

पावर सिस्टम ऑपरेशन कॉरपोरेशन लिमिटेड

(भारत सरकार का उद्यम)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A Govt. of India Enterprise)

CIN: U40105DL2009GOI188682



पूर्वी क्षेत्रीय भार प्रेषण केन्द्र, 14, गोल्फ क्लब रोड, टॉलिंगंज, कोलकाता 700033

EASTERN REGIONAL LOAD DESPATCH CENTRE, 14, Golf Club Road, Tollygunge, Kolkata 700033

Tel / दूरभाष: 033 2423 5867/5875 • Fax / फ़ैक्स: 033 2423 5809/5704/5029 • E-mail / ई-मेल: erldc@posoco.in

No: ERLDC/SCADA O & M - Meeting /2017/ 5986

Dated: 28.12.2017

To,

As Per mailing list

Sub : Minutes of 20th SCADA O & M meeting held at ERLDC Kolkata on 15th December 2017

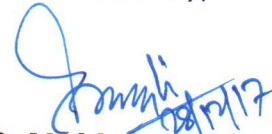
Dear Sir,

Minutes of 20th SCADA O & M meeting held at ERLDC Kolkata on 15th December 2017 has been finalized and same is uploaded on our website <http://www.erldc.org>.

You are requested to download the soft copy of minutes for your ready reference and further necessary action at your end please.

Thanking you,

Yours faithfully,


(P. Mukhopadhyay)
Executive Director

MINUTES OF MEETING FOR
20TH SCADA O&M MEETING OF ER HELD AT ERLDC, KOLKATA
ON 15TH DECEMBER 2017

List of participants is enclosed at Annexure – II.

Deputy General Manager (MO), ERLDC, at the outset, welcomed all the participants in the meeting. He expressed his concern regarding the importance of real time SCADA system in managing the Eastern Regional Grid. He further added that all agenda points must be deliberated properly so that fruitful outcome would be derived for improvement of the system.

Member Secretary, EPRC chaired the meeting. He welcomed all the participants in the meeting. He expressed his concern about better availability of SCADA data for smooth running of the ER Grid. He further requested ERLDC to take up the agenda points.

Assistant General Manager (SCADA), ERLDC informed that the report for replacement/up-gradation of old RTUs/SAS has been approved in 36th TCC/ERPC board meeting. He congratulated the members of the committee for contributing towards making a comprehensive report in respect of replacement of Old RTUs and getting it approved in 36th TCC/ERPC meeting. He further informed that purpose of backup ERLDC control centre located at NLDC, New Delhi could not be served unless until all RTUs/SAS are dually reported to both the control centres.

Thereafter Agenda points were then taken up for deliberations.

1. Warranty Period Payment of SCADA/EMS system in ER (except OPTCL) to M/s Chemtrols:

Maintenance contract for up-gradation of SCADA/EMS project in Eastern Region has been placed on M/s Chemtrols Pvt. Ltd. Up-gradation project in all control centers of ER (Except OPTCL) has been commissioned successfully in 2016. Contract is made for one year warranty with 6 years of AMC after successful commissioning of the project. Warranty period for WBSETCL has been completed on October 2017 whereas for rest of the control centers (except OPTCL) were completed on June 2017. Payment for the warranty period may be made to M/s Chemtrols as per the provisions of contract agreement.

M/S Chemtrols informed that they have not received the warranty period payment from all constituents (Except OPTCL & ERLDC) although warranty periods are over. M/s Chemtrols further informed that they are finding it difficult in maintaining the system since their bill towards maintenance charge for ₹ 2.45 Crores has not been released.

Member Secretary enquired about the payment schedule as per the contract agreement and emphasized all constituents to clear all the pending payments to M/s Chemtrols for smooth functioning of ER Grid.

BSPTCL, WBSETCL, DVC & JUSNL informed that as per the contract, payment would be made after expiry of the warranty period. They further informed that they are yet to receive the required BG i.e. amounting 2 % [Two percentage] of the individual contract price [Supply, Services & AMC put together as mentioned in the NOA – III dated 31.03.13] pending which they were not in a position to process the payment.

M/s Chemtrols informed that required BG is under preparation at Mumbai which will be submitted by the end of December-2017.

ERLDC advised all the constituents to keep proper tracking of BG expiry. It was suggested that it would be prudent to issue an advance notice of BG expiry to Chemtrols so that the new BG would be made available with them before expiry of old BG.

M/s Chemtrols informed that they have already submitted the warranty period bill to JUSNL & Sikkim for release of payment and would submit the revised warranty period bill to BSPTCL & DVC by 20-December-2017. Chemtrols also informed that WBSETCL has to amend the contract from 01-Jul-2017 as GST is applicable since then.

Member Secretary stressed that 1st Year Warranty Period Payment is to be made by each constituent to M/s Chemtrols latest by January'18. BSPTCL, DVC and JUSNL agreed that they will release the payment for the warranty period within a month from the date of receipt of required BG.

No representative was present from Sikkim to discuss from their sides.

WBSETCL informed that their warranty period was completed on October 2017 which is in the regime of GST period.

Member Secretary, ERPC advised Chemtrols to break the bill in two parts i.e. one bill for non GST period and another bill for GST period. He further requested WBSETCL to pay the bill of non GST period immediately.

WBSETCL informed that they will release the payment for the same within a month from the date of receipt of required BG. They further informed that contract would be amended for GST period after taking the necessary approval at their end.

M/s Chemtrols also informed that they are yet to receive the following amendments from each constituent:

- *Change in Name of M/s Chemtrols from “Chemtrols Industries Limited” to “Chemtrols Industries Pvt. Limited”.*
- *AMC contract Amendment due to implementation of GST.*

After detailed deliberation, M/s Chemtrols agreed to furnish a fresh AMC price breakup [for Sl. Nos. 6.2 to 6.7] with back calculation for arriving at a basic price excluding Service Tax @ 15 % instead of 12.36 % as furnished earlier.

GST extra as applicable shall be paid over AMC basic price by each constituent.

All constituent members agreed to it.

Action: All Constituents (Except OPTCL) / M/s Chemtrols

2. Replacement of old RTU in Eastern Region for reporting of RTU / SAS to back-up Control Centre:

The matter for replacement of old RTU in Eastern Region for reporting to back up control centre has been discussed in a special project review meeting held on 14th February 2017 at ERPC, 35th TCC/ERPC meeting held on 24th / 25th February 2017 & also on 19th SCADA O & M meeting held on 07th April 2017. As advised by ERPC in 35th TCC/ERPC meeting, detailed report has been finalized and approved in 36th TCC/ERPC board meeting held on 13th / 14th September 2017 at Bhubaneswar. The approved report has already been uploaded at http://erpc.gov.in/?page_id=91 under miscellaneous report section. The detailed report has also been e-mailed to all RTU replacement committee members on 28/August/2017.

All committee members are requested to plan their action as suggested in the report. It is also requested to plan the last mile fibre connectivity since real time SCADA data reporting to ERLDC / backup ERLDC over 104 protocol, AGC & PMU installation under URTDSM could not be achieved. POWERGRID has already taken approval for last mile fibre connectivity for some stations mainly GMR, JITPL, Ind Bharat, TT Pool, Mangon etc. Last mile connectivity may also be planned for the generating stations wherever it is not available.

ERLDC informed that as the RTU replacement report is already been finalized and approved in 36th TCC/ERPC meeting, the implementation of Replacement/Up-gradation of old RTU along with last mile connectivity over IEC104 protocol must be planned. ERLDC further informed that last mile connectivity up to Generator terminal (wherever not available) shall also have to be planned for AGC requirements as well as dual reporting of RTU/SAS to back-up ERLDC located at NLDC, New Delhi.

POWERGRID ERTS-I and ERTS –II and Odisha project informed that they are planning the implementation as recommended in the report which would be completed latest by March, 2019.

Member Secretary, ERPC advised POWERGRID to speed up the replacement/up-gradation of old RTU work and make RTU/SAS dually reporting over IEC104 protocol to back-up ERLDC at the earliest.

OPTCL informed that they have already taken initiative for replacement/up-gradation of 78 Nos of RTU. They further informed that the replacement proposal will be getting approved by mid of January 2018.

NTPC informed that for Farakka STPS, they have taken initiative for replacing RTU by SAS which will take approximately one and half year. NTPC Farakka further informed that they are planning to configure multiple RTUs/SAS at Farakka STPS into single RTU/SAS at the time of replacing of old RTU.

BRBCL Nabinagar TPS informed that they will upgrade the SAS latest by March 2019. They also informed that their plant don't have last mile connectivity. BRBCL Nabinagar further informed that in coming one year BRBCL Nabinagar will be connected by NPGC Nabinagar with OPGW link. ERLDC advised BRBCL to speed up the work and make SAS dually reporting over IEC104 protocol at the earliest.

MPL informed that they will upgrade their SAS by March 2018.

BSPTCL informed that they have almost completed replacement / up gradation for all RTU except for Solar plants.

Teesta V informed that they will replace RTU within 2 years.

Teesta –III informed that OPGW connection needed to be established with CTU. In line with this, POWERGRID informed that the same could be done with the completion of Teesta –III - Kishanganj Line.

ERLDC informed that POWERGRID has taken budgetary approval in 36th TCC/ERPC meeting for OPGW work in Rangpo - Teesta-III (Mangan) line. ERLDC further advise Teesta-III to speed up the work and make SAS/RTU dually reporting over IEC104 protocol at the earliest.

ERLDC informed that POWERGRID has already taken budgetary approval for laying the last mile fibre connectivity for some stations mainly GMR, JITPL, Ind Bharat, TT Pool, Mangon (Teesta-III) etc but fibre connectivity to Dikchu, Chuzachen & Jorethang is yet to be planned by respective plants/POWERGRID.

Member Secretary, ERPC advised ERLDC to make a comprehensive list where last mile fibre connectivity is not available so that the same could be placed in 37th TCC/ERPC meeting.

WBSETCL informed that they are in the process of replacement/up-gradation of RTU/SAS at the earliest.

Action: All Constituents

3. Redundancy of ICCP links between control centres:

The matter for providing ICCP links from ERLDC / backup ERLDC to all control centres as shown in a diagram below was discussed in a special project review meeting held on 14th February 2017 at ERPC, 35th TCC/ERPC meeting held on 24th / 25th February 2017 & also on 19th SCADA O & M meeting held on 07th April 2017. Redundancy of ICCP communication links from all state control center including their back-up to Main ERLDC are already implemented. Provision of redundancy of ICCP communication links from all state control center to back-up ERLDC located at NLDC, New Delhi is yet to be implemented. POWERGRID and all state constituents may planned to make it redundant.

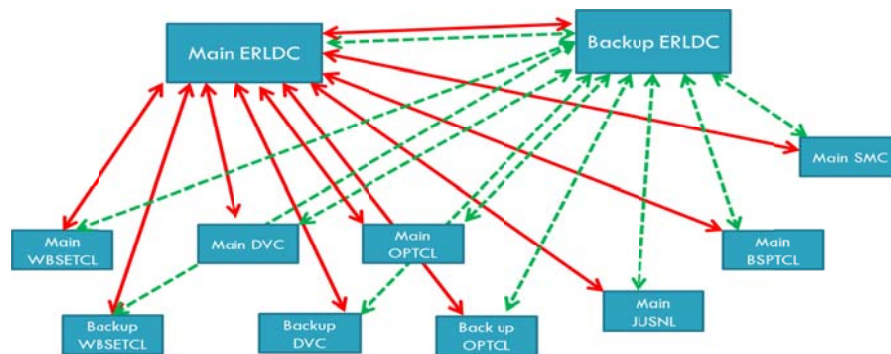


Figure 1: Present Status of ICCP Communication Links

There are few paths (especially last mile) where there is no fiber redundancy. Following are the sections where fiber laying is to be done/under implementation:

ERLDC informed that three (N-2) redundant communication links (ULDC: VLAN & P2P, PowerTel: P2P) for ICCP communication from all Constituents to ERLDC main control centre (MCC) commissioned with the help of POWERGRID & all constituents. ERLDC requested POWERGRID to provide 2 nos of IEC104 protocol ports at Back-up ERLDC located at NLDC, New Delhi for ICCP communication between all constituents control centre including their back-up to back-up ERLDC, New Delhi and 1 (one) no of IEC104 protocol port at Back-up ERLDC located at NLDC, New Delhi for all central sector RTU/SAS reporting dually to back-up ERLDC, New Delhi.

ERLDC quoted the CERC Communication Regulation wherein emphasized has been given on redundancy of communication links between constituents to MCC & BCC of ERLDC.

POWERGRID informed that presently, IEC104 protocol ports are not available at back-up ERLDC and necessary procurement of equipment is to be done which will take approximately 06 (six) months. POWERGRID further informed that they are looking after the possibilities for providing 2 nos of IEC104 protocol ports at back-up ERLDC through POWERTEL link and would be provided by 31st January 2018.

ERLDC requested all constituents to make required port, LAN cables etc. available for achieving the redundant communication links to ERLDC BCC. All constituents agreed for the same.

Action: POWERGRID, ERTS-2 ULDC.

Central Sector:

ERLDC to Kasba – POWERGRID informed that one UGFO link between ERLDC to Kasba is under implementation by them. POWERGRID further informed that alternate FO link connectivity may be implemented after getting the fiber connectivity from CESC (Kasba S/S – Jadavpur S/S – ERLDC) for route diversity for redundancy. POWERGRID requested ERLDC to take up the matter with CESC so that the same fiber can be used between ERLDC to Kasba for route diversity for redundancy.

POWERGRID informed that they have already completed the laying of UGFO communication link between ERLDC to Kasba. POWERGRID further informed that communication link from Kasba S/S – Jadavpur S/S – ERLDC as route diversity for redundancy has also been implemented after getting the fiber connectivity from CESC which is achieved with the help of ERLDC.

Farakka to Jeerat – POWERGRID informed that presently, FO link connectivity is available between Farakka to Jeerat through Behrampur which doesn't have route diversity. POWERGRID further informed that route diversity for redundancy would be available after commissioning of OPGW link from Farakka to Jeerat through Gokarna, Rajarhat & Subhashgram.

POWERGRID informed in 19th SCADA O&M Meeting that FO link connectivity is available up to Gokarna. POWERGRID further informed that route diversity of Farakka to Jeerat could not be completed till commissioning of Rajarhat S/S.

POWERGRID informed that out of 350 KM, they have already completed laying of OPGW link of 300 km. POWERGRID further informed that Farakka to Jeerat through Gokarna, Rajarhat & Subhashgram will be completed by March, 2018 subject to resolution of Rajarhat S/S commissioning.

ERLDC requested POWERGRID to find the alternate path available if the same is not being commissioned by March 2018. POWERGRID agreed for the same.

Action: POWERGRID, ERTS-2 ULDC.

WBSETCL Sector:

Kasba to Arambag – POWERGRID informed that presently, FO link connectivity is available between Kasba to Arambag through Jeerat, Behrampur, Farakka & Durgapur which doesn't have route diversity. POWERGRID further informed that route diversity for redundancy would be available after commissioning of OPGW link from Kasba to Arambag through Jeerat & Krishnanagar as mentioned in the ICCP flow diagram of

WBSETCL. POWERGRID further informed that the same would be implemented by December 2017.

In 19th SCADA O&M Meeting, POWERGRID / WBSETCL informed that work is under progress and would be completed by December 2017 as planned.

POWERGRID informed that they have completed the Kasba – Arambagh OPGW link except Jeerat - Newtown Action Area I and Newtown Action Area I - Newtown Action Area III. POWERGRID further informed that OPGW installation of 6.5 Km out of 40 Km is balance in Jeerat-Newtown Action Area-III link due to severe ROW issues. POWERGRID requested WBSETCL to resolve the ROW issues so that OPGW installation is completed in Jeerat- Newtown Action Area-III link. WBSETCL agreed for the same.

POWERGRID further informed that scope for laying of OPGW link between Newtown Action Area –I and Newtown Action Area –III is not there and hence requested WBSETCL to submit a request letter to include the same in the scope. WBSETCL agreed to submit the letter by 20/12/2017.

Action: POWERGRID, ERTS-2 ULDC, WBSETCL.

DVC Sector:

Howrah SLDC to ERLDC – POWERGRID informed that presently, FO link connectivity between Howrah SLDC to ERLDC is available through leased line. POWERGRID further informed that route diversity for redundancy would be available after commissioning of OPGW link from Howrah SLDC to Maithon SLDC & Howrah SLDC to Waria as mentioned in the ICCP flow diagram of DVC. POWERGRID further informed that the same would be implemented by June 2017.

In 19th SCADA O&M Meeting, POWERGRID / DVC informed that work is under progress and would be completed by June 2017 as planned.

Kalyaneshwari to Mathon SLDC – POWERGRID informed that presently, FO link connectivity is available between Kalyaneshwari to Maithon SLDC through Maithon HPS which doesn't have route diversity. POWERGRID further informed that route diversity for redundancy would be available

after commissioning of OPGW link from Maithon SLDC to Howrah SLDC as mentioned in the ICCP flow diagram of DVC. POWERGRID further informed that the same would be implemented by June 2017.

In 19th SCADA O&M Meeting, POWERGRID / DVC informed that work is under progress and would be completed by June 2017 as planned.

DVC informed that the above OPGW links have been commissioned.

ERLDC requested POWERGRID / DVC to configure the protection path between SLDC Maithon to ERLDC for redundancy. POWERGRID/DVC agreed for the same.

ERLDC further requested DVC/POWERGRID to conduct a test for the protection path availability. POWERGRID/DVC agreed for the same.

Action: POWERGRID, ERTS-2 ULDC AND DVC.

OPTCL Sector:

Rourkela to Bhubaneswar SLDC – POWERGRID informed that presently, FO link connectivity between Rourkela to Bhubaneswar SLDC is available through TSTPS, Meeramundali & Mendhasal which doesn't have route diversity.

OPTCL informed that route diversity for redundancy would be available after commissioning of repeater station at Bhabanipatna between Jeypore – Bolangir line and FO link connectivity from Meeramundali to Bhubaneswar SLDC through Duburi New, Jagatsingpur & Cuttack as mentioned in the ICCP flow diagram of OPTCL. OPTCL further informed that the same would be implemented by March 2018.

In 19th SCADA O&M meet, OPTCL informed that they are taking up the matter on priority which would be getting completed by July 2017. OPTCL further informed that they are providing the required space & power supply (48 V DC & AC) to POWERGRID at Bhabanipatna S/S for installation of the repeater station.

OPTCL informed that protection path between Meeramundali to SLDC, Bhubaneswar via Duburi OLD, Duburi New, Paradeep, Jagatsingpur, Cuttak, Phulnakhra station would be completed latest by March 2018 as per schedule.

OPTCL further informed that OPGW laying work at Bhabanipatna S/S would be started from 22nd December 2017 and will be completed by end of January 2018. POWERGRID informed that they will start installation work of the repeater station at Bhabanipatna S/S after completion of OPTCL work.

Action: POWERGRID ODISHA PROJECTS & OPTCL.

BSPTCL Sector:

Biharsharif 400 kV (PG) to Patna SLDC – POWERGRID informed that presently, FO link connectivity between Biharsharif 400 kV (PG) to Patna SLDC is available through Biharsharif 220, Fatwa & Jakkanpur which doesn't have route diversity.

BSPTCL informed that FO link connectivity between Biharsharif 220 to Jakkanpur would be available through Bodhgaya, Chandwa, Jahanabad & Sipara. The same would be implemented by July 2017.

POWERGRID informed that route diversity for redundancy between Biharsharif 400 (PG) to Jakkanpur could not be achieved until unless FO connectivity from Patna to Sipara or/and Biharsharif 400 (PG) to Biharsharif 220 would be implemented. POWERGRID requested BSPTCL to get this FO link implemented. BSPTCL requested POWERGRID to include the same in the existing FO link implementation contract.

POWERGRID requested BSPTCL to explore the possibility of FO connectivity from Jakkanpur to Patna SLDC from their DISCOM for route diversity and redundancy between Jakkanpur to Patna SLDC. BSPTCL agreed for the same.

In 19th SCADA O&M Meeting, BSPTCL informed that network connectivity is available between Sipara to Patna SLDC through Karbigahia 132 kV substation. ERLDC requested BSPTCL to include this fibre connectivity by a fresh contract agreement.

BSPTCL informed that the FO link connectivity between Biharsharif 400 kV (PG) to Patna SLDC is available through Biharsharif 220 kV - Bodhgaya- Chandauti – Tehta – Jehanabad – Masaudhi – Sipara – Jakkanpur - (leased fiber) - SLDC, Patna by January, 2018 in addition to existing FO link from Biharsharif 220 kV – Fatuha – Jakkanpur - (UGFO) - SLDC, Patna.

Action: BSPTCL.

JUSNL Sector:

Ranchi 400 kV (PG) to JUSNL SLDC (Kushai Colony) – POWERGRID informed that presently, FO link connectivity between Ranchi 400 kV (PG) to JUSNL SLDC is available through Hatia 220 kV which doesn't have route diversity.

POWERGRID further informed that route diversity for redundancy between Ranchi 400 kV (PG) to JUSNL SLDC (Kushai Colony) could not be achieved until unless OPGW connectivity from Chandil to JUSNL SLDC through Namkum (132 kV) i.e. 95 Km could be completed. POWERGRID further informed redundant fiber route is to be explored and implemented by JUSNL.

In 19th SCADA O&M Meeting, JUSNL informed that they have approach NLDC for getting the PSDF fund which will be used for providing the FO connectivity between Chandil to JUSNL SLDC.

JUSNL informed that they have already applied for getting PSDF fund in August 2017 for providing protection channel for redundancy between Chandil to JUSNL SLDC (Kushai Colony).

Action: JUSNL.

Sikkim:

Gangtok to Sikkim SLDC – POWERGRID informed that presently, FO link connectivity between Gangtok to Sikkim SLDC is available which doesn't have route diversity.

POWERGRID further informed redundant fiber route is to be explored and implemented by Sikkim.

All constituents are requested to update the status of FO links as mentioned above.

No representative from Sikkim, so this agenda point could not be taken up for discussion.

4. Redundancy of communication link from all Central Sector RTU/SAS to ERLDC back-up control centre:

The matter for providing redundant communication link from Central Sector RTU/SAS to ERLDC back-up control centre as shown in a diagram below was discussed in a special project review meeting held on

14th February 2017 at ERPC, & also on 19th SCADA O & M meeting held on 07th April 2017. Provision of redundancy of FEP communication links from all Central Sector control center to back-up ERLDC, located at NLDC, New Delhi are yet to be implemented.

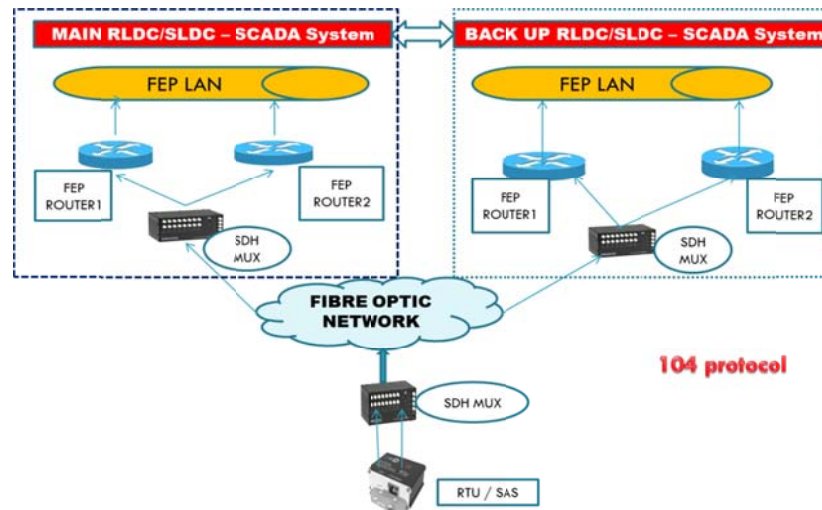


Figure 2: Dual Reporting of RTU / SAS (CS) over 104 protocol

POWERGRID and all Central Sector constituents may planned to make it redundant.

POWERGRID and all Central Sector constituents may update the status.

This agenda points already been discussed & deliberation mentioned under the head S. No. 3: Redundancy of ICCP links between control centres.

Action: POWERGRID, ERTS-2 ULDC.

5. Non availability of data telemetry and Voice communication at ERLDC:

ERLDC has taken up with all concerned about non-availability of elementary data from few stations. Further, it has also been impressed upon by ERLDC no. of times in past that provision of RTU/SAS and integration of the data as well as voice in parallel with the substation commissioning, must be ensured for all up-coming locations.

Details of data and voice non-availability are given at **Annexure – I.**

ERLDC informed that data and voice connectivity from all substations/ generating stations must be provided and available to respective RLDC/ SLDC. ERLDC requested all the constituents to look into the matter and do the needful. All constituents agreed for the same.

Action: All Constituents.

6. Data Validation at SLDC / ERLDC:

Data validation is a day to day activity and is required to be carried out on regular basis. It is therefore suggested that a procedure may be formulated at all SLDCs for RTU / SAS for daily / weekly data reporting along with voice communication status and any discrepancy observed in data / voice may be taken up by SLDCs with their concerned department so that valid data reports to SLDCs/RLDC.

ERLDC requested all constituents to validate the real time SCADA data regularly in periodic interval for smooth functioning of the Grid. All constituents agreed for the same.

Action: All Constituents.

7. Reporting of GMR and KBUNL :

Presently, GMR is reporting to OPTCL since inception because of non – availability of communication link but scheduling is being carried out at ERLDC as per GRID Code so real time SCADA data has to be reported directly to ERLDC, Kolkata. In 19th SCADA O&M Meeting, OPTCL was agreed to report the real time data of GMR directly to ERLDC. The same is yet to be done.

ERLDC informed that scheduling of GMR is being done at ERLDC so data must be reported to ERLDC directly from GMR. ERLDC requested OPTCL to take up the matter with GMR so that data & voice should be available directly to ERLDC. OPTCL and GMR agreed for the same.

Action: OPTCL / GMR.

Presently, KBUNL stage –II is reporting directly to ERLDC, but since it is under BSPTCL control area, thus it has to report to Bihar SLDC, Patna first and then, it will be further configured in ICCP for data reporting to ERLDC.

In 19th SCADA O&M meeting, ERLDC requested BSPTCL to take up the matter with KBUNL so that data reporting should be diverted to SLDC, Patna. BSPTCL informed that the work is under progress and would be getting completed by 30th April 2017.

BSPTC informed that a petition in CERC has been filed on fixing the scheduling responsibility so for the time being; present real time data reporting may be continued till the CERC order. ERLDC agreed for the same.

Action: BSPTCL / KBUNL.

8. Renewable Generation Integration in Eastern Region:

It is observed that numbers of renewable generation are being commissioned in Eastern Region but real time SCADA data of these renewable generation is not been configured to either SLDCs / ERLDC. It is emphasized to integrate the renewable generation so that the same could be monitoring at SLDCs / ERLDC.

ERLDC informed that all Renewable generating stations under jurisdiction of constituents has to be integrated with SCADA system. ERLDC requested all the constituents to furnish the information about existing Renewable generating station to ERLDC so that the same could be available at ERLDC. All constituents agreed for the same.

Action: All Constituents.

9. Multiple RTU/SAS configuration for Single Station:

It is seen that some of the stations like Jharsguda, Sasaram, Birpara, Ranchi, Farakka etc in Eastern Region have multiple RTU / SAS. As a result, lots of difficulties arise during operation of the grid. It is been requested to all the constituents to provide single RTU/SAS from a single stations.

ERLDC informed that multiple RTUs/SASs for a single station reporting at ERLDC is not acceptable as lots of difficulties arise during operation of the grid so requested POWERGRID to provide real time SCADA data to ERLDC from single RTU/SAS gateway configuration for existing as well as upcoming projects.

POWERGRID informed that 400 kV Ranchi S/S is far away from 765 kV New Ranchi S/S so real time SCADA data to ERLDC on single RTU/SAS not possible. Further, POWERGRID assured that real time SCADA data from all existing as well as upcoming RTU/SAS shall be configured and integrated through a single Gateway.

NTPC Farakka informed that they are planning to configure multiple RTUs/SAS at Farakka STPS into single RTU/SAS at the time of replacing of old RTU.

Action: POWERGRID.

Agenda points received from POWERGRID, ERTS – II:

1. URTDSM Project:

Under URTDSM Project, PDC installation is being held up at ERLDC and SLDC-Howrah due to following issues:

- a) Non-readiness of control center space at ERLDC: PDC installation is being held up due to civil renovation work at ERLDC control room. Survey done on Sep-2014. ERLDC requested POWERGRID for carrying out the civil

renovation work in meeting dated 13.11.2017 prior to installation of PDC which may result in delay in project completion.

ERLDC requested POWERGRID to come and discuss the installation of PDC at ERLDC. POWERGRID agreed for the same.

Action: POWERGRID ULDC ERTS-2 & ERLDC.

- b) Non-availability of lighting and air-conditioning at SLDC Howrah (WBSETCL) for installation of PDC. Survey was done on Nov-2014. Material already available at site.

POWERGRID requested WBSETCL to provide enough lighting and air-conditioning front so that they could be able to install the PDC at their site. WBSETCL informed that they will discuss the matter with their Chief Engineer and will revert back at the earliest.

Action: WBSETCL.

2. Taking over of OPGW material of DSTPS-RTPS OPGW link by DVC and Issue of trial operation certificate for completed portion:

02 nos. OPGW drums approx. 10 Km of DSTPS-RTPS link could not be installed due to severe ROW issues at site even after multiple mobilisation by installation agency.

This matter is already discussed in 36th TCC/ERPC held on 13th / 14th September 2017 wherein DVC informed that they will try to resolve the ROW issues by 31st October 2017 otherwise they will close the contract.

DVC may intimate the location of handing over of OPGW drums. DVC may issue TOC for completed portion.

DVC requested POWERGRID for submitting a letter to DVC in this regard after that, they will issue the TOC and intimate about the location of handing over of balance materials. POWERGRID agreed for the same.

Action: POWERGRID ULDC ERTS-2 & ERLDC.

3. Issue of Trial Operation Certificate for EMS-SCADA System:
BSPTCL is yet to issue TOC for 44 nos RTUs under EMS-SCADA Package.

BSPTCL informed that they had already issued TOC for 44nos. of RTU as requested by POWERGRID.

Sikkim is yet to issue TOC for 05 nos. RTUs under EMS-SCADA Package.

No representative from Sikkim, so this agenda point could not be taken up for discussion.

4. Non-commissioning of Jeypore-Bolangir OPGW link:
Jeypore-Bolangir OPGW link will be commissioned after completion of OPGW for repeater connectivity at Bhabanipatna by OPTCL (20 KM). OPTCL is yet to complete the same. OPTCL to expedite the OPGW work.

OPTCL informed that OPGW laying work at Bhabanipatna S/S will be started from 22nd December 2017 and would be completed by end of January 2018. POWERGRID Odisha Project informed that they will start installation work of the repeater station at Bhabanipatna S/S after completion of OPTCL work.

Action: POWERGRID Odisha Project & OPTCL.

Agenda points received from BSPTCL:

1. As provision of only 50nos. of bays for integration in the RTUs supplied including supply of MFTs, CMRs and HDRs during AMC period is there in the existing AMC agreement, supply and installation of cables are not included, additional cost may be finalized for comprehensive integration of bays along with supply & installation of MFTs, CMRs, HDRs, cables etc along with its integration in SCADA system, displays and database and make it integral part of AMC.

Also, Provision for additional bays for comprehensive integration of bays along with supply & installation of MFTs, CMRs, HDRs, cables etc along with its integration in SCADA system, displays and database for reporting of data to SLDC and ERLDC for all constituent may be made, rates may be finalized and make it integral part of AMC.

In this regard, DGM [MO], ERLDC stressed that it is beyond the purview of SCADA O&M committee and hence requested all the constituents to take up the matter directly with M/s Chemtrols.

Action: BSPTCL.

2. As provision of only 50nos of RTU integration at control centre in the existing AMC agreement, provision of additional RTU integration at control centre may be made, rates may be finalized and make it integral part of AMC.

In this regard, ERLDC informed that OPTCL has already taken price after negotiation for integration of new RTU from Chemtrols and hence requested BSPTCL to take up the matter directly with M/s Chemtrols.

Action: BSPTCL.

3. Chemtrols has requested for payment for the AMC charges but the AMC charges has been changed by adding GST @18% and subtracting service tax @12.36%. Finance department of BSPTCL has requested from Chemtrols price break-up to understand the impact of GST on AMC charges.

This agenda point already been discussed & deliberation mentioned under the head S. No. 1: Warranty Period Payment of SCADA/EMS system in ER (except OPTCL) to M/s Chemtrols.

M/s Chemtrols has stated that BSPTCL may refer their letter dated 20.11.17, wherein price breakup of AMC in the BSPTCL format has already been issued.

Action: M/s Chemtrols & BSPTCL.

4. Chemtrols has been requested to furnish bank guarantee for contract performance amounting to 2% of the total contract value which is still pending.

This agenda points already been discussed & deliberation mentioned under the head S. No. 1: Warranty Period Payment of SCADA/EMS system in ER (except OPTCL) to M/s Chemtrols.

Action: M/s Chemtrols.

5. Chemtrols is taking too much time in rectifying faults/issues of RTU/LDMS/Inverter.

M/s Chemtrols informed that as against 107 issues logged into the online portal, 96 issues have already been resolved. They further informed that most of the pending issue pertains to LDMS system arises due to CPU or inverter failure resulted from under voltage of sub-station 48 V DC battery bank.

To overcome the LDMS inverter failure impact, M/s Chemtrols has suggested replacement of the defective LDMS at those locations with 600 VA UPS with 15 minutes backup at their cost.

In this regard, DGM (MO) requested M/s Chemtrols to take up the matter with each constituent for their approval. Chemtrols agreed for the same.

M/s Chemtrols further stated that delay in fault rectification has also taken as their Engineers are also engaged at S/s sites wherein R&M activities are undergoing.

ERLDC requested all constituents to cooperate with Chemtrols. Both Chemtrols and Constituents agreed for the same.

Action: M/s Chemtrols & BSPTCL.

Agenda points received from DVC:

1. Cyber Security Audit during AMC Period.

DVC informed M/s Chemtrols that they are yet to receive the last year cyber security audit report and their compliance. M/s Chemtrols has been requested to provide the compliance report of last year cyber security audit report and its compliance. M/s Chemtrols agreed to provide the same by 25th December 2017.

DVC further asked M/s Chemtrols of Cyber Security Audit plan for AMC period. M/s Chemtrols stated that schedule for conducting Cyber Security audit shall be conveyed to all constituents including ERLDC by early January' 2018.

Action: M/s Chemtrols.

2. Initial tuning and Training of EMS at SLDC Howrah.

Chemtrols informed that they will arrange for initial tuning and Training of EMS at SLDC Howrah by March 2018. Chemtrols has been requested to give advance notice for the same. Chemtrols agreed for the same.

After detailed deliberation, M/s Chemtrols agreed to arrange EMS training of constituent Engineers' [One from each constituent] at OSI Bangalore. Date shall be communicated through ERLDC by early January'18. [Travel, Food & Lodging are to be organized by each constituent]

Action: M/s Chemtrols.

3. Availability of VCS during AMC - It is not included in format of Maintenance.

ERLDC informed that they are already having format for maintenance of VCS during AMC. ERLDC further informed that they will share the same documents with DVC at the earliest.

Action: ERLDC.

4. Connectivity between SLDC Howrah and ERLDC - lease fiber to be surrendered from February 2018.

DVC informed that as the fibre link between SLDC Howrah to ERLDC is already commissioned so they want to surrender the lease fibre connectivity between SLDC Howrah and ERLDC.

ERLDC informed that the communication link between SLDC Howrah and ERLDC is highly important and considering its importance, it is requested to DVC not to surrender the lease fibre due to route diversity and redundancy.

Action: DVC.

Agenda points received from WBSETCL:

1. SCADA/EMS system at Howrah, SLDC is very vulnerable as the Auxiliary Power System is running with only one UPS. UPS1 with Battery bank is defective since 08.04.17.

M/s Chemtrols informed that they have identified the problem and are in process of replacing approx. 30 Nos Battery cells from UPS 1 Battery Bank. Since, the Batteries have long delivery period, it is expected to reach site earliest by end March'18.

WBSETCL informed that presently, only 30 nos battery cells are identified faulty but if discharge test conducted that it may happen that most of the battery cells might be faulty. So, requested Chemtrols to replace the entire battery bank.

M/s Chemtrols informed that they will talk with their higher management and will inform WBSETCL at the earliest.

Action: M/s Chemtrols.

2. EMS system at Howrah SLDC is not functioning and no competent engineer from M/s Chemtrols is available at Howrah SLDC to take care of this.

After detailed deliberation, M/s Chemtrols agreed to arrange EMS training of constituent Engineers' [One from each constituent] at OSI Bangalore. Date shall be communicated through ERLDC by early January'18. [Travel, Food & Lodging are to be organized by each constituent]

Action: M/s Chemtrols.

3. Problems are logged into online PORTAL of M/s. Chemtrols but they remain unattended. Example: RTU at New Chanditala 400 KV are commissioned without LDMS six months ago. LDMS at JHP stage-2, Samsi, Kalimpong, Kurseong , Kalna, Raghunathganj etc are defective since 2-3 months . Inverter at Dhulian is out of order. SLD at Nazirpur LDMS is not updated etc.

Chemtrols informed that most of the pending issue pertains to LDMS system arises due to CPU or inverter failure resulted from under voltage of sub-station 48 V DC battery bank.

To overcome the LDMS inverter failure impact, M/s Chemtrols has suggested replacement of the defective LDMS at those locations with 600 VA UPS with 15 minutes backup at their cost.

In this regard, DGM (MO) requested M/s Chemtrols to take up the matter with each constituent for their approval. Chemtrols agreed for the same.

Action: Chemtrols.

4. Ms Chemtrols are providing maintenance services with very limited manpower and material and as a result overall system is getting affected.

M/s Chemtrols informed that they have deployed manpower as guided in the contract. Chemtrols further informed that remote support from Chemtrols Mumbai is also being provided for optimum result.

WBSETCL informed that the deployed person doesn't have the sufficient knowledge of SCADA/EMS and hence requested Chemtrols to look into the matter.

Action: Chemtrols & WBSETCL.

5. Order for AMC of S900 RTUs is yet to be placed by POWERGRID. It should be expedited.

POWERGRID informed that they are in the process of finalizing the AMC and would be completed by January 2018.

Action: POWERGRID ULDC ERTS-2.

Agenda points received from JUSNL:

1. Integration of additional feeders with existing SCADA:
 - a. There are many existing and proposed feeders/bays of different GSS that need to be integrated with the SCADA.

JUSNL have been requested to take up the matter directly with M/s Chemtrols.

Action: JUSNL.

2. Old RTU replacement work is in progress:
 - a. Procurement of 21 RTUs for 21 different GSS of JUSNL is in pipeline.

This point is only for information.

3. Establishment of link for data redundancy:

The proposal for OPGW connectivity from Chandil to JUSNL through Tower No. 77 (Sarwal) i.e. 95 Km has been included in the proposed PSDF scheme.

The total length of existing/proposed fiber route under reliable communication was explored as 1891 Km and the revised DPR under PSDF scheme has been framed and to be submitted very shortly to NLDC.

This point is only for information.

Agenda points received from OPTCL:

1. Extension of AMC for Areva make RTU S900.

POWERGRID informed that they are in the process of finalizing the AMC and would be completed by January 2018.

Action: POWERGRID ULDC ERTS-2.

2. Extension of AMC to M/s Commtel for Alcatel make PDH equipment installed in OPTCL sector.

POWERGRID informed that they are in the process of finalizing the AMC and would be completed by January 2018.

Action: POWERGRID ULDC ERTS-2.

3. AMC for Commtel supplied SDH/PDH equipment installed under ULDC expansion package in OPTCL sector.

OPTCL informed that they want to make direct payment to party so that any delay on account of payment to vendor could be avoided. POWERGRID informed that they will look into the matter and revert back to OPTCL at the earliest. OPTCL agreed for the same.

4. Terms & conditions for AMC for Eltek make Battery charger supplied in ULDC expansion package.

POWERGRID informed that they will forward the same to OPTCL by 31st December 2017.

Action: POWERGRID ULDC ERTS-2.

5. Installation of log management system for logging of all IP addresses accessing SCADA as part of maintaining cyber security.

ERLDC informed that since SCADA network in Eastern Region is an isolated network hence it is not yet installed. OPTCL is advised to take this matter separately.

Action: OPTCL.

6. Date of completion of DPLC commissioning under ULDC expansion scheme in OPTCL.

POWERGRID informed that they will complete the DPLC commissioning under ULDC expansion scheme in OPTCL by January 2018.

Action: POWERGRID ULDC ERTS-2.

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