

## **Status of Smart Grid Pilots and NSGM Smart Grid Projects**

### **➤ Pilot Projects:**

<b>A. Awarded</b>	
<p><b>1. <u>CESC, Mysore</u></b></p> <ul style="list-style-type: none"> <li>– Evaluated Project Cost: Rs.32.56 Crs, Gol Support: Rs.16.28 Crs.</li> <li>– Consultant – POWERGRID.</li> <li>– V V Mohalla Division, Mysore (21,824 Consumers).</li> <li>– Adopted Functionalities: AMI-R, AMI-I, OMS, PLM, MG/DG.</li> <li>– Project awarded to M/s Enzen Global Solutions in March 2014 at a cost of Rs.32.56 Crs excl. FMS</li> <li>– 1<sup>st</sup> &amp; 2<sup>nd</sup> instalments (Rs.8.14 Crs) of MoP share released to utility.</li> <li>– 18,100 single phase smart meters, 446 DCUs, 189 TMUs, 5 FPIs and 130 HT modems installed. 16,625 smart meters communicating to MDM</li> <li>– 5 RTU/data loggers for SCADA installed in substations.</li> <li>– Testing under progress for 3-phase meters.</li> <li>– Integration of applications under progress.</li> </ul>	<p><b>2. <u>HPSEB, Himachal Pradesh</u></b></p> <ul style="list-style-type: none"> <li>– Evaluated Project Cost: Rs.19.45 Crs, Gol Support: Rs.9.73 Crs.</li> <li>– Consultant – POWERGRID.</li> <li>– Kala Amb Industrial Area (1,554 Consumers).</li> <li>– Adopted Functionalities: AMI-I, OMS, PLM.</li> <li>– Project awarded to M/S Alstom T&amp;D in February 2015 at a total cost of Rs.24.99 Crs inclusive of maintenance charges of Rs.6.42 Crs.</li> <li>– First instalment of Rs.2.43 Crores released to the utility from MoP.</li> <li>– 1065 smart meters (885 single phase and 180 three phase) and 28 FPIs installed.</li> <li>– Control Centre setup (servers, networking) completed.</li> <li>– Smart meters data started receiving at control centre. Verification under progress.</li> <li>– Integration of MDM (Smart Grid) with existing billing system and approval of revised meter quantity is under progress.</li> </ul>
<p><b>3. <u>UHBVN, Haryana</u></b></p> <ul style="list-style-type: none"> <li>– Approved Project Cost: Rs.35.94 Crs, Gol Support: Rs.0 Crs.</li> <li>– Panipat City Sub Division (11,000 Consumers).</li> <li>– Adopted Functionalities: AMI-R, AMI-I, PLM, OMS.</li> <li>– Project is being implemented under grant from NEDO (Japan) by M/s Fuji Electric &amp; Co., Japan.</li> <li>– Site survey completed. Engineering for control centre hardware and software completed.</li> <li>– SCADA and AMI at HPTI completed for training purpose</li> <li>– Acceptance testing of 8000 single phase smart meters completed and to be delivered in May 2017.</li> <li>– Three phase meters inspection to be taken up.</li> <li>– Integration with RAPDRP to be taken up.</li> </ul>	<p><b>4. <u>APDCL, Assam</u></b></p> <ul style="list-style-type: none"> <li>– Evaluated Project Cost: Rs.20.92 Crs, Gol Support: Rs.10.46 Crs.</li> <li>– Consultant – MEDHAJ.</li> <li>– Guwahati distribution region (15,083 Consumers).</li> <li>– Adopted Functionalities: AMI-R, AMI-I, PLM, OMS, PQ, DG</li> <li>– Project awarded to M/s Phoenix IT Solutions in March 2015 at a cost of Rs.29.86 Crs inclusive of FMS and training charges of 1.47 Crs.</li> <li>– First instalment of Rs. 2.61 Crs released to the Utility from MoP.</li> <li>– 2142 single phase and 289 three phase smart meters installed.</li> <li>– Prototype testing of 3-phase LT CTPT and HT CTPT completed.</li> <li>– Draft regulations notified by AERC.</li> </ul>

<p><b>5. <u>PSPCL, Punjab</u></b></p> <ul style="list-style-type: none"> <li>– <b>Evaluated Project Cost: Rs.7.16 Crs, Gol Support: Rs.3.58 Crs.</b></li> <li>– <b>Consultant – POWERGRID.</b></li> <li>– <b>Tech-II Sub-division, SAS Nagar (2,737 Consumers).</b></li> <li>– <b>Adopted Functionalities: AMI-R, AMI-I, PLM.</b></li> <li>– Project awarded to M/s Kalkitech in March 2015 at a cost of Rs.8.17 Crs inclusive of training and AMC charges of 1.32 Crs.</li> <li>– First instalment of Rs.89.5 Lakhs released to the Utility from MoP.</li> <li>– Survey completed. Design documents approved.</li> <li>– Fresh FAT call to be raised for smart meters and control centre software..</li> <li>– UPS and batteries installed at control centre.</li> </ul>	<p><b>6. <u>WBSEDCL, West Bengal</u></b></p> <ul style="list-style-type: none"> <li>– <b>Approved Project Cost: Rs.7.03 Crs, Gol Support: Rs.3.52 Crs.</b></li> <li>– <b>Consultant – POWERGRID.</b></li> <li>– <b>Siliguri Town in Darjeeling District (5,265 Consumers).</b></li> <li>– <b>Adopted Functionalities: AMI-R, AMI-I, PLM.</b></li> <li>– Project awarded to M/s Chemtrols in June 2015 at a cost of Rs.8.10 Crs inclusive of training and maintenance charges of Rs.0.34 Crs.</li> <li>– First instalment of Rs.87.87 Lakhs released to the Utility from MoP</li> <li>– Site survey completed. DRS for Smart Meters and DCUs were approved.</li> <li>– FAT of first 1000 1ph smart meters completed on 05.05.2017.</li> <li>– BIS for three phase whole current meter not yet received. Type test report for connect/disconnect relay from NABL/internationally accredited lab are yet to be submitted.</li> <li>– Revised integration architecture documents of Smart Grid applications awaited from SGIA.</li> <li>– Revised DRS for control centre hardware and software under review.</li> </ul>
<p><b>7. <u>TSECL, Tripura</u></b></p> <ul style="list-style-type: none"> <li>– <b>Approved Project Cost: Rs.63.43 Crs, Gol Support: Rs.31.72 Crs.</b></li> <li>– <b>Consultant – POWERGRID.</b></li> <li>– <b>Electrical Division No.1, of Agartala town (45,290 Consumers).</b></li> <li>– <b>Adopted Functionalities: AMI-R, AMI-I, PLM.</b></li> <li>– Project awarded to M/s Wipro in September 2015 at a cost of Rs.80.08 Crs inclusive of training and maintenance charges of 16.98 Crs against the MoP approved cost of Rs.63.43 Crs with utility bearing the additional cost.</li> <li>– First instalment of Rs. 7.93 Crs released to the Utility from MoP</li> <li>– Survey completed. Control centre building ready. Type testing of meters completed.</li> <li>– 7568 smart meters (7072 single phase and 496 three phase) and 65 DCUs installed.</li> <li>– Control centre hardware and software installed.</li> <li>– Individual testing of applications (MDM, PLM) completed.</li> <li>– Integration with RAPDRP systems pending.</li> </ul>	<p><b>8. <u>TSSPDCL, Telangana</u></b></p> <ul style="list-style-type: none"> <li>– <b>Evaluated Project Cost: Rs.34.93 Crs, Gol Support: 17.47 Crs.</b></li> <li>– <b>Consultant – CPRI.</b></li> <li>– <b>Jeedimetla Industrial Area (11,906 Consumers).</b></li> <li>– <b>Adopted Functionalities: AMI-R, AMI-I, PLM, OMS, PQ.</b></li> <li>– Project awarded to M/s ECIL, Hyderabad in October 2015 at a cost of Rs.35.86 Crs.</li> <li>– First instalment of Rs.4.37 Crs released to the Utility from MoP.</li> <li>– Field survey completed. PoC on one DTR taken up.</li> <li>– 28 smart meters (20 single phase, 6 three phase and 2 CT) installed for PoC study.</li> <li>– Smart meters submitted to CPRI, Bangalore for type testing on 02.02.2017. Meter testing reports expected in May 2017.</li> <li>– Draft regulations notified by TSERC on in November 2016.</li> </ul>

<p><b>9. <u>PED, Puducherry</u></b></p> <ul style="list-style-type: none"> <li>– Evaluated Project Cost: Rs.35.53 Crs, Gol Support: Rs.17.76 Crs.</li> <li>– Consultant – POWERGRID.</li> <li>– Division 1 of Puducherry (34,000 Consumers).</li> <li>– Adopted Functionalities: AMI-R, AMI-I.</li> <li>– Project awarded to M/s Dongfang Electronics, China in May 2016 and agreement signed on 06.07.2016 for total project cost of Rs.43.91 Cr.</li> <li>– First instalment of Rs.4.44 Crores released to the Utility from MoP.</li> <li>– Field survey completed. DRS and FDS documents submitted for approval and are under review.</li> <li>– Single phase meters tested (for IS 13779) and ERTL Kolkata and three phase meters are under testing.</li> <li>– Control centre building ready.</li> </ul>	<p><b>10. <u>AVVNL, Ajmer</u></b></p> <ul style="list-style-type: none"> <li>– Ajmer City (1,000 Consumers) (PoC).</li> <li>– Adopted Functionalities: AMI.</li> <li>– Completed installation of 1000 smart meters (500-Radius and 500-JnJ meters).</li> <li>– Project was successfully completed and made operational. Training for utility personnel conducted on 22.11.2016 at Ajmer.</li> <li>– Evaluation of project and envisaged outcomes under progress.</li> </ul>
<p><b>11. <u>IIT Kanpur – Smart City Pilot</u></b></p> <ul style="list-style-type: none"> <li>– Approved Project Cost: Rs.12.5 Crs, Gol Support: Rs.6.25 Crs.</li> <li>– Smart City Pilot in IITK Campus.</li> <li>– Rs.4.69 Crores released to IIT Kanpur as initial funding from MoP.</li> <li>– Solar PVs installation for 19 households completed.</li> <li>– Storage batteries &amp; grid connected inverters installed in 4 houses.</li> <li>– 19 single phase and 9 three phase meters installed.</li> <li>– Customized distribution boxes (DBs) installed in houses for controlling non-essential loads using AMI, Home Automation &amp; DR.</li> </ul>	<p><b>12. <u>Smart Grid Knowledge Center, Manesar</u></b></p> <ul style="list-style-type: none"> <li>– Approved Project Cost: Rs.9.8 Crs, Gol Support: Rs.9.8 Crs</li> <li>– Adopted Functionalities: AMI, OMS, MG/DG, EV with Charging Infra, HEMS, Cyber Security &amp; Training Infra</li> <li>– Building under construction.</li> <li>– Contracts awarded for HEMS, Workstations/Training Room Hardware and Furniture for Smart Grid Knowledge Centre</li> <li>– FAT to be taken up for OMS</li> <li>– QR evaluation is under process for Microgrid component.</li> </ul>
<p><b>B. Under Award</b></p>	
<p><b>13. <u>UGVCL, Gujarat</u></b></p> <ul style="list-style-type: none"> <li>– Approved Project Cost: Rs.82.70 Crs (Naroda &amp; Deesa), Gol Support: Rs.41.35 Crs.</li> <li>– Naroda of Sabarmati Circle (23,000 Consumers).</li> <li>– Adopted Functionalities: AMI-R, AMI-I, OMS, PLM, PQ.</li> <li>– Scope revised to Naroda area only and fresh tenders floated in May 2016. (Needs approval of Monitoring Committee along with reduced approved cost for Naroda only)</li> <li>– Letter of Intent issued to M/s Genus on 27.03.2017 for Rs.35.47 Crs.</li> <li>– In-principle approval for implementation of dynamic tariff issued by GERC in January 2013.</li> </ul>	

➤ **Under NSGM:**

<p><b>14. <u>CED, Chandigarh</u></b></p> <ul style="list-style-type: none"> <li>– <b>Approved Project Cost: Rs.28.58 Crs, Gol Support: Rs.8.6 Crs (@30%).</b></li> <li>– <b>Smart Grid Project at Sub Division 5 of Chandigarh (29,433 Consumers).</b></li> <li>– <b>Adopted Functionalities: AMI, DT monitoring, S/S Automation, Rooftop Solar PV, IT infra.</b></li> <li>– Project was approved by Empowered Committee of NSGM for a cost of Rs.28.58 Crores.</li> <li>– Sanction letter to CED was issued on 22.04.2016.</li> <li>– Smart Grid cell and SLPMU formed.</li> <li>– RECPDCL appointed as Project Management Agency.</li> <li>– RECPDCL issued tenders for AMI, DTMS &amp; SCADA on 10.03.2017. Last date for bid submission extended up to 19.05.2017.</li> <li>– Bipartite agreement signed between CED &amp; NSGM on 14.03.2017.</li> <li>– First instalment of NSGM grant sanctioned by MoP for Rs.85.74 Lakhs.</li> </ul>	<p><b>15. <u>Amravati, MSEDCL, Maharashtra</u></b></p> <ul style="list-style-type: none"> <li>– <b>Approved Project Cost: Rs.90.05 Crs, Gol Support: Rs.27.02 Crs (@30%).</b></li> <li>– <b>Smart Grid Project at Amravati Town of Maharashtra (1.48 Lakh Consumers).</b></li> <li>– <b>Adopted Functionalities: AMI, OMS, DR.</b></li> <li>– Project was approved by Empowered Committee of NSGM for a cost of Rs.90.05 Crores.</li> <li>– Sanction letter to MSEDCL was issued on 22.04.2016.</li> <li>– Tender floated on 22.12.2016. Last date for bid submission extended up to 22.05.2017.</li> <li>– Tripartite agreement signed between Maharashtra Government, MSEDCL and NSGM on 28.03.2017.</li> <li>– First instalment of NSGM grant sanctioned by MoP for Rs.1.82 Crs.</li> </ul>
<p><b>16. <u>Congress Nagar, MSEDCL, Maharashtra</u></b></p> <ul style="list-style-type: none"> <li>– <b>Approved Project Cost: Rs.139.15 Crs, Gol Support: Rs.41.74 Crs (@30%).</b></li> <li>– <b>Smart Grid Project at Congress Nagar Division of Nagpur (1.25 Lakh Consumers).</b></li> <li>– <b>Adopted Functionalities: AMI, SCADA, OMS, DR.</b></li> <li>– Project was approved by Empowered Committee of NSGM for a cost of 139.15 Crores.</li> <li>– Sanction letter to MSEDCL was issued on 29.07.2016.</li> <li>– Tender floated on 22.12.2016. Last date for bid submission extended up to 25.05.2017.</li> <li>– Tripartite agreement signed between Maharashtra Government, MSEDCL and NSGM on 28.03.2017.</li> <li>– First instalment claims of NSGM grant forwarded to MoP.</li> </ul>	<p><b>17. <u>KESCO, Kanpur</u></b></p> <ul style="list-style-type: none"> <li>– <b>Approved Project Cost: Rs.319.57 Crs, Gol Support: Rs.95.87 Crs (@30%).</b></li> <li>– <b>Smart Grid Project at Kanpur City (5.39 Lakh Consumers).</b></li> <li>– <b>Adopted Functionalities: AMI, PLM, DT Monitoring, DG.</b></li> <li>– Project was approved by Empowered Committee of NSGM for a cost of Rs.319.57 Crores.</li> <li>– Sanction letter to KESCO was issued on 17.11.2016 with recommendations of Empowered Committee.</li> <li>– Acceptance of sanction letter awaited.</li> </ul>