

# Agenda for 1<sup>st</sup> TeST Meeting

Date: 24.10.2019 Eastern Regional Power Committee 14, Golf Club Road, Tollygunge Kolkata: 700 033

#### EASTERN REGIONAL POWER COMMITTEE

#### AGENDA FOR 1<sup>ST</sup> TELECOMMUNICATION, SCADA AND TELEMETRY SUB-COMMITTEE MEETING TO BE HELD AT ERPC, KOLKATA ON 24.10.2019 (THURSDAY) AT 11:00 HOURS

#### PART – A : ITEMS FOR DISCUSSION

#### ITEM NO. A.1: SCADA/EMS System Installed in Eastern Region:

#### • Software Related

Eastern Regional Utilities are facing followings software related issue in their SCADA/EMS system installed in Eastern Region:-

- I. Improper modeling of TCSC, FSC & HVDC
- II. Incorporation of STATCOM modeling
- III. Non functionality of STLF application since 13th April 2018
- IV. Integration with WAMS

These matters were discussed with M/s OSI & M/s Chemtrols through conference calls on 20<sup>th</sup> August 2018 & 12<sup>th</sup> April 2019 and also discussed in several forums including 4th Special SCADA meetings held on 31st July, 2019 at ERLDC, Kolkata. The same are yet to be resolved.

Chemtrols informed vide their letter ref no: UEX130005/SBU5/POSOCO/002/2019 dated 13.06.19 that these points could not be addressed properly due to lack of necessary support from OSI. The same were once again discussed in 4<sup>th</sup> Special SCADA meeting held on 31.07.19 wherein it was emphasized to call OSI in the 24<sup>th</sup> SCADA O & M meeting so that these points could be deliberated and attended.

#### • Software Licenses Related

Eastern Regional Utilities are in need of getting the following licenses which are required to run the system smoothly:-

- I. Cost implication of three (3) nos SCADA software licenses at ERLDC system
- II. Cost implication of additional licenses of 8,000 analog & 12,000 status points in OPTCL SCADA system
- III. Necessity of OSI software license (key) in spare server available at all Eastern Regional Control Centres at different locations : could not able to build the system in case of any hardware failure and / or the backup restoration testing could not be completed due to non-availability of necessary software license in the spare server.

In 24<sup>th</sup> SCADA O & M meeting, it was decided that OSI technical team will visit ERLDC, on 20th August 2019, to discuss on various software and software license related matter.

Accordingly, a meeting was held at ERLDC in presence of Director, International Operations, M/S OSI. It was decided that EMS team of OSI will be deputed at ERLDC for resolution of EMS

related matters but till date no further action being taken about the resolution of above listed EMS related matters.

In context of Software license, M/S OSI informed in that meeting that they will come up with cost estimates for the listed additional requirements.

#### M/s Chemtrols / M/s OSI may update.

## ITEM NO. A.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 finalized and approved in 36th TCC/ERPC board meeting held on 13th / 14th September 2017 at Bhubaneshwar.

In 37<sup>th</sup> TCC/ERPC board meeting held on 16th / 17th March 2018 at Goa, cost approval was accorded to POWERGRID for the said work.

In 39<sup>th</sup> ERPC Meeting, it was decided that, ERPC approved the proposal of POWERGRID for replacement of the old RTUs in the Eastern Region for reporting of RTU / SAS to backup control centres at an estimated cost of Rs.88.57 Crore with an implementation time of 36 months.

In 24<sup>th</sup> SCADA O & M meeting, POWERGRID informed that they have placed the proposal to PSDF monitoring committee on 22.07.2019 for necessary approval for PSDF funding. Thereafter as per NLDC communication, ref - , PSDF committee denied due to non-availability of scope for such approval from PSDF.

The PSDF Committee has not found the aforementioned proposal suitable for PSDF funding and returned the said proposal vide its letter ref: NLDC-PSDF/TESG-51st meeting/ 2019-20/ 143 dated 18.09.2019.

Utility	Status	Deliberation in the meeting	Target
NHPC (Teesta – V & Rangit)	Pending	NHPC representative was absent during the discussion.	
POWERGRID	Pending	DPR submitted to PSDF monitoring committee on 22nd July 2019.	
Maithon Right bank (MPL)	RTU/SAS Upgraded	Completed, Testing pending	
New Farakka (Stage III)	Completed	Testing pending.	
NTPC, Farakka (Stage I & II)	Pending	LOA will place by 1st week of October 2019	
Barh	Completed		
Talcher STPS	RTU Upgraded	Dual reporting is yet to be completed. NT the matter with Vendor.	PC Talcher is taking
Kahalgaon STPS	Pending	LOA for replacement has been placed.	
Chuzachen HEP	Pending	SAS up-gradation is in process and would be completed by July 2019	With the availability of OPGW between Chuzachen -

Present status of RTU/SAS replacement / up-gradation:-

			Rangpo.				
DMTCL Motihari	Pending	DMTCL representative was absent	OPGW not				
	_	during the discussion.	available				
APNRL	Completed						
JITPL	Pending	POWERGRID informed that OPGW	Feburary-2020				
		work will completed by Feb-2020					
GMR	Pending	POWERGRID informed that OPGW	Feburary-2020				
		work will completed by Feb-2020					
BRBCL	Pending	DMTCL representative was absent	OPGW not				
Nabinagar		during the discussion.	available				
Teesta – III	Pending	Teesta III representative was absent	OPGW not				
		during the discussion.	available				
Dikchu	Pending	Dikchu representative was absent	OPGW not				
		during the discussion.	available				
Jorethang	Pending	Jorethang representative was absent	OPGW not				
		during the discussion.	available				
OPTCL	Pending	OPTCL informed that LOA for replacem	ent / up-gradation of				
		old RTUs (78Nos) will be awarded by September 2019.					
WBSETCL	Pending	WBSETCL informed that they got approval for PSDF funding,					
		tendering expected by September-2019					
JUSNL	Pending	JUSNL informed that LOA was already awarded in June 2019.					

#### Members may deliberate for further necessary action plan.

#### ITEM NO. A.3: Redundancy of communication links for ICCP between control centres

The matter for providing communication link for ICCP from ERLDC / backup ERLDC to all control centres was discussed in a special project review meeting held on 14th February 2017 at ERPC, 35<sup>th</sup> TCC/ERPC meeting held on 24<sup>th</sup> / 25<sup>th</sup> February 2017 & several SCADA O & M meeting including 21<sup>st</sup> & 22<sup>nd</sup> SCADA O & M meeting held on 19<sup>th</sup> June 2018 and 30<sup>th</sup> October 2018 respectively.

Redundancy of ICCP communication links from all state control centre including their back-up to Main ERLDC are already implemented. Redundancy of ICCP communication links from all state control centers except DVC-MCC (Andul Road) & WBSETCL-BCC (Abhikshan Bhawan) to back-up ERLDC located at NLDC, New Delhi is yet to be provided.

#### 1. DVC MCC located at Andul Road to ERLDC BCC at New Delhi

In 22<sup>nd</sup> SCADA O & M meeting, DVC informed that they will give consent to utilize Andul Road – Kharagpur OPGW link by the end of November-2018. POWERGRID informed that they will able to establish the communication path from DVC MCC located at Andul Road to ERLDC BCC at New Delhi once consent received from DVC.

In 24<sup>th</sup> SCADA O & M meeting, DVC agreed to explore the possibilities of 02 nos. fiber between Howrah (WB) to Howrah (DVC).

#### DVC may update.

#### 2. WBSETCL MCC Andul road to ERLDC BCC located at New Delhi

In 22<sup>nd</sup> SCADA O & M meeting, POWERGRID requested WBSETCL to provide 02 nos. of fiber core between Kasba and Abhikshan Bhawan so that ICCP communication link from WBSETCL

MCC Andul road to ERLDC BCC located at New Delhi could be established. WBSETCL informed they will reply by 10th of November 2018. Till date the communication link yet to be established.

In 24<sup>th</sup> SCADA O & M Meeting, WBSETCL requested POWERGRID to submit a letter indicating the requirements of 02 nos. of fiber core between Kasba and Abhikshan Bhawan to establishment of the communication path from WBSETCL MCC Andul road to ERLDC BCC located at New Delhi.

#### POWERGRID/WBSETCL may update.

#### 3. Fiber redundancy in Central Sector OPGW link

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:

#### 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.

In the 22<sup>nd</sup> SCADA O&M meeting held on 30<sup>th</sup> October 2018 at ERLDC, POWERGRID informed that ROW issue of 400kV Rajarhat-Gokarna line is yet to be resolved. The same would be implemented once the ROW issue resolved.

In Special SCADA meeting and 23<sup>rd</sup> SCADA O&M meeting, held on 24<sup>th</sup> April 2019 at ERLDC, Kolkata, POWERGRID confirmed that Backup/protection path already established through POWERTEL network which is in operational. POWERGRID also intimated that OPGW work is going on in under-construction 400KV Rajarhat - Gokarna TL as per readiness of OPGW stretch. POWERGRID further informed that the said OPGW link along with communication equipment is expected to be commissioned by July-2019.

In 24<sup>th</sup> SCADA O & Meeting, a joint visit of WBSETCL with POWERGRID was planned, for assessment of space availability at 400kV Gokarna S/S, for installation of necessary communication equipment.

POWERGRID may also update about pending 10 km OPGW work of Gokarna- Rajarhat line, which is delayed due to the ROW issue.

#### POWERGRID & WBSETCL may update.

#### 4. Fiber redundancy in 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 in the 20<sup>th</sup> SCADA O&M meeting that the 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 22<sup>nd</sup> December 2017 and will be completed by the end of January 2018.

POWERGRID agreed that they will start installation work of the repeater station at Bhabanipatna S/S after completion of OPTCL work.

OPTCL informed in the 22<sup>nd</sup> SCADA O&M meeting those materials for establishing OPGW communication links are at site but work could not be started due to poor site condition developed because of heavy rain. OPTCL further informed that they could able to start the work by December 2018 and the communication link between Paradeep to Bhubhaneswar would be completed by 15th February 2019.

OPTCL informed in the 23<sup>rd</sup> SCADA O&M meeting that they have already completed the work between Meeramundali to Paradeep and Bhubhaneswar SLDC to Jagatsinghpur. OPTCL further informed that pending work between Jagatsinghpur to Paradeep would be completed by end of the March -2019.

In 24<sup>th</sup> SCADA O & Meeting, OPTCL informed that Jagatsinghpur to Paradeep OPGW is pending due to Tower shifting work, which is the requirement of Indian Railways. Once the tower shifting work will be completed by Indian Railways, OPTCL will start their work. OPTCL expected to complete by September-2019.

#### OPTCL may update.

#### 5. Fiber redundancy in 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 the 20<sup>th</sup> SCADA O&M Meeting, 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).

In the 21<sup>st</sup> and 22<sup>nd</sup> SCADA O&M Meeting, JUSNL informed that the application of getting PSDF fund is with Appraisal Committee. POWERGRID informed that AMC of leased fiber between Hatia 132 kV to SLDC, Ranchi would not be extended further after completion of the existing AMC. ERLDC requested JUSNL to find alternate path for this before expiry of the AMC.

Implementation status may please be furnished.

JUSNL informed in special SCADA meeting and 23<sup>rd</sup> SCADA O&M meeting that their application of getting PSDF fund has been cleared with Appraisal Committee and the same is pending with PSDF monitoring committee. The same would be completed within 36 months once approved by PSDF committee.

In 24<sup>th</sup> SCADA O & Meeting, JUSNL informed that they have received approval for PSDF funding but their Cabinet approval is pending.

#### JUSNL may update.

1<sup>st</sup> TeST Agenda

#### ITEM NO. A.4: URTDSM Project installed in Eastern Region

The URTDSM project is installed and being used by ERLDC RTSD operators since January 2019. Few observations need to be attended for better utilization of the system:-

- A. **Negative latency:** It has been observed several times that time synchronization problem with single PMU causes outage of all PMUs data at ERLDC (data loss of all PMUs at ERLDC on 26-04-2019 at 02:05 Hrs due to negative latency with Mejia B PMU).
- B. **Playback Application:** Playback application in E-terra Vision is not running properly. While running playback feature in E-terra Vision application, it is observed that critical feature; like color contour display based on frequency, is not working.
- C. **POWERGRID analytics application:** POWERGRID analytical application software, which was supposed to be installed under URTDSM project, is yet to be made functional at SLDCs.
- D. **E Phasor analytics:** E-phasor analytics application is not running properly. While using this application, operators are facing difficulties in comprehending the error message being shown by the application. This matter was informed to GE through mail dated 06.05.19 but solution is yet to be provided.
- E. Integration with SCADA over IEC 104: Data export to SCADA from URTDSM system is not working properly.

In 24<sup>th</sup> SCADA O & Meeting, POWERGRID informed that they have referred it to GE R&D team. POWERGRID further informed that GE R&D team is on the job and the same is expected to resolve by September -2019.

POWERGRID further informed that one model of Analytics application is yet to be installed and they will provide the necessary documents to ERLDC & ER constituents.

#### POWERGRID may update.

#### 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 emphasized by ERLDC 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 and this regulatory requirement also.

#### • URTDSM Data Summary:-

**Central Sector:** Prolonged outage of 15 Nos of PMUs and Intermittent data from 8 Nos of PMUs. Integration of PMUs are pending at Kahalgaon STPS (5 Nos), Talcher STPS, Sterlite (3 Nos), Patratu TPS (3 Nos), Tenughat TPS (2 Nos), JITPL (2 Nos).

**State Sector:** Bakreswar (WB) – 4 Nos PMU, Mejia B (DV) – 2 Nos PMU (Intermittent), Koderma TPS (DV) – 1 Nos PMU. Frequent failure has been observed between SLDC and ERLDC PDC-PDC communication.

In 24<sup>th</sup> SCADA O & M Meeting, followings were discussed –

**Kahalgoan STPS:-** POWERGRID informed that they will depute M/s GE engineer after getting written confirmation from NTPC regarding completion of the CT/PT termination at their C/R panel and issuance of Gate pass.

**Sterlite:-** ERLDC requested POWERGRID to take this matter with Odisha and Sterlite for completion of pending integration work since Sterlite is now under Odissa jurisdiction.

1<sup>st</sup> TeST Agenda

**Talcher STPS:-** Communication establishment and Status point integration is pending. In 24<sup>th</sup> SCADA O & M meeting, NTPC agreed to complete pending status point integration work. NTPC further informed, vide email dated 12-October-2019, that they are unable to do the wiring work due to non-availability of drawing at NTPC end.

**Redundant communication link in URTDSM project:-**Considering the importance of PMUs data, POWERGRID agreed to implement redundant communication link in URTDSM project in order to prevent PMUs data intermittency and repetitive failure between PDC-PDC communication between ERLDC and SLDCs.

Others PMUs non-availability:- POWERGRID may provide action plan.

#### POWERGRID, NTPC and OPTCL may update

#### • SCADA Data Summary :-

Central Sector: Highly intermittent SCADA data from Baharampur, Kishanganj.

#### POWERGRID may update.

State Sector: Following are the deliberations regarding data non availability of state sector stations:-

AOR	Station	Status	Deliberation in the meeting
WBSETCL	TLDP 4 220kV	Not Available	POWERGRID informed that OPGW
			is planned to be installed in NJP –
			TLDP line, WB need to extent
			consent
	Dharampur 220kV	Yet to be integrated	
	Egra 220	Yet to be integrated	
	Bantala 220kV	Not Available	Up-gradation work in under progress
	Alipurduar	Yet to be integrated	OPGW not available. ERLDC advised
	220kV		WBSETCL to integrate data on PLCC
			till OPGW will be available.
	Rishra 220kV	Not Available	Rishra data integrated.
BSPTCL	Motipur 220kV	Data not available	
JUSNL	Hatia New 220	Not Available	
	Jamtara 132kV	Not Available	
	Garwa 132kV	Yet to be integrated	
	Deoghar 132kV	Not Available	
	Kendposi 132 kV	Not Available	
OPTCL	JSPL 400kV	Most of the data not available	
	Nalco 220kV	Most of the data not available	
	Narsingpur 220kV	Station commissioned at 220kV without data	
	ZZUKV	telemetry	
	Bargarh 220	Station commissioned at	
		220kV without data	
		telemetry	

#### Members may update.

## ITEM NO. A.5: Non-functioning of codec HDMI port of VC system installed at Sikkim Monitoring Center (SMC)

Codec HDMI port of VC system, installed at SMC, is not functioning since long. Matter was discussed several forums including 4<sup>th</sup> Special SCADA meeting held at ERLDC, Kolkata on 31.07.2019 where in M/s Chemtrols informed that they are taking up the matter with OEM and the same would be resolved by 16<sup>th</sup> August 2019.

In 24<sup>th</sup> SCADA O & M meeting, M/S Chemtrols informed that they have initiated procurement of Codec HDMI port of VC system same would be installed by 31<sup>st</sup> August 2019.

#### M/S Chemtrols & Sikkim may update.

ITEM NO. A.6: Issuance of Commissioning Certificate/ Trail Operation Certificates (TOC) of 12 Nos. OPGW Links along with its Communication Equipments and Auxiliary Power Supply system implemented under SCADA/EMS Upgradation package of BSPTCL

POWERGRID has applied for issuance of TOC of 12 Nos. OPGW links (282.42 km) and 15 Nos. SDH MUX, 18 Nos. PDH MUX, 7 Nos. Charger & 7 Nos. Battery Banks, vide letter ref: ER-I/PT/ULDC/BSPTCL/3578 dtd. 25.06.2019.

Further, subsequent to the discussions held in 24<sup>th</sup> SCADA O&M meeting held on 14<sup>th</sup> August, 2019, POWERGRID has again applied for issuance of Commissioning Certificate/ TOC of 12 Nos. OPGW links (282.42 km) along with its Communication & Auxiliary Supply Equipments vide letter ref: ER-I/PT/ULDC/BSPTCL/5390 dtd. 10.10.2019 (copy attached at **Annexure-A6**). However, the same is yet to be issued by BSPTCL.

BSPTCL may expedite the issuance of Commissioning Certificate/ TOC of 12 Nos. OPGW links (282.42 km) along with 15 Nos. SDH MUX, 18 Nos. PDH MUX, 7 Nos. Charger & 7 Nos. Battery Banks.

Further, POWERGRID shall be shortly submitting the request for issuance of Commissioning Certificate of another 24 OPGW links of BSPTCL, commissioned along with Communication and Auxiliary Power Supply Equipment.

#### BSPTCL may update.

## ITEM NO. A.7: Issuance of Commissioning Certificate/ Trail Operation Certificates (TOC) of 50 Nos. PLCC Links and associated Auxiliary Power Supply System implemented under SCADA/EMS Upgradation package of BSPTCL

POWERGRID has applied for issuance of TOC of 50 Nos. PLCC links along with 23 Nos. Charger & 23 Nos. Battery Banks, vide letter ref: ER-I/PT/ ULDC/BSPTCL/3579 dtd. 25.06.2019.

Further, subsequent to the discussions held in 24<sup>th</sup> SCADA O&M meeting held on 14<sup>th</sup> August, 2019, POWERGRID has again applied for issuance of Commissioning Certificate/ TOC of 50 Nos. PLCC links and 23 Nos. Charger & 23 Nos. Battery Banks, vide letter ref: ER-I/PT/ ULDC/BSPTCL/5391 dtd. 10.10.2019. However, the same is yet to be issued by BSPTCL.

The list of PLCC links commissioned under the instant scope is attached at Annexure-A7.

BSPTCL may expedite the issuance of Commissioning Certificate/ TOC of 50 Nos. PLCC links along with 23 Nos. Charger & 23 Nos. Battery Banks. 1<sup>st</sup> TeST Agenda BSPTCL may update.

## ITEM NO. A.8: Site access issue at NTPC Kahalgaon for completion of balance OPGW Installation in Kahalgaon NTPC - Kahalgaon (BH) Link under SCADA/EMS Upgradation package of BSPTCL

One span OPGW Installation (200 mtrs, being carried out by M/s PPCL) is pending inside NTPC Kahalgaon premises along with installation of Approach Cable, HDPE Duct & FODP and termination of the same for 132 kV Kalhagaon (BH) – Kahalgaon (NTPC) T/L of BSPTCL since 11.07.2019, for want of Entry Permission at NTPC Kahalgaon end.

The matter was discussed in the 24<sup>th</sup> SCADA O&M meeting and NTPC agreed to resolve the Entry Permission issue at Kahalgaon STPP and intimate regarding site access with a week's time. However, such intimation is still awaited from NTPC.

NTPC may please expedite issuance of Entry Permission to M/s PPCL.

#### NTPC may update.

## ITEM NO. A.9: Site access issue at NTPC Kahalgaon for completion of balance interfacing works in the PMU installed under URTDSM Project

The termination of CT/PT connections of the feeders at PMU (under URTDSM Project, being implemented by M/s GE) is pending since past one year due to site access issue at NTPC Kahalgaon end.

The matter was discussed in the 24<sup>th</sup> SCADA O&M meeting and NTPC agreed to complete the pending termination of CT/PT of all feeders at respective TBs on its own. It was informed that POWERGRID will depute M/s GE to complete interfacing work at PMU end and reporting of the signals to ERLDC, subsequent to written confirmation from NTPC regarding completion of the CT/PT termination and issuance of Gatepass.

NTPC may update the status of CT/PT terminations of the feeders at NTPC Kahalgaon.

#### NTPC may update.

#### ITEM NO. A.10: OPGW related matters of BSPTCL

As per 24<sup>th</sup> SCADA MOM Powergrid informed to mobilize the team on 19<sup>th</sup> August 2019 to resolve the following points:-

**SAT of OPGW** - M/S PPCL has given the program of SAT nine months back. They have carried out SAT of 132 KV MTPS-Motihari & Motihari-Betia line. Losses found in said line which is yet to be corrected as SAT of future line are pending since long.

**132 KV Kahalgaon(BH)-Kahalgaon(NTPC)**- Installation work of OPGW taken up for 132 KV Kahalgaon(BH)-Kahalgaon(NTPC) T/L but not completed yet.

#### POWERGRID may update.

#### ITEM NO. A.11: Instability of Data

**SDH-** The improper maintenance of communication equipments and lack of manpower for communication equipments like SDH (Fibcom) and frequent failure of cards (E1/Ethernet) at different GSSs.

**PDH-** Even after issuance of TOC of PDH (Tejas) provided under scheme of SCADA Upgradation, PDH system is leading to untimely hanging and intermittent data to SLDC and failure of 64 Kbps data cards at different GSSs.

#### POWERGRID may update.

#### ITEM NO. A.12: Reporting of BTPS Old Data

Data of BTPS Old is not reporting to SLDC since long. NTPC may be requested to rectify the issue.

#### NTPC may update.

#### ITEM NO. A.13: Extension of OPGW fibre for AGC Communication

AGC communication will be through OPGW fiber, presently terminated at switch yard control room. Four cores from this cable will be extended to MPL Main Control Room.

#### Members may deliberate.

## ITEM NO. A.14: Permission for OPGW laying in TLDP-NJP OPGW link under Fiber Optic Expansion Project (Additional Requirement)

In 27<sup>th</sup> ERPC meeting, OPGW laying on TLDP-NJP was approved based on advice of NLDC. Accordingly, tendering has been carried out and work order has been placed on party by POWERGRID. Tower schedule of 220KV TLDP-NJP TL has been provided by WBSETCL.

However, they are yet to confirm towards the starting of work, permission of laying OPGW on 220KV TLDP-NJP TL & nomination of WBSETCL representative to issue the PTW.

The matter was also discussed in 24<sup>th</sup> SCADA O&M held on 14.08.2019 wherein WBSETCL intimated that they will look into the matter. But till date no response received from WBSETCL. WBSETCL to extend co-ordination in line with the agreement and approvals in ERPCs.

#### WBSETCL may update.

#### ITEM NO. A.15: Readiness of UPS Room for Backup NLDC Control Center under URTDSM Project

Backup NLDC Control Center under URTDSM Project could not be commissioned due to nonreadiness of UPS room at ERLDC. In 23<sup>rd</sup> SCADA O&M ERLDC intimated that the renovation work will be completed by July-2019.

Further, ERLDC vide letter dated 30.05.2019 and in 24<sup>th</sup> SCADA O&M meeting held on 14.08.2019, intimated that the renovation work will be completed by November-2019. ERLDC to

1<sup>st</sup> TeST Agenda

kindly expedite the renovation work so that the space is ready by November-2019 and Backup NLDC Control Center is commissioned at the earliest.

In continuation to above, a temporary space is required for keeping the Auxiliary power supply equipments and charging of the battery banks. ERLDC is requested to allot a suitable temporary space till readiness of UPS room.

#### ERLDC may update.

#### PART – B : ANY OTHER ITEMS

#### ITEM NO. B.1: Status of OPGW links under SCADA/EMS Upgradation package of BSPTCL

SCADA/EMS Upgradation Package of ER is being implemented by POWERGRID, wherein 40 OPGW links (1272 kms approx) along with Communication & Auxiliary Power Supply Equipments were envisaged in the instant package scope for BSPTCL sector.

The present Installation & Commissioning status of the links under the scope of the package is mentioned at **Annexure-B1**.

This is for information of the forum and record please.

#### Members may note.

Sr. no ERLI	POSOCO / Constituent DC Portion	Status on 07.06.19	Propose d completi on date	Status on 31.07.19	Propose d completi on date
a)	Improper modeling of TCSC, FSC & HVDC in SCADA system	Chemtrols informed that	15.7.19	Director Chemtrols informed that they are not getting neccessary	
b)	STATCOM Modeling not incorporated in SCADA system	the scope of the contract as per OSI and OSI	15.7.19	support from OSI to attend this issue hence requested ERLDC &	
c)	Integration with WAMS	agreed to resolve this on chargable basis. ERLDC informed that	15.7.19	ERPC to mediate in this matter for early resolution.	
d)	Non functionality of STLF features in SCADA system since 13th April 2018	these pending issues are being taken up since inception and hence, requested Chemtrols to resolve the matter with OSI. Chemtrols informed that discussion with OSI is going on and would be resolved.	30.6.19	MS ERPC mentioned that to resolve these points OSI support is required so he advised ERLDC to invite OSI for attending the upcoming 24th SCADA O&M meeting to be held on 14th August 2019 at ERLDC,Kolkata. ERLDC agreed for the same.	
e)	HRS data storage and retrieval related issue for		30.6.19	Completed	

#### ITEM NO. B.2: Status of various projects undertaken by M/S Chemtrols in Eastern Region

	04th & 05th December 2018	issue.			
f)	Compliance of Cyber Security Audit conducted during March 2018 not completed	Chemtrols informed that they have submitted the compliance report. ERLDC informed that this report has been finalised without discussion with ERLDC and hence requested Chemtrols to finalise this after discussion with user.	30.6.19	Chemtrols informed that they have already submitted the compliance report. ERLDC informed that compliance was not completed as per the scope of the contract. ERLDC further informed that compliance is being carried out by ERLDC with the help of Chemtrols and the same would be completed by 10.08.19. M/s Chemtrols informed that the same would be replicated to all other control centres by 31st August 2019. M/s Chemtrols further informed that they would plan to carried out cyber security audit for 2019 from October 2019.	31.08.19
g)	Mic cable connecting Mic with Codec unit (02 nos.) in VCS installed at ERLDC First floor is not communicating since last 1 month. Also, high Noise observed in the display controller of same VCS unit due to problem in cooling fan	ERLDC to rectify the high noise in the display	15.6.19	Delta person will visit ERLDC to rectify the high noise in the display controller by 10th August 2019	10.08.19
h)	Document Feeder of One no. Multi-function Printer (MP 2553) supplied is not working	To be replaced.	30.6.19	Completed	
i)	PM not being carried out by M/s Chemtrols through OEM	Procurement of spares like Server FAN & HDD etc are in progress.	15.06.19	M/s Chemtrols informed that they have already procured server FANs for all sites. They further informed that server HDD procurement is under process and the same is expeced to be completed by 15th September 2019.	15.09.19
j)	Pending Payment to Third Party leading to extremely poor service during rectification of any Hardware	Payment to Delta has been made. Jaikar techno and Garuda power payment is in process.	15.06.19	Payment to Jaikar techno had been made and Payment to Garuda power is in process and the same would be completed by 14th	14.08.19

				August 2019.	
k)	Pending/delayed monthly salary to deployed Chemtrols Engineers	March & April - 19 salary by 15.06.19 regularisation by June end.	30.6.19	Salary has been regularised.	
	Implementation of Automatic Demand Management Scheme (ADMS) in Bihar & Jharkhand	Chemtrols informed that they have not received confirmation from BSPTCL for deploying this in main system. BSPTCL informed that they will complete the testing of the same by 20.06.19. Chemtrols informed that they will deploy this on main system by 30.6.19. BSPTCL informed that they need clarification on ₹ 4 Lakhs (Exclusive of all taxes) charges which is quoted by Chemtrols for implementation of ADMS. MS, ERPC informed that this is approved in the 40th ERPC board meeting and if BSPTCL & JUSNL wants any clarification, they can approach ERPC in this regard. JUSNL also requested Chemtrols to implement this by 30.6.19 as being done for BSPTCL. Chemtrols agreed for the same.	30.6.19	JUSNL informed that ADMS testing has been completed but they are waiting for clearance from their DISCOMs for final implementation of ADMS in their system. BSPTCL informed that they have communicated implementation of ADMS to their DISCOM & SLDC but they are yet to receive communication from them. ERPC informed that this is long pending agenda and it should get resolved as soon as possible otherwise the same would again be forwarded to OCC / ERPC for further delibration or advise.	
m)	Failure of Input ACDB connector at ERLDC on 24.07.19:C3 connector (Model No: LC1F1504) in input ACDB is burnt which need to be replaced immediately.			M/s Chemtrols informed that they have already procured the required ACDB connector, the same would be installed at ERLDC.	10.08.19
n)	Preventive Maintenance of DG Sets: Scheduled Preventive Maintenance of both DG Sets for Quarter II of 2019 (April-June 2019) are yet to be conducted. The Q1 AMC were conducted during March 2019 (against initial schedule of			ERLDC informed that Preventive Maintenance of DG Sets for Quarter -II is yet to be conducted. M/S Chemtrols informed that they will conduct the Preventive Maintenance for DG Sets once they are able to renew the contract with M/s Garuda	16.08.19

1<sup>st</sup> TeST Agenda

	Jan 2019). Several correspondences have been made with the party to conduct the PM in equal interval which is seldom maintained.			Power. ERLDC informed that 12V Battery Set-2 is getting over-heated during operation of DG set & Fuel Injector coil not working properly and needs to be replaced immediately.	
0)	Repair / Replacement of faulty SMPS of Ground floor VCS Controller: One no. SMPS of the Ground floor VCS Controller has been detected faulty and has been taken out for repair / replacement. However, the same is yet to be retrofitted. Matter may be expedited.			Completed	
p)	VGA port of 1 No. Laptop fails to support CODEC. The Laptop also do not give any battery backup. Out of the 2 laptops supplied against the VC System 1 No Laptop do not support connectivity with CODEC through VGA Port. The same has been identified during PM and need to be resolved. The reported to have no battery backup. Replacement of the Battery may be taken up.			Chemtrols informed that they would resolve the VGA port problem in laptop by 16.08.19.	16.08.19
q)	Daily SOE from all constituent to ERLDC is not getting generated automatically.			ERLDC informed that presently, SOE files are not getting generated automatically and hence requested Chemtrols to look into the matter and resolve the same at the earliest. M/S Chemtrols agreed to resolve the same.	16.08.19
DVC a)	Portion Spares for workstation and system accessories (e.g. Fans, SMPS, RAM, Mouse, Keyboard etc) are not available.	Order for required spares placed on vendor	30.06.19	M/s Chemtrols informed that they have already procured server FANs for all sites. They further informed that server HDD procurement is under process and the same is expeced to be completed.	15.09.19

b)	Cyber security audit report is not submitted by M/s Chemtrols even for the last year conducted on 23.02.2018.	Chemtrols informed that they have submitted the compliance report. DVC informed that this report has been finalised without discussion with DVC and hence requested Chemtrols to finalise this after discussion with user.	30.6.19	Chemtrols informed that they have already submitted the compliance report. M/s Chemtrols further informed that they would able to replicate the complaince to other control centres including DVC by 31st August 2019. M/s Chemtrols again informed that they would plan to carried out cyber security audit for 2019 from October 2019.	31.08.19
C)	Problems related with RTU maintenances are accumulated due to non- rectification of any issue on time.	Order for required spares placed on vendor.	30.06.19	DVC informed that problems related with RTU are accumulated due to poor maintenance of RTU & non-rectification of issue in time. M/S Chemtrols informed that RTU maintenance would be carried out as and when their engineer is visiting site for attending the problem. DVC further requsted M/s Chemtrols to share the RTU maintance report and M/s Chemtrols agreed for the Same.	
d)	(i) Server fan 09 nos out since last 06 months. Not yet rectified.	· · · ·	30.06.19	Completed	
	(iv) 19 nos MFM and 01 (one) Node are faulty – to be rectified.	DVC requested Chemtrols to visit DVC, Maithon to resolve all these issues.		Chemtrols informed that they will take up the matter and resolve few MFMs as they are not geetting support from OEM.	
	(v) LDMS at different stations out of order – total 07 nos.			Chemtrols confirmed that they would resolve the issue at the earliest.	16.08.19
	(vi) 2 (two) nos. faulty MFM – not yet returned. (Since 28/11/2018).	DVC requested Chemtrols to visit DVC,		Chemtrols confirmed that they would resolve the issue at the earliest.	16.08.19
	<ul><li>(vii) Analog and Digital</li><li>Data from Jamshedpur</li><li>S/S for 33 KV JUSCO line</li><li>is not available.</li></ul>	Maithon to resolve all these issues.		Chemtrols informed that they would be visiting DVC, Maithon to resolve the issue.	
	(viii) At ALDC Maithon VGA port of controller of VCS not working since			Chemtrols confirmed that they would resolve the issue at the earliest.	16.08.19

	08/06/2018.				
e)	Data Reporting Issues:				
	<ul> <li>(i) Mosaboni S/S – Analog and Digital Data from all 33 KV Bays.</li> <li>(ii) Kolaghat S/S - Analog Data for 132 KV Howrah Bay, Kharagpur Bay, Kolaghat (WB) bay</li> <li>(iii) Nimiaghat S/S - Both Analog and Digital Data from all 33 KV Bays</li> <li>(iv) Putki S/S - Analog and Digital Data for Line # 47 (132 KV Putki - Nimiaghat line)</li> <li>(v) CTPS B: Analog data of LV side from Gen # 7 &amp; 8.</li> <li>(vi) MTPS A: Analog data of LV side from Generator # 6.</li> <li>(vii) Biada S/S: Both Analog and Digital Data for all 33 KV Bays and</li> </ul>	DVC requested Chemtrols to visit DVC, Maithon to resolve all these issues.		Chemtrols informed that they would be visiting DVC, Maithon to resolve the issue.	
f)	Digital for all 132 KV bays. switch of RACK-1 along with the KVM monitor is out of order since 14.05.2019.	Problem already informed to Chemtrols.	20.06.19	Completed	
g)	05 nos. rectifier modules of Charger of the UPS system become faulty since 05.03.2019.		30.06.19	Chemtrols confirmed that they would resolve the issue at the earliest.	31.08.19
h)	PM of DG is never carried out since installation	Chemtrols informed that they will engage the OEM	30.06.19	M/S Chemtrols informed that they will conduct the Preventive Maintenance for DG Sets once they are able to renew the contract with M/s Garuda Power.	16.08.19
j)	PM of UPS system is not conducted by OEM	Chemtrols informed that they will engage the OEM	30.06.19	Chemtrols informed that the same would be completed at the earliest.	16.08.19
k)	Three (3) nos. faulty Terminal Servers to be repaired			Chemtrols informed that the same would be completed at the earliest.	30.09.19
JUSI	NL Portion				
a)	LDMS of Japla & Daltonganj GSSs in faulty condition	Order for required spares placed on vendor.	30.06.19	Completed	
b)	LDMS inverter of Latehar GSS in faulty condition	Order for required spares placed on vendor.	30.06.19	Completed	
d)	AMC cost including implementation of ADMS			Delibration mentioned in first page.	

1<sup>st</sup> TeST Agenda

	charged by M/s Chemtrols				
e)	CPU of LDMS of Japla, Latehar, Daltonganj and Kanke are not working			Chemtrols informed that the same would be completed at the earliest.	31.08.19
f)	Maintenance related with B-check for 125 KVA DG Set installed at SLDC :			ERLDC informed that clarification regarding B- check consumable is already given in 3rd Special SCADA meeting held on 07.06.19. ERLDC advised JUSNL to go through the MOM for clarification. JUSNL agreed for the same.	
g)	Requirement of Anti-virus for DTS Workstations			Chemtrols informed that DTS workstation is not in SCADA LAN and hence, client based anti-virus could not be configured. So, requested JUSNL to arrange for the same. JUSNL agreed for the same.	
	CL Portion	Deguaste de COL é			
a)	For SCADA system at Bhubaneswar, allotted OSI licenses are as mentioned below	Requested OSI to provide the quotation so that the same could be done.	30.06.19	OPTCL informed that they have requested Chemtrols several times for providing additional 12000 Analog & 8000 Status points liceses in their SCADA system installed at Bhubaneswar. Chemtrols informed that they are unable to take any solution for this and hence, requested ERLDC/ERPC to take up the matter directly with OSI. ERPC advise ERLDC to take up this agenda also with OSI in 24th SCADA O & M meeting proposed to be held on 14.08.19 at ERLDC.	
a)	Isolation Transformer	Finding it difficulties in		BSPTCL informed that	
	breakdown since 18.08.18	finding the vendor at Patna. BSPTCL informed that this issue is pending since last 10 months and hence, requested Chemtrols to rectify at the earliest. Chemtrols	15.07.19	they are yet to get any resolution plan from Chemtrols. Chemtrols informed that they found the vendor at Patna to resolve the issue and the same would be completed at	15.09.20 19

		agreed for the same.		the earliest.	
b)	RTU Issues:				
	LDMS issue at 24 locations	Order for required spares placed on vendor.	30.06.19	Chemtrols informed that the same would be completed at the earliest.	31.08.19
d)	DG set battery issue 07.01.19	Chemtrols informed that they are suspecting card failure and pursing the matter with powerica for rectification. Chemtrols also informed that B- check will also be carried out after receiving the consumable from BSPTCL.	20.6.19	BSPTCL informed that they are yet to get any solution from Chemtrols. ERLDC advised Chemtrols to call OEM (POWERICA) so that problem could be identified and addressed properly. Chemtrols informed that POWERICA engineer will visit the site at the earliest.	10.08.19
e)	MP 2553 RICOH Printer defective	Taking up the matter with Ricoh for rectification.	15.06.19	BSPTCL requested Chemtrols to raised the bill separately so that the same could be processed at BSPTCL end for processing & release of payment.	10.08.19
f)	Integration of new bay	Procurement of material for new bay integration is in progress	30.06.19	BSPTCL informed that integration of new bays is pending from Chemtrols since long. Chemtrols informed that integration of new bays will start once cable laying at site is completed by BSPTCL ERLDC informed that in a special SCADA meeting held on 08.05.17, POWERGRID clarified that supply & laying of required cable for integration of bays is not in the scope of LoA.	31.08.19
	SETCL Portion	WRETCH would abore		Chamtrola informed that	
a)	Chemtrols RTU is not integrated through IEC- 104 protocol though communication link is ready	WBSETCL would share the list by 20.06.19. Chemtrols informed that they need 1 month time to implement this.	31.07.19	Chemtrols informed that they will provide the schedule by next week and requested WBSETCL to confirm the availability of communication link so that the same could be completed at the earliest. WBSETCL agreed for the same.	10.08.19

b)	LDMS problems are logged through online portal of M/S Chemtrols but they remain unattended. Immediate Rectification of faulty LDMS shall be planned.	Order for required spares placed on vendor.	30.06.19	Chemtrols informed that they will provide the schedule by next week. Chemtrols further informed that the same would be completed at the earliest.	31.08.19
C)	Improper maintenance of DG systems installed at SLDC	be provided by customer as being done for ERLDC & BSPTCL. B- check will be completed consumables provided by WBSETCL.		M/S Chemtrols informed that they will conduct the Preventive Maintenance for DG Sets once they are able to renew the contract with M/s Garuda Power.	16.08.19
d)	Both UPS installation at Howrah SLDC (MCC) is not working since 05:56 Hrs of 10.04.19	Chemtrols informed that they have already released payment to Delta and hence, it will be rectified soon.	15.6.19	Completed	
	m Portion				
a)	Non-functional of codec HDMI port of VC system	Chemtrols informed that they are taking up the matter with OEM.	31.07.19	Chemtrols informed that the same would be completed at the earliest.	16.08.19
b)	Non-functional of one no. Work station and Laptop each	work in progress	20.06.19	Chemtrols informed that work station problem resolved. Chemtrols further informed that laptop problem will be rectified at the earliest.	10.08.19
c)	Non reporting of 66kv Melli RTU for the past 3 months.			Chemtrols informed this issue surfaced due to GPS week roll issue at Melli 66 kV RTU. Chemtrols informed that it will be upgraded soon. ERLDC mentioned that Melli 66 kV RTU could be reported directly to Sikkim MC and time could be synchronised with control centre for data reporting if communication link is available between Melli 66 kV & Sikkim MC. Chemtrols agreed to direct the Melli 66 kV data to SMC once link is available.	14.08.19

#### M/S Chemtrols and Members may update.

## ITEM NO. B.3: Information regarding 'Upgradation of SCADA/RTUs/SAS in the Central sector stations and strengthening of OPGW network in Eastern Region

In 39<sup>th</sup> ERPC meeting held on 17<sup>th</sup> November, 2018, it was recorded that-

a) Power Grid shall place a proposal before PSDF Committee for financing the above project from PSDF.

b) In case of non- availability of required funding from PSDF, the project shall be implemented by Powergrid and the cost shall be recovered by Power Grid through tariff.

Accordingly POWERGRID applied for financing of the above project through PSDF vide letter no C/LD&C/PSDF/19-20/1 dated 22.07.2019. Subsequently, NLDC (nodal agency for PSDF) has intimated vide letter ref. NLDC-PSDF/TESG-51<sup>st</sup> meeting/2019-20/143 dated 18.09.2019 regarding non-availability of PSDF Fund for the above project.

Hence, it may be kindly recorded that POWERGRID has already initiated the Placement of LOA and execution of the project through tariff basis. This is for kind information of all the members.

#### Members may note.

एक कदम स्वच्छता की ओर

## पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise) पावरगिड

Annexure-A6

(भारत सरकार का उद्यम)

पूर्वी क्षेत्र -I क्षेत्रीय मुख्यालय : बोर्ड कॉलोनी, शास्त्री नगर, पटना- 800023 ( बिहार ), दूरभाष : 0612-2283002 ( इपीएबीक्स ) Eastern Region -I RHQ. : Board Colony, Shastri Nagar, Patna - 800023 (Bihar), Tel. : 0612-2283002 (EPABX) CIN: L40101 DL 1989 GOI 038121

Ref: ER-I/PT/ULDC/BSPTCL/ 5390



Date: 10<sup>th</sup> Oct'19

To,

#### Chief Engineer (System Operation),

Bihar State Power Transmission Company Ltd, Vidyut Bhavan, Bailey Road, Patna- 800021.

#### Kind Attn: Sh. A K Chaudhary

#### Sub: Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs of Eastern Region (BSPTCL and DVC): Issuance of Commissioning Certificate of 12 Nos. OPGW links and associated Communication Equipments- reg.

Sir,

This is in reference to the "Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs of Eastern Region (BSPTCL and DVC)" package wherein 12 Nos. OPGW links have been successfully commissioned and data of the various substations are reporting over the said OPGW links to SLDC Patna.

In this regard, kindly refer to our letter ref: ER-I/PT/ULDC/BSPTCL/3578 dtd. 25th Jun'19 vide which POWERGRID has requested for Issuance of Commissioning Certificate, for the 12 Nos. OPGW links and associated Communication and Auxiliary Equipments.

While BSPTCL vide its letter ref: ULDC/Corres-trans-72-Partl/2017-277 dtd. 7th Aug'19 has issued Trail Operation Certificate (TOC) of the aforementioned OPGW links, the TOC of associated Communication & Auxiliary Power Supply Equipments commissioned along the said OPGW links was not issued by BSPTCL.

Kindly refer to the discussions held in the 24<sup>th</sup> SCADA O&M meeting dtd. 14<sup>th</sup> Aug'19, wherein BSPTCL agreed to issue TOC of already commissioned OPGW links alongwith it's SDH, PDH and Auxiliary Equipments (copy of minutes attached herewith).

In view of above, it is once again requested to kindly issue the Commissioning Certificates of the already commissioned 12 Nos. OPGW links alongwith associated Communication and Auxiliary Equipments, as per the attached format and oblige. Thanking You.

Yours faithfully,

(Sanjay Kr. Singh) Sr. GM (AM)

पंजीकृत कार्यालयः बी–9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली–110016 ट्रुट्याषः भ11,66560112, 26560121, 26564812, 26564892, वेबसाइटः www.powergridindia.com Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 Tel.: 011-26560112, 26560121, 26564812, 26564892, Web.: www.powergridindia.com



स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation

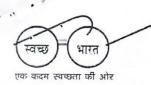
#### Encl:

- 1. POWERGRID's letter dtd. 25<sup>th</sup> Jun'19.
- 2. BSPTCL's letter dtd. 7th Aug'19.
- 3. 24<sup>th</sup> SCADA O&M Meeting minutes (relevant pages).
- 4. Pre-filled format for Issuance of Commission Certificate. (Annewwe-1).

#### Copy to:

- Director (Operation), BSPTCL, Vidyut Bhavan, Bailey Road, Patna- 800021.
- Member Secretary, Eastern Region Power Committee, 14, Golf Club Road, Tollygunj, Kolkata- 700033, West Bengal.
- Executive Director (ERLDC), POSOCO, 14, Golf Club Road, Tollygunj, Kolkata- 700033, West Bengal.





### पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिदे



POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

(भारत सरकार का उद्यम)

पूर्वी क्षेत्र -1 क्षेत्रीय मुख्यालय : बोर्ड कॉलोनी, शास्त्री नगर, पटना- 800023 (बिहार), दूरभाष : 0612-2283002 (इपीएबीक्स) Eastern Region -I RHQ. : Board Colony, Shastri Nagar, Patna - 800023 (Bihar),Tel. : 0612-2283002 (EPABX) CIN : L40101 DL 1989 GOI 038121

Ref: ER-I/PT/ULDC/BSPTCL

Date: 25.06.2019

To,

Chief Engineer (System Operation), Bihar State Power Transmission Company Ltd, Vidyut Bhavan, Bailey Road, Patna- 800021.

#### Kind Attn: Sh. G K Chaubey

Sub: Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs of Eastern Region (BSPTCL and DVC): Issuance of Commissioning Certificate of 12 Nos. OPGW links and associated Communication Equipments- reg.

Sir,

This is in reference to the "Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs of Eastern Region (BSPTCL and DVC)" package wherein 12 Nos. OPGW links have been successfully commissioned and data of the various substations are reporting over the said OPGW links to SLDC Patna.

In this regard, kindly find attached herewith the draft format (attached at Annexure-I) for Issuance of Commissioning Certificate, to be issued to POWERGRID, for the said 12 Nos. OPGW links and associated Communication and Auxiliary Equipments.

It is requested to kindly issue the Commissioning Certificates of the already commissioned 12 Nos. OPGW links and associated Communication and Auxiliary Equipments, as per the attached format and oblige. Thanking You.

Yours faithfully,

(Rajesh) Sr. DGM (ULDC)

Copy to:

- Director (Operation), BSPTCL, Vidyut Bhavan, Bailey Road, Patna- 800021.
- Member Secretary, Eastern Region Power Committee, 14, Golf Club Road, Tollygunj, Kolkata- 700033, West Bengal.
- Executive Director (ERLDC), POSOCO, 14, Golf Club Road, Tollygunj, Kolkata- 700033, West Bengal.

पंजीकृत कार्यालयः बी–9. कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली–110016 दूरमाषः 011-26560112, 26560121, 26564812, 26564892, वेबसाइटः www.powergridindia.com Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 Tel.: 011-26560112, 26560121, 26564812, 26564892, Web.: www.powergridindia.com

India's Best Companies

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation

### BIHAR STATE POWER TRANSMISSION Co. LTD.

(Department of System operation)

 Regd. Office : Vidyut Bhawan, Bailey Road, Patna-800 021, CIN-U40102BR2012SGC018889, Web: www.bsptcl.in

 Letter no. ULDC/Corres-Trans-72-PartI/2017 277
 Dated: 67 08 9

 From,
 07
 08
 9

A.K Chaudhary, Chief Engineer System Operation, BSPTCL.

To,

125

AGM (ULDC/ER-I) Powergrid Corporation of India Ltd. Board Colony, Shastrinagar Patna.

Sub: - Issue of Trial Operation Certificate for Fiber Optic Cabling Package for SCADA/EMS Upgradation of BSPTCL.

Ref: - Your office letter no-ER-1/PT/ULDC/BSPTCL/3578, dated: 25.06.2019.

Sir,

With reference to above, please find enclosed TOC of 12 No. of OPGW Links under Establishment of Communication system under Expansion/ Up-gradation of SCADA/EMS system at SLDCs of Eastern Region(BSPTCL and DVC).

Encl: As above

Yours faithfully (A.K. Chablinh Chief Engineer (System Operation)

ingali

SI. No.	Certificate of Successful comm mmunication System under Exp Easter Name of OPGW Link	n Region (BSTI	adation of SCADA/ PCL and DVC)"	EMS System at SLDCs In
1		Location Name	Date of SAT/Completion	List of Elements Commissioned OPGW Cable (24 F, DWSM) along with associated hardware and accessories (km)
1	220kV D/C Begusari-BTPS	Begusarai	26-07-2017	1.1.049
-	(Old)	BTPS (Old)	-	
2	220kV D/C LILO of Begusarai-	BTPS (New)	25-07-2017	1,204
	Biharsariff at BTPS (New)	Biharsharif	-	
3	220kV D/C Sipara-Khagaul	Sipara	11-07-2017	28.559
		Khagaul		
4	132kV D/C Sipara-Jakkanpur	Sipara	10-07-2017	17.316
		Jakkanpur		
5	132kV D/C Chandauti-	Chandauti	02-08-2017	11.786
	Bodhgaya	Bodhgaya		
6	132 kV S/C Hajipur 220-	Hajipur 220	31-07-2017	0.890
_	Hajipur 132	Hajipur 132		
7	132kV S/C Samastipur-	Samastipur	14-07-2017	35.985
	Darbhanga	Darbhanga		
8	132kV D/C Chandauti-	Chandauti	17-07-2017	77.220
	Sonenagar	Sonenagar		
	132kV D/C Sonenagar-Dehri	Sonenagar	18-07-2017	14.425
		Dehri		
0	220kV S/C Dehri- Pusauli	Dehri	18-07-2017	63.360
		Pusauli (PG)		
.1	220kV D/C Pusauli (BH)-	Pusauli (PG)	19-07-2017	6.444
	Pusauli (PG)	Pusauli (BH)		
12	132kV S/C MTPS-SKMCH	MTPS	13-07-2017	14.180
		SKMCH		
			TOTAL	282.418 KM

This certificate is being issued in accordance with Regulation 4 of CERC (Terms and Condition of Tariff) Regulations, 2014 to certify successful Commissioning of the communication link. Usage of this certificate for any other purpose is prohibited.

-2/12 uloc 051

Copy to: I. Transmission System Owner. II. Member Secretary, RPC III. Head, ERLDC IV. Any other agency, if required

Signature

(Name and Designation of the Issuing Officer with official seal) eer Chief Engline Chief Operation) (System Operation) B.S.P.T C.L., Paina



पूर्वी क्षेत्रीय भार प्रेषण केन्द्र, 14, गोल्फ क्लब रोड, टालिगंज, कोलकाता 700033 EASTERN REGIONAL LOAD DESPATCH CENTRE, 14, Golf Club Road, Tollygunge, Kolkata 700033 Tel / दुरभाष: 033 2423 5867/5875 • Fax / फैक्स: 033 2423 5809/5704/5029 • E-mail / ई-मेल: erldc@posoco.in

#### No: ERLDC/SCADA O & M- Meeting /2019/2503

Date: 23.09.2019

To,

As Per Mailing list

Sub: Minutes of 24<sup>th</sup> SCADA O & M meeting held at ERLDC Kolkata on 14<sup>th</sup>

August 2019.

Dear Madam/Sir,

Minutes of 24<sup>th</sup> SCADA O & M meeting held at ERLDC Kolkata on 14<sup>th</sup> August 2019 has been finalized and same is uploaded on our website and the same is available at "https://erldc.in/scada/ommeeting/". 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,

Executive Director, ERLDC

पंजीकृत एवं केन्द्रीय कार्यालय : प्रथम तल, बी-9, कुतुब इंस्टिटयूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016 Registered & Corporate Office : 1st Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110016 Website - www.posocc.in, E-mail : posococc@posocc.in

#### Deliberation in the meeting

*M/S Chemtrols informed that they have initiated procurement of Codec HDMI port of VC system same would be installed by 31<sup>st</sup> August 2019.* 

#### Action: M/S Chemtrols

#### Agenda Points – POWERGRID ERTS – I:-

#### Item No 1: Issuance of Trail Operation Certificates of 12 Nos OPGW Links and associated Communication Equipment and Auxiliary Power Supply system implemented under SCADA/EMS Up-gradation package of BSPTCL:

POWERGRID has applied for issuance of TOC of 12 Nos OPGW links (282.42 km) and 15 Nos SDH MUX, 18 Nos. PDH MUX, 7 Nos Charger & 7 Nos Battery Banks, vide letter ref: ER-I/PT/ULDC/BSPTCL/3578 dtd. 25.06.2019.

While BSPTCL has issued TOC of 12 Nos OPGW links vide its letter dtd. 03.08.2019, the TOC for the associated Communication and Auxiliary Power Supply Equipment is yet not issued.

BSPTCL may issue TOC of 15 Nos. SDH MUX, 18 Nos. PDH MUX, 7 Nos. Charger & 7 Nos Battery Banks,

#### Deliberation in the meeting

POWERGRID requested BSPTCL to issue Link wise TOC of already commissioned OPGW Links, along with SDH, PDH & DCPS Systems, data of which are reporting to SLDC as being done at ERLDC. BSPTCL agreed for the same

#### Action: BSPTCL

#### Item No 2: Issuance of Trial Operation Certificates of 50 Nos PLCC Links and associated Auxiliary Power Supply System implemented under SCADA/EMS upgradation package of BSPTCL:

POWERGRID has applied for issuance of TOC of 50 Nos. PLCC links and 23 Nos Charger & 23 Nos. Battery Banks, vide letter ref: ER-I/PT/ ULDC/BSPTCL/3579 dtd. 25.06.2019.

While BSPTCL has issued TOC of 50 Nos. PLCC links vide its letter dtd. 08.07.2019, the TOC for the associated Communication and Auxiliary Power Supply Equipments is yet not issued.

BSPTCL may issue the TOC of the 23 Nos. Charger & 23 Nos. Battery Banks at the earliest.

#### Deliberation in the meeting

The forum advised BSPTCL to issue Link wise TOC of already commissioned PLCC Links, along with DCPS Systems, data of which are reporting to SLDC.

BSPTCL agreed for the same

Action: BSPTCL

· · · · ·

#### Item No 3: SAT of balance SDH MUX & DCPS installed & commissioned under SCADA/EMS Upgradation package of BSPTCL:

M/s FIBCOM has supplied, installed & commissioned 46 SDH MUX & 64 DCPS at various S/s of BSPTCL and same are working since past one year approx.

BSPTCL has deputed its engineers for witnessing of SAT of SDH & DCPS systems and SAT of 33 nos. SDH & 7 Nos. DCPS has been completed till date. However, BSPTCL is not deputing its manpower on regular basis for witnessing of SAT, resulting in delay in completion of SAT and demobilization of SAT teams of the agency.

BSPTCL may depute its team w.e.f 19.08.2019, on continuous basis, so as to complete the balance SAT activities on urgent basis and subsequently issue TOC for the same.

#### **Deliberation in the meeting**

POWERGRID informed that M/s FIBCOM shall be deputing its team for performing SAT of balance SDH & DCPS and further requested BSPTCL to authorize its site officials for witnessing of SAT.

BSPTCL agreed for the same.

#### Action: POWERGRID & BSPTCL

#### Item No 4: Issuance of TOC of 98 Nos. PDH MUX installed & commissioned under SCADA/EMS Upgradation package of BSPTCL:

M/s Tejas Networks has supplied, installed & commissioned 98 Nos. PDH MUX at various S/s of BSPTCL and same are working since past one year approx. SAT of all PDH MUX have been completed progressively by Jan'19. However, TOC of the PDH MUX has not been issued yet.

BSPTCL may issue the TOC of PDH MUX on immediate basis.

#### **Deliberation in the meeting**

BSPTCL agreed to issue the TOC of PDH MUX.

Action: BSPTCL

MOM of 24th SCADA O & M Meeting of ER, 14th August 2019

Page 14

#### Certificate Number:

Date:

..

#### <u>Certificate of successful commissioning of OPGW & Equipments commissioned in</u> <u>various links under the "Establishment of Communication System under Expansion/</u> <u>Up-gradation of SCADA/EMS System at SLDCs in Eastern Region (BSTPCL and</u> <u>DVC)"</u>

Reference:

Based on the above reference, it is hereby certified that the following Communication link has successfully commissioned

Sl. No.	Name of Equipment	Rating/Details	Date of Commissioning
1	OPGW, associated hardware and accessories and spares	24 F DWSM, 282.42 Km	As detailed at Annexure-I.
2	SDH Equipment	FIBCOM Make SDH (STM-4 MADM, 5MSP)- 15 Nos.	As detailed at Annexure-I.
3	PDH Equipment	Valiant make PDH- 18 Nos.	As detailed at Annexure-I.
4	Auxiliary Power Supply	Eltek make Charger- 7 Nos. & HBL make Battery- 7 Nos.	As detailed at Annexure-I.

#### I. List of elements Commissioned:

This certificate is being issued in accordance with Regulation 4 of CERC (Terms and Condition of Tariff) Regulations, 2014 to certify successful Commissioning of the communication link. Usage of this certificate for any other purpose is prohibited.

Signature (Name and Designation of the Authorized person with official seal)

#### Copy to:

- I. Transmission System Owner.
- II. Member Secretary, ERPC
- III. Head, ERLDC
- IV. Any other agency, if required

1/2

46h

· .

Certificate of successful commissioning of OPGW & Equipments commissioned in various links under the "Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs in Eastern Region (BSTPCL and DVC)"

Application         Condition         Condition         Statuty and station         Description         Statuty and station         Statuty and and station         Statuty and and and station         Statuty and and and and station         Statuty and and and and and and and and and and	SI.	Name of OPGW Link	Location Name	Date of		List of I	List of Elements Commissioned	sioned					
S(OId)Equivarial Begusaraiessociated hardware and accessories (km)(STM-4 MDM, SMSP)PDH5 (Old)Begusarai BTPS (Old) $4$ -Apr-18 $11.049$ $1$ $1$ $1$ arai-BTPS (New) $4$ -Apr-18 $1.204$ $1$ $1$ $1$ $1$ arai-BTPS (New) $4$ -Apr-18 $1.204$ $1$ $1$ $1$ $1$ arai-BTPS (New) $4$ -Apr-18 $1.204$ $1$ $1$ $1$ $1$ purSipara $6$ -Apr-18 $1.732$ $1$ $1$ $1$ $1$ purSipara $6$ -Apr-18 $1.732$ $1$ $1$ $1$ $1$ purSipara $6$ -Apr-18 $1.732$ $1$ $1$ $1$ $1$ purHajipur 132 $19$ -Apr-17 $0.89$ $1$ $1$ $1$ $1$ Hajipur 132 $27$ -Mar-18 $7722$ $1$ $1$ $1$ $1$ $1$ Amatin $27$ -Mar-18 $7722$ $1$ <	No.		-	Commissioning	OPGW Cable (24 F, DWSM) along with	SDH Equipment FIBCOM Make SDH	PDH Equipment Valinat Make	DCP	S (Eltek M	lake)	(F Ba	ttery Bai IBL Make	¥ ()
					associated hardware and accessories (km)	(STM-4 MADM, 5MSP)	HOH	15 Amp	25 Amp	35 Amp	200 AH	300 AH	450 Ał
	-	220 kV D/C Begusari-BTPS (Old)		4-Apr-18	11.049	1	1	-	1	1	1		1
arial Biharshairf Biharshairf $4$ -Apr-18 $1204$ $1$	1		-					•		1	1	1	•
		220 kV D/C LILO of Begusarai-	BTPS (New)	4-Apr-18	1.204	1	1	1	-	1	1	1	•
		Biharsariff at BTPS (New)	Biharsharif			1	1	1	•	1	1	ı	1
	m	220 kV D/C Sipara-Khagaul	Sipara	6-Apr-18	28.559	1	1			1	1	ī	•
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Khagaul			1	1	1	•	•	1	1	•
	-	132 kV D/C Sipara-Jakkanpur	Sipara	6-Apr-18	17.32			•	1	ī	ī	1	•
			Jakkanpur			1	1	1		•	1	T	•
	1.0	132 kV D/C Chandauti-Bodhgaya	Chandauti	15-Mar-18	11.79	1	1	1	1	1	1	a	-
			Bodhgaya			•	1	1	1	•	1	1	•
	1.0	132 kV S/C Hajipur 220- Hajipur		19-Apr-17	0.89		1	1	-	,	ï	1	
		132	-			•	1	1	1	•	1	1	•
		132 kV S/C Samastipur-	Samastipur	27-Jul-18	35.99	1	1		-	1	ı	1	•
		Darbhanga	Darbhanga			1	1	•	•	1	ı	1	1
		132 kV D/C Chandauti-	Chandauti	22-Mar-18	77.22			1		•	i	1	•
hri         Sonenagar $22$ -Mar-18 $14.43$ $   -$		Sonenagar	Sonenagar			1	1	1	1	•	1	1	•
	200.20	132 kV D/C Sonenagar-Dehri	Sonenagar	22-Mar-18	14.43	-	-		-		i.	1	•
			Dehri			1	1	•		1	1		1
	0	220 kV S/C Dehri- Pusauli	Dehri	22-Mar-18	63.36			1			1		•
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	- 1		Pusauli (PG)			1		•	1	•	i	1	•
	H	1.0	Pusauli (PG)	23-Mar-18	6.44				-	•	1	1	•
132 kV S/C MTPS-SKMCH         MTPS         19-Mar-18         14.18         1         1         -		(PG)	Pusauli (BH)			1	1	1	•	,	1	1	•
SKMCH         Image: SKMCH	N		MTPS	19-Mar-18	14.18	1	1				1	ı	•
-NA- SLDC Patna 15-Mar-18 -NA 1			SKMCH			1	1	1		•	1		•
282.42 15 18 3 1 3 3 1	m		SLDC Patna	15-Mar-18	-NA-	-	1		1	1	i.	1	•
				TOTAL	282.42	15	18	3	1	e S	ß	1	e e

men

एक कदम स्वच्छता की ओर

## पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लि

1022

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise) पावरग्रिड

(भारत सरकार का उद्यम)

Annexure-A7

पूर्वी क्षेत्र -I क्षेत्रीय मुख्यालय : बोर्ड कॉलोनी, शास्त्री नगर, पटना- 800023 ( बिहार ), दूरभाष : 0612-2283002 ( इपीएबीक्स ) Eastern Region -I RHQ. : Board Colony, Shastri Nagar, Patna - 800023 (Bihar),Tel. : 0612-2283002 (EPABX) CIN : L40101 DL 1989 GOI 038121

Ref: ER-I/PT/ULDC/BSPTCL/

Date: 10<sup>th</sup> Oct'19

To,

#### Chief Engineer (System Operation),

Bihar State Power Transmission Company Ltd, Vidyut Bhavan, Bailey Road, Patna- 800021.

#### Kind Attn: Sh. A K Chaudhary

#### Sub: Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs of Eastern Region (BSPTCL and DVC): Issuance of Commissioning Certificate of 50 Nos. PLCC links and associated Auxiliary Equipments- reg.

Sir,

This is in reference to the "Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs of Eastern Region (BSPTCL and DVC)" package wherein 50 Nos. PLCC links have been successfully commissioned and data of the various substations are reporting over the said PLCC links to SLDC Patna.

In this regard, kindly refer to our letter ref: ER-I/PT/ULDC/BSPTCL/3579 dtd. 25.06.2019 vide which POWERGRID has requested for Issuance of Commissioning Certificate, for the 50 Nos. PLCC links and associated Auxiliary Equipments.

While BSPTCL vide its letter ref: 247 dtd. 08.07.2019 has issued Commissioning Certificate of the aforementioned 50 Nos. PLCC links, the Commissioning Certificate of associated Auxiliary Power Supply Equipments commissioned along the said PLCC links was not issued by BSPTCL.

Kindly refer to the discussions held in the 24<sup>th</sup> SCADA O&M meeting dtd. 14.08.2019, wherein BSPTCL agreed to issue TOC of already commissioned PLCC links alongwith its Auxiliary Equipments (copy of minutes attached herewith).

In view of above, it is once again requested to kindly issue the Commissioning Certificates of the already commissioned 50 Nos. PLCC links and associated Auxiliary Equipments, as per the attached format and oblige.

Thanking You.

Yours faithfully,

TIDIO

(Sanjay Kr. Singh) Sr. GM (AM)

Page 1 of 2

पंजीकृत कार्यालयः बी–9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली–110016 दूरमाषः 011-26560112, 26560121, 26564812, 26564892, वेबसाइटः www.powergridindia.com Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 Tel.: 011-26560112, 26560121, 26564812, 26564892, Web.: www.powergridindia.com



स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation

#### Encl:

.

.:

- 1. POWERGRID's letter dtd. 25<sup>th</sup> Jun'19.
- 2. BSPTCL's letter dtd. 8<sup>th</sup> Jul'19.
- 3. 24<sup>th</sup> SCADA O&M Meeting minutes (relevant pages).
- 4. Pre-filled format for Issuance of Commission Certificate. (Annexure 1).

#### Copy to:

- Director (Operation), BSPTCL, Vidyut Bhavan, Bailey Road, Patna- 800021.
- Member Secretary, Eastern Region Power Committee, 14, Golf Club Road, Tollygunj, Kolkata- 700033, West Bengal.
- Executive Director (ERLDC), POSOCO, 14, Golf Club Road, Tollygunj, Kolkata- 700033, West Bengal.



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लि



POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

(भारत सरकार का उद्यम)

पूर्वी क्षेत्र -! क्षेत्रीय मुख्यालय : बोर्ड कॉलोनी, शास्त्री नगर, पटना- 800023 ( बिहार ), दूरभाष : 0612-2283002 ( इपीएबीक्स ) Eastern Region -I RHQ. : Board Colony, Shastri Nagar, Patna - 800023 (Bihar),Tel. : 0612-2283002 (EPABX) CIN : L40101 DL 1989 GOI 038121

Ref: ER-I/PT/ULDC/BSPTCL/ 357

Date: 25.06.2019

Chief Engineer (System Operation), Bihar State Power Transmission Company Ltd, Vidyut Bhavan, Bailey Road, Patna- 800021.

Kind Attn: Sh. G K Chaubey

Sub: Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs of Eastern Region (BSPTCL and DVC): Issuance of Commissioning Certificate of 50 Nos. PLCC links and associated Auxiliary Equipments- reg.

Sir,

To.

This is in reference to the "Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs of Eastern Region (BSPTCL and DVC)" package wherein 50 Nos. PLCC links have been successfully commissioned and data of the various substations are reporting over the said PLCC links to SLDC Patna.

In this regard, kindly find attached herewith the draft format (attached at Annexure-I) for Issuance of Commissioning Certificate, to be issued to POWERGRID, for the said 50 Nos. PLCC links and associated Auxiliary Equipments.

It is requested to kindly issue the Commissioning Certificates of the already commissioned 50 Nos. PLCC links and associated Auxiliary Equipments, as per the attached format and oblige. Thanking You.

Yours faithfully,

(Rajesh) Sr. DGM (ULDC)

Copy to:

- Director (Operation), BSPTCL, Vidyut Bhavan, Bailey Road, Patna- 800021.
- Member Secretary, Eastern Region Power Committee, 14, Golf Club Road, Tollygunj, Kolkata- 700033, West Bengal.
- Executive Director (ERLDC), POSOCO, 14, Golf Club Road, Tollygunj, Kolkata- 700033, West Bengal.

पंजीकृत कार्यालयः बी–9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली–110016 दूरमाषः 011-26560112, 26560121, 26564812, 26564892, वेबसाइट: www.powergridindia.com Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 Tel.: 011-26560112, 26560121, 26564812, 26564892, Web.: www.powergridindia.com

India's Best To Work For	Companies
THE ECONOMI	STATES AND ADDRESS OF ADDRESS AND ADDRESS ADDRE

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation



## BIHAR STATE POWER TRANSMISSION Co. LTD.

(Department of System Operation) 4<sup>th</sup> Floor VidyutBhavan, Bailey Road, Patna-800 021

Letter No. 247

From,

Perwez Alam ESE(Telecom/ULDC) BSPTCL, Patna

To,

Sr. DGM(ULDC) PGCIL RHQ ER-1, Shashtri Nagar Patna,Bihar

08 107/19 Date

Sub:- <u>Certificate of successful commissioning of PLCC commissioned in various links under the</u> <u>"Establishment of Communication System under Expansion/Up-gradation of</u> <u>SCADA/EMS System at SLDCs in Eastern Region(BSPTCL and DVC)"</u>

Reference: PGCIL letter no. ER-1/PT/ULDC/BSPTCL/3579 dated 25.06.2019.

Sir,

.Please find enclosed herewith the Commissioning Certificate of 50 Nos. of PLCC links under the "Establishment of Communication System under Expansion/Up-gradation of SCADA/EMS System at SLDC's of Eastern Region(BSPTCL and DVC)" package.

Encl: As above

Yours Faithfully

( Perwez Alam') ESE(Telecom/ULDC) BSPTCL,Patna

Certificate Number: \_\_\_\_ 01

Date: 08 07 19

<u>Certificate of successful commissioning of PLCC commissioned in various links under the</u> <u>"Establishment of Communication System under Expansion/Up-gradation of SCADA/EMS</u> <u>System at SLDCs in Eastern Region(BSPTCL and DVC)</u>"</u>

Reference: Delivery, Installation and Commissioning report at site.

Based on the above reference, it is hereby certified that the following Communication links has successfully commissioned.

#### List of elements commissioned:

SI No.	Name of Equipments	Rating/Details	Date of commissioning
1.	PLCC, associated hardware and	PUNCOM Make PLCC	As detailed at
	accessories.	20Watt PLCC-98 Nos.	Annexure-1-A
		40Watt PLCC - 2 Nos.	

This certificate is being issued in accordance with Regulation 4 of CERC (Terms and Condition of Tariff) Regulations, 2014 to certify successful Commissioning of the communication link. Usage of this certificate for any other purpose is prohibited.

Sunaina Kumari)

Electrical Executive Engineer(Telecom)

Copy to:

- 1. PGCIL, Patna
- 2. Member Secretary, ERPC
- 3. ED, ERLDC

-----

Scanned by CamScanner

151 (	of PLCC commissioned in	Various links	Annexure-	1			
	of PLCC commissioned in gradation of S	CADA/DA/DAGO	er the "Establish	ment of Commu	nication System u	nder Exp	ansion/ U
		CADA/EMS Syste	em at SLDCs in	Eastern Region	(BSTPCL and DV	<u>'C)"</u>	
51.						List of	Elements
NO.	PLCC Link Name	End Points			Date of	Comn	nissioned
		chu Points	Station Type	RTU Name	Commissioning	PLCC E	quipment
					commissioning	(PUNC	OM Make
1	Paris i a i i	Banjari				20 W	40 W
-	Banjari-Dehri	Dehri	RTU	Banjari	2-Jun-18	1	
2	Deal off	Barh	Wideband	Ganjan	2-Jun-18	1	
4	Barh-Biharsharif	Biharsharif (BH)	RTU	Barh	26.14 10	1	
3	8-1		Wideband	bann	26-May-18	1	
2	Belaganj- Chandauti	Belaganj	RTU	Belaganj	11.11	1	
4		Chandauti	Wideband	Delagarij	11-Mar-19	1	
4	Bikramganj- Dehri	Bikramganj	RTU	Billeramonal		1	
		Dehri	Wideband	Bikramganj	9-Jun-18	1	
5	Buxar- Dumraon- Ara (PG)	Buxar	RTU			1	
	Sumaon Ala (PO)	Dumraon	Intermediate	Buxar	24-Apr-18	2	
		Ara (PG)	Wideband			1	
6	Chhapra- Hajipur 132	Chhapra	RTU	Chi		1	
		Hajipur (132)	Wideband	Chhapra	31-May-19	1	•
7	Dhaka- Motihari	Dhaka	RTU			1	-
		Motihari	Wideband	Dhaka	27-Mar-18	1	
8	Digha Khagaul	Digha	RTU				•
		Khagaul	Wideband	Digha	6-Mar-18	1	
9	Dumraon- Ara (PG)	Dumraon	RTU			1	
-		Ara (PG)	Wideband	Dumraon	25-Apr-18	1	•
10	Ekma Chhanna Usi's san	Ekma	RTU			1	
-0	Ekma- Chhapra- Hajipur 132		Intermediate	Ekma	31-May-19	2	•
-		Hajipur (132)	Wideband		SI May-15	1	
11	Ekangarsarai- Biharsharif (BH	Ekangarsarai	RTU	51		1	
-		Biharsharif (BH)	Wideband	Ekangarsarai	11-Jun-18	1	•
12	Gaighat- Fatua	Gaighat	RTU	C		-	
-		Fatua	Wideband	Gaighat	10-Mar-18	1	
13	Cab Tala Later	Goh	RTU				•
13	Goh- Tekari- Chandauti	Tekari	Intermediate	Goh	15-Mar-18	1	•
-		Chandauti	Wideband		13-101-10		
14	Kochas- Dehri	Kochas	RTU			1	•
-		Dehri	Wideband	Kochas	22-Mar-18	1	
	Hulasganj- Ekangarsarai-	Hulasganj	RTU			1	
15	Biharsharif (BH)	Ekangarsarai	Intermediate	Hulasganj	6-Jun-18	1	
		Biharsharif (BH)	Wideband		0-101-18	2	

Grand B

SKUS

Page 1 of 3

			Annexure	·I	Custom II	nder Exp	ansion/ Up
Lis	t of PLCC commissioned in	various links und	ler the "Establish	ment of Commun	nication System u	"C)"	
	gradation of S	SCADA/EMS Sys	tem at SLDCs in	Eastern Region (	BSTPCL and DV		
				at the states		List of	Elements
Second Pro-							nissioned
SI.					Date of		quipment
No.	PLCC Link Name	End Points	Station Type	RTU Name	Commissioning		OM Make)
NO.						T	40 W
						20 W	40 00
10		Imamganj	RTU	Imperani	14-Mar-18	1	
16	Imamganj- Bodhgaya	Bodhgaya	Wideband	Imamganj	14-1411 10	1	•
17	landishaw An (DC)	Jagdishpur	RTU	Inadichaus	6-Mar-18	1	· ·
17	Jagdishpur- Ara (PG)	Ara (PG)	Wideband	Jagdishpur	0-Mai-10	1	•
18	lainanna Marthulaut	Jainagar	RTU	Inlandar	8-May-18	1	•
19	Jainagar- Madhubani	Madhubani	Wideband	Jainagar	0-10109-10	1	•
19	Jamui- Lakhisarai	Jamui	RTU	Jamui	4-Aug-18	1	•
19	Jamui- Laknisarai	Lakhisarai (BH)	Wideband	Jamui	4-Aug-10	1	
20	Jandaha Samastiaus	Jandaha	RTU	Jandaha	12-Jun-18	1	•
20	Jandaha- Samastipur	Samastipur	Wideband	Jandana	12-5011-18	1	•
	Karamaga Mahanin Durauli	Karamnasa	RTU			1	•
21	Karamnasa- Mohania- Pusauli	Mohania	Intermediate	Karamnasa	12-Feb-19	2	
	(PG)	Pusauli (PG)	Wideband			1	•
22	Karal Jaharahad	Karpi	RTU	Kenel	31-Mar-18	1	1 <u>1</u>
22	Karpi- Jehanabad	Jehanabad	Wideband	– Karpi	31-War-18	1	•
	Katihar- Manihari- Purnea	Katihar	RTU				
23		Manihari	Intermediate	Katihar	9-Aug-18	1	•
	(BH)	Purnea (BH)	Wideband			1	
24	Kates Fature	Katra	RTU	Veter	C lug 10	1	-
24	Katra- Fatua	Fatua	Wideband	Katra	6-Jun-18	1	
25	Khannia Durnen (DU)	Khagaria	RTU	Mh a sa sta	C Aug 10	1	
25	Khagaria- Purnea (BH)	Purnea (BH)	Wideband	Khagaria	6-Aug-18	1	•
		Koshi	RTU			1	-
26	Koshi- Supaul- Madhepura	Supaul	Intermediate	Koshi (Kataiya)	18-Dec-18	2	
		Madhepura	Wideband			1	
_		Kudra	RTU			1	
27	Kudra- Dehri	Dehri	Wideband	Kudra	22-Mar-18	1	
		Masrak	RTU			1	
.8	Masrak- Gopalganj	Gopalganj	Wideband	— Masrak	24-Nov-18	1	
		Mohania	RTU			1	-
29	Mohania- Pusauli (PG)	Pusauli (PG)	Wideband	— Mohania	12-Feb-19	1	
-		Naugachhia	RTU				1
30	Naugachhia- BTPS OLD	BTPS Old	Wideband	Naugachhia	30-May-18		1

25

suy

			Annexure			Section St.	Service and
List	of PLCC commissioned in	various links und	er the "Establish	ment of Commi	inication System u	under Exp	pansion/
	gradation of	SCADA/EMS Syst	tem at SLDCs in	Fastern Region	(BSTPCL and D)	VC)"	
-							1000
						List of	f Element
SI.						Com	missioned
No.	PLCC Link Name	End Points	Station Type	RTU Name	Date of	PLCC	Equipmen
NO.			out of the	into nume	Commissioning		OM Make
			1.2	1.0		20 W	40 W
31	Nawada- Biharsharif (BH)	Nawada	RTU			1	
51	Nawada- Binarsharif (BH)	Biharsharif (BH)	Wideband	Nawada	11-Jun-18	1	
	Phylograp Jaing -	Phulparas	RTU			1	
32	Phulparas- Jainagar- Madhubani	Jainagar	Intermediate	Phulparas	8-May-18	2	
	Maunubani	Madhubani	Wideband		1	1	
33	Rafiganj- Chandauti	Rafiganj	RTU			1	
55	Kanganj- Chandauti	Chandauti	Wideband	Rafiganj	18-Aug-18	1	-
34	Rajgir- Biharsharif (BH)	Rajgir	RTU			1	
54	Rajgir- Binarsmarn (BH)	Biharsharif (BH)	Wideband	Rajgir	24-Jul-18	1	
35	Sasaram- Dehri	Sasaram	RTU	6	2.1 . 10	1	-
	Sasaram- Denn	Dehri	Wideband	Sasaram	2-Jun-18	1	-
36	Sheikhpura- Biharsharif	Sheikhpura	RTU	Challebaura	25 14- 10	1	
		Biharsharif (BH)	Wideband	Sheikhpura	25-May-18	1	
37	Sherghati- Bodhgaya	Sherghati	RTU	Sherghati	14 Mar 10	1	
	energiadi boungaya	Bodhgaya	Wideband	Sherghati	14-Mar-18	1	
	Shitalpur- Chhapra- Hajipur	Shitalpur	RTU			1	
38	(132 kV)	Chhapra	Intermediate	Shitalpur	31-May-19	2	-
	1	Hajipur (132)	Wideband			1	
39	Supaul- Madhepura	Supaul	RTU	Supaul	5-Jul-18	1	•
		Madhepura	Wideband	Suputi	5-301-10	1	
40	Tekari- Chandauti	Tekari	RTU	Tekari	15-Mar-18	1	
		Chandauti	Wideband		15 10 10	1	
41	Vaishali- Muzaffarpur (BH)	Vaishali	RTU	Vaishali	1-Jun-18	1	
		Muzaffarpur (BH)	Wideband			1	•
42	Valmikinagar- Ramnagar	Valmikinagar	RTU	Valmikinagar	14-Jun-18	1	
		Ramnagar	Wideband			1	-
					TOTAL	98	2

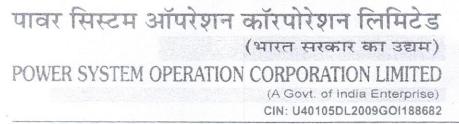
SILL

Scanned by CamScanner

Page 3 of 3

10

.





पूर्वी क्षेत्रीय भार प्रेषण केन्द्र, 14, गोल्फ क्लब रोड, टालिगंज, कोलकाता 700033 EASTERN REGIONAL LOAD DESPATCH CENTRE, 14, Golf Club Road, Tollygunge, Kolkata 700033 Tel / दुरभाष: 033 2423 5867/5875 • Fax / फैक्स: 033 2423 5809/5704/5029 • E-mail / ई-मेल: erldc@posoco.in

#### No: ERLDC/SCADA 0 & M- Meeting /2019/2503

Date: 23.09.2019

To,

As Per Mailing list

Sub: Minutes of 24<sup>th</sup> SCADA O & M meeting held at ERLDC Kolkata on 14<sup>th</sup> August 2019.

Dear Madam/Sir,

Minutes of 24<sup>th</sup> SCADA O & M meeting held at ERLDC Kolkata on 14<sup>th</sup> August 2019 has been finalized and same is uploaded on our website and the same is available at "https://erldc.in/scada/ommeeting/". 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,

Executive Director, ERLDC

पंजीकृत एवं केन्द्रीय कार्यालय : प्रथम तल. बी-9, कुतुब इंस्टिट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016 Registered & Corporate Office : 1st Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110016 Website - www.posocc.in, E-mail : posococc@posoco.in

#### **Deliberation in the meeting**

*M/S Chemtrols informed that they have initiated procurement of Codec HDMI port of VC system same would be installed by 31<sup>st</sup> August 2019.* 

#### Action: M/S Chemtrols

#### Agenda Points - POWERGRID ERTS - I:-

#### Item No 1: Issuance of Trail Operation Certificates of 12 Nos OPGW Links and associated Communication Equipment and Auxiliary Power Supply system implemented under SCADA/EMS Up-gradation package of BSPTCL:

POWERGRID has applied for issuance of TOC of 12 Nos OPGW links (282.42 km) and 15 Nos SDH MUX, 18 Nos. PDH MUX, 7 Nos Charger & 7 Nos Battery Banks, vide letter ref: ER-I/PT/ULDC/BSPTCL/3578 dtd. 25.06.2019.

While BSPTCL has issued TOC of 12 Nos OPGW links vide its letter dtd. 03.08.2019, the TOC for the associated Communication and Auxiliary Power Supply Equipment is yet not issued.

BSPTCL may issue TOC of 15 Nos. SDH MUX, 18 Nos. PDH MUX, 7 Nos. Charger & 7 Nos Battery Banks,

#### Deliberation in the meeting

POWERGRID requested BSPTCL to issue Link wise TOC of already commissioned OPGW Links, along with SDH, PDH & DCPS Systems, data of which are reporting to SLDC as being done at ERLDC. BSPTCL agreed for the same

#### Action: BSPTCL

#### Item No 2: Issuance of Trial Operation Certificates of 50 Nos PLCC Links and associated Auxiliary Power Supply System implemented under SCADA/EMS upgradation package of BSPTCL:

POWERGRID has applied for issuance of TOC of 50 Nos. PLCC links and 23 Nos Charger & 23 Nos. Battery Banks, vide letter ref: ER-I/PT/ ULDC/BSPTCL/3579 dtd. 25.06.2019.

While BSPTCL has issued TOC of 50 Nos. PLCC links vide its letter dtd. 08.07.2019, the TOC for the associated Communication and Auxiliary Power Supply Equipments is yet not issued.

BSPTCL may issue the TOC of the 23 Nos. Charger & 23 Nos. Battery Banks at the earliest.

Page 13

#### Deliberation in the meeting

The forum advised BSPTCL to issue Link wise TOC of already commissioned PLCC Links, along with DCPS Systems, data of which are reporting to SLDC.

BSPTCL agreed for the same

#### Action: BSPTCL

#### Item No 3: SAT of balance SDH MUX & DCPS installed & commissioned under SCADA/EMS Upgradation package of BSPTCL:

M/s FIBCOM has supplied, installed & commissioned 46 SDH MUX & 64 DCPS at various S/s of BSPTCL and same are working since past one year approx.

BSPTCL has deputed its engineers for witnessing of SAT of SDH & DCPS systems and SAT of 33 nos. SDH & 7 Nos. DCPS has been completed till date. However, BSPTCL is not deputing its manpower on regular basis for witnessing of SAT, resulting in delay in completion of SAT and demobilization of SAT teams of the agency.

BSPTCL may depute its team w.e.f 19.08.2019, on continuous basis, so as to complete the balance SAT activities on urgent basis and subsequently issue TOC for the same.

#### **Deliberation in the meeting**

POWERGRID informed that M/s FIBCOM shall be deputing its team for performing SAT of balance SDH & DCPS and further requested BSPTCL to authorize its site officials for witnessing of SAT.

BSPTCL agreed for the same.

#### Action: POWERGRID & BSPTCL

#### Item No 4: Issuance of TOC of 98 Nos. PDH MUX installed & commissioned under SCADA/EMS Upgradation package of BSPTCL:

M/s Tejas Networks has supplied, installed & commissioned 98 Nos. PDH MUX at various S/s of BSPTCL and same are working since past one year approx. SAT of all PDH MUX have been completed progressively by Jan'19. However, TOC of the PDH MUX has not been issued yet.

BSPTCL may issue the TOC of PDH MUX on immediate basis.

#### **Deliberation in the meeting**

BSPTCL agreed to issue the TOC of PDH MUX.

Action: BSPTCL

MOM of 24th SCADA O & M Meeting of ER, 14th August 2019

#### Certificate Number:

#### Date:

#### <u>Certificate of successful commissioning of PLCC & Equipments commissioned in</u> <u>various links under the "Establishment of Communication System under Expansion/</u> <u>Up-gradation of SCADA/EMS System at SLDCs in Eastern Region (BSTPCL and</u> <u>DVC)"</u>

#### Reference:

Based on the above reference, it is hereby certified that the following Communication link has successfully commissioned

Sl. No.	Name of Equipment	Rating/Details	Date of Commissioning
1	PLCC, associated hardware and accessories	PUNCOM Make PLCC 20 Watt PLCC- 98 Nos. 40 Watt PLCC- 2 Nos.	As detailed at Annexure-I.
2	Auxiliary Power Supply	Eltek make Charger- 23 Nos. & HBL make Battery Bank- 23 Nos.	As detailed at Annexure-I.

#### I. List of elements Commissioned:

This certificate is being issued in accordance with Regulation 4 of CERC (Terms and Condition of Tariff) Regulations, 2014 to certify successful Commissioning of the communication link. Usage of this certificate for any other purpose is prohibited.

Signature (Name and Designation of the Authorized person with official seal)

#### Copy to:

I. Transmission System Owner.II. Member Secretary, ERPCIII. Head, ERLDCIV. Any other agency, if required

mEn

114

•

SI.       PLCC Link Name         1       Banjari-Dehri         2       Barh-Biharsharif         3       Belaganj- Chandauti         4       Bikramganj- Dehri         5       Buxar- Dumraon- Ara (PG)         6       Chhapra- Hajipur 132         7       Dhaka- Motihari         8       Digha Khagaul         9       Dumraon- Ara (PG)         9       Dumraon- Ara (PG)         10       Ekma- Chhapra- Hajipur 132         11       Bhasari Biharsharif         12       Gaighat- Fatua         13       Goh- Tekari- Chandauti								List of El	ements C	List of Elements Commissioned	ned		
	omen da	End Doints	Ctation Tuno	DTILN	Date of	PLCC Eq	PLCC Equipment		DCPS		Ba	Battery Bank	k
			oration type		Commissioning	(PUNCO	(PUNCOM Make)	(E	(Eltek Make)	e)	Ŧ	(HBL Make)	(5
						20 W	40 W	15 Amp	15 Amp 25 Amp	35 Amp	200 AH	300 AH	450 AH
		Banjari	RTU	incince	01 ciil C	1	1	1.	•	ï	1	1	1
		Dehri	Wideband	Daujau	ot-linc-7	1	•			1	1	1	1
	rif	Barh	RTU	bach	OL WON JC	1		1	ı	1	1	ı	1
		Biharsharif (BH)	Wideband		OT-ADIALOZ	1		-	1	1	1		1
	iticke	Belaganj	RTU	incoolog	01	1	1	7	•	ï	1	ī	1
	וומפתנו	Chandauti	Wideband	DCIdgail	GT-IPINI-TT	1	•	1			1	,	•
	ohri	Bikramganj	RTU	incomeratio	0 1 10	1	1	1	•	1	1	1	1
		Dehri	Wideband	DINIGUIBAU	ot-ling-c	۲ı	1	r.		1		,	•
		Buxar	RTU			1	•	1		1	1		1
	on- Ara (PG)	Dumraon	Intermediate	Buxar	24-Apr-18	2			1	1	1		•
		Ara (PG)	Wideband				ı	•	•		1	r	
	137	Chhapra	RTU	Chhanna	01	1		1	•	1	1		ı
	7CT INC	Hajipur (132)	Wideband	Ciliapia	GT-ÁPINI-TC	1	ı	1	•	ı	1		1
	iri	Dhaka	RTU	Chaka	OL YON LC	1	•	1	•	1	1	1	1
		Motihari	Wideband	DIIANA	OT-IPINI-17	1			1	1	1		1
		Digha	RTU	Diaba	6 Mar 10	1		•	1		1	,	ı
		Khagaul	Wideband	UIBIIA	OT-INIA	1	-			1	•	,	1
	(50)	Dumraon	RTU		JE Any 10	1		1	1	1	1		5
		Ara (PG)	Wideband	חמווומסוו	ot-ide-cz	1		i		1		•	•
		Ekma	RTU			1	•	1		1	1		.1
	a- Hajipur 132	Chhapra	Intermediate	Ekma	31-May-19	2		- 184	1	1	-	,	1
		Hajipur (132)	Wideband			1			1		•	1	1
	Biharsharif	Ekangarsarai	RTU	Ekonorcoroi	11 hin 10	1			•	•	,		1
		Biharsharif (BH)	Wideband	LLNdi igai sai ai	OT-INC-TT	1		1	1	1	•	1	1
		Gaighat	RTU	Gaiabat	01 2010	1	•	1		1	1	1	1
		Fatua	Wideband	Daigilat	OT-JPINI-OT	1			1	1	1	,	1
		Goh	RTU			1				1	•	,	•
	handauti	Tekari	Intermediate	Goh	15-Mar-18	2		•	•	1	•	•	r
		Chandauti	Wideband			1	1	,	ĩ	1	-	-	1
14 Kochac- Dahri		Kochas	RTU	Kochae	01 JUN CC	1	•	•	1	•		•	,
	al all and a second	Dehri	Wideband	NUCLIBS	0T-1011-77	1		•			,	,	,

Certificate of successful commissioning of PLCC & Equipments commissioned in various links under the "Establishment of Communication System under Expansion/Up-gradation of SCADA/EMS System at SLDCs in Eastern Region (BSTPCL and DVC)"

E

•

SI								List of El	ements C	List of Elements Commissioned	band		
;	PLCC Link Name	End Doints	Station Tyne	PTI I Name	Date of	PLCC Eq	PLCC Equipment		DCPS		Bá	Battery Bank	¥
No.			oracioni i Abe		Commissioning	(PUNCO	(PUNCOM Make)	(E	(Eltek Make)	e)	÷	(HBL Make)	e)
						20 W	40 W	15 Amp	25 Amp	15 Amp 25 Amp 35 Amp		200 AH 300 AH 450 AH	450 AF
	Hulacaani. Ekangarcarai.	Hulasganj	RTU			1			1	1	1	ı	1
15	nuasganj- Enangarsarar- Biharcharif (BU)	Ekangarsarai	Intermediate	Hulasganj	6-Jun-18	2	,		1	1	,	1	1
		Biharsharif (BH)	Wideband			1	,	1	1	1	1	1	
10		Imamganj	RTU		01 04 61	1	,	,	а 		,	1	1
	inianiganj- boungaya	Bodhgaya	Wideband	Imamganj	T4-INIAL-18	1	,	•	1	1	1	1	
17	100) and michael	Jagdishpur	RTU			1		1		1	1		1
	(07) biA - indriginger	Ara (PG)	Wideband	Jagaisnpur	AT-JBIVI-0	1	•	,		,		1	•
10	inchidbell reachiel	Jainagar	RTU	second c	01		,	1	,	1	1	-	•
	Jailiagai - Iviauliuvalii	Madhubani	Wideband	Jallidgal	QT-APINI-Q	1		1		1	,	1	1
19	lamii. Labhicarai	Jamui	RTU	inter	1 41.5 10	1		1	1	1	1	1	
		Lakhisarai (BH)	Wideband	inilipr	- AUG-10	1		1	,	1	,	1	1
00	landaha- Samastinur	Jandaha	RTU	cdebac	01 cirl C1	1		1	-	•	ï	1	•
		Samastipur	Wideband	Januaria	ot-linc-7t	1			1	1		1	•
	Karamnasa- Mohania-	Karamnasa	RTU			1		1	•	,	1	ı	1
21		Mohania	Intermediate	Karamnasa	12-Feb-19	2		,	•	•	i	1	ı
		Pusauli (PG)	Wideband			1				r	1		1
27	Karni- Jehanahad	Karpi	RTU	Karni	01 101 10	1		ı		-	1	1	ī
1		Jehanabad	Wideband	Nai pi	OT-IPINI-TC	1		•	•	,	1	1	ı
-	Katihar- Manihari- Durnea	Katihar	RTU			1	•	1	1		1	1	•
23	(BH)	Manihari	Intermediate	Katihar	9-Aug-18	1	-			r	1		•
	line	Purnea (BH)	Wideband			1		-		-	-	-	•
24	Katra- Fatua	Katra	RTU	Katra	6-hin 10	1		•	ı	Т	-		•
		Fatua	Wideband	INALIA	OT-JIMC-0	1	ı	-			-	r.	1
25	Khagaria- Durnea (RH)	Khagaria	RTU	circocdy	C Aug 10	1	,	1	1	1	1	,	1
		Purnea (BH)	Wideband	Niagalia	ot-Sun-o	1		-			•	•	1
		Koshi	RTU			1		-			1		1
26	Koshi- Supaul- Madhepura	Supaul	Intermediate	Koshi (Kataiya)	18-Dec-18	2	1	,	1	1	1	ı	1
		Madhepura	Wideband			1	•	-	1		-		1
27	Kudra- Dehri	Kudra	RTU	Kudra	27-Mar-18	1	1		•	-	-	1	•
	5	Dehri	Wideband	-	OT IBINI 77	1			•	-	-	1	1
28	Masrak- Gonalgani	Masrak	RTU	Macrah	OL WON AC	1			-	-	1		1
	fundindon un inter	Gopalganj	Wideband		07-001-67	1		•	•			1	1

Certificate of successful commissioning of PLCC & Equipments commissioned in various links under the "Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs in Eastern Region (BSTPCL and DVC)"

Page 2 of 3

E

•

SI         PLCC tink hame         End Points         Ration Yame         Ration Yame         PLCE diame         PLCC tink hame									List of El	List of Elements Commissioned	ommissic	bend		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	SI.		End Doints	Ctation Tuno	DTIIN	Date of	PLCC Eq	uipment		DCPS		Ba	ittery Ba	hk
Mohania-Pusauli (PG)         Mohania         Run         Anne         20W         40W         15,5mp         2,5mp         2,5mp         3,5mp	No			add unippo		Commissioning	(PUNCO	M Make)	(E	Itek Make	(=	÷	HBL Mak	e)
Modentia- buscuir (pc)         Modentia- buscuir (pc)         Ritu         Modentia- buscuir (pc)         Modentia- buscuir (pc)         Ritu         Modentia- buscuir (pc)         Ritu         Modentia- buscuir (pc)         Ritu         Pio         P							20 W	40 W	15 Amp		35 Amp	200 AH	300 AH	450 AH
moment resourcy of Nugachia BITS OLD         Executal Nugachia BITS OLD         Worde- May and Nugachia BITS OLD         Worde- May and Nugachia BITS OLD         Worde- and Nugachia         Modeland RIU         Modeland Nugachia         Modeland RIU         Modeland Nugachia         Modeland RIU         Nugachia         C <thc< th=""> <thc< th=""> <thc< th="">         C</thc<></thc<></thc<>	90		Mohania	RTU	ciacdoh	17 Eab 10	1	,	1		1	1	1	1
Naugachhia         RTU         Naugachhia         RTU         Naugachhia         RTU         Naugachhia         RTU         Naugachhia         RTU         Naugachhia         Naugachhia         Naugachhia         RTU         Naugachhia         Naugachhia         Naugachhia         Naugachhia         Naugachhia         Naugachia         RTU         Naugachhia         Naugachia         RTU         Naugachia         Nauga	3		Pusauli (PG)	Wideband		TZ-LED-TA	-	1	ı	,	i		1	1
magnument         Stready to         Instrant (BH)         Watchand         Watchand         Matchand         Instrant (BH)         Watchand         Number         Nu	30		Naugachhia	RTU	ciddocouch	01		1		1	1		,	1
	2		BTPS Old	Wideband	INAUgacifilia	21-YBINI-US	1	1		1	1		1	1
momonus mutantati (pr)         Bihassharif (BH)         Wideband         Newode         L1JUI-16         I	21		Nawada	RTU		07 77	1	1	•	,	,	,	,	•
Phulpares-Jaingar-Jaing	10		Biharsharif (BH)	Wideband	INAWAGA	. gt-unr-tt	1	1	1		,			1
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Abula according	Phulparas	RTU			1	,	1	•	1	1	1	1
Madhubani         Madhubani         Wideband         Madhubani         Wideband         Rafi         Rai         Ru         Ru <td>32</td> <td></td> <td>Jainagar</td> <td>Intermediate</td> <td>Phulparas</td> <td>8-May-18</td> <td>2</td> <td>1</td> <td>ı</td> <td>1</td> <td>r</td> <td>-</td> <td>1</td> <td>1</td>	32		Jainagar	Intermediate	Phulparas	8-May-18	2	1	ı	1	r	-	1	1
Rafigani-Chandauti         Rafigani         RTU			Madhubani	Wideband			1	,		1	,			1
Mangari Lanuduu         Chandauti         Wideband         Mangari         Lo-Yug-To         T         C <td>33</td> <td></td> <td>Rafiganj</td> <td>RTU</td> <td>Defizioni</td> <td>10 4 10</td> <td></td> <td></td> <td>1</td> <td></td> <td>ı</td> <td>1</td> <td>,</td> <td>i</td>	33		Rafiganj	RTU	Defizioni	10 4 10			1		ı	1	,	i
Rajgr         Bharsharf (BH)         Bagir         Intersharf (BH)         RTU         Rajgr         Rajgr         1         ·         ·<	2	-	Chandauti	Wideband	- Naligalij	101-9UP-01	1			1		,	1	1
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	75		Rajgir	RTU		81 1.1 10	1		1	1		1		1
Saaram         RTU         Saaram         Saaram         Z-Jun-18         I         C <thc< td=""><td>5</td><td>-</td><td>Biharsharif (BH)</td><td>Wideband</td><td>Indigin</td><td>. 91-IUL-42</td><td>1</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td>•</td></thc<>	5	-	Biharsharif (BH)	Wideband	Indigin	. 91-IUL-42	1					1		•
	35		Sasaram	RTU	Creation	01 201 0	1	•		,		ı	1	
$ \  \  \  \  \  \  \  \  \  \  \  \  \ $	3		Dehri	Wideband			1		,	•		ı		
	36		Sheikhpura	RTU	Chaithaura	DE MAN JC	1		1			1	ı	
$ \  \  \  \  \  \  \  \  \  \  \  \  \ $	8		Biharsharif (BH)	Wideband		OT-40141-C7	1	5 <b>1</b> 8	T	1				1
$ \begin{array}{l lllllllllllllllllllllllllllllllllll$	37	_	Sherghati	RTU	Charabati	01 2010 11	1		1	•		1.	•	1
Shitalpur-Chhapra-Hajipur         Shitalpur         RTU         RTU         RTU         RTU         RTU         Provided and transmission of transmissintransmissintrandox of transmission of transmission of transmissi	5		Bodhgaya	Wideband	סווכו פוומרו	OT-IPINI-5T	1			•	•		1	•
			Shitalpur	RTU			1	T	1			-	-	-
$ \begin{array}{l lllllllllllllllllllllllllllllllllll$	38		Chhapra	Intermediate	Shitalpur	31-May-19	2	т	1		1	-		-
			Hajipur (132)	Wideband			1	-	•		1	-		1
	39		Supaul	RTU	linearis	5-hil-18	1	1	1	-	1	1	1	-
		-	Madhepura	Wideband	inndar	OT_INC_C	1	-		1	1	-		-
Valuation       Chandauti       Wideband       Valuation       Valuation       Constrained       1       Constrained       1       Constrained	40		Tekari	RTU .	Takari	15-Mar-18	1	-	-	1	•	-	•	-
Vaishali-Muzaffarpur (BH)         Vaishali         RTU         Vaishali         1-Jun-18         1         -         1 <th1< td=""><td>2</td><td></td><td>Chandauti</td><td>Wideband</td><td>ICANI</td><td>OT_IDIAL_CT</td><td>1</td><td></td><td></td><td>•</td><td>•</td><td>1</td><td></td><td>1</td></th1<>	2		Chandauti	Wideband	ICANI	OT_IDIAL_CT	1			•	•	1		1
Valmikinagar-Ramnagar Ramnagar Ramnagar Muzaffarpur (BH) Wideband Valmikinagar 14-Jun-18 1	41		Vaishali	RTU	ilchaich	1 10	1	1	1		•	1		1
Valmikinagar         RTU         Valmikinagar         14-Jun-18         1         -	!		Muzaffarpur (BH)	Wideband	libiiciby	OT-INC-T	1	-	•	•	-	•	•	
Ramagar         Wideband         Variantee         At Juinto         1         - <th< td=""><td>47</td><td>Valmikinagar- Rampagar</td><td>Valmikinagar</td><td>RTU</td><td>Walmikinagar</td><td>14-him-18</td><td>1</td><td>-</td><td></td><td>1</td><td>-</td><td>1</td><td></td><td>-</td></th<>	47	Valmikinagar- Rampagar	Valmikinagar	RTU	Walmikinagar	14-him-18	1	-		1	-	1		-
98 2 23 0 0 23 0		500	Ramnagar	Wideband	Admininggar	OT_INC_LT	1	-	•	•	•	-		
						TOTAL	98	2	23	0	0	23	0	0

Certificate of successful commissioning of PLCC & Equipments commissioned in various links under the "Establishment of Communication System under Expansion/ Up-gradation of SCADA/EMS System at SLDCs in Eastern Region (BSTPCL and DVC)"

E

Page 3 of 3

Annexure-B1

Status of OPGW Links Commissioned/ Completed 16.10.2019 (with Terminal Equipments) under SCADA/EMS Package of ER (BSPTCL Sector):

SI. No.	Name of Link	Link Length (km)	Erection Completed (km)	Balance Erection (km)	Date of Commissioning/ Data Communication
1	220 kV D/C Begusari–BTPS (Old)	11.049	11.049	0	4-Apr-18
2	220 kV D/C LILO of Begusarai-Biharsariff at BTPS (New)	1.204		0	
3	220 kV D/C Sipara-Khagaul	28.559	28.559	0	•
4	132 kV D/C Sipara-Jakkanpur	17.32	17.32	0	
5	132 kV D/C Chandauti-Bodhgaya	11.79			
6	132 kV S/C Hajipur 220- Hajipur 132	0.89			
7	132 kV S/C Samastipur-Darbhanga	35.99	35.99	0	
8	132 kV D/C Chandauti-Sonenagar	77.22	77.22	0	
9	132 kV D/C Sonenagar-Dehri	14.43			
10	220 kV S/C Dehri- Pusauli	63.36			
11	220 kV D/C Pusauli (BH)- Pusauli (PG)	6.44		0	
12	132 kV S/C MTPS-SKMCH	14.18			
13	132 kV Sabour- Sultanganj	33.495			
14	132 kV Sultanganj- Jamalpur	34.041	34.041		,
15	132 kV Madhepura- Saharsa	48.465			/
16	132 kV Saharsa- Purnea	101.105			, ,
17	132 kV Banka (BH)- Banka (PG)	12.513			
18	132 kV Banka (PG)- Sabour	40.767		0	
19	132 kV Madhepura- Sonbarsa	16.76			I
20	132 kV Biharsharif (BH)- Nalanda	12.508			
21	132 kV Ara (PG)- Ara (BH)	2.225			
22	132 kV Jamalpur- Lakhisarai (BH)	43.357	43.357	0	
23	132 kV Lakhisarai (BH)- Lakhisarai (PG)	15.136			5
24	132 kV Chandauti- Tehta	48.116			5
25	132 kV Tehta- Jehanabad	4.66	4.66	0	
26	132 kV Jehanabad- Masaurhi	21.994	21.994		
27	132 kV Masaurhi- Sipara	25.469	25.469	0	
28	132 kV Bettiah- Ramnagar	47.137	47.137		
29	132 kV Motihari- Bettiah	42.913	42.913	0	
30	132 kV MTPS- Motihari	67.675	67.675	0	27-Mar-18
31	132 kV MTPS- Muzaffarpur (BH)	17.768	17.768	0	
	132 kV Pandaul- Madhubani	14.55			
33	132 kV Pandaul- Gangwara	17.985	17.985	0	8-May-18
34	132 kV Gangwara- Darbhanga	22.059	22.059	0	
35	132 kV Siwan- Gopalganj	30.117	30.117	0	
36	220 kV MTPS- Darbhanga	67.905	67.905	0	
37	132 kV Kahalgaon (NTPC)- Kahalgaon(BH)	5.709	5.534	0.175	-
38	132 kV Lakhisarai (BH)- Hathidah	28.978	28.538	0.44	-
39	132 kV MTPS- Gopalganj	100.351	73.336	27.015	-
40	132 kV Begusarai- Kusheshwarasthan	65.923	4.515	61.408	-
	Total	1272.099	1183.061		