



Minutes
of
7th PRM Meeting

Date: 17.05.2016
Eastern Regional Power Committee
14, Golf Club Road, Tollygunge
Kolkata: 700 033

Eastern Regional Power Committee

Minutes of 7th PRM Meeting held on 9th May, 2016 at ERPC, Kolkata

List of participants is at **Annexure-A**.

1. Implementation of Automatic Demand Management Scheme (ADMS)

OPTCL vide mail dated 24.02.2016 pointed that Hon'ble CERC vide their order dated 31.12.2015 passed in Suo-motu Petition No.- 5/SM/2014 in the matter of Non-compliance of Regulation 5.4.2 (d) of IEGC directed all Respondents (SLDCs) for implementation of ADMS in their respective control area. CERC have allowed dead line till 30.06.2016 to the Respondent for implementation of ADMS. Failing which they will be liable for action under Section 142 of the Act.

In 119th OCC, advised all the SLDCs to implement the ADMS in their respective control area. by 30.06.2016.

Subsequently, on request from DVC & WBSEDCL, ERPC vide letter dated 05.04.2016 requested Powergrid to take up the issue for inclusion of DMS/ADMS application software in the new SCADA system under new ULDC project which would be of great help for the ER constituents in implementing the ADMS system in their respective control area and subsequent compliance of CERC directive.

Powergrid vide letter dated 22.04.16 communicated that automatic load shedding & restoration feature, named "Load Shed Support (LSS)", is already provisioned in the supplied new SCADA System for substations above 132 kV and this feature has already been tested / demonstrated for SLDCs of Eastern Region during commissioning stage. However, the implementation of ADMS at distribution level (below 132kV) may be ensured by respective SLDCS i SEBS (Copy of the letter is enclosed at **Annexure-I**)

Powergrid may update. Members may discuss.

Deliberation in the meeting

Member Secretary, ERPC briefed the members about the need for compliance of the CERC directive for implementing Automatic Demand Management scheme (ADMS) in their respective systems. He informed that on the request of the constituents, the issue was taken up with POWERGRID for inclusion of ADMS in the new SCADA system project under ULDC. He further informed that POWERGRID vide their letter dated 22.04.2016 have communicated that automatic load shedding and restoration feature named "Load Shed Support (LSS)" is already provisioned and tested in the new SCADA system for substations upto 132 kV.

While discussing the issue in detail, it emerged that this feature can be implemented in ER constituent systems (WB, DVC, BSPTCL, JUSNL and Sikkim), upto 33 kV side as the telemetry of 33kV side has also been included in the SCADA project just implemented. M/s Chemtrols who are implementing the system, were asked to give their views on this.

M/s. Chemtrols informed the following:

- a) *On all the new RTUs supplied by them, the 33 kV side telemetry is covered and they have provided the DO (digital output) cable up to CR panel. The DO cable has already been laid and terminated in C&R panel wherever constituent's testing team facilitated. In BSPTCL system, this DO wiring has been done for majority of RTUs*

commissioned, while in WB and DVC systems, the termination of DO wiring points was not facilitated at the time of commissioning. The same is now in progress in DVC system. DO wiring will be done simultaneously on the 12 Nos. of RTUs under commissioning in WB system. However, they requested constituents to ensure the availability of their Testing Teams to facilitate the same.

- b) Chemtrols further informed that this DO control cannot be exercised for the existing RTUs in the constituent systems.
- c) OPTCL system does not have the provision for LSS. (DO command and control).

After detailed deliberation the following schedule was given to Chemtrols for wiring of DO in BSPTCL, DVC, WB and JUSNL systems till 30.06.2016.

BSPTCL: 50 stations
WB: 10 stations (where New RTUs are under commissioning)
DVC: 12 stations (where work is already in progress)
JUSNL: 2 stations

M/s Chemtrols stated that they will try their best to follow the above schedule. However, the deployment/availability of testing team shall have to be ensured by the constituents. Constituent agreed to deploy Testing team as per requirement on priority.

Regarding implementation of the ADMS in OPTCL, OPTCL informed that they will discuss the matter with appropriate management and will intimate the same at the earliest.

Agenda by DVC

I) incorporation of "ADMS" functionality in new ULDC-II, so that ADMS can be successfully implemented in the new SCADA system as a compliance of CERC directive.

Deliberation in the meeting

Wiring of DO points will be done in 12 stations of DVC where work is already in progress by M/s. Chemtrols. DVC agreed to deploy testing team as per requirement on priority.

II) PGCIL to start laying of OPGW at those priority areas of DVC, to have a stable connection at Main SLDC, Howrah.

DVC/Powergrid may update.

Deliberation in the meeting

Survey is in progress for OPGW work in DVC. PGCIL intimated that priority connectivity from Durgapur to Howrah (approx. 212 Km) may be completed by December-2016.

Agenda by OPTCL

1. New RTU integration:

- a) **Installation/commissioning status of DPLC, outdoor coupling equipment :-**
Out of 42 links only 19 nos of links have been commissioned. Some of the commissioned links are noisy and need to be attended for final commissioning.

Deliberation in the meeting

Till date 21 links has been commissioned out of 42 links in Digital PLCC Pkg. in OPTCL. M/s. Alstom intimated that they are not receiving shutdown as per schedule. OPTCL advised Alstom to give a schedule and they confirmed shutdown will be arranged as per schedule.

- b) Most of the outdoor coupling equipment including foundation and structures are to be installed/commissioned.

Deliberation in the meeting

M/s. Alstom was advised to complete the pending civil works and other works not related to shutdown at the earliest.

- c) **Integration of data in IEC 104 protocol:** As per engineering done by Powergrid all RTUs should be integrated with OPTCL SCADA system in IEC 104 protocol. However, the vendor i.e M/s Alstom is configuring to integrate the data in IEC 101 protocol. Powergrid should direct M/s Alstom to do the same in IEC 104 protocol.

Deliberation in the meeting

M/s. Alstom agreed to integrate the RTU in 104 protocol.

- d) Data integration activities should be taken up in those links where DPLC links and RTUs are commissioned.

Deliberation in the meeting

Data integration activity by M/s. Alstom & M/s. Chemtrols will be carried out in DPLC links where RTUs are commissioned.

e) **Supply of 5 new RTUs one each at Sub-LDC and one at Balasore:**

: The issue has not yet been materialised in spite of discussion in many PRMs.

Powergrid may update the status.

Deliberation in the meeting

POWERGRID requested OPTCL to procure RTUs of their own. OPTCL agreed and intimated that they will include 5nos. RTUs in the new procurement of RTU by OPTCL.

2. SCADA interface to all 220kV s/s:

a) **Status of OPGW, Approach cable & Hardwares:**

Some of the OPGW links are not commissioned due to approach cable ,FODB- Powergrid should expedite the work.

- b) Powergrid should provide tension assembly fittings under the scope of the Project against mandatory spares to take up balance OPGW stringing works in Duburi_Paradip line.

Deliberation in the meeting

POWERGRID informed that 20 links out of 28 links have been commissioned and commissioning of other 7 nos. links are in progress which is targeted to be completed by May-2016.

M/s. LS Cables has supplied the mandatory spares including Tension fittings pertaining to OPTCL OPGW Package except 5 Km OPGW and fittings. 5 Km hardware fittings will be provided to OPTCL within 20.05.2016

3. Project completion date:

: As per last PRM, project completion date was March, 2016. Powergrid may give an exact date line for communicating the same to OPTCL management as well as Odisha Electricity Regulatory Authorities.

Deliberation in the meeting

POWERGRID intimated that the Project Completion date is July-2016 subject to arranging shutdown as per schedule by OPTCL for DPLC Project .

Agenda by BSPTCL

1. I&C work of RTU of 38nos out of 101 is completed till date. Work Schedule of only 27 nos. of RTU has been submitted by M/s Chemtrols. Schedule for pending works of 16 nos. Of RTU, where only CT/PT connection has been completed is required. Schedule for 20 nos. Of RTU whose I&C work is held up due to R&M work & DCPS, is also required from M/s Chemtrols.(list enclosed)

Chemtrols may expedite I&C work of RTUs

Deliberation in the meeting

M/s. Chemtrols informed the following regarding I&C work:

I&C of 41 RTUs completed out of 101 RTUs till date. Out of 27 RTUs whose I&C are in progress, 4 RTUs are completed and balance work are in progress which is targeted to be completed by June-2016. Pending CT/PT connections in 16 nos. locations is targeted to be completed by June-2016 with 2 nos. teams. I&C work will be commenced in 8 RTUs after availability of 48V DC at RTU locations.

2. Communication Package:

(a) Present status of work for supply & installation of OPGW for priority links of BSPTCL, award for supply of OPGW for non-priority links and award for the Terminal Equipment for Priority & Non Priority links of BSPTCL.

Powergrid may Update

Deliberation in the meeting

OPGW package for priority links of BSPTCL has been awarded and survey work has been completed. OPGW in Priority links is targeted to be completed by December-2016. Communication Equipment package for SDH & DCPS is under award approval. Communication Equipment Package for PDH was awarded to M/s. Tejas.

(b) Present status of work for supply & installation DCPS, PLCC/Isolation Transformer & related outdoor equipment.

Powergrid may Update

Deliberation in the meeting

Supply & installation of DCPS and PLCC/Outdoor equipment has been awarded to M/s. Puncom and engineering approval is in progress.

3. Commissioning of underground fibre from Jakkanpur-SLDC, Patna is still pending.

Powergrid may Update

Deliberation in the meeting

Underground UGFO work of Jakkanpur-PatnaSLDC is completed except 300mtr. where BSPTCL is to provide the route for entry in Jakkanpur Substation considering presence of Underground Electrical Cables of BSPTCL. The balance work is targeted to be completed by 25.05.2016.

4. Cyber Audit has not been carried out yet.

Chemtrols may Update

Deliberation in the meeting

BSPTCL informed that Cyber Audit of the Chemtrols / OSI SCADA system has not been carried out yet. He further informed that as per the contract clause, Chemtrols has to carry out Cyber Audit at FAT, SAT and annually during AMC period also.

ERLDC informed that Cyber Audit was conducted for other system i.e. except BSPTCL during FAT at Goa but this audit was supposed to be conducted by Chemtrols in all the control centres during SAT and the same is yet to be planned. ERLDC further informed that identified vulnerabilities and loopholes need to be corrected by Chemtrols after the audit.

M/s Chemtrols informed that they are planning to conduct the Cyber Audit which will be completed by June 2016.

Agenda by WBSETCL:

WIDEBAND COMMUNICATION ISSUE:

1. The baud rate of 38.4 Kbps is to be set up in all V.24 data channels (as per enclosed list) for uninterrupted RTU reporting except the RTUs which are reporting through NBU MUX.
2. One each Ethernet channel (2 Mbps) from Durgapur 400KV, New Bishnupur, Bighati and Barjora to Howrah SLDC has to be configured so that RTUs from those Substations can send data in 104 protocol as per original scheme.
3. SDH & PDH MUX with appropriate Channel configuration has to be installed at AvikshanBhaban immediately to make the back-up Control center of WBSETCL functional.
4. WBSETCL optical system will soon operate on STM -4 mode with a number of new substations. For successful implementation, shifting of existing VELOSIS SDH MUX to new Substations with appropriate channel configuration has to be carried out.

5. No optical instruments have been transferred to WBSETCL by PGCIL.

Deliberation in the meeting

1. *POWERGRID has intimated M/s. Velocis for feasibility for keeping baud rate of 38.4 Kbps in all V.24 data channels for uninterrupted RTU reporting and configuration of Ethernet channels from Durgapur 400KV, New Bishnupur, Bighati and Barjora to Howrah-SLDC for data transfer in 104 protocol.*
2. *Installation of SDH & PDH Mux at Abhikshan will be done after complete readiness of the communication room space. WBSETCL intimated it will be ready within a week.*
3. *Optical Test Equipments will be handed over to WBSETCL within a week.*

CHEMTROLS ISSUE

1. Main and Back up SLDC should function independently. But it is reported by CHEMTROLS that Back up will get RTU data from Main SLDC on ICCP link. As per technical specification in LOA, *one channel of each RTU shall report to Main and Back up Control Center and suitable splitting shall be used for redundancy at Front- ends of respective control centers. In case of non-availability of data ports (in case of non-critical RTUs), splitting should be done at RTU location/Wide band location/Sub-SLDCs. CHEMTROL need to provide at least 90 splitters as per LOA at suitable location to make the scheme fruitful.*

Deliberation in the meeting

WBSETCL informed that under new SCADA system, communication channel from each RTU to both the control centres are not available. He also informed that huge investment has been carried out under back up control centre which is not meeting the requirement since RTU data is not flowing to back up control centre directly due to non-availability of communication channel. He further informed that in case of any contingency at main control centre, back up control centre is not in a position to get data from RTU. WBSETCL requested POWERGRID to look into the matter and implement as per approved technical scheme.

ERPC advised POWERGRID Engineering team (LD&C) to review the RTU reporting architecture for independent functioning of both control centers

2. Variances like SOE of S900 RTUs, SOE file transfer from ICCP , HRS playback is still open.

Deliberation in the meeting

WBSETCL informed that all the constituents have been shifted to new SCADA/EMS system but variances like SOE of S900 RTUs, SOE file transfer from ICCP, HRS playback is still open. He further informed that it is extremely difficult to run the system in absence of these points. WBSETCL requested Chemtrols to look into the matter and resolve the issue at the earliest

M/s. Chemtrols is carrying out testing for ERLDC to close the variances such as SOE issues. Afterwards the same will be implemented in WBSETCL Control Center.

3. Problem reporting mechanism and time-limit for resolving the issue is to be fixed up.

Deliberation in the meeting

WBSETCL informed that in new SCADA system, problem reporting mechanism and time-limit for resolving the issue is not available. They are not able to report any problem properly as format is not available. WBSETCL requested POWERGRID to provide the same. WBSETCL also informed that Chemtrols has not deployed the quality man power at their control centre. WBSETCL also requested POWERGRID to look into the appropriate man power deployment issue on priority basis so that any eventuality could be addressed in minimum possible time.

DVC also informed that Chemtrols has not deployed the quality man power at their control centres also.

ERLDC informed that ERLDC is also facing same problem and explained that under old SCADA system, deployed engineer were having good knowledge of SCADA, EMS, Networking as well as hardware but in new SCADA system, not a single engineer is having good working knowledge of SCADA, EMS and Networking also. ERLDC further informed that as per the LOA, Chemtrols has to deploy the expert of software and hardware who are having experience of at least 5 years in the same system.

Chemtrols informed that they are having problem in deploying proper man power at various control centres.

Director (Projects), BSPTCL mentioned that BSPTCL is not feeling the same comfort level in new SCADA system as compared to old SCADA system and requested POWERGRID to look into the matter seriously. He further requested MS, ERPC to call a separate high level meeting to resolve the issue of proper man power deployment at various control centres. He also mentioned that participation from LD & C department of POWERGRID should be must in SCADA PRM meeting being called by ERPC.

MS, ERPC agreed to call a separate high level meeting so that proper man power deputation issue could be addressed.
