

No. CE/Com/OA/SEM/Individual/

Date:

No 0 0 2 1 7 3 3 E-2 AUG 2019

To

**The Superintending Engineer,  
MSEDCL, All O&M Circles.**

**Sub:** Cost Data for Installation of individual SEM metering at your Wind/Solar Generation End by MSEDCL.

**Ref:** 1) T.O.L. No. CE/Comm/OA/SEM/27786 dated 28.11.2018  
2) Hon'ble MERC Order dated 05.04.2019 in Case No. 34 of 2019  
3) Office Note No. CE/Com/OA/Group Meter/545 dated 11.06.2019  
4) Prepage No. CE/Com/OA/Group Meter/599 dated 20.06.2019  
5) Office Note No. CE/Comm/OA/SEM/657 dated 11.07.2019

There are many Solar and Wind Park developers in Maharashtra State who are approaching for common SEM metering installations at their respective Solar and Wind Parks. It is observed from SEM metering proposals in some solar/wind park there are individual metering and in some parks there is combined metering system. In combined metering system, the park developers are allotting capacity wise units generated to individual generators monthly. Also, it is observed that many such generators in the wind park were under EPA; selling their power generated to MSEDCL and now has opted for open access for self use or sale of their power to third party after expiry of EPA period.

Therefore, MSEDCL circulated guidelines vide letter under ref (1) for installation of SEM individual metering in respect of Solar and Wind generators opting for self use or third party sale under open access. Accordingly, many generators applied for installation of individual SEM metering at their respective generation end. However, being aggrieved by the same, Arvind Cotsyn (India) Ltd. has filed a petition for Discriminatory Treatment for Renewable Energy generator/ Consumer by MSEDCL for imposition of Individual Metering Policy (Case No. 34 of 2019). In this regard, Hon'ble MERC passed an order dated 05.04.2019 as under:

- 1) *Case No.34 of 2019 is partly allowed.*
- 2) *In Case, consumer/generator opts for installation of Special Energy Meter by the Maharashtra State Electricity Distribution Company Ltd. at former's cost, latter shall install the same as per provisions of the DOA Regulations, 2016 within a period of six months.*
- 3) *In the intervening period till installation of Special Energy Meter, Maharashtra State Electricity Distribution Company Ltd. shall not deny Open Access to such consumer/generator.*

In view of Hon'ble MERC order, many generators applied for installation of SEM individual metering by MSEDCL and were ready to bear the cost of SEM

installation. Hence, it was necessary to finalize the cost data for installation of SEM individual metering at generator end. In this regard, the Cost Data for installation of SEM individual metering has been prepared for installation at 11KV, 22 KV and 33KV (Copies enclosed). It is further to inform that the said cost data is only for installation of SEM individual metering, therefore, considering the site situation, if re-orientation existing 11KV/22KV/33KV feeder is required then the Demand note for the differential amount shall be issued to generator for immediate payment before starting of installation work.

This is for your reference and further necessary action please.

Encl: as above

**Chief Engineer (Commercial)**

**Copy s. w. r. to:**

- 1) The Director (Commercial), MSEDCL, Mumbai.
- 2) The Jt. Managing Director/ Regional Director, MSEDCL, Regional Office, Kalyan/Pune/Aurangabad/Nagpur.

**Copy f. w. c. to:**

The Chief Engineer, MSEDCL, All O&M zones.

**Copy to:**

The Superintending Engineer, MSEDCL, Testing and Quality Assurance Circle, Kalyan/Pune/Aurangabad/Nagpur.

**11 KV SEM Metering Estimate - For Main & Check Meter**

| Sr. No.                                 | Particulars   | Unit | Qty | Rate          | Amount            |
|---|---|------|-----|---------------|-------------------|
| 1                                       | 11 KV metering cubical with CTs & PTs but without meter                       | Nos  | 2   | 90000         | 180000.00         |
| 2                                       | Lightening Arrestor (11 KV)   | Set  | 2   | 9900          | 19800.00          |
| 3                                       | Chain Link Fencing  | LS   | 1   | 208965.04     | 208965.04         |
| 4                                       | Metal Spreading   | LS   | 1   | 130945        | 130945.00         |
| 5                                       | Meter room 3 X 2.5 Meter  | LS   | 1   | 100000        | 100000.00         |
| 6                                       | Energy Meter with ABT features 0.2S Class                                     | Nos  | 2   | 140000        | 280000.00         |
| 7                                       | Meter Enclosure   | Nos  | 2   | 10000         | 20000.00          |
| 8                                       | RSJ 152 X 152, 11m long   | Nos  | 4   | 17887         | 71548.00          |
| 9                                       | GI Channel 100X50X6 mm  | Kg   | 300 | 50.78         | 15234.00          |
| 10                                      | GI Angle 50X50X6 mm   | Kg   | 100 | 50.78         | 5078.00           |
| 11                                      | GI Flat 50X50X6 mm  | Kg   | 120 | 50.78         | 6093.60           |
| 12                                      | GI Nust Bolts   | Kg   | 40  | 82.88         | 3315.20           |
| 13                                      | ACSR conductore   | Rmt  | 30  | 50.8          | 1524.00           |
| 14                                      | Palm type clamp (compression type)  | Nos  | 12  | 928.43        | 11141.16          |
| 15                                      | Clamps for 11 KV CT   | Nos  | 6   | 1425.46       | 8552.76           |
| 16                                      | 11 KV Pin Insulator   | Nos  | 6   | 135.11        | 810.66            |
| 17                                      | 11 KV Disc Insulator  | Nos  | 18  | 344.48        | 6200.64           |
| 18                                      | 11 KV Tensionhardware set   | Nos  | 6   | 463           | 2778.00           |
| 19                                      | Armoured copper control cable 2CX2.5 sqmm                                     | Rmt  | 80  | 55.73         | 4458.40           |
| 20                                      | Cable glands, Ferulesand tape etc   | LS   | 1   | 1100          | 1100.00           |
| 21                                      | Earthing Set HT   | Nos  | 4   | 335.51        | 1342.04           |
| 22                                      | Concreting Ratio1:3:6   | Cmt  | 8   | 2892          | 23136.00          |
| 23                                      | Aluminium Pain for 1 Coat   | Ltr  | 2   | 93.93         | 187.86            |
| 24                                      | Red Oxide Paint for 2 Coats   | Ltr  | 2   | 60            | 120.00            |
| 25                                      | Sundries Such as Nuts Washer etc  | LS   | 1   | 1500          | 1500.00           |
| <b>A</b>                                | <b>TOTAL MATERIAL COST</b>  |      |     |               | <b>1103830.36</b> |
| 1                                       | Transportation on Material  |      |     | 12.00%        | 132459.64         |
| 2                                       | T&P on Material Cost  |      |     | 3.00%         | 33114.91          |
| 3                                       | Contigencies on material  |      |     | 1.50%         | 16557.46          |
| 4                                       | Erection Cost   |      |     | 45.00%        | 496723.66         |
| 5                                       | Contractor Supervision Charges on Material                                    |      |     | 5.00%         | 55191.52          |
| 6                                       | Insurance, Labour & Finance Cost  |      |     | 5.00%         | 55191.52          |
| <b>B</b>                                | <b>TOTAL SERVICES (1+2+3+4+5+6)</b>   |      |     | <b>71.50%</b> | <b>789238.71</b>  |
| <b>C</b>                                | <b>SUB-TOTAL (A + B)</b>  |      |     |               | <b>1893069.07</b> |
| 7                                       | Profit on (C)   |      |     | 4.00%         | 75722.76          |
| <b>D</b>                                | <b>Centages (B + 7)</b>   |      |     |               | <b>864961.47</b>  |
| <b>E</b>                                | <b>Tender Cost (A+D)</b>  |      |     |               | <b>1968791.83</b> |
| 8                                       | GST @ 18% on 1.3 Supervision Charges  |      |     | 18%           | 2882.88           |
| 9                                       | Price Escalation on net material cost   |      |     | 0             | 0.00              |
| <b>F</b>                                | <b>SUB-TOTAL (E + 8)</b>  |      |     |               | <b>1971674.71</b> |
| <b>G</b>                                | <b>Estimate Cost for calculation of sup charges (A+4)</b>                     |      |     |               | <b>1600554.02</b> |
| 10                                      | HO Supervision Charges @ 1.3% of Material and Supervision Charges (1.3% of G) |      |     |               | 20807.20          |
| 11                                      | Interest During Construction of F   |      |     | 0.00%         | 0.00              |
| 12                                      | Total GST on (10) @ 18%   |      |     | 18.00%        | 3745.30           |
| 13                                      | Total Supervision Chares (10+12)  |      |     |               | 24552.50          |
| <b>TOTAL ESTIMATE COST (F +11 + 13)</b> |   |      |     |               | <b>1996227.21</b> |

**22 KV SEM Metering Estimate - For Main & Check Meter**

| Sr. No.                                 | Particulars   | Unit | Qty | Rate          | Amount            |
|---|---|------|-----|---------------|-------------------|
| 1                                       | 22 KV metering cubical with CTs & PTs but without meter                       | Nos  | 2   | 125000        | 250000.00         |
| 2                                       | Lightening Arrestor (22 KV)   | Set  | 2   | 9900          | 19800.00          |
| 3                                       | Chain Link Fencing  | LS   | 1   | 208965.04     | 208965.04         |
| 4                                       | Metal Spreading   | LS   | 1   | 130945        | 130945.00         |
| 5                                       | Meter room 3 X 2.5 Meter  | LS   | 1   | 100000        | 100000.00         |
| 6                                       | Energy Meter with ABT features 0.2S Class                                     | Nos  | 2   | 140000        | 280000.00         |
| 7                                       | Meter Enclosure   | Nos  | 2   | 10000         | 20000.00          |
| 8                                       | RSJ 152 X 152, 11m long   | Nos  | 4   | 17887         | 71548.00          |
| 9                                       | GI Channel 100X50X6 mm  | Kg   | 300 | 50.78         | 15234.00          |
| 10                                      | GI Angle 50X50X6 mm   | Kg   | 100 | 50.78         | 5078.00           |
| 11                                      | GI Flat 50X50X6 mm  | Kg   | 120 | 50.78         | 6093.60           |
| 12                                      | GI Nust Bolts   | Kg   | 40  | 82.88         | 3315.20           |
| 13                                      | ACSR conductore   | Rmt  | 30  | 50.8          | 1524.00           |
| 14                                      | Palm type clamp (compression type)  | Nos  | 12  | 928.43        | 11141.16          |
| 15                                      | Clamps for 22 KV CT   | Nos  | 6   | 1425.46       | 8552.76           |
| 16                                      | 22 KV Pin Insulator   | Nos  | 6   | 335.98        | 2015.88           |
| 17                                      | 11 KV Disc Insulator  | Nos  | 18  | 344.48        | 6200.64           |
| 18                                      | 22 KV Tensionhardware set   | Nos  | 6   | 463           | 2778.00           |
| 19                                      | Armoured copper control cable 2CX2.5 sqmm                                     | Rmt  | 80  | 55.73         | 4458.40           |
| 20                                      | Cable glands, Ferulesand tape etc   | LS   | 1   | 1100          | 1100.00           |
| 21                                      | Earthing Set HT   | Nos  | 4   | 335.51        | 1342.04           |
| 22                                      | Concreting Ratio1:3:6   | Cmt  | 8   | 2892          | 23136.00          |
| 23                                      | Aluminium Pain for 1 Coat   | Ltr  | 2   | 93.93         | 187.86            |
| 24                                      | Red Oxide Paint for 2 Coats   | Ltr  | 2   | 60            | 120.00            |
| 25                                      | Sundries Such as Nuts Washer etc  | LS   | 1   | 1500          | 1500.00           |
| <b>A</b>                                | <b>TOTAL MATERIAL COST</b>  |      |     |               | <b>1175035.58</b> |
| 1                                       | Transportation on Material  |      |     | 12.00%        | 141004.27         |
| 2                                       | T&P on Material Cost  |      |     | 3.00%         | 35251.07          |
| 3                                       | Contigencies on material  |      |     | 1.50%         | 17625.53          |
| 4                                       | Erection Cost   |      |     | 45.00%        | 528766.01         |
| 5                                       | Contractor Supervision Charges on Material                                    |      |     | 5.00%         | 58751.78          |
| 6                                       | Insurance, Labour & Finance Cost  |      |     | 5.00%         | 58751.78          |
| <b>B</b>                                | <b>TOTAL SERVICES (1+2+3+4+5+6)</b>   |      |     | <b>71.50%</b> | <b>840150.44</b>  |
| <b>C</b>                                | <b>SUB-TOTAL (A + B)</b>  |      |     |               | <b>2015186.02</b> |
| 7                                       | Profit on (C)   |      |     | 4.00%         | 80607.44          |
| <b>D</b>                                | <b>Centages (B + 7)</b>   |      |     |               | <b>920757.88</b>  |
| <b>E</b>                                | <b>Tender Cost (A+D)</b>  |      |     |               | <b>2095793.46</b> |
| 8                                       | GST @ 18% on 1.3 Supervision Charges  |      |     | 18%           | 2882.88           |
| 9                                       | Price Escalation on net material cost   |      |     | 0             | 0.00              |
| <b>F</b>                                | <b>SUB-TOTAL (E + 8)</b>  |      |     |               | <b>2098676.34</b> |
| <b>G</b>                                | <b>Estimate Cost for calculation of sup charges (A+4)</b>                     |      |     |               | <b>1703801.59</b> |
| 10                                      | HO Supervision Charges @ 1.3% of Material and Supervision Charges (1.3% of G) |      |     |               | 22149.42          |
| 11                                      | Interest During Construction of F   |      |     | 0.00%         | 0.00              |
| 12                                      | Total GST on (10) @ 18%   |      |     | 18.00%        | 3986.90           |
| 13                                      | Total Supervision Chares (10+12)  |      |     |               | 26136.32          |
| <b>TOTAL ESTIMATE COST (F +11 + 13)</b> |   |      |     |               | <b>2124812.66</b> |

