energy project at Achan, Srinagar, you are hereby directed as follows:

- a) To immediately comply with the legal bindings as per the tender document and the Letter of Intent especially submitting the 5% Performance Bank Guarantee and signing of Concession Agreement. A similar direction was already issued to you vide No. SMC/COM/SWMO/687-88 dated 13/1/2021 and the compliance is still pending.
- b) As there is no clause in the tender document/NIT with regard to grant of VGF which has been also clearly conveyed in the first pre-bid meeting held on 12/5/2017, your claim for grant of any VGF is untenable and cannot be acceded to. Besides, due to your non fulfillment of terms and conditions of tender document including as mentioned above at 'A', your claim for any price escalation is also untenable and cannot be entertained.
- c) To immediately move the application/petition for adoption of tariff in terms of the express provisions of the bid document.
- d) After the adoption of the tariff/rate by JERC, the SMC shall assist you in the signing of the Power Purchase Agreement with the JK PDD.

Any further delay in fulfilling the obligations of the bid document shall attract forfeiture of EMD in light of Part-3, Clause C, Sub Clause 13, Point No. VI (C) of the Tender document and the Corporation shall be constrained to proceed as per the conditions of the bid document and the Letter of Intent, which may please be noted.

Yours faithfully,

Joint Commissioner (Works),
Srinagar Municipal Corporation.

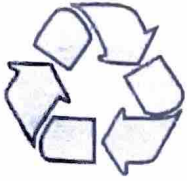
Dated: 20/11/2022

No: SMC/COM/SWMO/1050-57

Copy to:

1. Private Secretary to Principal Secretary to Government, Housing & Urban Development Department for kind information of Principal Secretary.

ANNEXURE R-20



Ref. No: SBPL/WTE/SMC/024

Dated: 09-05-2022

The,
Joint Commissioner (Works),
Srinagar Municipal Corporation,
Karan Nagar,
Srinagar 190010.

Subject: Srinagar Waste To Energy Project

Sir,

This is in response to your Letter No. SMC/COM/SWMO/1850-51, Dated: 28/4/2022 and I am placing my detailed response as under point wise:

- a) To immediately comply with the legal bindings as per the tender document and the Letter of Intent especially submitting the 5% Performance Bank Guarantee and signing of Concession Agreement. A similar direction was already issued to you vide No. SMC/COM/SWMO/687-88 dated 13/1/2021 and the compliance is still pending.

Response: The Letter of Intent (LOI) does not mention anything related to the 5% Performance Bank Guarantee and signing of Concessional Agreement. Further this point has two more parts; first is the binding of the Performance Bank Guarantee and the second is the compliance of the Letter No. SMC/COM/SWMO/687-88 Dated 13/01/2021; please refer below as both are replied:

Performance Bank Guarantee (Binding)

Pre-Bid Meeting-1 held on 12 May 2017 at New Delhi.

S.No. 12: Reference: General

Queries from Bidders: The Draft Concession Agreement should be shared with RFP document.

Response from SMC: The Draft Concession Agreement would be shared.

Pre-Bid Meeting-2 held on 02 June 2017 at Srinagar.

S.No.6: Reference: General

Queries from Bidders: Please share the Draft Power Purchase Agreement and Draft Concession Agreement

Response from SMC: The Draft Power Purchase Agreement and Concession Agreement would be shared on E-Procurement Portal.

Tender No. SMC/CSO/409/MSW P&D/T/2017 Dated: 24/07/2017

Page No. 16 & 17

B. Tender Documents

6. Content of Tender Documents

ii. The draft concession agreement shall be uploaded along with this document on the e-portal.

Both draft agreements were uploaded on the E-Procurement Portal but had a lot of errors, mistakes including language and grammar.

The Govt. Order No. 255-HUD of 2017 Dated: 22/11/2017

4. The SMC will get the Power Purchase Agreement vetted from Power Development Department, Finance Department, Law Department and J&K State Electricity Regulatory Commission before signing the agreement with bidder.

5. SMC will get the Concession Agreement vetted by Power Development Department and Law Department.

LOI No. SMC/SWM/2017/600-611 Dated: 11/12/2017

4. The Corporation will get the Power Purchase Agreement vetted from Power Development Department, Finance Department, Law Department and J&K State Electricity Regulatory Commission before signing the agreement with bidder.

5. The Corporation will get the Concession Agreement vetted by Power Development Department and Law Department.

Response: Letter of Intent (LOI) for the Srinagar WtE Project was issued by the Srinagar Municipal Corporation on 11/12/2017; please refer to my Letter No. HAPL/WTE/SMC/010 Dated: 16/01/2018, reminding the Commissioner Srinagar Municipal Corporation for the execution of the Power Purchase Agreement & Concessional Agreement but there was no response. Another reminder vide Letter No. HAPL/WTE/SMC/011 Dated: 14/02/2018 was sent to the Commissioner Srinagar Municipal Corporation reminding him again; signing of the Power Purchase Agreement & Concessional Agreement, yet no response was received.

The incompetence of the Srinagar Municipal Corporation can be understood by the Letter No. HUD/Plan/33/CSS/2014 Dated: 05/03/2018, Assistant Director (P&S) H&UDD instructing the Commissioner Srinagar Municipal Corporation to start preparing the draft Power Purchase Agreement and Concession Agreement and not to mention by then already 2 months had passed and it is also clearly evident that, till this point both the agreements were not ready as on that date and vetting process of the Power Purchase Agreement and Concessional Agreement by the Law Department and the State Electricity Regulatory Commission were yet to happen.

I, sent another reminder vide Letter No. HAPL/WTE/SMC/012 Dated: 26/03/2018 reminding the Commissioner Srinagar Municipal Corporation on time constraints with regards to the project start date; in line with the Concessional Agreement but again there was no response this time either.

Since there was no response from the office of the Commissioner Srinagar Municipal Corporation, I approached the office of the Hon'ble Minister of Housing and Urban Development Department Govt of Jammu & Kashmir and submitted a detailed representation; vide Letter No. HAPL/WTE/H&UDD/017 Dated: 23/05/2018; updating his chair regarding the implementation of the Srinagar WtE Project and requesting his attention especially on the Concessional Agreement and other formalities.

Upon learning from the Commissioner Srinagar Municipal Corporation via telephone on 23/07/2018 evening that, the draft copies of Power Purchase Agreement and Concessional Agreement had been received by Srinagar Municipal Corporation from H&UDD duly approved by the Law Department, I immediately approached the Commissioner Srinagar Municipal Corporation; vide Letter No. HAPL/WTE/SMC/023 Dated: 24/07/2018 requesting his chair for the issuance of the copy of the agreements, so that the documents can be reviewed and accordingly were issued by the Srinagar Municipal Corporation. Our legal team studied and analysed the documents and both documents were submitted back to the Srinagar Municipal Corporation with

our marked observations vide Letter No. HAPL/WTE/SMC/024 Dated: 27/07/2018 and Letter No. HAPL/WTE/SMC/025 Dated: 27/07/2018 and I personally informed the Commissioner Srinagar Municipal Corporation that, we were good to go for the signing of the agreements but again like it is said "*Old Habits Die Hard*", the Commissioner Srinagar Municipal Corporation kept that matter at bay, reasons best known to him.

The status report submitted by the Commissioner Srinagar Municipal Corporation to H&UDD for the nomenclature of name change and formation of the Special Purpose Vehicle (SPV) for Srinagar WtE Project before the State Administrative Council vide No. SMC/SWMO/COM/1652 Dated: 14/12/2018, Point No. 18: Issues/Bottlenecks/Action to be taken (if any) "*Power Purchase Agreement and Concession Agreement to be signed, which is under process*".

Letter No. SBPL/WTE/SMC/002 Dated: 08/03/2019 was sent to the Commissioner Srinagar Municipal Corporation; reminder for the execution of the agreements, which have gotten delayed but as usual there was no response. Letter No. SBPL/WTE/SMC/003 Dated: 13/03/2019, another reminder for signing the agreements; yet no response. Letter No. SBPL/WTE/SMC/004 Dated: 28/03/2019, again requesting the Commissioner Srinagar Municipal Corporation for the signing of the agreements along with other relevant issues but the Commissioner Srinagar Municipal Corporation slept over the matter all together. Letter No. SBPL/WTE/SMC/004 Dated: 28/05/2019 was sent to the Commissioner Srinagar Municipal Corporation with another reminder; that the agreements are still pending and our financial closure is not getting achieved but as always the Commissioner Srinagar Municipal Corporation did not reply.

I sent another Letter No. SBPL/WTE/SMC/005 Dated: 13/06/2019 requesting the Commissioner Srinagar Municipal Corporation to convene an all stakeholders meeting on priority for resolving the bottlenecks and reminding his chair that in given circumstance it was getting very difficult to move forward, yet again as always the Commissioner Srinagar Municipal Corporation; behaved like a mute spectator with no reply or response at all.

Letter No. SMC/COM/SWMO/687-88 Dated 13/01/2021 (Compliance)

Letter No. SMC/COM/SWMO/687-88 Dated: 13/01/2021 is identical in nature and content to the earlier Letter No. SMC/COM/SWMO/658-59 Dated: 30/12/2020 and Letter No. SMC/COM/SWMO/519-20 Dated: 23/11/2020, which I have already responded to vide Letter No. SBPL/WTE/SMC/020 Dated: 23/11/2020 and Letter No. SBPL/WTE/SMC/022 Dated: 01/01/2020. It is crucial to mention that, it is on record that, the J&K State Electricity Regulatory Commission (JKSERC) received a copy of U.O dated 05.09.2019 of H&UDD addressed to the Commissioner Secretary to Govt. Power Development Department with a copy endorsed to J&K State Electricity Regulatory Commission asking for the vetting of the Power Purchase Agreement from J&K State Electricity Regulatory Commission. While replying to this communication, Secretary J&K State Electricity Regulatory Commission vide Letter No. JKSERC/Secy/30/2019/805-07 Dated: 15.10.2019, informed the Principal Secretary H&UDD and Commissioner Srinagar Municipal Corporation that, in order for the vetting of the Power Purchase Agreement, it is mandatory to file a petition for the tariff adoption before the Commission, which should accompany a copy of the Power Purchase Agreement and the requisite fee. This vital and important correspondence was allegedly not shared by the Srinagar Municipal Corporation with me nor any further directions were issued in this regard and it's also evident from this communication that, the copy of the Power Purchase Agreement means a signed one not a draft copy, otherwise it would have been clearly mentioned please submit the draft copy of Power Purchase Agreement. It also further exposes; how the Commissioner Srinagar Municipal Corporation has been misguiding me; by directing me to approach the Joint Electricity Regulatory Commission for filling the petition for the tariff adoption without the approved/vetted Power Purchase Agreement.

As mandated by the State Reorganisation Act, 2019; the Power Purchase Agreement had to be updated and revised in line with the new laws of the Union Territory of J&K. The contents of the Letter No. SBPL/WTE/SMC/020 Dated: 23/11/2020 clearly informs the Commissioner Srinagar Municipal Corporation that, there is no update received from Srinagar Municipal Corporation on the modifications to be made in the Power Purchase Agreement with regards to the change in Law. It is surprising that, on various occasions the Commissioner SMC wrongly directed me to approach the Commission for filling the petition of the tariff adoption with an unapproved Power Purchase Agreement from the Law Department and without vetting by the Commission.

It was only in the month of March 2021 the revised Power Purchase Agreement was approved by the Law Department. While responding Letter No. MD/JKPCL/174-75 Dated: 01/06/2021, Director Planning H&UDD informed the Managing Director J&K Power Corporation Limited that, the revised Power Purchase Agreement duly vetted by the Law Department has already been submitted to the Power Development Department. The Cost Engineering Committee of the J&K Power Corporation Limited; approved the draft Power Purchase Agreement on 07/09/2021 and the same was received on 24/09/2021 with directions on me; to approach the Commission for the tariff adoption. This is evident enough that; the draft Power Purchase Agreement wasn't ready till 24/09/2021 and the Srinagar Municipal Corporation while trying to shift the blame on me forgot the basics and without any logic or understanding, wanted me to approach the Commission with nothing in hand.

Ministry of New & Renewable Energy (MNRE), Govt of India has already laid down guidelines on the process as under:

**MINISTRY OF NEW AND RENEWABLE ENERGY
GOVERNMENT OF INDIA**

**Guidelines for Tariff Based Competitive Bidding Process for Grid Connected Power Projects
Based on Renewable Energy Sources.
December 2012**

7. Contract Award and Conclusion

7.1. The PPA shall be signed with the selected Bidder/SPV consequent to the selection process in accordance with the terms and conditions as finalized in the RFP bid documents.

7.2. For cases referred to in clause 3.4 of these Guidelines, the PPA and other project documents may be executed by the SPV and the concerned parties prior to the last date of submission of RFP bids.

7.3. After the conclusion of bidding process, the Evaluation Committee constituted for evaluation of RFP bids shall provide appropriate certification on conformity of the bidding process evaluation according to the provisions of the RFP document. The Procurer/ Authorized Representative shall provide a certificate on the conformity of the bidding process to these guidelines

7.4. For the purpose of transparency, the Procurer shall make the bids public by indicating all the components of tariff quoted by all the Bidders, after signing of the PPA or PPA becoming effective, whichever is later. While doing so, only the name of the successful Bidder shall be made public and details of tariffs quoted by other Bidders shall be made public anonymously. The Procurer shall also make public the PPA signed in accordance with clause 7.1.

7.5. For above purpose, a notice will be published in at least two national newspapers and full details shall be posted on the website of the Procurer for at least thirty days.

7.6. The signed PPA along with the certification certificates provided by the evaluation committee and by the Procurer as provided in clause 7.2 shall be forwarded to the Appropriate Commission for adoption of tariffs in terms of Section 63 of the Act.

Tender No. SMC/CSO/409/MSW P&D/T/2017 Dated: 24/07/2017

Page No. 24

Section 24: Notification of Award and Signing of Agreement:

iii. The Agreement will incorporate all agreements between the Employer and the Successful Bidder. The Agreement shall be signed between the Employer and the Successful Bidder within 45 days from the date of issue of Letter of Acceptance to the Successful Bidder.

Time Table for Bid Process

S.No	Event	Elapsed Time from Zero Date
1.	Date of issue of RFP	Zero Date
2.	Bid Clarification, Conferences etc. & Revision of RFP	*****
3.	RFP Bid Submission	75 Days
4.	Evaluation of Bids and issuance of LOI	120 Days
5.	PPA becomes effective: Signing of Agreements: i) Power Purchase Agreement, Escrow Agreement, Hypothecation agreement and any other Agreement as applicable (if these have not been already signed under clause 3.4). ii) Signing of share purchase agreement and transfer of SPV, if applicable.	150 Days

From the above time table, it is very clear that, the Power Purchase Agreement had to be signed within 30 days after the issuance of LOI. Further explanation; after the execution of the Power Purchase Agreement, the tender issuer will intimate the awardee/successful bidder to deposit Performance Bank Guarantee of the agreed project cost towards signing of the Concessional Agreement. This can also be referred to the Letter No. SMC/COM/SWMO/2814-15 Dated: 08/02/2020; Point.No. 3: "Once the PPA is signed by the parties, the bidder shall be asked to provide Performance Bank Guarantee/Security Deposit of Rs. 500 Lacs or 5% of the agreed project cost". No bank will issue a Performance Bank Guarantee without the signed Power Purchase Agreement and the Escrow Agreement. In case the Srinagar Municipal Corporation has its own bank; that provides a Performance Bank Guarantee without the format of the Guarantee and the signed Power Purchase Agreement please do inform me and I shall do the needful. Probably, Srinagar Municipal Corporation is thinking of changing and bending the rules according to its own convenience. However, Syntech Bioenergy is ready to submit the Performance Bank Guarantee/Security Deposit for the execution of the Concessional Agreement anytime as and when the Srinagar Municipal Corporation desires but only after the signing of the Power Purchase Agreement, Escrow Agreement and unresolved/pending issues are addressed.

Surprisingly even at this stage also the Power Purchase Agreement has not been signed and the Srinagar Municipal Corporation has missed the 45 days deadline of signing the Concessional Agreement from the date of issuance of the Letter of Intent according to the condition in the tender.

b) As there is no clause in the tender document/NIT with regards to grant of VGF which has also been clearly conveyed in the first pre-bid meeting held 12/5/2017, your claim for grant of any VGF is untenable and cannot be acceded to. Besides, due to your non fulfilment of terms and conditions of tender document including as mentioned at 'A', your claim for any price escalation is untenable and cannot be entertained.

Response: Viability Gap Funding (VGF) is a scheme under Swachh Bharat Mission for Public Private Partnership (PPP) Mode Projects by Govt of India; as and when we reach that stage; the matter will be deliberated and discussed with the Mission Director Swachh Bharat Mission (Urban) Jammu & Kashmir and if we are eligible for the scheme we will get it; therefore, Srinagar Municipal Corporation need not to worry about the same. If your esteemed chair desires a better understanding on this point, please refer vide Letter No. SMC/SWMO/COM/1652 Dated: 14/12/2018, Point No. 5 & 6 and further Letter No. SMC/SWMO/CAO/2119-24 Dated: 29/08/2019 and Letter No. SMC/COM/SWMO/2310 Dated: 10/10/2019, the official record is more than self-explanatory in nature and it does not need any explanation beyond that.

As far as the issue of the price escalation of more than 4 years is concerned, I am sure, when the Joint Electricity Regulatory Commission will examine the statement of reasons while hearing the petition for the tariff adoption and if the Commission finds any merit in our claim; it can accord the sanction and the verdict would be the final one, which will be binding on both parties.

c) To immediately move the application/petition for adoption of tariff in terms of the express provisions of the bid document.

Response: Application for the vetting of the Power Purchase Agreement and admitting the petition for the tariff adoption along with the copy of the draft Power Purchase Agreement already stands deposited with the office of the Chairman Joint Electricity Regulatory Commission at Jammu vide Letter No. SBPL/WTE/JERC/021 Dated: 16/12/2020. Secretary Joint Electricity Regulatory Commission at Jammu; intimated the Principal Secretary, Power Development Department vide Letter No. JERC/Tech/20-21/01/15 Dated: 12/01/2021 that; the Chairman Syntech Bioenergy Pvt Ltd has approached this Commission for the vetting of Power Purchase Agreement and tariff adoption and the tripartite draft Power Purchase Agreement is also annexed along with his application. The Commission raised few queries on the matter and requested the Principal Secretary Power Development Department to examine the listed observations and comments of the Department to be forwarded to the Commission. Deputy Director (P&S) H&UDD vide Letter No. HUD/Plan/33/CS/2014-II/CSS Dated: 11/02/2021 informed the Commissioner Srinagar Municipal Corporation that, the Project Proponent has approached the Joint Electricity Regulatory Commission J&K for vetting of the Power Purchase Agreement and tariff adoption process; along with few queries and was asked to furnish his comments/views.

I approached the Commission again and enquired about the status on my application Dated: 16/12/2020 and the Commission while quoting the Tariff Regulations, 2019 mentioned that; the application/petition for adoption of tariff can be admitted before the Commission only if filed by the Distribution Licensee or the Intermediary Procurer under Section 63 of the Electricity Act, 2003 and further quoting the Guidelines for the Determination of Tariff by way of competitive bidding which states that, once the Power Purchase Agreement is signed, only then the petition for the tariff adoption can be admitted before the Commission.

In either case, Syntech Bioenergy Pvt Ltd (SPV) is neither a Distribution Licensee nor an Intermediary Procurer; therefore the responsibility of filing the petition for the tariff adoption before the Joint Electricity Regulatory Commission doesn't lie on the Project Developer/Generating Company.

Tariff Regulations 2019 adopted by the JK JERC are the vital source of guidelines under which the petition for the tariff adoption is admitted before the Commission, it's self-explanatory and hence does not need any written directions from the Commission, for your better understanding please refer below:

JOINT ELECTRICITY REGULATORY COMMISSION

(For the state of Goa and Union Territories)
(Renewable Energy Tariff Regulations, 2019)

F. No. JERC-25/2019.

Dated: 04/08/2021

Page No. 33

10 Procurement of Power from Renewable Energy Projects

10.1 For Renewable Energy Technologies, for which Generic Tariff is determined by the Commission, the Distribution Licensee may procure power from such projects either at the Generic Tariff approved by the Commission or through the Competitive Bidding process:

Provided that in case the Distribution Licensee opts to procure power from any Renewable Energy Project(s) set up within their licensed area at the Generic Tariff for 1 MW and above approved by the Commission, the Distribution Licensee shall file the Petition for prior approval of Energy Purchase Agreement for procurement of power from such Renewable Energy Project(s);

Provided further that in case the Distribution Licensee opts to procure power from Renewable Energy Projects through competitive bidding process in accordance with the guidelines issued by the Central Government, the Generic Tariff determined by the Commission shall act as a ceiling tariff and for such procurement of power, the Distribution Licensee shall file the Petition for adoption of tariff under Section 63 of the Act;

To explain this further the notification below from the Ministry of Power, Government of India is as under:

**Ministry of Power
Government of India
F.No.23/11/2004-R&R (Vol-IX) (Pt.-B)
Dated: 22/07/2010**

Guidelines for Determination of Tariff by Bidding Process for Procurement of Power by Distribution Licensee

6. Contract Award and Conclusion

6.1 The PPA shall be signed with the selected bidder/SPV (after its acquisition by the selected bidder under Case-2) consequent to the selection process in accordance with the terms and conditions as finalized in the RFP bid documents.

For cases referred to in clause 3.4 of these Guidelines, the PPA and other project documents may be executed by the SPV and the concerned parties prior to the last date of submission of RFP bids.

6.2 After the conclusion of bid process, the Evaluation Committee constituted for evaluation of RFP bids shall provide appropriate certification on conformity of the bid process evaluation according to the provisions of the RFP document. The procurer shall provide a certificate on the conformity of the bid process to these guidelines.

6.3 For the purpose of transparency, the procurer shall make the bids public by indicating all the components of tariff quoted by all the bidders, after signing of the PPA or PPA becoming effective, whichever is later. While doing so, only the name of the successful bidder shall be made

public and details of tariffs quoted by other bidders shall be made public anonymously. The procurer shall also make public the PPA signed in accordance with clause 6.1.

For above purpose, a notice will be published in at least two national newspapers and full details shall be posted on the website of the procurer for at least thirty days.

6.4 The signed PPA along with the certification certificates provided by the evaluation committee and by the procurer as provided in clause 6.2 shall be forwarded to the Appropriate Commission for adoption of tariffs in terms of Section 63 of the Act.

Central Electricity Regulatory Commission (CERC) while hearing a petition for the tariff adoption under Section 63 of the Electricity Act, 2003 explains the procedure as under:

CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI
Petition No. 721/AT/2020
Dated: 02/06/2021

7. Section 63 of the Act provides as under:

"Section 63: Determination of tariff by bidding process: Notwithstanding anything contained in Section 62, the Appropriate Commission shall adopt the tariff if such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government."

8. Thus, in terms of Section 63 of the Act, the Commission is required to adopt the tariff, on being satisfied that transparent process of bidding in accordance with the guidelines issued by the Ministry of Power, Government of India under Section 63 of the Act, has been followed in determination of such tariff.

9. The Ministry of Power, Government of India has notified the Guidelines under Section 63 of the Act vide Resolution No.23/27/2017-R&R on 3.8.2017. The Guidelines have been subsequently amended by resolutions dated 14.6.2018, 3.1.2019, 9.7.2019, 22.10.2019 and 25.9.2020. The salient features of the Guidelines are as under:

- (i) The PPA shall be signed with the successful bidder/ project company or an SPV formed by the successful bidder. After conclusion of bidding process, Evaluation Committee shall critically evaluate the bids and certify that the bidding process and the evaluation have been conducted in conformity with the provisions of RfS. After execution of the PPA, procurers shall disclose the name(s) of the successful bidder(s) and the tariff quoted by them in its website. Accordingly, the Distribution Licensee or the Intermediary Procurer shall approach the Appropriate Commission for adoption of tariff in terms of Section 63 of the Act.

Let me reiterate again, Syntech Bioenergy Pvt Ltd (SPV) is neither a Distribution Licensee nor an Intermediary Procurer; therefore the responsibility of filing the petition for the tariff adoption before the Joint Electricity Regulatory Commission doesn't lie on the Project Developer/Generating Company.

- d) After the adoption of the tariff/rate by JERC, the SMC shall assist you in the signing of the Power Purchase Agreement with JK PDD.

Response: This point has no logic at all. Once the tariff is adopted by Joint Electricity Regulatory Commission, why is then Srinagar Municipal Corporation required to assist us in signing the Power Purchase Agreement with JK PDD. As explained in this letter and earlier written letters that, the signing of the Power Purchase Agreement is a pre-requisite for the tariff adoption procedure. Srinagar WtE Project Power Purchase Agreement is a tripartite agreement between the Housing & Urban Development Department (Owner), J&K Power Corporation Limited (Procurement) and Syntech Bioenergy Pvt Ltd (Generating Company). There is no provision in the J&K Electricity Act, 2010; that was applicable on the state of Jammu and Kashmir till 31/10/2019 or the Electricity Act, 2003 which is now applied on the Union Territory of Jammu & Kashmir for the adoption of tariff without signing the Power Purchase Agreement, as the discovered tariff has already been ascertained by the medium of a competitive bidding.

Tender No. SMC/CSO/409/MSW P&D/T/2017 Dated: 24/07/2017

D. Srinagar Municipal Corporation Roles & Responsibilities.

Page No. 10.

viii. SMC shall assist the awardee in obtaining necessary approvals of the appropriate commission for setting up of the integrated waste management plant including energy generation and value recovery from municipal waste through the route of tariff based competitive bidding.

ix. SMC shall assist the awardee in obtaining power purchase agreement (PPA) from Jammu Kashmir Power Development Department (JKPDD) for purchase of surplus power from the Energy generation plant on the levelised tariff quoted by the awardee for the entire concession period. The SMC expects the quoted levelised tariff to be in the range of CERC guidelines. The SMC would compare the quoted tariffs with other energy based projects from waste across the country before providing PPA.

Govt. Order No: 255-HUD of 2017 Dated: 22.11.2017:

4. The SMC will get the Power Purchase Agreement vetted from Power Development Department, Finance Department, Law Department and J&K State Electricity Regulatory Commission before signing the agreement with bidder.

LOI No. SMC/SWM/2017/600-611 Dated: 11/12/2017

4. The Corporation will get the Power Purchase Agreement vetted from Power Development Department, Finance Department, Law Department and J&K State Electricity Regulatory Commission before signing the agreement with bidder.

Letter No. SBPL/WTE/SMC/022 Dated: 28/09/2021 was sent to the Commissioner Srinagar Municipal Corporation requesting his office to depute an official from the Srinagar Municipal Corporation; who would accompany and assist me while approaching the Joint Electricity Regulatory Commission as directed by the Chief Engineer (Trading) J&K Power Corporation Limited vide Letter No. CE/JKPCL/T-W2E/1053-55 Dated: 24/09/2021. The Commissioner Srinagar Municipal Corporation slept on the matter for more than 2 months and on 03/12/2021 informed me via telephone call that, the Solid Waste Management Officer from the Srinagar Municipal Corporation would arrive in Jammu to accompany me to the Commission. On 06/12/2021, the said officer arrived at Jammu and accompanied me to the Commission, while interacting with the Commission Members on the matter; the officer was brief and informed about the above mentioned guidelines, procedures and tariff guidelines of the Commission for

filed the petition for the tariff adoption. The officer at this point of time requested the Commission to give the instructions in writing and he was advised to put up the request officially before the Commission and would be replied. Till date it is not known whether the Srinagar Municipal Corporation has approached the Commission on the same. I would also request your chair to kindly get in touch with the said official in order to get an update on same. I am in possession of Letter No. SMC/COM/SWMO/1338 Dated: 15/12/2021, wherein; Commissioner Srinagar Municipal Corporation has informed H&UDD regarding the pre-requisite for filing the petition for the tariff adoption before the Commission; that is the signing of the Power Purchase Agreement by all the stakeholders before filing the petition for tariff adoption of the discovered tariff before the Commission. The directions on matter are still awaited from the office of the Commissioner Srinagar Municipal Corporation.

I filed a grievance before the Lt. Governor's Grievance Cell, Govt of Jammu & Kashmir; vide No. 999001452514 Dated: 13/07/2020, for the resolution of the bottlenecks/pending issues and on 22/10/2020, I had the opportunity to present my case in person before His, Excellency, The Hon'ble Lieutenant Governor UT of J&K; Shri Manoj Sinha at the LG Mulaqaat via video conference and Hon'ble Lt. Governor Sir directed the Chief Secretary to resolve all the issues at the earliest. An official meeting vide Notice No. HUD/Plan/139/Sgr/SBM Dated: 23/10/2020 was issued by H&UDD stating that, the Chief Secretary has desired to hold a meeting on the establishment of Srinagar WtE Plant and signing of the Power Purchase Agreement at Achan Saidpora Srinagar on 27/10/2020 at 4.30 PM in Civil Secretariat Srinagar. The meeting was held on schedule, Principal Secretary H&UDD and JK PDD were also present in the meeting which lasted for nearly 5 hours. All issues and bottlenecks were discussed in length and in detail, the meeting ended on a positive note with an immediate focus on the execution of the Power Purchase Agreement and settling of the other pending issues regarding the establishment of the Srinagar WtE Project. It has been almost 17 months since then, the minutes of this meeting were neither made nor signed nor issued. Please contact the office of the Principal Secretary H&UDD for the minutes of this meeting and also provide us with the same.

It is noteworthy to mention here that, on 16/08/2021, the Parliamentary Standing Committee on Subordinate Legislation visited the UT of J&K on behalf of the Government of India for the review of issues related to the waste management and the worthy Commissioner Srinagar Municipal Corporation presented false statements before this Committee. The statement has also been reported in the daily newspapers and it reads:

"The Commissioner also said that around 9 lakh tones of legacy waste is treated through bio-mining and bio-remediation technique. He revealed that the corporation has tendered out waste to energy project besides had signed an agreement for power purchase to be generated from this plant".

Source:

<https://www.dailyexcelsior.com/parliamentary-delegation-asks-officers-to-make-srinagar-the-cleanest-city/>

<https://www.crosstownnews.in/post/67740/parliamentary-delegation-asks-officers-to-make-srinagar-the-cleanest-city.html>

<https://www.thenorthlines.com/parl-standing-panel-arrives-to-square-up-swachh-bharat-mission-in-jk/>

Firstly on the landfill site there is no legacy waste being treated through Bio-Mining and Bio-Remediation by the Srinagar Municipal Corporation currently, infact the tenders for the same are still under process/review and have not been allotted to any party yet. Secondly the tender for the Srinagar WtE Project has been allotted no doubt but the Power Purchase Agreement is yet to be signed. Now under what pressure and on whose directions did the worthy Commissioner Srinagar Municipal Corporation made this false and misleading statement before the Legislation Committee is a matter of concern and the details must be sort from his office.

This is not the first time that; the Srinagar Municipal Corporation has fabricated compliances; while forwarding replies to the Department of Forest, Ecology & Environment Govt of J&K; vide No. FST/Li/277/2018 Dated: 21/10/2020 and the Pollution Control Board Govt of J&K; vide No. FST/Li/135/2018-II Dated: 05/03/2021; wherein the Srinagar Municipal Corporation informed both that, the civil works have started on the allotted site for the Srinagar WtE Plant as on date and the Department of Forest, Ecology & Environment and Pollution Control Board further submitted their reports/compliances before the Consultant (Judicial) Hon'ble National Green Tribunal New Delhi, whereas due to the inefficiency and the stalemate created by the Srinagar Municipal Corporation by not following the procedures, guidelines and orders; Syntech Bioenergy was forced to stop the ongoing infrastructural works at the site allotted by the Srinagar Municipal Corporation for the setup of the WtE Plant on 31/07/2019 till the pending issues were resolved by the Corporation.

On 02/09/2021, I along with my team once again had the honor of meeting His Excellency, The Hon'ble Lieutenant Governor Shri Manoj Singhaji at Raj Bhawan Srinagar and updated his chair that; the matter was still unresolved. Hon'ble Lieutenant Governor Sir, himself called the Principal Secretary H&UDD via telephone and directed him; to resolve the issues on priority but again till this date the matter has not seen any closure.

The Lt. Governor's Grievance Cell sent Letter No. JK/LGGC/I/188-190/22 Dated: 10/02/2022 and Letter No. JK/LGGC/I/441-43/22 Dated: 29/03/2022 to the Principal Secretary H&UDD; requesting him to kindly share the action taken report with regards to the Lieutenant Governor's Mulaqaat Dated: 22/10/2022. The response to both letters from the office of the Principal Secretary H&UDD is still pending.

Despite being fully aware that, the vetting of the Power Purchase Agreement from the Law Department and by the Commission was the sole responsibility of the Srinagar Municipal Corporation but deliberately the Corporation kept on sending reminders after reminders to me; forcing me to have the process done at the Commission, which is actually not even my job. Syntech Bioenergy is the official Project Developer/Generating Company of the prestigious Srinagar WtE Project and the endorsement is primarily to establish the plant, run the plant, to tackle the environmental hazards and clear the menace of Municipal Solid Waste in and around Srinagar and its vicinities by implementing disposal of Municipal Solid Waste on the scientific lines, generate energy in form of electricity, create job opportunities under Corporate Social Responsibility (CSR), help Power Development Department achieve its non-solar Renewable Purchase Obligation (RPO) as mandated by the Ministry of Power Govt of India, Ministry of New and Renewable Energy, Central Electricity Regulatory Commission and the Joint Electricity Regulatory Commission. The emphasis is primarily on the Solid Waste Management Rules of 2016. It is therefore; not our scope of work to run after the inter-departmental procedures, files, paper formalities, vetting, petitions and clearances.

I am once again reminding the Corporation, the implementation of the Srinagar WtE Project must be according to the orders passed by the Hon'ble National Green Tribunal and the regulations those are in place by the Govt of India. Srinagar Municipal Corporation; as the executing/nodal agency of the prestigious Srinagar WtE Project has failed till date in implementing the project consequently for last 7 years and the Srinagar Municipal Corporation along with H&UDD are liable to answer; The Hon'ble National Green Tribunal and Govt of India. I also strongly suggest that, the Srinagar Municipal Corporation should stop wasting time on shifting their responsibilities on me and my team, the Corporation must move on in a positive direction accordingly by honouring and respecting the orders passed by The Hon'ble National Green Tribunal, which states *"The entire waste to energy plant shall be completed and commissioned within 18 months from the date the PPA is signed"*.

The Hon'ble Prime Minister of India, Shri. Narendra Modi's vision for the development of Jammu & Kashmir under Swachh Bharat Mission is a positive outreach which is overwhelming and assuring that Govt wants development and prosperity in Jammu & Kashmir and if I am trying to follow and adopt the same line, is that wrong? When our Hon'ble Prime Minister of India and the Central Govt is working very hard 24X7 to bring stability in the country, isn't it our responsibility to take advantage of these efforts and do our bit!!!



Kumail H. Ansari
(Chairman)

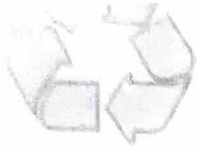
+91 990 600 6815

+91 941 900 6815

kumailansari@astrixinfra.in

C.C:

1. The Hon'ble Prime Minister of India New Delhi.
2. The Hon'ble Union Home Minister New Delhi.
3. The Hon'ble Union Minister Housing & Urban Affairs New Delhi.
4. The Hon'ble Union Minister New & Renewable Energy Sources New Delhi.
5. The Chairperson Parliamentary Standing Committee Housing & Urban Affairs Lok Sabha New Delhi.
6. The Secretary Housing & Urban Affairs New Delhi.
7. The Mission Director Swachh Bharat Mission (Urban) Govt of India New Delhi.
8. The Chairperson National Green Tribunal New Delhi.
9. His Excellency, The Hon'ble Lieutenant Governor UT of J&K.
10. The Chief Secretary UT Jammu & Kashmir.
11. The Principal Secretary Housing & Urban Development Department UT of J&K.
12. The Principal Secretary Power Development Department UT of J&K.
13. The Principal Secretary Science & Technology Department UT of J&K.
14. The Chairman Joint Electricity Regulatory Commission UT of J&K.
15. The Commissioner Secretary, Forest, Ecology & Environment UT of J&K.
16. The Commissioner Secretary Public Grievances UT of J&K.
17. The Deputy Commissioner Srinagar Govt of J&K.
18. The Chairman J&K Pollution Control Board UT of J&K.
19. The Mission Director Swachh Bharat Mission (Urban) UT of J&K.
20. The Commissioner Srinagar Municipal Corporation Srinagar.
21. The Managing Director JK Power Corporation Limited Power Development Department.



Ref. No: SBPL/WTE/SMC/025

Dated: 01-08-2022

The,
Commissioner,
Srinagar Municipal Corporation,
Karan Nagar,
Srinagar 190010.

Subject: Srinagar Waste To Energy Project

Sir,

Despite my repeated reminders and requests regarding finalisations of the formalities and procedures, there is no intimation/information from your esteemed office for the signing of the vital documents/agreements towards the establishment of the Srinagar Waste To Energy Project at Achan Saidpora Srinagar. Neither there is any word on the ongoing procedure with regards to the Tariff Adoption Petition that is to be filled before the Joint Electricity Regulatory Commission at Jammu by the Procurer/Buyer, i.e JKPCL. As already discussed with your good-self, Letter No.: MD/JKPCL/T-23/616-618 Dated: 23-09-2021 addressed to Director Planning, Housing and Urban Development Department Jammu & Kashmir from the office of the Managing Director Jammu & Kashmir Power Corporation Limited (JKPCL); wherein few queries have to be addressed by the H&UDD/SMC is still pending and the reply must be forwarded to JKPCL without any delay.

Srinagar Municipal Corporation is the Nodal/Executing Agency for the Srinagar Waste To Energy Project, therefore its important that, All Stake Holders Meeting must be conveyed at the earliest, so that matter can be deliberated upon and the bottlenecks can be discussed and a final resolution towards establishment and signing of the PPA of the Srinagar Waste To Energy Project can be achieved.

It is also; once again requested to your esteemed chair, that the signed Minutes of the Meeting (MOM) Dated: 27-10-2020 Vide No: HUD/Plan/139/Sgr/SBM, that was held under the Chairmanship of the Chief Secretary UT of J&K, which I attended along with the Principal Secretary H&UDD and Principal Secretary PDD on the direct instructions of His Excellency, the Hon'ble Lieutenant Governor UT J&K; regarding the above subject, be made available to us at the earliest.

Regards,

Kum. P.H. Ansari
(Chairman)

+91 990 600 6815

+91 941 900 6815

kumailansari@astrixinfra.in



331 ANNEXURE R-21



OFFICE OF THE COMMISSIONER, SRINAGAR MUNICIPAL CORPORATION

Room No. 01, Block-A, Central Office, Karan Nagar Srinagar, 190010
Phone 0194-2470466 Fax 0194-2476931 email commissioner-smc@jkl.gov.in



SRINAGAR

Notice of Termination

The Syntech Bio Energy Pvt. Ltd.
(Consortium: Highland Automobiles,
Keystone Energy Systems LLP and Astrix Infra Private Ltd),
Ansari Complex, Sonwar, Srinagar.

SMC/SWMO/CSO/769-70

Dated 22/12/2023

Subject: Notice for cancellation of the RFP/bid proposal floated vide Tender ID No 2017_HAUDD_39093_1 and Letter of Intent/Acceptance (LoI) issued vide No SMC/SWM/2017/600-611 dated 11/12/2017 for Design, Finance, Build, Own Integrated Waste Management facility including energy generation and value recovery from MSW and Operate and Transfer after 25 years at Achan, Srinagar.

Whereas, tenders were floated and bids were invited vide Tender ID No 2017_HAUDD_39093_1 and Tender Reference No: SMC/MSW PD/T-2017 (20) for Design, Finance, Build, Own Integrated Waste Management facility including energy generation and value recovery from MSW and Operate and Transfer after 25 years at Achan, Srinagar; and

Whereas, you were the sole bidder for the above project tender and were declared as the successful bidder after opening of the bid; and

Whereas, the letter of Intent/Acceptance was issued to you by SMC vide No: SMC/SWM/2017/600-611 dated 11/12/2017 against the above project; and

Whereas, the Clause 25 (i) of the RFP document reads:

“The successful bidder will provide performance guarantee/ security deposit of Rs 500.00 lacs or 5% of the agreed project costs whichever is higher in the form of BG within 4 weeks of issue of LoI but before signing of the agreement”.

Whereas, the aforesaid clause clearly mentions that Performance Security is an essential instrument to safeguard the public interest especially for such a high value project; and

Whereas, despite the condition for submission of Performance Guarantee/ Security within 4 weeks of issuance of LoI/A and clarifications in pre-bid queries duly uploaded and published on the procurement portal, you have not furnished the same within the specified period and not even till date; and

Whereas, as per tender clause mentioned at E(II)(a)(ii)

“Within 30 days from issue of the Letter of Acceptance the project Awardee will submit to the SMC complete design, drawing and relevant documents along with his program to complete the works in the form of a PERT Chart and get it approved....”

(Signature)

Whereas, in a project where the Design is also part of the scope of the successful bidder, the submission of detailed designs and drawings is sine qua non; and

Whereas, despite a clear clause with respect to above, you have neither submitted the detailed complete design, drawings and relevant document, and not even signed the contract agreement; and

Whereas, through the medium of various letters detailed infra, you were repeatedly directed by SMC to comply to the tender conditions, and ensure timely necessary action

- a **SMC/COM/SWMO/1850-51 dated 28/04/2022**
- b **SMC/COM/SWMO/687-88 dated 13/01/2021**
- c **SMC/COM/SWMO/519-20 dated 23/11/2020**
- d **SMC/COM/SWMO/658-59 dated 30/12/2020**
- e **SMC/COM/SWMO/2883-85 dated 06/03/2020**

Whereas, despite repeated reminders you did not ensure necessary compliance and instead have been submitting excuses and unwarranted claims, which have been found devoid of merit; and

Whereas, along with the bid documents you have submitted a declaration (Annexure 1: Declaration indemnifying the SMC) vide Rs 100 Stamp paper No F864945 Dated 20.07.2017 wherein you have clearly stated that:

"We have read the general and special conditions of the contract which are appended to the Bid and we agree to the conditions laid therein if the contract is awarded to us.

1. ***We have also read the specifications, studied the preliminary details and understood the scope of work included in the Bid and to be executed by us...***

.....

6. ***The price Offer is valid for a period of 180 days from the date of opening of tender and declaration of the Awardee.***

.....

8. ***We have no doubts or un-cleared ambiguities regarding the specifications, details in the preliminary, scope of the work, and have fully understood our responsibilities in executing and completing the work to the full satisfaction of the commissioner.***

.....

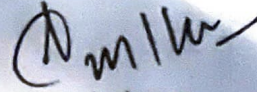
9. ***We agree to the NIT provisions and there is No Deviation offered in our bids from the NIT."***

Whereas, despite clearly accepting the NIT conditions, you have not complied with the conditions and have chosen to not comply, despite being fully aware of the urgency as well the directions of Honorable National Green Tribunal in OA No 277 of 2013 Case titled Dr Irfan Ahmad & Ors Vs Mr Nawang Rogzin Jora & Ors; and

Now, therefore, through the medium of this notice, you are given a final opportunity to show cause why the Letter of Intent/Acceptance issued in reference of the project to you should not be cancelled with forfeiture of your Ernst Money Deposit and imposition of appropriate penalty against you.

(Signature)

Your reply should reach by or before 28th of December 2023. The failure to submit your reply within the stipulated period shall be deemed as consonance to the proceedings, entailing a decision, ex-parte.



Commissioner
Srinagar Municipal Corporation

Copy to the:

1. Principal Secretary to Government, Housing and Urban Development Department for favour of kind information.



ANNEXURE R-22

Ref. No: SBPL/WTE/SMC/025

Dated: 04-01-2024

The Commissioner,
Srinagar Municipal Corporation
Jammu & Kashmir

Subject: Reply to the Notice of Termination dated 22.12.2023 (hereafter, "Impugned Notice") issued by your good office, showing cause as to why the Letter of Intent / Acceptance dated 11.12.2017 issued vide No. SMC / SWM /2017 / 600-611 (hereafter, "LOI"), in favour of M/s Syntech Bioenergy Private Limited., ought not be cancelled.

Ref: Notice of Termination bearing No. SMC / SWMO / CSO / 769-70 dated 22.12.2023

Dear Sir,

1. The instant reply is hereby submitted by and on behalf of M/s Syntech Bioenergy Private Limited, in response to the Impugned Notice dated 22.12.2013, wherein, your good office has, *inter alia*, asked me to show cause as to why the LOI dated 11.12.2017 issued by your good office in my favour in respect of the Tender No. SMC/MSW PD/T-2017(20), titled, "Design, Finance, Build, Own, Operate an Integrated waste management facility including energy generation and value recovery from MSW, operate and transfer after 25 years at Achan, Srinagar" (hereafter, "Tender"), should not be cancelled.

2. It is *prima facie* discernible from a perusal of the Impugned Notice that your good office seeks to terminate the award of the Tender made to me in terms of the LOI, for reasons which have been condensed hereinbelow: -

- a. That I have failed to adhere to the stipulation laid down in Clause 25(i) of the RFP which provides that the "successful bidder will provide performance guarantee/security deposit of Rs. 500.00 Lacs or 5% of the agreed project costs whichever is higher in the form of BG within 4 weeks of issue of LOI but before signing of the agreement".
- b. That I am also in contravention of Clause E(II)(a)(ii), as per which the project awardee was required to submit within 30 days from the issue of the LOI, the complete design, drawing and relevant documents along with the program to complete the works in the form of a PERT Chart and get it approved.
- c. That your good office has repeatedly intimated me to comply with the afore-stated tender conditions and ensure timely necessary action through the medium of various letters, sent during a period between 2020-2022.

3. It is imperative to state at the very outset, that the reasons furnished by your good office in Impugned Notice are in contradiction of the position taken by your own office in the correspondences constituting the record of the Tender and the Impugned Notice suffers

from various infirmities, both factual and legal, which will be elucidated upon in the subsequent paragraphs of the present reply. I deny any purported non-adherence to any terms and conditions of the Tender as alleged by you or otherwise.

4. In light of the afore-said, before submitting my response to the Impugned Notice, it is apposite to understand, briefly, the history of events that have transpired leading up to the above reference Impugned Notice. Accordingly, the factual matrix leading up to the submission of the instant reply is set out hereinbelow for your ready reference and kind perusal: -

A. Background & Award of the Tender

i. As you may be aware, while disposing of the Original Application No. 277 of 2013, along with M.A. No. 214 of 2016 and M.A. No. 823 of 2016, in the case titled "*Dr. Irfan Ahmed & Ors. vs. Mr. Nawang Ringzin Jora & Ors.*", in terms of the Order dated 12.12.2017, the Hon'ble National Green Tribunal directed as under: -

".....

1. Within 7 days of the signing of the Power Purchase Agreement, the Project Proponent along with the State Official, shall demarcate site in question and would start the field work.

.....

3. The Project proponent shall complete the RDF Plant within a period of 12 months counted from 1 week after just demarcation and possession of the site.

.....

5. The entire Waste to Energy plant shall be completed and commissioned within 18 months from the date the PPA is signed.

.....

Ld. Counsel appearing for the State of Jammu & Kashmir submits that a draft agreement of the PPA has already been prepared and is being vetted by law department and the concerned ministry. Let that be done expeditiously and it should be signed without any further delay, now, to enable the project proponent to start the project which has been dragging for years without any justification.

....."

ii. On 24.04.2017, your good office issued the Tender. At the cost of repetition, the said Tender was issued vide No. SMC/CSO/409/MSW P&D/T/2017 for "*Design, Finance, Build, Own, Operate an Integrated waste management facility including energy generation and value recovery from MSW, operate and transfer after 25 years, at Achan, Srinagar*".

- iii. Pursuant thereto, the bidding process ensued, wherein I (then, through consortium lead bidder, M/s Highland Automotives Private Limited) submitted the bid on 20.07.2017.
- iv. On 23.10.2017, the Secretary to the Cabinet, vide Cabinet Decision No. 207/Cir/2017 issued approval for establishment of Waste to Energy Plant at landfill site, Achan, Saidpora Srinagar (hereafter, "**Cabinet Decision**").
- v. In furtherance of the Cabinet Decision, the Housing & Urban Development Department (hereafter, "**H&UDD**") issued Govt. Order No. 255-HUD of 2017, in furtherance of the Cabinet Decision, in terms of which it authorized your good office to issue Letter of Intent ("**LOI**") in favour of "*single bidder namely M/s Highland Automobiles Pvt. Ltd., Srinagar, joint venture in consortium with Keystone Energy Systems LLP and Astrix Infra Pvt. Ltd. for establishment of Waste to Energy Plant (disposal of waste) at Landfill site, Achan, Saidpora, Srinagar*", subject to the following terms: -

"

1. Establishment of Waste to Energy Plant at Landfill site, Achan, Saidapora, Srinagar shall be under DFBOOT basis.

2. Srinagar Municipal Corporation will earmark the land at landfill site, Achan, Saidapora, Srinagar and provide same to proponent for establishment of plant. However, the bidder shall not have any claim/right over land provided to him by SMC for 25 years at first instance.

3. PDD shall purchase power generated from the energy plant at Rs. 7.65 per unit for a period of 25 years, however, the rates will have to be adopted by JKSERC before signing the PPA in terms of J&K Electricity Act, 2010.

4. SMC will get PPA vetted from PDD, Finance Deptt., Law Deptt., & JKSERC before signing agreement with bidder.

5. SMC will get Concession Agreement vetted by PDD

....."

- vi. On 27.11.2017, your good office issued a Letter of Intent/Acceptance which was redacted and shortly thereafter on 11.12.2017, a Revised Letter of Intent/Acceptance, being the LOI bearing No. SMC/SWM/2017/600-611 was issued.
- vii. Parallely, on 12.12.2017, aforementioned Order came to be passed in OA No. 277 of 2013.
- viii. Shortly after the award of the Tender, on 16.01.2018, I wrote to your good office *inter alia* stating that Waste to Energy Plant stood cleared and allotted to me and in line with directions of the Hon'ble National Green Tribunal, the works have to commence shortly. Accordingly, your good office, being the nodal office for coordination and assistance in finalising all formalities, was

requested to expedite the process for execution of the Power Purchase Agreement and the Concession Agreement along with demarcation and allotment of land for construction of the Project.

- ix. Upon receiving no response, I wrote to your good office again on 14.02.2018 and 26.03.2018, in furtherance of the letter dated 16.01.2018 requesting completion of requisite formalities to commence works on the Project. Receiving no response, I was constrained to approach the then; Hon'ble Minister for H&UDD, Govt. of Jammu & Kashmir; vide letter dated 23.05.2018, seeking intervention in the matter as there was an inordinate delay in commencement of works in contravention of the timelines intimated to the Hon'ble National Green Tribunal.
- x. Finally, on 24.05.2018, i.e., after 5 months of the issuance of LOI, your good office reverted to me, only responding by identifying and demarcating the site for construction of the Project without responding on other aspects of the formalities to be completed before commencement of the work.
- xi. Thereafter, on 14.12.2018, your good office issued a Status Report, in terms of which certain details have been marked against various heads, as set out hereinbelow: -

“ ...

18. Issues/Bottlenecks – Power Purchase Agreement and Concession Agreement to be signed, which is under process.

.....”

Admittedly, even until December 2018, i.e., after one year of the issuance of the LOI, the PPA and CA were yet to be signed.

- xii. On 13.03.2019, I wrote to your good office (hereafter, “**Letter dated 13.03.2019**”), *inter alia*, stating that due to delay in execution of the mandatory agreements, which were still under process, there have been price escalations from 2017 till March 2019.
- xiii. That parallelly, on 15.10.2019, the Jammu & Kashmir State Electricity Regulatory Commission (**JKSERC**) wrote to the Principal Secretary, H&UDD, also intimating your office that it had received a copy asking for the vetting of the PPA and directing that further action would only be taken in the matter once a petition is submitted to the JKSERC. Accordingly, H&UDD was requested to take further necessary action in the matter.
- xiv. That your good office has itself, vide letters dated 18.11.2019 and 02.12.2019, written to the Principal Secretary, H&UDD stating as follows: -
 - a. The rate at which power shall be purchased from WtE plant was to be adopted by JKSERC before signing of the PPA in terms of the Electricity Act, 2010. While the Draft PPA had been approved by concerned departments barring the JKSERC, there was no headway.

- b. Execution of the WtE plant, having been delayed for want of adoption of the PPA by JKSERC, it was requested that that the SMC may be authorized to submit petition for adoption of discovered tariff paving way for smooth establishment of the Plant.
- xv. On 06.01.2020, your good office itself wrote to the Principal Secretary, H&UDD, stating that the PPA was to be executed and tariff adoption was to be done by the JKSERC which stands abolished after enactment of the J&K Reorganization Act, 2019 and in view of the same, it was requested that necessary modifications be made to the PPA so that the process could be expedited since the project proponent was pressing hard to execute the PPA.
- xvi. On 08.02.2020, Director, Planning, H&UDD wrote to your good office, requiring inputs and information *inter alia*, on the issue that as per Clause 25 of the Tender the successful bidder will provide the PBG of Rs. 500.00 Lacs or 5% of the agreed project costs whichever is higher within 4 weeks of issue of LOI but before signing of agreement.
- xvii. On 08.02.2020 itself, ***your good office wrote to the H&UDD, inter alia, responding to the communication of the Director, Planning, H&UDD, stating that the bidder shall be asked to provide the PBG after signing of the PPA.*** It is pertinent to note however, that until the said date, the PPA was still not prepared and signed.
- xviii. On 06.03.2020, your good office wrote to me in furtherance of the opinion received from H&UDD, quoting Ld. Advocate General, J&K in terms of which it was opined that it was the generating company that was required to file petition for adoption of tariff before the CERC. The AG formed the opinion basis Regulation 80 of the CERC (Conduct of Business) Regulation, 1999.
- xix. On 23.11.2020, your good office wrote to me, *inter alia*, stating that, I had not approached the ERC for approval of discovered tariff resulting in unnecessary delay in commencement of work and was required to complete formalities including the signing of the CA and submission of the 5% PBG.
- xx. On 16.12.2020, I approached JERC for adoption of tariff and vetting of the PPA. To my utter shock, on 30.12.2020, you wrote to me again, reiterating your stance, without bothering to seek information as to the status of my application before JERC.
- xxi. On 01.01.2021, I wrote to your good office, intimating that I had in fact approached JERC and its response was awaited. Further, it is your good office that had maintained for a period of 4 years that the PBG was to be furnished only after the PPA is executed.
- xxii. The JERC vide letter dated 12.01.2021 wrote to the Principal Secretary, Power Development Department, with certain observations and accordingly requested that the matter be examined in light of the said observations and then be forwarded to the commission.
- xxiii. In what came as yet another shock to me, your good office wrote to me on 13.01.2021, stating that: -

- a. Formalities required to be fulfilled at JERC for vetting and adoption of tariff be sought in writing and forwarded to SMC for execution of the WtE Plant at Srinagar
 - b. The Tender or associated documents do not stipulate anywhere that the CA is subservient to PPA, therefore requesting me to execute the CA and deposit the PBG.
- xxiv. That thereafter, the draft PPA, awaiting modifications in line with the observations of the JERC was circulated between the PDD and JKPCL in respect of some inter-se clarifications on the aspect of tariff. Admittedly, on 10.06.2021, the Director Planning, HUDD wrote to Managing Director, JKPCL requesting it to liaise with the Administrative Department to resolve the issue in respect of the vetting of the PPA.
- xxv. ***Meanwhile, as per newspaper reports of 17.08.2021, you have gone on record to state before media and parliamentary delegation visiting the city that the PPA has been signed in respect of the Waste to Energy Project.***
- xxvi. On 24.09.2021, the Chief Engineer, JKPCL wrote to me along with a copy of the duly vetted PPA, *inter alia* advising me to approach the JERC to get tariff adopted.
- xxvii. On 15.12.2021, your good office has also written to Director Planning, H&UDD, highlighting that I had been asked to submit a signed copy of the PPA before the JERC and accordingly requested further action.
- xxviii. However, very conveniently, on 28.04.2022, your good office wrote to me stating as follows: -
- a. That the 5% Performance Bank Guarantee be submitted and the Concession Agreement be signed
 - b. That an application be moved for adoption of tariff in terms of the express provisions of the bid document.
 - c. After adoption of tariff, SMC would help me with signing of the PPA with PDD.
- xxix. On 09.05.2022, I wrote to your good office, giving a detailed response to your Letter dated 28.04.2022 as to why the stipulations mentioned by you were incorrect and another reminder was sent vide letter dated 01.08.2022, whereafter on 22.10.2022, you proceeded to issue a notice for a meeting to be convened between various stakeholders but no one attended the said meeting barring you and me, and the same is evident from the fact that no minutes have been issued with respect to the same.
- xxx. In fact, only recently, on 08.02.2023, your good office itself wrote to the H&UDD in respect of the issue of tariff adoption for the PPA, seeking to convene a meeting between all interested stakeholders to discuss certain amendments proposed by the JKPCL.

xxxi. Under these circumstances, you have proceeded to finally issue the Impugned Notice, in complete disregard of the aforementioned facts which are a part of the record.

5. In the backdrop of the above-stated factual matrix, the **appropriate submissions in response to the averments made by your good office** in the Impugned Notice are as follows: -

A. The Tender is vague in defining the term “agreement” as mentioned under Clause 25 (i)

- (i) Whereas, you have stated in the Impugned Notice that the successful bidder will provide the PBG of Rs. 500.00 Lacs or 5% of the agreed project costs, whichever is higher, within 4 weeks of issue of Lol but before signing of the “agreement”.
- (ii) It is pertinent to highlight that there exists a total of three (3) agreements, within the factum of the Tender, i.e., the Power Purchase Agreement, the Escrow Agreement and the Concession Agreement. Therefore, Tender is vague insofar it fails to define which agreement is under reference in clause 25(i).
- (iii) It is settled law that that the Tendering Authority is bound by the principles of reasonableness and cannot act arbitrarily or whimsically. Moreover, the Hon'ble Supreme Court in **Reliance Energy Ltd. and another v. Maharashtra State Road Development Corpn. Ltd. and others, (2007) 8 SCC 1**, has gone to the extent of holding that legal certainty is at the heart of rule of law, envisaged under Article 14, and tender conditions that are vague or uncertain strike at the rule of law and Article 14 of the Constitution. It has been observed as under: -

“38. When tenders are invited, the terms and conditions must indicate with legal certainty, norms and benchmarks. This “legal certainty” is an important aspect of the rule of law. If there is vagueness or subjectivity in the said norms it may result in unequal and discriminatory treatment. It may violate doctrine of “level playing field”.”

- (iv) It is apposite to also refer to **Rule 225 of the General Financial Rules, 2017**, which sheds light on the general principles for contract in case of public procurement processes. It is stated under 225(i) that the terms of the contract must be precise, definite and without any ambiguities. This reinforces the idea that legal certainty is of the essence in cases where tendering of goods, works and services by the government is concerned.
- (v) The Tender condition in Clause 25(i) being vague and uncertain. It was incumbent upon your good office to clarify the scope of the same by according it a suitable interpretation in line with the general import of the Tender. However, the same has not been done in a period of almost 7 years.

- B. Your good office is estopped from demanding the PBG at a belated stage since it was explicitly informed that furnishing PBG would be pursuant to execution of PPA**
- (vi) Notwithstanding the afore-stated, your kind attention is drawn to the sequence of events that have transpired ever since the award of the Tender by virtue of the LOI dated 11.12.2017. Shortly after the issuance of the LOI, by medium of various letters dated 16.01.2018, 14.02.2018 and 26.03.2018 written to your good office; I had sought your assistance and intervention towards completing all requisite formalities necessary for execution of the process. In fact, owing to your apathy, I had no option but to write to the Minister, H&UDD, vide letter dated 23.05.2018 seeking his intervention, whereafter, only on 24.05.2018, you finally wrote back, merely, demarcating the site for commencement of works, which too, is in material deviation of the tender terms.
- (vii) That, you have failed to respond to the various correspondences issued by me time and again, seeking your timely intervention to execute formalities. Further, you have yourself, in terms of the communication dated 08.02.2020 made it clear that the **PBG is required to be furnished after the execution of the PPA**. Once such an averment is made on record and both, your good office and I, act in furtherance of the said averment, you are estopped in law, from conveniently choosing to go back on your admitted stance. It is pertinent to advert to the findings of the Hon'ble Apex Court in **Rajasthan State Industrial Development & Investment Corpn. v. Diamond & Gem Development Corpn. Ltd., (2013) 5 SCC 470**, wherein it has been observed: -

"I. Approbate and reprobate

15. A party cannot be permitted to "blow hot-blow cold", "fast and loose" or "approbate and reprobate". Where one knowingly accepts the benefits of a contract, or conveyance, or of an order, he is estopped from denying the validity of, or the binding effect of such contract, or conveyance, or order upon himself. This rule is applied to ensure equity, however, it must not be applied in such a manner so as to violate the principles of what is right and of good conscience. [Vide Nagubai Ammal v. B. Shama Rao [AIR 1956 SC 593], CIT v. V. MR. P. Firm Muar [AIR 1965 SC 1216], Ramesh Chandra Sankla v. Vikram Cement [(2008) 14 SCC 58 : (2009) 1 SCC (L&S) 706 : AIR 2009 SC 713], Pradeep Oil 14 Corpn. v. MCD [(2011) 5 SCC 270 : (2011) 2 SCC (Civ) 712 : AIR 2011 SC 1869], Cauvery Coffee Traders v. Hornor Resources (International) Co. Ltd. [(2011) 10 SCC 420 : (2012) 3 SCC (Civ) 685] and V. Chandrasekaran v. Administrative Officer [(2012) 12 SCC 133 : (2013) 2 SCC (Civ) 136 : JT (2012) 9 SC 260].]

16. Thus, it is evident that the doctrine of election is based on the rule of estoppel—the principle that one cannot approbate and reprobate is inherent in it. The doctrine of estoppel by election is one among the species of estoppel in pais (or equitable estoppel), which is a rule of equity. By this law, a person may be precluded, by way of his actions,

or conduct, or silence when it is his duty to speak, from asserting a right which he would have otherwise had.

.....”

- (viii) It is also imperative that I mention that the delay in execution of the PPA is in no way attributable to me by any stretch of imagination whatsoever. Firstly, as per Clause 2(D) of the Tender, it was the duty of your good office to assist me in vetting of the PPA and obtaining necessary approvals. Secondly, in cases of tariff discovered through competitive bidding, it is the procurer of the power that has to apply to the concerned electricity regulatory commission for adoption of tariff. The same is covered by the extant guidelines of MNRE and the Electricity Act, 2003 (as well as erstwhile Electricity Act, 2010). However, out of my own bonafide, I had resolved to approach the JERC myself, whereafter, the JERC remanded the file to the PDD for further modifications. It bears mention that the fate of the “draft” PPA is still unknown and in spite of repeated reminders sent by me, the same stands unexecuted even till date. Naturally, the JERC cannot approve the PPA and adopt tariff, until the PPA is not signed by all relevant stakeholder. I reiterate that it was the role and responsibility of the SMC to ensure coordination among all stakeholders towards execution of the PPA.

C. Notwithstanding, your good office never assisted me in furnishing or obtaining a format in which the said PBG was required to be formulated

- (ix) That it is commonplace for a tendering authority to annex along with the extant tender documents and the Letter of Intent Acceptance, a format for the Performance Bank Guarantee in which the said Performance Bank Guarantee is required to be prepared by any financial institution at the behest of the project awardee.
- (x) As you may be aware, a Performance Bank Guarantee is in the nature of a binding agreement executed between a contractor and a financial institution for the benefit of a beneficiary, which in cases of tenders, are the tendering authority. The tendering authority uses the performance bank guarantee as a security against the non-adherence of either the tender terms or subsequent agreements, by the contractor. Considering its nature and object, the Hon'ble Apex Court, in *Standard Chartered Bank vs. Heavy Engineering Corporation Limited and Anr.* (2020) 13 SCC 574, has itself observed that the Bank guarantee is an independent contract between the bank and the beneficiary.
- (xi) In view of the observation of the Apex Court, read with the Clause 2D of the Tender, it was the duty of your good office to circulate a format for the execution of the said Bank Guarantee since privity of contract, in legal terms, exists between your good office and the Bank and I am a mere intermediary.

D. Design, drawings and scheduled timelines have all formed part of the annexures to the bid documents submitted on behalf of the consortium

- (xii) Insofar your averment with respect to the submission of the design, drawings and scheduled timelines of the Project is concerned, please be informed that

the same had already been submitted as ANNEXURE A4 of the bid documents submitted in response to the Tender, on 20.07.2017.

- (xiii) That, the said annexure is not merely a superficial depiction of the design to be utilized for the project but a detailed and precise version not requiring any revisions, additions or modifications.
- (xiv) Notwithstanding the same, when, by means of the numerous communications addressed by me to your good office, I urged the cooperation, assistance and response of your good office for completion of all formalities, you conveniently chose to not to address the said issues wholistically but by nitpicking terms and conditions as felt convenient to you at various junctures of time. Therefore, any shortcoming of any sort is on account of your oversight and not on part of my negligence.

D. The cancellation of the Tender is within the competence of the Cabinet only

- (xv) The award of the Tender is rooted not merely in the issuance of the LOI but also the Cabinet Decision and the Govt. Order No. 255-HUD of 2017. Therefore, the authority of your good office as the nodal agency responsible for implementation of the Project is also superseded by the Executive Decision of the Government to award the tender to me.
- (xvi) Accordingly, it bears mention that the act of terminating the Tender and LOI cannot be a mere unilateral exercise of unjustified power on your part but also requires rescindment and/or revocation of the Cabinet Decision and the Govt. Order by competent authorities empowered to do so.

6. Having regard to the admitted facts, along with the legal principles applicable, you are advised to reconsider the decision of your good office, contemplated to be taken in terms of the Impugned Notice.

I reiterate that as the project proponent, it was my job to only ensure scientific disposal of municipal solid waste, generation of power, generation of employment and taking care of the business that I had envisioned by means of this project. The entire object and purpose of the Tender was to ensure that the inter-se coordination among departments and streamlining of processes involved for the implementation of the project is undertaken by SMC. It is with these delineated roles and responsibilities that the Tender came to be given birth.

Throughout the existence of the award made to me, I have acted with complete bona-fide and sought constant assistance from your good office, in its capacity as the nodal agency, in ensuring that this first of a kind project is finally able to see the light of the day. I believe, it is still not late to move forward with the same. I also believe that the Orders passed by the Hon'ble National Green Tribunal must, under no circumstances, be ignored and be complied with, without any excuses, as they are binding on all the parties involved in this Project.

Under the supervision of the Hon'ble Prime Minister Shri Narendra Modiji, the entire country is reaping the fruits and benefits of policies, schemes and initiatives which have been in place since 2014, which also happens to include the

implementation of the Swachh Bharat Mission in the entire country. Therefore, we are both bound to honour this noble gesture of the Hon'ble Prime Minister of India by strengthening our focus and joint commitment for making this into win-win situation.

Kind Regards



Kumail Ansari,
Chairman,
Srinagar Waste to Energy Project
kumailansari@astrixinfra.in
+91 9906006815
+91 9419006815

C.C:

1. The Hon'ble Prime Minister of India New Delhi
2. The Hon'ble Union Home Minister of India New Delhi
3. The Hon'ble Union Minister for Housing & Urban Affairs Govt of India New Delhi
4. The Hon'ble Union Minister for New Renewable Energy Sources Govt of India New Delhi
5. The Hon'ble Union Minister of State Science & Technology Govt of India New Delhi
6. The Principal Secretary to the Hon'ble Prime Minister of India New Delhi
7. The Advisor to the Hon'ble Prime Minister of India New Delhi
8. The Chairman Parliamentary Standing Committee MoHUA Lok Sabha New Delhi
9. The Secretary Housing & Urban Affairs Govt of India New Delhi
10. The Joint Secretary/MD Swachh Bharat Mission (U) Govt of India New Delhi
11. The Chairperson, Hon'ble National Green Tribunal New Delhi
12. His, Excellency, The Hon'ble Lieutenant Governor of UT of Jammu & Kashmir
13. The Chief Secretary UT of Jammu & Kashmir
14. The Principal Secretary of JKHUDD UT of Jammu & Kashmir
15. The Principal Secretary of JKPDD UT of Jammu & Kashmir
16. The Secretary LAW Department UT of J&K
17. The Chairman Joint Electricity Regulatory Commission of UT of J&K and Ladakh
18. The Chairman Jammu & Kashmir Pollution Control Committee UT of J&K
19. The Divisional Commissioner Kashmir UT of J&K
20. The Deputy Commissioner Srinagar UT of J&K
21. The Mission Director Swachh Bharat Mission (U) UT of J&K
22. The Managing Director JK Power Corporation Limited UT of J&K



SRINAGAR MUNICIPAL CORPORATION
OFFICE OF THE COMMISSIONER



Karan Nagar, Srinagar – 190011; Tele: 01942470465, E-mail: commissioner-smc@jk.gov.in;

No: SMC/PS/Com/877-884
Dated: 13/08/2024

The Syntech Bio-energy Pvt. Ltd.,
(Previously consortium of Highland Automobiles Pvt. Ltd.,
Keystone Energy Systems LLP; and
Astrix Infra Private Ltd.),
Ansari Complex, Sonwar, Srinagar.

Subject: Cancellation of the RFP/Bid Proposal floated vide Tender ID No. 2017_HAUDD_39093_1 and Letter of Intent /Acceptance (LOI) issued vide No. SMC/SWM/2017/600-611 dated 11/12/2017 for Design, Finance, Build, Own integrated Waste Management Facility including Energy Generation and Value Recovery from MSW, Operate & Transfer after 25 years at Achan, Srinagar.

Whereas, vide No. SMC/SWMO/CSO/769-70 dated 22/12/2023, a notice for termination/ for cancellation of RFP/Bid Proposal floated vide Tender ID No. 2017_HAUDD_39093_1 and Letter of Intent /Acceptance (LOI) issued vide No. SMC/SWM/2017/600-611 dated 11/12/2017 was issued to you as to why the LOI issued to you is not terminated/ cancelled for your following defaults and non fulfillment of contracting obligations:

- a) Letter of Intent/Acceptance was issued to you by Srinagar Municipal Corporation against the above project;
- b) As per the Clause 25 (i) of the RFP/Bid Proposal you were required to provide performance guarantee/ security deposit of Rs. 500.00 lacs or 5% of the agreed project costs whichever is higher in the form of Bank Guarantee within 4 weeks of issue of LOI but before signing of the Agreement. The Clause clearly mentioned that Performance Security is an essential instrument to safeguard the public interest especially for such a high value project;
- c) That despite the stringent condition for submission of the Performance Guarantee/Security within 4 weeks of issuance of LOI/A and clarification in pre-bid queries duly uploaded and published on the procurement portal, you failed to furnish the same within the specified period and even not till date;
- d) That as per Clause E(II)(a)(ii), you were required to submit to the SMC complete design, drawing and relevant documents alongwith program to complete the works in the form of the PERT Chart for its approval within 30 days from issue of LOI to project awardee despite the fact that in a project where the Design is also part of the scope of the successful bidder, the submission of detailed designs and drawings is an essential condition;

- e) That despite a clear clause with respect to above, you have neither submitted the detailed complete design, drawings and relevant documents and also failed to sign the Contract Agreement;
- f) That vide medium of various letter including i) SMC/COM/SWMO/2883-85 dated 6/3/2020; ii) SMC/COM/SWMO/519-20 dated 23/11/2020 iii) SMC/COM/SWMO/658-59 dated 30/12/2020; iv) SMC/COM/SWMO/687-88 dated 13/01/2021; v) SMC/COM/SWMO/1850-51 dated 28/4/2022 & so on, you were repeatedly directed by the Corporation to comply with the tender conditions and ensuring timely action, but despite repeated reminders you did not ensure necessary compliance and instead have been submitting excuses and unwarranted claims, which have been found devoid of merit;
- g) That along with the bid documents you have also submitted a declaration “Declaration Indemnifying SMC” on Rs. 100 stamp paper No. F864945 dated 20/7/2017 (appended to the bid document), you have clearly stated that you have read the general and special conditions of the Contract and agreed to the conditions laid therein if the contract is awarded to you. You have also stated that you have read the specifications, studied the preliminary details and understood the scope of work included the bid to be executed by you.
- h) That in the said “Declaration Indemnifying SMC” you have also accepted that the price offer is valid for a period of 180 days from the date of opening of tender. You have further stated that you have no doubts or un cleared ambiguities regarding the specifications, details in the preliminary, scope of the work and having fully understood your responsibilities in executing and completing the work to the full satisfaction of the Commissioner. That you have also agreed to the provisions of NIT conditions but have not complied with the conditions and chosen not to comply, despite being fully aware of the urgency as well the directions of Hon’ble National Green Tribunal in OA No. 277 of 2013 case titled Dr Irfan Ahmad & Ors Vs Mr Nawang Rigzin Jora & Ors;

Whereas, through the medium of the Termination/ Cancellation of LOI/LOA notice, you were given final opportunity to show cause why the Letter of Intent/ Acceptance issued to you should not be cancelled with forfeiture of your Earnest Money Deposit and imposition of appropriate penalty against you.

Whereas, vide e-mail dated 26/12/2023, you sought extension of 20 days to respond to the notice which was allowed by the Corporation vide No. SMC/CSO/SWMO/780-81 dated 28/12/2023;



347
SRINAGAR MUNICIPAL CORPORATION
OFFICE OF THE COMMISSIONER



Karan Nagar, Srinagar – 190011; Tele: 01942470465, E-mail: commissioner-smc@jk.gov.in;

Whereas, vide your No. SBPL/WTE/SMC/025 dated 4/01/2024, a reply has been submitted by you.


Whereas, the reply submitted by you was has been found devoid from any merit and repeat of excuses and unwarranted claims and therefore rejected.

Now, therefore, for your willful failure to timely furnish the Performance Bank Guarantee/Security and default of other terms and conditions of RFP/ Tender document concerned and as approved by the Competent Authority dated 11/5/2024, Letter of Intent/ Acceptance which otherwise has jeopardized and delayed the waste disposal in Srinagar city, the Corporation hereby cancel the Letter of Intent/ Acceptance issued under No. SMC/SWM/2017/600-611 dated 11/12/2017 with immediate effect.

Sd/-
 Commissioner,
 Srinagar Municipal Corporation.

Copy to:

1. Chief Secretary to Government, UT of Jammu and Kashmir, Srinagar/Jammu for kind information.
2. Commissioner/ Secretary to the Government, Housing & Urban Development Department, UT of Jammu and Kashmir, Srinagar/ Jammu for information.
3. Divisional Commissioner, Kashmir for information.
4. Deputy Commissioner, Srinagar for information.
5. All Joint Commissioner, SMC for information.
6. FA/Chief Accounts Officer, SMC for information and necessary action.
7. Chief Sanitation Officer/ SWMO, SMC for information.


 Joint Commissioner,
 Srinagar Municipal Corporation.



ANNEXURE R-24 348

SRINAGAR MUNICIPAL CORPORATION

Office of the Chief Sanitation Officer/SWMO/Chief Transport Officer,
Karan Nagar, Srinagar, E-mail: swmo-smc@jk.gov.in



No: SMC/CSO/SWMO/1003-1006
Dated: 7/5/2024

Mr. MM Shuja,
Samad Complex, Baghat Chowk,
Opp. HDFC Bank, Room No. 313,
Srinagar - 190005,
Mobile No. 9419000195.

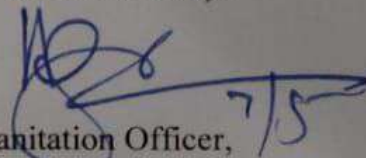
Subject: Information under RTI Act -2005.
Reference: Your application dated 10/4/2024 addressed to PIO SMC.

Dear Sir,

In connection with the subject cited above, the point No. 8 of your fresh application as referred to above pertains to the Sanitation Wing of the Corporation wherein you have sought a detailed SWM planning in Srinagar city with the details of Achan dumping site alongwith the details of alternate dumping site if any. Vide this office No. SMC/CSO/SWMO/945-47 dated 26/3/2024 (copy of covering letter attached herewith) a copy of detailed Action Plan for Integrated SWM System in Srinagar stands already forwarded to you in response to the RTI application dated 1/2/2024. The said Action Plan bears all the details including of Achan Dumping site as well.

However, it is to be mentioned here that the Achan Dumping site is a lone waste disposal site with SMC as on date.

Yours Sincerely,


Chief Sanitation Officer,
Srinagar Municipal Corporation.

Copy to:

1. First Appellate Authority/ Joint Commissioner, SMC for information.
2. Public Information Officer/ Joint Commissioner Planning, SMC for information. This is also in reference to his No. SMC/JCP/RTI/28-33 dated 18/04/2024.

Table of Contents

EXECUTIVE SUMMARY	5
COSTING SUMMARY	6
CAPEX (Component Wise):	6
OPEX (Component Wise):	7
1.0 PROJECT BACKGROUND	8
1.1. INTRODUCTION	8
1.2. SOLID WASTE MANAGEMENT A Definition	8
1.3. PROBLEMS DUE TO SOLID WASTE	9
1.4. CURRENT STATUS OF SWM IN INDIA	9
1.5. INITIATIVES TO IMPROVE SWM IN INDIA	9
1.5.1 Hon'ble Supreme Court of India Recommendations	10
1.5.2 Municipal Solid Waste Management Rules	10
1.5.3 Jawaharlal Nehru National Urban Renewal Mission	10
1.5.4 Urban Infrastructure Development Scheme for Small and Medium Towns	10
1.5.5 Swachh Bharat Mission	11
2.0 BRIEF ABOUT THE PROJECT AREA	12
2.1 OVERVIEW OF SRINAGAR CITY	12
2.2 HISTORY	12
2.3 STRUCTURE	13
2.4 CLIMATE	13
2.5 DEMOGRAPHY	13
2.6 WARD WISE POPULATION	14
2.7 POPULATION PROJECTION	16
2.8 ZONE WISE ASSESSMENT	20
2.9 ZONE WISE HOUSEHOLD AND POPULATION DETAILS	21
2.10 OBJECTIVE OF THE ACTION PLAN	22
3.0 EXISTING SWM SYSTEM	23
3.1 METHODOLOGY ADOPTED	23
3.2 SOURCES OF WASTE GENERATION	23
3.2.1 Residential and Commercial Establishments	23
3.2.2 Hospitals & Nursing Homes	24
3.2.3 Slaughter House	25
3.2.4 Street Sweeping	25
3.2.5 Drain Silt	25
3.2.6 Construction and Demolition Debris	25
3.3 EXISTING MUNICIPAL SOLID WASTE (MSWM) SYSTEM	26
3.3.1 Segregation of Waste-	26
3.3.2 Primary Collection of MSW -	26
3.3.3 Secondary Collection of MSW	28
3.3.4 Transfer Station-	28
3.3.5 MSW Transportation System:	28
3.3.6 Waste Processing	29
3.3.7 Waste-to-Energy Plant	31
3.3.8 Delay in Commissioning of Waste-to-Energy Plant:	33
3.3.9 Disposal of Waste	33
3.4 WASTE GENERATION	35
3.5 COMPARISON TO SERVICE LEVEL BENCHMARKS (SLBs)	37
3.6 EXISTING ISSUES/GAPS PERTAINING TO SWM	38
3.7 INITIATIVES TAKEN BY SMC	38
4.0 PROPOSED INTERVENTIONS FOR INTEGRATED SWM SYSTEM	40
4.1. INTRODUCTION	40
4.2. Segregation at Source	41
4.3. Storage of Waste at Households	42
4.4. Collection & Transportation System	42
4.4.1. Door to Door Collection from Households	43

4.4.2.	Collection of Domestic Hazardous Waste	43
4.4.3.	Collection of Sanitary Waste	43
4.4.4.	Collection from Other Establishments	43
4.4.5.	Collection & Transportation of Silt.....	44
4.4.6.	Bulk waste collection service:	44
4.4.7.	Collection & Transportation of Street Sweeping Waste	44
4.4.8.	Collection & Transportation of C&D Waste	46
4.4.9.	Mechanical Bin Washer	47
4.4.10.	Secondary Storage	47
4.4.11.	Domestic Hazardous Waste Centre's	47
4.4.12.	Transfer Stations & Transportation	48
4.4.13.	GIS based IT Solutions for Monitoring & Evaluation	48
4.4.14.	Complaint Redressal System	49
4.4.15.	Processing of Waste	50
4.4.16.	Waste Processing Facility at Achan	50
4.4.17.	Proposed Waste-to-Energy Plant	52
4.4.18.	Proposed Options at Achan Site	52
4.4.19.	Safe and Scientific Disposal:	56
4.4.20.	Information, Education, Communication (IEC):.....	56
5.0	COST OF THE PROPOSED SYSTEM	60
5.1.	COST ESTIMATES.....	60
5.2.	Capital Cost for Sanitation System (One Time Capex)	60
5.3.	Capital Cost for Collection, Transportation & Sweeping Machines (One Time Capex)	60
5.4.	Capital Cost for Setting-up Transfer Stations (One Time Capex)	61
5.5.	Capital Cost for Setting-up of 12 Domestic Hazardous Waste Deposition Centres (One Time Capex)	62
5.6.	Consumable Cost Estimate for Sanitation System.....	62
5.7.	Manpower Cost for Household Collection, Sweeping, Transportation & Garbage Transfer Stations.....	63
5.8.	Fuel Cost & Repair & Maintenance Cost for Proposed Collection & Transportation, Mechanical Sweeping Fleet, Garbage Transfer Stations	63
5.9.	Capital Cost for Waste Processing (One Time Capex).....	64
5.10.	Capital Cost for Other Equipment's for Processing/Disposal of Waste (One Time Capex)	65
5.11.	Operation & Maintenance Cost for the Processing Facilities	66
5.12.	Operation & Maintenance Cost for Incinerators & Other Equipment.....	66
5.13.	Capital Cost for Bioremediation of Existing Legacy Waste	67
5.14.	Capital Cost for the C&D Waste Processing Plant	67
5.15.	O&M Cost of C&D Waste Processing Plant.....	69
5.16.	IoT Based Monitoring & Evaluation	69
5.17.	Technical Support and IEC Awareness.....	69
5.18.	IEC Activity	70
6.0	SUMMARY	71
6.1.	COSTING SUMMARY	71
6.2.	CAPEX (Component Wise):	71
6.3.	OPEX (Component Wise):	72
6.4.	Public Private Participation (PPP)	78

List of Tables

Table 1 :Population of Srinagar City.....	13
Table 2: Ward wise Population and Households as per Census 2011	14
Table 3: Population of Census Years	17
Table 4: Population Projections Using Five Methods of CPHEEO Manual.....	17
Table 5: Projected population of Srinagar Municipal Corporation.....	18
Table 6: Projected Population & H/Hs of East Zone	21
Table 7: Projected Population & H/Hs of North Zone.....	21
Table 8: Projected Population & H/Hs of West Zone.....	21
Table 9: Projected Population & H/Hs of South Zone.....	22
Table 10: Type of Waste Generation from different Establishments	24
Table 11: Vehicles Deployed for Solid Waste Management in Srinagar.....	28
Table 12: Existing Manpower Details.....	29
Table 13: Details of Landfill Site	33
Table 14: Waste Generation in City	35
Table 15: Zone Wise Waste Generation (Residential areas).....	35
Table 16: Ward Wise Waste Generation in Year 2021.....	35
Table 17: Zone Wise Waste Generation in Year 2021	36
Table 18: Comparison of Existing SWM System with Performance Indicators of Service Level Benchmarks	37
Table 19: Capital Cost for Sanitation for City for 5 years (one time Capex)	60
Table 20: Capital Cost for Collection, Storage, Transportation and Sweeping for 5 years (one time Capex)	60
Table 21: Capital Cost for Setting-up of 12 Garbage Transfer Stations (GTS) (one time Capex)	61
Table 22: Capital Cost for Setting-up of 12 Domestic Hazardous Waste Deposition Centres	62
Table 23 : Consumable Cost Estimate for Sanitation for City per year.....	62
Table 24 : Manpower Cost for Household Collection, Sweeping, Transportation & Garbage Transfer Stations.....	63
Table 25 : Fuel Cost and R&M Cost for Proposed Collection, Transportation & Mechanical Sweeping	63
Table 26 : Capital Cost for MRF, Compost Plant, RDF Plant and Other Required Facilities for Processing ..	64
Table 27 : Capital Cost for Other Equipment/Machinery for Processing & Disposal of Waste	65
Table 28 : Operation & Maintenance Cost for the Processing Facilities.....	66
Table 29 : Operation & Maintenance Cost for Incinerators & Other Equipment(s).....	66
Table 30 : Capital Cost for Bioremediation of Existing Legacy Waste at Achan Site (One Time Capex).....	67
Table 31 : Capital Cost for Setting-up of 100 TPD C&D Waste Processing Plant	68
Table 32 : O&M Cost of 100 TPD C&D Waste Processing Plant.....	69
Table 33 : Capital Cost for the Development of IOT Based Monitoring System	69
Table 34: Handholding Supports for Next Five Years.....	70
Table 35: Year wise Cost for public awareness ICE activities.....	70
Table 36: Summary of Capex involved for implementing Action Plan (One Time Cost for FY-2021-26).....	71
Table 37: Summary of Opex involved in C&T, P&D and sanitation for Five Years (2021-2026)	72
Table 38: Summary of Opex involved in C&T, P&D and sanitation for Five Years (2021-2026) Excluding Cost of Processing Components Proposed under Waste-to-Energy Project	73
Table 39: Funding Pattern	74
Table 40: Funding Pattern Excluding the Capital Cost of Components Proposed under Waste-to-Energy Project.....	74
Table 41: Net Budget required for next five years.....	75
Table 42: Net Budget required for next Five Years Excluding the Capex/Opex of Components Proposed under Waste-to-Energy Project.....	75
Table 43: Estimated Tipping Fee of the Proposed SWM System.....	76

Table 44: Tipping Fee of the SWM Projects awarded in other Cities.....	76
Table 41: Comparison of Service, Management and Concession Contract	79

List of Figures

Figure 1: Waste Generation, Processing and Landfilling in India.....	9
Figure 2:- Location of Srinagar	12
Figure 3: Population of Srinagar Municipal Corporation	14
Figure 4: Ward Map of Srinagar Municipal Corporation.....	16
Figure 5: SMC Zone Wise Map	20
Figure 6: Value Chain of Solid Waste Management.....	23
Figure 7: Sources of Municipal Solid Waste Generation.....	24
Figure 8: Flow Chart on the Existing Collection & Transportation System	26
Figure 9:- Existing SWM flow at Landfill site Achan	29
Figure 10: Mechanical Segregator & Compost Plant at Achan Dumping Site.....	30
Figure 11: Packing of Compost.....	31
Figure 12: Existing Leachate Treatment Plant at Achan Site	31
Figure 13: Google imaginary of Achan Landfill Site	34

EXECUTIVE SUMMARY

An integrated Solid Waste Management (SWM) plan is essential for maintaining good hygiene and quality of life for people in urban areas. It provides a framework for ensuring certain standards of health, sanitation and environment within the city.

The Srinagar Municipal Corporation (SMC) is collecting an amount of average 450 MT waste per day out of 600 MT waste generation which consist of 60% wet waste and 40% dry waste. SMC is aiming to improve its SWM services by focusing on segregation at source, improving collection and transportation efficiency as well as scientific processing of the municipal solid waste generated in the city.

Srinagar Municipal Corporation is planning to implement a holistic solid waste management plan with a vision to make Srinagar:

1. Litter Free
2. Bin Free
3. Dust Free
4. Land Pollution Free

This Action Plan has a significant step forward in assessing the existing situation of SWM as well as laying out clear guidelines for making Srinagar a safe, resilient and litter-free city in the near future. This involves various aspects of the MSW operations viz. source segregation, door-to-door collection, primary & secondary transportation, intermediate waste storage & transfer, scientific processing and final disposal as per SWM Rules, 2016. Some of the major interventions of the proposed action plan are as below:

1. Fleet upgradation and additional deployment of hoppers/compactors/bins for achieving the 100% collection & transportation system.
2. 12 Garbage Transfer Stations are planned across the city. The Garbage Transfer Stations (GTS) will be located in different parts of the city and will be equipped with equipment's like ancillary infrastructure facilities, compactors, bins, hook loaders, leachate system and Material Recovery Facility.
3. Augmentation of existing Compost Plant for processing of 100% waste and to improve the quality of compost
4. A Material Recovery Facility and RDF is also proposed to promote the recycling and conversion of combustible waste in to RDF.
5. Provision of Mechanical Sweepers which would reduce 3 times operational cost from manual Street Sweeping.
6. Provision of Animal Carcass Incinerator and Poultry Waste Incineration for the safe and scientific disposal of waste.
7. Provision of Organic Waste Converters, Cleaning & Bailing of Solid Waste.
8. Provision for setting-up C&D waste processing facility in compliance to C&D Management & Handling Rules, 2016.
9. Srinagar Municipal Corporation has proposed GIS based integrated waste management system which will have following features like Fleet Management System, Geo-fencing and Geo mapping, Bio metric staff management system RFID based house numbering.

10. Srinagar Municipal Corporation will be running a separate waste collection service for bulk waste generators (More than 25kgs). This would be a user charge based service where separate vehicles will be deployed for bulk waste collection. This would ensure proper segregation of waste and will also help in augmenting the revenues of Municipal Corporation.

Based on the ward wise data analysis, the plan mentions critical gap analysis along with suggestions for improvement to ensure overall compliance. The plan also describes in detail the possible interventions in MSW collection, transportation, treatment and disposal.

COSTING SUMMARY

To achieving the Service Level Benchmarks and completing the compliances of NGT, there is a need to upgrade the entire system for collection, transportation, processing and disposal as well as performing some IEC activities in community. For this these fund required in form of Capex & Opex.

CAPEX (Component Wise):

Summary of Capex involved for implementing Action Plan (One Time Cost)

S. No.	Items Description	Capital Cost (FY-2021-26)	Capital Cost (FY-2021-26) in Crores
1	Capital Cost for the Sanitation Activity (Handcarts, Spades, Vacuum Cleaning Machine, Jet Washers)	17,01,19,775	17.01
2	Capital Cost for the Hoppers, Bins, Hook Loaders, Compactor Vehicles, Mechanical Sweeping, Sanitation Supervision Vehicles	74,45,00,000	74.45
3	Capital Cost for Setting-up of 12 Garbage Transfer Stations	36,01,20,000	36.01
4	Capital Cost of Deposition Centres for Domestic Hazardous Waste	3,00,00,000	3.00
5	Capital Cost for Tipping, Pre-sorting Unit, MRF Facility, Compost Plant and RDF Plant	54,70,64,000	54.71
6	Capital Cost for the augmentation of Existing Compost Plant	1,00,00,000	1.00
7	Capital Cost for Incinerator & Other Equipment	15,48,40,000	15.48
8	Capital Cost for Bioremediation	65,61,50,000	65.62
9	Capital Cost for C&D waste Processing Facility	12,87,10,054	12.87
10	Capital Cost for Monitoring & Evaluation of Integrated Solid Waste Management System (IT Solutions)	99,92,200	1.0
	Total Capital Cost	2,81,14,96,029	281.15
	Total Capital Cost Excluding the Cost of Tipping, Pre-sorting Unit (MRF), Compost & RDF Plant which is proposed in the awarded Waste-to-Energy project	2,26,44,32,029	226.44

OPEX (Component Wise):

To improve the collection, transportation and sanitation system in SMC area, SMC has need to add some additional infrastructure so target of sanitation, collection transportation can be meeting easily. Given table representing the Opex summary for Collection, Transportation, processing, disposal including the PPEs expenses:

Summary of Opex involved in C&T, P&D and Sanitation for Five Years

S. No.	Items Description	Opex Requirement (FY-2021-22) in INR	Opex Requirement (FY-2022-23) in INR	Opex Requirement (FY-2023-23) in INR	Opex Requirement (FY-2024-25) in INR	Total Amount Component
A	Opex for the Existing Infrastructure					
1	Cost of Existing Manpower involved in Sanitation Activity (Safai Karamcharis, Drivers, Helpers)	84,00,00,000	84,00,00,000	84,00,00,000	84,00,00,000	4,20,00,00
2	Existing Diesel Cost for Collection, Transportation & Sanitation	7,00,00,000	7,00,00,000	7,00,00,000	7,00,00,000	35,00,00,00
B	Total OPEX of the Existing Infrastructure (INR)	91,00,00,000	91,00,00,000	91,00,00,000	91,00,00,000	4,55,00,00
3	Opex for Consumables for Sanitation System	1,55,22,483	1,70,74,731	1,87,82,204	2,06,60,425	9,47,66,3
4	Manpower Cost for Household Collection, Transportation, Sweeping and Garbage Transfer Stations	30,23,89,704	33,26,28,674	36,58,91,542	40,24,80,696	1,84,61,19
5	Fuel Cost & Repair & Maintenance Cost for Proposed Collection & Transportation, Mechanical Sweeping Fleet, Garbage Transfer Stations	10,82,24,041	11,90,46,445	13,09,51,089	14,40,46,198	66,07,18,1
6	O&M Cost for Compost Plant	1,55,18,920	1,70,70,812	1,87,77,893	2,06,55,683	9,47,44,5
7	O&M Cost for RDF Plant/MRF Plant	83,13,740	91,45,114	1,00,59,625	1,10,65,588	5,07,56,2
8	Manpower Cost for Incinerators & Other Equipment	28,80,000	31,68,000	34,84,800	38,33,280	1,75,82,6
9	Electricity Cost for Incinerators & Other Equipment	20,40,000	22,44,000	24,68,400	27,15,240	1,24,54,4
10	O&M Cost of 100 TPD C&D Waste Processing Plant	2,17,58,837	2,39,34,721	2,63,28,193	2,89,61,012	13,28,39,1
11	Cost of PMU for Handholding Support	2,40,00,000	2,64,00,000	2,90,40,000	3,19,44,000	14,65,22,1
12	Cost of IEC Activities and Capacity Building	2,00,00,000	2,20,00,000	2,42,00,000	2,66,20,000	12,21,02,1
	Total Opex of the Proposed Infrastructure (INR)	52,06,47,725	57,27,12,497	62,99,83,747	69,29,82,122	3,17,86,06

1.0 PROJECT BACKGROUND

1.1. INTRODUCTION

According to the Constitution of India, Solid Waste Management (SWM) is a part of public health & sanitation and falls within the purview of the State list. It is the primary responsibility of the respective State/UT Governments and Urban Local Bodies to ensure that appropriate SWM practices are introduced and practiced in all cities and towns in the State/UT.

Solid Waste Management is an obligatory function of the ULBs as envisaged by the 74th Amendment of the Constitution of India. However, this service is poorly performed by most of the ULBs resulting in problems of public health, sanitation and environmental degradation. With rapid urbanization, the situation is becoming extremely critical day-by-day. Infrastructure development is not able to keep pace with population growth resulting to poor financial health management in most ULBs. Lack of financial resources, institutional weakness, improper choice of technology, lack of public participation in SWM, non-involvement of private sector etc., have made SWM services far away from satisfactory. Therefore, there is a need to address this problem by adopting suitable strategies to tackle all aspects of SWM scientifically and economically involving the private sector wherever necessary and possible. A policy framework is, therefore, necessary to guide and support the ULBs in the country for managing the solid waste more economically in a scientific manner. The Ministry of Environment and Forests, Government of India has issued vide their Notification during September 2000 for "Municipal Solid Waste (Management and Handling) Rules 2000" making the same effective from the date of its publication in the Gazette of India. These rules are applicable throughout the country and the state policies on SWM will have to be shaped accordingly. These rules have been updated in 2016 and renamed as "Solid Waste Management Rules 2016."

356

1.2. SOLID WASTE MANAGEMENT A Definition

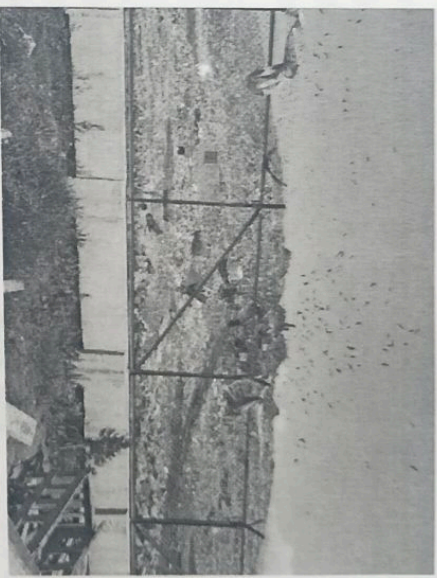
Solid Waste Management (SWM) is an organized process of storage, collection, transportation, processing, and disposal of solid refuse residuals in an engineered sanitary landfill. It is an integrated process comprising several collection methods, varied transportation equipment, storage, recovery mechanisms for recyclable material, reduction of waste volume, and quantity by methods such as composting; refuse derived fuel (RDF), waste-to-energy, and disposal in a designated engineered sanitary landfill.

The selection of a suitable SWM process is driven by the source and quality of waste produced. Solid waste is generated from a number of sources which include households (kitchen and yard), commercial areas (shops, hotels and restaurants), industries (raw material and packaging), institutions (schools, hospitals and offices), construction and demolition sites, wild and domesticated animals (carcasses of dead animals, manure), parks (fallen branches, leaves from trees), and streets (sand, silt, clay, concrete, bricks, asphalt, residues from air deposition, and dust).



1.3. PROBLEMS DUE TO SOLID WASTE

Accumulation of solid waste in open areas is an eyesore, diminishing real estate and property value, a breeding ground for insects, and other vectors (rats and mice, wild and domesticated animals). It also causes odor nuisance, reflects the unorganized nature of the community, and creates a poor environment for growing children. Improper and unorganized disposal of Municipal Solid Waste (MSW) in open areas and landfills have a negative impact on the living conditions of human beings as well as the overall environment. It results in spread of communicable and non-communicable diseases among human beings and animals, thus affecting the welfare, livelihood, and economic productivity. In addition, it causes contamination of soil, surface water, ground water and generation of toxic and green-house gases. However, using adequate information, resources, and efficient management practices, one can turn solid waste into a useful resource.



1.4. CURRENT STATUS OF SWM IN INDIA

According to Ministry of Environment, Forest and Climate Change (MOEFCC), India generates 62 million tons of waste every year, with an annual average growth rate of 4% (PIB). With the current trends of economic growth coupled with resource consumption, the waste generation is expected to increase multi-folds from 62 million tons to 370 million tons by 2030¹. According to a report published by the Swachh Bharat Mission (Urban) in 2018, Only 23% of the total generated waste is being processed/treated while 72% is landfilled². If the current trend of waste disposal is continued, the country would require 1450 sq. km. of land to dispose the waste³. Waste management is the second largest GHG emissions sector in India⁴.

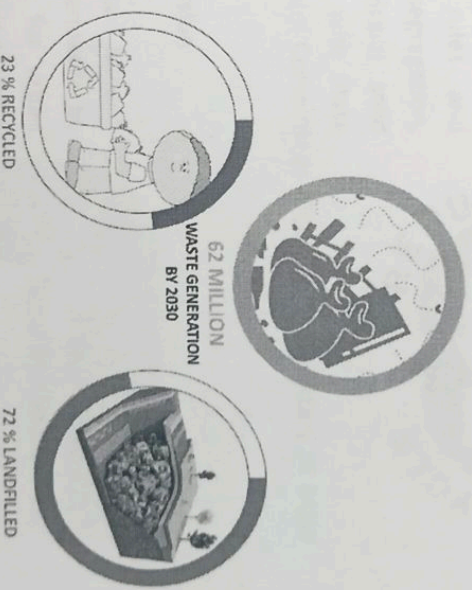


Figure 1: Waste Generation, Processing and Landfilling in India

1.5. INITIATIVES TO IMPROVE SWM IN INDIA

In recent years, the Government of India has taken several initiatives to improve existing SWM practices in the country. Some of the key initiatives and recommendations are discussed below:

- ¹ McKinsey Global Institute; India's Urban Awakening: Building exclusive cities; sustaining economic growth
- ² This does not indicate Sanitary Landfilling-Includes open, indiscriminate and controlled dumping
- ³ Position paper on the solid waste management sector in India, 2009
- ⁴ GIZ-NAMA Report

1.5.1 Hon'ble Supreme Court of India Recommendations

The first initiative was taken by the Honorable Supreme Court of India in 1998, which resulted in the formation of a Committee to study the current status of SWM in Indian cities. This Committee identified the deficiencies/gaps in the existing SWM system in the country and prepared the "Interim Report on SWM Practices in Class I Cities". Class I are cities with a population ranging between one lakh to ten lakhs (1,00,000 – 10,00,000).



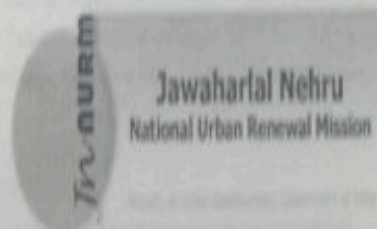
1.5.2 Municipal Solid Waste Management Rules

As a second initiative, the Ministry of Environment, Forests & Climate Change (MoEFCC), Government of India, published "Municipal Solid Waste (Management and Handling) Rules 2016" (MSW Rules 2016). These rules were developed in conformance with Sections 3, 6 and 25 of the Environment Protection Act, 1986 and aim at standardization and enforcement of SWM practices in the urban sector. They dictate that, "Every municipal authority shall, within the territorial area of the municipality, be responsible for the implementation of the provisions of these rules and infrastructure development for collection, storage segregation, transportation, processing and disposal of municipal solid wastes". In addition, "the CPCB shall coordinate with State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) in the matters of MSW disposal and its management and handling".



1.5.3 Jawaharlal Nehru National Urban Renewal Mission

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) is the third notable initiative undertaken by Government of India. JNNURM provides funding for urban infrastructure development in 63 cities and towns of the country. This mission was initiated in 2006 and is slated to continue until 2011.



1.5.4 Urban Infrastructure Development Scheme for Small and Medium Towns

The primary objective of this scheme is to improve the urban infrastructure in towns and cities in a planned manner and to promote public-private partnership (PPP) in infrastructure development. This scheme was introduced in the year 2005-06 and will continue for seven years. This scheme is applicable to all cities/towns as per 2001 census, except the cities/towns covered under the JNNURM. One of the components of this scheme is to renew the old sewerage and solid waste disposal systems in inner (old) areas.

1.5.5 Swachh Bharat Mission

Swachh Bharat Mission (SBM) was launched on 2nd of October, 2014 with a vision to achieve a clean India as a tribute to the father of the nation, Mahatma Gandhi, on his 150th birth anniversary, in 2019. SBM is being implemented by the Ministry of Housing & Urban Affairs (MoHUA) and by the Ministry of Drinking Water and Sanitation (MDWS) for urban and rural areas with a given set of guidelines for improved sanitary services and capacity building initiatives.



Municipal Solid Waste Management (MSWM) a major component of the SBM (urban)-“refers to a systematic process that comprises of waste segregation and storage at source, primary collection, secondary storage, transportation, secondary segregation, resource recovery, processing, treatment, and final disposal of solid waste.”

Under the provisions of SWM, the local bodies are to prepare Detailed Project Reports in consultation with the state government based on the identified needs of the City Sanitation Plans. Provision also mentions clustering of smaller cities for attracting Private investment. The DPRs should be prepared in lines with Govt. of India’s goals outlined in the NUSP 2008, SWM rules, advisories, CPHEEO manuals (including cost-recovery mechanisms), O&M practices and Service-level Benchmark advisories released by M/o UD, Manual on Municipal Solid Waste Management, 2000 and SWM Rules, 2016. States will contribute a minimum of 25% funds for SWM projects to match 75% Central Share (10% in the case of North East States and special category states). 80% of the urban population to be covered by SWM services (allowing for a 2% increase year on year) covering all statutory towns. 5 Central government Grant / VGF may also be used to promote projects of waste to energy.

With the progress of the mission, the Ministry had many public consultations and technical reviews at various levels to achieve the targets of Swachh Bharat Mission at a faster rate. Further the Ministry of Environment, Forests and Climate Change had also brought out various rules with many amendments to help in faster achievement of targets as under;

- ✓ Solid Waste (Management and Handling) Rules, 2016
- ✓ Biomedical Waste (Management and Handling) Rules, 2016
- ✓ Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016
- ✓ E-Waste (Management) Rules, 2016
- ✓ Plastic Waste Management Rules, 2016
- ✓ Construction and Demolition Waste Management Rules, 2016

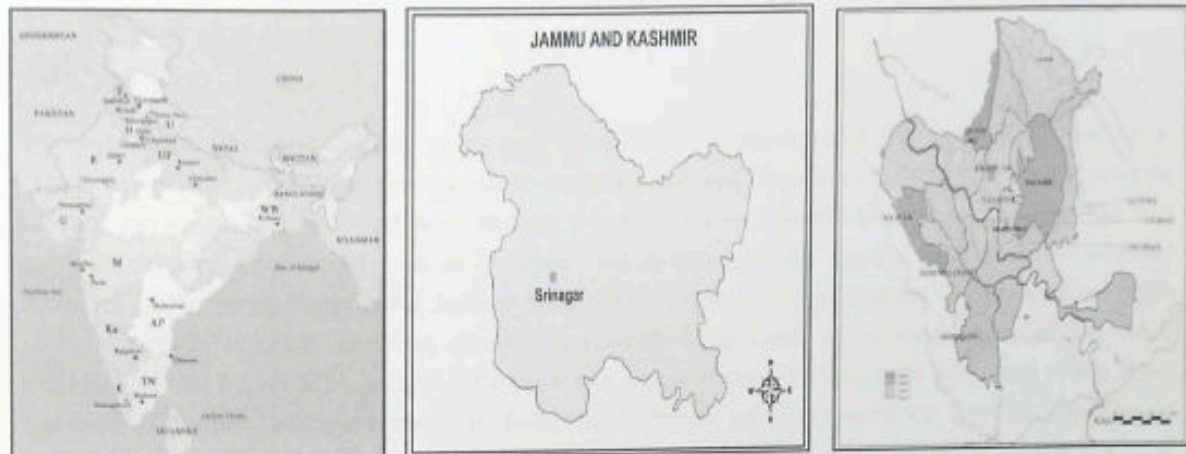
The Solid Waste Management Rules 2016 describes the compliance criteria to be met for collection, segregation, storage, transportation, processing and ultimate disposal of Municipal Solid Waste (MSW). These rules entrust the responsibility of SWM to the ULBs towards:

⁵ Statutory towns are urban areas defined by administrative units that have been defined by 'statute' as urban such as municipal corporations, municipalities, cantonment boards, notified town area committees, town panchayats, or nagar palikas;

2.0 BRIEF ABOUT THE PROJECT AREA

2.1 OVERVIEW OF SRINAGAR CITY

Srinagar City is the summer capital of the UT of Jammu and Kashmir which is the northern part of most states of India. Srinagar is famous for its pleasant weather, lakes, canals, houseboats and Mughal gardens and attracts large number of tourists across the globe. The city is located in the Kashmir valley region in the Himalayan ranges. There are various tourist attractions located nearby like Gulmarg, Sonmarg, Pahalgam, Amaranth etc. Srinagar is the hub for all the tourists to arrive and



stay while visiting these places.

Figure 2:- Location of Srinagar

From the location point of view, Srinagar is situated at center of bowl shaped Kashmir having North Kashmir in its left side and South Kashmir in right side and also has good accessibility from both sides, from North as well as from South side. The city as well as its hinterland is encircled by the natural wall of mountains (the sub-mountain branches of the Pir Panjal range) whose height varies from 1800 to 4300 meters above the mean sea level.

The city is located at about 850 kms north to New Delhi, the capital city of India. The closest important city to Srinagar is the city of Jammu which is also the winter capital of the UT and is located at about 300 km. The city is well connected by air transit with frequent flights from New Delhi and Jammu.

2.2 HISTORY

The city Srinagar has a long history, dating back at least to the 3rd century BC. The city was founded by the King Pravarasena-II over 2000 years ago named Parvasenpur. The city was then a part of the Maurya Empire one of the largest empires of the Indian Sub-Continent. Asoka introduced Buddhism to the Kashmir valley, and the adjoining regions around the city became a centre of Buddhism.

Srinagar became the capital of Kashmir around 960 CE. Some of the notable independent rulers were Lalit Aditya and Avanti Varman. The Hindu and Buddhist rule of Srinagar lasted until 14th century when the Kashmir valley, including the city, came under the control of the several Muslim rulers,

including the Mughals. Akbar established Mughal rule in Srinagar. The Mughal gardens are the contributions of Mughal Empire in Srinagar.

With the disintegration of the Mughals after the death of Aurangzeb in 1707, infiltrations to the valley from Pashtun tribes increased, and the Durrani Empire ruled the city for several decades. Maharaja Ranjit Singh of Punjab province annexed a major part of Kashmir Valley to his kingdom in 1814. In 1846, the Treaty was signed between the Sikh rulers and the British in Lahore. The treaty provided British de facto suzerainty over Kashmir and installed Gulab Singhas independent ruler. Srinagar became part of his kingdom and remained until 1947 as one of several private states in India. Presently Srinagar is the summer capital city of Indian UT of Jammu and Kashmir.

2.3 STRUCTURE

Srinagar is located in the Kashmir valley and is located on both sides of the river Jhelum which is called "Vyath" in Kashmir. The river passes through the city and meanders through the valley, moving onward and deepening in the Dal Lake. The city is famous for its nine old bridges, connecting the two parts of the city. The city as well as its hinterland is bounded by natural wall of sub-mountain branches of Pir Panjal Ranges and Zaskar mountains. Srinagar city stands on the valley floor with some expansion of urban activities on hill slopes, low-lying areas and Karewas. Hill slopes have mostly hard soil mixed with boulders, Karewas are characterized by Surzamin Soil, and valley floor has Bahil (ill drained) and low-lying areas, Desan land (Saline) soil characteristics. The Bahil and Desan land soils have low bearing capacity (less 1/2 tons per sq. feet) that poses problem of construction of multi storey buildings.

2.4 CLIMATE

The city of Srinagar has a humid subtropical climate, with a climate much cooler than what is found in much of the rest of India, due to its moderately high elevation and northerly position. The valley is surrounded by Himalayas on all sides. Winters are cool, with a January daily mean of 2.5 °C, and temperature remains below freezing at night. Moderate to heavy snowfall is expected in winters and the only road that connects Srinagar with the rest of India gets blocked few days in a year due to snow sliding. Summers are warm with a July daily maximum of 30.1 °C. The average annual rainfall is around 710 mm. spring is the wettest season while autumn is the driest.

2.5 DEMOGRAPHY

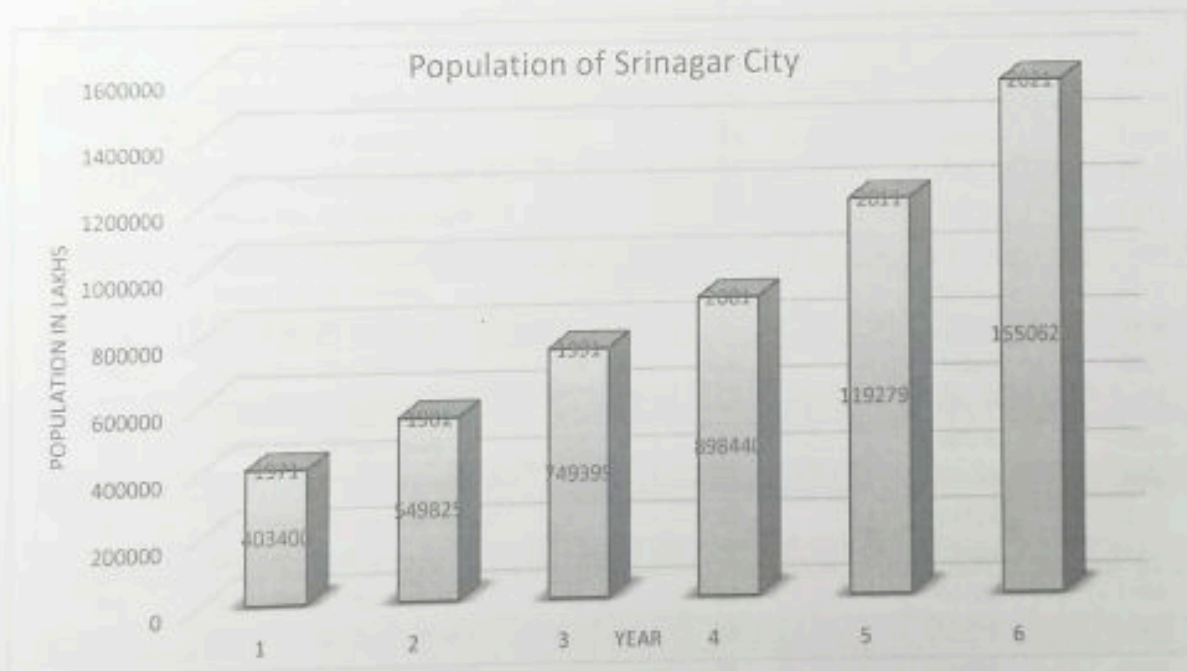
The population of Srinagar city including the cantonment area according to the census 2011 was 11,92,792. Though, the population of Srinagar Municipal Corporation within jurisdiction area is estimated at 11,86,767. There are about 6.31 lakh males and 5.60 lakh females in the city. The average sex ratio in the city is 888 females for 1000 males. There are about 1.78 lakh households in the city. The population density of Srinagar city is about 4057 per km². The literacy rate in Srinagar city is about 65.9% among men, 55.5% among women and about 60.9 % in total. The following table gives the trend of population in Srinagar.

Table 1 :Population of Srinagar City

S. N	Year	Population	Decadal Increase	Annual Growth rate
1	1971	403400	-	-
2	1981	549825	146425	3.63
3	1991	749399	199574	3.63
4	2001	898440	149041	1.99
5	2011	1192792	294352	3.26
6	2021	1550629 (Projected)	357837	3.00

(Source: 1: census of India 2011 data.2: City development plan 2006 for past data).

Figure 3: Population of Srinagar Municipal Corporation



2.6 WARD WISE POPULATION

The Srinagar Municipal Corporation (SMC) is one of the Municipal Corporation of Jammu & Kashmir UT that was formed under the enactment of J&K Municipal Corporation, Act 2000.

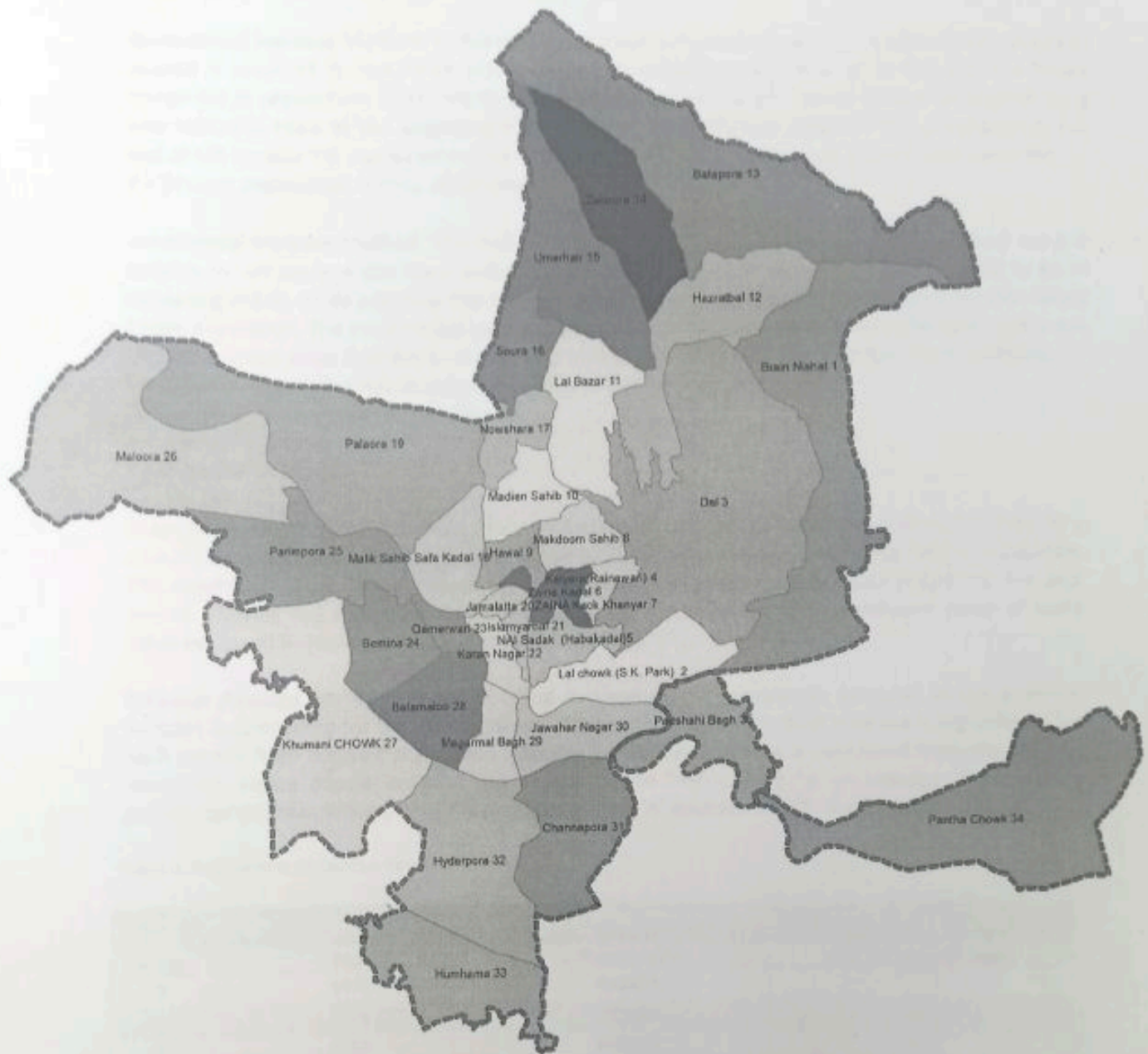
Srinagar is the top most populous city in all the ULBs of UT J&K and is a Municipal Corporation (SMC) formed in 1886. The population within the present Corporation boundary calculated as per 2011 census was 1192792 persons. The Corporation has an area of 246 Sq. km. divided into 35 municipal Administrative wards and 75 electoral wards. The SMC is performing the responsibilities of up keeping and maintenance of civic amenities including Solid Waste Management etc. The ward wise population and households of SMC as per census 2011 is given as:

Table 2: Ward wise Population and Households as per Census 2011

S. No.	Municipal Ward No.	Administrative Ward	Population	Households
1.	Ward no.1 Nishat	1	51384	7583

2.	Ward no. 2 Lalchowk	2	27486	4372
3.	Ward no. 3 Dal	3	33288	5652
4.	Ward no. 4 Rainawari	4	34346	5528
5.	Ward no. 5 Khayam	5	31120	5048
6.	Ward no. 6 Zaina kadal	6	50493	7004
7.	Ward No. 7 Khanyar	7	36101	5657
8.	Ward No. 8 Saida kadal	8	36180	5806
9.	Ward No. 9 Hawal	9	41234	6383
10.	Ward No. 10 Zadibal	10	28893	4567
11.	Ward No. 11 Lal Bazar	11	47805	7691
12.	Ward No. 12 Hazratbal	12	36239	5839
13.	Ward No. 13 Batpora	13	40179	5907
14.	Ward No 14. Zakoora	14	11791	1774
15.	Ward No. 15 Ahmad Nagar	15	30529	4882
16.	Ward No. 16 Soura	16	34161	5318
17.	Ward No. 17 Nowshera	17	27499	4211
18.	Ward No. 18 Safakadal	18	46429	6957
19.	Ward No. 19 Palpora	19	26135	3594
20.	Ward No. 20 Jamalata	20	23359	3596
21.	Ward No. 21 Islamyarbal	21	27848	4556
22.	Ward No. 22 Karan Nagar	22	21208	3328
23.	Ward No. 23 Qamarwari	23	25773	3939
24.	Ward No. 24 Bemina	24	42821	6777
25.	Ward No. 25 Shalteng	25	38340	5540
26.	Ward No. 26 HMT	26	33675	4828
27.	Ward No. 27 K-Chowkh	27	25158	3636
28.	Ward No. 28 Batmaloo	28	38570	6038
29.	Ward No. 29 Magarmal Bagh	29	24555	4283
30.	Ward No. 30 Jawahar Nagar	30	34316	5530
31.	Ward No. 31 Chanpora	31	63483	10214
32.	Ward No. 32 Hyderpora	32	44700	7439
33.	Ward NO. 33 Humhama	33	30483	4284
34.	Ward No. 34 Panthachowk	34	34889	5048
35.	Ward No. 35 Baghmehtab	35	6297	1169
	TOTAL		1186767	183978

Figure 4: Ward Map of Srinagar Municipal Corporation



2.7 POPULATION PROJECTION

Population projection is a critical exercise to bridge the prevailing demand-supply gap and estimate the future requirements of Urban Services. The population projections have been carried out considering the methods elaborated in the CPHEEO Manual. Five Methods are used for estimating Population Projections- Arithmetic Increase, Incremental Increase, State Urban Average, Geometric Increase and Graphical Method.

Arithmetical Increase Method: In this method the average increase in population per decade is calculated from the past census reports. This increase is added to the present population to find out the population of the next decade. Thus, it is assumed that the population is increasing at constant rate. Hence, $dP/dt = C$ i.e., rate of change of population with respect to time is constant.

Therefore, Population after nth decade will be $P_n = P + n.C$ Where, P_n is the population after 'n' decades and 'P' is present population

Geometrical Increase Method: In this method the percentage increase in population from decade to decade is assumed to remain constant. Geometric mean increase is used to find out the future increment in population. Since this method gives higher values and hence should be applied for a new industrial town at the beginning of development for only few decades. The population at the end of nth decade ' P_n ' can be estimated as $P_n = P (1 + IG/100)^n$ (Where, IG = geometric mean (%))
 P = Present population, N = no. of decades.

Incremental Increase Method: This method is modification of arithmetical increase method and it is suitable for an average size town under normal condition where the growth rate is found to be in increasing order. While adopting this method the increase in increment is considered for calculating future population. The incremental increase is determined for each decade from the past population and the average value is added to the present population along with the average rate of increase.

Hence, population after nth decade is $P_n = P + n*X + \{n(n+1)/2\}. Y$

Where, P_n = Population after nth decade

X = Average increase

Y = Incremental increase

Graphical Method: In this method, the populations of last few decades are correctly plotted to a suitable scale on graph. The population curve is smoothly extended for getting future population. This extension should be done carefully, and it requires proper experience and judgment. The best way of applying this method is to extend the curve by comparing with population curve of some other similar cities having the similar growth condition.

National Average Method: In this method average of the population increase in the previous decades is considered for the future growth. While adopting this method increase is determined for each decade from the past population. Average percentage increase is calculated from the decadal increment. Hence population after nth decade is $P_n = P + (P * \gamma / 100) * n$, γ = average of population percentage increase Where, P_n is the population after 'n' decades and 'P' is present population.

Table 3: Population of Census Years

Census Population of SMC from 1971-2011			
S. No.	Year	Population	Decadal Growth Rate
1	1971	403400	
2	1981	549825	36.3
3	1991	749399	36.3
4	2001	898440	19.9
5	2011	1186767	32.1

Table 4: Population Projections Using Five Methods of CPHEEO Manual

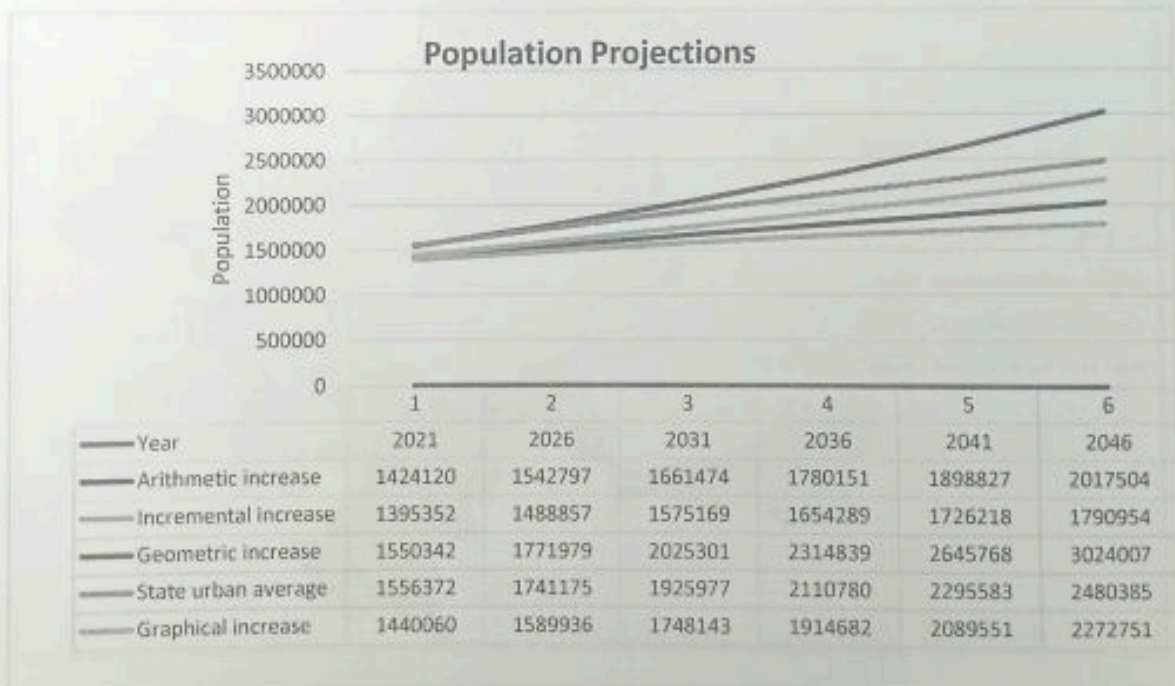
S. No.	Year	Arithmetic increase	Incremental increase	Geometric increase	State urban average	Graphical increase
1	2012	1210502	1208920	1218910	1223728	1191277
2	2013	1234238	1230785	1251924	1260688	1217586
3	2014	1257973	1252363	1285832	1297649	1244229
4	2015	1281708	1273653	1320658	1334609	1271205
5	2016	1305444	1294656	1356427	1371570	1298515

S. No.	Year	Arithmetic Increase	Incremental Increase	Geometric Increase	State Urban average	Graphical increase
6	2017	1329179	1315370	1393166	1408530	1326157
7	2018	1352914	1335797	1430899	1445491	1354133
8	2019	1376650	1355937	1469654	1482451	1382442
9	2020	1400385	1375788	1509459	1519412	1411084
10	2021	1424120	1395352	1550342	1556372	1440060
11	2022	1447856	1414628	1592333	1593333	1469369
12	2023	1471591	1433617	1635460	1630293	1499011
13	2024	1495326	1452318	1679756	1667254	1528986
14	2025	1519062	1470731	1725251	1704214	1559294
15	2026	1542797	1488857	1771979	1741175	1589936
16	2027	1566532	1506694	1819973	1778135	1620911
17	2028	1590268	1524245	1869266	1815096	1652219
18	2029	1614003	1541507	1919894	1852056	1683861
19	2030	1637738	1558482	1971894	1889017	1715835
20	2031	1661474	1575169	2025301	1925977	1748143
21	2032	1685209	1591568	2080156	1962938	1780785
22	2033	1708944	1607680	2136496	1999898	1813759
23	2034	1732680	1623504	2194362	2036859	1847067
24	2035	1756415	1639041	2253796	2073819	1880708
25	2036	1780151	1654289	2314839	2110780	1914682
26	2037	1803886	1669250	2377535	2147740	1948989
27	2038	1827621	1683924	2441930	2184701	1983630
28	2039	1851357	1698309	2508068	2221661	2018604
29	2040	1875092	1712407	2575998	2258622	2053911
30	2041	1898827	1726218	2645768	2295583	2089551
31	2042	1922563	1739740	2717428	2332543	2125525
32	2043	1946298	1752975	2791028	2369504	2161831
33	2044	1970033	1765922	2866622	2406464	2198471
34	2045	1993769	1778582	2944263	2443425	2235445
34	2046	2017504	1790954	3024007	2480385	2272751

Table 5: Projected population of Srinagar Municipal Corporation

S. No.	Municipal Ward No.	Administrative Ward	Projected Population 2021	Households 2021
1	Ward no.1 Nishat	1	66799	9857
2	Ward no. 2 Lalchowk	2	35731	5683
3	Ward no. 3 Dal	3	43274	7347
4	Ward no. 4 Rainawari	4	44649	7186
5	Ward no. 5 Khayam	5	40456	6562
6	Ward no. 6 Zaina kadal	6	65640	9105
7	Ward No. 7 Khanyar	7	46931	7354
8	Ward No. 8 Saida kadal	8	47034	7547
9	Ward No. 9 Hawal	9	53604	8297
10	Ward No. 10 Zadibal	10	37560	5937
11	Ward No. 11 Lal Bazar	11	62146	9998

S. No.	Municipal Ward No.	Administrative Ward	Projected Population 2021	Households 2021
12	Ward No. 12 Hazratbal	12	47110	7590
13	Ward No. 13 Batpora	13	52232	7679
14	Ward No 14. Zakoora	14	15328	2306
15	Ward No. 15 Ahmad Nagar	15	39687	6346
16	Ward No. 16 Soura Buchpora	16	44409	6913
17	Ward No. 17 Nowshera	17	35748	5474
18	Ward No. 18 Safakadal	18	60357	9044
19	Ward No. 19 Palpora	19	33975	4672
20	Ward No. 20 Jamalata	20	30366	4674
21	Ward No. 21 Islamyarbal	21	36202	5922
22	Ward No. 22 Karan Nagar	22	27570	4326
23	Ward No. 23 Qamarwari	23	33504	5120
24	Ward No. 24 Bemina	24	55667	8810
25	Ward No. 25 Shalteng	25	49842	7202
26	Ward No. 26 HMT	26	43777	6276
27	Ward No. 27 K-Chowkh	27	32705	4726
28	Ward No. 28 Batmaloo	28	50141	7849
29	Ward No. 29 Magarmal Bagh	29	31921	5567
30	Ward No. 30 Jawahar Nagar	30	44610	7189
31	Ward No. 31 Chanpora	31	82527	13278
32	Ward No. 32 Hyderpora	32	58110	9670
33	Ward No. 33 Humhama	33	39627	5569
34	Ward No. 34 Panthachowk	34	45355	6562
35	Ward No. 35 Baghmehtab	35	8186	1519
	TOTAL		1542780	239156



2.9 ZONE WISE HOUSEHOLD AND POPULATION DETAILS

As already discussed above that the Srinagar Municipal Corporation has an area of 246 sq.km with 4 zones, therefore zone wise population and households of different wards is discussed in table below. Also based on census 2011 & on the basis of annual average growth rate of population, the estimated population of 2021 has been detailed out which is given as:

On the basis of census 2011, the population of East Zone is 341632. The east zone comprising of ward no. 1 to 9. Therefore, based on the same population of 2011, the population for 2021 of the same zone has been projected which is given in below table.

Table 6: Projected Population & H/Hs of East Zone

S. No.	Ward Name	Ward No.	Population		Households	
			As per census 2011	2021 (Projected)	As per census 2011	2021 (Projected)
1	Nishat	1	51384	66799	7583	9857
2	Lalchowk	2	27486	35731	4372	5683
3	Dal	3	33288	43274	5652	7347
4	Rainawari	4	34346	44649	5528	7186
5	Khayam	5	31120	40456	5048	6562
6	Zaina kadal	6	50493	65640	7004	9105
7	Khanyar	7	36101	46931	5657	7354
8	Saida kadal	8	36180	47034	5806	7547
9	Hawal	9	41234	53604	6383	8297
			341632	444118	53033	68938

On the basis of census 2011, the population of North Zone is 257096. The north zone comprising of ward no. 10 to 17. Therefore, based on the same population of 2011, the population for 2021 of the same zone has been projected which is given in table.

Table 7: Projected Population & H/Hs of North Zone

S. No.	Ward Name	Ward No.	Population		Households	
			As per census 2011	2021 (Projected)	As per census 2011	2021 (Projected)
1	Zadibal	10	28893	37560	4567	5937
2	Lal Bazar	11	47805	62146	7691	9998
3	Hazratbal	12	36239	47110	5839	7590
4	Batpora	13	40179	52232	5907	7679
5	Zakoora	14	11791	15328	1774	2306
6	Ahmad Nagar	15	30529	39687	4882	6346
7	Soura Buchpora	16	34161	44409	5318	6913
8	Nowshera	17	27499	35748	4211	5474
	TOTAL		257096	334220	40189	52243

For the West Zone (comprising of ward 18 to 27) and South Zone (ward 28 to 35), the same population has been taken from census 2011 and further population has been projected on the basis of average annual growth rate.

Table 8: Projected Population & H/Hs of West Zone

S. No.	Ward Name	Ward No.	Population		Households	
			As per census 2011	2021 (Projected)	As per census 2011	2021 (Projected)
1	Safakadal	18	46429	60357	6957	9044
2	Palpora	19	26135	33975	3594	4672
3	Jamalata	20	23359	30366	3596	4674
4	Islamyarbal	21	27848	36202	4556	5922
5	Karan Nagar	22	21208	27570	3328	4326
6	Qamarwari	23	25773	33504	3939	5120
7	Bemina	24	42821	55667	6777	8810
8	Shalteng	25	38340	49842	5540	7202
9	HMT	26	33675	43777	4828	6276
10	K-Chowkh	27	25158	32705	3636	4726
TOTAL			288103	403965	43155	60772

The South Zone comprises of 8 wards and has a population of 277293 as per census 2011. In terms of Residential units, there are 43155 HHs. The detailed ward wise population and HHs of South Zone is given in table below.

Table 9: Projected Population & H/Hs of South Zone

S. No.	Ward Name	Ward No.	Population		Households	
			As per census 2011	2021 (Projected)	As per census 2011	2021 (Projected)
1	Batmaloo	28	38570	50141	6038	7849
2	Magarmal Bagh	29	24555	31922	4283	5567
3	Jawahar Nagar	30	34316	44611	5530	7189
4	Chanpora	31	63483	82528	10214	13278
5	Hyderpora	32	44700	58110	7439	9670
6	Humhama	33	30483	39628	4284	5569
7	Panthachowk	34	34889	45356	5048	6562
8	Baghmehtab	35	6297	8186	1169	1519
TOTAL			277293	360482	44005	57203

2.10 OBJECTIVE OF THE ACTION PLAN

In order to make a sustainable city in light of solid waste management, there is a need to enhance the existing Municipal Solid Waste Management (MSWM) system for the ULBs and also to improve the health and living standards of its residents. The purpose of this Action Plan is to identify the existing MSWM practices within the town, recognize deficiencies/gaps in the present system and to propose a comprehensive action plan for MSWM including segregation, collection, and transportation and different measures for processing & scientific disposal in Integrated Municipal Solid Waste Management Facility in compliance with the MSW Rules 2016. The main aim and objective of this Action Plan is to introduce appropriate tools for management of MSW so as to prevent the waste from causing pollution and health hazards. This Action plan will also focus on different strategies in order to make Srinagar clean and Green city and also to adopt ecofriendly solid waste management practices in order to make sustainable development of Srinagar City.

3.0 EXISTING SWM SYSTEM

This section discusses the existing SWM practices prevalent in Srinagar city. The various sources of waste generation, current primary & secondary waste collection practices, waste transportation & disposal mechanisms and gaps in the existing SWM system w.r.t. SWM Rules 2016 and MSW Manual, CPHEEO, Govt. of India are identified in this section.

3.1 METHODOLOGY ADOPTED

This section describes the solid waste management system throughout its value chain prevalent in the city. The system is described at all sources of waste generation, its collection & transportation and prevalent processing technology followed by the existing disposal mechanism.



Figure 6: Value Chain of Solid Waste Management

3.2 SOURCES OF WASTE GENERATION

Waste is the end product of any process. The characteristics of waste vary at different sources of generation. It is important to identify these sources and incorporate in our study to understand the versatility of waste characteristic in a city. In view of that, this section describes the various sources of waste generation and the type of waste generated from these sources. The section is comprehensively designed to include all the possible sources of waste generation.

3.2.1 Residential and Commercial Establishments

Residential and Commercial Establishments are the major sources of waste generation. Residential waste comprises of the municipal solid waste that originates from single and multi-family household units. These wastes are generated as a consequence of household activities such as cooking, cleaning, repairs, hobbies, redecoration, empty containers, packaging, clothing, books and other miscellaneous items. However, the waste generated from this source basically comprise of food waste, cooking being a daily performed activity in households whereas generation of other types of waste is dependent on the life-style of a household.

Commercial waste comprises of the solid wastes that originate in offices, wholesale and retail stores, restaurants, hotels, markets, warehouses and other commercial establishments. The waste generated from these establishments is dependent on the type of establishment and the services it provides.

Table 10: Type of Waste Generation from different Establishments

Type of Establishment	Predominant Waste
Restaurant	Biodegradable (Wet) Waste
Hotel	Biodegradable & Non-Biodegradable (Dry) Waste
Wholesale & Retail Stores	Non-Biodegradable (Dry) Waste
Vegetable & Fruit Market	Biodegradable (Wet) Waste
Institutions	Non-Biodegradable (Dry) Waste

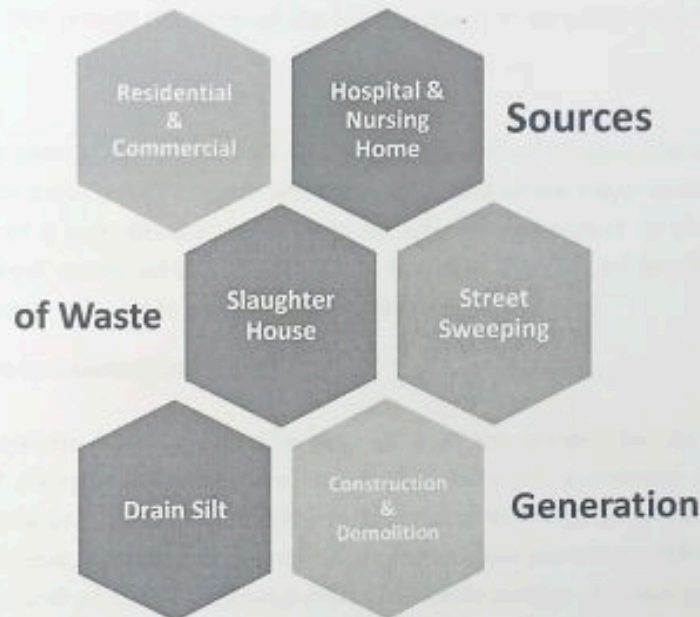


Figure 7: Sources of Municipal Solid Waste Generation

3.2.2 Hospitals & Nursing Homes

Hospital waste consists of mainly three types of wastes: Medical waste, infectious waste and domestic waste. "Medical waste" refers to materials accumulated as a result of patient diagnosis, treatment or immunization of human beings.

"Infectious waste" refers to the portion of medical waste that is in contact with a patient who has infectious disease and it is capable of producing an infectious disease.

"Domestic waste" comes under the category of municipal solid waste and generally the responsibility of municipal administration.

As per standard practices, BMW should not be transported along with MSW and the proposed plan is developed considering that BMW would not be dumped at the collection sites nor will it be transported along with MSW transportation mechanism. As per Bio Medical Waste (Management & Handling) Rules, 1998, it should neither to be mixed nor to be transported along with MSW. The proposed plan is developed considering that BMW would not be dumped at the collection sites nor will it be transported along with MSW transportation mechanism.

3.2.3 Slaughter House

Slaughter house waste is generally biodegradable consisting of meat, bones, feathers and skin.

3.2.4 Street Sweeping

This term applies to wastes that are collected from streets, parks and vacant lots. Street Sweeping is a common practice in developing countries, where littering of public places is a far more widespread and acute problem whereas mechanized street sweeping is the dominantly practiced in the developed countries. Street wastes include paper, cardboard, plastic, dirt, dust, leaves and other vegetable matter. The general character of the waste is found to be either recyclable or inert.

3.2.5 Drain Silt

Most of the waste generated from various sources is disposed off in open drains and retained until it is degraded and becomes a part of drain silt. Drain silt is one of the major problems for choking and thus, overflowing of drains. Generation of drain silt waste is dependent on the frequency of street sweeping as unswept waste on the street usually becomes the part of the drain silt. The general character of the waste is found to be either recyclable or inert.

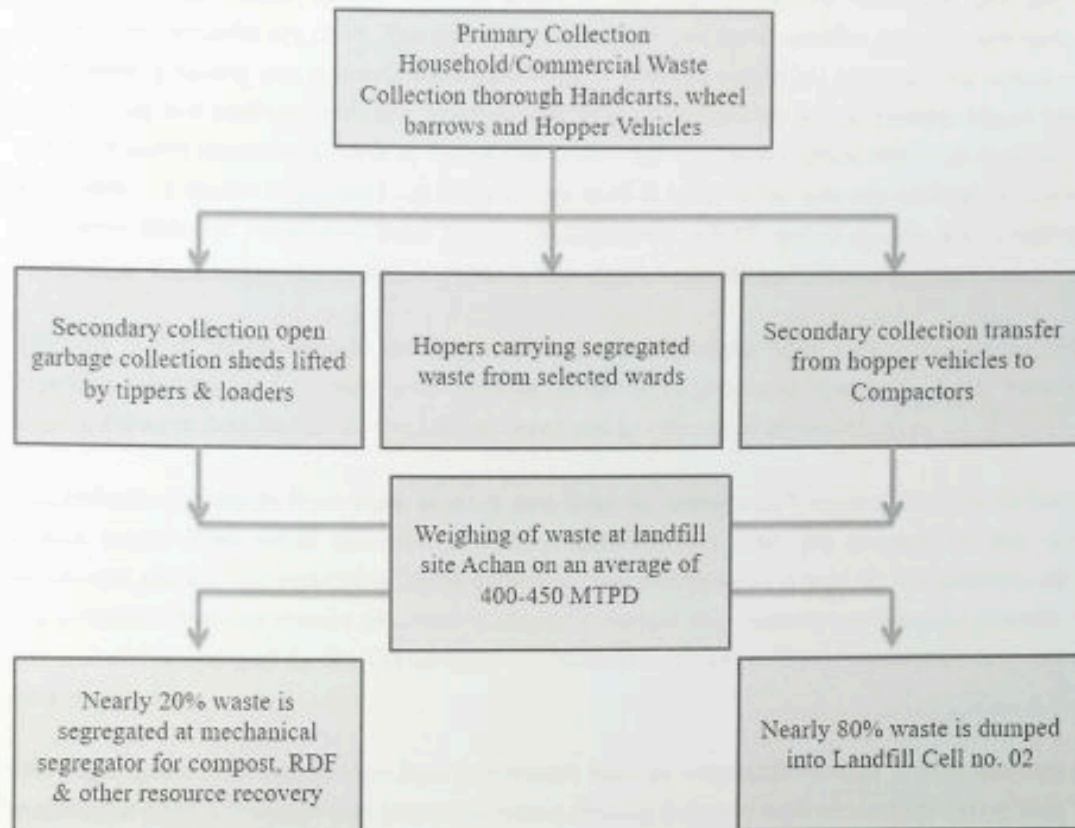
3.2.6 Construction and Demolition Debris

This type of waste varies from time to time depending on the construction or demolition activities. Construction and demolition wastes are the waste materials generated by the construction, refurbishment, repair and demolition of houses, commercial buildings and other structures. It mainly consists of earth, stones, concrete, bricks, roofing materials, and plumbing materials, heating systems and electrical wires and parts of the general municipal waste stream. A major portion of this waste is generally used in reconstruction activities or for filling up of the low lying areas.

3.3 EXISTING MUNICIPAL SOLID WASTE (MSWM) SYSTEM

This section explains the existing solid waste management system in detail.

Figure 8: Flow Chart on the Existing Collection & Transportation System



The SMC is working diligently in the field to ensure the effective management of solid waste in line with the SWM Rules 2016 as far as possible. The municipal limits cover a total area of 246 Sq. Km which is divided into 75 Electoral Wards which is further clubbed into 35 Administrative Wards for the SWM system. The total road length within the jurisdiction is 2060 km. The average waste generation is about 0.4 kg/capita out of which 40-55% waste is bio-degradable.

3.3.1 Segregation of Waste-

There is limited segregation (approximate 20%) of waste at source into wet & dry waste in selected areas of 7 wards. There is no separate collection mechanism for Domestic hazardous waste.

3.3.2 Primary Collection of MSW –

Primary collection of MSW from Households and small commercial establishments is practiced in all zones. Each zone has been divided into 8-10 administrative wards.

Door to Door Collection – 75-80% households are covered through the door to door collection mechanism. The safai karmacharis of SMC are responsible for the primary collection through door to

door collection mechanism. Along with door to door collection, the Safai karamcharis of a particular area are also responsible for sweeping of the small streets and drain cleaning. A particular Safai karamcharis conducts door to door collection of waste from households, street sweeping and cleaning of drains. The vehicles used for primary collection at domestic level are wheel barrows and hand carts. In the core areas of the city, the lanes are narrow and only hand carts can be used for door to door collection. In the external areas of the city where the roads are broader, Hopper Vehicles and tricycles are used. The wheel barrows and hand carts used by Safai karamcharis are not maintained properly and it reduces the efficiency of primary collection process. The waste collected by domestic and trade sources are emptied into nearest compactor bin or dumper placer bins. Most of the resource recovery is done at household level itself and about 5% of resource recovery is done at Landfill site by the registered rag pickers. The SMC is meanwhile actively looking to implement a long-term plan for Integrated Solid Waste Management, which would enable the Corporation to materialize the mission to develop Srinagar in to a clean, hygienic and litter-free city.

The SMC is also taking steps to sensitize the general public about Solid Waste Management through intensive Information Education and Communication (IEC) programs. Currently 7 IEC Partners have been enlisted to help handhold the SMC to reach out to citizens in all wards.

The collection of waste from **slum areas** is also done by Handcarts/Tricycles. Door to Collection also covers waste from small commercial shops/establishments that are present in the vicinity of residential places. The recyclable waste collected from households is sold by the sanitary workers to scarp dealers and the money obtained is shared between the sanitary workers. At present there is some user fee charged by the Corporation for collection of waste from households and commercial establishments.

The huge quantity of waste from **bulk generators such as** vegetable market & fruit markets located around Dal Gate, Lal Chowk and Batmaloo area is directly dumped into nearest container bins.

Apart from vegetable markets, waste from other bulk generator such as hotels are collected by compactors. Waste from marriage halls/celebration halls/major functions are also removed by SMC. Waste from other major commercial establishments are disposed in nearby RC bins.

Construction and Demolition waste lying along the road side is collected by the SMC with the help of tippers and skid steer loader which is assigned specifically for C&D waste.

Horticulture Waste/yard waste is also collected by the SMC. There is no Separate Light Motor Vehicle tipper and skid steer loader/back hoe loader is allocated for collection of yard waste. After collection of yard waste, it is transported to Achan dump site.

Street Sweeping – Total road length of SMC jurisdiction area is approximate 2060 km including the main and internal roads of all types. Street Sweeping activity is done on daily basis for the major roads. The waste obtained from manual sweeping is disposed of in nearby RC bins. For internal roads, one of the labor who is involved in door to door collection will be performing the street sweeping activity simultaneously. The street sweeping waste is disposed off on the road-sides or to RC bins located nearby and finally get transported to Achan dump site.

Drain Silt - Drain cleaning and desilting of storm water drains is done by SMC staff itself or through contractual staff. As per the information of SMC officials drain cleaning activity is done simultaneously along with door to door collection.

3.3.3 Secondary Collection of MSW

The MSW collected with the help of tricycles is disposed at the nearby secondary collection point. Mostly the secondary collection points are RC bins. The bins location is based on the type of area. In case of densely populated areas two to three bins are placed nearby to each other to receive the waste. The same is followed for commercial establishments also. There are no specific rules/norms followed for placement of bins/storage capacity and present bin deployment is not done as per CEEPHO norms.

Bin Clearing Frequency- The frequency of bin clearance varies for different locations. There is no monthly/daily plan and specific timings for bins clearing. Bins are cleared depending upon the quantity of waste filled or it is overflowed but bins are cleared once in a day. The waste from these bins is unloaded to refuse compactors vehicles which is directly taken to the Achan dumpsite.

3.3.4 Transfer Station-

None of zones have transfer station.

3.3.5 MSW Transportation System:

The vehicles deployed for transportation include tipper trucks of various sizes, dumper placers and compactors. Waste from the smaller vehicles utilised in primary collection is transferred to the larger vehicles and RC bins for further transfer to the Achan dumpsite.

Table 11: Vehicles Deployed for Solid Waste Management in Srinagar

S. No.	Resources	Current Status	Total Quantity
1.	Tipplers	23 Flood Affected	27 Nos.
2.	Compactors	14 Flood Affected	19 Nos.
3.	Sweeping machine	Flood Affected	1 No.
4.	Dumper placers	Flood Affected	9 Nos.
5.	Twin dumpers	10 Flood Affected	15 Nos.
6.	Loaders	Flood Affected	16 Nos.
7.	JCB/Skid steer	4 Flood Affected	6 Nos.
8.	Load carrier/ Hopper	39 Flood Affected	123 Nos.
9.	Hook loader	Flood Affected	2 Nos.
10.	Motor boat	-	1 Nos.

Workshop (Municipal Garage) – There is only one workshop located adjacent to the SMC office for performing minor breakdowns, puncture and water wash etc. of vehicles.

Table 12: Existing Manpower Details

S. No.	Type of Staff	Nos.
1.	Joint Commissioner (Administration)	1
2.	Chief Sanitation Officer	1
3.	Chief Transport Officer	1
4.	Zonal Sanitation Officers	4
5.	Solid Waste Management Officer	1
6.	Assistant Solid Waste Management Officers	3
7.	Ward Officers	35
8.	Sanitary Inspectors	35
9.	Sanitary Supervisors	200
10.	Safai karamcharis (Regular Staff -1644 + Consolidated Need based Staff – 1295)	2939
11.	Drivers	165

Currently, 2939 Safai Karamcharis are involved for the solid waste management services. Out of 2939, 1644 Safai Karamcharis are on regular basis and 1295 are consolidated (need based). SMC has not engaged any staff through outsourcing. Details of additional manpower required through outsourcing for the management of solid waste is given in table no. 22 of this report.

3.3.6 Waste Processing

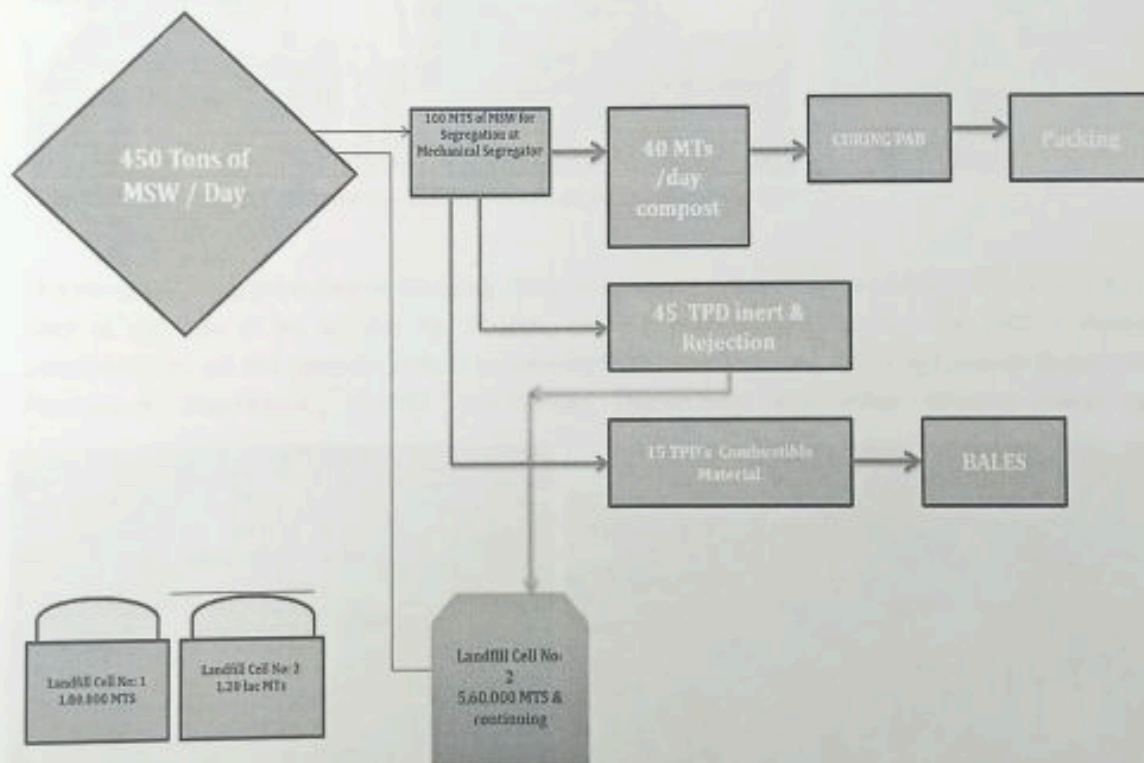


Figure 9:- Existing SWM flow at Landfill site Achan

A Mechanical Segregator of 30 TPH capacity has been installed and commissioned at Achan dumping site.

Regular sprinkling of anti-odour "BioKleen" Sanitreat is being done to arrest the bad smell coming out from the fresh waste being dumped at Achan site.

As on date, approximate 450 TPD waste is being dumped at the Achan Site. Out of 450 TPD waste, 100 to 115 MTs of garbage is being mechanically segregated at the Mechanical Segregator on daily basis. Organic waste is collected from less than 30mm sieve which is being taken directly to the compost plant for its curation and further sieving at 4mm sieve. More than 30mm and less than 100 mm waste sieved is also organic in nature which is kept for curation in windrows and after 45 to 60 days of curation and turnings, it is again sieved at less than 30mm sieve and further sieving at 4 mm trommel for final compost produce.



Figure 10: Mechanical Segregator & Compost Plant at Achan Dumping Site

The compost being produced at dumping site is marketed in packed form and is being sold in 20 Kg's bags at the rate of Rs. 5/- per Kg. Though, there is marketing issue, but the SMC is exploring possibilities to sell the compost in bulk to Government Departments such as Agriculture Department, Floriculture Department, SKAUST, Horticulture Department and other relevant Government



institutions.

Figure 11: Packing of Compost

Landscaping and plantation (Buffer zone) inside the landfill site for improvement of aesthetic view of the site is in progress. Apart from compost plant, 2 organic waste convertors (OWCs) of 500 kg capacity and one of 2000 kg (2 Ton) capacity per day have been procured to process the organic/biodegradable waste at decentralize locations within the city. Depending on the success of these 'OWC's, additional OWCs will be procured to install at least one each machine at Ward levels.

ERA J&K had installed a Leachate Treatment Plant (LTP) of 120 KLD capacity at Achan site. As on date, the LTP is defunct and not operational due to maintenance issues. Leachate is generated during



Figure 12: Existing Leachate Treatment Plant at Achan Site

composting and dumping of fresh waste. During the rainy season, the leachate gets diluted with rain water and significant volume is generated. The same is stored around the plant which is percolating & contaminating the ground water. SMC is struggling to make plant operational again but it has not been handed over by ERA to SMC so far.

3.3.7 Waste-to-Energy Plant

In the year, 2015, the Hon'ble Green Tribunal in a case titled Dr. Irfan Ahmad v/s Nawang Rigzin Jora and Government of Jammu & Kashmir, constituted a committee of experts to suggest solutions to the waste management in Srinagar city. The constituted committee in the 2nd meeting, decided the type of technology which needs to be adopted for disposal of Solid Waste in Srinagar City. The Committee as per minutes dated 12.06.2015, had agreed for installation of a Waste-to-Energy Plant for disposal of Solid Waste as better option. The Committee also approved engagement of M/S Tide Technocrats as consultant which had earlier prepared DPR of Srinagar City. The consultant was directed by the Hon'ble NGT Committee to prepare Draft Expression of Interest and accordingly Committee in its meeting held on 29.06.2015 amended, corrected and finalized tariff based draft Expression of Interest for installation of Waste-to-Energy Plant having capacity of 5 MW generation capacity of electricity under Design, Finance, Build, Own, Operate & Transfer (DFBOOT) mode and approved EOI was accordingly published and uploaded for e-tendering purposes on 16/07/2015 which was later on extended and/or re-tendered several times.

In response to the EOI, various companies expressed their willingness to participate in the tendering process and also attended pre-bid meetings but on the due tender date only one bid from M/S. Highland Automobiles Pvt. Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt

Ltd) was received and the technical bid was accordingly opened. The matter was put before the Contract Committee of Srinagar Municipal Corporation and the tender amount being beyond the competence of Commissioner SMC was forwarded to State Level Contract Committee headed by Commissioner/Secretary, Housing & Urban Dev. Dept. The SLCC after threadbare discussions authorized the SMC Contract Committee to open the financial bid of the single bidder. The Contract Committee of the SMC accordingly opened the financial bid and rates quoted were negotiated to the amount of Rs. 7.65 per unit for period of 25 years.

The SLCC thereafter forwarded the case to the State Cabinet and the Cabinet accordingly accorded approval to the project vide Cabinet Decision No. 207/CIR/2017 dated 23/10/2017.

Vide Government Order No. 255-HUD of 2017 dated 22/11/2017, the Commissioner, Srinagar Municipal Corporation was authorized to issue Letter of Intent (LOI) in favour of single bidder namely, M/S. Highland Automobiles Pvt Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt Ltd.), now an SPV namely, Syntech Bio-energy Pvt. Ltd., for establishment of 5MW capacity Waste-to-Energy Plant (disposal of waste) at landfill site Achan subject to certain terms and conditions including that the rates/tariff on which power shall be purchased will have to be adopted by the J&K State Electricity Regulatory Commission before signing the Power Purchase Agreement in terms of J&K Electricity Act, 2010.

Vide No. SMC/SWM/2017/600-611 dated 11/12/2017, the SMC accordingly issued LOI to M/S. Highland Automobiles Pvt Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt Ltd.) for an integrated waste management facility including energy generation and value recovery from MSW for a capacity of 500 + 125 MT/day, to be implemented on DFBOOT basis after a period of 25 years at Saidapora, Achan.

The Hon'ble National Green Tribunal vide order dated 12/12/2017 disposed of the original application with the direction that the project proponent shall be liable to pay environmental compensation at the rate Rs. 50000/- per day for a period of default in case he fails to establish the Waste to Energy Plant within 18 months after signing of Power Purchase Agreement (PPA) & Concession Agreement (CA).

Accordingly, the draft PPA and CA were prepared, approved & vetted by J&K Housing & Urban Department, J&K Power Development Department, Law Department of the Government.

Vide No. SMC/COM/SWMO/1004-05 dated 24/5/2018, the Srinagar Municipal Corporation identified a patch of 10 acres of land on the west side of the dumping site Achan and handed over the possession of the said land to the Project Proponent, who has undertaken civil works by way of leveling of land etc. at site.

Vide Government Order No. 39 HUD of 2019 dated 23/1/2019, the change in nomenclature of M/S. Highland Automobiles Pvt. Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt. Ltd.) was approved to be M/S. Syntech Bio-energy Pvt. Ltd., a Special Purpose Vehicle (SPV).

In pursuance of the important condition of the Government Order supra, the PPA has to be adopted by the J&K State Electricity Regulatory Commission (SERC) in terms of J&K Electricity Act, 2010.

However, the petition could not be filed before the SERC for adoption of tariff/rates due to non-availability of full quorum of the Commission and afterwards due to abolition of the JK SERC in consequence of abrogation of Article 370. Vide S.O. 1984 (E) dated 18/6/2020, the Ministry of Power, Govt has constituted Joint Electricity Regulatory Commission (JERC) for the UT's of Jammu & Kashmir and Ladakh. The petition for adoption of discovered tariff/rates has now to be filed before the JERC which will also enable the parties to sign the PPA. But before filing of the petition before the JERC certain modifications such as replacement of "JK SERC" with "JERC" and "J&K Electricity Act, 2010" with the Central Electricity Act, 2003 or any other law as applicable to JKUT, need to be made to the Government Order No. 255-HUD of 2017 and in Power Purchase Agreement. This Corporation has vide No. SMC/COM/SWMO/2674 dated 6/1/2020 & No: SMC/COM/SWMO/231 dated 8/8/2020 requested the Administrative Department to effect the requisite modifications in the said Government Order & PPA, action whereof is awaited.

In the meanwhile, the Project Developer has been issued with all necessary documents required by him for filing of petition before the JERC and vide our fresh communication No. SMC/COM/SWMO/519-20 dated 23/11/2020, the Project Proponent has been advised to approach the JERC for adoption of discovered tariff and subsequently the PPA shall be signed by the concerned stakeholders which include Housing & Urban Development Department, J&K Power Development Department & the Project Proponent. As per the directions of Hon'ble National Green Tribunal in an OA No. 277/2013 titled Dr. Irfan Ahmad v/s Nawang Rigzin Jora & others, the Proponent shall have to establish the Plant within 18 months as after signing of PPA.

3.3.8 Delay in Commissioning of Waste-to-Energy Plant:

Though the establishment of Waste-to-Energy Plant is delayed for want of fulfillment of certain terms and condition but commissioning of the plant shall take 18 months even after getting all the required clearances from the government departments. The SMC has to pursue other alternates for processing/disposal of the waste being dumped at Achan Site. Therefore, the SMC has conceived number of projects to overcome this issue. Please refer the following tentative timeline for the waste to energy plant as industry practice.

3.3.9 Disposal of Waste

The site has been established in year 1985 comprising of 902 Kanals (including 387 kanals transferred later on) of land at Saidpura Achan. This is the only site available with SMC as on date for disposal of city garbage. As per Master Plan this area has been earmarked as Landfill site. The surrounding of the Landfill site is mostly as open/agriculture land. However, residential houses have been erected towards the east side of Landfill site.

Table 13: Details of Landfill Site

Name of Dumpsite	Achan
Co-ordinates of Dumpsite	Latitude: 34.123938 Longitude: 74.785424
Distance from the town	10 km. (Avg.)
Area of dumpsite:	123 acres.

Start date of dumpsite	1989
Category	Open dump site
Incoming waste quantity	350-450 MT/day
Accumulated waste quantity	9 lakh MT Approx. (Now at Achan)
Weighbridge available at dumpsite	1
Access road	Yes
Leachate management system	Yes (under the control of J&K ERA)



Figure 13: Google imaginary of Achan Landfill Site

A faecal sludge treatment plant to the south-west, and a composting plant is developed by SMC to the south side. Apart from this, there is one leachate treatment plant which is defunct and is in the possession of J&K ERA. The approach road to the site is also from the east end of the site. The Achan dumpsite has been in operation since the year 1989 and it is estimated that more than 9 Lakh MT of waste has been dumped on the dumpsite since its inception.

The waste is currently dumped indiscriminately with minimal compaction and no daily cover, having no system for collection or treatment of leachate leading to likely contamination of the soil and ground water resources. The dumpsite is causing air pollution, odour nuisance and has an adverse health impact on the nearby residents.

- **Landfill Cell No. 01:** spread over an area 40 Kanals of land, was operational from the year 2011 to 2013. The Cell has been closed and capped. Nearly 1.80 lac MTs of waste is dumped in the Cell.
- **Landfill Cell No. 02:** Spread over an area of 60 Kanals of land, was operational from 2013 to 2017. The cell has been temporarily capped and has been put to operation again. 6.00 lac MTs of waste is dumped in the cell.

- Landfill Cell No. 03: Spread over an area of 30 Kanals of land was operational from Sept. 2017 to Sept. 2018. The cell is permanently capped. 1.20 Lac MTs of waste is dumped in the Cell.

Also, SMC is in the process to finalize the Private Contractor to undertake the works required for scientific dumpsite reclamation through Bio-mining and bioremediation of old dumped waste/un-processed municipal solid waste by excavation of complete mixed municipal solid waste from the dumpsite which underwent biological and physical degradation, resource recovery by using suitable mechanical sieving machine (screening) or any other suitable equipment/method, segregating, sorting, retrieving recoverable materials, storing, selling, diverting for recycling, dumpsite land reclamation, ready for scientific land filling facility and scientific residual.

3.4 WASTE GENERATION

The SMC is actively working in the field to ensure scientific solid waste management for the city. In Srinagar waste is mainly originated from the sources like private residences, commercial centers, institutions, recreational centers, community halls, nursing homes and hospitals etc. The average per capita waste generation is about 0.4 kg out of which 50-60% waste is bio-degradable. Srinagar Municipal Corporation (SMC) is aiming to improve its SWM services by focusing on Segregation at source, improving collection and transportation efficiency as well as scientific processing of the Municipal Solid Waste generated in the city. So, in the light of per capita waste generation, the current waste generation from the whole city is considered to be 669 MT in year 2021.

Table 14: Waste Generation in City

S. No	Waste Generator	Winter (in Tons)	%	Summer (in Tons)	%
1	Households	213	59.7	213	48.8
2	Shops & Establishments	87	24.5	105	24.1
3	Street sweeping	32	9.2	39	9
4	Lakes	2	0.6	6	1.4
5	Markets	13	3.8	13	3.1
6	Hotels & Restaurants	8	2.2	60	13.7
	Total	355	100	436	100

Therefore, based on this, the generation of waste in the form of wet and dry of different zones in SMC from various sources (Residential, commercial etc.) is shown below:

Table 15: Zone Wise Waste Generation (Residential areas).

S. No	Name of Zone	Total no of HHS	Wet waste per day (in TPD)	Dry Waste per day (in TPD)	Total waste generation (in TPD)
1	East	68938	75.82	80.95	156.77
2	North	52243	57.46	47.02	104.48
3	West	60772	66.84	54.7	121.54
4	South	57203	62.92	51.48	114.40

Table 16: Ward Wise Waste Generation in Year 2021

Ward No.	Ward Name	Projected Households (2021)	Waste Generation in TPD@ 400 gram/capita/day (in 2021)
1	Nishat	9857	28.00
2	Lalchowk	5683	16.00
3	Dal	7347	21.00
4	Rainawari	7186	20.00
5	Khayam	6562	18.00
6	Zaina kadal	9105	25.00
7	Khanyar	7354	21.00
8	Saida kadal	7547	21.00
9	Hawal	8297	23.00
10	Zadibal	5937	17.00
11	Lal Bazar	9998	28.00
12	Hazratbal	7590	21.00
13	Batpora	7679	22.00
14	Zakoora	2306	6.00
15	Ahmad Nagar	6346	18.00
16	Soura Buchpora	6913	19.00
17	Nowshera	5474	15.00
18	Safakadal	9044	25.00
19	Palpora	4672	13.00
20	Jamalata	4674	13.00
21	Islamyarbal	5922	17.00
22	Karan Nagar	4326	12.00
23	Qamarwari	5120	14.00
24	Bemina	8810	25.00
25	Shalteng	7202	20.00
26	HMT	6276	18.00
27	K-Chowkh	4726	13.00
28	Batmaloo	7849	22.00
29	Magarmal Bagh	5567	16.00
30	Jawahar Nagar	7189	20.00
31	Chanpora	13278	37.00
32	Hyderpora	9670	27.00
33	Humhama	5569	16.00
34	Panthachowk	6562	18.00
35	Baghmehtab	1519	4.00

Table 17: Zone Wise Waste Generation in Year 2021

S. No.	Name of Zone	Waste Generation @400 gram/capita/day in TPD
1	East Zone (ward no. 1 to 9)	193
2	West Zone (ward no. 18 to 27)	170
3	North Zone (ward no. 10 to 17)	146
4	South Zone (ward no. 28 to 35)	160
	Total	669

3.5 COMPARISON TO SERVICE LEVEL BENCHMARKS (SLBs)

A framework of Service Level Benchmarks has been notified by the Ministry of Housing & Urban Affairs (MoHUA), Government of India to assess the efficiency of the performance indicators mentioned in the below table. The current status of SWM has been assessed in the detailed consultations done with the concerned officials of SMC and accordingly, comparison is made with the service level benchmark.

Table 18: Comparison of Existing SWM System with Performance Indicators of Service Level Benchmarks

S. No.	Indicators	Unit	Current Status	Benchmark as per GOI	Remarks
1	Household level coverage on SWM	As % of households and establishments that are covered by daily doorstep collection system	80%	100%	Need to strengthen the infrastructure and provision of adequate resources
2	Efficiency on MSW collected	As % of total waste collected by ULB and authorized service providers versus the total waste generated within the ULB, excluding recycling or processing at the generation point	75%	100%	
3	Extent of MSW Segregation	As % of segregated waste from households and establishments (segregation should at least be at the level of separation of wet and dry waste at source)	More than 20%	100%	7 NGOs are empaneled. Need for the extensive IEC to educate the people (contract expired)
4	Extent of MSW Recovered	As % of waste collected (this is an indication of the quantum of waste collected, which is either recycled or processed)	20%	80%	1 mechanical segregator of 30 TPH capacity is operational. Need to set-up treatment facilities
5	Extent of Scientific Disposal of MSW	As % of waste disposed in a sanitary landfill site	---	100%	80% Mixed MSW of total waste is being disposed in scientific landfill.
6	Efficiency of Complaint Redressal System	As % of total number of SWM related complaints resolved in 24 hours versus total number of SWM complaints received within the period	100%	80%	Grievance Cell is operational. Complaints are resolved within 24 hours
7	Extent of cost recovery in SWM services	As % recovery of all operating expenses related to SWM services	35%	100%	A notification is issued. Need to develop the mechanism for increasing the revenue

8	Efficiency in collection of SWM charges	Current year revenues collected as a % of the total operating revenues for the corresponding period	30%	90%	-----
---	---	---	-----	-----	-------

3.6 EXISTING ISSUES/GAPS PERTAINING TO SWM

- There is a lack of adequate infrastructure and man power. Hence, the number of hand-carts, hoppers, compacters, other vehicles and manpower need to be increased to cope with the current and future demands.
- Irregular waste collection – No predetermined timings/route planning
- No Garbage Transfer Stations for the intermediate storage and to optimize the transportation cost.
- Decentralized Composting/Bio-methanation plant needs to be installed as far as possible to reduce the transportation cost and burden on landfill site.
- Segregation at source is very less, hence SMC will make a comprehensive plan for the same and start ward wise IEC activities on the ground in a phase manner.
- More than 70% of fleet is flood affected.
- More than 60% deficit in MSW Staff and mechanical infrastructure as per the standards set on Manual on MSW issued by Central Public Health & Environmental Organization (CPHEEO), MoHUA.
- No scientific landfill facility for the inert waste disposal.
- 1 mechanical segregator of 30 TPH is installed for making compost but SMC has not developed any full-proof marketing strategy for selling the compost to get the subsidy.
- SMC needs to install some more machinery in the existing plant to improve the quality of compost in line with FCO norms.
- No provision for the 100% processing of solid waste.
- No alternate land parcel for the SWM facilities except Achan Site.

3.7 INITIATIVES TAKEN BY SMC

- Srinagar Municipal Corporation Solid Waste Management Bye-laws, 2019 notified on 18th Sept., 2019.
- Srinagar Municipal Corporation Plastic Waste Management Bye-laws, 2020 notified on 9th June, 2020.
- Nearly 85% Door to Door Collection of waste is being practiced in the city.
- 10-15% source segregation presently practiced in select area of seven Municipal Wards and all households will be brought under the ambit of source segregation up to December 2021 with the availability of required infrastructure.
- Information, Education & Communication (IEC) being done in the whole city. In the last 2 years as many as 10087 IEC activities were undertaken with the help of 7 Nos. NGOs/IEC Partners hired by Srinagar Municipal Corporation.
- 369 Compactor /smart bins, 81 dumper placer, 120 twin dumper placer bins placed throughout the city for collection of waste.
- 95% Regular street sweeping is done. Night sweeping is also done in selected SMC Wards.
- 123 Hopper vehicles pressed in service to collect door to door waste. 52 Vehicles compartmentalized for collection of segregated waste.

- As many as 122 Bulk Waste Generators identified and put on notice. Some major institutions installing Compost plants within their premises. Hotel Grand Lalit, Srinagar has installed Compost Plant within its premises and processing the organic fraction of waste.
- User charges/Sanitation fee already notified and realized. From April 2019 to March 2020, an amount of Rs. 2,54,94,150/- recovered as Sanitation fee/user charges.
- Burning of leaves, solid waste banned. Notification in this behalf of already issued.
- Grievance Redressal cells working in SMC. Also, Swacchta App used by citizens of Srinagar to register their grievances. Grievances redressed within 24 hours.
- 140 Rag Pickers & 122 Kabadiwalas so far registered.
- Mechanical Segregator working at landfill site Achan. Nearly 20% of the waste being mechanically segregated.
- Compost is being produced at landfill site. Till date 107 MTs of Compost sold and an amount of Rs. 3,51,230/- revenue generated.
- Form III & Form IV already submitted to Member Secretary, SPCB.
- Proposal underway to hire consultant for collection & transportation of Municipal Solid waste.
- 12 Cement factories operating within the radius of 100 Kms from Waste Disposal site issued with notices for using 5% RDF with their conventional fuel in their kilns and to lift RDF from SMC dumping site. Till date M/S. Trambooo Cement Industries has taken 341 MTs of plastic/RDF for its use in the Cement factory.
- The Rag Pickers operating at landfill site have collected 340.871 MTs of plastic waste at MRF set at landfill site Achan.
- Five Government Departments such as Kashmir University, Parks & Gardens Deptt., SKUAST, NIT & I&FC issued with notices to process garden waste within the premises.
- After notification of SMC - SWM Bye-laws 2019, erring households and business units who were found violating SWM Rules 2016 and a fine of Rs. 240500/- has been recovered from them.

4.0 PROPOSED INTERVENTIONS FOR INTEGRATED SWM SYSTEM

4.1. INTRODUCTION

Srinagar Municipal Corporation is planning to implement a holistic solid waste management plan with a vision to make Srinagar:

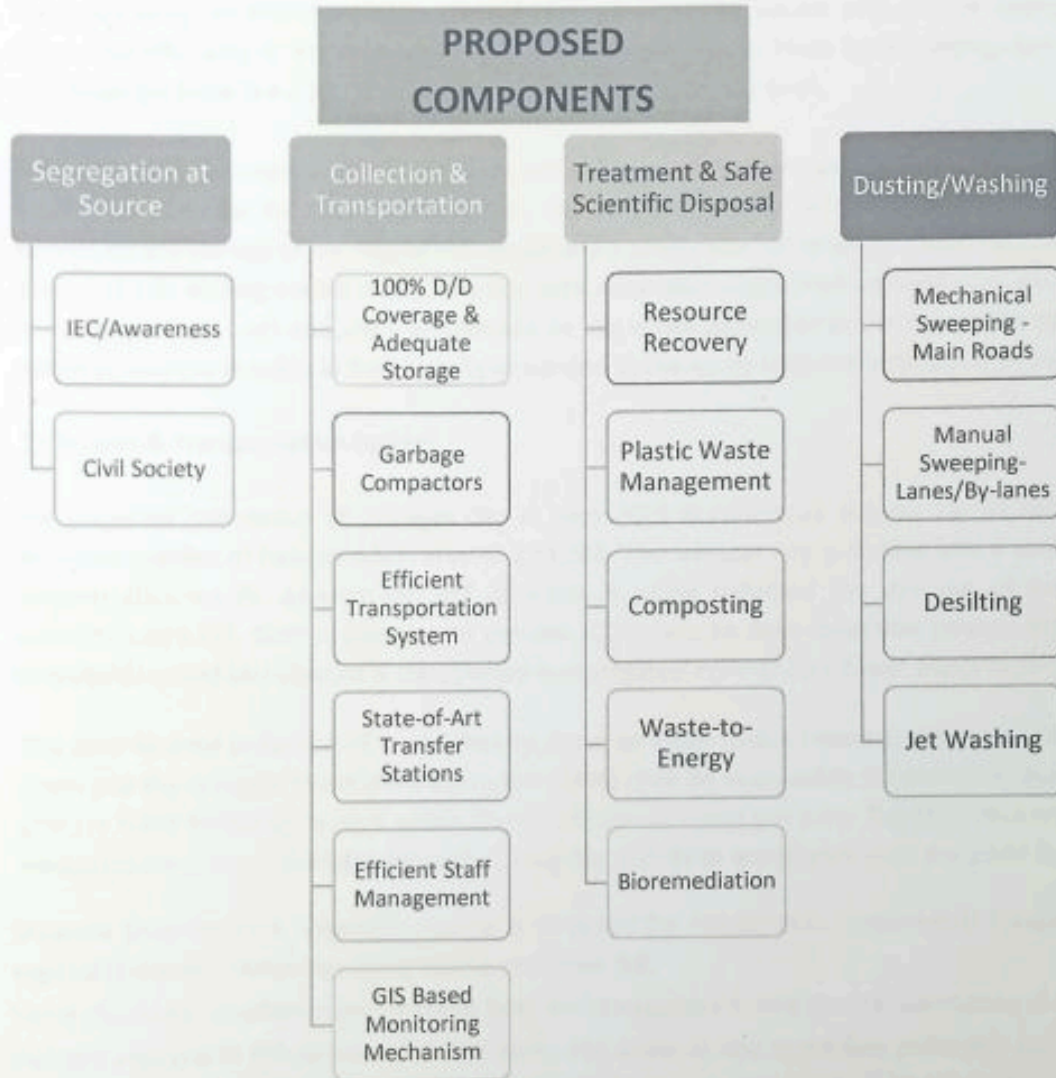
- Litter Free
- Bin Free
- Dust Free
- Land Pollution Free

The integrated Municipal Solid Waste Management (MSWM) plan for primary & secondary waste collection and transportation system and processing & disposal for Srinagar city has been included in this chapter. The proposed plan also includes the infrastructure requirements, quantities and corresponding cost estimates for the collection, transportation, processing and disposal systems. The proposed SWM system is broadly based on the 4R Environmental Protection Rules (Reduce, Recycle, Reuse, and Recover) and is in accordance with the SWM Rules, 2016. The primary aspects of the proposed plan include the following:

- Compliance with Solid Waste Management Rules, 2016
- Compulsory segregation at the source
- Provision of segregated infrastructure at all stages of collection and transportation
- Waste to be covered at all stages of handling
- Elimination of manual handling of waste, and provision of proper PPEs to the workers
- 100% collection and transportation of the generated waste
- Maximum recovery of resources by segregating recyclables and biodegradable waste
- Advocate 4R's i.e. reduce, recycle, reuse, and recover materials in MSW management
- Adopt proven technologies for waste processing
- Promote Information, Education and Communication (IEC) across the stakeholders to ensure system efficiency and sustainability
- Adequate health and safety provisions for workers at all stages of waste handling
- Have robust complaint-handling system in place

The proposed system comprises of

- Primary Storage & Collection System
- Secondary Storage, Collection & Transportation System
- Integrated Solid Waste Management (ISWM) Facility including Processing & Disposal of waste



4.2. Segregation at Source

Segregating bio-degradable and non-biodegradable waste at source is one of the important factors for successful implementation of solid waste management in any city. It makes the disposal easy, economical and also plays an important role in resource recovery. Srinagar Municipal Corporation will be focusing on segregated waste collection for both small (residential) as well as semi bulk and bulk producers of waste. SMC will be using containerized as well as separate vehicles for collection of dry and wet waste. The participation of people is extremely important for successful segregation of waste at source. Intensive and multipronged information, education, communication strategy will be followed to ensure awareness and ownership of people. The awareness drives will involve different stakeholders like non-governmental

organizations, schools and colleges, Mohallah committees, religious institutions, Asha and Anganwadi workers, social media pages and influencers, radio, television among others.

4.3. Storage of Waste at Households

The value chain of effective waste management starts at the source with proper segregation of waste. The efficiency of the proposed waste management plan is driven by the segregation of waste in to Biodegradable (wet) and Non-Biodegradable (dry) at primary level.

The waste will be stored by the households and other generators in two separate bins, one for biodegradable and one for non-biodegradable. Use of green plastic or metal containers with lid is advised for the storage of bio-degradable waste and a similar size bin of white colour may be used for storage of non-biodegradable waste. The domestic hazardous waste shall be separately stored at the source in garbage bags and shall be disposed by the waste generator at the deposition centres for domestic hazardous waste in their vicinity or handed to the waste collector authorized by SMC.

4.4. Collection & Transportation System

The projected population of Srinagar City in year 2021 is estimated around 15, 42,780 and the projected number of households is around 2,39,556. The Srinagar city is divided into 4 zones and 35 administrative wards. Around 450 MT of waste is being collected per day out of total waste generation 669 MT. SMC is planning to provide 100% door to door collection service. Waste from households would be collected & transported in segregated manner (dry & wet waste separately).

The door-to-door collection of waste shall be done on a day-to-day basis i.e. between 7:00 AM –12 Noon and the Srinagar Municipal Corporation (SMC) shall be responsible for providing door to door primary MSW collection service within the jurisdiction of municipal area. The SMC shall ensure that infrastructure is made available for undertaking this activity in compliance with the SWM Rules 2016.

- Separate Door to Door Collection System is designed for Households, Commercial Establishments, Vegetable market, Street Sweeping Waste and Drain Silt.
- There should be no inter-mixing of waste from various sources during the transportation of waste.
- Vehicles engaged in this service shall not dump the waste at any secondary collection bin/open site or any other location in any circumstances and shall transfer waste only in the specified Secondary Collection Point/Garbage Transfer Stations.
- Construction and demolition waste will be collected separately, for transportation to Integrated Solid Waste Management (ISWM) Facility for processing.
- The sanitary workers employed by the SMC shall be well equipped with Personal Protective Equipment's (PPEs) to avoid direct contact with waste.

4.4.1. Door to Door Collection from Households

- This will involve collection of waste from individual households with the help of proposed hoppers (LCVs) and handcarts. These vehicles will have separated chambers for dry and wet waste and will cover designated routes-lanes-by-lanes, mohallah of all wards.
- Handcarts of 0.25 m³ capacity will be used for collection of waste from high density areas.
- Hoppers with 1.8 m³ and 3.3 m³ capacity -hydraulically operated having two covered compartments for carrying wet and dry waste separately with a hooter to be deployed.
- Smaller, narrow and congested streets/lanes where even a Hopper cannot operate, vantage point/s shall be designated at the start of the locality/street where Tipper are to be parked and the helper/driver of vehicle shall carry a whistle and walk in the locality to announce arrival of vehicle for collecting the waste. Time table for such collection system to be displayed.
- The services of door to door collection and transportation of waste shall be provided on all 365 days in a year irrespective of any National Holidays, Festivals and Sundays.
- For the collection of domestic hazardous waste, a deposition center will be set up at a suitable location for receiving the domestic hazardous waste. As per the SWM Rules 2016, it is the responsibility of waste generator to deliver waste at the deposition center or hand over it to waste collector authorized by SMC. The waste will be then transported to the disposal facility separately.

4.4.2. Collection of Domestic Hazardous Waste

It is proposed that domestic hazardous waste viz. discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge etc., generated at the household level shall be collected through door to door collection once in a week. Hoppers deployed for the door to door will have a separate jute bag for keeping segregated domestic hazardous waste till the storage points (deposition centers). The waste will be then transported to the disposal facility through the separate vehicle.

4.4.3. Collection of Sanitary Waste

It is proposed that sanitary wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste shall be collected through door to door collection on daily basis and will be directly transported to the disposal facility.

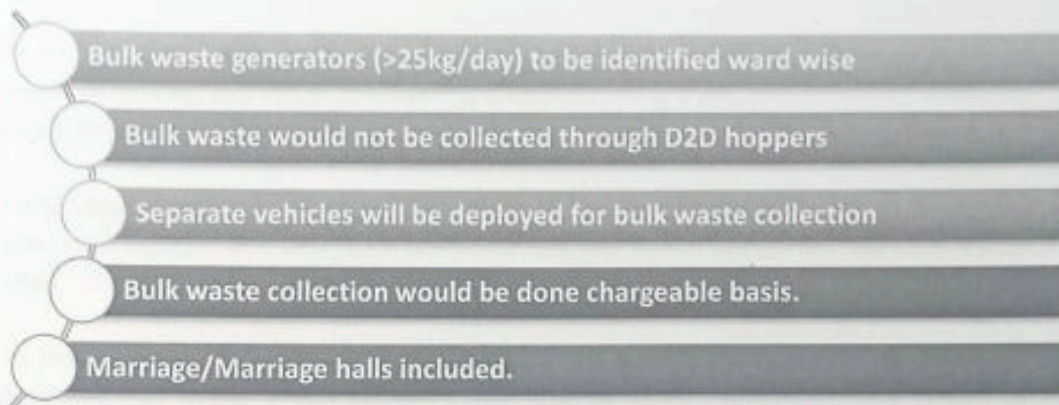
4.4.4. Collection from Other Establishments

It is proposed that Hoppers will be deployed to collect the MSW from shops, hospitals, vegetable market, restaurants and slaughter house. The SMC shall plan to collect waste from these establishments with the infrastructure allocated for primary collection of waste.

It is proposed to have one 240/120-liter capacity bin with two wheels at each hotel, restaurant, banquet hall and hospital for collection of wet waste and one 120-liter capacity bin with two wheels for dry waste.

4.4.5. Collection & Transportation of Silt

- The SMC is responsible for the de-silting of surface drains including the collection, transportation and disposal of silt generated from small drains.
- SMC will make plan for de-silting of drains and lift the 'silt' deposited alongside de-silted drains within 24 hours.
- Silt will be transported to the low lying areas or any other site/plant by using a Tipper Truck available with the SMC.
- Drain Silt collected using this service shall not under any condition be unloaded onto the open sites, dust bin locations, ground or any other points or mixed with any other type of waste.



4.4.6. Bulk waste collection service:

Srinagar Municipal Corporation will be running a separate waste collection service for bulk waste generators (More than 25kgs). This would be a user charge based service where separate vehicles will be deployed for bulk waste collection. This would ensure proper segregation of waste and will also help in augmenting the revenues of Municipal Corporation.

4.4.7. Collection & Transportation of Street Sweeping Waste

The street sweeping shall be done on a day-to-day basis. It is desirable to split the 8 hours of duty of sweepers into two shifts, 4 hours in the morning (from 6:00 am to 10:00 am) and 4 hours in the second shift (12:00 to 4:00 pm). The street sweeping is to be done by Safai Karamcharis as per the proposed plan.

The total length of roads (main/internal roads) in Srinagar = 2060 km

Sanitary workers shall be responsible to do the street sweeping and transfer the waste into specified (color-black) covered RC bins of 1.1 cum capacity to be provided at designated Secondary Collection Points (SCPs). SMC shall in a time bound plan transport road sweeping waste from SCP to the proposed ISWM site at designated landfill site using Refuse Collector Truck/Compactor Vehicles having mechanical "Bin-Lifting" capability to lift 1.1 cum bins.

It is assumed that 10% of the roads in Srinagar have divider. Hence, the total length to be cleaned = 2060 + 206 = 2266 km

In 2266 km, approximately 30% of the main/internal roads are in good condition, hence these roads will be cleaned through Mechanical Sweepers, remaining 70% of the roads (1562 km) will be cleaned manually on daily basis by Safai Karamcharis.

It is proposed to use mechanical sweeper for the main roads in each zone to optimise the work and thereby reduce the cost of manpower deployed. A truck mounted mechanical sweeper can sweep 48-50 km of road and LMV mounted can sweep 32 km of road length in 8 working hours and has 3 times lower O&M Cost than the manual mechanism. Approximate 700 km road shall be cleaned by mechanical sweepers. Hence, 08 truck mounted and 08 LMV mounted would be sufficient to clean the 700 km road length in a day.

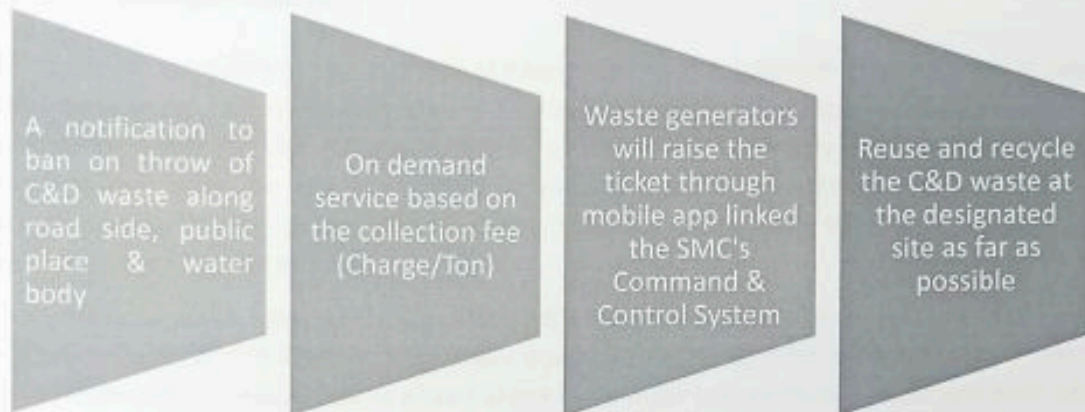
Total Mechanical Sweepers required = 16 Nos.

As per the work norms, on an average every street sweeper can clean 350 m (high density), 500 m (medium density) and 750 m (low density) length of road in a day, therefore total number of workers required per day = $\{(1562 \times 30\% / 0.350) + (1562 \times 30\% / 0.500) + (1562 \times 40\% / 0.750)\} = 3109$.

SWM services will be provided 365 days a year. Assuming that one government worker will be given scheduled holidays in a year, total workforce required to run operations 365 days = $3109 \times 1.14 = 3544$

To ensure that street sweeping is done properly and there is accountability at individual level, it is proposed that teams of two sweepers each shall be made responsible for a stretch of road. As mentioned above, it is assumed that each sweeper will clean approximately 350-750 m of road stretch depending on density of locality, therefore two sweepers between themselves are responsible for cleaning 0.7-1.5 km of road. One handcart may be shared by a team of two sweepers. The sanitary supervisors will have the complete road map with area-wise responsibility distribution marked on it. The sanitary supervisor will be responsible for making surprise checks and identifying if any team is not working properly. This activity may be undertaken by existing workers.

Comparison of O&M Cost of Truck Mounted Mechanical Sweeper and Manual Street Sweeping					
Mechanical Sweeping					
Speed of the Mechanical Sweeper	6	km/h			
Sweeping Width	3000	mm			
Working hours	8				
Total road length per day	48	km			
Cost					
	Particulars	Quantity	Unit	Rate	Total Cost/Annum
Diesel Cost	10 litre per hr	8	Litre	70	20,16,000
Repair & Maintenance					3,82,500
Brush Replacement Cost	Once in 2 months	6	Nos.	25,000	1,50,000
Manpower	Driver	1	Nos.	11,627	1,39,524
	Helper	2	Nos.	11,040	2,64,960
Capital Cost of Machine for one year					10,00,000
Total Cost/Annum					39,52,984
Manual Street Sweeping	Quantity	Unit			



4.4.8. Collection & Transportation of C&D Waste

The Construction and Demolition waste has direct correlation with the pace of development activities in a particular city. There is no defined method to project construction and demolition waste as the same is generated during the redevelopment phase. The collection and transportation of Construction and Demolition waste should be done on demand-basis and the generator should pay for the service.

Approximate Generation of Construction and Demolition Waste = 10-20% of total daily waste generation = 100 TPD

The Service for Construction and Demolition waste shall be provided on demand basis. The waste generator shall report about the location to the Sanitation Department of SMC. The waste would be collected by the tipper at the predetermined timings decided by SMC.

4.4.9. Mechanical Bin Washer

SMC shall carry out washing of all RC bins on weekly basis with the prior time table. Hence, it is proposed to procure 02 bin washers.

4.4.10. Secondary Storage

The concept of secondary storage of waste at intermediate points before its transportation to landfill site is done in the case of through manual means (handcarts) where high coordination would be required to streamline the primary collection of waste and secondary transportation vehicles. Uncoordinated collection and transportation leads to high transportation cost and therefore, secondary waste storage systems are required to bridge the gap between the primary collection and secondary transportation of waste.

Street sweeping waste collected through the handcarts will be stored at the temporary pickup points in refuse collector bins (1.1 RC Bin) from where it will be transferred to secondary collection vehicles. Three refuse collector bins would be placed at one location for wet waste, dry waste and inert waste. The secondary collection points will be located on all the accessible roads.

4.4.11. Domestic Hazardous Waste Centre's

All the waste generators shall be responsible to not mix the domestic hazardous waste either with wet or dry waste, but to store it separately and hand over the authorized waste collector or deposit to nearby deposition centers which will be established by SMC. As per SWM Rules, 2016 and CPHEEO Manual, SMC has to establish minimum one domestic hazardous deposition center per 20 sq. km area. SMC will ensure the safe storage and transportation of this waste to the nearby hazardous waste disposal facility/biomedical facility for the safe & scientific disposal.

Total area of SMC is 246 sq. km; hence it is proposed to set-up minimum 12 deposition Centre for the safe storage of domestic hazardous waste across the entire city. The one centre will be made in 50 sq. m area.

4.4.12. Transfer Stations & Transportation

Secondary collection and transportation system contributes significantly to the cost of municipal solid waste management services. Vehicle productivity is the primary indicator of the efficiency of secondary waste collection & transport system. Efficiency may be improved by optimizing the operations of collection and transportation system. Routing needs to be effectively planned to minimize transport distances and ensure an equitable distribution of workload amongst staff. All the vehicles may be utilized in at least two shifts, depending on waste generation, to lift all containers, to ensure full utilization of the fleet of vehicles and to limit the size of the fleet.

It is proposed that 12 state-of-art transfer stations shall be constructed for collection of waste from tricycles, handcarts and Hoppers. Presently, SMC has proposed 12 transfer station sites across the entire Srinagar city. The Garbage Transfer Stations will be located in different parts of the city and will be equipped with equipment's like bins/containers, compacting machine, hook-loaders, leachate collection system, material recovery facility, boundary wall, office room, green buffer, cement concrete platform, main gate and covered shed.

It is proposed that from 35 wards, the waste shall be first brought to the transfer stations and then transported to the waste processing and disposal site located at Achan.

Transfer station is a facility where municipal solid waste will be unloaded from primary collection vehicles and briefly held while it is reloaded onto larger vehicles (Hook Loader-Container System) for transportation to integrated waste processing and disposal facility. By combining the loads of several small individual waste collection vehicles into a single shipment, apart from reduction in number of vehicular trips travelling to and from the disposal site, there will be significant resource saving in terms of money on the labour, operating costs of transporting the waste to a distant disposal site and environmental protection. Although waste transfer stations help reduce the impacts of trucks travelling to and from the disposal site.

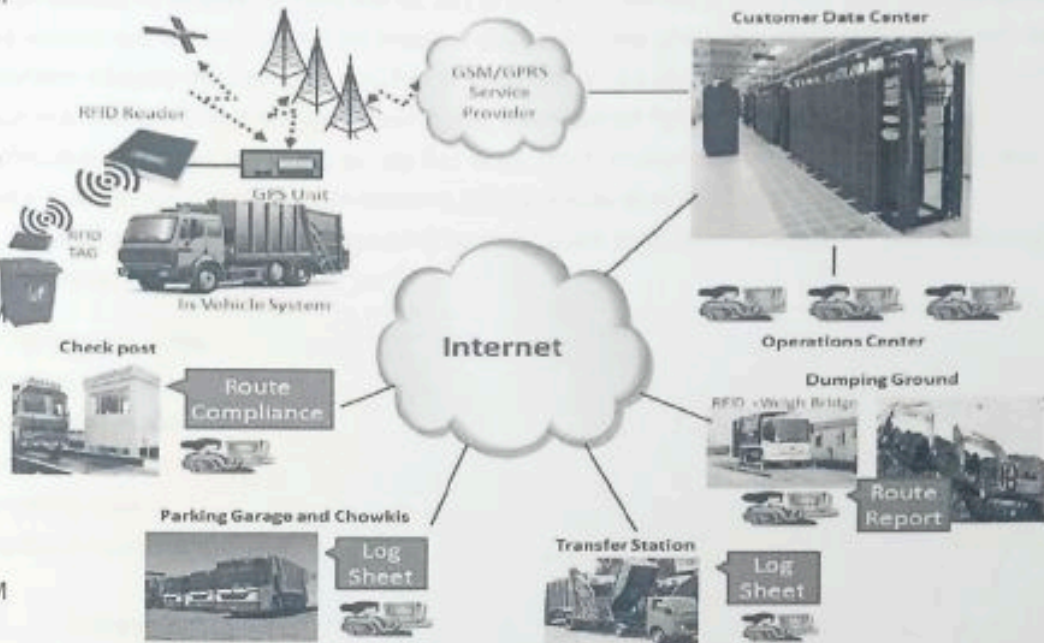
4.4.13. GIS based IT Solutions for Monitoring & Evaluation

Srinagar Municipal Corporation will be using GIS based integrated waste management system which will have following features:

1. Fleet Management System: To track and monitor the movement of vehicles like hoppers, compactors/tipper vehicles, mechanical sweepers, snow clearing machines, bin washers and dumpers throughout the city.
2. Geo-fencing and Geo mapping to ensure the waste collection is done as per pre designated routes and on pre specified time intervals.
3. Bio metric staff management system to ensure effective utilization of human resource.
4. RFID based house numbering and tax to ensure waste collection is done in each and every household and effective assessment of user charges.
5. Customer Care Centre/Control Room Application to receive customer, SMC staff complaints, requests on phone calls, SMS or emails.

6. Automation using GPS, RFID/RFID Reader, Photo & Request Update using "Mobile Applications",

S
M
S
,
B
i
o
-
M
e
t
r
i
c
M
a
chines etc.



4.4.14. Complaint Redressal System

- An effective and transparent complaint handling system is a pre-requisite to any successful transformation. It is thus proposed to set-up an efficient, effective, transparent and user-friendly complaint handling system for registering complaints from people regarding removal of solid waste.

- Complaint handling is another important component of waste management system. It helps in analysing and improving the level of services provided to the stakeholders'.
- Three dedicated telephone lines will be put in place for receiving customer calls and complaints. The system will be operational all times of day round the year. The proposed system will have provision wherein the operator punches in all details of the complainant whenever a complaint is received. The complaint will be forwarded to the required field staff, which will ensure that it is addressed. Once the necessary action has been taken on the complaint, it can be disposed off and a note will be sent to the complainant stating details of action taken.
- A record of all the complaints lodged will be maintained to prepare a database, which will help in establishing:
 - Complainant's name
 - Location
 - Nature of complaint
 - Time of complaint
 - Response time
 - Feedback from complainant

4.4.15. Processing of Waste

The Srinagar Municipal Corporation has already installed and proposed the technologies for the treatment and scientific disposal of waste. The details are as of below:

Compost Plant: The SMC has already installed 2 TPD capacity compost plant at Achan Landfill site to process the incoming wet waste.

Mechanical Segregator: A 30 TPH Mechanical Segregator has been installed and commissioned at dumping site Achan. 100 to 150 MTs of garbage is being mechanically segregated through Mechanical Segregator on daily basis. Organic waste is collected from less than 30mm sieve which is being taken directly to compost plant for its curation without sieving in 4mm sieve. More than 30mm and less than 100 mm waste sieved is also organic matter which is kept for curation in windrows and after 45 to 60 days of curation and turnings is again sieved at less than 30mm sieve for final compost produce.

Material Recovery Plant: The resource recovery is also being done at dumping site and plastics/polythene/paper/PET bottle of recyclable value is segregated, collected, bailed for the ease of transportation. Dry waste & combustible waste is being taken out as far as possible to attract the Cement Factories and Recyclers.

Windrow Composting: SMC is doing windrow composting of organic waste collected in segregated form or segregated at Mechanical Segregator. The stabilized waste is routed through a 2 TPD sieve for final produce of compost. The SMC has already conceived 10 TPH compost sieving Plant which shall be available within 03 months. With the installation of said 10 TPH Sieving plant, the SMC shall be capable to produce bulk compost.

4.4.16. Waste Processing Facility at Achan

As already mentioned above that the Srinagar generates 600 tons of Municipal Solid Waste (MSW) per day in summer months and about 500 tons per day in winter months. The waste is collected, transported and is disposed off at the Achan landfill site. A Pre-sorting trommel and windrow composting unit is available for a capacity of about 100 TPD waste handling, the balance of waste is landfilled. Therefore, it is proposed to augment the MSW processing facility to handle 600 tons per day of municipal solid waste.

The SMC has established door to door collection of waste and is promoting segregation, yet at present a significant part of the waste is reaching Achan in mixed form. Therefore, it is proposed to design the waste processing facility to handle mixed waste. There is existing infrastructure at Achan including a boundary, roads, and weighbridge etc., this plan is focused on setting up a 600 TPD waste processing facility. The overall Process flow in the Waste processing facility is as given below:

- All waste processing is done under shed to minimize the rain and cold impact.
- The incoming waste is taken on the tipping floor and large/bulky items like tyres, big wooden components etc., are removed manually.
- The balance is sent for pre-sorting in a 100 mm trommel. One more presorting section of 30 TPH (300 TPD) capacity is proposed to handle the entire waste.
- The materials passing the 100 mm trommel is taken for windrow composting. The waste is put into windrows of 5 m base and 3 m height. The windrow is maintained for 45 days with regular turning. A mechanical windrow turner is proposed.
- The composted material is taken through a 35 mm and 4 mm sieves. The material passing 4 mm is given as compost to the farmers. The material retained on 35 mm is sent for recycling. The material between 4 and 35 mm is put back into windrow as culture or given as B grade compost for tree plantation.
- The material above 100 mm is suitable for sale as RDF to cement factories. As part of this effort the material would be formed into a windrow for drying. The dried materials would be shredded and to about 150 mm size and sent to the cement factory.
- A material recycling facility is proposed at the site to handle the segregated plant, cloth, glass etc., which is available at site.
- It is assessed that about 20 % of the waste i.e. about 125 tons per day would be sand and other inert material which cannot be composted or sent for RDF or recycling. This would be sent to the existing landfill.

4.4.17. Proposed Waste-to-Energy Plant

Srinagar Municipal Corporation (SMC) has issued the Letter of Intent (LOI) to M/s Highland Automobiles Pvt. Ltd. (in consortium with Key Stone Energy System LLP & Astrix Infra Pvt. Ltd.), now an SPV namely, Syntech Bio-energy Pvt. Ltd., for the establishment of Waste-to-Energy Plant having 5 MW capacity along with Sanitary Landfill (SLF) project on Design, Finance, Build, Own, Operate and Transfer after 25 years' period. This is subject to certain terms and conditions including that the rates/tariff on which power shall be purchased will have to be adopted by the Joint Electricity Regulatory Commission (JERC) before signing the Power Purchase Agreement in terms of J&K Electricity Act, 2010. The scope of work of Concessionaire as mentioned in the waste-to-energy tender document has been summarized below.

- Project capacity – 500±125 MT/day
- Technology is other than Mass Burn Incineration
- Material Recovery Facility (MRF)
- Refuse Derived Fuel (RDF) Plant
- Construction, closure and post closure of Sanitary Landfill (SLF) Facility

It is expected that waste-to-energy project shall take 18-month as per the tender document and industry practice.

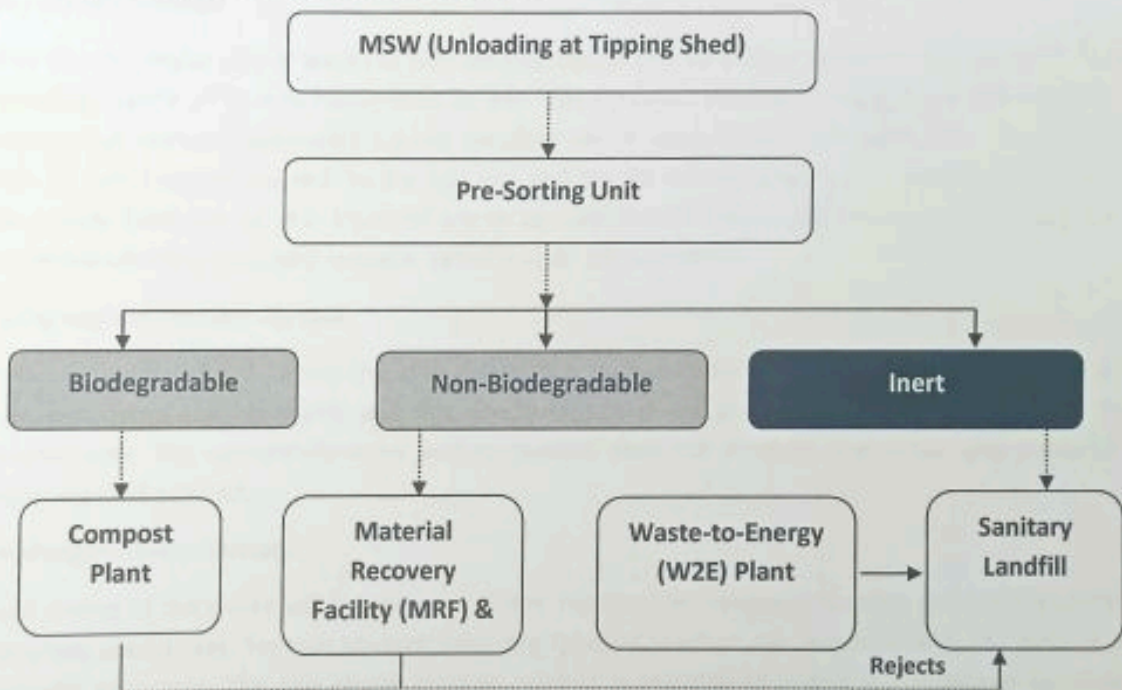
Post award of work to the Concessionair, It is expected that waste-to-energy project shall take following timeline		Duration in Months																		
S. No.	Activity	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Signing of Concession & Power Purchase Agreement	█																		
2	Clearances/NOCs		█	█	█	█	█	█												
3	Planning, Detailed Design & Engineering		█	█	█															
4	Approval from SMC/H&UD				█															
5	Site Development		█	█	█	█														
6	Civil Works and Building								█	█	█	█	█	█	█	█	█	█	█	█
7	Plant & Machinery Works											█	█	█	█	█	█	█	█	█
8	Trial & Operations																█	█	█	█
9	Stabilization																			█
10	Commissioning																			█

4.4.18. Proposed Options at Achan Site

The Facilities to be provided at the Achan Site for the Processing and Disposal of MSW are as follows. Since, Achan already has compost plant, Leachate Treatment Plant and other infrastructure facilities, hence proposal is made for the augmentation of existing facility to meet the requirement of processing and scientific disposal of waste along with other required treatment/facility in line with C&D Rules, 2016 and NGT/CPCB Guidelines.

- **For the Segregation of Mixed Waste further into dry and wet:** Segregation Plant (600 TPD)- One segregation plant of 30 TPH is already installed. Hence it is proposed to set-up one more line of 30 TPH/300 TPD capacity of segregation plant/pre-sorting unit.
- **For the Processing of Bio-degradable waste:** - Augmentation of existing compost plant with the provision of 4 mm sieve & magnetic separator to enhance the quality of product.

- **Provision of One More Mechanical Composting Facility (Capacity-300 TPD).** (This proposed component is in the Scope of waste-to-energy tender awarded to M/S. Highland Automobiles Pvt. Ltd.). Still, we have taken the proposed action plan for the compliance as well there in no saving in the capital cost.
- **For the processing of dry waste: - MRF/RDF Plant (Capacity-200 TPD).** (This proposed component is in the Scope of waste-to-energy tender awarded to M/S. Highland Automobiles Pvt. Ltd.). Still, we have taken the proposed action plan for the compliance as well there in no saving in the capital cost.
- **Bio-remediation of existing Legacy Waste dumped at Achan Site** (This proposed component is not in the Scope of waste-to-energy tender awarded to M/S. Highland Automobiles Pvt. Ltd.). Hence, this component is taken in the action plan.
- **Processing & disposal of Construction & Demolition Waste at Achan Site** (This proposed component is not in the Scope of waste-to-energy tender). Hence, this component is taken in the action plan.
- **Scientific disposal of Animal Carcass and Poultry waste** (This proposed component is not in the Scope of waste-to-energy tender). Hence, this component is taken in the action plan.
- **Sanitary Landfill facility.** This component has not been taken in the action plan as it is in the Scope of waste-to-energy tender awarded.



Waste Storage & pre-processing

Segregated waste will be taken to pre-processing area where it is further segregated and chopped in a high-speed shredder to reduce it to uniform size. The size reduction helps in faster decomposition of organic waste.

Compost Pad:

The segregated MSW shall be stacked over the compost pad – a non-permeable concrete platform – in rows called Windrows. The ideal height of the stack to be restricted to 2 m for better mechanical turning. The waste is sprayed with inoculums and water to accelerate the digestion process.

Microbial inoculant is mixed with shredded organic waste before sending it for composting. During shredding process leachate generated is collected separately and recycle back to the shredded waste, during composting in the proposed vessel which enhances the composting process. The necessary aeration will be provided by air using hot air blowers to provide necessary oxygen for aeration in the winter season.

The quality of compost largely depends on the windrows management and therefore, proper supply of air, water and controlled temperatures (55 - 65°C) is of paramount importance. Mechanical turning of the waste is strongly recommended by means of specialized and need specific machines. The suggested residence time of the waste on windrows is 21 days. The cross section of the windrows shall be so adjusted to optimize surface area to volume ratio.

The waste is arranged in windrows for aerobic digestion of organic materials. The aerobic digestion takes place at this platform. Here aerobic microorganisms use solid waste as an energy source and break down organic material into simpler substances. These microorganisms require air, water, and an energy source. It is necessary to maintain proper environmental conditions for microbial life.

Preparatory Section:

After the decomposition of waste at the compost pad, it will be further screened through two-stage screening system of 35 mm followed by 16 mm. The screened material coming out of the section is uniform but contains semi-solid organic compost which requires further stabilization. The rejects from 35 mm trommel are sent to the RDF line and the 35 mm material is sent to 16 mm trommel. The rejects from the 16 mm trommel are to be sent to RDF line or put back on the windrow as protective covering from bird-menace, vermi and for odour control.

Curing and Refinement Section:

Screened material from 16 mm trommel will require further maturation and moisture for producing a product beneficial for plants and soil. The curing piles are placed either in a storage area or covered area. The completely cured well-composted does not produce foul odour and ready for preparing final product.

Finishing/Refinery Section:

Final sieving of the waste will be done in a 4 mm Trommel to remove impurities and inert material like glass, plastic, etc. Ferrous content from the finished product are removed with the help of a magnetic separator. The size of the finished product is maintained below 4 mm as per compost quality norms.

Packaging of the Final Product:

The finished product is dark brown with an earthy smell, fragile and rich in organic matter. The final high quality product will be packaged in the finishing product go-down section.

Processing Facility	Area Requirement
Tipping Shed	3000 m ²
Pre-Sorting Unit (Covered)	1200 m ²
Compost Pad	20000 m ²
Monsoon Shed (Covered)	6000 m ²
Control Room (Covered)	50 m ²
Curing Section (Covered)	1500 m ²
Preparatory Unit (Covered)	1000 m ²
Finishing Section (Covered)	900 m ²
Finished Product Godown (Covered)	500 m ²

RDF/MRF Plant

Screening

Screens are used to control the size of feedstock. They separate small dense materials such as food scrap, glass and plastics from the bulky light fraction of the feedstock. Trommel screens are commonly used for initial material processing at MSW facilities.

Magnet based Separators

Magnetic separators create magnetic fields that help in removing ferrous metals from the feedstock as it travels along conveyors. The efficiency of magnetic separators depends primarily on the quantity of materials processed and the speed at which they pass through the magnetic field.

Eddy Current Machines

Eddy-current machines separate aluminum and other nonferrous metals from MSW. These machines generate a high energy electromagnetic field that induces an electrical charge in non-ferrous metals and forces these materials to be repelled from non-charged fractions of the feedstock material. The feedstock should be conveyed to eddy-current machines after magnetic separation to minimize contamination by metals.

Air Classifiers

Air classifiers separate feedstock material based on density differences, i.e., the heavier fractions (metals, glass, ceramics etc.) are removed from the lighter materials.

Ballistic or Inertial Separator

This technology separates constituents based upon density and elasticity differences.

After the pre-processing of MSW in pre-sorting unit, the dry waste having size greater than 100 mm will be transferred to RDF Section for further processing through tipper trucks. The tipper trucks will load the waste into the main conveyor belts (Primary shredder feed conveyor) which conveys the waste to primary shredder. The waste will be shredded to smaller size and will be fed to trommel of 6 mm size through trommel feed conveyor. The product obtained from the trommel is RDF and will be passed through magnetic separator for removing ferrous materials and will be conveyed through RDF Conveyor. Two lines of 100 TPD each which will cater to the needs of waste processing

Feed Conveyor	Feeding of Dry Waste to Primary Shredder
Primary Shredder	Screening of Waste to smaller size
Primary Shredder Output Conveyor	Shredded material conveyed to output conveyor
Trommel Feed Conveyor	Feeding of RDF to Trommel
Trommel – 6 mm	Removal of dust/sand from RDF thereby increasing its calorific value and reducing the ash content

RDF Conveyor	Final RDF Output
Reject Conveyor	Sand/dust transferred to bins
Magnetic Separator	Removal of ferrous content
Area Requirement: RDF Section	
RDF Shed	3000 m ²
RDF Storage	1000 m ²

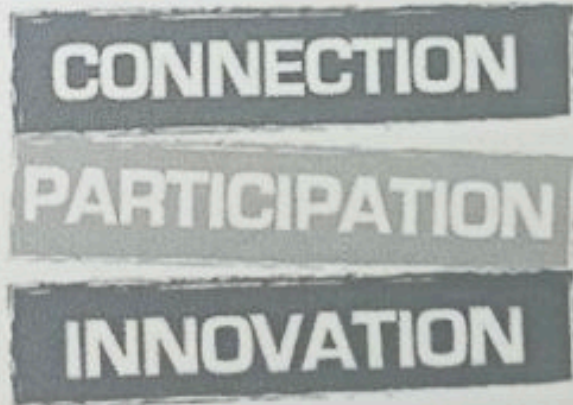
4.4.19. Safe and Scientific Disposal:

SMC is planning to convert its existing landfill site at Achan into a well-managed and scientifically designed garbage processing and disposal site. The site will have facility for resource recovery, plastic management, and waste to energy and bio mining besides a sanitary landfill. The waste reaching the site will be separated using machines into recyclable portions and non-recyclable ones. The recyclable waste would be collected and sent for sale to recycling firms. The non-recyclable single use plastic will be cleaned and shredded into refused derived fuel (RDF) to be later used as fuel by cement units. The bio degradable waste would be separated and converted into compost. SMC is planning to sell this compost in open market and also use it in the parks and gardens being maintained by the Srinagar Municipal Corporation.

At Achan Landfill site, at present there are 3 existing cells of legacy garbage to the tune of 5 lac Tons. SMC is planning to bio mine this legacy waste in a phase wise manner.

4.4.20. Information, Education, Communication (IEC):

Solid Waste Management comprises a substantial and critical component of work of any ULBs. This is also an area where citizens need to be made aware of their role in achieving clean and health cities. Design of IEC material for SWM aims to reach out to different stakeholders including children, youth, housewives, offices, institutions, commercial groups etc. With the rapid population growth in the cities, there has been a substantial increase in the generation of solid waste resulting into the contamination of air, water and land resources. It is not only affecting environment but also degrading the sanitation and hygiene conditions of the society, which create various types of problems effecting citizen's health also.



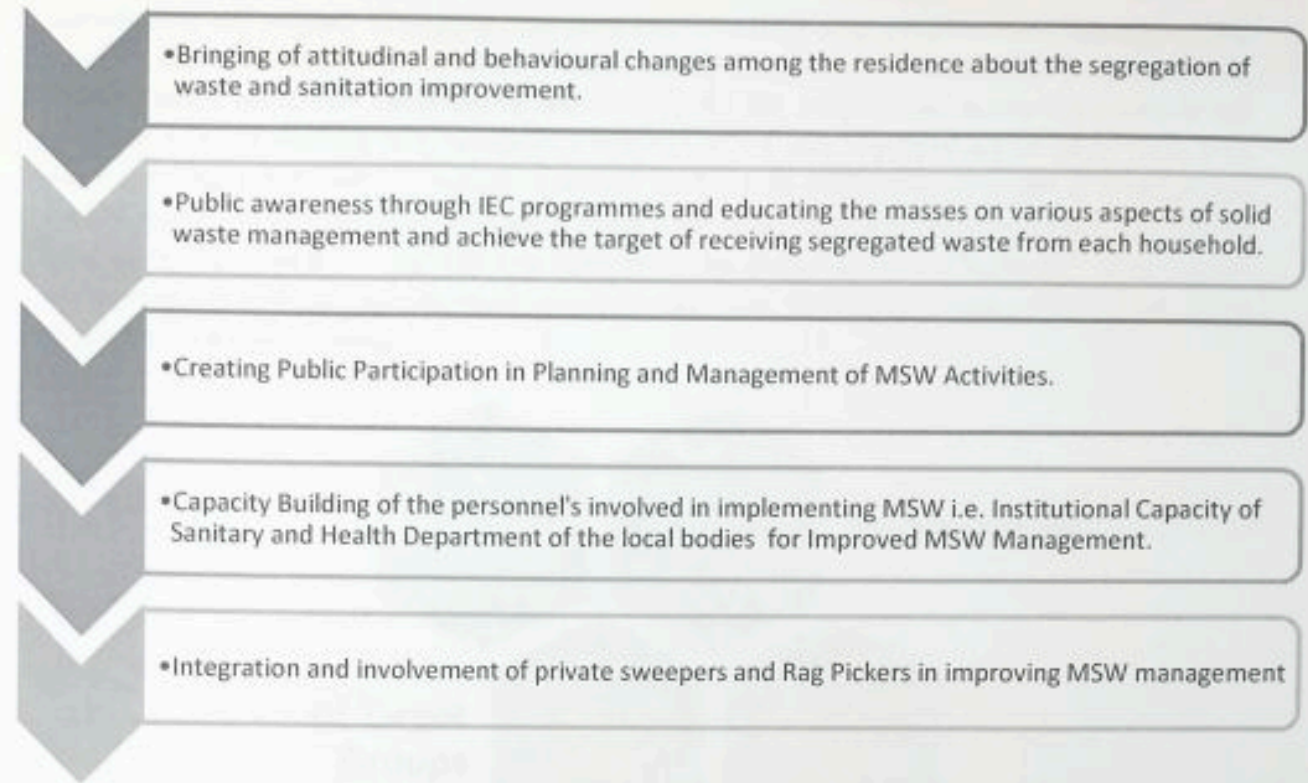
With the existing technology, the management of solid waste by trained engineers will only solve the technical aspects, however to keep the environment clean, it requires not only the technical solution but also public acceptance, co-operation and active people's participation. After all every individual contributes one's own mite to the generation of solid waste and therefore it is necessary that individuals should be disciplined so as to decrease further pollution of the environment. To enable people to participate in the development process, it is necessary that people have adequate knowledge about the nature and content of these Programs. Public Awareness through Information, Education and Communication (IEC), therefore, assumes added significance in the context of the Programs. Through IEC

techniques the stakeholders and local community could be educated and aware about the issues and advantages of existing and implementing system of the solid waste management. The basic approach of IEC plan is to create effectiveness of the Solid Waste Management System. Its operational efficiency can be improved through Information, Education and Communication (IEC) techniques.

Objective

IEC can be defined as an approach which attempts to change or reinforce a set of behaviors in a “target audience” regarding a specific problem in a predefined period of time. IEC strategies involve planning, implementation, monitoring and evaluation. When carefully carried out, the communication strategies help to foster positive waste management practices individually and institutionally and can contribute to sustainable changes in the environment.

The major objectives of the IEC and Capacity Building are as follows



Information, Education and Communication Strategy

The Information, Education and Communication Plan is supposed to follow a structure approach to effectively involve people in the implementation mechanism and further incentive and disincentive schemes should also be integrated to ensure the desired results. "Getting the right knowledge to the right people in the right place at the right time" is the crucial component of any IEC Plan. Thus, the identification of the target group for awareness creation is a crucial part of the methodology. The Plan will follow a below mentioned strategy in a structured way for carrying out effective awareness activities.

Identification and Action Plan

Identification and selection of target groups plays a key role in creating effective awareness in residents. For solid waste management, it becomes more important as the source of MSW starts from houses due to which target starts from household female head, youths and children who require some form of role model or different methods to influence their behavior. It is a very important aspect which starts from waste generators level and may reduce, reuse and recycle their waste. The other part of target groups may be waste collector and waste managers. These types of target groups are directly involved with the solid waste management. Along with this, there are other groups which can be helpful for the better management of MSW segregation, waste collection, operation, handling and proper disposal. The major target groups are as following:



5.0 COST OF THE PROPOSED SYSTEM

5.1. COST ESTIMATES

The planning for any MSWM system is based on accurate financial calculations, taking into consideration all relevant costs including hidden/indirect costs. This important task within the planning process ensures overall financial viability of the MSWM system. With respect to the planning for SMC, broad cost estimates for the proposed system is discussed in this chapter. Further, while estimating the unit costs, following aspects are considered:

Component-wise costing is done, so as to differentiate between implementation mechanism:

The cost estimates have been primarily taken from GEM portal of GoI for the available items, so as to ease the procurement process. Unless specified otherwise, all the figures are given in INR only.

5.2. Capital Cost for Sanitation System (One Time Capex)

The cost required to develop the sanitation infrastructure for Srinagar City, details given in the table below:

Table 19: Capital Cost for Sanitation for City for 5 years (one time Capex)

Sr. No	Vehicle	Make or Type ¹	Capacity (in cum.)	Actual Required	Unit Cost	Total Cost in INR
Street Sweeping including Drain Cleaning						
1	Hand Cart	3 wheeled wooden type	0.25	1,000	7,000	70,00,000
2	Spade	-		1,575	214	3,37,050
	Round nose					
	Square nose			1,575	243	3,82,725
3	Dusting or Vacuum cleaning vehicle large	-		4	1,50,00,000	6,00,00,000
4	Dusting or Vacuum cleaning vehicle Medium/Small	-		18	50,00,000	9,00,00,000
5	Jet Washer			4	31,00,000	1,24,00,000
Total						17,01,19,775
						17.01 Crore

5.3. Capital Cost for Collection, Transportation & Sweeping Machines (One Time Capex)

Table 20: Capital Cost for Collection, Storage, Transportation and Sweeping for 5 years (one time Capex)

S. No.	Type of Vehicle/Equipment	Make or Type	Capacity/ Nos.	Actual Required in Nos.	Unit Cost in INR	Amount in INR
1	Light Commercial Vehicle (LCV) or Hooper's with 2 compartments	LCV/Hopper	1.8/3.3 Cum	400	9,00,000	36,00,00,000
2	Metallic Litter Bins		0.1 cum	2,500	8,000	2,00,00,000
3	Refuse Collector Bins		1.1 cum	400	40,000	1,60,00,000

4	Compactor Vehicles	14 cum	10	45,00,000	4,50,00,000
5	Compactor Vehicles	8 cum	10	42,00,000	4,20,00,000
6	Bins for GTS	10.5 cum	30	5,50,000	1,65,00,000
7	Hook Loaders	10.5 cum	15	50,00,000	7,50,00,000
8	Sanitation Supervision Vehicle		10	10,00,000	1,00,00,000
9	Truck Mounted Mechanical Sweeper		8	1,50,00,000	12,00,00,000
10	Light Motor Vehicle (LMV) mounted Mechanical Sweeper		8	50,00,000	4,00,00,000
TOTAL					74,45,00,000
					74.45 Crore

* Mentioned Make or Type is only indicative. Any make with similar capacity can be considered for procurement. Unit cost mentioned table 17 & 18 have taken from the market and Gem portal.

5.4. Capital Cost for Setting-up Transfer Stations (One Time Capex)

For safe disposal and transfer of waste, SMC plans to create the Garbage Transfer Stations in 12 different places in the city. These stations shall act as hubs for transfer of waste from primary collection to secondary transport system and for decentralized processing. This table is representing the cost for creation of Transfer Stations for all civil works, concerned equipment.

Table 21: Capital Cost for Setting-up of 12 Garbage Transfer Stations (GTS) (one time Capex)

S. N.	Items	Capacity	Nos.	Unit Rate in INR	Amount in INR
1	Static Compactor with Hydraulic loading Shovel Bucket arrangement	1.80 cum	36	29,50,000	10,62,00,000
2	Bin/Container of 16-18 cum capacity compatible with Compactor or inbuilt	16-18 cum			
3	Hook loaders mounted on 25 T GVW; BS – IV Truck Chassis capable of handling 16-18 cum containers	16-18 cum	18	94,40,000	16,99,20,000
4	Covered Shed		12	40,00,000	4,80,00,000
5	Boundary wall		12	100000	1,20,00,000
6	Iron Gate		12	100000	12,00,000
7	Cement Concrete Platform		12	1200000	1,44,00,000
8	Office/Cabin Room		12	300000	36,00,000
9	Green Buffer		12	100000	12,00,000
10	Drainage/Leachate Collection System		12	200000	24,00,000
11	Computer, CCTV & RFID		12	100000	12,00,000
Total Cost for 12 Transfer Stations					36,01,20,000
Cost of 01 Transfer Station					3,00,10,000
Cost of 01 Transfer Station is estimated approximate INR 3 Crore;					
Total Cost of 12 Garbage Transfer Stations ~ INR 36.00 Crore					

Note: Unit rate mentioned in table 19 has been considered based on the market rate.

5.5. Capital Cost for Setting-up of 12 Domestic Hazardous Waste Deposition Centres (One Time Capex)

Table 22: Capital Cost for Setting-up of 12 Domestic Hazardous Waste Deposition Centres

S. No.	Item	Nos.	Area in Sq. m	Unit Rate in INR	Amount in INR
1	Deposition Centres for Domestic Hazardous Waste	12	100	25,00,000	3,00,00,000
Total					3.0 Crore

Note: Unit rate mentioned in table 19 has been considered as a lump sum

5.6. Consumable Cost Estimate for Sanitation System

Table 23 : Consumable Cost Estimate for Sanitation for City per year⁶

Equipment	Street Sweepers	Drivers (Hoppers/Compactors/Loaders/Jet Washers/Mechanical Sweeper)	Helpers (Hoppers/Compactors/Loaders/Jet Washers/Mechanical Sweeper)	Unit Rate (in INR)	Total Cost per Annum in INR
Broom Sticks (6 Times in a Year will be provided)	3,544			90	19,13,976.62
Long Handles (2 Times in a year will be provided)	3,544			32	2,26,841.67
Uniform/Shoes/Cap/Protective Gear (Once in a Year)	3,544	555	555	2,000	93,09,522.29
Hand Gloves (Summer) 2 Times in a Year	3,544	555	555	100	9,30,952.23
Hand Gloves (Winter) 2 Times in a Year	3,544	555	555	150	13,96,428.34
Nose Mask will be provided (4 Times in a Year)	3,544	555	555	40	7,44,761.78
Chemicals viz. lime & bleaching powder will be provided once in a year					10,00,000
TOTAL					1,55,22,483

Note: Unit rate mentioned in table 23 is taken as per market.

⁶ PPP Kit and Nose Mask is provided to workers for the health & safety during Covid-19

5.7. Manpower Cost for Household Collection, Sweeping, Transportation & Garbage Transfer Stations⁷

Table 24 : Manpower Cost for Household Collection, Sweeping, Transportation & Garbage Transfer Stations

Manpower Required	Total Staff Required	Available Staff	Net Requirement	Salary/Month	Amount/Annum in INR
Safai Karamcharis for household collection & Sweeping	4,044	2,939	1,105	10,500	13,92,80,544
Drivers for Hoppers	456	-	456	12,000	6,56,64,000
Helpers for Hoppers	456	-	456	10,500	5,74,56,000
Drivers for Hook Loaders	17	-	17	12,000	24,62,400
Helpers for Hook Loaders	17	-	17	10,500	21,54,600
Drivers for Compactors Vehicles	23	-	23	12,000	32,83,200
Helpers for Compactor Vehicles	23	-	23	10,500	28,72,800
Drivers for Mechanical Sweepers	18	-	18	12,000	26,26,560
Helpers for Mechanical Sweepers	18	-	18	10,500	22,98,240
Drivers for Jet Washers	5	-	5	12,000	7,20,000
Helpers for Jet Washers	5	-	5	10,500	6,30,000
Drivers for Vacuum Cleaning Machine	25	-	25	12,000	36,11,520
Helpers for Vacuum Cleaning Machine	25	-	25	10,500	31,60,080
Drivers for Sanitation Supervision Vehicle	11	-	11	12,000	16,41,600
Operators for 12 Garbage Transfer Stations	14	-	14	15,000	24,62,400
Security Guard for 12 GTS	27	-	27	10,500	34,47,360
Helpers for 12 GTS	68	-	68	10,500	86,18,400
TOTAL	5254	2939	2315		30,23,89,704

Note: *Salary/wages mentioned in above table is taken from J&K Government notification.

** Total 5254 staff/manpower is required for the implementation of Collection, Transportation, Road Sweeping and Garbage Transfer Stations under proposed SWM action plan. Out of 5254, SMC has already engaged 2939 staff, hence net requirement of new staff is 2315.

*** Total 101 Staff/manpower is required for the operation and maintenance of proposed processing facilities viz. Compost Plant, RDF Plant, C&D Plant and Incinerators.

5.8. Fuel Cost & Repair & Maintenance Cost for Proposed Collection & Transportation, Mechanical Sweeping Fleet, Garbage Transfer Stations

Table 25 : Fuel Cost and R&M Cost for Proposed Collection, Transportation & Mechanical Sweeping

Items	Nos.	Average Run Km/Day	Average Fuel Consumption (Km/Litre)	Rate of Diesel	Amount/Annum in INR
Light Commercial Vehicle (LCV) or Hooper's with 2 compartments	400	60	15	85	4,96,40,000
Compactor Vehicles	20	50	4	85	77,56,250
Hook Loaders	15	40	4	85	46,53,750

⁷ Hoppers will have one driver and one helper for each vehicle.

Additional manpower has been considered for weakly off relieving, public holidays & leaves (backup – 14%)

Salary wages has been taken from notification J&K government notification

Items	Nos.	Average Run Km/Day	Average Fuel Consumption (Km/Litre)	Rate of Diesel	Amount/Annum in INR
Sanitation Supervision Vehicle	10	70	12	85	18,09,792
Truck Mounted Mechanical Sweeper	8	8	10	85	24,82,000
Light Motor Vehicle (LMV) mounted Mechanical Sweeper	8	6	6	85	14,89,200
Dusting or Vacuum Cleaning Vehicle Large	4	50	5	85	12,41,000
Dusting or Vacuum Cleaning Vehicle Medium/Small	18	50	5	85	55,84,500
Jet Washer	4	60	6	85	12,41,000
Repair & Maintenance cost of Fleets @ 2%					1,95,48,000
Repair & Maintenance cost of GTSs @ 2%					54,00,000
Total					10,08,45,492
Contingency @10%					1,00,84,549
Grand Total					11,09,30,041

5.9. Capital Cost for Waste Processing (One Time Capex)

Table 26 : Capital Cost for MRF, Compost Plant, RDF Plant and Other Required Facilities for Processing

	Unit	Quantity	Unit Rate	Amount in INR
Waste Receipt and Pre-sorting				
Covered Shed	Sq. m	3,000	10,000	3,00,00,000
Covered Shed for Pre-Sorting Unit	Sq. m	1,200	10,000	1,20,00,000
Pre-sorting Section (Trommel/Conveyor Set)	No	2	1,00,00,000	2,00,00,000
Bob cat of equivalent	No	6	26,00,000	1,56,00,000
RDF Shed and Facilities				
Covered Shed for Plant/Machinery	Sq. m	3,000	10,000	3,00,00,000
(Trommel, Conveyor, Shredder, Magnetic Separator, etc)	No	1	3,00,00,000	3,00,00,000
JCB or equal	No	2	35,00,000	70,00,000
Covered Shed for RDF Storage	Sq. m	1,000	10,000	1,00,00,000
Composting Shed and Facilities				
Shed for Windrow	Sq. m	20,000	10,000	20,00,00,000
Compost Turner	No	1	2,00,00,000	2,00,00,000
JCB or equal	No	2	40,00,000	80,00,000
Truck	No	2	25,00,000	50,00,000
Compost Plant & Machinery Section				
Covered Shed for Preparatory Section & Curing	Sq. m	2,500	10,000	2,50,00,000
Plant & Machinery for Preparatory Section	No	2	75,00,000	1,50,00,000
Covered Shed for Finishing Section & Finished Product Go- down	Sq. m	1,400	10,000	1,40,00,000
Plant & Machinery for Refinement, Finishing & Packing Section	No	2	60,00,000	1,20,00,000

Bobcats	No	4	25,00,000	1,00,00,000
Tractor trailers	No	3	9,00,000	27,00,000
Loading conveyors	No	1	5,00,000	5,00,000
Materials Recycling Facility				
Shed	Sq. m	2,000	10,000	2,00,00,000
Segregation Conveyor	M	60	50,000	30,00,000
Forklift	No	1	25,00,000	25,00,000
Baloming unit	No	2	20,00,000	40,00,000
Other tools etc.	Lump sum	1	10,00,000	10,00,000
Development of Internal Roads	Metre	2,500	5,000	1,25,00,000
Toilets for Male/Female	Seats	10	1,00,000	10,00,000
Electricals	LS	1	25,00,000	25,00,000
Water Supply	LS	1	25,00,000	25,00,000
Contingency @ 5%	%	5		2,57,90,000
Design & Engineering/Supervision	%	1		1,54,74,000
GRAND TOTAL				55,70,64,000

Note: Unit rate has been considered as per market standard.

5.10. Capital Cost for Other Equipment's for Processing/Disposal of Waste (One Time Capex)

In order to process the incoming waste in a scientific way, different kind of plants/ equipment's like Inclinator for poultry waste, Inclinator for animal carcasses, and Shredder, Cleaning & Bailing Machine has been proposed. The 12 Organic waste converters (OWC) with 2 TPD capacity has been proposed at 12 Garbage Transfer Stations (GTS) sites in order to process the wet waste of vegetable and fruits market. These 12 OWC at GTS will serve the whole city. Also by installing these OWCs at Garbage Transfer Stations, 5- 10% of wet waste will be converted into compost at site. The detailed cost of each plants has been given in below table.

Table 27 : Capital Cost for Other Equipment/Machinery for Processing & Disposal of Waste

Equipment/Machinery	Capacity	Additional Requirement	Unit Cost	Total Cost
Inclinator for Poultry Waste	500 kg/hour	1	1,97,00,000	1,97,00,000
Inclinator for Animal Carcasses	500 kg/hour	1	3,61,40,000	3,61,40,000
Leachate Treatment Pant	150 KLD	1	3,00,00,000	3,00,00,000
Shredder , Cleaning & Bailing Machine	2 TPD	3	50,00,000	1,50,00,000
Organic Waste Converter (OWC) Machine for Vegetable/Fruits Market	2 TPD	12	40,00,000	4,80,00,000
Shed for OWCs	Electric Panel & CCTV Room with other infrastructure	12	5,00,000	60,00,000
			Total Cost	15,48,40,000

Note: Unit rate/cost mentioned in above table is taken from market/Gem.

5.11. Operation & Maintenance Cost for the Processing Facilities

Table 28 : Operation & Maintenance Cost for the Processing Facilities

O&M Cost for Compost Plant					
Particulars	No.	Unit Rate	Total Cost	Months	Annual Cost (in Rs.)
Plant Manager	1	50,000	50,000	12	6,00,000
Shift In-charge	1	20,000	20,000	12	2,40,000
Plant Operator	2	15,000	30,000	12	3,60,000
Mechanic	2	15,000	30,000	12	3,60,000
Chemist	1	20,000	20,000	12	2,40,000
Account Officer	1	15,000	15,000	12	1,80,000
Skilled Workers	4	12,000	48,000	12	5,76,000
Unskilled Workers	12	10,500	1,26,000	12	15,12,000
Driver	7	12,000	84,000	12	10,08,000
Consumables viz. inoculants			50,000	12	6,00,000
Packing Cost			6,000	365	21,90,000
Repair & Maintenance of the mechanical plant					36,35,000
Diesel Cost	7		5,040	365	18,39,600
Electricity			5,968	365	21,78,320
Water Requirement (KLD)	14	1000/5KL			10,22,000
Total O&M Cost for compost plant					1,55,18,920
O&M Cost for RDF Plant					
Particulars	No.	Unit Rate	Total Cost	Months	Annual Cost (in Rs.)
Shift In charge	1	20,000	20,000	12	2,40,000
Plant Operator	2	15,000	30,000	12	3,60,000
Mechanic	2	15,000	30,000	12	3,60,000
Skilled Workers	4	12,000	48,000	12	5,76,000
Unskilled Workers	10	10,500	1,05,000	12	12,60,000
Driver	5	12,000	60,000	12	7,20,000
Repair & Maintenance of RDF Plant					18,50,000
Diesel Cost	5		3,600	365	13,14,000
Electricity (150 HP)			4,476	365	16,33,740
Total O&M Cost for RDF plant					83,13,740

5.12. Operation & Maintenance Cost for Incinerators & Other Equipment

Table 29 : Operation & Maintenance Cost for Incinerators & Other Equipment(s)

O&M Cost for Incinerators/Other Equipment's				
Manpower Cost	Requirement	Salary/Month	Months	Per Annum Amount in INR
Manpower Cost for Animal Carcass Incinerator	5	12,000	12	7,20,000
Manpower Cost for Poultry Waste Incinerator	5	12,000	12	7,20,000
Manpower Cost for Leachate Treatment Plant	6	12,000	12	8,64,000
Manpower Cost for Shredder/Cleaning/Bailing Machine	4	12,000	12	5,76,000

Total				28,80,000
Electricity Cost	Approx. Load	Running Time Hours/Day	Per Month Cost	Per Annum Amount in INR
Animal Carcass Incinerator	25 KW	10	50,000	6,00,000
Poultry Waste Incinerator	25 KW	10	50,000	6,00,000
Leachate Treatment Plant	25 KW	10	50,000	6,00,000
Shredder/Cleaning/Bailing Machine	25 KW	10	20,000	2,40,000
Total Cost				20,40,000

Key Assumptions made for the above tables are summarized below for calculate electricity cost:

- ✓ For Inclinator of poultry waste, Inclinator for animal carcasses and Leachate treatment plant, the approximately load for each plant will be 25kWh and average running time for each plant will 10 hours. Also for Shedder, Cleaning and Bailing Machine the approximately load will be 10kWh and average running time will 10 hours per day.
- ✓ The consume rate per processing plant (Inclinator of poultry waste, Inclinator for animal carcasses and Leachate treatment plant) will be 7500 units of electricity per month.
- ✓ The consume rate of Shedder, Cleaning and Bailing Machine will be 3000 units per month.
- ✓ As per approved traffic for State/ Central Government Departments the energy charges per unit (kWh) are fixed Rs.6.88. In addition to this Rs.300 per month will be fixed Demand for each processing plant.

5.13. Capital Cost for Bioremediation of Existing Legacy Waste

Operational expenditure of the Bioremediation cum bio-mining project would depend on the size of dumpsite. As per the CPCB guidelines on Legacy Waste Disposal, the onsite Bioremediation cum bio-mining cost ranges between Rs. 400 to Rs. 700 per cubic meter, irrespective of capital cost and cost of the RDF transportation from dumping site to cement plant. The cost of moving screened fractions offsite will be extra and vary on a case to case basis, depending on distance from farmers, cement plants etc. The bioremediation cost for the legacy waste lying at Achan dumpsite has been considered at Rs. 1000/MT including the cost of machinery, processing, RDF transportation and disposal in scientific manner. Quantity of legacy waste has been estimated by using the contour survey.

Table 30 : Capital Cost for Bioremediation of Existing Legacy Waste at Achan Site (One Time Capex)

Name of Dumpsite	Total Legacy Waste in MT	Processing & Disposal Charges (Rs/Ton)	Total Cost for FY-2021-26
Achan Site	5,50,000	1193	65,61,50,000

5.14. Capital Cost for the C&D Waste Processing Plant

There is a very limited data available w.r.t financial figure of a C&D plant. However, it is noticed that to bring the economies of scale, the minimum capacity requirement is around 100 TPD. Considering the current trend of C&D waste collection and projected estimation for next 10 years, C&D facility with 100 TPD capacity would be suitable for the city of Srinagar. The concession period for the plant has been considered 15 years. The land of 2 acres' area would be sufficient for the setting-up C&D waste processing facility at Achan site. The table below provides the broad estimation of a 100 TPD C&D waste recycling facility.

Table 31 : Capital Cost for Setting-up of 100 TPD C&D Waste Processing Plant

S. No.	Particular	Quantity	Unit	Unit Rate in INR ^a	Total Cost in INR
C&D Waste Processing Plant					
1	Covered shed for Plant & Tipping	2,000	Sq. m	10,000	2,00,00,000
2	C&D Waste Plant	1	no	5,00,00,000	5,00,00,000
3	Primary Crusher	1	no	30,00,000	30,00,000
4	Secondary Crusher	1	no	20,00,000	20,00,000
5	Hydraulic Rock Breaker	1	no	7,90,050	7,90,050
6	Excavator	1	no	24,00,000	24,00,000
(A) Sub-Total					7,81,90,050
Ancillary Infrastructure					
1	Main Gate	1	no	1,00,000	1,00,000
2	Security Room	9	Sq. m	20,000	1,80,000
3	Weighbridge Platform	11	no	7,467	84,004
4	Weighbridge Room	1	no	20,000	20,000
5	Weighbridge Machine	1	no	7,00,000	7,00,000
6	Administrative Block + Laboratory	96	Sq. m	20,000	19,20,000
7	Power Room	50	Sq. m	20,000	10,00,000
8	DG Platform	60	Sq. m	1,100	66,000
9	Parking + Workshop	225	Sq. m	10,000	22,50,000
10	Warehouse	2,000	Sq. m	10,000	2,00,00,000
11	Boundary Wall	500	m	5,000	25,00,000
12	Storm Water Drain	500	m	3,000	15,00,000
13	Roads	500	m	5,000	25,00,000
14	Green Belt	2,000	Sq. m	200	4,00,000
(B) Sub-Total					3,32,20,004
Miscellaneous Expenses					
1	Clearances				5,00,000
2	Power Connection				50,00,000
3	Water Supply				25,00,000
4	Genset				20,00,000
(C) Sub-Total					1,00,00,000
Vehicles Requirement					
		Quantity			
1	Pock lane	1	Nos.	48,00,000	48,00,000
2	JCB	1	Nos.	25,00,000	25,00,000
(D) Sub-Total					73,00,000
Grand Total (A+B+C+D)					12,87,10,054

^a Unit rate/cost has been considered as per industry practice.

5.15. O&M Cost of C&D Waste Processing Plant

Table 32 : O&M Cost of 100 TPD C&D Waste Processing Plant

Particulars	Quantity	Unit	Cost/Month	Month	Cost/Annum
Project Manager	1	Nos.	1,00,000	12	12,00,000
Mechanical Engineer	1	Nos.	60,000	12	7,20,000
Accountant	1	Nos.	30,000	12	3,60,000
Clerk	1	Nos.	20,000	12	2,40,000
Supervisors	2	Nos.	25,000	12	6,00,000
Peon	1	Nos.	12,000	12	1,44,000
Skilled Workers	10	Nos.	12,000	12	14,40,000
Security Guard	3	Nos.	12,000	12	4,32,000
Gardner	2	Nos.	12,000	12	2,88,000
Mechanic	2	Nos.	20,000	12	4,80,000
Drivers	2	Nos.	11,627	12	2,79,036
Electricity	300	KW/h	5,76,000	12	69,12,000
Water Consumption	1		1,00,000	12	12,00,000
Fuel Cost			3,00,000	12	36,00,000
Environmental Monitoring					3,00,000
Miscellaneous					20,00,000
Repair & Maintenance of Machinery					15,63,801
Total Cost					2,17,58,837

5.16. IoT Based Monitoring & Evaluation

Table 33 : Capital Cost for the Development of IOT Based Monitoring System

Particulars	Unit Rate in INR	Nos.	Units	Amount
RFID Tags for Bins	40	2930	Nos.	1,17,200
GPS for the vehicles	5000	495	Nos.	24,75,000
Android Phone for Drivers for Hoppers	8000	400	Nos.	32,00,000
RFID Reader for reading bins	40000	30	Nos.	12,00,000
Development Cost of Mobile Application/Software	2000000	1	Lump sum	20,00,000
Hardware Installation Cost	1000000	1	Lump sum	10,00,000
			TOTAL	99,92,200
			TOTAL	1 Crore

5.17. Technical Support and IEC Awareness

For handholding support set a PMU who will assist to in compliances related NGT, handholding support etc. and will also monitor the Solid and Liquid waste management activity. Below table is representing the cost for next five years:

Table 34: Handholding Supports for Next Five Years

Component	Monthly Cost in INR	Per Annum Cost in INR
PMU for handholding Support	20,00,000	2,40,00,000

5.18. IEC Activity

In order to sensitize the general public about Solid Waste Management through intensive Information, Education and Communication (IEC) programs, Srinagar Municipal Corporation will hire agencies to promote awareness activities under Swachh Bharat Mission. Below table presenting the cost of IEC activities for next five years.

Table 35: Year wise Cost for public awareness ICE activities

Component	Per Annum Cost in INR
IEC Activities and Capacity Building	2,00,00,000

6.0 SUMMARY

6.1. COSTING SUMMARY

To achieving the Service Level Benchmarks and completing the compliances of NGT, there is a need to upgrade the entire system for collection, transportation, processing and disposal as well as performing some IEC activities in community. For this these fund required in form of Capex & Opex.

6.2. CAPEX (Component Wise):

Table 36: Summary of Capex involved for implementing Action Plan (One Time Cost for FY-2021-26)

S. No.	Items Description	Capital Cost (FY-2021-26)	Capital Cost (FY-2021-26) in Crores
1	Capital Cost for the Sanitation Activity (Handcarts, Spades, Vacuum Cleaning Machine, Jet Washers)	17,01,19,775	17.01
2	Capital Cost for the Hoppers, Bins, Hook Loaders, Compactor Vehicles, Mechanical Sweeping, Sanitation Supervision Vehicles	74,45,00,000	74.45
3	Capital Cost for Setting-up of 12 Garbage Transfer Stations	36,01,20,000	36.01
4	Capital Cost of Deposition Centres for Domestic Hazardous Waste	3,00,00,000	3.00
5	Capital Cost for Tipping, Pre-sorting Unit, MRF Facility, Compost Plant and RDF Plant	54,70,64,000	54.71
6	Capital Cost for the augmentation of Existing Compost Plant	1,00,00,000	1.00
7	Capital Cost for Incinerator & Other Equipment	15,48,40,000	15.48
8	Capital Cost for Bioremediation	65,61,50,000	65.62
9	Capital Cost for C&D waste Processing Facility	12,87,10,054	12.87
10	Capital Cost for Monitoring & Evaluation of Integrated Solid Waste Management System (IT Solutions)	99,92,200	1.0
	Total Capital Cost	2,81,14,96,029	281.15
	Total Capital Cost Excluding the Cost of Tipping, Pre-sorting Unit (MRF), Compost & RDF Plant which is proposed in the awarded Waste-to-Energy project	2,26,44,32,029	226.44



6.3. OPEX (Component Wise):

To improve the collection, transportation and sanitation system in SMC area, SMC has need to add some additional infrastructure so target of sanitatic collection and transportation can be meeting easily. Given table representing the Opex summary for Collection, Transportation, processing, disposal includi the PPEs expenses:

Table 37: Summary of Opex involved in C&T, P&D and sanitation for Five Years (2021-2026)

S. No.	Items Description	Opex Requirement (FY-2021-22) in INR	Opex Requirement (FY-2022-23) in INR	Opex Requirement (FY-2023-24) in INR	Opex Requirement (FY-2024-25) in INR	Total Amount Component Wise
A	Opex for the Existing Infrastructure					
1	Cost of Existing Manpower involved in Sanitation Activity (Safai Karamcharis, Drivers, Helpers)	84,00,00,000	84,00,00,000	84,00,00,000	84,00,00,000	4,20,00,00,0
2	Existing Diesel Cost for Collection, Transportation & Sanitation	7,00,00,000	7,00,00,000	7,00,00,000	7,00,00,000	35,00,00,00
	Total OPEX of the Existing Infrastructure (INR)	91,00,00,000	91,00,00,000	91,00,00,000	91,00,00,000	4,55,00,00,0
B	Opex for the Proposed Infrastructure					
3	Opex for Consumables for Sanitation System	1,55,22,483	1,70,74,731	1,87,82,204	2,27,26,467	9,47,66,31
4	Manpower Cost for Household Collection, Transportation, Sweeping and Garbage Transfer Stations	30,23,89,704	33,26,28,674	36,58,91,542	44,27,28,766	1,84,61,19,3
5	Fuel Cost & Repair & Maintenance Cost for Proposed Collection & Transportation, Mechanical Sweeping Fleet, Garbage Transfer Stations	10,82,24,041	11,90,46,445	13,09,51,089	14,40,46,198	66,07,18,59
6	O&M Cost for Compost Plant	1,55,18,920	1,70,70,812	1,87,77,893	2,27,21,251	9,47,44,55
7	O&M Cost for RDF Plant/MRF Plant	83,13,740	91,45,114	1,00,59,625	1,21,72,147	5,07,56,21
8	Manpower Cost for Incinerators & Other Equipment	28,80,000	31,68,000	34,84,800	38,33,280	1,75,82,68
9	Electricity Cost for Incinerators & Other Equipment	20,40,000	22,44,000	24,68,400	27,15,240	1,24,54,40
10	O&M Cost of 100 TPD C&D Waste Processing Plant	2,17,58,837	2,39,34,721	2,63,28,193	3,18,57,113	13,28,39,87
11	Cost of PMU for Handholding Support	2,40,00,000	2,64,00,000	2,90,40,000	3,19,44,000	14,65,22,40
12	Cost of IEC Activities and Capacity Building	2,00,00,000	2,20,00,000	2,42,00,000	2,92,82,000	12,21,02,00
	Total Opex of the Proposed Infrastructure (INR)	52,06,47,725	57,27,12,497	62,99,83,747	76,22,80,334	3,17,86,06,4



SRINAGAR
MUNICIPAL CORPORATION

SRINAGAR MUNICIPAL CORPORATION

Table 38: Summary of Opex involved in C&T, P&D and sanitation for Five Years (2021-2026) Excluding Cost of Processing Components Proposed under Waste-to-Energy Proj.

S. No.	Items Description	Opex Requirement (FY-2021-22) in INR	Opex Requirement (FY-2022-23) in INR	Opex Requirement (FY-2022-23) in INR	Opex Requirement (FY-2023-24) in INR	Opex Requirement (FY-2024-25) in INR	Total Amount Component Wise
A	Opex for the Existing Infrastructure						
1	Cost of Existing Manpower Involved in Sanitation Activity (Safai Karamcharis, Drivers, Helpers)	84,00,00,000	84,00,00,000	84,00,00,000	84,00,00,000	84,00,00,000	4,20,00,00,000
2	Existing Diesel Cost for Collection, Transportation & Sanitation	7,00,00,000	7,00,00,000	7,00,00,000	7,00,00,000	7,00,00,000	35,00,00,000
B	Total OPEX of the Existing Infrastructure (INR)	91,00,00,000	91,00,00,000	91,00,00,000	91,00,00,000	91,00,00,000	4,55,00,00,000
3	Opex for Consumables for Sanitation System	1,55,22,483	1,70,74,731	1,87,82,204	2,06,60,425	2,27,26,467	9,47,66,311
4	Manpower Cost for Household Collection, Transportation, Sweeping and Garbage Transfer Stations	30,23,89,704	33,26,28,674	36,58,91,542	40,24,80,696	44,27,28,766	1,84,61,19,38
5	Fuel Cost & Repair & Maintenance Cost for Proposed Collection & Transportation, Mechanical Sweeping Fleet, Garbage Transfer Stations	10,82,24,041	11,90,46,445	13,09,51,089	14,40,46,198	15,84,50,818	66,07,18,592
6	Manpower Cost for Incinerators & Other Equipment	28,80,000	31,68,000	34,84,800	38,33,280	42,16,608	1,75,82,688
7	Electricity Cost for Incinerators & Other Equipment	20,40,000	22,44,000	24,68,400	27,15,240	29,86,764	1,24,54,404
8	O&M Cost of 100 TPD C&D Waste Processing Plant	2,17,58,837	2,39,34,721	2,63,28,193	2,89,61,012	3,18,57,113	13,28,39,876
9	Cost of PMU for Handholding Support	2,40,00,000	2,64,00,000	2,90,40,000	3,19,44,000	3,51,38,400	14,65,22,400
10	Cost of IEC Activities and Capacity Building	2,00,00,000	2,20,00,000	2,42,00,000	2,66,20,000	2,92,82,000	12,21,02,000
	Total Opex of the Proposed Infrastructure (INR) Excluding the Cost of Tipping, Pre-sorting Unit (MRF), Compost & RDF Plant which is proposed in the awarded Waste-to-Energy project	49,68,15,065	54,64,96,571	60,11,46,228	66,12,60,851	72,73,86,936	3,03,31,05,65
	Total Cost in Crores	49.68	54.65	60.11	66.13	72.74	303.31

SMC-SWM Action Plan

Note- O&M cost mentioned in above table is the summary of all proposed & existing heads mentioned in chapter 4. The O&M cost for the S. No. 03 -12 for FY-2021-22, FY-2022-23, FY-2023-24, FY-2024-25 and FY-2025-26 has been escalated at the rate of 10%/annum as per market practice.

1. Total Capex investment for implementing the action plan will be **Rs. 281.15 Cr.** The above requirement of funds is proposed to be met by 35%⁹ grants from the Swachh Bharat Mission (Urban), 11.67% from State Government (UT) and the balance 53.33% funds is proposed to be generated through various other sources of fund which are, but not limited to:

- a. Additional Resources from State Government/ULB
- b. Beneficiary Share
- c. Corporate Social Responsibility
- d. Market Borrowing
- e. Banks/funding agency

Table 39: Funding Pattern

S. No.	Particulars	Percentage	Amount in Crores
1	Grant/VGF from Government of India under SBM Urban	35%	98.40
2	Share of State Government	11.67%	32.81
3	Remaining Funds from Banks/Funding Agency/Other Sources/CSR/PPP	53.33%	149.94
		100%	281.15
Funding from Other Sources for Serial No. 3			
4	Funding of some Capex Components will also be done under Srinagar Smart City Integrated Solid Waste Management Pan City Project. (INR 71 Crore is envisaged under Phase-1)		71.00

2. Total Capex investment for implementing the action plan will be **Rs. 226.44 Crore** excluding the cost of proposed Tipping Area, Pre-Sorting Unit (MRF), Compost/RDF plant which is already covered under the Waste-to-Energy project which has been awarded and expected to get commissioning done in next 2 years. If Waste-to-Energy plant is not get established, then SMC will keep struggling for the compliance of NGT Guidelines and SWM Rules 2016 and would require the funds of INR 281.15 Crore.

Table 40: Funding Pattern Excluding the Capital Cost of Components Proposed under Waste-to-Energy Project

S. No.	Particulars	Percentage	Amount in Crores
1	Grant/VGF from Government of India under SBM Urban	35%	79.25
2	Share of State Government	11.67%	26.43
3	Remaining Funds from Banks/Funding Agency/Other Sources/CSR/PPP	53.33%	120.76
4	Total Capex Requirement for next five years (2021-2025)	100%	226.44

⁹ As per the SBM (Urban) guideline 2014, Central Government incentive for the SWM projects will be in the form of maximum 20% grant/VGF. But as per revised SBM guideline, incentive from Central Government for SWM projects will be maximum 35% grant/VGF.

3. Total Opex requirement of the newly proposed system for five years will be **Rs. 317.86 Cr.** It will be required for day to day operations including Collection, Transportation, Processing & Disposal, Handholding support, IEC etc. This will be met by annual budget of the considering deduction of user fees collection. Please refer below table:

Table 41: Net Budget required for next five years

Sr. No	Details	Amount (In Cr)
1.	Total Capex Budget (One Time Requirement)	281.15
2.	Total Opex Budget of Proposed System For Next Five Years (FY-2021-2026)	317.86
3.	Total Cost (Capex + Five Years Opex)	599.01
4.	User Charge Collection for five years	136.00

Table 42: Net Budget required for next Five Years Excluding the Capex/Opex of Components Proposed under Waste-to-Energy Project

Sr. No	Details	Amount (In Cr)
1.	Total Capex Budget (One Time Requirement)	226.44
2.	Total Opex Budget of Proposed System For Next Five Years (FY-2021-2026)	303.31
3.	Total Cost (Capex + Five Years Opex)	529.75
4.	User Charge Collection for five years	136.00

We have made several cases and accordingly Tipping Fee has been calculated. Please refer the following table.

Table 43: Estimated Tipping Fee of the Proposed SWM System

S. No.	Particulars	Quantity of Waste Handled in TPD	Quantity of Waste over 5 Years	Capex (INR)	Opex/Per Annum (INR)	Opex for 5 Years (INR)	User Charges for 5 Years	Tipp Fee/M INF
1	Tipping Fee of Proposed Integrated SWM System (Collection, Transportation, Processing, Bio-mining)							
Case-1	Tipping Fee of Proposed Operations in case of (Capex+Opex) to be invested by Private Operator	669	12,96,411	2,81,14,96,029	52,06,47,725	3,17,86,06,424		
Case-2	Tipping Fee of Proposed Operations in case of (Only Opex) to be invested by Private Operator	669	12,96,411	-	52,06,47,725	3,17,86,06,424		
Case-3	Tipping Fee of Proposed Operations in case of (Opex) to be invested by Private Operator & User Charges retained by them	669	12,96,411	-	52,06,47,725	3,17,86,06,424	1,36,00,00,000	
2	Tipping Fee of Proposed Collection & Transportation (C&T) System including GTS, Manual/Mechanical Sweeping							
Case-4	Tipping Fee of Proposed C&T System including Street Sweeping in case of Capex+Opex to be invested by Private Operator	669	12,96,411	1,31,47,31,975	42,61,36,228	2,60,16,04,284		
Case-5	Tipping Fee of Proposed C&T System including Street Sweeping in case of Opex to be invested by Private Operator	669	12,96,411	-	42,61,36,228	2,60,16,04,284		
Case-6	Tipping Fee of Proposed C&T System excluding Street Sweeping in case of Capex+Opex to be invested by Private Operator	669	12,96,411	1,14,47,39,775	28,68,55,684	1,90,52,01,564		

Table 44: Tipping Fee of the SWM Projects awarded in other Cities



SRINAGAR MUNICIPAL CORPORATION

S. No.	Project Name	Location	Population (2011)	Area in sq. km	Quantity in 2016 in TPD	Tipping Fee through bidding (Rs./MT)	Year	Appointed Operator	Tipping Fee estimated by Department (Rs./MT)
1	Collection & Transportation of Solid Waste, Horticulture Waste, Storage of DHW (including street sweeping activities) <u>Capex+Opex to be invested by Private Operator</u>	Chennai (Package-1 Zone 1,2,3,&7)	10,52,993	138	695	5,992	2,020	Ramky	4,000
2	Collection & Transportation of Solid Waste, Horticulture Waste, Storage of DHW (including street sweeping activities) <u>Capex+Opex to be invested by Private Operator</u>	Chennai (Package-2 Zone 11, 12, 14 & 15)	9,66,572	119	837	5,565	2,020	Urbaser, Spain	4,000
3	Collection & Transportation of Solid Waste, Silt, Horticulture Waste <u>excluding the manual/mechanical sweeping, Capex+Opex to be invested by Private Operator</u>	South Delhi Municipal Corporation (Central Zone)	16,74,194	100	1,236	1,727	2,015	ILFS	2,500
4	Collection & Transportation of Solid Waste, Silt, Horticulture Waste <u>excluding the manual/mechanical sweeping Capex+Opex to be invested by Private Operator</u>	South Delhi Municipal Corporation (South Zone)	13,58,791	190	999	1,875	2,016	ILFS & Urbaser (JV)	2,400
5	Collection & Transportation of Solid Waste, Silt, Horticulture Waste <u>excluding the manual/mechanical sweeping Capex+Opex to be invested by Private Operator</u>	South Delhi Municipal Corporation (West Zone)	17,98,284	60	1,058	2,000	2,016	A2Z	2,600
6	Collection & Transportation of Solid Waste, street sweeping waste <u>excluding the street sweeping activities Capex+Opex to be invested by Private Operator</u>	East Delhi Municipal Corporation	39,48,000	106	2,600	1,931	2,019	Metro Waste Handling	

SMC-SWM Action Plan

77

6.4. Public Private Participation (PPP)

The private sector participation has been an integral part of service delivery mechanisms at local level. The large-scale private sector participation kick started in 1990s itself. Chennai Corporation was one of the first ULB to experiment with PPP contract for primary/secondary collection and transportation. Delhi, Ahmedabad and Bangalore were also amongst the early birds. The role of private sector has gradually expanded, and they have entered into businesses like development of secondary storages (including transfer stations), development of decentralized and centralized processing (processing for solid waste, C&D waste) including C&D Plant, Compost Plant, Waste to Energy Plant, Material Recovery Facilities and development of sanitary landfills.

The collection and transportation projects are mostly implemented on Tipping Fee Model, a form of Operation & Management Contract. Though, these projects have been successful in bringing service efficiency, accountability and systematic approach has been bone of contention in service delivery.

Looking to the existing market, following various PPP models on investment or financing related agreements may be proposed for the solid waste management projects in India.

- Build-Operate-and- Transfer (BOT)
- Build-Own-Operate (BOO)
- Build-Own-Operate-Transfer (BOOT)
- Build-Transfer –and –Operate (BTO)
- Design-Build-Finance-Operate –Transfer (DBFOT)

These models operate on different conditions pertaining to level of investment, ownership control, risk sharing, technical collaboration, duration of the project and financing mode etc.

As per the good industry practice, 20-year period is assumed based on the life of plant & machinery of processing facility and may not be considered more than 25 years. Since collection & transportation component may not be in scope of Concessionaire/Private Operator and not interlinked with processing so in this case, contract duration of the collection & transportation may not be considered more than 8 years' interval period based on useful life of assets and optimum life utilization of vehicles/equipment which is 8 years. During the 15 years' contract, Concessionaire has to do only one-time replacement of C&T vehicles/machinery after the 8 years which would suffice till 15 years.

The project has a large public interface and shall have a high-performance standard, so there is need for design flexibility as well as financial freedom for the service delivery output to meet the performance obligation.

Across the industry, DBFOT model for solid waste management has been accepted as a standard model (because of high mobility of asset, the retrieval/ withdrawal of asset is easy). Similarly, for Processing & Disposal, DBFOT is also the preferred option given the fact that this may an integrated project.

The options for the private sector participation in the Solid Waste Management (SWM) are spread across the entire value chain. At one end of the spectrum the ULB can invest across the value chain by creating the fixed & movable assets and outsourcing the management of the complete value chain to the private operator through a Service Contract. On the other end of the spectrum the ULB can invite the private developer to invest and maintain MSW value chain through the Concession or a Build-Operate-Transfer (BOT) contract. It is imperative for the ULB to understand the project need and outcomes based of their own internal project analysis and desired outcome. A comparison between service, management and concession contract has been made in the below table to take the decision for the implementation of this project.

Table 45: Comparison of Service, Management and Concession Contract

Options	Service contract (Collect, transport, cleaning, disposal of MSW)	Management Contract (Collect, transport, cleaning, disposal of MSW)	BOOT/ Concession (Integrated MSWM/ Waste Processing)
Asset Ownership	Ownership with ULB other than investment by private service provider in transportation fleet.	Ownership with ULB	Ownership with private developer during the contract period other than the land, and to be transferred back to ULB at the end of the contract
Operation & Maintenance	Private service provider	Private service provider (Separate Contractual obligation with owner for fleet Maintenance)	Private developer
Capital Investment	Only in transportation fleet by private service provider.	by owner	By private developer other than the land.
Commercial Risk	ULB or state agency	Partly with private service provider and with ULB	Completely with private developer
Duration	1-3 years	3-8 years	Above 10 years

SMC will adopt the appropriate mechanism for the service and management of C&T project as would be required for different components.

ANNEXURE-1: QUOTATIONS



EGOTEK INFRAIN

ECOTEK INFRAIN PVT LTD
 CIN: U29307UP2018PTC107816
 E-15 UPSIDC, KOSI KOTWAN, KOSI KALA,
 MATHURA, UTTAR PRADESH
 Email: ecotek.infrain@gmail.com

Ref. No. : EIP/SMC/2506

Dated: 25/06/2021

The Commissioner,
 Srinagar Municipal Corporation,
 Srinagar (J&K)

Sub: Quotation for Solid Waste Management Equipment and Vehicles

Dear Sir,

With reference to telephonic discussion, we are pleased to inform you that we are one of an emerging company manufacturing range of Compost, RDF, MRF Plant, Portable Compactors, Static Compactor, Transfer Station, Hook Loaders, Underground Bin System, Refuse Compactor Equipment, Sewer Maintenance Machines, Recycler Machine, Auto Tippers etc. for Municipal Application and Industrial vacuum Cleaner and Road Sweepers for Industrial application.

Sl. No.	Particulars	Capacity	Unit Rate (incl. all)
1.	Light Commercial Vehicle (LCV) or Hooper's with 2 compartments	-	9,00,000
2.	Metallic Litter Bins	0.1 cum	8,000
3.	Refuse Collector Bins	1.1 cum	40,000
4.	Compactor Vehicles	14 cum	45,00,000
5.	Compactor Vehicles	8 cum	42,00,000
6.	Bins for PTS	10.5 cum	5,50,000
7.	Hook Loaders	10.5 cum	50,00,000
8.	Sanitation Supervision Vehicle		10,00,000
9.	Truck Mounted Mechanical Sweeper		1,50,00,000
10.	Light Motor Vehicle (LMV) mounted Mechanical Sweeper		50,00,000
11.	JCB		40,00,000
12.	Truck- 12 Ton GVW		25,00,000
13.	Bob-Cat		25,00,000

Office :-
 ECOTEK INFRAIN PVT. LTD.
 E-15, Kosi Kalan, UPSIDC Industrial
 Area, Mathura, Uttar Pradesh.

Deals in:-
 Underground Bin System, Portable Compactors, Static
 Compactor, Refuse Compactor, Hook Loader, Mini Tippers,
 Community Bins, Road Sweeper, Sewer Maintenance
 Machine, Recyclers, Industrial Vacuum Cleaners, Waste
 Processing Plant, Landfill Construction, PDB Structural
 Buildings, Service Contractor and PMC of Projects.

**ECOTEK INFRAIN**

ECOTEK INFRAIN PVT LTD
 CIN: U29307UP2018PTC107816
 E-15, UPSIDC, KOSI KOTWAN, KOSIBKALA,
 MATHURA, UTTAR PRADESH
 Email: ecotek.infrain@gmail.com

GENERAL TERMS AND CONDITIONS

1	Price basis	Ex-Works – Kosi- Uttar Pradesh
2	GST	Extra as applicable/ included in Above
3	Transportation at Site	As quoted/By Client
4	Delivery	3 Months Ex-works
5	Inspection	At our Works
6	Payment Terms	1) For Equipment's a) 50% Advance against Order b) 50% with 100% Taxes and Duties against inspection and delivery at our Works. 2) For Vehicle / Truck Chassis 100 % advance along with order.
7	Validity	30 days from the date of this Offer
8	Warranty	The equipment shall be under warranty against defects in material and workmanship for a period of 12 months or as provided by OEM
9	Commissioning	We shall depute our Commissioning Engineers for a period of 7 days for commissioning of the Equipment and for Training 2 - 3 personnel of the Client in Operation and Maintenance of the Machine. The Client has to provide all the Consumables for commissioning of the Machine and shall provide boarding, lodging and local conveyance to our Commissioning Engineer during his stay at site.

We are confident that you will find our proposal in line with your requirement. However, in case you require any further information/ clarification, please do let us know.

Thanking you and assuring you of our best attention at all times.

Yours Truly,

For ECOTEK INFRAIN PVT.LTD.



Nagendra

NAGENDRA KUMAAR
 DIRECTOR
 9712955978

Office :-
ECOTEK INFRAIN PVT. LTD.
 E-15, Kosi Kolan, UPSIDC Industrial
 Area, Mathura , Uttar Pradesh.

Deals in:-
 Underground Bin System, Portable Compactors, Static Compactor, Refuse Compactor, Rock Loader, Mini Tipper, Community Bin, Road Sweeper, Sewer Maintenance Machine, Recyclers, Industrial Vacuum Cleaners, Waste Processing Plant, Landfill Construction, PEB Structural Buildings , Service Contractor and PRC of Projects.



TEL: +91 9711222977

HYVA (INDIA) PVT LTD

E-Mail: s.bhat@hyva.com

Our Ref No : HIPL/58/MWH/20201209
Dated : 14/04/2021To,
Fortress Infracom

Sub : Offer for Portable Compactor Machine & Hook Lift System.

Kind Attention: Mr. Ganesh Singh

Dear Sir,

At the outmost we thank you very much for your enquiry for Portable Compactor & Hook Loading System for your Project.

We are pleased to submit our Quote along with Technical Specifications for below Portable Compactor & Hook Loader

ANNEXURE – I

Scope of Supply and Technical Specifications is as below

1. Portable Compactor 16 Cu.m with Tipping Device
2. Hook Loader Model 20 – 535 (20 MT)

ANNEXURE – II

Price Schedule and Commercial terms and Conditions for the above model

We hope the above is in line with your requirements & we now look forward to have your valuable purchase order at the earliest.

Yours truly,
For HYVA (INDIA) PVT LTDSusheel Bhat
Regional Manager- Sales
+91 9711222977


 HYVA (INDIA) PVT LTD
 E-Mail: chhat@hyva.com


ALFA THERM LIMITED

6, Community Centre, Mayapuri Industrial Area, Phase-I, New Delhi - 110 064 (India)
 Phone : 91-11-41545222, 41845222 Fax : 91-11-28115396
 Email : info@alfatherm.in Website : www.alfathermltd.com

PRICE SCHEDULE FOR SUPPLY OF "ALFA-THERM" OIL FIRED INCINERATOR OUR PRICES ARE EX-WORKS, KUNDLI, DISTT. SONEPAT, HARYANA

PART	Description	Price (Rs.) Each
A	Price for Oil Fired Rotary Kiln Incinerator Model DSSR-500 Capacity 500 kgs/hr	3,35,00,000/-
	Installation charges for Incinerator	10,00,000/-
B	Chimney of 30 mtrs height from ground level	9,00,000/-
	Erection charges for chimney	90,000/-
	Note : You will have to arrange boarding & lodging etc. for our engineer and team.	
C	Accessories Price for 500 Kg/Hr Rotary Kiln Incinerator	6,50,000/-

Exclusions

- ❖ All civil and foundation works wherever required including Chimney and equipment anchoring foundation bolts
- ❖ Continuous Emission Monitoring System (CEMS)
- ❖ Insulation of Filtration unit
- ❖ Servo Stabilizer
- ❖ Cable Trays
- ❖ Dry Cooling Tower
- ❖ Unloading and storage of material at your site and crane, required machineries for installation of equipment
- ❖ All consumables (required at the time of commissioning like wood, diesel, electrical supply, chemicals, talcum powder etc.)
- ❖ Stack monitoring, Authorization/Consent/NOC of Statutory Authorities e.g. Local Pollution Control Authorities, Civil Aviation, Explosives Inspectorate etc.
- ❖ All applicable taxes, Packing charges, transit insurance and freight charges
- ❖ Any other item that is not specifically mentioned in our offer

For Alfa Therm Limited

Bajj Nath



ALFA THERM LIMITED

6, Community Centre, Mayapuri Industrial Area, Phase-I, New Delhi - 110 064 (India)
 Phone : 91-11-41545222, 41845222 Fax : 91-11-28115396
 Email : info@alfatherm.in Website : www.alfathermltd.com

PRICE SCHEDULE FOR "ALFA-THERM" INCINERATOR OUR PRICES ARE EX-WORKS, KUNDLI, DISTT. SONEPAT, HARYANA DRY SCRUBBING TECHNOLOGY

Description	Price (Rs.) Each
Price for Diesel Fired Incinerator with Dry Scrubbing System for BIG size animals waste	1,90,00,000/-
Installation and commissioning charges	7,00,000/-

The above prices are inclusive of loading of material at our factory and IGST @ 18%.

Exclusions

- ❖ All civil and foundation works wherever required
- ❖ Continuous Emission Monitoring System (CEMS)
- ❖ Unloading and storage of material at your site
- ❖ All consumables (required at the time of commissioning like wood, diesel, electrical power supply, chemicals, talcum powder etc.)
- ❖ Stack monitoring, Authorization/Consent/NOC of Statutory Authorities e.g. Local Pollution Control Authorities, Civil Aviation, Explosives Inspectorate etc.
- ❖ Transit insurance and freight charges
- ❖ Any other item that is not specifically mentioned in our offer

For Alfa Therm Limited

Baij Nath

VAKALATNAMA

Before the National Green Tribunal, New Delhi

Original Application No. 543/2024

Raja Muzaffar Bhat

....Applicant

Versus

Ministry of Environment Forest and Climate Change & Ors.

.....Respondents

KNOW ALL to whom these presents shall come that I/We, Respondent No. 10, do appoint **Mr. Sikander Hyaat Khan and Mr. Arudhra Rao**, to be the Advocate for the Respondent No. 10, in the above-mentioned case to do all the following acts, deeds all things or any of them:

1. To act, appear & plead in the above-mentioned case in this Court or any other Court in which the same may be tried or heard in the first instance in appeal, Letters Patent Appeal, Review, Execution or in any other stage of its progress until its final decision.
2. To present sign & verify pleadings appeals, Letters Patent Appeal, Cross-objection or petitions execution review, revision, withdrawal, compromise, other petitions, affidavits, other documents as shall be deemed necessary or advisable for the prosecution of the said case in all its stages.
3. To withdraw or compromise the said case or submit to arbitration any difference or disputes that shall arise touching or in any manner relating to the said cause.
4. To deposit, draw and receive money and give receipts thereof by way of costs, refund or balance of security and other miscellaneous expenses from Court or parties and to do all other acts and things which may be necessary to be done for the progress and in the course of the prosecution of the said case.
5. To employ any other Advocate authorize him to exercise the power and authorities and to confer upon such advocate, whenever he may think fit to do so.

AND I/WE hereby agree to ratify whatever the Advocate or his substitute shall do in the premises and in this connection.

AND I/WE hereby agree not to hold the Advocate or his substitute responsible for the result of the said case in consequences of his absence from the court when the said case is called up for hearing.

AND I/WE hereby agree not to hold the Advocate responsible for not intimating the date of hearing of the case & for not applying any certified copy of the judgment on the decision of the case.

AND I/WE hereby agree that the Advocate will not be bound to appear for us if the case is transferred to any other Court or the Court sits at any place other than its normal place of sitting and if any application or Petition is to be filed in the case, the Advocate will be entitled to fresh fee as paid in the case.

AND I/WE hereby agree that in the event of the whole or any part of the fee agreed by me/us to be paid to the Advocate remaining unpaid; he shall be entitled to withdraw from the prosecution from the said cause until the same is paid.


In WITNESS WHERE OF I/WE hereunder set my/our hands of these presents the contents of which have been explained to and understood by me/us.

This the _____ day of _____ 2024.

Accepted subject to terms regarding payment of my fee.


Sikander Hyaat Khan, **Advocate**,
D/7564/2024

Arudhra Rao, Advocate, D/


(Signature or thumb impression)



Ref. No: SBPL/BR/LAW/028

Dated: 22-08-2024

Board Resolution

The board of directors convened a meeting on 21-08-2024 at 03:00 PM at Syntech Bioenergy Pvt Ltd, Corporate Office, Ansari Complex Sonwar Srinagar-190001, wherein it has been resolved that Mr. Kumail Ansari, Chairman/Director, has been given the authority to sign and/or execute any or all documents in respect of any litigation or arbitration proceedings that is filed and initiated by the company or defended by the company before any court of law or tribunal as the case maybe.

That it is further resolved that Mr. Kumail Ansari is empowered and authorized to engage counsel(s) to appear on behalf of the company in any such litigation or arbitration proceedings filed and initiated by the company or defended by the company before any court of law or tribunal as the case maybe.

Kumail H. Ansari
(Director)

Sahil B. Bhat
(Director)