



AGENDA
FOR
17th TeST MEETING

Date: 27.05.2025

Eastern Regional Power Committee

14, Golf Club Road, Tollygunge

Kolkata: 700033

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EASTERN REGIONAL POWER COMMITTEE

AGENDA FOR 17th TeST MEETING TO BE HELD ON 27.05.2025(TUESDAY) AT 10:30 HRS

1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 16th TeST Meeting held on 22nd January 2025 virtually through Microsoft Teams online meeting platform

The minutes of 16th TeST Sub-Committee meeting held on 22.01.2025 was circulated vide letter dated 30.01.2025.

Members may confirm the minutes of 16th TeST meeting.

2. PART-B: ITEMS FOR DISCUSSION/UPDATE

2.1 Availability for Communications Systems: ERPC

- As per **Regulation 7.3** of the Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity), Regulations, 2017, National Power Committee (NPC) has been entrusted to prepare Guidelines on Availability of Communication System in consultation with RPCs, RLDCs, CTU and other stakeholders.
- Accordingly, NPC prepared Guidelines on “Availability of Communication System” in consultation with the stakeholders and submitted the same for approval of the Commission. The said Guidelines was approved in **January 2024** and published in public domain as “Guidelines on Availability of Communication System” Regulations.
- Availability of Communication System adhere to *Regulation 6(3) of the CEA (Technical Standards for Connectivity to the Grid)*, *Regulation 5(1) of the CEA (Technical Standards for Communication System in Power System Operations) Regulations, 2020* and *Regulation 11 of the Indian Electricity Grid Code (IEGC) 2023*.
- Applicability of Guidelines:
 - Applicable to CTU for the Communication System Infrastructure of inter-State Transmission System.
 - Applicable to STU for the Communication System Infrastructure of intra-State Transmission System, till appropriate regulation on Communication is framed by the respective State Electricity Regulatory Commission.
- Communication System outages:
 - Outage time of communication system elements (i.e. channels) due to acts of God and force majeure events beyond the control of the communication provider shall be considered as deemed available.
 - Any outage of duration more than one (01) minute in a time-block shall be considered as not available for the whole time-block.
 - Any outage of duration less than or equal to one (01) minute in a time-block shall be treated as deemed available provided such outages are not more than ten (10) times in a day.
 - Since presently **UNMS** system is under control of the POWERGRID and it was commissioned in **December 2023** and more over said availability calculation is to be

generated from system hence it is proposed that said calculations are to be generated and submitted by the POWERGRID to ERPC/ERLDC for further necessary action.

As per deliberation in **16th TeST** meeting:

- ✓ CTU raised concerns regarding Clause 3.4 of the Guidelines and has filed a petition seeking a revision of roles and responsibilities. The petition hearing is scheduled for **13/02/2025**.
- ✓ In the meantime, CTU has proposed POWERGRID to utilize their Regional Unified Network Management System (UNMS) to assume the role of the network management team. The UNMS currently maintains comprehensive details of all communication links within the Eastern Region (ER).
- ✓ CTU will provide the methodology for sharing link downtime data with RPC after the petition hearing.
- ✓ CTU apprised that feature of outage management of communication system is to be deployed in upcoming National UNMS and thereafter in all regional UNMS.

16th TeST Decision:

- ✓ TeST committee felt that under the existing regulatory guidelines it would not be appropriate to put the availability certification on hold.
- ✓ Since the guidelines for availability calculation as finalized by NPC are already in vogue, POWERGRID was advised to utilize the regional UNMS for furnishing the channel availability details to ERPC & ERLDC for validation and certification.

Latest update:

- A demonstration/discussion meeting was held at ERPC on 14.05.2025 on availability reports in UNMS.
- The draft availability format circulated by CTU (SRPC format) was discussed in detail in presence of OEM NMSWorks.
- The formulae for calculation of availability in timeblock basis was also deliberated.
- POWERGRID also showed the interim availability format that has been updated in UNMS System with type of service & proper naming of channels till finalisation of the report alongwith flowchart part.
- On enquiry, OEM confirmed that they are able to develop the availability module with necessary development in software based on approval of the availability report.

- POWERGRID along with UNMS Application vendor M/s. NMS works representative demonstrated availability of channel in UNMS system and discussion on the formats, as same formats were adopted at SRLDC. ERLDC has also agreed to adopt the same . In the meeting representatives from CTU were also present virtually.
- ERLDC has requested to depute L2 lever vendor representative for 2-3 weeks for monitoring of events in UNMS system in correlation with real time grid-operation data. POWERGRID/CTU are agreed for the same.
- ☐ In view of above POWERGRID/ CTU is requested by ERLDC to depute their suitable vendor representative from first week of **June 2025**.

CTU/Powergrid may update. Members may discuss.

2.2 Commencement of outage planning for communication system in ER: ERLDC

As per the clause 7.3 of Communication System for inter-State transmission of electricity) Regulations, 2017, “the RPC Secretariat shall be responsible for outage planning for communication system in its region. RPC Secretariat shall process outage planning such that uninterrupted communication system is ensured “.

Moreover, it is to bring your notice that such outage planning (Planned and Forced just like transmission system) is essential for review and verification of availability of communication system calculations submitted by the CTU/Transmission license. (ex. Power supply outages, NMS system outage, management channel outages, RTU or PMU outages, fiber cuts etc. such faults will not be recorded properly in the UNMS system.)

Hence It is requested to commence Communication outage planning in ER as per prevailing regulations and approved guidelines.

ERLDC may explain.Members may discuss.

2.3 Workshop on adoption of MPLS technology in ISTS network by CTU/POWERGRID:ERPC

NPC vide letter ref. CEA-GO-15-14/1/2021-NPC Division/256-277 dtd. 14.09.2023, constituted a Joint-Committee to assess Feasibility, Integration & Roll-out of MPLS in ISTS Communication System. CEA had nominated personnel for the Joint-Committee from CEA, all RPCs, CTU, GRID-INDIA, POWERGRID, CSPTCL-Chhattisgarh, KSEB-Kerala, RVPNL-Rajasthan and WBSETCL-West Bengal. Total Seven Joint Committee Meetings have been held on introducing MPLS technology in ISTS network.

After the last 7th MPLS Joint Committee Meeting held on 20.12.2024 on Virtual Mode, JC **Report on Introduction of MPLS technology in ISTS Communication System** was finalized by CTU in consensus with all members.

16th TeST Decision

- ✓ Since real time data and voice from all SLDCs, IPPs, ISGS is to be integrated with respective RLDCs, emphasis should be laid on seamless integration of constituents’ data and voice with the ISTS communication network in presence of MPLS technology. CTU along with pan-India Joint Committee should duly take care of these aspects before introduction of MPLS.
- ✓ Upon finalization of the JC report on usage of MPLS in ISTS communication by the Joint Committee, CTU will initiate training sessions for entities to ensure a smooth transition to MPLS technology
- ✓ TeST committee opined that a comprehensive workshop involving ER states, SLDCs, and RLDC shall be convened by CTU to address the potential issues as well as apprising of the modalities of deploying MPLS Technology in ISTS communication network.

Since all the SLDCs, IPPs, ISGS real time data and voice is to be integrated with respective RLDC, a workshop is proposed to be conveyed by the POWERGRID/CTU on said technology with emphasis on integrating constituents’ data and voice with the ISTS communication network.

ERLDC has requested a signed letter from every state in ER regarding implementation of MPLS technology.

CTU may update. Members may discuss.

2.4 Furnishing of inputs for maintaining database of fiber uses as per Fiber sharing guidelines: CTU

CEA has issued “Comprehensive guidelines for the usage and sharing of fiber cores of Optical Ground Wire (OPGW)/ Under Ground Fiber Optic (UGFO) Cable for power system applications” 2025. As per clause no. 7 of said guidelines, CTU for ISTS/ STUs for InSTS shall maintain a comprehensive database for uses of fibers of OPGW laid by TSPs. to ensure availability of adequate no of fibers for critical GRID operation. Accordingly, it is suggested that all the TSPs shall provide the data to CTU as format enclosed.([Annex B.2.4](#))

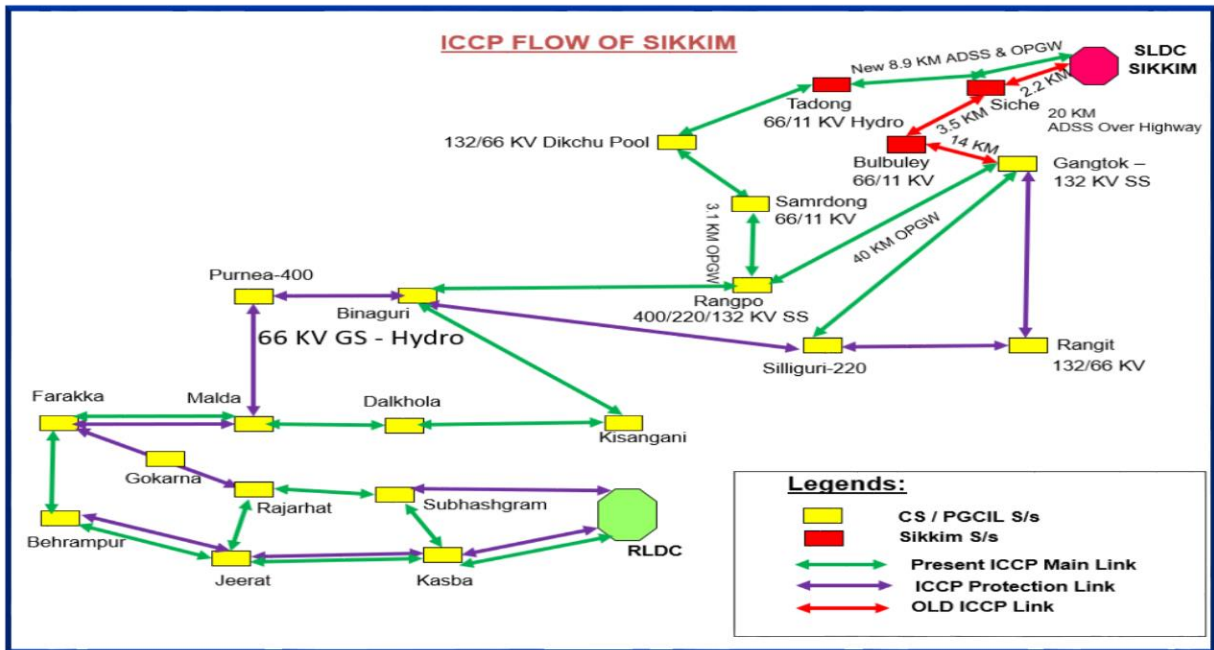
CTU may explain. Members may discuss.

2.5 Strengthening of last mile connectivity of Sikkim SLDC: ERLDC

In the last 16th Test meeting (and in the CPM meeting held in December 2024) issue of strengthening of Sikkim SLDC last mile connectivity is discussed due to very frequent failure of Gangtok to Sikkim SLDC link. In the said meeting Sikkim SLDC intimated that alternate FO link from Rangpo - Samardong – Dikchu Pool -Tudong - Sichey - Sikkim SLDC will be commissioned in three-month’s time and existing FO link will be restored soon.

However, on 23.04.2025 complete ICCP and voice link was down due to damage of ADSS cable between Gangtok – Sikkim SLDC. The link was damaged due to heavy storms and Overhead ADSS needs replacement as per informed received from Sikkim officials. The alternate link were restored via Rangpo – Dikchu Pool - Samardong – Tudong - Sichey - Sikkim SLDC route on 9th May 2025. However, due to some technical configuration issues data was not reported and the same was subsequently restored on 11th May 2025, however due to landslide at Sichey Station, ICCP and voice link were again down.

Sikkim Communication network



Accordingly, a meeting had been held on 12.05.2025 in virtual mode among ERPC, Sikkim SLDC, CTU, POWERGRID & Grid-India for restoration of said links and strengthening of their network..

In the meeting the following emerged:

- a. For restoration of Sikkim SLDC- Gangtok communication link permanently, near about 6 Km of ADSS cable needs to be procured which will take considerable amount of time around 6 months, however Sikkim SLDC is ready to make some interim arrangement of laying of spare FO cable on said towers. Provided FO cable is provided from ongoing CSTDSS Project on requisition by Sikkim through POWER Department, Sikkim.
- b. Restoration of Sikkim, SLDC- Rangpo FO link by-passing through Sichey node through patching Fo cable at Sichey.
- c. However, both the links passing through Sichey need route diversity.

In the meeting, it is discussed that both the links are prone to frequent cuts due to various reasons pertaining to geographically difficult conditions viz. frequent rain, landsliding etc. So further strengthening of last mile connectivity to Sikkim SLDC is required for critical grid-operational point of view.

Moreover, as per guidelines from the technical manual for communication systems, the same is to be strengthened with redundant communication links.

Hence, it is proposed to CTU to take up said issue as priority for providing alternate link (viz. Aerial cable /UGFO cable/ Microwave communication point to point link with proper cyber security) to said link.

ERLDC may explain. CTU may update. Members may discuss.

2.6 Deviation in SCADA Vs SEM data: ERLDC

As per 226th OCC:

- ERLDC was advised to submit a report on SCADA vs SEM deviations for tie lines experiencing more than 3% deviation along with comparison of deviations both before and after implementing corrective measures. A detailed report on all corrective actions taken must also be included. The same shall be discussed in next OCC.
- For tie lines with fluctuating SCADA vs SEM deviations, the deviation must be plotted on a trend chart and justified with proper reasoning.
- Powergrid was advised to collect SEM and SCADA data from ERLDC and conduct a similar study to analyze the deviations.
- SLDC Ranchi was advised to cooperate with Powergrid and compare the data deviation on the opposite ends of tie lines with data from Powergrid and ERLDC.
- All ER states were advised to identify, track and analyze tie lines that consistently exhibit deviation in SCADA vs SEM.

ERLDC publishes deviation in tie-lines data of SCADA system while comparing with SEM meter data every week and shares it with all associated utilities and SLDCs for corrective actions to ensure correct SCADA data availability to ERLDC in line with IEGC. This is also for improvement of SCADA data accuracy and to minimize error in real time decision support tool for deviation management and ensuring grid reliability.

A presentation on SCADA vs SEM comparison is attached in **Annexure-B.2.6**.

ERLDC may explain. Powergrid and all states may update. Members may discuss.

2.7 Agenda by WB SLDC

2.8.1 Discrepancy in FTC due to erroneous ICCP data

- On 09.05.2025, FTC charging clearance of Satgachia 400 KV substation was delayed due to ICCP data failure at ERLDC end but no abnormalities was found at WBSLDC end.
- M/S Commtel and M/S Chemtrols: Request both vendors to provide a detailed explanation of the root cause of the problem and propose measures to prevent such incidents in the future.

2.8.2 Erroneous recording of demand data

- It may please be noted that the transmission network of DVC for the State of West Bengal, as reflected in WB SLDC Control Room SCADA system is not in updated condition. The demand of DVC WB was also erroneous.
- With the help of ERLDC, only the the total value was corrected. The network of DVC West Bengal part is also needed to be modified as per latest transmission network. Competent authority may please arrange the same at the earliest.

WB SLDC may explain. ERLDC may update. Members may discuss.

2.8 Non availability of VOIP system in ER: ERLDC

It has been observed that VOIP system ER is not available for many ISTS sites which may hamper real time Grid operation. List of sites where VOIP issues persist are detailed below:

VOIP Status of ISGS, ISTS, SLDC, RTAMC & IPP.

S.No	Station Name	VOIP Nos	Remarks	Check at ERLDC again on 28042025	Check at ERLDC again on 09052025	Check at ERLDC again on 13052025	Check at ERLDC again on 20052025
1	BANKA 400KV	20330044	Link healthy. Communicated to POWERGRID ER 1 for checking VOIP at local end	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
2	BIHARSARIF 400KV	20330034	Link healthy. Communicated to POWERGRID ER 1 for checking VOIP at local end	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
3	CHANDAUTI 400KV	20330080	Link healthy. Communicated to POWERGRID ER 1 for checking VOIP at local end	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
4	CHUJACHEN CONTROL ROOM	20330602	Link healthy. May be checked at local end by IPP	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
5	DIKCHU CONTROL ROOM	20330703	Link healthy. May be checked at local end by IPP	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
6	DURGAPUR 400KV	20330028	Link healthy. Being checked at local end.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
7	JEYPORE 400KV	20330048	Link healthy. requested POWERGRID Odisha for checking VOIP at local end.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
8	PATNA 400KV	20330038	Link healthy. requested POWERGRID ER I for checking VOIP at local end.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
9	PURNIA 220 KV	20330030	Link healthy. requested POWERGRID ER I for checking VOIP at local end.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
10	PURNIA 400 KV	20330025	Link healthy. requested POWERGRID ER I for checking VOIP at local end.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
11	OPGC 400KV	20330073	Link healthy. May be checked at local end.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
12	RANCHI 765 KV	20330035	Link healthy. requested POWERGRID ER I for checking VOIP at local end.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
13	SAHARSA 400KV	20330082	Link healthy. requested POWERGRID ER I for checking VOIP at local end.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
14	TEESTA III CONTROL ROOM	20330701	Plant is under shut down	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
15	TEESTA CONTROL ROOM	20330062	Plant is under shut down	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
16	WB SLDC CONTROL ROOM	20330425	WB site to be taken up with WBSETCL	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
17	JITPL CONTROL ROOM	20330706	Link healthy. requested to check VOIP at local end by IPP.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
18	BARKRESHWAR	23219474	WB site to be taken up with WBSETCL	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
19	ARAMBAGH	23219714		NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
20	KHARAGPUR	23219994		NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
21	KOLAGHAT	23219544		NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
22	NEW CHANDITALA	23219814		NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
23	NEW PPSP	23219914		NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
24	PPSP	23219844		NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
25	BOKARO	23260520		NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
26	DSTPS	23260591		NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
27	KODERMA	23260142		DVC site to be taken up with DVC	NOT WORKING	NOT WORKING	NOT WORKING
28	MEJIA-B	23260533	NOT WORKING		NOT WORKING	NOT WORKING	NOT WORKING
29	RAGHUNATHPUR	23260565	NOT WORKING		NOT WORKING	NOT WORKING	NOT WORKING
30	JITPL CONTROL ROOM	20330706	Link healthy. requested to check VOIP at local end by IPP.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
31	Sikkim SLDC	23592008	To be taken up with Sikkim	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING
32	Samardong	23592009	OPGW is in progress.	NOT WORKING	NOT WORKING	NOT WORKING	NOT WORKING

POWERGRID is requested to restore the same at the earliest.

ERLDC may explain Members may discuss.

2.9 Progress Update on Replacement of old RTUs with Upgradation of RTUs/SAS in the Central sector stations: ERLDC

The report on “Replacement/up-gradation of old RTUs in Eastern Region” for Real Time data transfer to ERLDC Main and Back-up Control Center over IEC104 protocol was approved by ERPC in 36th ERPC meeting held at Bhubaneswar on 14th September 2017. Further, in 39th ERPC meeting project on ‘Upgradation of SCADA/RTUs/SAS in Central Sector stations and strengthening of OPGW network in Eastern Region’ was approved.

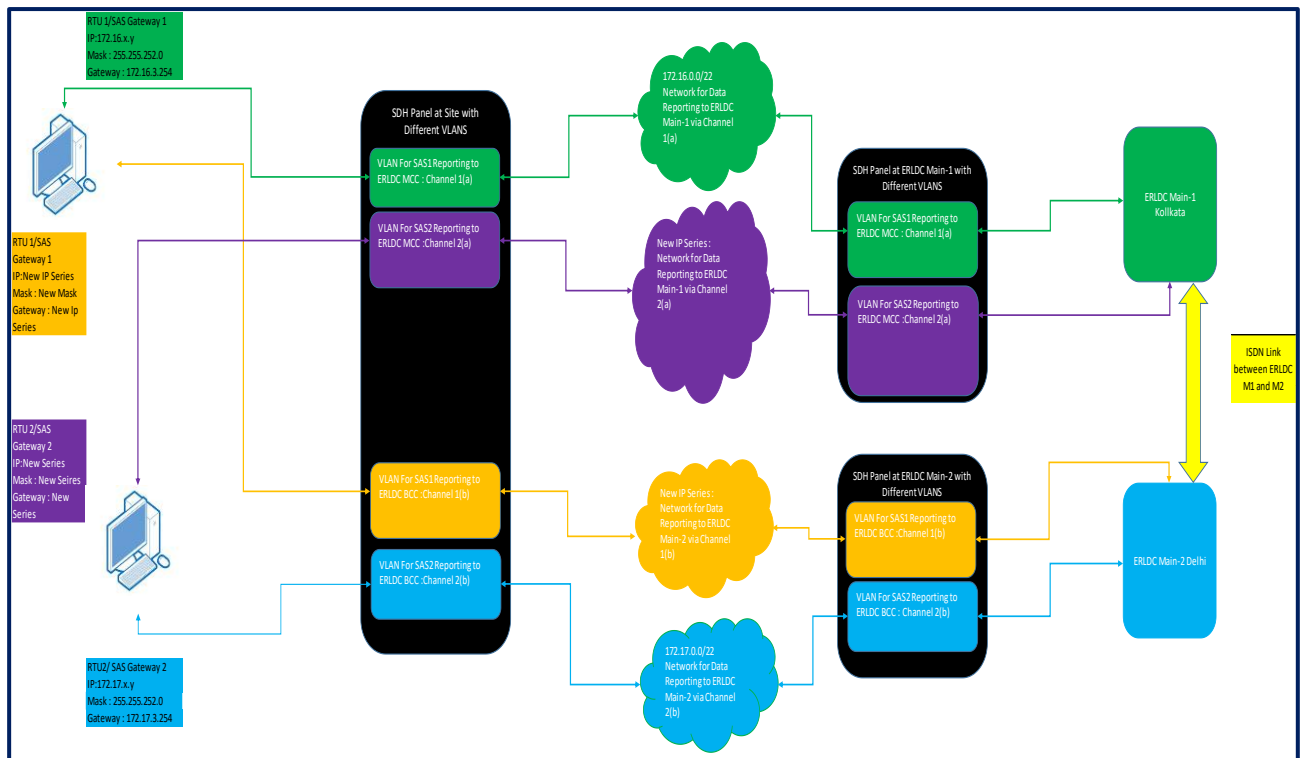
As per the information received from POWERGRID, the following substations’ work are is yet to be completed as provided in the below table:

Sr No.	S/s Name	Utility	Updates in 53 rd ERPC meeting	Expected completion date
1	400/220 kV Durgapur	ER-2	Upgradation of entire Durgapur Substation into a SAS based station (Distributed control) is being undertaken under ADDCAP 2024-2029 tariff block and it is expected that the work will be completed by March-2026. (Deliberated in 53rd ERPC MEETING held on 11.02.2025)	To be updated
2	400/220/132 kV Rangpo	ER-2	Approved under Add Cap in 53rd ERPC MEETING held on 11.02.2025	To be updated

ERLDC may explain. Members may discuss.

2.10 Dual channel reporting from ISGS/IPPs/private transmission licensees: ERLDC

- In the upcoming ULDC phase-III SCADA/EMS upgradation project, dual reporting of all central sector RTUs/SAS gateways is required for greater redundancy of central sector SCADA data reporting to ERLDC.
- For this purpose, four channels are to be configured - one channel for RTU-1/gateway-1 reporting to ERLDC Main-1, second for RTU-1/gateway-1 to ERLDC Main-2, third for RTU-2/gateway-2 to ERLDC Main-1 and the fourth for RTU-2/gateway-2 to ERLDC Main-2. The proposed architecture is shown below:



- These four channels are in addition to the two existing channels reporting to the present SCADA system at ERLDC MCC and ERLDC BCC. The existing channel will remain in service till taken over by New SCADA implementation in Eastern region which is expected to be completed by March 2026.
- Therefore, it is requested to ensure that the requirements for dual reporting of RTUs/SAS gateways can be achieved before commissioning of the upcoming SCADA/EMS upgradation project.

ERLDC may explain. ISGS, IPPs, Private licensees and POWERGRID may update. Members may discuss.

2.11 Status of RTU upgradation of ISGS/IPP/ Private Transmission Licenses in Eastern region: ERLDC

The report on “Replacement/up-gradation of old RTUs in Eastern Region” for Real Time data transfer to ERLDC Main and Back-up Control Center over IEC104 protocol was approved by ERPC in 36th ERPC meeting held at Bhubaneswar on 14th September 2017. Further, in 39th ERPC meeting project on ‘Upgradation of SCADA/RTUs/SAS in Central Sector stations and strengthening of OPGW network in Eastern Region’ was approved.

At ISTS level, most of the substations have been upgraded while some work is under progress for RTU/SAS replacement/upgradation. However, some of the ISGSs and IPPs substations as given in table are still reporting in IEC 101 protocol and there is a need to expedite on the required fiber optic communication and subsequent RTU upgradation activity by respective owners.

Sr No.	Substation Name	Voltage Level (kV)	Protocol Reporting	Ownership	Availability of Fiber Optic communication	Updated progress
1	BRBCL-NTPC	400	IEC101	NTPC	Yes	BRBCL To Share update.
2	Teesta 3	400	IEC101	SUL	Yes	Presently Plant is under outage due to physical damage
3	JITPL	400	IEC101	JITPL	Completion by Feb 2025	Distance between SDH panel and RTU is approximately 220 Meter. So, more than 100-meter Fibre Optical cable and converter required. Quotation and approval awaited – Tentative completion date – May 25
4	Chuzachen	132	IEC101	Greenko	No	CHEP to update.

In the **220th OCC** meeting held at ERPC Secretariat, Kolkata on 28/10/2024, the above-mentioned point was discussed and the following was decided:

BRBCL(NTPC) along with other IPPs (Teesta 3, JITPL, Chuzachen) were directed to execute RTU upgradation and fibre optic communication works on priority to facilitate seamless data transfer to ERLDC (Main and backup) via IEC 104 protocol.

ERLDC may explain. BRBCL(NTPC), Teesta 3, JITPL, Chuzachen may update on present progress. POWERGRID may update on communication link availability.

2.12 Ensuring Accurate data and Telemetry for the Proper functioning of State Estimator in ERLDC:: ERLDC

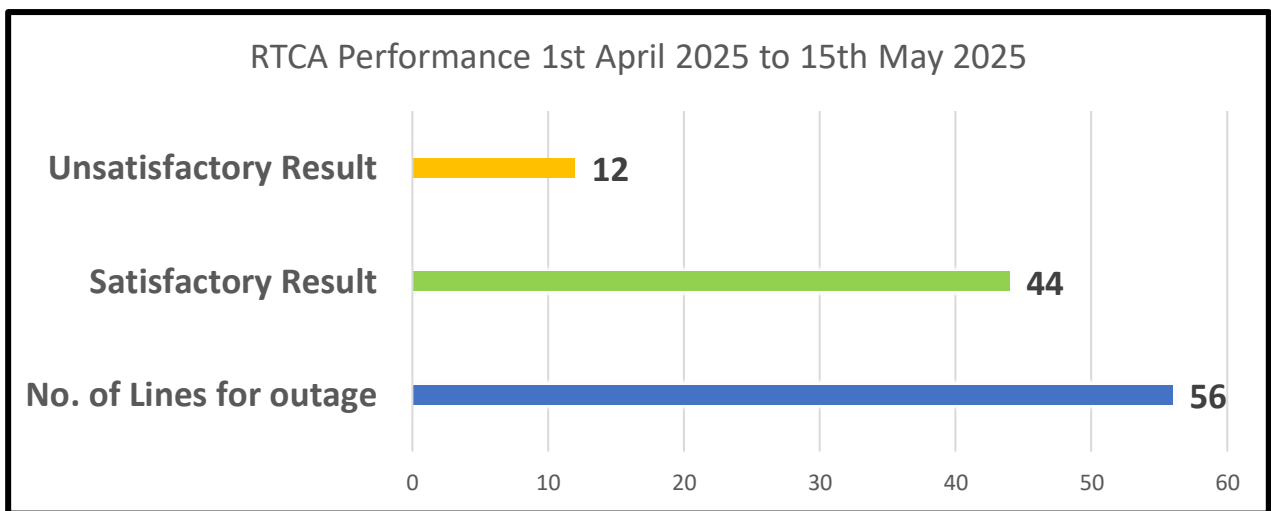
Present SCADA/EMS in SLDCs and ERLDC has State Estimator (SE) and Real-Time Contingency Analysis (RTCA) which are important for real time decision support for providing any planned outage or accessing impact of any forced outage on the grid. Presently SE and RTCA is functioning only at ERLDC and are not properly functional in SLDCs. At ERLDC it is truncated at 220 kV levels due to poor reliability of data at 132 kV levels. Major reasons for non-working of SE and RTCA at SLDCs and truncation at ERLDC at 220 kV level are nonavailability of reliable data and telemetry of 132 kV substations specially breaker/isolator status. However, ERLDC is supporting states so that these can be made functional to some extent.

Now new SCADA/EMS system implementation under ULDC Phase III has already commenced in Eastern Region. The new SCADA/EMS system includes several additional decision-support tools apart from SE/RTCA for real-time operations, of which some of prominent ones are listed below:

- Automatic Demand Management System (ADMS)

- Load Forecasting
- Transmission Loss Sensitivity Factors (TLSF)
- Network Sensitivity Applications (LODF, GSDF, LSDF)
- Optimal Power Flow (OPF)
- Short Circuit Analysis (SCA)
- Transmission Line/Corridor Capability Monitor (TCM) for Real time ATC/TTC calculation
- Dynamic Security Assessment (DSA)

Successful integration of these tools at SLDCs as well as ERLDC hinges on accurate data and telemetry from 132 kV and above substations in the Eastern region.



During this, out of 12 results major three outages where times SE and RTCA function at ERLDC did not provide satisfactory results due to data availability issues as quoted below. It can be seen that, how analog as well digital status input can impact decision support tools non-availability during real time grid operation. In coordination with SLDCs and Utilities, these observed issues have been rectified bilaterally.

Date	Description of SCADA/EMS Data Issue	Impact on SE/RTCA Performance at ERLDC	Remarks/Corrective Action
22-04-2025	Non-update of correct Status data of 400 kV Sitamarhi Station	Non-Satisfactory result in RTCA	Corrected in coordination with POWERGRID
25-04-2025	Data Quality issue from Maithon for Analog and Status Points	Non-Satisfactory result in RTCA	Corrected in coordination with POWERGRID

			D
11-05-2025	Data Quality issue from Farakka NTPC for Analog and Status Points	Non-Satisfactory result in RTCA	Corrected in coordination with NTPC Farakka

In view of the above, following points may be discussed:

- SLDCs should utilize existing SCADA SE/RTCA tools for real time contingency analysis and outage processing.
- SCADA data telemetry monitoring and compliance status for all 132 kV and above substations in OCC and TEsT meeting of Eastern region.
- All SLDCs to share the complete substation based RTU wise list and its communication availability, integration and reporting in SLDC SCADA, protocol (101/104), RTU/SAS upgradation plan, Communication system under planning, timeline for completion of activities and any other relevant details
- All SLDCs at present should ensure station wise checking of all analog and status point, checking of suspected isolator/breaker status and its correction at field levels.
- Ensuring integration of all required digital and analog data during new SAS/RTU upgradation work to ensure function of these tools at SLDC level.

ERLDC may explain. Members may discuss.

2.13 Ensuring Accurate data and Telemetry for Newly added/Modified Transmission and Generation Elements with ERLDC for Real time operation and SCADA/EMS Decision support tools functioning: ERLDC

In the fiscal year 2024-25, numerous requests have been received at ERLDC from ISTS-connected users and users under SLDC jurisdiction for the integration of newly added or modified transmission and generation elements. However, these requests often lack ensured real-time data telemetry prior to first-time charging. Users are then providing undertakings from their management stating that real-time data telemetry will be made available within a time-bound manner. Based on the undertaking, though ERLDC has allowed charging of such elements for overall improvement of power supply position in respective control area, but the commitment made in such undertaking are not fulfilled. This is resulting in violation of data availability commitment for reliable and secure grid operation, affecting state estimation accuracy, and the effectiveness of the real-time contingency analysis tool within the SCADA/EMS system at the ERLDC level. A list of applications received in year 2024-25 where charging has been allowed based on undertaking for data and telemetry are listed below where undertaking timelines have not been adhered to.

Applicant	FTC Application	Substation Name/Element Name	Date mentioned for compliance in Undertaking	Compliance Status
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SLDC Jharkhand	FTC of LILO 132KV Sonenagar-Nabinagar-Nagaruntari TL at GSS Nabinagar	132 kV Nagaruntari (JUSNL)	SCADA (02.07.2024) and VOIP (04.12.2024)	Not complied
SLDC Odisha	33kV-Darlipalli (Ntpc)-Manoharpur1	33 KV Manoharpur	SCADA (09-03-2025)	Not complied
Power Deptt, Govt. of Sikkim	132kV-Rangpo-Samardong-1 & 2	132 KV Samardong	VOIP (31-05-2024)	Not complied
Indian Railway (DFCCIL)	Main Bays of Pusauli(PG) to Durgawati(D FCCIL)	220 kV Durgawati	SCADA (30-10-2023)	Not complied

It has been informed to all users that as per the below mentioned regulations, all users, including generating plants and transmission licensees under the control areas of RLDC and SLDCs, must ensure the integration of SCADA and telemetry for real-time data for grid operations at SLDC and RLDC levels as required.

- IEGC Clauses 8.2.3, 8.2.4, 11.1, 11.3
- CERC (Communication System for Inter-State Transmission of Electricity) Regulations 2017, Clause 7.8.i
- CEA (Technical Standards for Connectivity to the Grid) Regulations 2007, Clauses 6.3 and 6.5
- CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations 2022, Clauses 10.1.b, 40.1.c.i & ii, 43.4
- IEGC Clause 33.2, which mandates reliable and accurate real-time data for successful state estimation and real-time contingency analysis through the SCADA/EMS system at RLDC and SLDC levels.

Members may discuss these issues and the necessary steps to ensure compliance and improve real-time operations.

ERLDC may explain. Indian Railway, SLDC Jharkhand, SLDC Sikkim and SLDC Odisha may update on progress of making data availability to ERLDC. Members may discuss.

2.14 Non availability of SCADA telemetry in Eastern region: ERLDC

- SCADA/EMS system has been installed at SLDC and RLDC and real time operators are performing grid management activities based on real time SCADA data. Further, State Estimation (SE) application and real time contingency analysis (RTCA) application in SCADA/EMS system also utilize these data for decision making. It may kindly be noted that as per **clause 33.2 of IEGC 2023**.

- "SLDCs, RLDCs and NLDC shall utilize network estimation tool integrated in their EMS and SCADA systems for the real time operational planning study. **All users shall make available at all times real time error-free operational data for the successful execution of network analysis using EMS/SCADA. Failure to make available such data shall be immediately reported to the concerned SLDC, the concerned RLDC and NLDC along with a firm timeline for restoration.** The performance of online network estimation tools at SLDC and RLDC shall be reviewed in the monthly operational meeting of RPC. Any telemetry related issues impacting the online network estimation tool shall be monitored by RPC for their early resolution."
- However, it is observed that several important stations under SLDC jurisdiction in Eastern Region are not reporting to respective SLDCs (as shown in table below) and hence ERLDC is also not getting data through ICCP. SLDC wise list of substations is tabulated below. Substations with voltage level 220 kV and above are listed below.

Table: Area wise no of station without data telemetry as on 08-01-2025 for 220 KV and above level.

SLDC Responsible for data integration	No of SS/GS without data Telemetry
BSPTCL	06
JUSNL	09
OPTCL	05
WBSETCL	03

Details of stations, which are not reporting or yet to be integrated at SLDC for 220 KV and above level stations is provided below along with status update:

Table: Non availability of SCADA Data Telemetry of Bihar Substations

SL No.	BSPTCL	Last Reported	15 th TESt Meeting Status	Current Status
1	BUXAR TPP_400	02-04-2025		SAS Issue
2	FATUHA_220	27-02-2024, Bus and Feeder Data are not reporting	Not reporting due to Node issue of RTU	SAS Issue
3	BEGUSARAI_220	16-05-2024, Bus and Feeder Data are not reporting	Analog data partially reporting. Issue of communication cable which is rectifying at the field end	Station data suspected
4	SONENAGAR_NEW_220	15-04-2025, Bus data not updating and Status Points are set to manual	Bus and Status Points are now reporting at Bihar SLDC	Station data suspected
5	LAUKAHI_220	12-09-2024	Partial data were being reported at Bihar SLDC	SAS Issue

6	GARAUL_220	Analog points reporting	Partial data were being reported at Bihar SLDC	Status points data suspected
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Table: Non availability of SCADA Data Telemetry of Jharkhand Substations

SL No.	JUSNL	Last Reported	15 th TESt Meeting Status	Current Status
1	BURMU_220	INTEGRATION ISSUE	Burmu will be reporting in next 2 months	Not reporting to SLDC
2	CHATRA_220	16-01-2024	Additional Time required	Not reporting to SLDC
3	GIRIDIH_220	INTEGRATION ISSUE	Additional Time required	Not reporting to SLDC
4	GODDA_220	05-02-2023	Additional Time required	Not reporting to SLDC
5	JASIDIH_220	01-06-2023	Additional Time required	Not reporting to SLDC
6	GARHWANEW_220	28-02-2022	Additional Time required	Not reporting to SLDC
7	SMARTCITY_220	23-03-2023	Additional Time required	Not reporting to SLDC
8	DUMKA_220	23-05-2025	Additional Time required	Not reporting to SLDC
9	CHAIBASA_220	29-10-2022	Additional Time required	Not reporting to SLDC

Table: Non availability of SCADA Data Telemetry of Odisha Substations

SL No.	OPTCL	Last Reported	15 th TESt Meeting Status	Current Status
1	NALCO_220	10-01-2025	Earlier it was reporting in 101 protocol. NALCO is in the process of data transmission over IEC 104 protocol . 11 KM of OPGW link is already established. It will be completed within 3 months	Not reporting to SLDC due to ongoing upgradation work of IEC 101 to 104 protocol.
2	PARADEEP_ESSAR_220	10-11-2021	RTU upgradation for data transmission over IEC 104 is under process. This matter has been already taken up with M/s Essar.	Not reporting to SLDC due to ongoing upgradation work of IEC 101 to 104 protocol.
3	EMAMI_220	01-11-2021	Letter from CGM (Tel), OPTCL & SLDC has already	Not reporting to SLDC due

			been issued to EMAMI for rectification of data link to SLDC. EMAMI yet to respond.	to ongoing upgradation work of IEC 101 to 104 protocol.
4	PARADEEP_IOCL_220	01-11-2021	Because of obsolescence of PLCC equipment, IOCL has already been given BOQ to migrate to 104 communication. Their response is awaited	Not reporting to SLDC due to ongoing upgradation work of IEC 101 to 104 protocol.
5	TELKO_220	INTEGRATION ISSUE	220KV Telkoi SAS has been failed since dt 17.06.2023 due to GE SAS gateway issue. This matter has been already taken up with M/s-GE	Issue in gateway at field, data not reporting to SLDC.

Table: Non availability of SCADA Data Telemetry of West Bengal Substations

SL No.	WBSETCL	Last Reported	15 th TESt Meeting Status	Current Status
1	TLDP4_220	28-08-2023	To be restored within 3 months	Station data suspected
2	KLC_Bantala_220	16-07-2022	Reporting at SLDC level	Not reporting to ERLDC
3	HALDIA TPP_400	MB1, MB2 and TB isolator Status Points are not reporting		

Looking at above aspects, SLDCs may kindly provide a firm timeline for restoration of data from these 220 kV and above level Substations.

Moreover, Few important **Central Sector /IPP** stations under ERLDC jurisdiction in Eastern Region reporting through **IEC:104** Protocol are either not reporting or reporting intermittently (< 90%) during **10 March to 10 May** (2 months):

CS/IPP RTU NAME	VOLTAGE LEVEL(KV)	OWNER	% AVAILABILITY
CHANDWA	400	POWERGRID	83%
NPGC	400	NTPC	87%
JEERAT	765/400	POWERGRID	87%
RANGIT	132	NHPC	30%
TASHIDING	220	IPP	85%
GMR	400	IPP	81%

Concerned Utilities may update.

ERLDC may explain Members may discuss.

2.15 Non-reporting of PMUs: ERLDC

PMU data are used at ERLDC for real-time monitoring as well as post-facto analysis of faults and other events. At present, 4 number of physical PMUs from multiple central sector stations are not reporting to ERLDC. Respective Utilities has been informed over mail and other communication about these issues.

List of non-reporting Central Sector PMUs are tabulated below:

PMU ID	PMU Address	Station	Feeder(s)	Issue	Last reported on
5675 - 5676	ER1KISHN_ PGPM05	Kishanganj	400DARB H_PG1	Waiting for configuratio n frame	23-02-2024
5678 - 5679	ER1KISHN_ PGPM06	Kishanganj	400DARB H_PG2	Waiting for configuratio n frame	23-02-2024
5762 - 5763	ER1DARBH_ PGPM01	Darbhanga	400SITA M_PG2	Waiting for configuratio n frame	16-05-2024
5765 - 5766	ER1DARBH_ PGPM02	Darbhanga	400SITA M_PG1	Waiting for configuratio n frame	16-05-2024

Further, PMUs at **Alipurduar** and **Birpara** are dropping significant numbers of frames:

ERLDC may explain. POWERGRID ER-1 and 2, may update.Members may discuss.

2.16 Non-reporting of DVC PDC to PDC data stream to ERLDC: ERLDC

The DVC PDC input data stream plays a crucial role in real-time monitoring and post-event analysis of faults and other occurrences for geographical region under their jurisdiction. At present, the DVC PDC data stream is not being transmitted to ERLDC. This disruption has been communicated to the respective utility and PDC stream reported on 28-04-2025 after manual intervention for some time and again went down. Details are as follows:

STREAM ID	PDC NAME	No. of PMU in stream	Issue	Last reported on
37990	DVC PMU	68	Connection issue	25-04-2025

The PDC stream has been down since then.

ERLDC may explain.DVC may update on restoration of PDC stream to ERLDC.

3. PART-C: ITEMS FOR UPDATE/FOLLOW-UP/INFORMATION

3.1 Submission of MAC/IP address of all end user communication equipment's: ERLDC
TeST committee in 15th TeST Meeting opined that remaining utilities may submit the details to ERLDC in prescribed format. Status of Constituents wise list is attached at **Annexure C.3.1**.

ERLDC may explain. Members may discuss.

3.2 Commencement of third-party cyber security audit as mentioned in the communication system audit procedure: ERLDC

All Utilities are requested to inform the status of third-party cyber security audit of communication system under their jurisdiction and if Third party cyber security audit is conducted then its report and compliance status for information to forum.

ERLDC may explain. Members may discuss.

3.3 SOC Implementation at SLDCs: ERLDC

As per Information Technology (Information Security Practices and Procedures for Protected System) Rules, 2018, all constituents whose assets have been declared as CII/protected systems need to implement SOC.

BSPTCL has already implemented SOC.

All other SLDCs are requested to expedite the process for SOC Implementation.

3.4 Integration of missing communication nodes in UNMS: ERLDC

List of communication node are not reporting to UNMS system is as follows.

1. STERLITE
2. JSPL
3. JITPL
4. KALINGANAGAR
5. HALDIA
6. ANGUL (FIBCOM)
7. GMR (FIBCOM)

POWERGRID/SLDC's/Concerned Utilities are requested to restore the same at earliest please.

3.5 Findings from Communication audit in ER: ERPC

As per regulations and NPC procedure for communication system audit , a committee comprising of ERPC, ERLDC ,DVC has conducted the audit of communication system at 400 KV Subhasgram and 765 kV New Jeerat, stations of POWERGRID.

Key Findings are as follows:

765 KV New Jeerat Substation (POWERGRID)	
Sl. No.	Observation
1	Approach cable is common for Communication, protection & Commercial application.
2	Non-availability of third-party Cyber Security audit reports.
3	Data reporting from both Main & Standby SAS Gateway is intermittent and needs to be regularized.
4	Preventive Maintenance reports are not available for Auxiliary Power Supply.
5	SAT reports for SDH Equipment is not available.
6	01 No: supply of Station aux Transformer is available from station source, remaining 01 No: supply from WBSETCL is in progress.
7	DG sets with AMF panels was found in manual mode.
8	Tagging of E1 card for DTPC application was not found.
9	Spare Availability records need to be maintained.
10	Two no:s of 0 dB connectors for New Jeerat-Subhasgram link were not found in order.

400 KV Rajarhat GIS Substation (POWERGRID)	
Sl. No.	Observation
1	Approach cable is common for Communication, Protection & Commercial application.
2	Non-availability of third-party Cyber Security audit reports.
3	Utilization of 01 nos. PDH make – LOOP may be explored .
4	SAT reports for SDH Equipment is not available.
5	Record on Discharge voltage of Battery bank is not present in Preventive Maintenance report.
6	Battery Charger alarms is not integrated in Local annunciator.
7	Spare Availability records need to be maintained.

Compliance reply has been submitted by Powergrid ER-II .

Members may discuss.

3.6 Information on Trial Operation Certificate issued for various OPGW links and AGC FOTE in ER: ERLDC

ERLDC issues trial operation certificates for the OPGW links in line with the length and other parameters as approved in ERPC forum. A brief overview of the OPGW links with their commercial operation dates provided below:

- a. Farakka- Sagadighi-Subashgram OPGW link
- b. Part of Srikakulam- Angul OPGW link.
- c. JITPL- Angul OPGW link.

This is for information to the forum.

ERLDC may elaborate. Members may note.

3.7 Final list of executed link under the Project “Reliable Communication Scheme under Central Sector for Eastern Region: Powergrid Odisha Projects

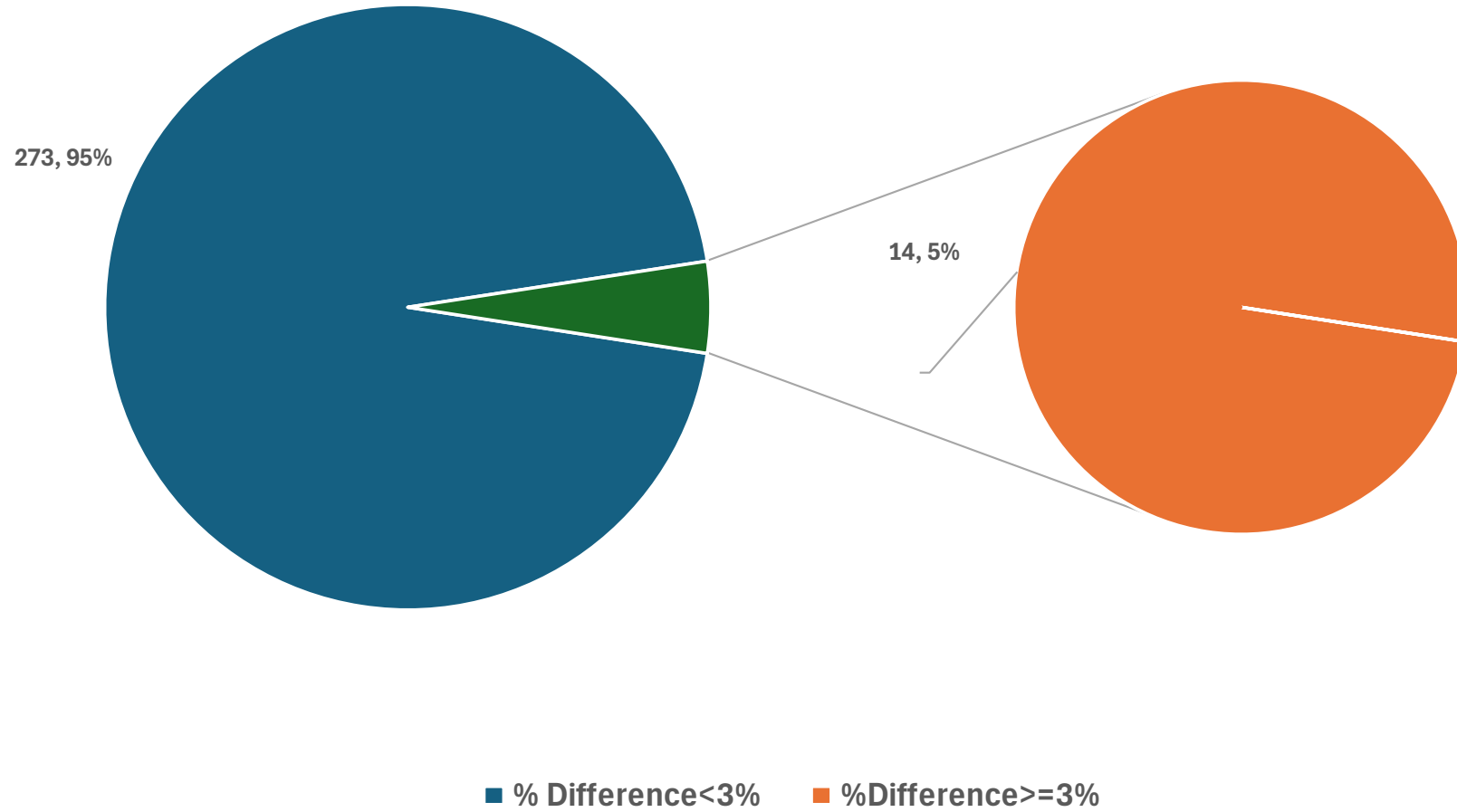
Approval was accorded in the 36th TCC meeting(MOM at **Annex C.3.7**) of ERPC for establishment of fiber optics connectivity of various stations/lines under central sector as part of subject project. Following is the final list of executed link under the Project.

Name of the Link	Approved Link Length (in KM)	Executed Link length (in KM)	DOC Date	Remarks
Jindal-Angul	55	75.186	07-03-2025	Commissioned
GMR-Angul	30	30	16-02-2024	Commissioned
Part of Angul - Srikakulam (Angul portion)	120	121.19	19-02-2025	Commissioned
Alipurduar - Salakati	42	109.264	23-02-2022	Commissioned
IB Valley-Bhudhipadar	26	00	NA	OPGW exist, State owned Line. Proposed for deletion.
NALCO-Meeramundali	12	00	NA	NALCO owned line. NALCO, not an IPP, proposed for deletion.
LANCO-Angul	24	00	NA	Transmission Line does not exist. Proposed for deletion as per recommendation in 36 th ERPC meeting.

Monet-Angul	31	00	NA	Transmission Line does not exist. Proposed for deletion as per recommendation in 36 th ERPC meeting.
Indbhart-Jharsuguda	50	00	NA	Line belongs to Indbharth & Line was in break-down condition during execution period. IBEUL under NCLT.
TT Pool-New Melli	25	00	NA	Transmission Line does not exist. Proposed for deletion as per recommendation in 36 th ERPC meeting.
Mangon-Rangpo	70	00	NA	Transmission Line does not exist. Proposed for deletion as per recommendation in 36 th ERPC meeting.
Sterlite-Jharsuguda	40	00	NA	OPGW exist, Line belongs to Sterlite. Proposed for deletion.
Total	525	335.64		

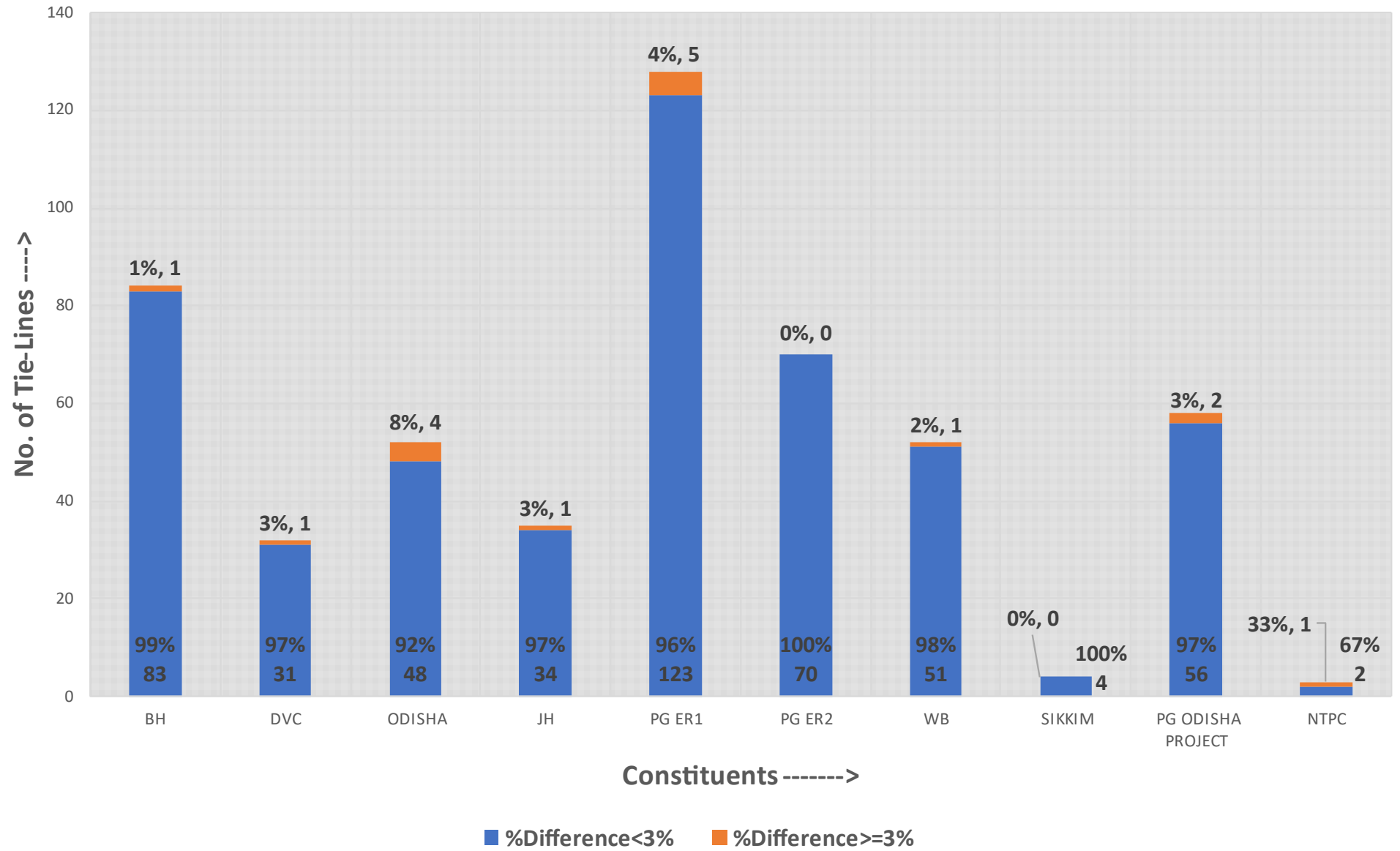
SEM vs SCADA (28-04-2025 to 04-05-2025)

Total no. of Tie-Lines being monitored: 287



* offset of 20MW is used in computing these Stats

Constituent Wise Comparison



List of Lines having % Difference $\geq 3\%$ for the week 28-04-2025 to 04-05-2025

Constituent	Tie-Lines	Reason	Corrective Action taken(or)to be taken
BH	132_SABOUR(BH)_BANKA(PG)_1	Scada Data Error	Incorrect Mapping at BSPTCL End
DVC	400_JAMSHEDPUR(PG)_DSTPS(DV)_1	Scaling issue	Tuning required at RTU level
ODISHA	220_TALCHER(PG)_TTPS(GR)	ICCP data issue	ICCP DB mismatch,rectified
	220_TARKERA(GR)_ROURKELA(PG)_1	Time Drift B/W SEM and SCADA	Time settings may be checked
	220_RENGALI S/S(GR)_RENGALI(PG)_1	Time Drift B/W SEM and SCADA	Time settings may be checked
	220_RENGALI S/S(GR)_RENGALI(PG)_2	Time Drift B/W SEM and SCADA	Time settings may be checked
WB	400_KHARAGPUR(WB)_KALABADIA(PG)	Time Drift B/W SEM and SCADA	Time settings may be checked
PG ER1	765_NEW RANCHI(PG)_DHARMJAIGHAR(WR)_2	Difference is observed during Peak loading(>200MW)	MFT may be checked
	400_RANCHI(PG)_RAGHUNATHPUR(DV)_2	Time Drift B/W SEM and SCADA	Time settings may be checked
	400_MUZAFFERPUR(PG)_GORAKHPUR(NR)_1	Time Drift B/W SEM and SCADA	Time settings may be checked
	400_BIHARSHARIFF(PG)_BALIA(NR)_1	Time Drift B/W SEM and SCADA	Time settings may be checked
	220_DALTONGANJ(PG)_CHATRA(JH)_1	Time Drift B/W SEM and SCADA	Time settings may be checked
JH	220_RAMCHANDRAPUR(JH)_JODA(GR)	ICCP issue and time drifting	Time settings may be checked
NTPC	400_TALCHER(PG)_MERAMANDALI(GR)_1	Scaling issue	Tuning required at RTU level
PG ODISHA PROJECT	220_RENGALI(PG)_RENGALI S/S(GR)_1	Time Drift B/W SEM and SCADA	Time settings may be checked
	220_RENGALI(PG)_RENGALI S/S(GR)_2	Time Drift B/W SEM and SCADA	Time settings may be checked

List of Lines having % Difference $\geq 3\%$ recurring over past 3 weeks

CONSTITUENT	TIE LINE	DIFFERENCE (IN %)		
		14-04-2025 to 20-04- 2025	21-04-205 to 27-04- 2025	28-04-2025 to 04-05- 2025
JUSNL	220_RAMCHANDRAPUR(JH)_JODA(GR)	4.11	3.51	4.21
DVC	400_DSTPS(DV)_JAMSHEDPUR(PG)_1	3.43	3.37	3.48
OPTCL	220_TARKERA(GR)_ROURKELA(PG)_1	5.77	5.78	7.7
	220_RENGALI S/S(GR)_RENGALI(PG)_2	6.79	7.21	5.89
	220_RENGALI S/S(GR)_RENGALI(PG)_1	5.18	5.49	8.63
WBSETCL	400_KHARAGPUR(WB)_KALABADIA(PG)	3.8	3.99	3.62
POWERGRID ER1	765_NEW RANCHI(PG)_DHARMJAIGHAR(WR)_2	9.77	9.89	9.89
	400_MUZAFFERPUR(PG)_GHORAKPUR(NR)_1	4.23	3.99	3.75
NTPC	400_TALCHER(PG)_MERAMANDALI(GR)_1	8.13	5.66	6.81

Annexure C.3.1

Summary of IP & MAC addresses of the end user equipment connected in Data & voice Network.									
S.N.	Constituents	RTU/SAS /GATEWAY DEVICE	ROUTER / FIREWALL	VOIP	AMR/D CU	PMU	URTDSM	SWITCH	Any Other device.
1	POWERGRID ER-I	MAC & IP	Not Submitted	MAC & IP	MAC & IP (56)	MAC & IP	Submitted but not in format	Not Submitted	No Details is received.
2	POWERGRID ER-II	MAC & IP (18 No. Stations)	Not Submitted	MAC & IP	MAC & IP(48)	MAC & IP	Submitted but not in format	Not Submitted	No Details is received.
3	POWERGRID ODISHA PROJECT	MAC & IP (10 No. Stations)	MAC & IP	MAC & IP	MAC & IP(18)	MAC & IP	Submitted but not in format	Not Submitted	No Details is received.
4	BIHAR	MAC & IP	IP	Not Submitted	MAC & IP (Submitted by POWER GRID)	Not Submitted	Not Submitted	IP	No Details is received.
5	JHARKHAND	MAC & IP	Not Submitted	Not Submitted	MAC & IP (Submitted by POWER GRID)	Not Submitted	Not Submitted	Not Submitted	SDH/PDH IP&MAC
6	ODISHA	MAC & IP	MAC & IP	MAC & IP	MAC & IP (Submitted by POWER GRID)	MAC & IP (Submitted by POWER GRID)	MAC & IP	Not Submitted	No Details is received.
7	WEST BENGAL	Not Submitted	Not Submitted	Not Submitted	MAC & IP (Submitted by POWER GRID)	MAC & IP (Submitted by POWER GRID)	Not Submitted	Not Submitted	No Details is received.
8	SIKKIM	Not Submitted	Not Submitted	Not Submitted	MAC & IP (Submitted by POWER GRID)	Not Submitted	Not Submitted	Not Submitted	No Details is received.
9	DVC	IP	IP	IP	MAC & IP (Submitted by	MAC & IP (Submitted	IP	IP	No Details is received.

					POWER GRID)	by POWER GRID)			
10	RONGNICHU	MAC & IP	MAC & IP	MAC & IP	IP	Not Submitted	Not Submitted	Not Submitted	No Details is received.
11	JORETHANG	MAC & IP	MAC	MAC	Not Submitted	Not Submitted	Not Submitted	Not Submitted	Ethernet adapter MAC & IP
12	TASHIDING	MAC & IP	MAC & IP	MAC & IP	Not Submitted	Not Submitted	Not Submitted	Not Submitted	No Details is received.
13	ADHUNIK	IP	Not Submitted	Not Submitted	MAC & IP (Submitted by POWER GRID)	Not Submitted	Not Submitted	Not Submitted	(DAC & BDAC) IP
14	BARH	MAC & IP	Not Submitted	Not Submitted	Not Submitted	Not Submitted	Not Submitted	Not Submitted	No Details is received.
15	GMR	IP	Not Submitted	Not Submitted	Not Submitted	Not Submitted	Not Submitted	Not Submitted	No Details is received.
16	NKTL DHANBAD	MAC & IP	Not Submitted	MAC & IP	Not Submitted	Not Submitted	MAC & IP	Not Submitted	No Details is received.
17	MPL	IP	Not Submitted	Not Submitted	Not Submitted	Not Submitted	Not Submitted	IP	(DC/DR PC & SUX) IP
18	DARLIPALI	MAC	Not Submitted	MAC	Not Submitted	Not Submitted	Not Submitted	Not Submitted	No Details is received.

Apart from this, No MAC/IP Data has been received from FARAKKA, KAHALGAON NTPC, NABINAGAR, KBUNL, BRBCL, RANGIT, TEESTA V, DIKCHU, DMTCL, CHUJACHEN, IBEUL, BTPP, CHUJACHEN, TEESTA III, PMJTL & NORTH KARANPURA.

Powergrid informed that many places OPGW is 15 years old and those need to be replaced.

TCC advised Powergrid to place the details in lower forums and then place in TCC/ERPC for approval.

ERPC may advise.

Deliberation in the ERPC meeting

ERPC advised all the constituents to initiate the replacement of old RTUs as per the guidelines finalized by the committee.

ITEM NO. B4:	Reliable Communication Scheme under Central Sector for Eastern Region—PGCIL
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34th TCC has approved reliable communication scheme for 525Kms of OPGW based communication network of an estimated cost of Rs.14 Cr. under central sector for Eastern Region as per the following requirements:

- i. Fiber Optic connectivity along with Communication Equipment and associated items from following stations under Central Sector scheme is required to be established for data and voice communication to ERLDC for efficient grid management.

Sl. No.	Name of Power Station	Name of the Line	Voltage Level in kV	Length in km
1	IB Valley (Budhipadar)	IB Valley-Budhipadar		
2	NALCO (Meeramundali)	NALCO-Meeramundali		
3	Jindal (Angul)	Jindal-Angul	400 KV	55
4	GMR (Angul)	GMR-Angul	400 KV	30
5	LANCO (Angul)	LANCO-Angul	400 KV	24
6	Monet (Angul)	Monet-Angul	400 KV	31
7	Indbharat (Jharsuguda)	Indbharat-Jharsuguda	400 KV	50
8	TT Pool (New Melli)	TT Pool-New Melli	400 KV	25
9	Mangon	Mangon-Rangpo	400 KV	70
10	Sterlite Power (Jharsugoda)	Sterlite-Jharsugoda	400 KV	40
		TOTAL		363

- ii. Fiber Optic connectivity along with Communication Equipment and associated items is also required to be established on following lines of Central Sector to provide redundancy in the system for connectivity with SR and NER:

Sl. No.	Name of the Line	Voltage Level in kV	Length in km
1	Part of Angul - Srikakulam (Angul portion)	400	120
2	Alipurduar - Salakati-I	400	42
	Total		162
	Grand Total		525

Subsequently, as informed by POWERGRID they have worked out detailed cost estimate of the scheme and prepared DPR for the same. The estimated cost comes out to Rs. 19.75 Cr (Feb'2017 Price Level). However, actual cost shall be discovered only after bidding process and implementation of the project. Tender activities have also been initiated based on DPR.

Member may please note the same.

Deliberation in the TCC meeting

Powergrid informed that the project cost has been revised in view of Make in India initiative. Powergrid has prepared the DPR for above schemes and the estimated cost is revised to Rs. 19.75 cr.

ERLDC informed that Monnet should be excluded from the scheme as Monnet generating station is not coming up.

TCC advised Powergrid to consider views of ERLDC while finalising the bidding process and exclude those stations, which are not coming in near future.

ERPC may approve.

Deliberation in the ERPC meeting

ERPC endorsed the TCC decision and approved the estimated cost.

ITEM NO. B5:	OPGW on 400kV Kishenganj – Patna line under ‘Eastern Region Fibre Optic Expansion Project’ (Additional Requirement)- PGCIL
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Under ERSS-XXI transmission system new 400kV Sub-station at Saharsa is proposed to be created through TBCB route with LILO of existing 400kV Kishenganj – Patna Transmission Line. OPGW is being proposed for communication connectivity in LILO portion alongwith construction of transmission line portion in said project. The existing 400kV Kishenganj – Patna Transmission Line is not having OPGW presently and 347Km of OPGW is required to be laid to provide connectivity from Saharsa Substation through OPGW in LILO portion.

This link is proposed to be implemented under ‘Eastern Region Fibre Optic Expansion Project (Additional Requirement)’ which was approved in 33rd ERPC. The DPR Cost Estimate (June'16 price level) was Rs. 35.08 Cr comprising 1147 Km of OPGW and associated communication equipment. After inclusion of OPGW laying on 400 kV Kishenganj – Patna line, the network size of ‘Eastern Region Fibre Optic Expansion Project (Additional Requirement)’ would become 1494 Km of OPGW with communication equipment. The revised tentative cost of this project would become Rs. 46 Cr. However, actual cost shall be discovered only after bidding process and implementation of the project. This project cost shall be recovered as a tariff to be determined by CERC and shall become part of the commercial agreement signed by the constituents of Eastern Region in ULDC scheme.

Member may discuss and approve.