

**Record notes of meeting on review of SCADA held at PFC on 16<sup>th</sup> Oct 2017 at PFC, New Delhi**

A review meeting chaired by CMD, PFC in presence of Dir (Dist ), MoP was held at PFC on 16<sup>th</sup> Oct 2017. At the outset, CMD,PFC emphasized states to complete all SCADA projects by Mar 18 to enable loan conversion into grant. He further added that states shall show greater ownership as the system would enhance reliability. DISCOMs shall take a practical approach in completing the projects and releasing pro-rata /progressive payments to ensure proper cash flow as per the milestones in the contract.

Dir, MoP stated the importance of SCADA in today's world where all SCADA utilities have brought paradigm shift in the working by elevating efficiency through SCADA. Nevertheless, distribution power utilities are lagging in adopting this technology to harness benefits for the end consumers. DISCOMs have to make extra efforts for completion of the projects by Dec 17 to ensure TPIEA- IT (SCADA) verification by Mar 18. CMD, PFC cautioned SIAs to cooperate in completion of the project in the national interest or else may face consequences including blacklisting.

ED,IPDS stated that TPIEA-IT(SCADA) template for verification of SCADA works under R-APDRP is available on IPDS portal. DISCOMs shall immediately make immediate request for verification of SCADA works by TPIEA-IT (SCADA) where the following activities have been completed .

- Successful completion of Site Acceptance test (S.A.T)
- Successful completion of System Availability test
- Keep all changes approved incl LoA amendment if reqd
- Make all approved documents /change orders available
- Keep contract extended (Live).

ED,IPDS further impressed upon the following advisories issued earlier to facilitate the work :

- Set-up dedicated SCADA team for project implementation as well as Control centre operations and field activities.
- Expedite installation of SCADA enablers RMU, Sectionlizer, FPIs and keep Substation SCADA ready.
- Facilitate GIS based DMS data to SIA.
- In case of delay in SCADA enabler , utility may submit part B closure w/o SCADA enablers and closure of SCADA enabler separately later.
- Network security / Cyber security standard compliance by CERT.IN empanelled agencies

In response to a query, it was clarified by ED,IPDS that in order to ensure cash flow, project management charges being part of installation testing & commissioning can be paid in Progressively on pro-rata basis linked to other milestone payments..

Based on a presentation and detailed deliberation on activity /state wise issues following points emerged

**Common points:**

- Nodal Officer to organize a bilateral meeting with States and SIAs having coordination issues, to expedite the implementation and completion by Dec'17. So that by Mar'18 Projects could be financially closed after verification by TPIEA-SCADA
- It was observed that many states have curtailed the scope/ count of FRTUs more than 20 % w.r.t sanctioned quantity due to their constraint for investment in SCADA enabler. This has been observed critically as it may act as a deterrent in consideration of completion of projects /Loan conversion into grant. Hence, all utilities shall review and inform PFC about the count of RTU/FRTU that can be commissioned covering entire feeder alongwith technical justification within a week to enable project completion incl verification by TPIEA-IT(SCADA) by Mar 18.
- Nodal officer alongwith technical expert shall visit critical states of Rajasthan, AP, Telangana, J&K, Uttarakhand, Puducherry, West Bengal, Assam, Punjab and shall submit assessment report within 2 weeks exploring possibilities of completing scope covering feeders of existing substations which is do-able within Mar'18.

Further, record notes of state wise review is attached at Annexure 1

Meeting ended with thanks to the chair

List of participants attached at Annexure 2

## **Annexure 1 - State-wise review**

### **Tamil Nadu**

- TANGEDCO informed that SAT and availability test for 5 towns except Chennai , Tirupur is done and they shall send the request for TPIEA-IT verification to PFC by next week.
- Remaining 2 towns will be completed with requisite tests by Nov 17.
- CMD(PFC) advised Utility to take a practical view and clear payments timely to maintain commissioning schedule.
- SIA informed that due to legal aspects in R-APDRP Part-A(IT), IT cannot be integrated with SCADAs as Part-A (IT) execution in TANGEDCO is held up due to sub-judice matters between TANGEDCO and ITIA, Utility conveyed that execution and completion of DMS would be also ensured through alternative mechanism. Considering this , PFC stated that Tangedco to establish capability for IT integration in the system

### **Madhya Pradesh**

- CMD advised to keep thrust on SCADA enabler FRTU installation
- ED(IPDS) advised to use SIM Cards of other network service provider for wherever issue of communication is being faced on the merit of reliability of network.
- MP-DISCOMs assured to complete project by Dec 17 and verification by TPIEA-IT (SCADA) by Mar 17.

### **Rajasthan**

- PFC stated that RTUs that were end to end tested have been delinked since long due to non- payment of communication charges by Jaipur DISCOM
- SIA informed about payments pending since 2 years. Utility informed that payment will be released progressively with end to end testing of S/Ss and FRTUs.
- Rajasthan DISCOM has not given extension to the SIA even after MoP have issued extension to them.
- JVVNL informed that above issues have been sorted out in 11 Oct meeting with SIA and will not appear again.
- Jodhpur and Ajmer DISCOMs assured to complete project by Dec 17 and verification by TPIEA-IT (SCADA) by Mar 17.
- Jaipur discom Informed that 400 RMUs out of 1517 (1700 sanctioned) have been installed PFC stated that Jaipur DISCOM expedite the activities and shall also keep positive approach in completion of project as it may risk loan conversion into grant under R-APDRP and deprive consumers from benefits of SCADA.
- SIA stated that location details of RMUs for installation of FRTUs are yet to be shared by SIA. JVVNL conformed to provide the same by next week.

- PFC to hold a bilateral meeting to resolve issues with SIA M/s Dongfang and Rajasthan (JaVVNL) at Jaipur. Nodal officer and utility to submit the assessment report within 2 weeks

### Odisha

- Control centre incl infra of Bhubneshwar will be completed in Nov 17
- As per LoA, M/s. DongFang will do SCADA design for integration at Sub-Station level with soft signal over the IEC-61850 Protocol for the IEC-61850 compliant Relays with RTUs. SIA confirmed the same.
- DISCOM confirmed to complete project in stipulated time-line.

### Puducherry:

- Bidding process of procurement of SCADA enabler (Sectionlizer) is in progress and as a result majority of equipment ( 126 Sectionlizers ) are yet to be procured and work in 1 S/S work is yet to be started. In view of the same, it is highly unlikely to complete the project by Mar 18. PFC stated that such situation may risk utility in non conversion of loan into grant.
- PFC advised PED to take suitable measure for completion of the project with in time.
- Nodal officer and PED to submit the assessment report within 2 weeks.

### Jharkhand:

- Utility informed that since the re-award was done in April'17, the material survey is still under process and the works are not likely to be completed by Mar'18. It may require extension of time for TPIEA-IT verification. Jharkhand to send request with Justification
- Building incl infra will be completed by Nov 17

### Maharashtra:

- MSEDCL confirmed to complete works in Nashik by Oct'17 and Pune & Gr.Mumbai by Dec'17.
- In response to query regarding warranty of the Materials supplied by M/s SIEMENS under PFC stated that the same is defined in ITB clause 44.3 of Model RFP "In case of any conflict with any provision relating to the MTS document and the RFP document, the provisions of the RFP document shall prevail for all intents and purposes".
- MSEDCL confirmed to send request for TPIEA-IT verification for 5 towns.by Oct end

### Punjab

- Utility informed that SAT will be completed by Dec'17 with existing scope of work. Concern was raised over huge reduction in quantity of FRTU/SCADA

enabler and over harnessing benefits of the scheme. Utility should also ensure deployment of dedicated manpower in all 3 towns.

- Nodal Officer to review the significant reduction in quantity of SCADA enabler and FRTU with Utility, SIA and seek Technical justification from Utility for the same

#### Uttarakhand:

- UPCL informed that Part-B vendor M/s Fedder Lloyd has been served notice due to delay in works. As a result, progress of availability of FRTU sites are hampered.
- In response to a query on licensing & On site warranty / support issue. It was clarified to UPCL/SIEMENS that shall be followed as per Model RFP.
- CMD,PFC stated UPCL to immediately explore possibility for appointment of other agency on risk and cost of Part B vendor
- Nodal Officer to take a review meeting at Dehradun for resolving issues with Utility and SIA.and make assessment

#### Assam:

- Discom informed that work in 5 S/S to commence and FRTU end to end test shall be completed by Dec17
- Nodal Officer to take a review with Utility and SIA Chemtrols, to resolve the issues and expedite completion of works.
- Manpower by Chemtrols to be enhanced for completion of project within stipulated time-line ,

#### West Bengal:

- Siliguri has already requested TPIEA-IT verification.. Chemtrols is yet to submit necessary documents for commencement of verification.
- Issue in payments between WBSEDCL and Chemtrols to be resolved bilaterally for expediting completion of project.
- Reliance connectivity issue is yet to be resolved by Chemtrols.
- Nodal Officer to organize a review meeting with Utility and SIA to resolve issues to assure completion of works by Dec'17.

#### Telangana:

- TSSPDCL informed that the project is getting delayed due to non-supply of FRTUs by the SIA. Chemtrols confirmed that the material is under inspection and the same shall be supplied shortly.
- Chemtrols requested TSSPDCL to process the due payments towards Project Management charges. Utility assured for immediate action.

- Utility informed that 3rd party vendor supplied the RTUs and they are having repeated issues. Chemtrols confirmed that same have been resolved by changing firmware.
- Utility pointed out Lack of manpower deployment by Chemtrols. PFC instructed Chemtrols to deploy sufficient manpower for completion of project in the stipulated time-line
- Telangana utilities and Chemtrols confirmed that the project shall be completed in Hyderabad by Dec'2017 for and Warangal by Nov' 17.
- Nodal Officer to have a review meet with the Utility and SIA for assessment

### Andhra Pradesh

- APEPDCL informed that, at Visakhapatnam, FRTUs are frequently going under sleep mode and needs re-booting, even after the firmware update. Chemtrols informed that firmware in 35 FRTUs have been updated once again in last week and the performance of the same is under review.
- PFC advised Chemtrols to take up the quality issues seriously and rectify the defects at the earliest and ensure declaration of completion of the project by 15th Nov'2017
- APSPDCL requested Chemtrols to deploy dedicated resources at town level to complete the pending works of Vijayawada and Guntur towns, so as to ensure completion by Dec'2017.
- Director (MoP), expressed his concern on Zero progress in Nellore town and directed Chemtrols to resolve the Network related issues in consultation with APSPDCL so as to ensure completion by Dec'2017

### Gujarat

- PFC reported that NBSP provider R-Com has miserably failed to provide both MPLS connectivity (required for RTU data communication) as well as GPRS link (required for FRTU communication). A joint meeting with 4 Discoms (MGVCL, PGVCL, DGVCL & UGVCL), SIA (M/S Chemtrol) and R-Com held on 12.10.2017 at Vadodara where they committed MPLS connectivity of all 93 sub-stations of Gujarat by November-2017. For 3G connectivity it was agreed to switch to Airtel SIMs. Discoms have to expedite 3G connectivity for communication of FRTU. SIA (M/S Chemtrol) was advised to strictly adhere to the plan and help facilitation required with respect to NBSP.
- Out of 2800 FRTU, only 1000 FRTU has been supplied by SIA (M/S Chemtrol). This will create major problem for meeting completion target. MoP/PFC advised M/S Chemtrol to take the matter seriously so that completion target is not missed pending FRTU installation. M/S Chemtrol committed they will complete FRTU installation by 31.01.2018.
- Director (Dist), MoP stated that project with TPIEA=IT(SCADA) verification shall be completed by Mar 18 or else it may risk loan conversion into grant

### Kerala:

- Dir(Dist) suggested to let SIA go ahead pending decision of KSEBL on the matter of charges to be paid for using KSEB poles so that progress of project is not affected.
- SIA to complete supply, installation and end to end configuration of FRTU and RTU by Dec'17, and make the system ready for TPIEA-IT verification. Utility and SIA confirmed the same.

### Bihar:

- Utility confirmed that after holding SAT , Availability test , TPIEA-IT will commence verification in Nov 15
- MoP/PFC appreciated DISCOM for setting up a good example about ownership exhibited in completing project.

### J&K

- PFC stated that no progress in the project is observed since long and have strong apprehension that project would not be completed by Mar 18. JKPDD representative informed that Control Centre buildings would be ready by Nov'17.
- SIA is asking for cost escalation on account of the prolonged delay. Contracts with SIA has expired and yet to be renewed. Contract with SDC has also expired and yet to be renewed.
- CMD, PFC and Dir(Dist),MoP asked PFC Nodal officer to assess the situation and submit a report in 10 days.

### Chhattisgarh:

- FRTUs and Modems are not being supplied by SIA Alstom. Alstom assured delivery of FRTUs by October end.
- Issue of 103 Protocol with relays to be resolved by SIA and Utility. One such solution may be time stamping at RTU level, instead of relay .
- Utility and SIA confirmed to complete project by Dec 17

Further, in response to the query it was also clarified to all SIAs on that software license / Firmware shall be perpetual in nature as per clause 16.1 (Sec VII) of Model RFP

## **Annexure 1- List of Participants**

### **MoP/PFC**

1. Sh Rajeev Sharma , CMD
2. Sh Vishal Kapoor , Dir (Dist) ,MoP
3. Sh Avkash Saxena , ED
4. Sh Subir Saha , GM
5. Sh Saugata Rudra , GM
6. Sh Vijay Agarwal , GM
7. Sh Kamlakar Singh , GM, MoP
8. Sh A.K.Papneja, AGM
9. Sh Ali Shah, AGM
10. Sh Arun Kumar, AGM
11. Sh A.K.Srivastav, AGM
12. Sh P.S.Goswami, AGM
13. Sh Sanjay Rai,, AGM
14. Sh S.K.Srivastav , AGM
15. Sh Neeraj Singh, DGM
16. Sh Rajiv Pharlia, DGM
17. Sh A.P.Tiwari, AGM
18. Sh Akhil Gupta , DGM
19. Sh Prashant Moundekar ,SM
20. Sh Ashok Rathore, SM
21. Sh Y.Khanduja SM
22. Sh Suresh babu , SM
23. Sh Kamal Preet Singh DM
24. Sh Kuldeep Khokhar DM
25. Sh Sanjesh Banjare , DM
26. Ms Madhurima Kumar , DM

### **Discoms**

1. Sh S.K.Sangale , CE, MSEDCL
2. Sh Paredip Dev CE, WBSEDCL
3. Sh G.Srinivas , GM, TSNPDCL
4. Sh K.Srinivas CGM, TSSPDCL
5. Sh V.Kesavadas, CE ,KSEBL
6. Sh B.Borgahain , CE, APDCL
7. Sh Sanjay Kumar, GM, JBVNL
8. Sh Antoy Vivekanand , CE, PED
9. Smt Chanmegasoundari , ,PED
10. Sh Chaturbhuja Mishra , CDBA, SBPDCL
11. Sh P.Swain, SGM, CESU, Odisha
12. Sh M.Veeramuthu , PM, Trichy, Tangedco
13. Sh Satish Kumar , EE, SBPDCL
14. Sh Swami Sharan Prasad, EE, NBPDC
15. Sh R.A.Sharma , SE , JVVNL
16. Sh N.K.Joshi, SE , JdVVNL
17. Sh D.Dutta, AGM, APDCL
18. Sh Vikas Gupta , EE, UPCL

19. Sh Manish Dabral , EE, UPCL
20. Sh Parvez Ahmed , JKPDD
21. Sh P.Singh, EE,JBVNL
22. Sh A.J.S Sekhon , PSPCL
23. Sh J.R.Patil , CSPDCL
24. Sh Rameshwar Chaturvedi ,MPMKVVCL
25. Sh Shibu Samuel, MPPKVVCL
26. Sh Vivek Chandra MPPKVVCL

## **SIA**

1. Sh A.Rajgopal, VP, Chemtrols
2. Sh Dr. L.Hari , PM, Chemtrols
3. Sh Lalit Khaithani, PM ,Chemtrols
4. Sh Prashant Patil , PM , Chemtrols
5. Sh Anil Anand , Director , Dongfang
6. Sh Nitin Gupta, PM, Dongfang
7. Sh A.Sreeram , PM Dongfang
8. Sh Simanta Bhowal, PM, Siemens
9. Sh J.Mathur , PM, Schneider Electric
10. Sh Palanivasagam , PM Schneider Electric
11. Sh Rahul Dixit, PM ,GE T&D