



ऑयल इंडिया  
**OIL INDIA**

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**CORRIGENDUM NO. 1 DATED 11.08.2025 to E-TENDER NO. CQI9359P26**

**This Corrigendum No. 1 dated 11.08.2025 to Tender No. CQI9359P26 for 'EPCOM of 160 TPD (80 TPD Mixed and 80 TPD Source Segregated) Municipal Solid Waste based Compressed Biogas (CBG) Plant for Commercial use at Agartala, Tripura, on Domestic Competitive Bidding Basis' is issued to amend the following:**

- (i) The changes in the bid document are enclosed as **Annexure-A** (copy enclosed).
- (ii) The responses to the Pre-Bid queries have been enclosed as **Annexure-B** (copy enclosed).
- (iii) All other terms and conditions of the Bid Document remain unchanged.

**The Bid Closing Date (BCD) & Technical Bid Opening Date stands extended as under:**

**(i) Bid Closing Date & Time : 28.08.2025, 11:00 hrs. IST.**

**Technical Bid Opening Date & Time : 28.08.2025, 15:00 hrs. IST.**

All the prospective bidders are requested to regularly visit OIL's website: [www.oilindia.com](http://www.oilindia.com) and e-procurement portal <https://etender.srm.oilindia.in/irj/portal> for further announcements/ latest information related to the tender.

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
1	9.8	24	The scan copy of the original Bid Security in the form of bank guarantee/DD/Banker Cheque/ Cashier cheque shall be uploaded by the bidder along with their Bid in GEM portal. The original Bid Security shall be submitted by bidder in a sealed envelope & must drop in the Tender Box, placed at the office of General Manager (Contract & Purchase), Oil India Limited, Corporate Office, Plot No. 19, Sector-16A, Noida on or before Bid closing date & Time, failing which the bid shall be rejected outright. Tender No. & Bid Closing date & Name of bidder must be written on the envelope containing the Bid Security for proper identification	The scan copy of the original Bid Security in the form of bank guarantee/DD/Banker Cheque/ Cashier cheque shall be uploaded by the bidder along with their Bid in e-Tender portal of Oil India Limited. The original Bid Security shall be submitted by bidder in a sealed envelope & must drop in the Tender Box, placed at the office of General Manager (Contract & Purchase), Oil India Limited, Corporate Office, Plot No. 19, Sector-16A, Noida on or before Bid closing date & Time, failing which the bid shall be rejected outright. Tender No. & Bid Closing date & Name of bidder must be written on the envelope containing the Bid Security for proper identification
2	3.1.1	42	<p>Shall have prior experience of setting up and operation and maintenance of MSW waste to Biogas/Bio-CNG plant including ETP in <b>last 10 Financial years</b> of following capacity. The said Plant should be in operation at the time of bidding.</p> <ul style="list-style-type: none"> <li>&gt; One plant of minimum <b>128 TPD</b> Feedstock capacity</li> <li><b>OR</b></li> <li>&gt; Two plants of minimum <b>80 TPD</b> Feedstock capacity</li> <li><b>OR</b></li> <li>&gt; Three plants of minimum <b>64 TPD</b> Feedstock capacity</li> </ul> <p><b>Shall have prior experience of operation and maintenance of MSW (unsegregated MSW or source segregated) to Biogas/Bio-CNG plant</b></p>	<p>Shall have prior experience of setting up and operation and maintenance of MSW waste to Biogas/Bio-CNG plant including ETP in <b>last 10 Financial years</b> of following capacity. The said Plant should be in operation at the time of bidding.</p> <ul style="list-style-type: none"> <li>&gt; One plant of minimum <b>128 TPD</b> Feedstock capacity</li> <li><b>OR</b></li> <li>&gt; Two plants of minimum <b>80 TPD</b> Feedstock capacity</li> <li><b>OR</b></li> <li>&gt; Three plants of minimum <b>64 TPD</b> Feedstock capacity</li> </ul> <p><b>Shall have prior experience of operation and maintenance of MSW (unsegregated MSW or source segregated) to Biogas/Bio-CNG plant including ETP of a minimum capacity of 64 TPD plant for at least 1 (one) year of O&amp;M experience in last 10 Financial years.</b></p>

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
			<b>including ETP of a minimum capacity of 64 TPD plant for at least 2 (two) years of O&amp;M experience in last 10 Financial years.</b>	
3	3.1.1 (b)	42	<p><b>Definition of EPCOM</b> Definition of EPCOM “EPCOM means the Company which has experience for Design, Engineering, Construction, Procurement, Installation, Commissioning and Operation &amp; Maintenance (O&amp;M) of the Biogas/ CBG Project based on MSW as feed stock executed at single location and Operation &amp; Maintenance (O&amp;M) for the same plant in India as on date of bid submission. For Operation &amp; Maintenance experience, the EPCOM should be the O&amp;M service provider of its own constructed plant or by their own subsidiary shall also be allowed</p>	<p><b>Definition of EPCOM</b> Definition of EPCOM “EPCOM means the Company which has experience for Design, Engineering, Construction, Procurement, Installation, Commissioning and Operation &amp; Maintenance (O&amp;M) of the Biogas/ CBG Project based on MSW as feed stock executed at single location in India, which is in operation as on date of bid submission. For Operation &amp; Maintenance experience, the EPCOM should be the O&amp;M service provider of its own constructed plant or by their own subsidiary shall also be allowed.</p>
4	3.1.1 (c)	43	<p><b>Definition of Similar Work</b> Design, Engineering, Construction, Procurement, Installation, Commissioning of Biogas/CBG Project based on MSW as feed stock, executed at single location and <b>successful 24 (Twenty-Four) months of</b> operation and maintenance of the same plant with single point responsibility</p>	<p><b>Definition of Similar Work</b> Design, Engineering, Construction, Procurement, Installation, Commissioning of Biogas/CBG Project based on MSW as feed stock, executed at single location and <b>successful 12 (Twelve) months of</b> operation and maintenance of the same plant with single point responsibility</p>
5	4.1.1	44	<p><b>FINANCIAL EVALUATION CRITERIA</b> The bidder must have annual financial turnover from operation of <b>Rs. 54.17 Crore</b> in any of the preceding three (3) financial years reckoned from</p>	<p>The bidder must have annual financial turnover from operation of <b>Rs. 30.95 Crore</b> in any of the preceding three (3) financial years reckoned from the original bid closing date as per the Audited Annual Reports.</p>

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
			the original bid closing date as per the Audited Annual Reports.	
6	4.1.3	44	<p><b>Working Capital</b></p> <p>The minimum requirement of Working Capital of the Bidder is <b>Rs. 16.25 Crore</b> for the accounting year preceding the original bid closing date.</p> <p>In the event of award, the contractor shall open a project specific account in a nationalized bank located in the vicinity where the project is executed. The contractor shall deposit an amount equal to 10% of the annualized contract value within 15 days from the date of issue of LOA. All payments against the contract shall be remitted to the project specific account. Any withdrawal from this account shall be only after the first payment against the contract is made by OIL. At any point of time the minimum balance after first remittance by OIL against invoice from the contractor shall remain 5% of the annualized contract value. In addition to above the bidder should submit a financial resource/cash flow plan for execution of this contract.</p>	<p>The minimum requirement of Working Capital of the Bidder is <b>Rs. 9.28 Crore</b> for the accounting year preceding the original bid closing date.</p> <p><del>In the event of award, the contractor shall open a project specific account in a nationalized bank located in the vicinity where the project is executed. The contractor shall deposit an amount equal to 10% of the annualized contract value within 15 days from the date of issue of LOA. All payments against the contract shall be remitted to the project specific account. Any withdrawal from this account shall be only after the first payment against the contract is made by OIL. At any point of time the minimum balance after first remittance by OIL against invoice from the contractor shall remain 5% of the annualized contract value. In addition to above the bidder should submit a financial resource/cash flow plan for execution of this contract.</del></p>

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7				
8				
9	6.1.12 Illustrated Example Table	52	Volatile Solids <b>in MSW</b> , TPD (For calculation purposes only)	Volatile Solids <b>in Slurry feed to Digester</b> , TPD (For calculation purposes only)
10	1.1	108	<b>Commencement of the Work</b> shall mean the <b>submission of the Basic Engineering Package</b>	<b>Commencement of the Work</b> shall mean the contractor shall initiate the assigned work by submitting the Project Schedule/ submitting the basic engineering drawings & documents / filing the applicable statutory applications such as the Consent to Establish (CTE) etc.
11	1.1	108	<b>COMMISSIONING</b> means Commissioning of the unit will be considered once the biogas generation is established from MSW feed of minimum 30 MT/day	<b>COMMISSIONING</b> means Commissioning of the unit will be considered once commissioning tests are completed, trial operation including the reliability run is completed and the biogas generation is established from MSW feedstock at rated full load or part load, as per the feedstock made available by the Owner.
12	1.4.5 (g)	113	Green Belt development as mandated <b>by SPCB</b> shall be considered while developing the site for the proposed CBG Plant.	Green Belt development as mandated <b>by the SPCB; the Government of Tripura</b> shall be considered while developing the site for the proposed CBG Plant.
13	2.5 XV	122	Applicable Codes, Standards and Regulations XV. <b>OISD Standards.</b>	Applicable Codes, Standards and Regulations XV. <b>OISD Standards (If applicable).</b>
14	2.8.2	125	<b>Commissioning of the unit will be considered once the biogas generation is established from MSW feed of minimum 70 MT/day for minimum 7 days</b> with all the sections like pre-treatment, hydrolyser, digester, purification, compression and effluent treatment are operational. Only after obtaining the commissioning	<b>Commissioning of the unit will be considered once commissioning tests are completed, trial operation including the reliability run is completed and the biogas generation is established from MSW feedstock at rated full load or part load, as per the feedstock made available by the Owner for a minimum period of 7 days</b> with all the sections like pre-

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			certificate from PMC/ OIL project will be deemed to be considered as commissioned.	treatment, hydrolyser, digester, purification, compression and effluent treatment are operational. Only after obtaining the commissioning certificate from PMC/ OIL project will be deemed to be considered as commissioned.
15	10 (B.1)	135	Methane Recovery $\geq 99\%$	Methane Recovery $\geq 97\%$
16	10 (B.4)	135	CBG injection pressure to the CGD - 7 bar (at battery limit /terminal point at boundary for injection into CGD network)	CBG injection pressure to the CGD – upto 45 bar (g) (at battery limit /terminal point at boundary for injection into CGD network)
17	11 (3)	136	Responsibilities During Tests: This section details the roles and responsibilities of all parties involved during the testing phases.	Deleted
18	11.1.1	136	Performance Test  The PGTR will be conducted continuously for 30 days following the date of stabilization of the Plant. During this period, the plant must process minimum 50 TPD of Mixed-MSW.	Performance Test  The PGTR will be conducted continuously for 30 days following completion of the Commissioning and Stabilization of the Plant, at rated full load or part load, as per the feedstock made available by the Owner.
19	11.1.4 (Sl.No.2)	137	<b>Values (Mixed MSW)</b> (2) Rejects / Recyclables / Metals / Inerts / Grits - 60%	<b>Values (Mixed MSW)</b> (2) Rejects / Recyclables / Metals / Inerts / Grits - 60% (Variations 40% to 70%)  (2.a) Rejects (Textiles / Wood / Stems / Horticultural Waste / Sanitary Napkins / Diapers / Bio-degradable not suitable for AD process etc) - 35% (Variation 20% to 50%)  (2.b) Recyclables (Plastics / Paper / Glass / Leather / Rubber / E-waste etc) - 20% (Variation 10% to 30%)

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				<p>(2.c) Metals - 1% (Variation 0% to 3%)</p> <p>(2.d) Inert / Grits - 3% (Variation 2% to 5%)</p>
20	11.1.4 (Sl.No.3)	137	<b>Values (Mixed MSW)</b> (3) Organic Fraction OF (Bio-degradable Materials suitable for AD process) - 40%	<b>Values (Mixed MSW)</b> (3) Organic Fraction OF (Bio-degradable Materials suitable for AD process - Food Waste / Kitchen Waste / Green Waste etc) - 40% (Variation 30% to 60%)
21	11.1.4 (Sl.No.2)	137	<b>Values (SSOF-MSW)</b> (2) Rejects / Recyclables / Metals / Inerts / Grits - 20%	<p><b>Design Conditions - Values (SSOF-MSW)</b> (2) Rejects / Recyclables / Metals / Inerts / Grits - 20% (Variation 10% to 32%)</p> <p>(2.a) Rejects (Textiles / Wood / Stems / Horticultural Waste / Sanitary Napkins / Diapers / Bio-degradable not suitable for AD process etc) - 11% (Variation 6% to 15%)</p> <p>(2.b) Recyclables (Plastics / Paper / Glass / Leather / Rubber / E-waste etc) - 6% (Variation 3% to 10%)</p> <p>(2.c) Metals - 1% (Variation 0% to 3%)</p> <p>(2.d) Inert / Grits - 2% (Variation 1% to 4%)</p>
22	11.1.4 (Sl.No.3)	137	<b>Values (SSOF-MSW)</b> (3) Organic Fraction OF (Bio-degradable Materials suitable for AD process) - 80%	<b>Values (SSOF-MSW)</b> (3) Organic Fraction OF (Bio-degradable Materials suitable for AD process - Food Waste / Kitchen Waste / Green Waste etc) - 80% (Variation 68% to 90%)

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23	11.1.4	137	<p><b>Note:</b> Bidder shall furnish the correction curve / factors accordingly taking into feedstock quality variations. Correction curves shall be furnished for the following:</p> <p>a) RBG at the Inlet to Biogas Cleaning &amp; Upgradation System (net of the RBG used for Hot Water Generator) Vs QF (QF ranging from 7 to 15%).</p> <p>b) CBG at the Outlet of Biogas Cleaning &amp; Upgradation System (net of the RBG used for Hot Water Generator) Vs QF (QF ranging from 7 to 15%).</p>	<p><b>Note:</b> Bidder shall furnish the correction curve / factors accordingly taking into feedstock quality variations. Correction curves shall be furnished for the following <b>by the Bidder in his offer:</b></p> <p>a) RBG at the Inlet to Biogas Cleaning &amp; Upgradation System (net of the RBG used for Hot Water Generator) Vs QF (QF ranging from 8 to 22%).</p> <p>b) CBG at the Outlet of Biogas Cleaning &amp; Upgradation System (net of the RBG used for Hot Water Generator) Vs QF (QF ranging from 8 to 22%).</p>																																																																								
24	Table 3	143	Water Consumption – m3/day	“Water Consumption – m3/day” <b>is deleted</b>																																																																								
25	11.2	146 & 147	<table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Parameter</th> <th>Unit</th> <th>Data</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>CBG Production</td> <td>TPD</td> <td>≥ guaranteed performance value</td> </tr> <tr> <td>2.</td> <td>Raw Biogas Production</td> <td>TPD</td> <td>≥ guaranteed performance value</td> </tr> <tr> <td>3.</td> <td>CBG Quality</td> <td></td> <td></td> </tr> <tr> <td>•</td> <td>CH<sub>4</sub></td> <td>%</td> <td>≥ 97</td> </tr> <tr> <td>•</td> <td>CO<sub>2</sub></td> <td>%</td> <td>&lt;4</td> </tr> <tr> <td>•</td> <td>O<sub>2</sub></td> <td>%</td> <td>&lt;0.5</td> </tr> <tr> <td>•</td> <td>H<sub>2</sub>S</td> <td>mg/m<sub>3</sub></td> <td>&lt;20</td> </tr> <tr> <td>•</td> <td>Moisture</td> <td>mg/m<sub>3</sub></td> <td>&lt;5</td> </tr> </tbody> </table>	Sl. No.	Parameter	Unit	Data	1.	CBG Production	TPD	≥ guaranteed performance value	2.	Raw Biogas Production	TPD	≥ guaranteed performance value	3.	CBG Quality			•	CH <sub>4</sub>	%	≥ 97	•	CO <sub>2</sub>	%	<4	•	O <sub>2</sub>	%	<0.5	•	H <sub>2</sub> S	mg/m <sub>3</sub>	<20	•	Moisture	mg/m <sub>3</sub>	<5	<table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Parameter</th> <th>Unit</th> <th>Data</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>CBG Production</td> <td>TPD</td> <td>≥ guaranteed performance value</td> </tr> <tr> <td>2.</td> <td>Raw Biogas Production</td> <td>Nm<sup>3</sup>/day</td> <td>≥ guaranteed performance value</td> </tr> <tr> <td>3.</td> <td>CBG Quality</td> <td></td> <td></td> </tr> <tr> <td>•</td> <td>CH<sub>4</sub></td> <td>%</td> <td>≥ 97</td> </tr> <tr> <td>•</td> <td>CO<sub>2</sub></td> <td>%</td> <td>&lt;3</td> </tr> <tr> <td>•</td> <td>O<sub>2</sub></td> <td>%</td> <td>&lt;0.5</td> </tr> <tr> <td>•</td> <td>H<sub>2</sub>S</td> <td>mg/m<sub>3</sub></td> <td>&lt;20</td> </tr> <tr> <td>•</td> <td>Moisture</td> <td>mg/m<sub>3</sub></td> <td>&lt;5</td> </tr> </tbody> </table>	Sl. No.	Parameter	Unit	Data	1.	CBG Production	TPD	≥ guaranteed performance value	2.	Raw Biogas Production	Nm <sup>3</sup> /day	≥ guaranteed performance value	3.	CBG Quality			•	CH <sub>4</sub>	%	≥ 97	•	CO <sub>2</sub>	%	<3	•	O <sub>2</sub>	%	<0.5	•	H <sub>2</sub> S	mg/m <sub>3</sub>	<20	•	Moisture	mg/m <sub>3</sub>	<5
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			4.	Methane Recovery	%	> 99	4.	Methane Recovery	%	≥ 97
			5.	Organics Recovery	%	≥ guaranteed performance value	5.	Organics Recovery	%	≥ guaranteed performance value (to be demonstrated)
			6.	*Power consumption	kWh / day	≤ guaranteed performance value	6.	Power consumption	kWh / day	≤ guaranteed performance value
			7.	Water consumption	m <sup>3</sup> / day	≤ guaranteed performance value	7.	Plant operational availability	%	100
			8.	Anaerobic Digestion availability	%	100	8.	Effluent discharge volume & parameters	m <sup>3</sup> /day	≤ CPCB and SPCB norms
			9.	Plant operational availability	%	100				
			10.	Effluent discharge volume & parameters	m <sup>3</sup> /day	≤ CPCB and SPCB norms				
			11.	Additional fuel consumption	TPD	≤ guaranteed performance value				
			12.	Total Manpower requirement (Incl. of 3 shifts in a day)	Nos.	≤ guaranteed value				

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			<p>* Excludes non-plant aux. power consumption such as Plant lighting, Air conditioning, Office &amp; Admin usage and other miscellaneous power consumption.</p> <p><b>Note: Number of manpower shall be evaluated post successful PGTR with the mutual consent of Owner while contractor shall provide minimum and maximum range within range of 15% in terms of cost.</b></p>	
26	12.1.2	149	<p>Segregated Organic fraction of the MSW shall be fed to the digester after removal of rejects / impurities like plastic, paper, rubber, sand / grit, metals, non-digestible, etc. Generally, 1 MT of volatile solids in MSW produces 400 – 500 Nm<sup>3</sup> of raw biogas with minimum 50% CH<sub>4</sub> content. <b>Vendor shall design and operate the entire plant in such a way so that minimum 425 Nm<sup>3</sup> of raw biogas at inlet of gas purification system with minimum 50% CH<sub>4</sub> content is produced per MT of volatile solids fed to the infeed bunker of the plant. Vendor shall ensure that CH<sub>4</sub> loss from raw biogas at inlet of gas purification system to purified biogas at the outlet shall not be more than 1% by weight.</b></p> <p><b>Note:</b>  <math display="block">\text{CH}_4 \text{ loss \%} = \frac{[(\text{Biogas flow at inlet of purification unit} * \text{CH}_4\%) - (\text{Biogas flow at outlet of purification unit} * \text{CH}_4\%)] * 100}{(\text{Biogas flow at inlet of purification unit} * \text{CH}_4\%)}</math></p>	<p>Segregated Organic fraction of the MSW shall be fed to the digester after removal of rejects / impurities like plastic, paper, rubber, sand / grit, metals, non-digestible, etc. <b>Vendor shall design and operate the entire plant in such a way so that guaranteed quantity of raw biogas at inlet of gas purification system with minimum 50% CH<sub>4</sub> content is produced per MT of volatile solids fed to the Hydrolysis/Digestors (Bio-methanation) system of the plant. Vendor shall ensure that CH<sub>4</sub> loss from raw biogas at inlet of gas purification system to purified biogas at the outlet shall not be more than 3% by weight.</b></p> <p><b>Note:</b>  <math display="block">\text{CH}_4 \text{ loss \%} = \frac{[(\text{Biogas flow at inlet of purification unit} * \text{CH}_4\%) - (\text{Biogas flow at outlet of purification unit} * \text{CH}_4\%)] * 100}{(\text{Biogas flow at inlet of purification unit} * \text{CH}_4\%)}</math></p>

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27	12.2.4	151	12.2.4 Vendor shall ensure that CH4 loss by weight from production of raw biogas measured at the inlet of gas purification system to purified CBG delivered at the outlet of the purification system shall not be more than 1%. If the shortfall of CBG biogas quantity (Volume as well its weight) finally delivered at the outlet of the purification system to Gas network piping header on quarterly basis over the quantity discovered during the final PGTR is more than 3%, a price discount @ 100% of prevailing CBG sale price for OIL (incl. of applicable taxes) shall be levied for shortfall of CBG biogas beyond 3% subject to a maximum of 50% of quarterly O&M bill.	12.2.4 Vendor shall ensure that CH4 loss by weight from production of raw biogas measured at the inlet of gas purification system to purified CBG delivered at the outlet of the purification system shall not be more than 3%. If the shortfall of CBG biogas quantity (Volume as well its weight) finally delivered at the outlet of the purification system to Gas network piping header on quarterly basis <b>(excluding the period of non-availability of the plant for which the penalty as per clause no.12.2.2 is applicable)</b> over the quantity discovered during the final PGTR is more than 3%, a price discount @ 100% of prevailing CBG sale price for OIL (incl. of applicable taxes) shall be levied for shortfall of CBG biogas beyond 3% subject to a maximum of 50% of quarterly O&M bill.
28	13.1.1	152	The quality of FOM produced shall be in strict conformity to specification/composition as mentioned in technical bid package and no deviation shall be allowed. Bidder should comply with all the requirements as per <b>Gazette Notification No. 2051 dated 14.07.2020 and No. 1972 dated 01.06.2021</b> issued by Ministry of Agriculture and Farmers Welfare regarding inclusion of Fermented Organic manure (FOM) under fertilizer (Inorganic, organic or mixed) (control) act 1985.	The quality of FOM produced shall be in strict conformity to specification/composition as mentioned in technical bid package and no deviation shall be allowed. Bidder should comply with all the requirements as per <b>Gazette Notification No. 1459 dated 27.03.2025</b> issued by Ministry of Agriculture and Farmers Welfare regarding inclusion of Fermented Organic manure (FOM) under fertilizer (Inorganic, organic or mixed) (control) act 1985.
29	6	173	<b>Note:</b> • "Grand Total" specified above shall be considered as the "Award Value of Work" including prevailing GST and shall be final and binding on the bidder.	<b>Note:</b> • "Grand Total" specified above shall be considered as the "Award Value of Work" including GST prevailing at the time order shall be final and binding on the bidder.

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			<ul style="list-style-type: none"> <li>• GST on EPC is considered as composite @13.8% and during O &amp; M as 18%.</li> </ul>	<ul style="list-style-type: none"> <li>• GST on EPC is considered as composite @13.8% and during O&amp;M as 18%.</li> <li>• However, GST shall be payable as per the prevailing rates during billing stage.</li> </ul>
30	1.1 a)	180	Biogas shall be de-sulphurised to remove Hydrogen Sulphide (H <sub>2</sub> S) and then further purified/upgraded to remove Carbon Dioxide (CO <sub>2</sub> ), Moisture and other impurities. The purified/upgraded biogas will be compressed to 4 / 15 bar for injection into the City Gas Distribution (CGD) pipelines.	Biogas shall be de-sulphurised to remove Hydrogen Sulphide (H <sub>2</sub> S) and then further purified/upgraded to remove Carbon Dioxide (CO <sub>2</sub> ), Moisture and other impurities. The purified/upgraded biogas will be compressed for injection into the City Gas Distribution (CGD) pipelines. The operating pressure of CGD pipeline may vary upto 45 bar (g).
31	1.1(e)	180	Any process rejects or inert materials will be landfilled in the Sanitary Landfill Facility (SLF).	Any process rejects, and / or inert materials will be landfilled in the Sanitary Landfill Facility (SLF). Loading of the rejects and / or inert materials into the vehicles provided by the Owner within plant battery limit, is in the scope of the Contractor
32	2.1.2	183	The bidder's scope of work includes the completion of a CBG plant with a processing capacity of ≥160 TPD (80 TPD Mixed and 80 TPD Source Segregated Organic Fraction) of MSW, achieving a purity of CBG (Methane content) of ≥97% and a Methane recovery rate of ≥99% in the biogas purification and upgrading unit. The produced CBG shall be at a pressure to be injected into the CGD pipeline.	The bidder's scope of work includes the completion of a CBG plant with a processing capacity of ≥160 TPD (80 TPD Mixed and 80 TPD Source Segregated Organic Fraction) of MSW, achieving a purity of CBG (Methane content) of ≥97% and a Methane recovery rate of ≥97% in the biogas purification and upgrading unit. The produced CBG shall be at a pressure upto 45 bar(g) to be injected into the CGD pipeline.
33	2.1.3	183	The raw biogas net output (after deducting the raw biogas used for the hot water generator) shall be minimum 425 Nm <sup>3</sup> /Ton of volatile solids (in MSW fed at the plant infeed bunker), and before it is sent to the upgradation systems.	The Bidder's quoted raw biogas net output (after deducting the raw biogas used for the hot water generator) shall not be less than 425 Nm <sup>3</sup> /Ton of volatile solids (in the slurry fed to the Hydrolysis / Digestors (bio-methanation) system), and before it is sent to the upgradation systems.

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
34	3.3.9	192	Apply for and obtain all necessary permits and approvals from local Government and statutory authorities for all required actions. All permits/approval fees shall be paid by the Contractor up to the handing over of the plant.	Apply for and obtain all necessary permits and approvals from local Government and statutory authorities for all required actions.
35	3.3.20 (c)	194	The Contractor shall be responsible for all licensing applications. All fees are in Contractor's scope.	The Contractor shall be responsible for liaisoning for all statutory applications/approvals/NOC.
36	4.3.3	201	All the mixers and agitators shall be of n+1 configuration (n=design number). In other words, even if one mixer or agitator is out of operation, the unit / system shall be able to give the designed outcomes.	All the mixers and agitators (except for Digestors with Single Top Mounted Vertical Agitator) shall be of n+1 configuration (n=design number). In other words, the mixers / agitators capacity or rating shall be selected such that even if one mixer or agitator is out of operation, the unit / system shall be able to give the designed outcomes.
37	4.3.4	201	All process lines must be designed to operate at 130% capacity. A minimum of two streams should be considered, with each stream having a capacity of 65% (2 x 65%).	All process lines must be designed to operate at 130% capacity.
38	4.5.3	204	The biogas shall be desulfurized to remove hydrogen sulphide (H <sub>2</sub> S) and other impurities / inert gases, and then further upgraded to achieve a methane purity of ≥ 97%. The purified/upgraded CBG shall be compressed to the pressure requirements of the pipeline injection points of the city gas distribution (CGD/ PNG) network (~7 Bar).	The biogas shall be desulfurized to remove hydrogen sulphide (H <sub>2</sub> S) and other impurities / inert gases, and then further upgraded to achieve a methane purity of ≥ 97%. The purified/ upgraded CBG shall be compressed to the pressure requirements of the pipeline injection points of the city gas distribution (CGD/ PNG) network (upto 45 bar (g)).
39	4.5.5 (4)	204	Refuse Derived Fuel (RDF) Storage - 7 days	Rejects Storage - 7 days
40	4.5.5 (9)	205	Purified biogas storage - 4 hour/day	Purified biogas storage (in a buffer tank) - as per the system operational requirement but minimum 30 minutes / day

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
41	12.1.3	235	<p>A precondition of the commissioning is the successful completion of the pre-commissioning checks of all items of the whole system. Commissioning basically consists of,</p> <ul style="list-style-type: none"> <li>➤ Commissioning Tests</li> <li>➤ Trial Operation which also includes in a Reliability Run</li> </ul>	<p>A precondition of the commissioning is the successful completion of the pre-commissioning checks of all items of the whole system.</p> <p>Commissioning basically consists of the following steps:</p> <ul style="list-style-type: none"> <li>➤ Commissioning Tests</li> <li>➤ Trial Operation for a minimum period of 15 days which also includes in 3 days of Reliability Run</li> <li>➤ Biogas generation is established from MSW feedstock at rated full load or part load, as per the feedstock made available by the Owner for a minimum period of 7 days.</li> </ul>
42	12.2.5	235	<ul style="list-style-type: none"> <li>➤ Plant Performance Test</li> </ul>	<p>"Plant Performance Test" is deleted in the Clause no.12.2.5 in page no. 235.</p>
43	12.3.2	236 & 237	<p>After the plant is brought to its maximum operational capacity and the Contractor is fully satisfied with its performance, they shall offer the unit for Trial Operation by communicating the same to the Owner in writing. Upon receipt of such communication, the plant will enter trial operation. The trial operation will last for a minimum period of thirty (30) days continuously at rated full load or part load, as made available by the Owner, for a duration mutually agreed upon by the Contractor and Owner to demonstrate the following:</p> <ul style="list-style-type: none"> <li>➤ Sustained capability of the plant</li> <li>➤ Reliability of the equipment and auxiliaries</li> <li>➤ Adequacy of the various auxiliaries, ancillaries &amp; systems and controls.</li> </ul>	<p>After the plant is brought into the operation at rated full load or part load, as per the feedstock made available by the Owner, and the Contractor is fully satisfied with its performance, the Contractor shall offer the unit for Trial Operation by communicating the same to the Owner in writing. Upon receipt of such communication, the plant will enter trial operation. The trial operation will last for a minimum period of fifteen (15) days continuously at rated full load or part load, as per the feedstock made available by the Owner, to demonstrate the following:</p> <ul style="list-style-type: none"> <li>➤ Sustained capability of the plant</li> <li>➤ Reliability of the equipment and auxiliaries</li> <li>➤ Adequacy of the various auxiliaries, ancillaries &amp; systems and controls.</li> </ul>

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
			<ul style="list-style-type: none"> <li>➤ Capability of each equipment of the plant to correctly perform the functions for which it is specified.</li> <li>➤ Safety requirements</li> <li>➤ Standby system availability</li> </ul>	<ul style="list-style-type: none"> <li>➤ Capability of each equipment of the plant to correctly perform the functions for which it is specified.</li> <li>➤ Safety requirements</li> <li>➤ Standby system availability</li> </ul>
44	12.4.1	237	Reliability run shall be undertaken jointly with the Owner as a part of the trial operation and within the trial operation period. Reliability run shall be conducted for fifteen (15) days uninterrupted at a load not less than 95% of the production capacity of the plant at prevailing ambient conditions.	Reliability run shall be undertaken jointly with the Owner as a part of the trial operation and within the trial operation period. Reliability run shall be conducted for three (3) days uninterrupted at rated full load or part load, as per the feedstock made available by the Owner, at prevailing ambient conditions.
45	12.4.3	237	During the Reliability run, the plant shall be in continuous operation at full capacity or maximum capacity to be provided by the Owner for a continuous period of seventy-two (72) hrs and no interruption is allowed during this period	During the Reliability run, the plant shall be in continuous operation at full capacity or part capacity as per the feedstock made available by the Owner for a continuous period of seventy-two (72) hrs and no interruption is allowed during this period.
46	21.3.9	271	The plant shall be designed for Zero Liquid Discharge (ZLD) for raw water-based effluents.	The plant shall be designed for Zero Liquid Effluents (Untreated) Discharge (ZLD). All the Liquid Effluents shall be treated as per the applicable statutory norms and shall be recirculated to the plant. The surplus treated liquid effluent (if any) may be discharged into the Municipal Sewerage Lines.
47	21.3.12	271	Adequate plantation shall be provided along the periphery and in the CBG project to satisfy the norms and stipulation as laid down by the Govt. of Uttar Pradesh and MoEFCC, Government of India.	Adequate plantation shall be provided along the periphery and in the CBG project to satisfy the norms and stipulation as laid down by the SPCB, the Govt. of Tripura and MoEFCC, Government of India.
48	26.1.1 (3)	286	3. Plot plan and General arrangement drawing with section for major building viz Digester,	3. Plot Plan - General arrangement drawing showing the major buildings / equipment viz MSW Pre-Treatment / Processing, Digester, Hydrolysis tank, Feed mixing tank, Electrical Rooms,

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
			Hydrolysis tank, Feed mixing tank, SCADA Room, SLS Room, Purification shed, Laboratory etc., showing maintenance area.	Control Room, SLS / Decaners, ETP, Solar Composting, Biogas Purification shed, Laboratory, Admin Building, Parking, Unloading, Storage, Maintenance Areas etc.
49	26.1.1 (5)	286	5. Master Document List (MDL) for Mechanical, Electrical, Civil and C&I with schedule of submission.	Deleted
50	26.1.1 (11)	286	11. Maintenance plan.	Deleted
51	26.1.1(14)	286	14. Reference list detailing the Bidder's experience in using the specified equipment over the past three years (03) from the date of bid issuance.	Deleted
52	26.1.2	286	<b>Mechanical</b> 1. Plant Process Description. 2. Process Flow Diagram (PFD). 3. Piping & Instrumentation Diagram (P&IDs). 4. Mass Balance 5. Water Balance 6. Energy Balance	<b>Mechanical</b> 1. Plant Process Description. 2. Process Flow Diagram (PFD). 3. Mass Balance 4. Water Balance 5. Energy Balance 6. Correction Curve - Raw Biogas Generated Vs Volatile Solids to Bio-methanation System. 7. Correction Curve - CBG Generated Vs Volatile Solids to Bio-methanation System
53	26.1.3	287	<b>Electrical</b> 1. Technical description of electrical system. 2. Typical Single line diagram (SLD). 3. Characteristic curves. 4. Description & Catalogues of all Electrical equipment	<b>Electrical</b> 1. Technical description of electrical system. 2. Typical Single line diagram (SLD).

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
54	26.1.4	287	<p><b>Control &amp; Instrumentation:</b></p> <p>1.DCS / PLC architecture drawing (also indicating interconnection of different offsite C&amp;I System) <b>highlighting system features and capabilities.</b></p> <p>2. Plant Control and operational philosophy.</p> <p>3. Process description / functional write – up for <b>all open loop and closed loop controls.</b></p> <p>4. Technical data Sheets of each hardware / instrument/control system/software offered with complete bill of materials and related detailed technical literature, etc.</p> <p>5. Functional specification for plant DCS control system with technical catalogues.</p> <p>6. Details on all C&amp;I items including CCTV, lab Instruments, etc.,</p> <p>7. List of software's (latest version) and hardware with confirmation certificate.</p> <p>8.Evidence that the offered DCS system is upgradable and evolutionary in both hardware and software.</p>	<p><b>Control &amp; Instrumentation:</b></p> <p>1.DCS / PLC architecture drawing (also indicating interconnection of different offsite C&amp;I System)</p> <p>2. Plant Control and operational philosophy.</p> <p>3. Process description / functional write - up</p>
55	26.1.5	287	<p><b>Civil</b></p> <p>1. Civil BOQ including cement, Reinforcement steel &amp; structural steel</p> <p>2. List of equipment utilised for construction</p>	Deleted

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
			3. Layout of temporary site facilities, buildings, structures, installations"	
56	1.1.1	290	The bidder must select suitable process systems based on proven designs for the treatment of 125 TPD Mixed (unsegregated) Municipal Solid Waste. These systems must comply with all relevant sections of this specification. It is not the intent of this specification to specify all technical requirements or to set forth requirements adequately covered by applicable codes and standards. The bidder shall furnish high quality equipment meeting the requirements of this specification and industry standards	The bidder must select suitable process systems / equipment based on his proven designs for producing CBG using the Mixed (unsegregated) Municipal Solid Waste as well as Source Segregated Organic Fraction of Municipal Solid Waste as feedstocks. It is not the intent of this specification to specify all technical requirements or to set forth requirements adequately covered by applicable codes and standards. The bidder shall furnish high quality equipment meeting the requirements of this specification and industry standards.
57	1.1.4	293	All process (including feedstock processing & pre-treatment) lines must be designed to operate at 130% capacity. A minimum of two streams should be considered, with each stream having a capacity of 65% (2 x 65%).	All process (including feedstock processing & pre-treatment) lines must be designed to operate at 130% capacity.
58	1.1.8	293	Specifically, the same type of equipment should have been in use for more than three years under similar conditions in India without major breakdowns. Unproven, prototype or first-off equipment or components are not acceptable.	Specifically, the same type of equipment should have been in use for more than two years without major breakdowns. Unproven, prototype or first-off equipment or components are not acceptable.
59	2.1.2	295	Design of the Pre-feed system and Digester package shall be 30% higher than the rated capacity of 160 TPD (80 TPD Mixed and 80 TPD Source Segregated Organic Fraction) of Municipal Solid Waste (MSW) based CBG plant.	Design of the Pre-feed system and Digester package shall be 30% higher than the rated capacity of 160 TPD (80 TPD Mixed and 80 TPD Source Segregated Organic Fraction) of Municipal Solid Waste (MSW) based CBG plant. Pre-feed system and Digester packages shall be capable of handling MSW up to 208 TPD.

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
60	2.2	296	<p><b>Treatment Philosophy</b></p> <p>The proposed Plant shall be as per the land map enclosed at Annexure- 6 in the RFP Document</p>	<p><b>Mixed MSW Processing Plant</b></p> <p>The proposed Plant shall be as per the land map enclosed at Annexure- 6 in the RFP Document</p>
61	2.4	293	<p><b>Description &amp; Technical Specifications of the system / units</b> Input Mixed-Municipal Solid Waste collected and transported in Garbage Trucks / Compactors, shall be delivered at the Tipping Floor of the Processing Shed. The Processing Shed shall be an enclosed structure (Conventional Steel Structure, Pre-Engineered Steel Structure or Self Supported Roofing Structure) containing Tipping Floor, Processing Area for Processing Equipment and Conveyors and Storage Area for Process Rejects). Here, the Waste shall be processed to extract bio-degradable fraction of the MSW followed by anaerobic digestion of the same to produce Biogas at one end and Digestate at the other end. The Biogas shall be converted into Compressed Biogas (CBG) whereas the Digestate shall be further processed in Digestate Dewatering System followed by Composting Facility to generate compost</p>	<p><b>Mixed MSW Processing Plant - Description &amp; Technical Specifications of the system / units</b> Input Mixed-Municipal Solid Waste collected and transported in Garbage Trucks / Compactors, shall be delivered at the Infeed Bunkers located in the Processing &amp; Pre-Treatment Shed. The Processing &amp; Pre-Treatment Shed shall be an enclosed structure (Conventional Steel Structure, Pre-Engineered Steel Structure or Self Supported Roofing Structure) containing Mixed MSW Processing Plant, Pre-Treatment Plant, Storage Areas for Rejects / Recyclables / Metals / Grits / Inert etc. Here, the Mixed MSW Processing Plant shall typically consist of infeed bunker(s), bag opener + oversize remover(s), metal separator(s), screen(s), density separator(s) (wind sifter), manual sorting station(s), necessary conveyers etc to separate the organic fraction. However, the bidder must select suitable systems / equipments based on his proven experience for processing of Mixed (unsegregated) Municipal Solid Waste to separate the organic fraction in an efficient manner. The separated Organic Fraction shall be sent to the Pre-treatment Plant. The Recyclables / Rejects / Metals segregated from the mixed MSW shall be collected in bins and stored separately for disposal.</p>

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
62	3.2.2 (1.B)	300	Weighbridge - Quantity 2 nos.	Weighbridge - Quantity 1 No. (with a provision of space to install 1 no. in future by the Owner) Capacity - 50 Tonnes Platform Dimensions - 3m x 12m Type of trucks / trailers for weighment: All types (up to 35 MT)
63	4.2.2 (Sl.No.1)	312	Infeed Bunker with Support Legs, Bottom Screws, Discharge Screws and all other Accessories etc. complete	Infeed Bunker Complete with the required accessories, supports etc.
64	4.2.2 (Sl.No.4)	312	Bulk Density of Input Material kg/m <sup>3</sup> : 500 - 1000	Bulk Density kg/m <sup>3</sup> : 250 – 500 for Process Design (Volume design) Bulk Density kg/m <sup>3</sup> : 500 – 1000 for Mechanical Design (Strength design)
65	5.1.1	313	Input Waste, from Tipping Floor/Infeed Bunkers, shall be Conveyed to the Bag Opener + Oversize Remover. It shall have an integrated Bunker with adequate storage volume and Chain Belt Conveyor at the front end and Slitting Rotor at the other end which will open the waste bags and make the waste available for further sorting and recovery of Recyclables. The Oversize Remover will remove medium and oversize fractions (e.g. large plastic films etc.).	Input Waste, from Infeed Bunkers, shall be Conveyed to the Bag Opener + Oversize Remover / Screen. It shall have an integrated Bunker with adequate storage volume and Chain Belt Conveyor at the front end and Slitting Rotor at the other end which will open the waste bags and make the waste available for further sorting and recovery of Recyclables. The Oversize Remover / Screen will remove medium and oversize fractions (e.g. large plastic films etc.).
66	5.2.2 (Sl.No.4)	314	Bulk Density of Input Material kg/m <sup>3</sup> : 500 - 1000	Bulk Density kg/m <sup>3</sup> : 250 – 500 for Process Design (Volume design) Bulk Density kg/m <sup>3</sup> : 500 – 1000 for Mechanical Design (Strength design)
67	6.2.2 (Sl.No.4)	316	Bulk Density of Input Material kg/m <sup>3</sup> : 500 - 1000	Bulk Density kg/m <sup>3</sup> : 250 – 500 for Process Design (Volume design)

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
				Bulk Density kg/m <sup>3</sup> : 500 – 1000 for Mechanical Design (Strength design)
68	7.1.1	317	The Overflow fraction from Screen shall be taken to the Wind Sifter where it will be separated into three fraction – Light, Medium and Heavy.	The Overflow fraction from Oversize Remover / Screen shall be taken to the Wind Sifter where it will be separated into three fraction – Light, Medium and Heavy.
69	7.2.3 (Sl.No.4)	318	Bulk Density of Input Material kg/m <sup>3</sup> : 250-500	Bulk Density kg/m <sup>3</sup> : 250 – 500 for Process Design (Volume design) Bulk Density kg/m <sup>3</sup> : 500 – 1000 for Mechanical Design (Strength design)
70	8.2.2 (Sl.No.3)	320	Quantity of Input Material TPD: 160 TPD (80 TPD Mixed + 80 TPD SSOF) (min.)	Quantity of Input Material TPD: 96 TPD (min.)
71	8.2.2 (Sl.No.4)	320	Bulk Density of Input Material kg/m <sup>3</sup> : *	Bulk Density kg/m <sup>3</sup> : 250 – 500 for Process Design (Volume design) Bulk Density kg/m <sup>3</sup> : 500 – 1000 for Mechanical Design (Strength design)
72	9.2.3 (Sl.No.13)	323	Quantity of Input Material TPD: 80 TPD Mixed (unsegregated) (min.)	Quantity of Input Material TPD: 45 TPD Mixed (unsegregated) (min.)
73	9.2.3 (Sl.No.14)	323	Bulk Density of Input Material kg/m <sup>3</sup> : 100-300	Bulk Density kg/m <sup>3</sup> : 250 – 500 for Process Design (Volume design) Bulk Density kg/m <sup>3</sup> : 500 – 1000 for Mechanical Design (Strength design)
74	10.1	324	<b>General Requirement</b> The facility must ensure the efficient handling of organic waste from Municipal Solid Waste (MSW) by adapting the feed receipt system and pre-treatment system. The process commences with the contractor providing the segregated organic fraction of MSW to the plant.	<b>Pretreatment Plant - General Requirement</b> The Pre-Treatment plant is intended to receive the separated Organic Fraction from the Mixed MSW Processing Plant, to receive the Source Segregated Organic Fraction of MSW directly from the Garbage Trucks / Compactors, to extract the bio-digestible organics, to prepare the organic slurry by adding

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				<p>the required water, and to feed the organic slurry with the correct consistency and composition to the digestors. Here, the Pretreatment Plant shall typically consist of infeed / intermediate feed bunker(s), organic extraction system, metal separator(s), density separator(s) (wind sifter), rejects dewatering unit (screw press), grit / inert removal system, buffer tanks, slurry feed pumps, necessary conveyers, piping etc, to extract, prepare and feed the bio-digestible organics to the digestors.</p> <p>However, the bidder must select suitable systems / equipments based on his proven experience for extraction and feeding of bio-digestible organics to the digestors, in an efficient manner.</p>
75	10.1.2	324	Slurry Chamber: The slurry chamber collects the waste slurry from the screw lifter for further processing.	Deleted
76	10.1.3	325	Mixing tank, feed transfer pumps, valves: The waste slurry is thoroughly mixed with water using feed transfer pumps and valves.	Deleted
77	11.2.2 (Sl.No.4)	326	Bulk Density of Input Material kg/m <sup>3</sup> : 500 - 1000	<p>Bulk Density kg/m<sup>3</sup>: 250 – 500 for Process Design (Volume design)</p> <p>Bulk Density kg/m<sup>3</sup>: 500 – 1000 for Mechanical Design (Strength design)</p>
78	15.1.1	333	The AD technology shall utilize a Continuous Stirred Tank Reactor (CSTR) with a wall-mounted agitation system. This technology must have a proven track record, having been successfully implemented and operated for more than three years post-installation.	The AD technology shall utilize a Continuous Stirred Tank Reactor (CSTR) with a side wall-mounted multiple agitators / top mounted single vertical agitator. This technology must have a proven track record, having been successfully implemented and operated for more than two years post-installation.

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
79	15.1.6	334	Design of the AD system shall be 30 % higher than the rated capacity of 160 TPD (80 TPD Mixed + 80 TPD SSOF) of MSW CBG plant	Design of the AD system shall be 30 % higher than the rated capacity of 160 TPD (80 TPD Mixed + 80 TPD SSOF) of MSW CBG plant. The AD system shall be capable of handling MSW up to 208 TPD.
80	15.1.10	334	The digester's temperature shall be regulated using a water-based heating system. This system will utilize heating coils that are recirculated through hot water generator at each digester to maintain the required process temperature.	The digester's temperature shall be regulated using a circulating water-based heating system. Common Hot water generator or Heat Pump will be provided to heat the circulating water to maintain the required process temperature in the Digestors. This system will utilize either internal heating coils (to heat the internal substrate directly in the digester) or external pipe type heat exchangers (to heat the circulated substrate).
81	15.2.2 (Sl.No.1. A)	335	CSTR type - RCC construction	CSTR type - RCC / Steel construction
82	15.2.2 (Sl.No.1. D)	335	Side mounted agitators with Explosion proof motor-VFD driven and necessary supporting frame.	Multiple Side Wall mounted Agitators / Single Top Mounted Vertical agitator with Explosion proof motor-VFD driven and necessary supporting frame.
83	15.2.2 (Sl.No.1. D)	336	Roof mounted biogas holder	Digester top mounted biogas holders / Standalone biogas holders
84	15.2.2 (Sl.No.2. I)	336	Wall mounted agitation system and hydraulic gas mix system	Multiple Side Wall mounted Agitators / Single Top Mounted vertical agitator (and hydraulic gas mix system if required)
85	15.2.2 (Sl.No.2. L)	337	Minimum 36 excluding Free Board	Minimum 3 days excluding Bottom dead storage and Top Free Board – For Hydrolysis Tanks Minimum 27 days excluding Bottom dead storage and Top Free Board – For digestors (if separate Hydrolysis tanks are provided)

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
				Minimum 30 days excluding Bottom dead storage and Top Free Board – For digestors (if no separate Hydrolysis tanks are not provided)
86	15.2.2 (SI.No.6.A)	338	<ul style="list-style-type: none"> <li>RCC M30 + Internal PU Coating of 1150-1300 micron DFT in Bio-Gas Storage Area;</li> <li>Glass-Fused-to-Steel (Glass-Lined-Steel)</li> </ul>	<ul style="list-style-type: none"> <li>RCC M30 + Internal PU Coating of 1150-1300 micron DFT in Bio-Gas Storage Area (For RCC Digestors / Hydrolysis tanks)</li> <li>Glass-Fused-to-Steel (Glass-Lined-Steel) (For Steel Digestors / Hydrolysis tanks)</li> </ul>
87	53.2.2 (SI.No.6.D)	338	Heating Coil in each tank - Carbon Steel	Heating Coil in each tank – Stainless steel 1.4571
88	17.2.2 (SI.No.1.A)	345	Double membrane (Air membrane & Gas membrane) - Tank Roof mounted	Double membrane (Air membrane & Gas membrane) - Tank Top mounted or Standalone as applicable
89	17.2.2 (SI.No.1.B)	345	Location <ul style="list-style-type: none"> <li>Buffer tanks</li> <li>Digester tanks</li> <li>Liquid digestate tank</li> </ul>	Location <ul style="list-style-type: none"> <li>Hydrolysis tanks</li> <li>Digester tanks</li> </ul>
90	18.2.2 (SI.No.1.A)	351	Biogas flaring unit (Full set including automation) - Closed Biogas Flaring System	Biogas flaring unit (Full set including automation) - Closed Biogas Flaring System (Elevated Flaring & Stack Height minimum 30 m)
91	19.1.6	357	The purified Biogas shall be compressed at 4 to 7 bar, if required, for injection in GAIL's Pipeline.	The purified Biogas shall be compressed upto 45 bar (g) as required, for injection into the CGD pipeline.
92	19.2.2 (3)	358	CBG Cascade Storage System: Type-1, as per IS 7285-2 (2004) and as confirmed by PESO (Equivalent to min. 1-day Storage) if required.	Deleted
93	RR	362	Methane CH4 % $\geq 98$	Methane CH4 % $\geq 97$
94	21.1.2	370	COMPRESSED BIO-GAS (CBG) SYSTEM  The bidder shall supply compressor systems designed for operation in a biogas production environment, capable	COMPRESSED BIO-GAS (CBG) SYSTEM  The bidder shall supply compressor systems designed for operation in a biogas production environment, capable of

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum																																						
			of achieving an outlet pressure of 45 bar for injection into the CGD pipeline.	achieving an outlet pressure upto 45 bar (g) for injection into the CGD pipeline.																																						
95	22.1.1	378	The bidder must supply and install a double stage SLS system (Screw Press machine followed by Decanter). This system should have a proven track record of effectiveness and successful implementation in the bidder's previous projects.	The bidder must supply and install a double stage SLS system (Screw Press machine followed by Decanter or Volute Press or Belt Filter Press). This system should have a proven track record of effectiveness and successful implementation in the bidder's previous projects.																																						
96	24.1.1	410	Centrate / Filtrate from Digestate Dewatering System shall be treated into an Effluent Treatment Plant (ETP)	Centrate / Filtrate from Digestate Dewatering System shall be treated into an Effluent Treatment Plant (ETP). If required Centrate / Filtrate (liquid digestate) can be recycled fully or partially to the pre-treatment / organic extraction without treating in ETP. But ETP should have the capacity to treat all the Centrate / Filtrate (liquid digestate) from the Dewatering System considering that no liquid digestate is recycled before ETP.																																						
97	1.5.5	627	Incoming Power Supply AC, 11KV, 3 Ph, 50 Hz	Incoming Power Supply HT AC, 33 kV, 3 Ph, 50 Hz																																						
98	BRS-5	778	<p align="center"><b>TECHNICAL PARAMETER OF EQUIPMENT</b> <b>Technical Information to be submitted</b></p> <table border="1"> <thead> <tr> <th>S. NO</th> <th>Particulars</th> <th>To provide details</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Description of selected process technology for different sections</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>Process Flow Diagram</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Mass Balance Chart</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>General Plant Layout</td> <td></td> <td></td> </tr> </tbody> </table>	S. NO	Particulars	To provide details	Reference	1	Description of selected process technology for different sections			2	Process Flow Diagram			3	Mass Balance Chart			4	General Plant Layout			<p align="center"><b>TECHNICAL PARAMETERS OF EQUIPMENT</b> <b>Technical Information to be submitted with the Offer</b></p> <table border="1"> <thead> <tr> <th>S. NO</th> <th>Technical Information to be submitted with the Offer</th> <th>Reference to Bidder's Offer</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Description of selected process technology for different sections</td> <td></td> </tr> <tr> <td>2</td> <td>Process Flow Diagram</td> <td></td> </tr> <tr> <td>3</td> <td>Mass Balance Diagram</td> <td></td> </tr> <tr> <td>4</td> <td>General Plant Layout</td> <td></td> </tr> <tr> <td>5</td> <td>Complete Lists of Mechanical, Electrical, C&amp;I, Other Equipments,</td> <td></td> </tr> </tbody> </table>	S. NO	Technical Information to be submitted with the Offer	Reference to Bidder's Offer	1	Description of selected process technology for different sections		2	Process Flow Diagram		3	Mass Balance Diagram		4	General Plant Layout		5	Complete Lists of Mechanical, Electrical, C&I, Other Equipments,	
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S. No.		Section / Clause		Page No.		Existing provision as per Tender		Amendment in Corrigendum	
				5	Complete List of Electro-mechanical Equipment of each section of plant etc. in a separate list				Miscellaneous Items of each section of plant, indicating the numbers provided (working +standby), ratings / capacities etc.
				6	List of top 15 major energy consuming devices along with rated, expected loading, running hours per day as per the table given below. The lighting load shall be considered as cumulative load.			6	List of top 15 major energy consuming equipments / devices along with rated, expected loading consumption, running hours per day etc.
				7	Feedstock design quantity (Should not be less than 160 TPD (80 TPD Mixed and 80 TPD Source Segregated)			7	Feedstock Rated Capacity & Maximum Capacity – (Minimum rated capacity of 160 TPD (80 TPD Mixed and 80 TPD Source Segregated)and shall be capable of handling MSW up to 208 TPD
				8	Permissible impurities percentage in feedstock as per design (should not be less than 20%)			<p><b>Note:</b> Reference to Bidder’s Offer shall indicate Section No., Clause No., Page No. etc in Bidder’s Offer, where the respective Technical Information Provided.</p>	
				Annexure-XX: Statement of Technical Conformity to be issued by the Bidder.					
				Note: Reference shall be proper with page no. clause no. and sub-clause no.					

S. No.	Section / Clause	Page No.	Existing provision as per Tender				Amendment in Corrigendum			
99	BRS-6	779	<b>GUARANTEED BIOGAS PRODUCTION PER METRIC TON OF VOLATILE SOLID</b>				<b>BIOGAS PRODUCTION PER METRIC TON OF VOLATILE SOLID – GUARANTEED PARAMETERS &amp; DEMONSTRATED PARAMETERS</b>			
			<b>S. No.</b>	<b>Description</b>	<b>UOM</b>	<b>Guaranteed Value</b>	<b>S. No.</b>	<b>Description</b>	<b>UOM</b>	<b>Value</b>
			1	*Biogas Production (measured at the inlet of gas purification system) per MT of Volatile Solids in MSW fed to the infeed bunker	Nm3		A	Guaranteed Parameters		
			2	Methane Recovery (Methane recovery in the purification and upgradation system)	%	99	1	Biogas Production (measured at the inlet of gas purification system) per MT of Volatile Solids in Slurry fed to the hydrolysis/digestors system (biomethanation system)-Refer Note 1 below	Nm3	(Bidder to indicate)
			3	Organics Recovery (Organic recovery from the MSW processing & pretreatment plant)	%	90	2	Methane Recovery (Methane recovery in the purification and upgradation system)	%	≥ 97
			4	<b>CBG Quality</b>			3	<b>CBG Quality</b>		
				• CH4	%	≥ 97	•	CH4	%	≥ 97
				• CO2	%	<3	•	CO2	%	<3
				• O2	%	<0.1	•	O2	%	<0.1
				• H2S	mg/m <sup>3</sup>	<10	•	H <sub>2</sub> S	mg/m <sup>3</sup>	<20
							•	Moisture	mg/m <sup>3</sup>	<5
							4	<b>CBG Quantity production per MT of Volatile Solids</b>	Tonne	<b>(Bidder to indicate)</b>

S. No.	Section / Clause	Page No.	Existing provision as per Tender				Amendment in Corrigendum			
			<ul style="list-style-type: none"> <li>Moisture</li> </ul>	mg/m <sup>3</sup>	<5	<p><b>Note:</b> * the Guaranteed Production of Biogas per MT of Volatile Solid shall be equal or more than 425 Nm<sup>3</sup> for the operative period of the plant</p>		<p><b>in MSW fed to hydrolysis/digestors system (biomethanation system)</b></p>		
							<p><b>B Demonstrated Parameters</b></p>			
100	Annexure 6	807	(ii) Single line schematic diagram of electrical system for grid interfacing				%	<b>85</b>		

**Notes:**

1) Bidder shall indicate Production of Biogas as guaranteed by him per MT of Volatile Solid in the above table (in any case it shall not less than 425 Nm<sup>3</sup> per MT of VS) in his offer, at the time of bidding.

2) Bidder shall prove during the Performance Guarantee Test Run (PGTR) that the Production of Biogas per MT of Volatile Solid is not less than the guaranteed value given by him in the above table at the time of bidding. If it is less, the specified penalties will be imposed on the bidder.

3) During the Operative period of the Plant, production of CBG per MT of VS shall not be less than value demonstrated during the PGTR or the guaranteed value whichever is less.

4) Organics Recovery shall be demonstrated by the bidder during the PGTR.

Deleted

S. No.	Section / Clause	Page No.	Existing provision as per Tender	Amendment in Corrigendum
			(iii) General drawings of electrical installations including unit substations control & metering station, etc. (iv) General arrangement drawings and circuit diagrams of major electrical equipment.	

**In addition to the above, Clause No. 5.1.15 of BEC and Proforma XV of Forms and Formats to be read as follows instead of the existing:**

**5.1.15 CERTIFICATION OF DOCUMENTS BY INDEPENDENT THIRD-PARTY INSPECTION AGENCIES (TPIA):**

1. Oil India Limited (OIL) has engaged the following 17 (Seventeen) Independent Inspection Agencies for a period of 04 (Four) years up to 06.06.2028 to verify and certify various documents submitted by the bidders required against BEC/BRC of the tender:

Sl. No.	Name of Independent Inspection Agency	Contact E-mail ID
i.	M/s. Dr. Amin Controllers Pvt. Ltd.	a. <a href="mailto:rkjain@rcaindia.net">rkjain@rcaindia.net</a> b. <a href="mailto:Pradeep.mathur@rcaindia.net">Pradeep.mathur@rcaindia.net</a> c. <a href="mailto:info@rcaindia.net">info@rcaindia.net</a>
ii.	M/s. TUV India Private Limited	a. <a href="mailto:noida@tuv-nord.com">noida@tuv-nord.com</a> b. <a href="mailto:mumbai@tuv-nord.com">mumbai@tuv-nord.com</a> c. <a href="mailto:salim@tuv-nord.com">salim@tuv-nord.com</a>
iii.	M/s Conformity India International Private Limited	a. <a href="mailto:mktg@ciindia.in">mktg@ciindia.in</a>
iv.	M/s Ravi Energic Private Limited	a. <a href="mailto:baroda@ravienergic.com">baroda@ravienergic.com</a> b. <a href="mailto:tpia@ravienergic.com">tpia@ravienergic.com</a>

v.	M/s SGS India Private Limited	a. <a href="mailto:dhaval.vora@sgs.com">dhaval.vora@sgs.com</a> b. <a href="mailto:sgs.india@sgs.com">sgs.india@sgs.com</a>
vi.	M/s Assure Quality Management Certification Services Private Limited	a. <a href="mailto:aqmcs@aqmcs.com">aqmcs@aqmcs.com</a>
vii.	M/s. IRCLASS Systems and Solutions Private Limited	a. <a href="mailto:industrial_services@irclass.org">industrial_services@irclass.org</a> b. <a href="mailto:Bhavesh.satam@irclass.org">Bhavesh.satam@irclass.org</a>
viii.	M/s. TÜV Rheinland (India) Pvt. Ltd.	a. <a href="mailto:Shailesh.deotale@ind.tuv.com">Shailesh.deotale@ind.tuv.com</a> b. <a href="mailto:Kaushal.gohil@ind.tuv.com">Kaushal.gohil@ind.tuv.com</a> c. <a href="mailto:info@ind.tuv.com">info@ind.tuv.com</a> d. <a href="mailto:ravi.kumar@ind.tuv.com">ravi.kumar@ind.tuv.com</a>
ix.	M/s Gulf Lloyd Industrial Services (I) Pvt. Ltd.	a. <a href="mailto:contact@gulflloyds.com">contact@gulflloyds.com</a> b. <a href="mailto:inspection@gulflloyds.com">inspection@gulflloyds.com</a>
x.	M/s Baltic Testing India Pvt. Ltd.	a. <a href="mailto:office@balticcontrolindia.com">office@balticcontrolindia.com</a>
xi.	M/s Sanmarg Engineering Validation & Assessment	a. <a href="mailto:Amitra@sanmargeva.com">Amitra@sanmargeva.com</a>
xii.	M/s Meenar Global Consultants LLP	a. <a href="mailto:sales@mgellp.in">sales@mgellp.in</a>
xiii.	M/s Rites Limited	a. <a href="mailto:nrinspn@rites.com">nrinspn@rites.com</a> b. <a href="mailto:info@rites.com">info@rites.com</a> c. <a href="mailto:sbu.ninsp@rites.com">sbu.ninsp@rites.com</a>
xiv.	M/s Bureau Veritas (India) Private Limited	a. <a href="mailto:bvindia.corporate@bureauveritas.com">bvindia.corporate@bureauveritas.com</a>

xv.	M/s TUV SUD South Asia Private Limited	a. <a href="mailto:Hemant.chavan@tuvsud.com">Hemant.chavan@tuvsud.com</a> b. <a href="mailto:Jayashree.rane@tuvsud.com">Jayashree.rane@tuvsud.com</a>
xvi.	M/s Adornment Engineers India Private Limited	a. <a href="mailto:jks@adornmentengineers.com">jks@adornmentengineers.com</a>
xvii.	M/s TCRC Inspections Pvt. Ltd.	a. <a href="mailto:admin@tereinspections.com">admin@tereinspections.com</a> b. <a href="mailto:ashismallick@teregroup.com">ashismallick@teregroup.com</a> c. <a href="mailto:tenders@teregroup.com">tenders@teregroup.com</a>

2. Bidders are required to have their documents, as mandated under the Bid Evaluation Criteria (BEC) / Bid Rejection Criteria (BRC) of the tender, verified and certified by any one of the empanelled Independent Third-Party Inspection Agencies listed above. The Inspection Certificate, duly issued by the selected agency, must be submitted along with the Technical Bid. All costs related to verification and certification by the Third-Party Inspection Agencies shall be borne solely by the respective bidders. Payments in this regard shall be made directly by the bidders to the Inspection Agencies. OIL shall not be held responsible for any payment-related dispute between the bidders and the inspection agencies.
3. The verified and certified documents must be submitted along with the Technical Bid. Any bid submitted with un-verified supporting documents shall not be considered. However, in case a bidder submits its bid along with all relevant supporting documents as per BEC/BRC without getting all/some of them verified by the designated Independent Inspection agency, such bid can be provisionally considered, provided it is accompanied by an **Undertaking by the Bidder on their official letterhead towards submission of the duly verified and certified copies/ Inspection Certificate within 07 (Seven) days from the actual date of bid opening.** No reminders or clarifications will be issued by the Company in this regard, and failure to submit the verified/ certified documents within the stipulated time shall result in outright rejection of the bid , at the sole risk and responsibility of the bidder.
4. The methodology of verification/certification of documents followed by the agencies is broadly as under, but not limited to:
  - (a) It is the sole responsibility of the bidders intending to participate in the tender to thoroughly understand the requirements of the tender, particularly the documents required under BEC/BRC. The bidders must present all relevant documents to any of the empanelled third-party certifying agencies for verification/certification. Neither OIL nor the Inspection Agencies shall be

responsible for the selection or appropriateness of the documents submitted for verification. It is entirely the bidder's responsibility to ensure that the appropriate documents are verified/certified in support of BEC/BRC compliance.

(b) The concerned Independent Third-Party Inspection Agencies shall depute their qualified/competent inspector to the Bidder's premises to check the original documents and certify the copies which the bidder shall submit along with their bids. OIL will reserve the right to ask the inspection agencies to verify the documents with source, if required at no extra cost to OIL. Verification/Certification of documents by OIL's empanelled third-party inspection agencies shall not automatically make the bidder techno-commercially-acceptable or eligible for award of contract.

(c) Verification/Certification of documents are normally categorized as under:

**i General Requirement:**

- Check Bidder's PAN Card
- Check Bidder's GST Certificate
- Check Bidder's Certificate of Incorporation
- Power of Attorney

**ii Additional Documents : (If applicable against the tender)**

- Bidders general structure and organization
- Joint Ventures Agreements – To cross-check with JV Partners
- Consortium Agreements – To cross-check with Consortium Partners
- Holding/Parent/Subsidiary/Sister Subsidiary/Co-Subsidiary Company – To check the Share Holding pattern, Corporate Guarantee etc.

**iii Technical Criteria**

- To check Experience Proof- Completion Certificates, Reference contact verification, Original Work Order/Contract Copy and any other document(s), if called for vide BEC/BRC of the Tender.
- Health, Safety and Environmental Management Policy

**iv Financial Criteria**

**Notes:**

- Line of credit, if incorporated in the tender.
- (i) Bidder's self-declared undertakings, Audited Balance Sheet & Profit-loss statement and/or CA certificate having UDIN are not required to be verified by the TPI agency. If any documents, LOI/LOA/Contracts, etc., submitted towards BEC/BRC experience criteria are issued by Oil India Limited, such documents need not be verified by TPI agency.
- (ii) Undertaking from TPI Agency as per format (**Proforma-XV**) enclosed should be submitted along with the Bid.
- (iii) **In case of clarifications sought by OIL against BEC/BRC, supporting documents (historical in nature) to those submitted in the original bid will also have to be verified from the same TPI agency which has originally verified their bid documents. OIL shall categorically mention the documents that are to be submitted with TPI verification in the clarification sought. In case the bidder fails to submit the TPI verified documents, as sought by OIL, as part of their clarification, their offer will be liable for rejection.**

Proforma XV is amended as follows:

**Proforma-XV**

**PROFORMA FOR UNDERTAKING FROM THIRD PARTY INSPECTION AGENCY**

**(to be submitted on official letter head)**

TO  
M/s OIL INDIA LIMITED

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Sir,

**SUB: OIL's Tender No.....**

M/s. \_\_\_\_\_ having registered office at \_\_\_\_\_  
intend to participate in the above referred tender of OIL INDIA LIMITED.

The tender conditions stipulates that the bidder shall submit documents pertaining to Bid Evaluation Criteria (BEC), duly verified and certified by designated independent Third-Party Inspection Agency.

In this regard this is to certify that copies of documents pertaining to Bid Evaluation Criteria (BEC)/Bid Rejection Criteria (BRC) submitted to us by the bidder have been verified and certified by us with originals and found to be genuine and authentic. We have signed and stamped on the copies of all the verified and certified documents having \_\_\_\_nos. pages.

Note: In the event of any requirement, OIL reserves the right to ask the inspection agencies to verify the documents with source, if required at no extra cost to OIL.

Thanking you,

**Authorised Person's Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_