सत्यमेव जयते
भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
पूर्वी क्षेत्रीय विद्युत समिति
Eastern Regional Power Committee
14, गोल्फ क्लब रोड, टालीगंज, कोलकाता-700033
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सं /NO. ERPC/EE/OPERATION/2025/245 **दिनांक/DATE:06.05.2025**

सेवा में /To
संलग्न सूची के अनुसार /As per list enclosed.

विषय : 22 अप्रैल 2025 (मंगलवार) वस्तुतः माइक्रोसॉफ्ट टीम्स प्लेटफॉर्म पर आयोजित 226वीं OCC बैठक का कार्यवृत्त - संबंध में।

Sub: Minutes of 226th OCC Meeting held on 22.04.2025 (Tuesday) virtually on Microsoft Teams platform – reg

महोदय/महोदया,
Sir(s)/Madam,

कृपया अपनी जानकारी और आवश्यक कार्रवाई के लिए **22 अप्रैल 2025 (मंगलवार)** को **वस्तुतः माइक्रोसॉफ्ट टीम्स प्लेटफॉर्म** पर 10:30 बजे आयोजित **226वीं ओसीसी बैठक** के **संलग्न कार्यवृत्त** देखें। यह ईआरपीसी वेबसाइट (**www.erpc.gov.in**) पर भी उपलब्ध है।
Please find enclosed **Minutes of 226th OCC Meeting** held on **22.04.2025 (Tuesday) virtually** on **Microsoft Teams platform** at 10:30 hrs for your **kind information** and **necessary action**. The same is also available at ERPC website (**www.erpc.gov.in**).

टिप्पणियाँ, यदि कोई हों, कृपया यथाशीघ्र इस कार्यालय को अग्रेषित करें।
Observations, if any, may please be forwarded to this office at the earliest.

इसे सदस्य सचिव के अनुमोदन से जारी किया जाता है।
This issues with the approval of Member Secretary.

भवदीय /Yours faithfully

06/05/2025

(S.Kejriwal)
SE(Operation)
एसई (ऑपरेशन)

LIST OF ADDRESSES:

1. CHIEF ENGINEER (TRANS., O&M), BSPTCL, PATNA, (FAX NO. 0612-2504557/2504937)
2. CHIEF ENGINEER (System Operation), BSPTCL, PATNA, (FAX NO. 0612-2504557/2504937)
3. CHIEF ENGINEER, TRANSMISSION (O&M), JUSNL, RANCHI (FAX NO.-0651-2490486/2490863)
4. CHIEF ENGINEER, TVNL, DORANDA, RANCHI - 834102 (FAX NO. 06544-225414)
5. CHIEF LOAD DISPATCHER, SLDC, OPTCL, BHUBANESWAR (FAX NO.0674-2748509)
6. CHIEF GENERAL MANAGER (O&M), OPTCL, BHUBANESWAR
7. SR. GENERAL MANAGER (PP), GRIDCO, JANPATH, BHUBANESWAR (0674-2547180)
8. DIRECTOR (OPERATION), IB TPS, AT/PO BANHARPALI, JHARSUGUDA, (FAX NO. 06645-222225/222230)
9. GENERAL MANAGER, TTPS, TALCHER, (FAX NO. 06760-243212)
10. SR. GENERAL MANAGER (ELECTRICAL), OHPC LTD., BHUBANESWAR, (FAX NO.0674-2542102)
11. CHIEF ENGINEER, CLD, WBSETCL, HOWRAH, (FAX NO. 033-26886232)
12. CHIEF ENGINEER, CENTRAL PLANNING WING, WBSETCL, SALT LAKE (FAX NO.: 033-23591955)
13. CHIEF ENGINEER (PTR), WBSEDCL, SALT LAKE, KOLKATA (FAX:033-23345862)
14. CHIEF GENERAL MANAGER (OS), WBPDCL, KOLKATA-98 (FAX NO. 033-23393286/2335-0516)
15. GM, KOLAGHAT TPS, WBPDCL, KOLAGHAT (FAX NO.03228231280)
16. DGM (OPERATION), DPL, DURGAPUR, (FAX NO. 0343-2555052)
17. GM (SYS OPERATION), CESC, CHOWRINGHEE SQUARE, KOLKATA (FAX NO.033-22253756/22129871)
18. CHIEF ENGINEER, SLDC, DVC, HOWRAH (FAX NO. 033-2688-5094)
19. ADDL.CHIEF ENGINEER, SLDC, POWER DEPT., GOVT. OF SIKKIM, GANGTOK, (FAX NO. 03592-228186/201148/202284)
20. EXECUTIVE DIRECTOR, ERLDC, POSOCO, KOLKATA, (FAX NO. 033-2423-5809)
21. GENERAL MANAGER, FSTPP, NTPC, FARAKKA, (FAX NO. 03512-224214/226085/226124)
22. GENERAL MANAGER , KhSTPP, NTPC, KAHALGAON (FAX NO.06429-226082)
23. GENERAL MANAGER, TSTPP, NTPC, TALCHER, (FAX NO. 06760-249053)
24. GENERAL MANAGER (OS), POWERGRID, ER-II, KOLKATA(Fax no: 033-23572827)
25. GENERAL MANAGER , POWERGRID, ER-I, PATNA, (FAX NO.0612-2531192)
26. GENERAL MANAGER (O&M), POWERGRID, ODISHA PROJECTS, SAHID NAGAR, BHUBANESWAR – 751 007
27. EXECUTIVE DIRECTOR (O&M), NHPC, FARIDABAD (FAX No.:0129-2272413)

28. GENERAL MANAGER, TEESTA –V POWER STATION, NHPC, SINGTAM, EAST SIKKIM (FAX 03592 - 247377)

29. CHIEF ENGINEER, RANGIT POWER STATION, NHPC, P.O. RANGIT NAGAR, SOUTH SIKKIM (FAX NO.03595-259268)

30. SENIOR VICE PRESIDENT, PTC LTD., NBCC TOWERS, 15-BHIKAJI KAMA PLACE, NEW DELHI- 110066 (FAX NO. 011-41659504)

31. PLANT HEAD, ADHUNIK POWER & NATUARAL RESOURCES, JHARKHAND(FAX NO.: 0657-6628440)

32. AGM (OPERATION), MAITHON POWER LTD, DHANBAD (FAX: 08860004758)

33. VICE PRESIDENT(POWER), VEDANTA LIMITED, BHUBANESWAR- 751023 (FAX NO 0674-2302920)

34. CHIEF ELECTRICAL ENGINEER, EASTERN RAILWAY, KOLKATA-700 001 (FAX NO.: 033-22300446)

35. CHIEF ELECTRICAL ENGINEER, SOUTH EASTERN RAILWAY, KOLKATA-43 (FAX: 033-24391566)

36. DEPUTY DIRECTOR, EASTERN RPSO, 14, GOLF CLUB ROAD,TOLLYGUNJ, KOLKATA-700033

37. GENERAL MANAGER (O&M), NHPC LTD, FARIDABAD, FAX: 0129-2272413

38. ASSOCIATE VICE PRESIDENT, GMR KEL, BHUBANESWAR-751007. (FAX NO: 0674-2572794)

39. GM (SO & COMML), NTPC VVNL, NEW DELHI-110033. Fax:011-24367021

40. SHRI D. P. BHAGAVA, CHIEF CONSULTANT (O&M), TEESTA URJA LIMITED, NEW DELHI-110 001 (FAX:011-46529744)

41. SHRI BRAJESH KUMAR PANDE, PLANT HEAD, JITPL. (FAX:011-26139256-65)

42. DIRECTOR (NPC), CEA, NRPC BUILDING, KATWARIA SARAI, NEW DELHI- 110016

43. VP (OS), HALDIA ENERGY LIMITED, BARIK BHAWAN, KOKATA-700072, FAX: 033-22360955

44. GENERAL MANAGER(O&M),BRBCL,NABINAGAR,BIHAR-824003,FAX-06332- 233026

CC:

Chief Engineer, OPM, CEA	Chief Engineer, NPC, CEA	ASSISTANT SECRETARY,ERPC

पतों की सूची:

1. मुख्य अभियंता (ट्रांस., ओ एंड एम), बीएसपीटीसीएल, पटना, (फैक्स नं. 0612- 2504557/2504937)।
2. मुख्य अभियंता (सिस्टम ऑपरेशन), बीएसपीटीसीएल, पटना, (फैक्स नं. 0612- 2504557/2504937)।
3. मुख्य अभियंता, ट्रांसमिशन (ओ एंड एम), जेयूएसएनएल, रांची (फैक्स नं.-0651- 2490486/2490863)।
4. मुख्य अभियंता, टीवीएनएल, डोरंडा, रांची - 834102 (फैक्स नंबर 06544-225414)
5. मुख्य लोड डिस्पैचर, एसएलडीसी, ओपीटीसीएल, भुवनेश्वर (फैक्स नंबर 0674-2748509)
6. मुख्य महाप्रबंधक (ओ एंड एम), ओपीटीसीएल, भुवनेश्वर
7. एसआर. महाप्रबंधक (पीपी), ग्रिडको, जनपथ, भुवनेश्वर (0674-2547180)
8. निदेशक (संचालन), आईबी टीपीएस, एटी/पीओ बनहरपाली, झारसुगुड़ा, (फैक्स नंबर 06645-222225/222230)
9. महाप्रबंधक, टीटीपीएस, तालचेर, (फैक्स नंबर 06760-243212)
10. एसआर. महाप्रबंधक (विद्युत), ओएचपीसी लिमिटेड, भुवनेश्वर, (फैक्स नंबर 0674-2542102)
11. मुख्य अभियंता, सीएलडी, डब्ल्यूबीएसईटीसीएल, हावड़ा, (फैक्स नंबर 033-26886232)।
12. मुख्य अभियंता, केंद्रीय योजना विंग, डब्ल्यूबीएसईटीसीएल, साल्ट लेक (फैक्स नंबर: 033-23591955);
13. मुख्य अभियंता (पीटीआर), डब्ल्यूबीएसईडीसीएल, साल्ट लेक, कोलकाता (फैक्स:033-23345862)।
14. मुख्य महाप्रबंधक (ओएस), डब्ल्यूबीपीडीसीएल, कोलकाता-98 (फैक्स नंबर 033- 23393286/2335-0516)।
15. जीएम, कोलाघाट टीपीएस, डब्ल्यूबीपीडीसीएल, कोलाघाट (फैक्स नंबर 03228231280)
16. डीजीएम (ऑपरेशंस), डीपीएल, दुर्गापुर, (फैक्स नंबर 0343-2555052)
17. जीएम (एसवाईएस ऑपरेशन), सीईएससी, चौरंगी स्क्वायर, कोलकाता (फैक्स नंबर 033- 22253756/22129871)।
18. मुख्य अभियंता, एसएलडीसी, डीवीसी, हावड़ा (फैक्स नंबर 033-2688-5094)।
19. अपर मुख्य अभियंता, एसएलडीसी, विद्युत विभाग, शासन। सिक्किम, गंगटोक, (फैक्स नंबर 03592-228186/201148/202284)
20. कार्यकारी निदेशक, ईआरएलडीसी, पोसोको, कोलकाता, (फैक्स नंबर 033-2423-5809)
21. महाप्रबंधक, एफएसटीपीपी, एनटीपीसी, फरक्का, (फैक्स नंबर 03512- 224214/226085/226124)
22. महाप्रबंधक, खएसटीपीपी, एनटीपीसी, कहलगांव (फैक्स नंबर 06429-226082)
23. महाप्रबंधक, टीएसटीपीपी, एनटीपीसी, तालचेर, (फैक्स नंबर 06760-249053)
24. महाप्रबंधक (ओएस), पावरग्रिड, ईआर-II, कोलकाता (फैक्स नंबर: 033-23572827)
25. महाप्रबंधक, पावरग्रिड, ईआर-I, पटना, (फैक्स नं.0612-2531192)
26. महाप्रबंधक (ओ एंड एम), पावरग्रिड, ओडिशा प्रोजेक्ट्स, साहिद नगर, भुवनेश्वर - 751 007
27. कार्यकारी निदेशक (ओ एंड एम), एनएचपीसी, फरीदाबाद (फैक्स नंबर:0129-2272413)
28. महाप्रबंधक, तीस्ता-वी पावर स्टेशन, एनएचपीसी, सिंगतम, पूर्वी सिक्किम (फैक्स 03592 - 247377)।
29. मुख्य अभियंता, रंगीत पावर स्टेशन, एनएचपीसी, पी.ओ. रंगीत नगर, दक्षिण सिक्किम (फैक्स नंबर 03595-259268)
30. वरिष्ठ उपाध्यक्ष, पीटीसी लिमिटेड, एनबीसीसी टावर्स, 15-भीकाजी काम प्लेस, नई दिल्ली-110066 (फैक्स नंबर 011-41659504)।
31. प्लांट हेड, आधुनिक पावर एवं नेचुरल रिसोर्सेज, झारखंड (फैक्स नं.: 0657-6628440)।
32. एजीएम (ऑपरेशंस), मैथन पावर लिमिटेड।

33. उपाध्यक्ष (विद्युत), वेदांता लिमिटेड, भुवनेश्वर- 751023 (फैक्स नंबर 0674-2302920)।

34. मुख्य विद्युत अभियंता, पूर्वी रेलवे, कोलकाता-700 001 (फैक्स नं.: 033-22300446)

35. मुख्य विद्युत अभियंता, दक्षिण पूर्व रेलवे, कोलकाता-43 (फैक्स: 033-24391566)।

36. उप निदेशक, पूर्वी आरपीएसएच, 14, गोल्फ क्लब रोड, टॉलीगंज, कोलकाता-700033

37. महाप्रबंधक (ओ एंड एम), एनएचपीसी लिमिटेड, फरीदाबाद, फैक्स: 0129-2272413

38. एसोसिएट वाइस प्रेसिडेंट, जीएमआर केईएल, भुवनेश्वर-751007। (फैक्स नंबर: 0674-2572794)

39. जीएम (एसओ एवं सीओएमएल), एनटीपीसी वीवीएनएल, नई दिल्ली-110033। फैक्स:011-24367021

40. श्री डी. पी. भागवा, मुख्य सलाहकार (ओ एंड एम), टेस्टा ऊर्जा लिमिटेड, नई दिल्ली-110 001 (फैक्स:011-46529744)।

41. श्री ब्रजेश कुमार पांडे, प्लांट हेड, जीतपीएल। (फैक्स:011-26139256-65)

42. निदेशक (एनपीसी), सीईए, एनआरपीसी बिल्डिंग, कटवारिया सराय, नई दिल्ली-110016

43. उपाध्यक्ष (ओएस), हल्दिया एनर्जी लिमिटेड, बारीक भवन, कोकाता-700072, फैक्स: 033-22360955

44. महाप्रबंधक (ओ एंड एम), बीआरबीसीएल, नबीनगर, बिहार-824003, फैक्स-06332- 233026

<u>सीसी:</u>

मुख्य अभियंता, ओपीएम, सीईए	मुख्य अभियंता, एनपीसी, सीईए	सहायक सचिव,ईआरपीसी

ईआरपीसी:: कोलकाता

MINUTES
OF
226th OCC MEETING

Date: 22.04.2025

Eastern Regional Power Committee

Contents

EASTERN REGIONAL POWER COMMITTEE

MINUTES OF 226th OCC MEETING TO BE HELD ON 22.04.2025 (TUESDAY) AT 10:30 HRS

Member Secretary, ERPC *chaired the* ***226th OCC*** *meeting. On welcoming all the participants, he outlined the performance of ER grid during* ***March-2025*** *and highlighted the following points:*

- *In* ***March-2025****, energy consumption of ER was* ***16421 MU*** *which is* ***7.3% more*** *than* ***March-2024.***
- *In* ***March-2025****, Peak demand met of ER was* ***28119 MW*** *which is* ***3.8% more*** *than* ***March-2024****.*
- *During* ***March-2025****,* ***77.9%*** *of time, the grid frequency was in IEGC Band (49.90Hz-50.05Hz).*
- *Thermal* ***PLF*** *of ER during* ***March-2025*** *was* ***78 %*** *against All India PLF of* ***73.3%.***
- *Some thermal generating units were lauded for maintaining PLF more than* ***90%*** *during* ***March-2025*** *that are listed below:*

Utility	***Generating Stations***	***PLF %***
WBPDCL	*Bakreswar TPS*	*97*
	Santaldih TPS	*97*
	Bandel TPS	*94*
IPP	*Haldia TPP(HEL)*	*98*
	GMR Kamalanga TPS	*93*
	Vedanta TPP	*92*

- ***Coal stock position:***

Coal stock position (As on 19.04.2025) is as follows:

SL.	***Name of States/Power Stns.***	***% of Actual Stock vis-à-vis Normative Stock***
1.	*Jharkhand (TVNL)*	*180%*
2.	*Odisha/IBTPS*	*56%*
3.	*WBPDCL*	*60% (Min. Santaldih TPS - 36 %,* *Max. Bandel TPS – 142 %)*
4.	*D.P.L. TPS*	*46%*
5.	*DVC*	*97% (Min. Mejia TPS-65%,* *Max Bokaro TPS `A-136%)*
6.	*NTPC*	*94% (Max. North Karanpura TPP -168% & Min. Talcher STPS - 76%)*

❖ *He further highlighted the following:*

✓ *It has been observed that several thermal generating units of ER have being subjected to **frequent Forced outages** during **last 3 months.***

✓ *Among these, **Tenughat TPS** units have undergone maximum no: of **30 outages** due to ID fan problem as well as high turbine vibration. Moreover, Old units of Tenughat TPS not being able to achieve full generation have experienced **frequent Partial outages***

✓ ***JSW Utkal Energy units** have undergone maximum no: of 9 outages due to excitation problem.*

✓ *A **Conference of Energy Ministers of North Eastern and Eastern States** (8 NE States including Sikkim and 4 Eastern States i.e. West Bengal, Odisha, Bihar and Jharkhand) is being organized on **25th April 2025** at **Guwahati, Assam**.*

*CEA has finalized and shared the State-wise Resource Adequacy (RA) Plan up to **2034-35.** The plan includes a category-wise yearly capacity addition roadmap for each state to meet the increasing demand.*

✓ *The number of forced outages in some of the ER generating units remains unsatisfactory and needs to be addressed urgently.*

✓ *Bokaro TPP was to be operational by 18.04.2025 after Annual Overhauling; however, this timeline could not be met due to cropping up of new defects during overhauling. DVC was requested to bring back the unit by the revised deadline of 30.04.2025.*

✓ *TVNL had to prepone its scheduled shutdown from July 2025 to April 2025 due to high vibration in Turbine bearings and as advised by BHEL.*

✓ *NTPC was requested to expedite the declaration of Commercial Operation Date (COD) for North Karanpura STPP Unit # 3.*

✓ *JUSNL was requested to fast-track the commissioning of transmission lines necessary for power evacuation from the under construction thermal generating units at Patratu of PVUNL.*

✓ *All generators were advised to adopt corrective measures to minimize partial generation losses, especially during peak non-solar hours.*

✓ *Adequate coal stock must be maintained by all thermal GENCOs, considering that coal production and transportation may be affected during July – August .*

✓ *Import of Renewable power from other regions to ER for meeting RPO of ER states entails transmission constraints along with hurdles associated with grant of sufficient GNA quantum. Thus, all ER DISCOMs were encouraged to prioritize the adoption of solar technology to meet respective RPOs in efficient and cost-effective manner.*

❖ ***ED,ERLDC** at the outset expressed concern on the impending challenges of reliable grid operation at the onset of upcoming crunch period and highlighted:*

✓ *The grid frequency dropped critically to as low as 49.45 Hz after 7 PM on 21.04.2025.*

✓ *Due to internal tripping and issues with portfolio management, West Bengal was overdrawing more than 1000 MW for a sustained period of 1.5 hours, until 9 PM. During this time, the grid frequency remained around 49.5 Hz.*

- ✓ *The peak demand(pan-India) during non-solar hours has already touched approximately 220 GW. As future demand is expected to rise further, similar incidents would be even harder to manage. All SLDCs & DISCOMs were therefore urged to ensure adequate resource planning and maintain their drawl as per schedule to prevent such crises.*
- ✓ *Details of day-ahead resource adequacy will be shared with all ER states on daily basis. All States were requested to take prompt corrective actions based on these reports to avert recurrence of sustained overdrawl situations.*

1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 225th OCC Meeting held on 18th March 2025 virtually on MS Teams

The minutes of 225th Operation Coordination Sub-Committee meeting held on 18.03.2025 was circulated vide letter dated 27.03.2025.

Members may confirm the minutes of 225th OCC meeting.

Deliberation in the meeting

- *In line with observations received from ERLDC some alterations are hereby incorporated in the Minutes of 225th OCC Meeting as detailed hereunder:*
- *In **Item no:B.2.1**:: **Review of Beta factor evaluation for FRP response**:*

  "ERLDC apprised that, as per IEGC, generators need to submit the data within 2 days from notification of the event. For the events mentioned by BRBCL even after repeated follow up via mail and follow up in OCC agenda data was not submitted by BRBCL in time and for few events it was delayed more than 5-6 months. Also, for 10th May 2024 event BRBCL resubmitted the data after ERLDC has already sent the file to ERPC stating "typographical error". ERLDC further added that the concern of Beta factor computation in the month when no frequency event is reported, has already been taken up by NLDC with Hon'ble CERC and subsequent actions will be in line with CERC's decision" while the portion-

  " OCC suggested that non-receipt of data against frequency event reported on 06.04.2025 and 10.05.2025 may be sorted mutually between BRBCL and ERLDC" stands deleted.

- *W.r.t **Item no: B.2.6: Inconsistency in the implementation of the amended Regulation 49 of the IEGC 2023***

  "OCC observed that in case adequate margin is available in a generating station above its technical minimum, there is no operational constraint for reduction in their requisition below technical minimum of respective shares of beneficiaries after 14:30 Hrs on D-1 provided the total schedule of the generating station gets capped at its MTDL

  However, regulatory intervention from CERC may be sought in this regard."

- *These modifications shall form part of **MOM of 225th OCC** circulated vide letter dated 27.03.2025.*

Members confirmed the Minutes of 225th OCC with aforementioned modification.

2. PART-B: ITEMS FOR DISCUSSION

2.1 Ensuring voltage stability for Kolkata and Bhubaneswar Area: ERLDC

- ❖ It is observed that due to high percentage of space cooling load around Kolkata and Bhubaneswar during summer, voltage in these areas go below 390 kV and reaching up to 380 kV on few occasions. In addition to normal operating condition, certain contingencies can lead to voltage collapse.
- ❖ During 2024 Summer, multiple Fault Induced Delayed Voltage Recovery (FIDVR) events took place around Kolkata and Bhubaneswar which caused momentary load loss and severe low voltage issues. CESC system also got islanded due to FIDVR event.
- ❖ Due to wide variation of system demand, voltage also varies widely necessitating the requirement of dynamic reactive compensation.

Details of location facing constraints of low voltage enclosed at **Annex B.2.1**

To maintain voltage stability and to control wide variation of the voltage, following needs to be deliberated:

a) **Short-term measure:**

- ✓ Under Voltage Load Shedding (UVLS) scheme implementation is essential and it was discussed in the summer preparedness meeting of 2025 dated 12.03.2025.
- ✓ Recently during a grid disturbance involving Gujrat and Maharashtra system similar UVLS scheme saved Maharashtra system from wider blackout.
- ✓ Therefore, UVLS scheme needs to be implemented in Kolkata and Bhubaneswar area as defense mechanism for safeguarding system from voltage collapse during certain critical contingencies.

b) **Long-term measure:** there is a need for suitable dynamic reactive compensation.

ERLDC may explain. Members may discuss.

Deliberation in the meeting

ERLDC apprised:

- *The largest Pan-India load loss of 17 GW occurred on 17.06.24 due to HVDC tripping in the northern region. This could have been avoided if UVLS had been implemented in the northern region.*
- *A similar situation occurred in Gujarat and Maharashtra on 12.03.25. power failure occurred in south Gujrat area due to non-availability of UVLS scheme whereas Maharashtra system survived from widespread blackout due to successful operation of UVLS.*
- *As a long-term solution to the voltage drops in the Mendhasal area of Odisha, installation of STATCOM would be necessary to improve voltage stability. The Meramundali-Mendhasal line is the most important in this area, and the tripping of a single circuit causes voltage drops of 10–15 kV. Specifications of STATCOM may be discussed in CMETS-ER.*
- *WB & Odisha may reconsider the implementation of UVLS. UVLS may be implemented in locations near the Kolkata and Bhubaneswar load centers. Substation identification for UVLS implementation may be done by SLDCs Since it is a connected grid and disturbance in one location can affect the grid nationally.*

- *Till the implementation of suitable dynamic reactive compensation in these areas as a long-term measure, automatic UVLS (Under Voltage Load shedding) scheme is needed to avoid widespread blackout.*
- *The need of UVLS in these areas was also highlighted in the 216th OCC meeting dtd 21.06.2024 for safeguarding system and avoiding widespread blackout near Kolkata and Bhubaneswar.*
- *Voltage stability is to be ensured locally by the DISCOMs with proper compensation. Further, it was pointed out that containing the disturbance through UVLS is beneficial over a widespread/cascade disturbance which may take more time for recovery in absence of UVLS, UVLS is last resort to save the system.*

WB SLDC informed:

- *Voltage in 400 kV tie lines near Kolkata area usually does not fall below 390 kV, and further voltage drop may only occur due to cascaded tripping of multiple lines. As a long-term measure, dynamic reactive compensation with STATCOM is effective, and implementation of UVLS may not not required.*
- *If both 400 kV Farakka-Kahalgaon lines trip due to any reason, voltage collapse is certain during solar hours. Thus, strengthening of these lines is essential for system reliability.*

SLDC Odisha submitted:

- *Voltage drop occurred in the Mendhasal area due to the unavailability of the 400 kV Lapanga-Meramundali line in Summer 2024. Under normal conditions, voltage in 400 kV lines is maintained near 390 kV. Hence, implementation of UVLS may not be necessary.*
- *However, dynamic reactive compensation is needed around Bhubaneswar area.*

OPTCL apprised:

- *Installation of STATCOM in the Mendhasal area of Odisha would be an effective long-term solution for voltage stability.*

OCC Decision

- ✓ *OCC advised OPTCL and WBSETCL to expedite implementation of dynamic reactive compensation as a long-term measure for voltage control.*
- ✓ *OCC observed that low voltage issues at some substations is a localised phenomenon and needs to be dealt with accordingly.*
- ✓ *OCC advised the concerned states to adopt a balanced approach in implementation of UVLS to ensure the bus voltage at substations doesn't drop below IEGC band of 3 %.* ***Manual load trimming scheme may be prepared and the same may be implemented if situation warrants.***

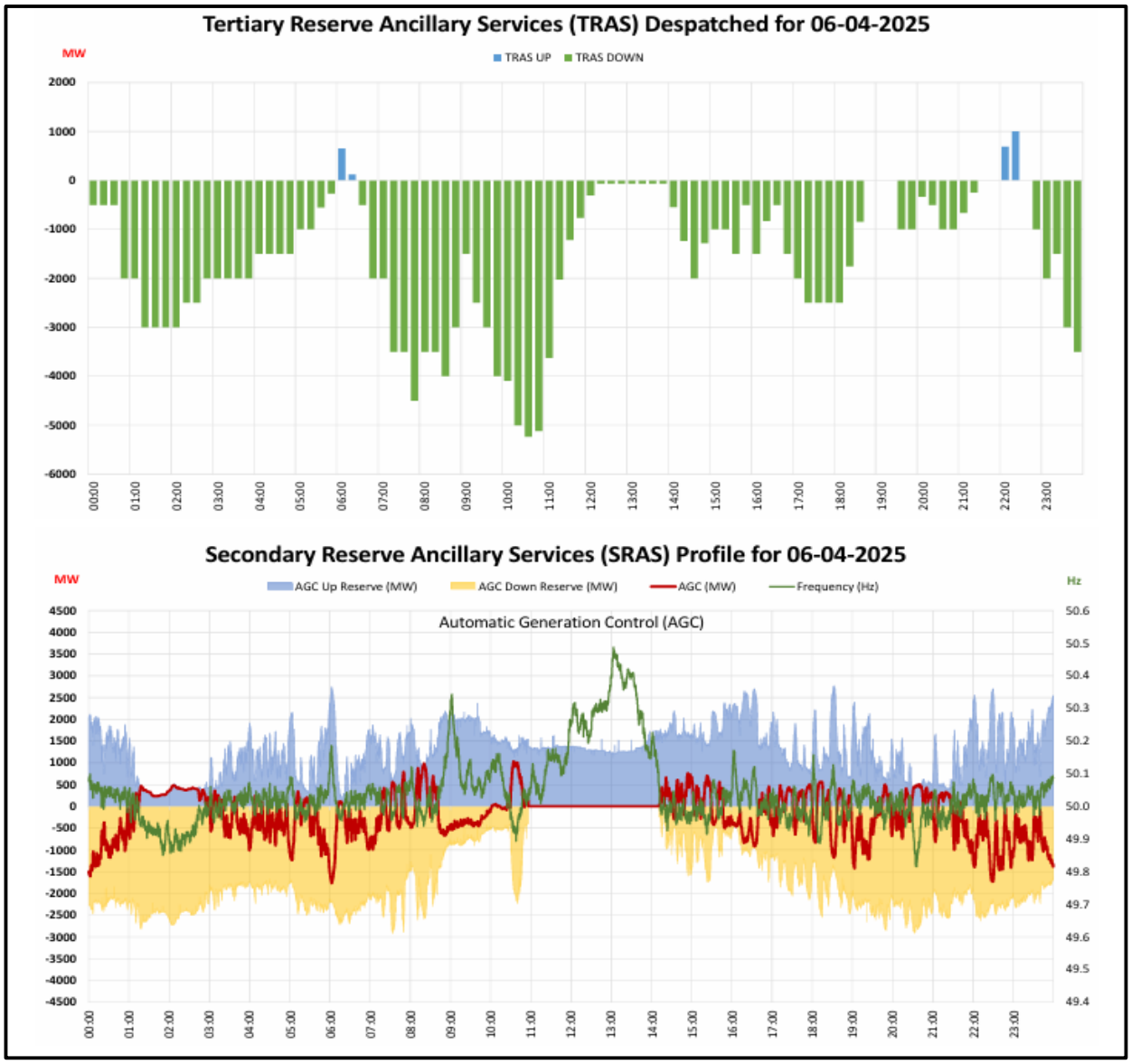
2.2 Sustained high frequency event during April 2025 and Lack of down reserve margin: ERLDC

Sustained high-frequency event was observed in April 2025 especially during solar hrs. Grid frequency touched maximum of 50.49 Hz at 13:03 hrs on 6th April 2025 and remained continuously out of the IEGC band for a significant duration.

At the time of the event:

•All ISGS units were operating at their Minimum Turn Down Level (MTDL) of 55%. However, most of the state generators were running above 55% of MCR.

•It was also observed that availability TRAS down margin also not available due to less participation of Intra-state generators in TRAS market. This led to lack of down reserve available with NLDC.



This issue was also deliberated in the 218th OCC Meeting and 52nd TCC meeting held on 23.08.2024 and 05.09.2024 respectively, where it was decided that intra-state generators would take up with the SERC to explore the possibility of backing down generation up to 55%. Recently, CERC gave Suo Motu order (2/SM/2025) dated 29.03.2025 in which CERC acknowledged the increasing instances of such events in view of the rising RE penetration and emphasized the need for enhanced flexibility in thermal operation.

Few suggestions of CERC in the said Suo Motu order:

- Review the operating levels of their intra-state generating units during low-demand and high-frequency periods.

- Explore possibility of two shift operations for some of the thermal plants (Sec-62 Generators) keeping in view technical feasibility and operational efficiency.
- Explore implementation modalities and suitable commercial mechanisms to facilitate such AGC services from REGS
- Work out modalities for the implementation of ESS at thermal generating stations

ERLDC may explain. Member may discuss.

Deliberation in the meeting:

ERLDC highlighted:

- *High-frequency events occurred during April 2025 due to lower demand from states coupled with high renewable energy (RE) generation. All ISGS generators were running at 55% of their Maximum Continuous Rating (MCR). There was significant down margin available in state generators, considering MTDL as 55% of MCR. However, due to non-participation of intra-state generators in the TRAS market, sufficient down reserve was not available with NLDC.*
- *The same matter was discussed in the 218th OCC meeting, and state generators were requested to bid their down margin in the TRAS market. By participating in TRAS, state generators can earn extra revenue which serves as an additional incentive to participate in the TRAS market.*
- *In view of the growing lack of down reserve and sustained high-frequency issues during solar hours, CERC has issued a suo-moto order for managing such events. Among several directions and suggestions, the most important measure directed by CERC in the order is to start a pilot project for two-shift operation of thermal generators. Section 62 generators under CERC were requested to come forward for participating in the pilot.*
- *State SLDCs & State Gencos were requested to take up the matter to respective SERCs for bringing down state generators to 55% of MTDL and actively participate in TRAS market.*

OCC Decision

- ✓ *All intra-state generators including WBPDCL were advised to file a petition before respective SERCs to address their financial concerns (part load compensation).*
- ✓ *Intra-state generators were advised to participate in the TRAS market, which would improve the down reserve along with provision of incentives for the generators.*
- ✓ *All state generators were advised to take up this issue with the regulatory bodies for approval to participate in the TRAS market.*
- ✓ *ERLDC was advised to provide technical know-how to the intra-state generators in this regard.*

2.3 A. Study of Grid Disturbance at 765/400kV Angul S/S: ERPC

- ✓ A disturbance occurred at 16:20 Hrs on **20.02.2025** at 765/400 kV & 400 kV Angul, GMR, JITPL S/s. 765 kV Bus-1&2, 400 kV Bus-1&2 at Angul S/S tripped and generation loss of around **1750 MW** occurred at **GMR** and **JITPL** due to loss of evacuation path.
- ✓ Inclement weather and cyclonic storm were reported during the event. Multiple CT faults were observed during the event and flashover marks on CT Junction box observed.
- ✓ Total duration of outage:**1 Hr and 37 Minutes**

❖ Following were the key observations:

•Few CTs where faults occurred are common in both incidents.
•It is gathered that only SF6 filled CTs are getting affected due to lightning. Oil filled CTs are not impacted.
•It is suspected that flashover is occurring at junction box due to overvoltage induced by lightning strike in both the events. After the past incident on 12.10.2023 it was recommended in 130th PCC minutes for earthing audit and DSLP (Direct Stroke Lightning Protection) study, which was carried out and as intimated recommended steps were carried out. However, same nature of incident occurred again.

One past incident of same nature also occurred at **765/400 kV Angul S/S** on 12.10.2023 where due to lightning, multiple faults occurred at various CTs which led to bus tripping at 765 kV and 400 kV.

As per **225th OCC** Deliberation
PG Odisha updated:

- ✓ Risers of Gantry towers have been mended which were not properly earthed leading to poor dissipation of lightning surge.
- ✓ Missing Earth wire jumpers at multiple locations have been restored.
- ✓ No major fault was found in the previously failed 400 kV CTs while the 765 kV failed CTs had been sent to OEM for RCA in Feb'24.
- ✓ As per recommendation of concerned OEM of CTs (M/S Siemens), the frequency of testing involving purity of SF_6 as well as insulation tests has been increased.
- ✓ Additional shielding with earthwire is planned to be provided over the portion between old 765 kV switchyard and newly constructed extension part as suggested by Corporate Engineering team. New lightning mast has been proposed for protection of this area.
- ✓ Additional rod earthing will be provided to strengthen the earthing of gantry towers. This will ensure proper discharge of lightning.
- ✓ All the inputs regarding the disturbance and subsequent analysis at PG end have also been shared with CPRI in a recent meeting convened by ERLDC.
- ✓ Any recommendations/inputs from CPRI is awaited.

ERLDC presented a detailed report on visit to 765 kV Angul S/S for analysis of this grid disturbance.Some key observations in the report are pointed out as:

- ✓ After the previous disturbance of similar nature (Oct 2023), the SF6 CTs were sent for RCA to the factory of OEM but receipt of conclusive RCA report is still awaited from the OEM.
- ✓ RCA report of similar failure of CT in Dharamjaygarh(PG) station has been shared by the OEM wherein insulation test has been recommended to be conducted every three months.
- ✓ Prior to the grid disturbance of Oct 2023, there was no protection in form of earth wire over the portion between two stages of 765 kV switchyard (stage-I & II) Earthwire protection against lightning strike was deployed in this portion after third party earthing audit. Most CTs have failed in close vicinity of this area.
- ✓ JITPL and GMR lines are present in the same Dia leading to entire generation loss in outage of both 400 kV buses due to evacuation paths being not present in opposite directions. Thus, in case of simultaneous 400 kV bus outage, one spare bay may be utilized for connecting one circuit of JITPL/GMR & power evacuation through 765/400 kV ICT-4.

225th OCC Decision

- OCC advised Powergrid Odisha to address all the deficiencies and implement the recommendations as pointed out in the report of ERLDC as well as in earlier third-party earthing audit i.r.o 765 kV Angul S/S.
- OCC opined that a detailed report with recommendations from the joint Committee (comprising ERLDC, Powergrid and CPRI) should be submitted within 3 months for review in OCC forum. Based on Committee recommendations further course of action for preventive measures may be planned at Angul(PG) station.
- OCC advised Powergrid Odisha to explore the feasibility of alternate power evacuation from JITPL & GMR units utilizing the available spare bay. A detailed proposal along with cost implications should be submitted in this regard by ERLDC & Powergrid for consideration in OCC forum.

✓ A joint committee has been formed with representatives from ERLDC, POWERGRID and CPRI to analyze and submit a detailed report. CPRI has intimated that the following works need to be carried out by them:
  - Insulation Co-ordination studies
  - Mitigation remedies/suggestions based on the manufacturer's report on failed CT.
  - Earthing Studies for 765kV Angul substations of M/s PGCIL which includes Measurement of Earth Resistance, Measurement of Soil Resistivity and continuity check of all risers to the earth mat.

✓ CPRI has intimated that budgetary price for preliminary visit to the site will be 1 lac + 18% GST and cost for detailed study will be **Rs. 30 lacs+ 18% GST**.

✓ POWERGRID vide email dated 27.03.2025 has intimated that they will cooperate with CPRI team but **will not bear the cost**.

Deliberation in the meeting:

CPRI apprised:

- *Separate earthing studies for the 400 kV and 765 kV switchyards at Angul need to be conducted to ensure effective mitigation measures.*
- *Only a brief summary of the third-party earthing audit has been received. As per the summary, only lightning rods are installed on the gantry towers in the switchyard. To enhance protection against direct lightning strokes, overhead shield wires should be installed to cover the unprotected switchyard area. The CT failure at the Angul substation may potentially be attributed to a direct lightning stroke.*
- *Insulation coordination studies are required to assess the impact of overvoltage on CTs.*

Powergrid Odisha submitted:

- *The CTs have been sent to the OEM's facility for detailed fault analysis.*
- *The OEM's engineering team has informed that the Root Cause Analysis (RCA) report on the CT failures will be submitted by 27.04.2025.*
- *Only the SF_6-filled CTs appear to have been affected by direct lightning strokes.*

OCC Decision

- ✓ *CPRI being an active member of the Committee on Failure of Power Equipment under CEA's PSETD division, Powergrid was advised to share all the details of this event to the Committee for detailed investigation i.r.o root cause and recommendations.*
- ✓ *OCC opined that the onus lies on Powergrid to ensure adequate earthing at 765 kV Angul S/S.Hence, Powergrid must take note of the observations of CPRI and take immediate remedial action.*
- ✓ *Based on the RCA report, Powergrid was advised to take suitable measures to prevent recurrence of such incidents of CT failure.*
- ✓ *Powergrid was advised to identify other locations where CTs of similar make and specifications are installed and take necessary corrective actions.*

2.3. B. Feasibility of reliable power evacuation from GMR and JITPL units: ERPC

- ✓ To explore the feasibility of alternate power evacuation from JITPL & GMR units utilizing the available spare bay, the first online meeting was held on 11.04.2025 (MOM at **Annex B.2.3**) among representatives of ERPC, ERLDC, JITPL, GMR and POWERGRID.
- ◆ Shifting of GMR-1 line bay was proposed as the transmission line from GMR is having quad conductor and capable of evacuating combined full generation of GMR and restricted generation of JITPL (up to 850MW, limited by line thermal loading limit).
- ◆ JITPL & GMR acknowledged that the proposed arrangement will enhance the reliability of generation evacuation. They sought time to discuss the issue with higher management and talk over cost sharing mechanism to proceed with the proposal. ERPC directed JITPL & GMR to update on the proposal in 226th OCC meeting to be held on 22nd April 2025.
- ◆ POWERGRID submitted that upon concurrence of JITPL & GMR on the proposal, they will examine site feasibility issues and proceed further.

Powergrid Odisha, JITPL & GMR may update. Members may discuss.

Deliberation in the meeting:

Powergrid Odisha apprised:

- ✓ *Power evacuation from GMR would be facilitated by shifting GMR-1 from bay 427 to bay 421 and through ICT-4 of the Angul substation. This setup would ensure power evacuation through the tie bays in the event of an outage of both 400 kV buses.*
- ✓ *The Jindal-1 – GMR-2 dia and the Jindal-2 – GMR-1 dia are connected to the lines via multi-circuit towers. Therefore, directly destringing GMR-1 from bay 427 and restringing it at bay 421 would render bay 427 unusable in the future.*

GMR submitted:

- ✓ *400 kV metering and protection panels are not installed in bay 421 and would need to be shifted from the GMR-owned bay 427.*
- ✓ *A proposal was made to Powergrid to make the necessary arrangements for power evacuation and to transfer ownership of bay 421 to GMR. In exchange, ownership of bay 427 would be transferred to Powergrid.*

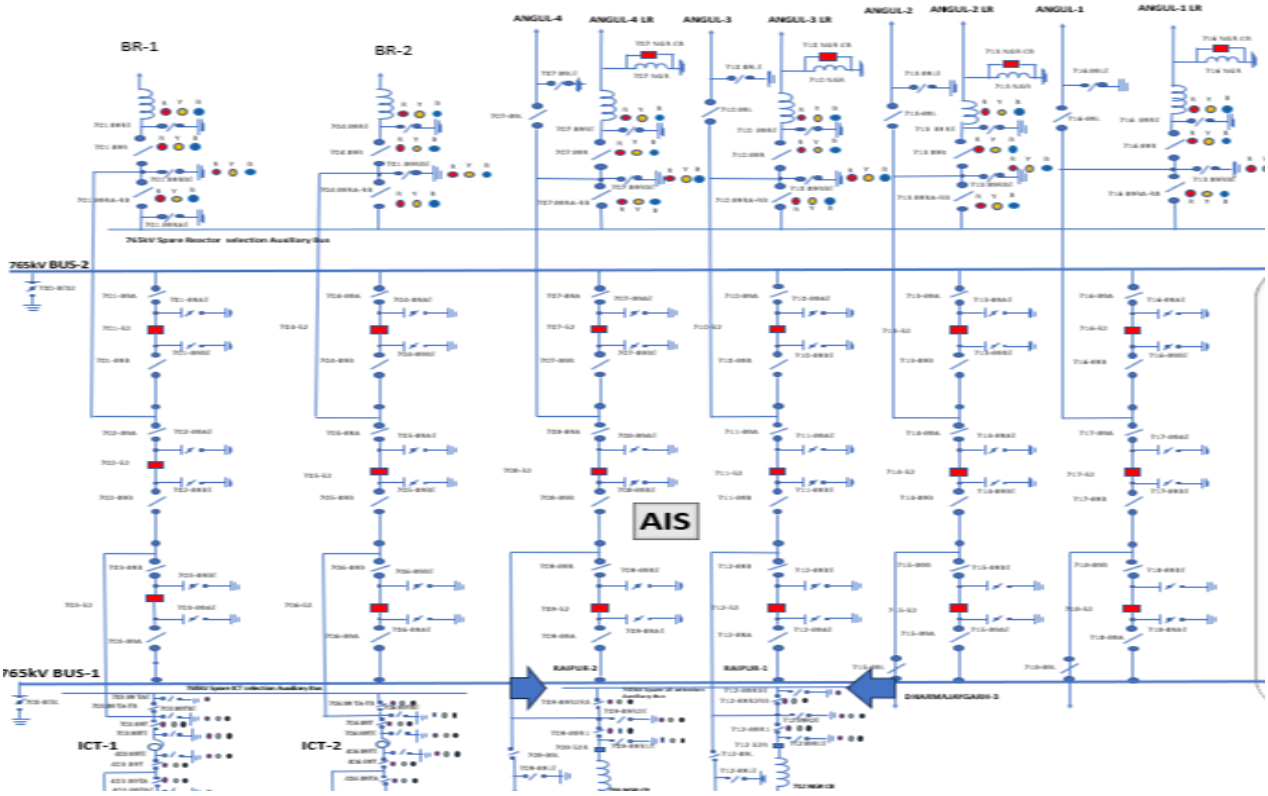
OCC Decision

- ✓ *Feasibility study for bay shifting along with tower profile needs to be conducted by Powergrid at 765 kV Angul S/S.*
- ✓ *The cost implications for the bay shifting may also be worked out.*
- ✓ *The technical modalities of shifting the bays may be placed in the CMETS-ER meeting for information.*

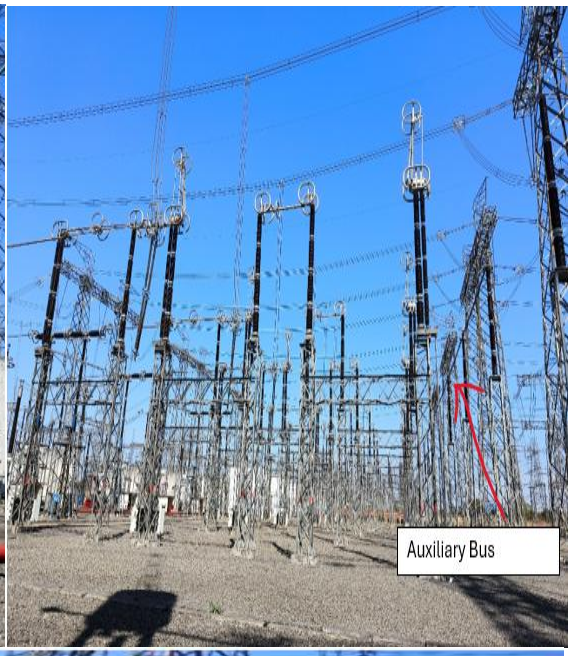
2.4 Provision of Hot Spare for 765 kV Sundargarh-Raipur#1&2 Lines at Sundargarh Substation: Powergrid Odisha

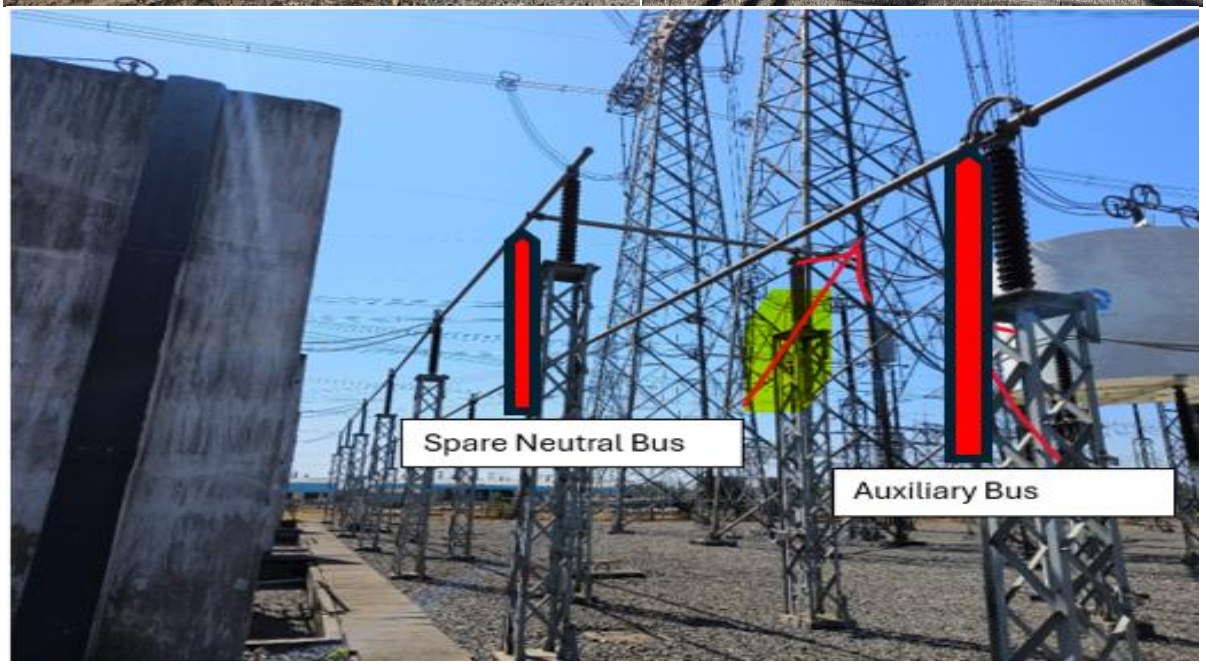
- 765 kV Sundargarh-Raipur#1&2 along with their respective 240 MVAR (3x80MVAR) switchable Line Reactors were commissioned on 29th & 30th March 2019
- The Reactors were supplied under the package: RT01 (under TBCB) for: -
  - 6x80MVAR, 765kV Shunt Reactor at Jharsuguda S/S.
  - 6x80MVAR, 765kV Shunt Reactor at Raipur Pooling S/S under Odisha Phase-II (DPR-2).
  - 2x80MVAR, 400kV Shunt Reactor with 400-ohm NGR at Kishanganj GIS S/S under HEP's in Bhutan under POWERGRID works associated TBCB line under Common Transmission System for Phase-II Generation Projects in Odisha.
- Presently there is no provision for Hot Spare for Switchable Line Reactors of 765 kV Sundargarh-Raipur #1 & 2. However, Hot Spare of Line reactors are available at Raipur end for the same line.
- The existing 80 MVAr Hot Spare of 765 kV Bus Reactors and Line Reactors of all four 765 kV Angul Lines is connected to 765 kV Bus#2 and positioned 400m apart from Raipur LRs. Line Reactors of Raipur Lines are connected to 765 kV Bus#1. Being physically positioned apart, there is no possibility for electrical connectivity of Raipur Line Reactors with the existing Hot Spare Unit to meet any type of exigency condition.


765 kV BUS#1
765 kV BUS#2
Hot Spare Avl. for BRs and LRs of Angul LInes
LR of Raipur#2
LR of Raipur#1
Space Avl.for Hot Spare


BR-1
BR-2
ANGUL-4
ANGUL-4 LR
ANGUL-3
ANGUL-3 LR
ANGUL-2
ANGUL-2 LR
ANGUL-1
ANGUL-1 LR
765kV BUS-2
765kV BUS-1
AIS
ICT-1
ICT-2
RAIPUR-2
RAIPUR-1

- It is noteworthy to mention that there is repetitive switching of Line Reactors of Raipur Lines for Voltage Regulation and these Line reactors are being taken into service as Bus Reactors based on the System conditions as per the instruction of ERLDC.
- Being an oil filled equipment and exposed to higher switching surges in 765 kV system, requirement of hot spare is very much important for grid reliability. The availability of spare unit shall ensure quick restoration of these reactors in case of any major breakdown issue in any of the unit.
- Therefore, it is felt prudent to provide spare Reactor for these Line Reactors for smooth, reliable and flexible system operation with minimum outage to Line.





- As per the site condition there is availability of space in proximity to B-Ph unit of Raipur#1 Line Reactor.
- Auxiliary Bus and Neutral Bus for Spare rotation is already available at site as part of the above-mentioned Package considering future provision for accommodating spare unit.

Powergrid Odisha may explain. Members may discuss.

Deliberation in the meeting:

Powergrid Odisha apprised:

- *No hot spares are currently available for the 80 MVAR single-phase line reactors pertaining to the Sundargarh–Raipur Line #1 and Line #2 at the Sundargarh end.*
- *The existing 80 MVAR hot spare unit for the 765 kV bus reactors and line reactors of all four 765 kV Angul lines is connected to 765 kV Bus #2. This spare unit is physically located approximately 400 meters away from the Raipur line reactors, which are connected to 765 kV Bus #1.*
- *Due to this considerable physical separation and different bus connections, it is not possible to establish electrical connectivity between the existing hot spare and the line reactors of the Sundargarh–Raipur lines.*

OCC Decision

✓ *Powergrid was advised to clarify on non-provisioning of the line reactor at Sundargarh end during the planning stage of TBCB project.*

2.5 Deviation in SCADA vs SEM data: ERPC

This agenda was discussed in the **15th NPC** meeting on **14.11.2024** and the following action point was decided:

✓ Detailed deliberation is required at the RPC level to address reported discrepancies between SCADA and SEM data, with the aim of minimizing errors and ensuring data accuracy.

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

During the 15th NPC meeting, the issue of deviations between SEM and SCADA data was discussed in detail. It was noted during the meeting that detailed deliberation are required at the RPC level to address the reported discrepancies by RLDCs, with the objective of minimizing errors and ensuring data accuracy.

ERLDC informed:

- Letters are being sent weekly to the concerned utilities, highlighting observed errors between SEM and SCADA data. All utilities have been requested to take necessary corrective actions to reduce these discrepancies.

16th TeST Decision:

✓ TeST committee opined that addressing SCADA vs SEM deviations is critical, as they have a significant impact on real-time grid operation and deviation management by the constituents.

- ✓ TeST forum emphasized prompt action to be taken by all transmission and generation utilities, at both intra-state and inter-state levels, regarding SCADA data issues reported by ERLDC based on SEM vs. SCADA data analysis.
- ✓ TeST forum also advised respective SLDCs of ER to undertake SEM vs. SCADA data comparison activities at their end to improve accuracy of SCADA data.

SEM Vs SCADA Comparative Analysis for 3 ckts as per discussion in 16th TeST Meeting

BIHARSHARIF-BALIA-CKT 1

Comparison	Difference %(09-12-2024 to 15-12-2024)	Difference %(31-03-2025 to 06-04-2025)
SEM VS SCADA at Biharsharif End	28.7	9.76
SEM VS SCADA at Balia End	3.83	4.73
SCADA(Biharsharif) VS SCADA (Balia)	32.98	13.35
SEM(Biharsharif) VS SEM(Balia)	8.75	10.15

BIHARSHARIF-BALIA-CKT 2

Comparison	Difference %(09-12-2024 to 15-12-2024)	Difference %(31-03-2025 to 06-04-2025)
SEM VS SCADA at Biharsharif End	28.4	12.31
SEM VS SCADA at Balia End	3.57	4.83
SCADA(Biharsharif) VS SCADA (Balia)	32.71	13.82
SEM(Biharsharif) VS SEM(Balia)	1.29	3.38

TALCHER-MERAMUNDALI-CKT 1

Comparison	Difference %(09-12-2024 to 15-12-2024)	Difference %(31-03-2025 to 06-04-2025)
SEM VS SCADA at Talcher End	9.42	7.63
SEM VS SCADA at Meramundali End	10.6	3.8
SCADA(Talcher) VS SCADA (Meramundali)	9.45	6.17
SEM(Talcher) VS SEM(Meramundali)	5.51	1.01

As per latest records available with ERLDC:

UTILITY	No: of Tie-lines having SEM Vs SCADA difference more than 3% for the week 31-03-2025 to 06-04-2025
PG ER I	20
PG ER II	12

PG Odisha Project	17
WBSETCL	5
OPTCL	11
DVC	7
JUSNL	2

Details of respective tie lines enclosed at **Annex-B.2.5**
ERLDC and SLDCs may update. Members may discuss.

Deliberation in the meeting:

ERLDC apprised:

- *All tie lines with more than 3% deviation between SEM and SCADA data are being monitored.*
- *The deviation between SEM and SCADA data has reduced after the upgradation of RTUs to the IEC 104 protocol, as well as SAS implementation in the substations of Eastern Region.*
- *For SEM vs SCADA data comparison, SCADA data is being averaged over 15-minute time interval.*
- *Tie lines exhibiting persistent deviation greater than 3% are under continuous monitoring.*

Powergrid submitted:

- *RTU/SAS upgradation has been completed. The remaining SEM vs SCADA deviation observed may be due to MFT issues. Minimization of CT/PT errors can also help reduce the deviation.*
- *The resolution of SCADA and SEM differs significantly and the observed deviation may result from converting instantaneous SCADA data into 15-minute time blocks.*

SLDC Ranchi informed:

- *Data deviation occurs on different lines each week, and no specific line consistently shows a deviation greater than 3%.*

OCC Decision

- ✓ *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.*

2.6 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. (Guidelines Report attached as **Annex B.2.6.1**)
- 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.*

As per clause 3.4 Responsibility of CTU and STU:

a) CTU (or STU as the case may be) shall be responsible for submission of the details of communication channels including the redundant channels configured for use of voice / data / video exchange, protection, Tele-protection / SPS to respective RLDC (SLDC as the case may be) on monthly basis incorporating the details of new channels configured during previous month. The total number of communication channels (N) is based on the requirement of RLDCs/NLDC and the same would be decided in consultation with respective RPCs/NPC.

b) CTU (or STU as the case may be) shall be responsible for submission of theperformance/availability of configured channels of the previous month to respective RLDCs for verification by RLDCs and onward submission to respective RPC for computation of availability of the communication system for previous month.

- 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.

- Roles and Responsibility of CTU and STU:
- CTU (or STU as the case may be) shall be responsible for submission of the details of communication channels on monthly basis incorporating the details of new channels configured during previous month.
- CTU (or STU as the case may be) shall be responsible for submission of the performance/availability of configured channels of the previous month to respective RLDCs for verification by RLDCs and onward submission to respective RPC for computation of availability.
- CTU (or STU as the case may be) shall submit availability reports of configured channel including the redundant channels in format prescribed by RLDC/RPC.

- 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.

A draft format for availability calculation of communication systems from SRPC has been attached as **Annex B.2.6.2**

On **10.03.25** a meeting was held with Communication Subgroup of **NPC** to discuss about the uniform formats for the availability of communication system.
The decisions taken in the meeting were as follows:

- ✓ CTU shall comply with the existing regulations/approved guideline until any amendment or directions from CERC.
- ✓ The total number of communication channels (N) is based on the requirement of RLDCs/NLDC and the same would be decided in consultation with respective RPCs/NPC. RPCs would follow up the same in the TeST/COM meetings.
- ✓ Uniform formats for the availability of communication system, as provided by SRPC, may be reviewed by all other RPCs and inputs, if any may be provided to NPC secretariat within two weeks. Further as Communication (Channel) Availability is slightly different from

Transmission Availability the procedure also needs to be finalised. Accordingly, a meeting may be convened to finalize the format/procedure for the availability of communication system.

- ✓ RPCs may seek presentation from PGCIL/CTUIL through R-UNMS OEM on Communication availability as per CERC approved Guideline

CTU may update. Members may discuss.

Deliberation in the meeting:

ERLDC apprised:

- *CTU is to submit the list of channels for availability calculation from the UNMS system to ERLDC. This list will be verified by ERLDC.*
- *The list of channels has not yet been received from CTU.*

Powergrid apprised:

- *The list of communication channels in the Eastern Region, generated from the UNMS system, was shared with CTU, ERLDC, and ERPC on 21.04.2025.*
- *Channel nomenclature in the UNMS system is currently code-based.*

CTU apprised:

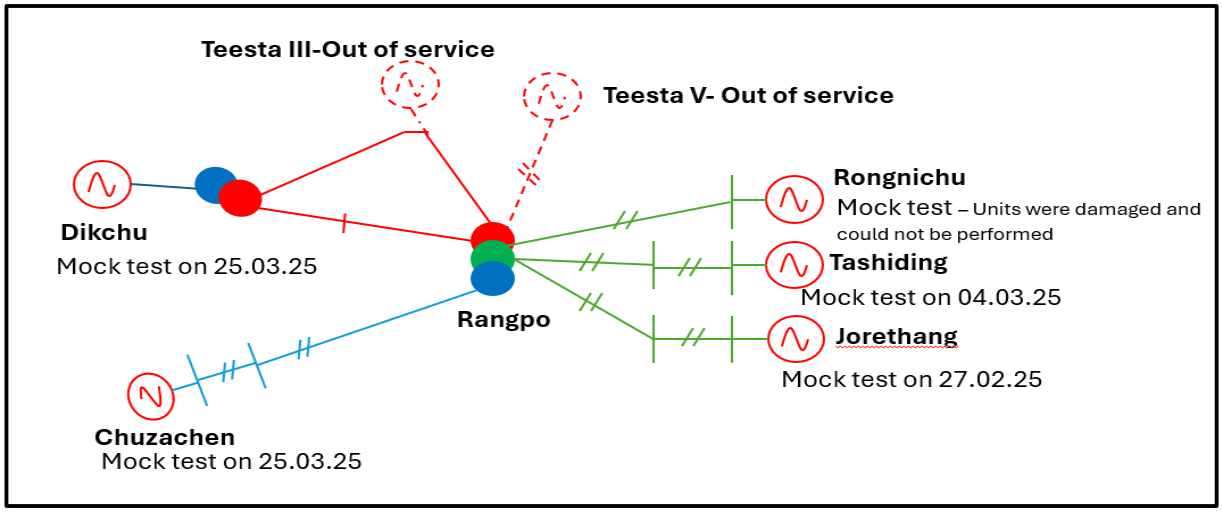
- *The channel list has been received from Powergrid's UNMS network monitoring team.*
- *NRLDC has proposed that channels required for communication of PMU, RTU, and VoIP data should be considered, and that availability calculation should be based on these three services. The consensus of NLDC and the RLDCs is currently awaited regarding the inclusion of these services for channel availability calculation.*

OCC Decision:

- ✓ *CTU was advised to share the list of channels received from Powergrid along with CTU's comments, and to finalize the list of channels within 15 days.*

2.7 Issues in synchronizing at ISTS S/s during black start of a unit: ERLDC

- ➢ Black starts capable resource and its readiness to perform blackstart is the most important and essential pillar of resilience of the grid. Therefore, Clause 34 (3) of IEGC 2023 mandates all users must carry out mock black start once in a year. For state units SLDC and ISGS and IPP units RLDC coordinates mock black start exercise.
- ➢ In Eastern region all black start capable ISGS and IPP units are located in Sikkim and connected to 400/220/132 kV Rangpo substation as shown below:



During 2024-25 Financial year, Mock black start of Jorethang, Tashiding, Chuzachen and Dikchu was carried out. Rongnichu could not perform black start due to surge tank damage and Teesta V & III plants are under long outage since 04.10.2023 due to glacier fed lake burst.

- During the mock black start exercise following challenges were faced:

1. Stable Frequency control by black starting units
2. Stringent synchronization parameter setting, manual synchronization at Rangpo led to either high delay in synchronization or could not be synchronized at all.
3. Excessive voltage rises while charging line.

Plant wise detailed issues faced are attached in **Annexure-B.2.7**

In view of the above challenges faced during black start in Sikkim complex following issues may be deliberated and addressed at the earliest:

1. Installation of auto-synchronization facility at Rangpo for all feeders (Present & upcoming) connected to black-start capable generating stations.
2. Better Frequency control by generators is needed during black start.
3. Charging of line from generating station in low voltage.
4. High voltage rise- During charging of 400 kV Dikchu-Rangpo line, rise of 150 kV is not expected. Dikchu may submit a detailed report along with suggestions for how to minimize such high voltage rise.

ERLDC may explain. Members may discuss.

Deliberation in the meeting:

ERLDC apprised:

- *All black start capable ISGS and IPP units in Eastern region are located in Sikkim and connected to 400/220/132 kV Rangpo substation. Accordingly, during mock black start exercises, supply from the black starting units is extended to Rangpo substation for synchronization.*
- *Currently, Teesta-III and Teesta-V are out of service, and the remaining hydro generating stations (Rongnichu, Jorethang, Tashiding) have small capacity, all connected to Rangpo substation.*

- *Since Rangpo is connected to Binaguri via 400 kV lines, it would be difficult to charge the lines using these low capacity generating units in the event of a real black start scenario.*
- *During mock black start exercises, one of the generating units and the line connecting to Rangpo substation is isolated. The unit is then started, and the line is charged, followed by synchronization at Rangpo substation.*
- *Synchronization can be achieved when the generator frequency and grid frequency at Rangpo differ by less than 0.02 Hz. When this condition is met, the circuit breakers at Rangpo can be closed, enabling power evacuation from the generating unit.*
- *Manual synchronization at the Rangpo end through BCU is very challenging, as the synchroscope needle moves very fast. Moreover, the frequency of incoming generator keeps on varying that must be precisely controlled to achieve perfect synchronization.*
- *The above issues indicate the need for an auto-synchronization facility at Rangpo substation. Auto-synchronization is required at this strategic location to ensure that the black-start facility can be effectively utilized when it is most needed, i.e., during actual blackout scenario.*
- *Additionally, during the mock black start, a high voltage jump of 150 kV was observed while charging the 400 kV Dikchu–Rangpo line. This issue is being taken up with the OEM.*
- *It was explained that during Mock black start exercise was carried out in month of March-25, synchronisation at Rangpo failed for all plants except Tashding HEP.*
- *It was observed that synchronisation at Rangpo is done manually through BCU the after synchronisation parameters is falls within set at Rangpo sybstation. As frequency of the incoming units keeps on varying, therefore synchronisation at Rangpo substation is challenging due to stringent settings of parameters for manual action which resulted in more time to synchronise or failure to achieve synchronization*

Powergrid informed:

- *A 150 kV voltage rise over the 32 km 400 kV Dikchu–Rangpo line should not occur under normal technical conditions.*
- *As per the CEA construction manual, CRP panels are installed at Rangpo substation. BCUs are present in these panels, but they do not support auto-synchronization functionality.*
- *Rangpo substation does not have provisions for active and reactive power control; therefore, auto-synchronization is not feasible. Auto-synchronization is only possible at the generator end.*
- *Auto-synchronization is not possible with the current SAS architecture.*

Representative from Jorethang apprised:

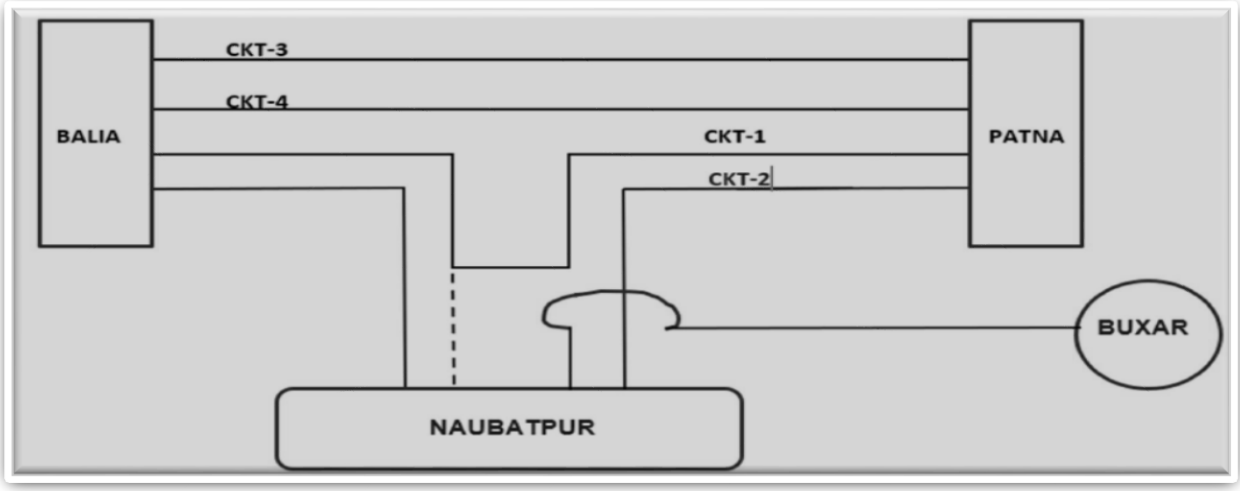
- *The frequency range for synchronization (Δf) at the Rangpo end may be relaxed to 0.1 Hz to facilitate manual synchronization..*

OCC Decision

✓ *OCC opined that the matter is highly technical in nature and consultation with CEA is required.*

2.8 2x660 MW Buxar Thermal Power Project in Bihar -Restoration of 400kV-Patna-Naubatpur-Balia link to original configuration: ERLDC

Following to the OCC discussion and special meeting held on 27.07.2023 and 02.08.2023, approval was accorded for drawl of start-up power for initial testing of 2x660 MW Buxar Thermal Power Project by connecting one circuit of the Buxar–Naubatpur line using the 400kV Balia-1 bay at Naubatpur by bypassing the 400kV Patna–Naubatpur-1 and Naubatpur–Balia-1 lines at the Naubatpur end.



- Subsequently, with the interim arrangement, 400KV Buxar–Naubatpur line was charged on 11th May 2024 and Buxar has been started drawing start up power since then.
- On 8th April 2025, the SLDC Bihar informed that Buxar intended to shift its drawl point from the 400kV system to the 220kV system. Accordingly, 400kV Naubatpur–Buxar line was disconnected from Buxar end for draw start-up power from 220KV Side.
- If the drawl of start-up power is permanently shifted to the 220kV system, in line with decision taken in 206th OCC meeting dated 31st August 2023, the 400kV Patna–Naubatpur–Balia line is to be restored to its original configuration. This will enhance the reliability of the Naubatpur substation.

ERLDC may explain. SLDC Bihar & SJVN may update and Member may discuss**.**

Deliberation in the meeting

ERLDC apprised:

- *Buxar TPP is currently drawing power from the 220 kV side of the Naubatpur substation.*

SJVN apprised:

- *Civil foundation work for the 400 kV GIS bay is ongoing at Naubatpur substation. The GIS equipment has been ordered and will be installed within the next one to two months.*
- *To maintain redundancy, the previous arrangement of power drawl from the 400 kV lines at Naubatpur may be continued until the new GIS bay becomes operational. Additionally, the 220 kV line from Buxar would be sufficient for the evacuation of infirm power from Unit 1 of Buxar TPP.*

- *Synchronization of Unit 1 of Buxar TPP is scheduled for 27.05.2025.*

SLDC Bihar apprised:

- *GIS equipment has arrived on-site. Installation work is expected to be completed by the end of May 2025.*

OCC Decision

✓ *OCC agreed to SJVN's proposal to maintain the existing arrangement of 400 kV lines at Naubatpur substation to ensure redundancy till the new 400 kV GIS bay becomes operational .*

2.9 Evaluation of Beta factor for FRP response of BRBCL: ERPC

Evaluation of Following cases for FRP response may be reviewed:

❖ When Unit is running near technical minimum and requirement of reducing load below technical minimum comes due to FRO. Example: BRBCL 13-09-2024 event, during this event the unit was running near technical minimum and as per FRO load had to be reduced, however units could not respond to the requirement and Beta factor was reduced to 0.41.

❖ Beta factor for month when no FRP event is identified: For providing frequency response the machine is run in throttled mode, which is a loss of energy and hence coal. The Beta factor and incentive concept is introduced to compensate generators for the loss incurred for continuously being ready for providing frequency response. Therefore, Beta factor for months when no FRP event is identified must be taken as average of previous months for calculation of incentive.

▪ BRBCL: 6th April 2024 and 10th May 2024.

			BRBCL		
S.No.	**Particulars (**Event-2: 4870 MW RE Gen Loss and 628 MW Load shedding at 11:24 hrs_06.04.2024)	**Dimension**	RLDC HDR Data	High Resolution Data (Status as provided by ERLDC)	High res data as per plant
1	**Actual Net Interchange before the Event, PA (Import +ve / Export -ve)**	**MW**	-894	DATA NOT RECEIVED	959
2	**Actual Net Interchange after the Event, PB (Import +ve / Export -ve)**	**MW**	-900		970
3	**Change in net interchange, PB-PA (2 – 1)**	**MW**	-5.8		11.2
4	**Generation Loss (+) / Load Throw off (-) during the Event, PL**	**MW**	0.0		0.0
5	**Control Area Response, ΔP=(PB-PA) – PL (3-4)**	**MW**	-5.8		11.2
6	**Frequency before the Event, fA**	**HZ**	50.033		50.033
7	**Frequency after the Event, fB**	**HZ**	49.766		49.766
8	**Change in Frequency, Δf=(fB-fA) (7-6)**	**HZ**	-0.27		-0.27

9	Frequency Response Characteristic, ΔP/ Δf (5 / 8)	MW/Hz	22		-42
10	Frequency Response Obligation (FRO) of each control area	MW/Hz	46		46
11	Frequency Response Performance (FRP) (9/10)		0.47		-0.90

S.No.	Particulars (Event-2: 1071 MW Gen Loss in Khedar(RGTPS) at 19:35 hrs_10.05.2024)	Dimension	BRBCL		
			RLDC SCADA Data	Generator High Resolution Data	Corrected Data
1	Actual Net Interchange before the Event, PA (Import +ve / Export -ve)	MW	-754	-947	-947
2	Actual Net Interchange after the Event, PB (Import +ve / Export -ve)	MW	-754	-939	-953
3	Change in net interchange, PB-PA (2 – 1)	MW	0.0	8	-5.9
4	Generation Loss (+) / Load Throw off (-) during the Event, PL	MW	0.0	0.0	0.0
5	Control Area Response, ΔP=(PB-PA) – PL (3-4)	MW	0.0	7.6	-5.9
6	Frequency before the Event, fA	HZ	49.986	49.986	49.986
7	Frequency after the Event, fB	HZ	49.941	49.941	49.941
8	Change in Frequency, Δf=(fB-fA) (7-6)	HZ	-0.04	-0.04	-0.04
9	Frequency Response Characteristic, ΔP/ Δf (5 / 8)	MW/Hz	0	-169	132
10	Frequency Response Obligation (FRO) of each control area	MW/Hz	30	30	30
11	Frequency Response Performance (FRP) (9/10)		0.00	-5.67	4.43
Consideration of FRP for computation of Average Monthly FRP, Beta 'ß'			0.00	0.00	1.00

As per Deliberation in **225th OCC:**
BRBCL submitted:

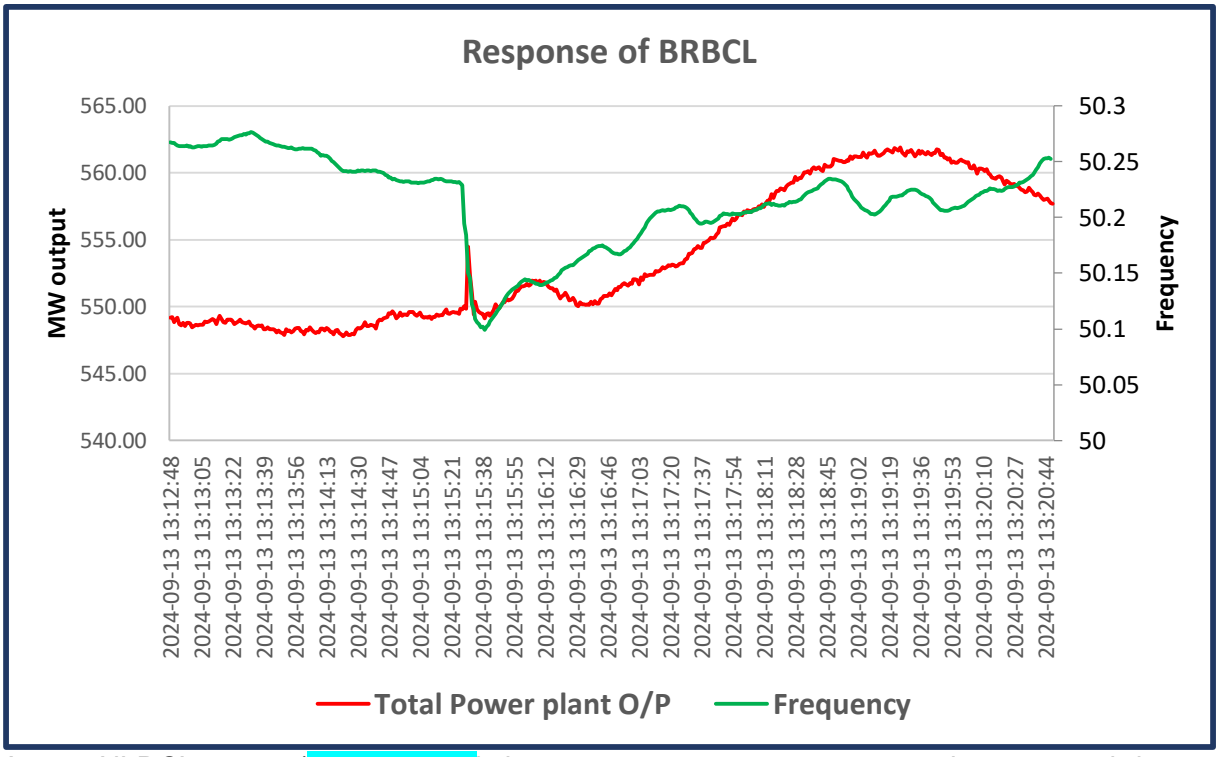
- ✓ When grid frequency is high and schedule of the generating station is already near technical minimum, there is no or little scope for further reduction in load. Hence desired frequency response performance becomes difficult to achieve.
- ✓ In other instances, frequency response has been graded as poor due to non-receipt of data on time at ERLDC end.
- ✓ In absence of any frequency event in a particular month, the generating stations are being deprived of any incentive despite operating the units in throttle mode to provide desired frequency response.
- ❖ ERLDC apprised that the concern of Beta factor computation in the month when no frequency event is reported, has already been taken up by NLDC with Hon'ble CERC and subsequent actions will be in line with CERC's decision. It was submitted that as corrected data has been received from BRBCL long after occurrence of frequency events, SCADA data was considered in grading frequency response performance.

225th OCC Decision

- OCC agreed with the concern of BRBCL regarding further reduction in load near technical minimum

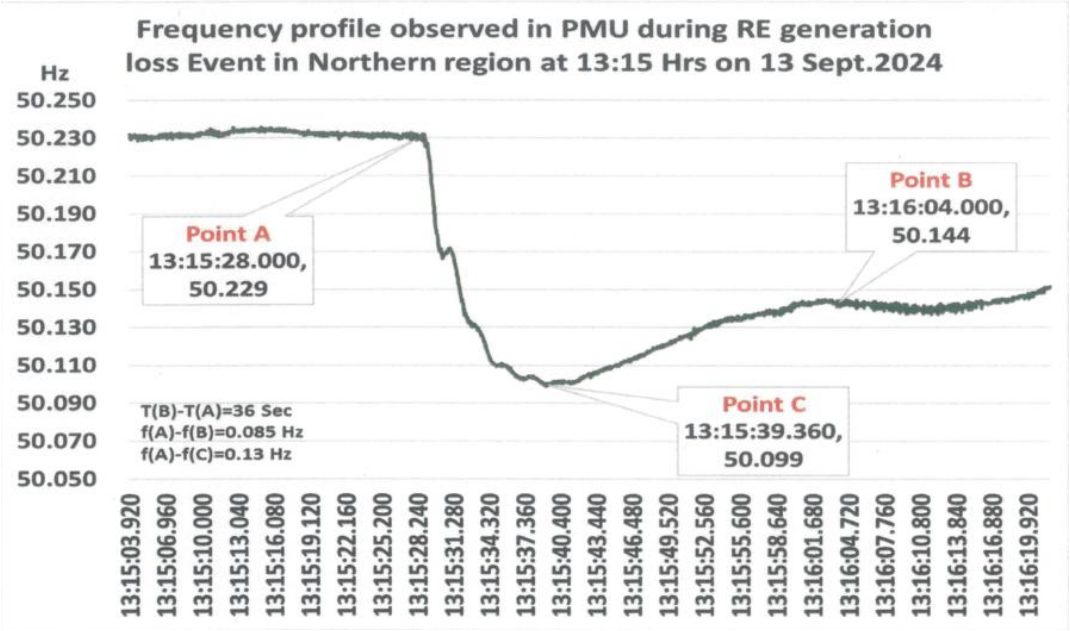
- OCC advised BRBCL to submit the requisite details of the event to ERPC for consideration.
- OCC advised ERLDC to follow-up with NLDC on the issue of Beta Factor computation in months when no frequency event is reported.
- OCC suggested that non-receipt of data against frequency event reported on 06.04.2025 and 10.05.2025 may be sorted mutually between BRBCL and ERLDC.BRBCL was thereby advised to regularly share high resolution data against each reportable frequency event with ERLDC on time (ideally within two days of the event) to facilitate accurate assessment of FRP.

BRBCL's response (**Annex B.2.9**) regarding the event on **13-09-2024 at 13:15** hrs were submitted vide letter dated **02-04-2025.**



As per NLDC's report (**Annex B.2.9**) the event on 13-09-2024 at 13:15 hrs occurred due to RE generation loss 850 MW. 400kV Ajmer Substation and Azure 34 generating station were directly affected due to this event.

PMU plot for frequency during this event:



ERLDC may update. Members may discuss.

Deliberation in the meeting:

BRBCL Apprised:

- *Units were operating near the technical minimum due to low requisition. The renewable energy (RE) generation loss in the Northern Region caused poor frequency response, and the Beta factor calculated during this event was 0.41.*
- *BRBCL units were running close to MTDL because of SCED and ancillary backdown.*

OCC Decision

- ✓ *OCC observed the limitations of BRBCL units in achieving desired frequency response while operating near MTDL under high grid frequency condition.*
- ✓ *OCC further opined that regulatory intervention is required to address such concern and accordingly advised BRBCL to approach CERC.*
- ✓ *All commercial aspects may be deliberated in CCM.*

2.10 Shutdown proposal of generating units for the month of June 2025: ERPC

Deliberation in the meeting:

Detailed maintenance schedule as approved by OCC is provided as follows:

Maintenance Schedule of Thermal Generating Units of ER during 2025-26									
System	***Station***	***Unit***	***Capacity (MW)***	***Proposed***		***No. of Days***	***Approved***		***Reason***
				From	***To***		***From***	***To***	
DVC	*CTPS*	*8*	*250*	*25-06-2025*	*29-07-2025*	*35*	*01-07-2025*	*04-08-2025*	*COH-Boiler RLA, turbogen. & De-Nox*

NPGCL	*New Nabinagar STPS*	*1*	*660*	*21-06-2025*	*19-08-2025*	*60*	*01-11-2025*	*30-12-2025*	*AOH: Boiler+Turbine + Gen*
WBPDCL	*Kolaghat TPS*	*4*	*210*	*27-06-2025*	*21-07-2025*	*25*	*27-06-2025*	*21-07-2025*	*Boiler License Renewal + AOH*
NTPC	*Darlipalli STPS*	*2*	*800*	*01-04-2025*	*10-05-2025*	*39*	*01-07-2025*	*09-08-2025*	*AOH (Main Turbine Thrust bearing temperature is high(110 ^{0}C)*

2.11 Workforce Adequacy Guidelines for Load Despatch Centres: ERPC

The 'Workforce Adequacy Guideline for Load Dispatch have been circulated vide **Ministry of Power's** letter dated **30.10.2024**.

For enabling effective implementation of these guidelines the **Monitoring Committee for PSDF**, in its **24th Meeting** dated **18.02.2025**, has resolved to link the sanction of new proposals from various STUs/SLDCs under PSDF with the implementation of these guidelines **w.e.f 01.04.0205**. The following points were approved in the meeting:

- All SLDCs shall be required to submit the details of number of sanctioned posts and the current manpower deployed at their respective centers to NLDC. This will provide the baseline understanding of existing workforce at SLDCs.
- SLDCs shall be asked to submit a plan outlining the steps to address the gaps between existing workforce and the staffing levels recommended in the "Workforce Adequacy Guidelines ". This plan should include a timeline of 2 to 3 years with clearly defined milestones every 6 months to track the progress. This structured approach will ensure that SLDCs can gradually build up the required workforce to meet the guidelines.
- The new projects received which are falling under the category of – 5.1 (b), (c), I and (f) of the **"Guidelines/Procedure for Disbursement of Funds from Power System Development Fund (PSDF)"** shall be linked to the deployment of the manpower in SLDCs as mentioned above.

Members may discuss.

Deliberation in the meeting:
The new Workforce Adequacy Guidelines for LDCs as issued by Ministry of Power(Govt. of India) were intimated to the ER constituents.

OCC decision
✓ *OCC advised all constituents to submit the details of all projects sanctioned during the last three years using PSDF funds and its implementation status.*

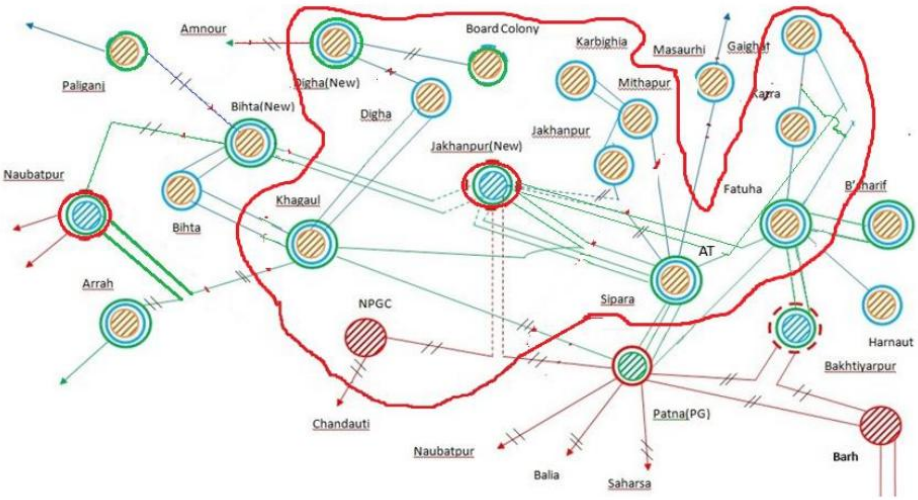
2.12 Update on Patna Islanding scheme: ERPC

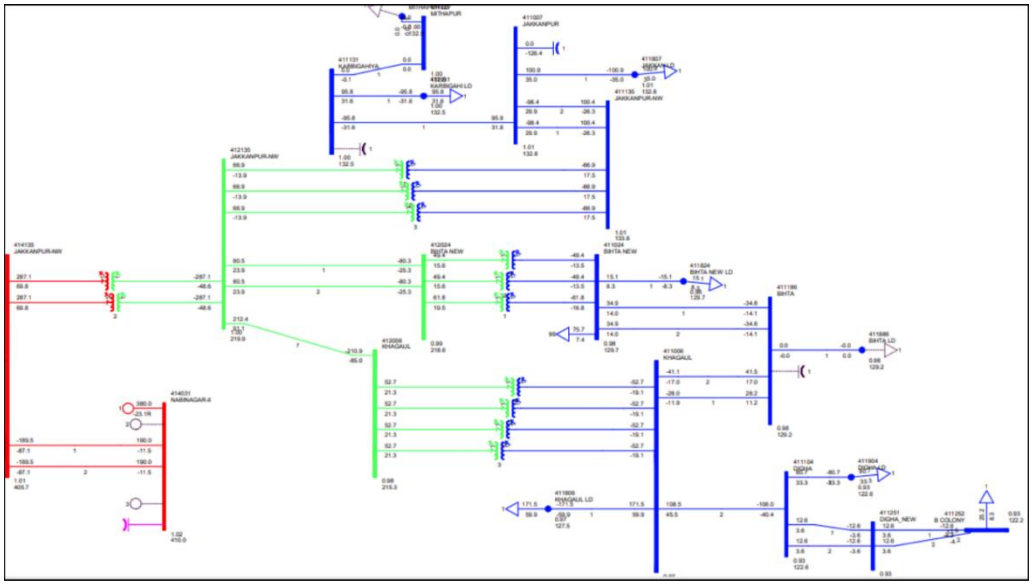
The Patna islanding scheme would be formed with Units of NPGCL along with loads of Patna city.

NTPC was entrusted for carrying out study of NPGC units and M/S Solvinia had submitted report on study of islanding scheme dated 08th May 2024. Thereafter based on comments received from ERLDC, replies were submitted by M/S Solvinia. NTPC had communicated the report to all concerned including SLDC Bihar.

Some further tests needed could not be carried out due to non-receipt of relevant data from Bihar.

- The proposed Patna islanding scheme aims to isolate one running unit of NPGC (660 MW) with pre-identified load of Patna city and nearby areas. After isolation of selected loads and NPGC through the identified network, run the island in islanded mode to cater the city load and to extend start-up supply to generating stations in adjoining area to facilitate early restoration.
- Patna city and nearby loads will be islanded with one of the running units of NPGC (660 MW). NPGC is connected to the grid through 400 kV NPGC-Jakkanpur D/c and 400 kV NPGC Gaya D/c lines. For the islanding 400 kV NPGC-Jakkanpur D/c and at Jakkanpur through 400/220 kV ICTs, pre-deintifed 220 kV feeders will be selected which will be isolated to confirm the islanding of the Patna loads from the rest of the grid with one unit of NPGC.





Deliberation in 53rd TCC meeting

SLDC Bihar apprised that DPR of the islanding scheme has been prepared with tentative cost implications of around 5.5-6 Cr.

TCC decision

- ✓ TCC recommended the Patna Islanding Scheme and referred to ERPC for concurrence.
- ✓ TCC advised Bihar to put up the proposal for funding from PSDF.

Deliberation in 53rd ERPC meeting

ERPC agreed with the proposal of Patna Islanding Scheme and advised Bihar to go ahead with the implementation scheme in a time bound manner.

As per **225th OCC** Deliberation:
Bihar updated:

- ✓ For preparation of estimate, budgetary offers are awaited to be received from the concerned vendors (M/S GE, M/S Schneider and M/S Siemens).
- ✓ Approved DPR of the islanding scheme shall be submitted for PSDF funding latest by April 2025.

225th OCC Decision

OCC advised Bihar SLDC to expedite submission of Final DPR of Patna islanding scheme along with detailed cost breakup for PSDF grant.

SLDC Bihar may update.

Deliberation in the meeting:

SLDC Bihar submitted:

- *Bids have been submitted by vendors, but the element-wise cost breakup has been provided only by M/s Siemens. The final DPR, along with the cost breakup, will be submitted after receiving the element-wise cost breakup from the other vendors.*

OCC Decision

✓ *OCC raised concern on the delay in finalization of DPR for Patna islanding scheme despite being accorded approval for approaching PSDF in 53rd ERPC meeting.*

✓ *The Patna islanding scheme will be discussed in the next NPC meeting. Therefore, OCC advised SLDC Bihar to expedite the submission of the final DPR for the Patna islanding scheme, along with the detailed cost breakup from the other vendors.*

2.13 Shifting of Tower#1 (dead end tower) of the 400 kV D/C Transmission Line at Teesta-V Power Station: ERPC

- PGCIL has constructed 400 kV D/C Transmission Line from Teesta–V Power Station Balutar Singtam Sikkim to Binnaguri with the commissioning of Teesta-V Power Station in 2008 which was later on terminated to PGCIL Pooling Substation at Rangpo.
- A devastating flash flood occurred on the intervening night of 3rd and 4th October 2023. The said flood damaged many installations of Teesta-V Power Station. The Tower#1 of PGCIL was also washed away in the flood. Also, Potheadyard Gantry, Lightning Arresters, CVTs, Wave Traps, and GIS to Air Bushing etc. got damaged. The restoration work started after the occurrence of the flood.
- Tower #1 has been re-erected by PGCIL, and the line was made available for power evacuation from Teesta-V Power Station.
- Later on, a massive landslide occurred on 20th August 2024 at TRT area of the Power House resulting in the catastrophic collapse of the entire GIS building and the equipment housed within it. The majority of the GIS building was completely damaged, except for a small portion containing the DG sets, meter room, and 11kV switchgear. As complete impact of the landslide was faced by GIS building itself, therefore Tower #1 was remained protected.
- This land slide area is vulnerable and therefore, location of GIS building needs to be shifted to safe place about 200 meters away from the previous location. NHPC is taking suitable measures to stabilize the vulnerable area. However, in case any boulder/rock mass falls and hits the existing PGCIL Tower#1 it will get damaged affecting transmission line.
- Therefore, NHPC had suggested that Dead End Tower#1 may be relocated beyond the reach of sliding zone. This issue was also communicated to Power Grid, subsequently officials from Power Grid visited the site also.
- Complete restoration activities are expected to be completed by Nov. 2025.

As per Deliberation in the **225th OCC** meeting

❖ NHPC submitted:

✓ A massive landslide occurred on 20th August 2024 at TRT area of the Power House resulting in the catastrophic collapse of the entire GIS building and the equipment housed within it.

✓ Currently the dead-end tower of the Teesta – V power evacuation switchyard is located near a hill which has become prone to landslide.

✓ So, they have decided to shift their GIS switchyard along with the dead-end tower to another safe nearby location.

✓ The PGCIL dead end tower will be relocated along with the GIS switchyard to avoid damage from future landslides.

❖ Powergrid submitted that the additional tower may be vulnerable due to erosion of river bank and there would be ROW and clearance issues due to close proximity to the nearby Helipad. However, he assured that a joint survey with NHPC would be carried out and appropriate measures shall be taken to address the concern of NHPC.

225th OCC Decision

✓ OCC recommended for another joint site visit by NHPC and Powergrid for further planning i.r.o the tower arrangement and thereby evading potential damage from probable landslide.

✓ OCC also advised the concerned i.e NHPC and Powergrid to make a detailed study about landslide mitigation structures, like boulder nets, and provide a cost estimate for the same. They may approach authorities like NHAI for seeking advice regarding the same.

NHPC has further submitted vide letter dated on **03.04.2025** (**Annex B.2.13**):

- The importance of the dead-end tower #1 of PGCIL has been emphasized again. Since there is only one double circuit line available from Teesta-V and Rangpo pooling substation no option for power evacuation from Teesta-V will be available in the event of tower collapse.
- Currently hill slope protection is carried out along with the rebuilding of Teesta-V power station which is expected to be commissioned by **December 2025.**
- Powergrid was requested to relocate dead end tower as per schedule.

NHPC and Powergrid may explain. Members may discuss.

Deliberation in the meeting:

NHPC apprised:

- *Slope protection work is currently being undertaken.*
- *Powergrid is strengthening the dead-end tower since shifting the tower is not a viable option. Additionally, Powergrid's ERS system would be deployed in case another landslide occurs in the future.*
- *Since the ERS system is located in Siliguri, its deployment during a landslide may be delayed due to transportation issues. This could lead to generation losses for NHPC.*

OCC Decision

✓ *NHPC and Powergrid were advised to mutually address all vulnerabilities with suitable preventive measures.*

✓ *Powergrid was advised to ensure the safety of the dead-end tower and to keep the ERS system in the immediate vicinity of the tower for reliable power evacuation in the event of a landslide.*

2.14 Bus split operationalization at NTPC Kahalgaon: ERPC

As decided in **219th OCC** Meeting, a committee comprising of members from ERPC and ERLDC visited NTPC Kahalgaon on 17-10-2024 to assess the status of Bus splitting at 400 kV level and way forward for operationalization of 400 KV Bus sectionalizer.

Following works need to be done to complete the installation of ICT 3 & 4:

1. Determination of underground cable conduit path for 400/132 kV ICT-3, 4 and 5 allocated for stage 2 supply.

2. Excavating the existing cable and relaying from Stage-1 132kV to New Stage-2 132 kV switchyard, where ICT 3 & 4 will be connected.
3. Laying of additional 22.8 ckt. Km control cable for STs.
4. Jumpering of ICTs in 132kV & 400kV level.
5. Bay equipment testing.

- NTPC apprised that determination of underground power cables is one of the major challenges to proceed further with laying of cables between two 132kV switchyards. The tentative time to complete the ICT commissioning is **25th May 2025**.
- Meanwhile in view of increased fault level of NTPC Kahalgaon and to facilitate interim arrangement of standby ISTS connectivity to Godda Thermal Power project of M/s Adani Power (Jharkhand) Ltd. (APJL) with Indian grid, Bus splitting at 400KV Kahalgaon needs to be done on priority.

As per **225th OCC** Deliberation

NTPC updated:

- Laying control cable for ICTs is being undertaken. Long distance control cables from ICT to control room are being mobilised from NTPC Vindhyanchal and NTPC Singrauli. Laying of control cables will be finished in next 15 days.
- Shutdown of station transformer for unit 7 will be taken up next followed by laying of 132 kV power cable.
- Survey for laying fire hydrant pipes has been done around switchyard area. Any excavation work can be taken up after shutdown of station transformer.
- Status of other activities detailed as follows:

Sl No	Description	Status	Remark
1	Revival of 400KV isolators of ICT-3 & 4	2/4 revived	Revived isolators Jumpers will be connected during Bus-4 shutdown. For revival of rest of the isolators, Bus-3 shutdown reqd.
2	ICT-3 400KV side and 132KV side LA erection	completed	
3	ICT-3 Earthing work	80% completed	Target date- 25.03.2025
4	132KV side BPI structure modification work	50% completed	Target date- 31.03.2025
5	132KV relay interpanel wiring work	70% completed	Target date- 31.03.2025
6	400KV relay interpanel wiring work	80% completed	Target date- 31.03.2025

225th OCC Decision

- OCC urged NTPC to strictly adhere to the committed timeline for bus splitting at Kahalgaon, i.e June 2025.
- NTPC was advised to share the update of work done as progress report on fortnightly basis (target v/s progress achieved).

As per latest update from NTPC (15.04.2025):

Sl No	Description	Status	Remark
1	Contractual issue	Resolved	
2	Arrangement of 5KM 19Cx2.5 sqmm and 21 KM 10Cx2.5 sqm Control cable	Arrived at site	
3	Laying of control and power cables towards 400KV side	Completed	
4	Laying of control cables towards 132KV side	50% completed	**Target date- 30.04.2025**
5	Revival of 400KV isolators of ICT-3 & 4	2/4 revived	✓ Revived isolators Jumpers will be connected during Bus-4 shutdown. ✓ For revival of rest of the isolators, Bus-3 shutdown reqd.
6	ICT-3 Earthing work	Completed	
7	132KV side BPI structure modification work	60% completed	**Target date- 30.04.2025**
8	132KV relay interpanel wiring work	Completed	
9	400KV relay interpanel wiring work	Completed	
10	Revival of 400KV & 132KV CBs	Defective spares arrived at site. Service engineer will be deployed for attending the defects	**Target Date: 30.04.2025**
11	Charging of ICT-3 & ICT-4 towards 400KV side		**Target Date: 30.04.2025**

NTPC may update. Members may discuss.

Deliberation in the meeting:

NTPC updated the status as follows:

Sl No	*Description*	*Status*	*Remark*	*OCC Deliberation*
1	*Laying of control cables towards 132KV side*	*50% completed*	***Target date- 30.04.2025***	*Will be laid after charging of ICT-3 and 4 followed by ST shutdown.*
2	*Revival of 400KV isolators of ICT-3 & 4*	*2/4 revived*	✓ *Revived isolators Jumpers will be connected during Bus-4 shutdown.*	*Will be finished by proposed timeline of June 2025.*

			✓ *For revival of rest of the isolators, Bus-3 shutdown reqd.*	
3	*132KV side BPI structure modification work*	*60% completed*	***Target date- 30.04.2025***	*Will be finished by target date*
4	*Revival of 400KV & 132KV CBs*	*Defective spares arrived at site. Service engineer will be deployed for attending the defects*	***Target Date: 30.04.2025***	*Service engineer and Testing engineer will visit site shortly.*
5	*Charging of ICT-3 & ICT-4 towards 400KV side*		***Target Date: 30.04.2025***	*Will be finished by target date/1st week of May*

OCC Decision

- ✓ *OCC urged NTPC to strictly adhere to the committed timeline for bus splitting at Kahalgaon, i.e., June 2025.*
- ✓ *NTPC was advised to share progress updates on a fortnightly basis, including a comparison of the target versus progress achieved.*

2.15 Frequent outage in Generating units of Tenughat: ERPC

- TTPS Unit#2 has tripped almost **23** times in **last 3 months** i.e from 01/01/2025 to 03/04/2025 due to high turbine vibration. Because of ageing and no AOH & R&M activities of units since last four years, no: of trippings has increased considerably.
- So in order to reduce the frequent outage, R&M activity of the units is needed.

- As per previous plan, proposed Capital overhauling of Unit-2 (TVNL) was scheduled from 1st July 2025 to 14th Aug.2025 in the FY 2025-26. There is frequent rise in HP turbine front shaft vibration of Unit-2 leading forced tripping of Unit and stalling of Barring gear has also developed after tripping of unit. This problem arises from Jan. 2025 onwards. These problems need to be rectified to mobilize the turbine and generator at the earliest.

- M/s BHEL has been requested to prepone the **Capital Overhauling** programme in view of seriousness of Turbine vibration & stalling of TG. TVNL has requested to Energy department, GOJ and JBVNL for preponing the COH plan and scheduled w.e.f 16.04.2025 for 45 days vide letter No. 19/25-26 dated 07.04.2025 (attached). But in mean time M/s BHEL has requested for 5 days more time for mobilization of manpower. Thus COH of unit has been scheduled from **20.04.2025** (23:00 hrs.).
- **JBVNL** has allowed for preponing the COH schedule w.e.f.16.04.2025 for 45 days vide letter No.- 138/Ranchi/File No.-GM9Comml.) /3297/2024 dated 16.04.2024.

- Thus Unit-2 shall be put under shutdown w.e.f. **20.04.2025 (23:00 Hrs.)** for **COH for 41 days.**

TVNL may update. Members may discuss.

Deliberation in the meeting:

OCC Decision

OCC agreed to the proposed shutdown plan of Unit-2 of TTPS from 20.04.2025 (23:00 hrs) for Capital Overhaul for a duration of 41 days.

2.16 Frequency Response Performance (FRP) of Generators: ERLDC

As per IEGC 2023 Clause 30, Sub clause 10(q): NLDC, RLDCs and SLDCs shall grade the median Frequency Response Performance annually, considering at least 10 reportable events. In case the median Frequency Response Performance is less than 0.75 as calculated as per mentioned table, NLDC, RLDCs, SLDCs, as the case may be, after analysing the FRP shall direct the concerned entities to take corrective action. All such cases shall be reported to the concerned RPC for its review.

TABLE C: FREQUENCY RESPONSE CRITERIA

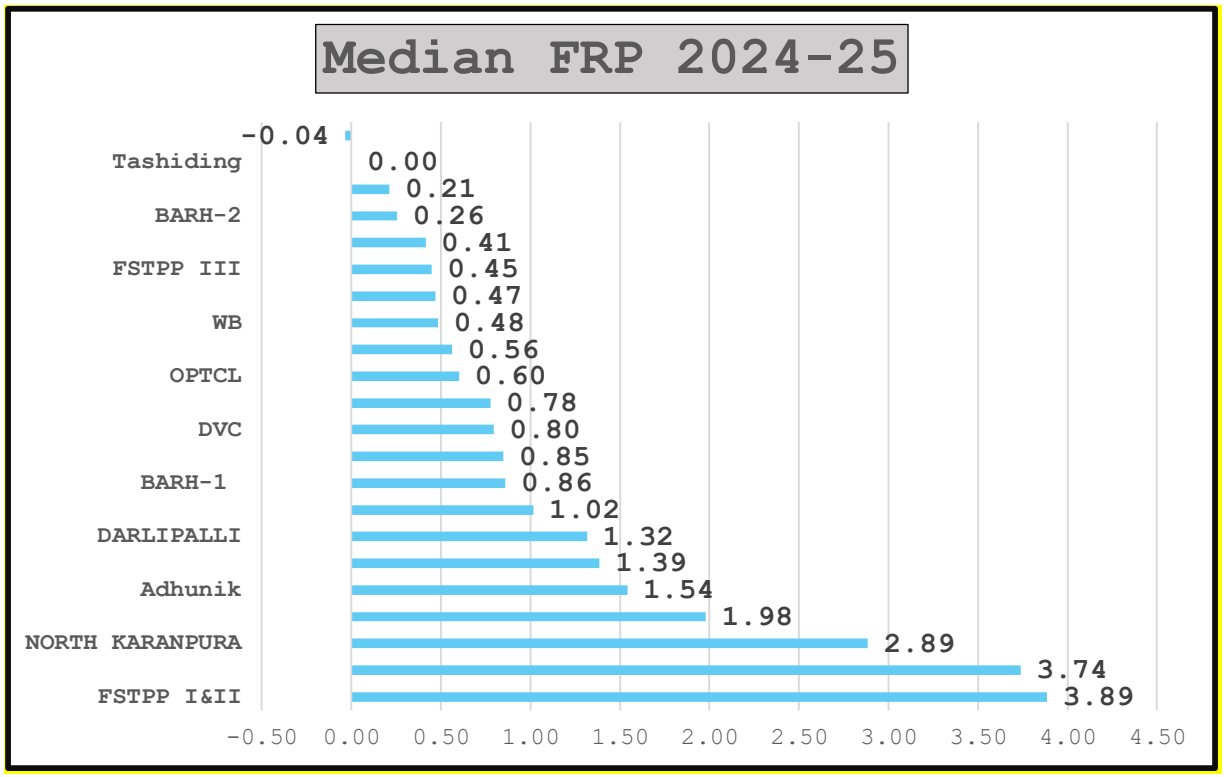
S. N	Performance*	Grading
i.	FRP≥ 1	Excellent
ii.	0.85 ≤ FRP < 1	Good
iii.	0.75 ≤ FRP <0.85	Average
iv.	0.5≤ FRP < 0.75	Below Average
v.	FRP <0.5	Poor

**Provided that for wind/solar generating stations and state control areas with internal generation less than 100 MW or annual peak demand less than 1000 MW, the FRP grading shall be indicative only.*

ERLDC has prepared the annual FRP grading response for all ISGSs and IPPs and performance was mailed on 11-04-2025.

Generating Plant	Median FRP	FRP Performance
FSTPP I&II	3.89	Excellent
BRBCL	3.74	Excellent
NORTH KARANPURA	2.89	Excellent
GMR	1.98	Excellent
Adhunik	1.54	Excellent
NPGC	1.39	Excellent
DARLIPALLI	1.32	Excellent
ER exchange	1.02	Excellent
BARH-1	0.86	Good

KhSTPP I	0.85	Average
DVC	0.80	Average
Bihar	0.78	Average
OPTCL	0.60	Below Average
TSTPS-I	0.56	Below Average
WB	0.48	Poor
Jharkhand	0.47	Poor
FSTPP III	0.45	Poor
KhSTPP II	0.41	Poor
BARH-2	0.26	Poor
MPL	0.21	Poor
Tashiding	0.00	Poor
JITPL	-0.04	Poor



Generators may review the same and those where Median FRP is less than 0.75 may share corrective action plans within 30th April 2025.

During **224th OCC**:

- ✓ All SLDCs were advised to submit the FRP data for all the reportable events during 2024-25 to ERLDC by 15th April-2025.
- ✓ FRP response for State control areas are also prepared by ERLDC as per IEGC mandate and sent to SLDCs via mail dated 10.04.2024.

- ✓ SLDCs are requested to ensure calculation of annual median Frequency Response Performance of eligible units in their jurisdiction and submit the same along with corrective action for generators having FRP less than 0.75 to ERLDC and ERPC by 30th April 2025.

ERLDC may explain. Member may discuss.

Deliberation in the meeting:

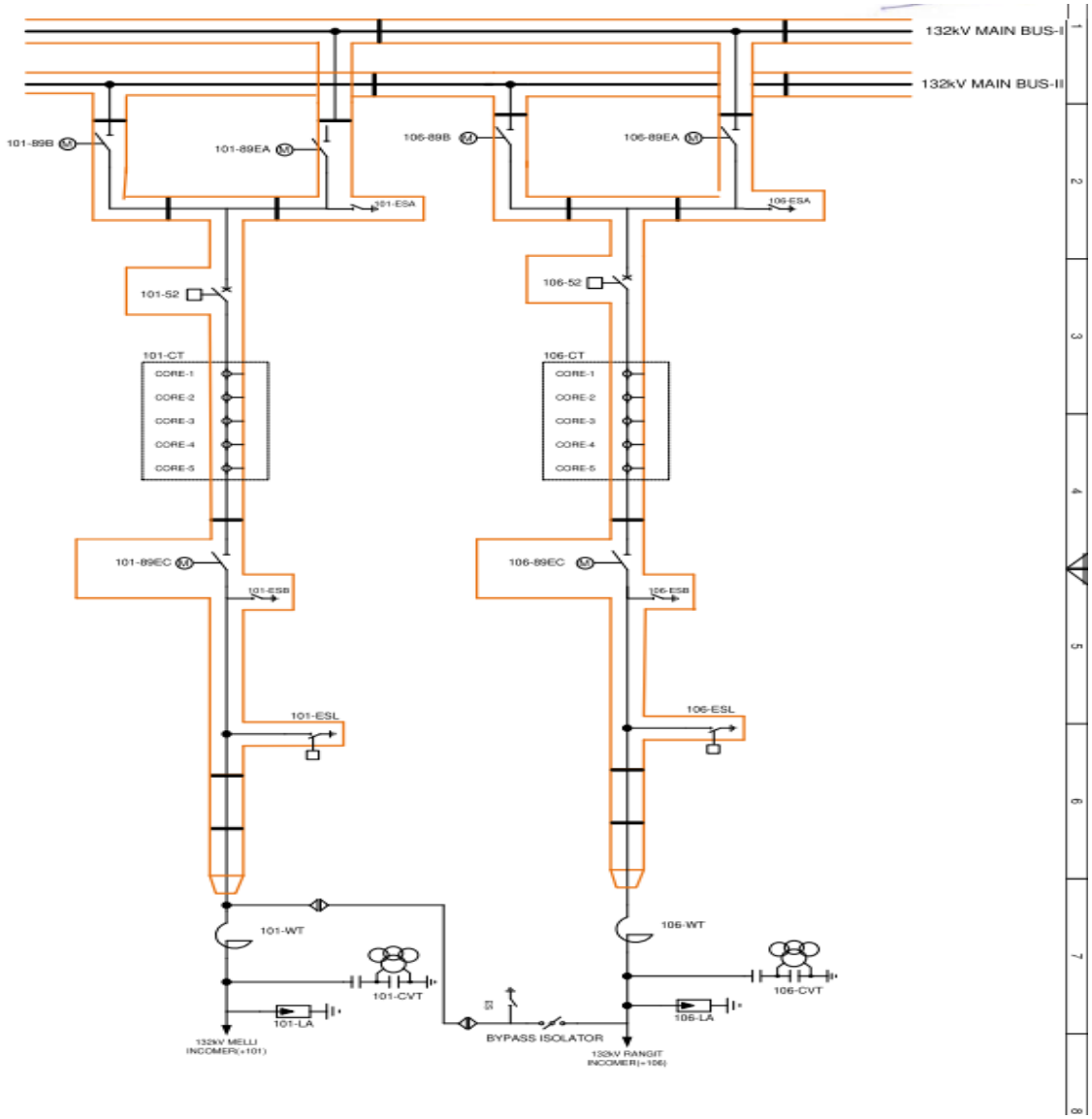
OCC Decision

- ✓ *Generators with below-average and poor frequency response were advised to take corrective actions, and reports on the corrective actions taken are to be submitted to ERPC/ ERLDC within 3 weeks.*
- ✓ *ERLDC was advised to study the reports and assess whether the corrective actions taken by the generators are adequate for desired frequency responsse or not and intimate to ERPC.*
- ✓ *Generators with unsatisfactory corrective actions would be required to perform PFR testing.*

ADDITIONAL AGENDA

2.17 Extension of 132kV Rangpo GIS substation associated with Eastern Region Expansion Scheme- XXXV-: Powergrid

As per **agenda point no 4.16 of the 17th CMETS-ER** meeting, it was decided that Rangpo-Melli and Rangpo-Rangit 132kV S/C lines can be bypassed at Rangpo S/S end within the substation premises (using GIS) through switching arrangement such that the lines can either be terminated at Rangpo 132kV bus or bypassed, as per operational requirement.



Accordingly, necessary construction works at Rangpo SS are on the verge of completion & it will be commissioned shortly. Since, as per operational requirement both the lines can be connected though an isolator bypassing the Rangpo SS, necessary SOP need to be finalized for smooth & proper operation in all respect.

For real time implementation of the bypass, POWERGRID proposed a SOP for the same as followings: -

1. Code will be issued by ERLDC whenever system requirement arises.
2. On receipt of the code, shut down of both 132kV Rangpo-Melli & 132kV Rangpo-Rangit will be taken for bypass arrangement.
3. Bypass isolator will be closed after necessary isolation of the above-mentioned lines at respective substations.
4. Since the line length will be changed, updation of necessary group settings at Melli & Rangit end need to be done by Sikkim & NHPC respectively.
5. Further, the 132kV Melli-Rangit line after bypassing the Rangpo SS will not have any PLCC communication facility during such arrangement, Z2 timing at Melli & NHPC end need to be reduced as per ERPC/ERLDC guidelines. Preferably 250 ms.

6. Further, Z3 reach need to be co-ordinated at Siliguri, Rammam & Kurseong SS during the bypass arrangement as the longest line length at remote stations will be changed. Responsibility- POWERGRID for Siliguri SS & WBSETCL Testing for Rammam & Kurseong.
7. Necessary SCADA configuration for drawl calculations needs to be done by ERLDC & Sikkim during the bypass arrangement.
8. After necessary changes in the protection settings, the line can be changed from Melli & Rangit ends bypassing the Rangpo SS.
9. Further, one E/S is envisaged with the bypass isolator at Rangpo SS. As the isolator will be a part of line, presence of any E/S within the line itself may be vulnerable & prone to maloperations. Any maintenance activity can be done with local earthing as it is at Rangpo switchyard. Hence, from safety & system point of view, physical E/S of the bypass isolator may not be considered & proposed to be deleted.

Powergrid may explain. Member may discuss.

Deliberation in the meeting:

Powergrid submitted:

- *The incoming 132 kV lines: Rangpo-Melli and Rangpo-Rangit, have been connected via a bypass isolator inside the premises of Rangpo substation. When the isolator is closed, the lines will be directly connected, creating a separate 132 kV Melli-Rangit line, completely bypassing Rangpo substation.*
- *Any necessary changes to the settings at the West Bengal/NHPC end will be provided by Powergrid for the trial run of this arrangement.*
- *The trial run will be conducted after a 1-day shutdown for conductor closing in Gangtok and a 4-day shutdown is needed for bus duct erection and HV testing at Melli S/S.*

OCC Decision:

- ✓ *Powergrid was advised to seek consent from Sikkim for the above shutdowns.*
- ✓ *ERLDC and Powergrid may finalize the SOP for implementing the bypass arrangement and proceed with the trial.*
- ✓ *ERLDC vide mail dated 28.04.2025 consented to the SOP proposed by Powergrid as: to facilitate bypass of 132 kV Rangit-Rangpo and 132 kV Rangpo-Melli at Rangpo, the line will be charged as 132 kV Rangit-Melli (Line length-84 km) & Protection Co-ordination maybe reviewed as per following table:*

Reason	***Settings to be reviewed for***	***At S/S***	***Utility***	***Remarks***
Bypass of 132 kV Rangit-Rangpo and 132 kV	*132 kV Rangit-Melli (After bypass)*	*Rangit, Melli*	*NHPC, Sikkim*	*Protection coordination to be done for re-configured element as per ERPC guidelines.*
	132 kV Rangit-Kurseong	*Kurseong*	*WBSETCL*	*Adjacent longest line will now be 132 kV Rangit-Melli (84 km). Zone-3 reach/time delay*

Rangpo-Melli at Rangpo	*132 kV Rammam-Rangit*	*Rammam*	*WBSETCL*	*may be revised accordingly, considering encroachment to next lower voltage level.*
	132 kV Siliguri-Melli	*Siliguri*	*PG ER-2*	

- *Since there will be considerable change in Zone reach setting due to re-configuration, group setting may be implemented at all five S/s for these feeders to facilitate quick bypass during such requirement.*
- *Additionally, as during bypass operation carrier communication scheme will remain out of service for 132 kV Rangit-Melli line, hence Zone-2 delay may be reduced to 250 msec during bypass operation at both ends and the same may also be included in group setting.*

2.18 Declaration of high inflow season for Hydro-generating stations of Eastern Region for calculation of RTDA Accounts for FY 2025-26: ERPC

- As per the minutes of 3rd meeting of CERC with RPCs and further in line with the discussions held in the 45th CCM meetings, the high inflow season for hydro generating stations is to be finalized in the OCC meetings.
- As per the decision of 218th OCC meeting, OCC opined that in case of actual spillage more than 10 days during a particular month, the corresponding months shall be considered as high inflow period for respective hydro generating units of ER. This shall be decided based on submitted data for last 3 years and should be henceforth considered in calculation of RTDA accounts of FY 2025-26.
- Based on spillage data as received from various hydro stations for the last 3 years,the hydro station wise inflow period for 2025-26 will be as follows:

Hydro Station	High Inflow Period	Months
Chuzachen HEP	April, May, June, July, August, September	06 months
Dikchu HEP	April, May, June, July, August, September	06 months
Rongnichu HEP	June, July, August, September	04 months
Jorethang Loop HEP	June, July, August, September, October	05 months
Tashiding HEP	June, July, August, September, October	05 months
Rangit HEP		

**Since Teesta-V HEP is under forced outage of long duration and having negligible chance of restoration by FY 2025-26, spillage details of the same are not being considered in declaration of high inflow period of FY 2025-26.*

Member may discuss.

Deliberation in the meeting:

OCC Decision:

✓ *For the purpose of calculation of RTDA Accounts (FY 2025-26), OCC consented to consideration of high inflow period for respective hydro stations as follows:.*

Hydro Station	***High Inflow Period***	***Months***
Chuzachen HEP	*April, May, June, July, August, September*	*06 months*
Dikchu HEP	*April, May, June, July, August, September*	*06 months*
Rongnichu HEP	*June, July, August, September*	*04 months*
Jorethang Loop HEP	*June, July, August, September, October*	*05 months*
Tashiding HEP	*June, July, August, September, October*	*05 months*
Rangit HEP	*June, July, August, September, October*	*05 months*

2.19 Shutdown Proposal for Darlipali TPP: NTPC

Scheduled Shutdown Program of Generating Units:

- Unit 2 Annual OH from 25.06.2025 for 45 days.

However as per 222nd OCC the scheduled shutdown was proposed as:

SYSTEM	CAPACITY (MW)	STATION NAME	UNIT NO	FROM	TO	DURATION (DAYS)	PROPOSED OUTAGE REASON
NTPC	800	DARLIPALI STPS	2	01-Apr-25	10-May-25	39	AOH (Main Turbine Thrust bearing temperature is high(110 deg C)

222nd OCC Decision

OCC advised NTPC to ensure availability of material and complete necessary maintenance before 15th March 2025 or avail the shutdown after 15th June 2025.
NTPC may explain. Members may discuss.

Deliberation in the meeting:

OCC Decision:

✓ *No shutdowns of generating units can be allowed in the months of May and June 2025 in line with MOP guidelines . Therefore, NTPC was advised to defer the shutdown of Darlipali STPS to July 2025.*

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

3.1. ER Grid performance during March 2025.

The average and maximum consumption of Eastern Region and Max/Min Demand (MW), Energy Export for the month March-2025 were as follows:

AVERAGE CONSUMPTION (MU)	MAXIMUM CONSUMPTION(MU)/ DATE	MAXIMUM DEMAND (MW)	MINIMUM DEMAND (MW)	SCHEDULE EXPORT	ACTUAL EXPORT
		DATE / TIME	DATE / TIME	(MU)	(MU)
530 MU	598 MU, 29.03.2025	28119 MW, 28.03.2025 at 20:50 Hrs.	16453 MW, 23.03.2025 at 05:01 Hrs.	4297	4411

ERLDC/ERPC may highlight the performance of the ER grid.

Deliberation in the meeting

The grid performance of ER for the month of March'25 was highlighted.

3.2. Update on Reconductoring of ISTS lines under Eastern Region Expansion Scheme-44: ERPC

- Several 220 kV transmission lines and substations were implemented in Indian grid along with cross border lines for importing power from Chukha Hydro Electric Plant in Bhutan. The generating station was commissioned in years 1986-88 and the transmission system is now more than 35 years old. Considering the age of conductors and increase in conductor snapping incidences, reconductoring of these transmission lines has become necessary.
- The matter was deliberated in various OCC forums as well as in 52nd TCC meeting of ERPC.
- In a meeting was convened by CEA under the chairpersonship of Member (Power System) on 27-08-2024, it was decided that matter of reconductoring of cross border lines will be separately taken up with Bhutan.
- However, reconductoring of ISTS portion of 220 kV corridor viz. Alipurduar (POWERGRID) – Falakata (WBSETCL) – Birpara (POWERGRID) – Binaguri (POWERGRID) – Siliguri (POWERGRID) – Kishanganj (POWERGRID) – Dalkhola (POWERGRID) – Gazole (WBSETCL) – Malda (POWERGRID), may be taken up under ISTS. Further, reconductoring of intra-state LILO portion of Birpara (POWERGRID) – Alipurduar (POWERGRID) 220 kV D/c line at Falakata (WBSETCL) and Dalkhola – Malda 220 kV D/c line at Gazol (WBSETCL) shall be carried out by WBSETCL matching with HTLS conductor of the main ISTS line in the matching timframe.

Name of the scheme	Implementation timeframe	Implementation mode	Implementing agency	Estimated Cost (Rs. in Cr)
ERES-44	18 months (15 months on best effort basis) from the date of allocation	RTM	Powergrid	385.77

WBSETCL works associated with reconductoring of ISTS lines

- In the NCT(National Committee on Transmission) meeting dated 23.10.2024 , the following were decided:
- WBSETCL shall reconductor their following lines sections under intra-state scheme matching with completion of ISTS scheme namely ERES-44:
  - ✓ About 4 km intra-state portion of Alipurduar (POWERGRID) Falakata (WBSETCL) 220 kV D/C line at Falakata end with HTLS conductor of ampacity 1250 A along with necessary upgradation of associated 220 kV bay equipment at Falakata (WBSETCL) end commensurate with rating of HTLS (1250 A).
  - ✓ About 4 km intra-state portion of Birpara (POWERGRID) - Falakata (WBSETCL) 220 kV D/C line at Falakata end with HTLS conductor of ampacity 1250 A along with necessary upgradation of associated 220 kV bay equipment at Falakata (WBSETCL) end commensurate with rating of HTLS (1250 A).
  - ✓ About 2 km intra-state portion of Dalkhola (POWERGRID) - Gazole (WBSETCL) 220 kV D/C line at Gazole end with HTLS conductor of ampacity 1250 A along with necessary upgradation of associated 220 kV bay equipment at Gazole (WBSETCL) end commensurate with rating of HTLS (1250 A).
  - ✓ About 2km intra-state portion of Gazole (WBSETCL) - Malda (POWERGRID) 220 kV D/C line at Gazole end with HTLS conductor of ampacity 1250 A along with necessary upgradation of associated 220 kV bay equipment at Gazole (WBSETCL) end commensurate with rating of HTLS (1250 A).
- WBSETCL will LILO the Dhalkola - Gazole 220 kV D/C line with 1250 A HTLS under their intra-state scheme for establishment of 220 kV level at their existing 132/33kV Raiganj (WBSETCL) S/S.
- ISTS licensee and WBSETCL shall coordinate for reconductoring of their respective portion of the lines matching with completion schedule of this scheme.
- ➢ It is kindly requested that WBSETCL may note the scope of works (as provided in the minutes of NCT) and coordinate with POWERGRID for matching implementation of their works.
- ➢ The **progress report** may be shared on **monthly** basis to **CEA**, **ERPC** and **CTU**.

As per **224th OCC Deliberation**
Powergrid apprised:

- ✓ NIT for reconductoring under ERES-44 scheme shall be floated on 04.3.2025.
- ✓ Modalities of reconductoring in Bhutan portion could not be finalized yet due absence of response from Bhutan end after bilateral meeting being held.

✓ MOU has already been done with WBSETCL for reconductoring in intra-state portions of West Bengal network.

224th OCC Decision

- Powergrid was urged to expedite the tendering process of reconductoring works under ERES-44.
- Powergrid was advised to write a letter to Bhutan Power system operator with copy to CEA and MOP for expediting finalization of modalities of reconductoring with Bhutan.

As per **225th OCC** Deliberation
No further update was received from Powergrid ER-II.

225th OCC Decision
OCC noted.

Powergrid may respond. Members may discuss.
Deliberation in the meeting
Powergrid apprised:

✓ *Reconductoring Package (OH1/OH2/OH03) Tender for various 220kV Lines associated with Eastern Region Expansion Scheme-44 (ERES 44) has been floated. In view of request from several bidders, the date of bid opening has been extended till 29.04.2025.*

✓ *Further certain specifications have been changed for various reconductoring packages and under discussion with CEA. In view of the same, the extension in bid submission is done for facilitating all prospective bidders.*

OCC Decision

- *Powergrid was urged to expedite the tendering process of reconductoring works under ERES-44 and adhere to the timeline finalized in NCT meeting.*
- *The progress report of reconductoring works should be shared on monthly basis to **CEA, ERPC** and **CTU.***

3.3. Update on Rajarhat GIS (POWERGRID) 400/220kV S/S: 2x500MVA and : ERLDC

- During the deliberations in the 222nd OCC meeting held on 23.12.24, West Bengal SLDC representative expressed deep concern regarding a potential power crisis at Rajarhat (PG) in 2025-2026, based on the current loading pattern in and around the Kolkata area. It was also emphasized the need to prioritize the installation of a 3rd 400/220KV,500MVA ICT at Rajarhat (PG) with the same urgency as Subhasgram (PG) to prevent a recurrence of similar critical situations in the future.
- It was further highlighted that if the proposed 3rd ICT is not operational by the summer of 2026, severe congestion is likely to affect the ICTs at Rajarhat (PG). Additionally, it was noted that the state assembly elections are expected to take place in 2026, adding to the significance of addressing this issue promptly.
- Powergrid ER-II updated in the meeting that tender for procurement of the 3rd ICT has been annulled twice and currently re-tendering is under progress. Bid opening is scheduled tentatively in Feb 2025, thereafter, commissioning of the ICT will take 18 months. It is expected to be commissioned by end of 2026 or first half of 2027.
- In view of the above, an alternative arrangement may be thought off to ensure 3rd ICT at Rajarhat before 2026 Summer.

- The need for augmenting the transformation capacity at Subhasgram, Kolkata, was first discussed during the **45th TCC** meeting on **06.08.2022** in Siliguri, West Bengal.
- Subsequently, considering the urgency of augmenting ICT capacity to meet the increasing demand in the Kolkata area, it was decided during the 50th TCC/ERPC meeting on 10.08.2023 at Lonavala to utilize the regional spare 500 MVA ICT located at Maithon as 7th ICT at Subhasgram. This ICT was transported and commissioned in June 2024, thereby enhancing the transformation capacity for the Kolkata area.

As per update in **53rd TCC** meeting

❖ Powergrid ER-II updated:

✓ The 6th ICT at Subhasgram(PG) can be made available from Maithon(PG) as discussed in recent bilateral meeting with WBSETCL but transportation from Maithon(PG) would be extremely challenging.

✓ All civil and electrical works for 6th ICT at Subhasgram(PG) to be tentatively completed by December 2025.

✓ Tender for procurement of the 3rd ICT at Rajarhat(PG) had been annulled twice.Presently re-tendering under progress whose NIT will be floated within 7 days.LOA shall be placed by August 2025.

✓ The 3rd ICT can be commissioned at Rajarhat (PG) by August 2026.

❖ WB SLDC submitted :

✓ Raised serious concern over the inordinate delay, especially in initiating the re-tendering process by Powergrid and consequently lapsing crucial 19 months in between.

✓ Despite continuous pursuance in several OCC meetings, no significant headway could have been achieved in this regard.

✓ It was highlighted that while Summer 2025 will be difficult but Summer 2026 will definitely encounter a power supply crisis i.r.o Kolkata in absence of 3rd ICT at Rajarhat(PG).

✓ Regular monitoring of the progress was requested.

✓ Interim solution of load management in upcoming Summer with existing resources was requested.

As per 224th OCC Deliberation

POWERGRID ER-II updated:

✓ The GIS package at Rajarhat(PG) is yet to be finalized.

✓ The 3rd ICT(500 MVA) is expected at Rajarhat(PG) by December 2026.

✓ As per MOM of the meeting chaired by Power Secretary (Govt of WB) dated 20.02.2025,the 500 MVA transformer has been planned for transportation from ER spare pool at Maithon (PG) to Subhasgram (PG) tentatively in April 2025. Necessary administrative clearance & assistance shall be required to facilitate challenging transportation process.

224th OCC Decision

- OCC noted and advised Powergrid to abide by the submitted timeline of 500 MVA ICT commissioning i.r.o both Rajarhat(PG) and Subhasgram (PG) .

- Powergrid was advised to submit to ERPC Secretariat: Gantt chart with timeline of each activity to be carried out as well as fortnightly progress report on ICT commissioning at Rajarhat and Subhasgram substations.

POWERGRID ER-II may update. Members may discuss.

Deliberation in the meeting

Powergrid ER-II submitted:

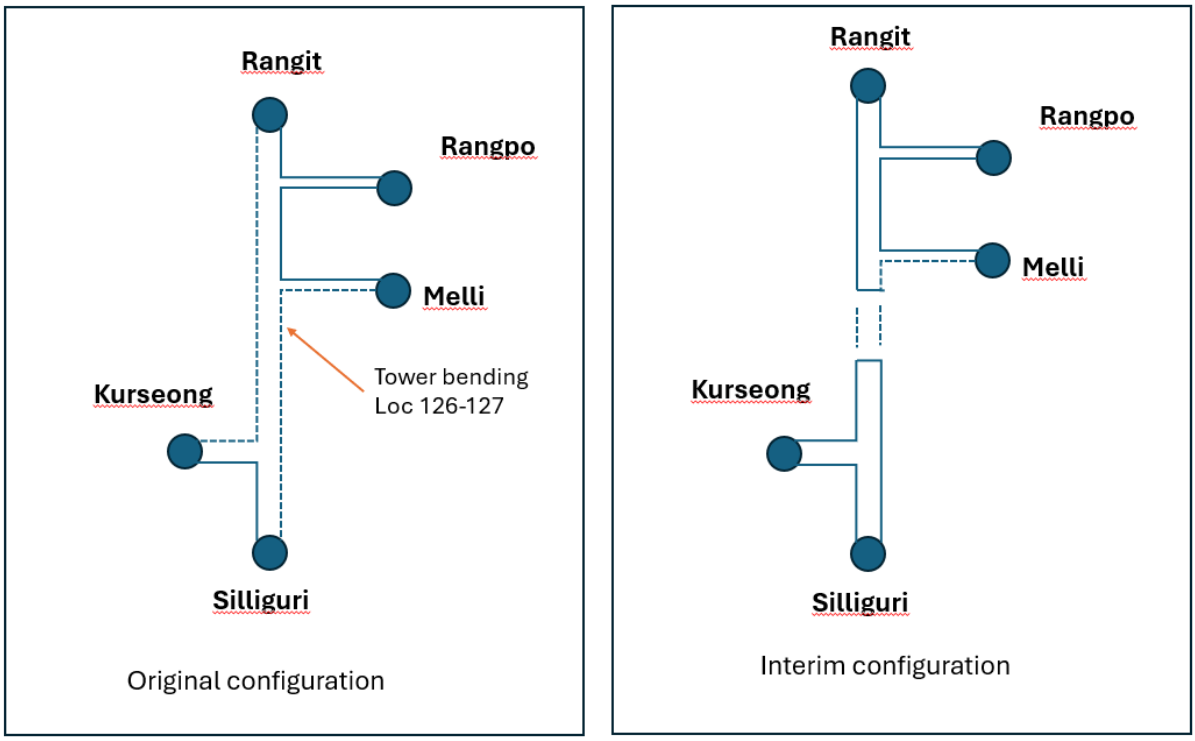
NIT for procurement of 3rd ICT at Rajarhat(PG) has been floated on 14th May 2025.Further progress shall be shared in subsequent OCC meeetings.

OCC Decision

- *OCC noted and advised Powergrid to abide by the submitted timeline of 500 MVA ICT commissioning at Rajarhat(PG) i.e by December 2026.*

3.4. Update on Restoration of 132kV Rangit-Kurseong & 132kV Siliguri-Melli-Rangpo lines: ERLDC

- Due to incessant rain and several landslides, towers at loc. 125-128 of **132 kV Rangit-Kurseong** and **132 kV Siliguri-Melli** got badly affected. Out of which tower at loc. 126,127 got severely damaged. Both the lines were switched on 5th October 2024 on request of PowerGrid.
- Consequently, **Kurseong** and **Melli** (Kalimpong source) are fed through single source of **Siliguri** and **Rangpo** respectively. To ensure reliable power supply at Melli & Kurseong, ERLDC conducted one meeting on **08.10.2024** (online mode) with participants from ERPC, ERLDC, West Bengal SLDC, Sikkim, Powergrid and NHPC Rangit.
- Considering the difficulties & time requirements due to hilly terrain for restoration of the said portion, temporary reconfiguration of these lines was explored to extend additional sources to Melli & Kurseong. It was decided that part of the healthy line of **132 kV Siliguri-Melli** will be reconfigured as **132 kV Siliguri-Kurseong ckt2** as a second source of Kurseong and another healthy portion of **132 kV Siliguri-Melli** will be reconfigured as **132 kV Rangit-Melli** for a second source of Melli.
- After necessary reconfiguration, **132 KV Siliguri-Kurseong-II (interim)** arrangement charged on **9th October** and **132kV-Rangit-Melli (interim)** has been charged tentatively on **22nd October**. POWERGRID intimated that it would take 15-20 Days to restore the original configuration after rectifying damaged towers.



As per **225th OCC** Deliberation
Powergrid ER-II updated:

- ✓ For resolving ROW issues, a special meeting was held on 20.03.2025 with SDM(Darjeeling) and after discussion with Soom Tea Garden,they have assured to settle the problem within 07.04.2025 as compensation amount need to be approved/settled after concurrence of owner and presently, the owner is out of India.
- ✓ In view of above, ROW issues expected to be resolved by 10.04.2025 and the restoration work may be considered for completion by July-2025.

225th OCC Decision

- OCC expressed serious concern on the delay in restoration of the original configuration of 132 kV which may adversely impact reliable power supply to hilly regions of West Bengal amid upcoming peak demand period.
- Powergrid was urged to expedite and submit revised plan of restoration in the next OCC.

Powergrid may update. Members may discuss.

Deliberation in the meeting

Powergrid updated:

- ✓ *NOC has been received dated 16.04.25 from Soom Tea Garden & administration, necessary construction activity has been initiated from 17.04.2025.*
- ✓ *As new tower foundation, erection and moreover string is required, restoration of the original configuration may be anticipated till 15.07.2025.*

OCC Decision

- *Powergrid was advised to expedite restoration of the original configuration of 132kV Rangit-Kurseong & 132kV Siliguri-Melli lines by July 2025.*
- *WBSETCL was advised to assist Powergrid in lowering the existing OPGW of 132 KV Lebong-D/C connectivity for maintaining adequate clearance.*

3.5. Non-Submission of FRC data in stipulated timeframe: ERLDC

Adhering to IEGC clauses **30.8** and **30.10.(a)** to **30.10.(q),** generating stations within the Eastern region are required to submit essential data to ERLDC within two days of receiving a notification regarding a reportable frequency event. Additionally, according to clause 30.10.(n), all control areas within the eastern region must assess their frequency response characteristics and share the evaluation, along with high-resolution data, with the ERLDC. Therefore, timely submission of primary response data is crucial for compliance with the IEGC.

225th OCC Decision

- ✓ All generators were advised to regularly share high resolution data against each reportable frequency event with ERLDC on time to facilitate accurate assessment of FRP for respective control areas.
- ✓ All generating utilities were also urged to update the google sheet (link mentioned above) with email address where notifications of reportable events will be shared.

The latest data receipt status is given below: (as on **11.04.2025):**

STATIONS		12-03-2025 14:51HRS	12-03-2025 15:37HRS
FSTPP #STG 1 & 2	ISGS		
FSTPP # STG 3	ISGS		
KhSTPP #STG 1	ISGS		
KhSTPP #STG 2	ISGS		
TSTPP #STG 1	ISGS		
Barh stage-1	ISGS		
Barh stage-2	ISGS		
BRBCL	ISGS		
Darlipalli	ISGS		
North Karanpura	ISGS		
NPGC	ISGS		
TEESTA V	ISGS		
GMR	CPP		
MPL	CPP		

ADHUNIK	CPP		
JITPL	CPP		
TEESTA III	CPP		
Bihar	STATE		
Jharkhand	STATE		
DVC	STATE		
OPTCL	STATE		
WB	STATE		
Updated as on	**11.04.2024**		

Received
Not Received
Plant Out
Data freeze at plant

Hence all are again requested to follow the stipulated timeline and submit the data to ERLDC and also fill the google sheet below to include the email address where notifications of reportable events should be sent.

https://docs.google.com/spreadsheets/d/1slvAOmQIEQVlMn0LnB78eKMa2sz2QYICZ-sPEpeV_jk/edit?usp=sharing

ERLDC may explain. Members may discuss.

Deliberation in the meeting:

OCC Decision

- ✓ *All generators were advised to regularly share high resolution data against each reportable frequency event with ERLDC on time to facilitate accurate assessment of FRP for respective control areas.*
- ✓ *All generating utilities were also urged to update the google sheet (link mentioned above) with email address where notifications of reportable events will be shared.*

3.6. Regarding Non-Submission of Forecasting Data from States: ERLDC

The **Clause 2** of **Regulation 31** of **IEGC 2023** has mandated all the SLDCs to timely submit the demand estimate data to the respective RLDC and RPC.

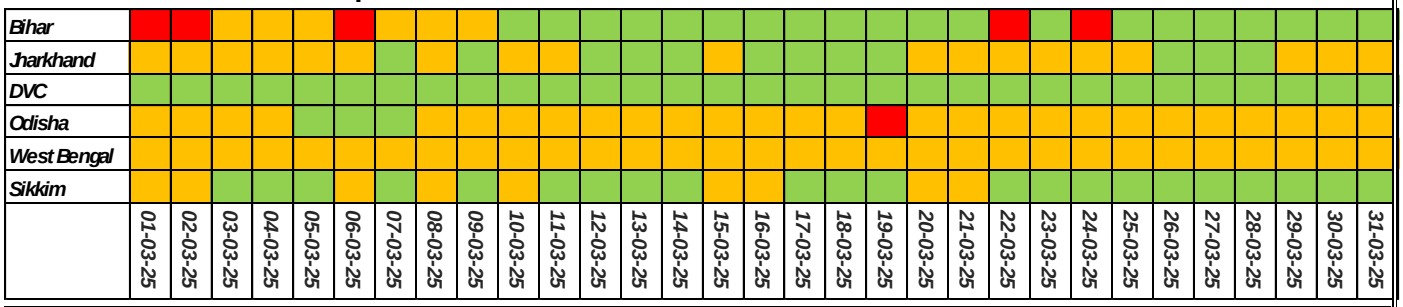
The demand estimation data provided by SLDCs will be required in resource adequacy planning and regional load forecasts conducted by the RLDC.

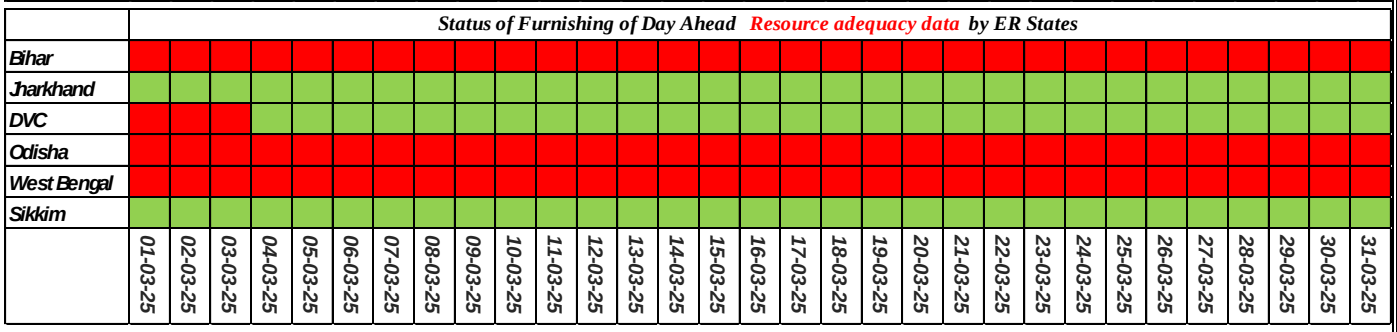
Currently, the day ahead data is regularly received from all the states except Sikkim.

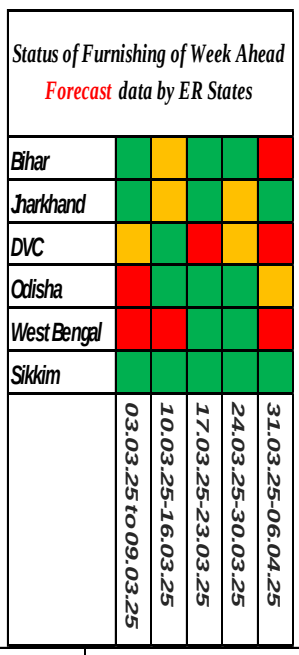
225th OCC Decision

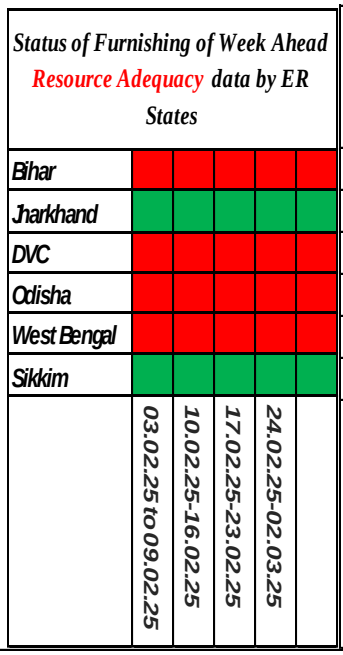
- OCC advised all SLDCs for strictly adhering to the schedule of demand estimation as mandated in IEGC 2023, timely sharing with ERLDC in specified format as well as uploading of forecasting error on their respective websites.
- SLDCs who are submitting day ahead forecast were advised to also share the forecasting data for their respective control areas on weekly as well as monthly basis with ERLDC.
- All SLDCs were urged to regularly furnish resource adequacy data besides demand forecast.

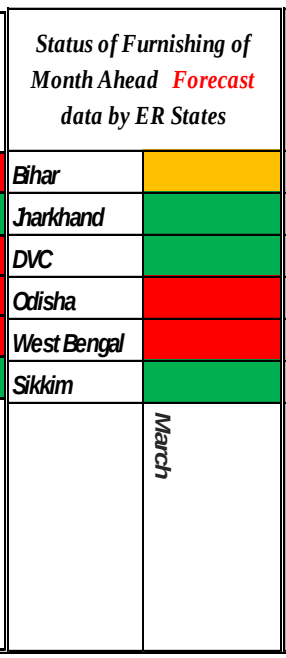
Latest Forecast receipt status is shown below:

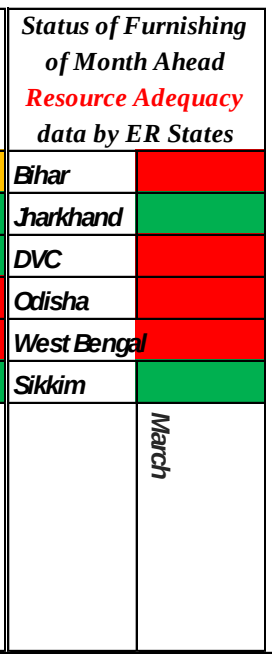


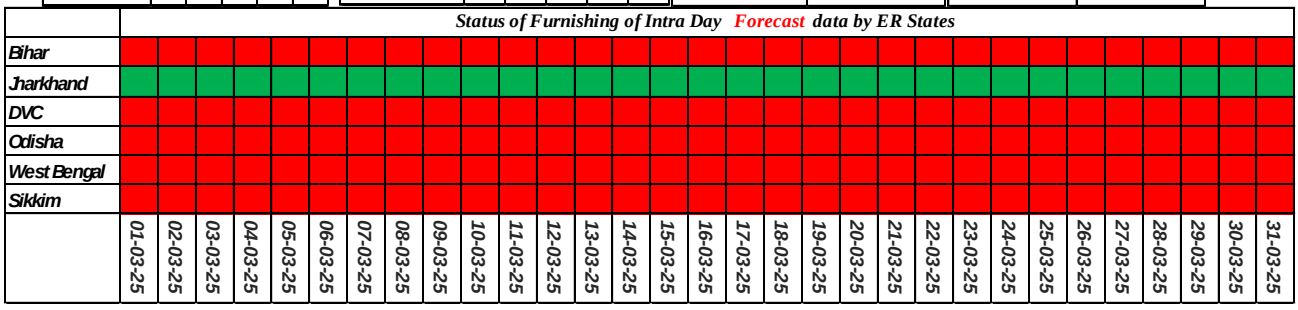












	Status of Furnishing of Intra Day Resource adequacy data by ER States																														
Bihar																															
Jharkhand																															
DVC																															
Odisha																															
West Bengal																															
Sikkim																															
	01-03-25	02-03-25	03-03-25	04-03-25	05-03-25	06-03-25	07-03-25	08-03-25	09-03-25	10-03-25	11-03-25	12-03-25	13-03-25	14-03-25	15-03-25	16-03-25	17-03-25	18-03-25	19-03-25	20-03-25	21-03-25	22-03-25	23-03-25	24-03-25	25-03-25	26-03-25	27-03-25	28-03-25	29-03-25	30-03-25	31-03-25

ERLDC may explain and all SLDCs may update. Members may discuss.

Deliberation in the meeting

OCC Decision

- *OCC advised all SLDCs for strictly adhering to the schedule of demand estimation as mandated in IEGC 2023, timely sharing with ERLDC in specified format as well as uploading of forecasting error on their respective websites.*
- *SLDCs who are submitting day ahead forecast were advised to also share the forecasting data for their respective control areas on weekly as well as monthly basis with ERLDC.*
- *All SLDCs were urged to regularly furnish resource adequacy data besides demand forecast.*

3.7. Mock Black Start: ERLDC

- As per IEGC Reg. 34.3: A mock trial run of the procedure for different sub-systems including black-start of generating units along with grid forming capability of inverter-based generating station and VSC-based HVDC black-start support at least once a year under intimation to the concerned SLDC and RLDC.
- Eastern region has 16 hydro power plants, which has capability to play a crucial role during restoration after any grid disturbance. Mock black start testing along with grid forming capability is being carried out on yearly basis, as mandated by IEGC reg 34.3, to ensure the capability & readiness of those generators for any contingency.
- Also, diesel generator sets and other standalone auxiliary supply source to be used for black start shall be tested on a weekly basis and the test reports are to be shared to the concerned SLDC, RLDC and NLDC on a quarterly basis.
- As per IEGC Reg. 34.4: Simulation studies are to be carried out by each user in coordination with RLDC for preparing, reviewing and updating the restoration procedures considering the following:

(a) Black start capability of the generator;
(b) Ability of black start generator to build cranking path and sustain island;
(c) Impact of block load switching in or out;
(d) Line/transformer charging;
(e) Reduced fault levels;
(f) Protection settings under restoration condition

So far, Balimela, Burla, U. Indravati, TLDP-IV, and Subarnarekha have completed their mock black start tests, while Jorethang and Tashiding have confirmed tentative dates for FY25. The remaining generators are yet to schedule their tests and are requested to confirm their mock drill dates. Status of mock black start is as follows:

Sl. No.	Name of Hydro Station	2024-25 Actual Date of Test	Tentative date as on 18.02.25
1	U. Kolab		Yet to be informed
2	Balimela	15th January 2025	
3	Rengali		Yet to be informed
4	Burla	December-24	
5	U. Indravati	Sep-24	
6	Maithon	December-24	
7	TLDP-III		Yet to be informed
8	TLDP-IV	December-24	
9	Subarnarekha	3rd December 2024	
10	Teesta-V	N/A	N/A
11	Chuzachen		Yet to be informed
12	Teesta-III	N/A	N/A
13	Jorethang		25th March 2025
14	Tashiding		29-31 March 2025
15	Dikchu	N/A	Yet to be informed
16	Rongnichu		Yet to be informed

The rest of the generators are requested to confirm dates for black start of each generating unit. Also, the users are requested to share the data required simulation studies before the scheduled date of mock drill.

Members may note.

Deliberation in the meeting

OCC decision:

- ✓ *OCC advised all black start capable hydro generating units of ER to update their schedule of mock black start to ERLDC at the earliest. This is in compliance to IEGC 2023 (CERC)*
- ✓ *OCC further opined that in case of non-receipt of further update by respective hydro generating units the proposed tentative schedule of mock black start may be considered as final. Thereafter all black start capable hydro units shall have to conduct mock black start at least once in a year as mandated in IEGC 2023.*

4. PART-D: OPERATIONAL PLANNING

4.1. Anticipated power supply position during May-2025

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of May-2025 is prepared by ERPC Secretariat (**Annexure D.1**) on the basis of LGBR for 2024-25 and feedback of constituents, keeping in view that the units are available for generation and expected load growth etc.

Members may update.

Deliberation in the meeting

The updated anticipated power supply position for May-2025 is provided at ***Annexure D.1.***

4.2. Major Thermal Generating Units/Transmission Element outages/shutdown in ER Grid (as on as on 14-04-2025)

a) Thermal Generating Stations outage report:

SL No	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
1	TENUGHAT	JHARKHAND	TVNL	2	210	Due to high vibration in Turbine	13-Apr-2025
2	BANDEL TPS	WEST BENGAL	WBPDCL	2	60	Boiler Tube Leakage	11-Apr-2025
3	BOKARO-A'	DVC	DVC	1	500	Annual Overhauling	25-Mar-2025
4	KOLAGHAT	WEST BENGAL	WBPDCL	4	210	Low System Demand	14-Apr-2025

All Generating stations are requested to update expected restoration time and reason outage to ERLDC/ERPC on weekly basis in case of any change at their end.

b) Major Generating stations Out on Reserve Shutdown due to low system demand:

SL No	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
1	SOUTHERN	WEST BENGAL	CESC	1	67.5	Low system demand	30-Mar-2025
1	SOUTHERN	WEST BENGAL	CESC	2	67.5	Low system demand	13-Apr-2025

c) Hydro Unit Outage Report:

S. NO	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
1.	TEESTA- III HEP	SIKKIM	TUL	1 to 6	1200 (200X6)	Sudden at glacier fed LOHNAK Lake followed by huge inrush of water in Teesta River and damage of Teesta III Dam & downstream Powerhouses	04-Oct-2023
2.	TEESTA-V HPS	SIKKIM	NHPC	1 to 3	510 (3X170)	Sudden cloudburst at glacier fed LOHNAK Lake followed by huge inrush of water in Teesta River and damage of Teesta III Dam & downstream Powerhouses	04-Oct-2023
3.	JORETHANG	SIKKIM	DANS	1	48	Annual Maintenance	11-Mar-2025

d)Long outage report of transmission lines (As on 14-04-2025):

Transmission Element / ICT	Outage From	Reasons for Outage
220/132KV 100 MVA ICT II AT LALMATIA	22.01.2019	220/132KV, 100MVA Transformer (NTPC side) is charged on 07.02.2024 from HV side on no load. Now, it is in idle charged condition
220KV-FSTPP-LALMATIA-I	21.04.2021	Two nos. of tower collapsed on 29.05.2024 near to Lalmatia GSS in the Loc. No. 246 & 247. Presently 220 kV Farakka-Lalmatia line is charged (from loc no 241 to loc 84) at 132 kV voltage level for anti-theft purpose by tapping at loc. No. 100-101.
220KV-WARIA-BIDHANNAGAR-1 & 2	08.06.2022	To control overloading of 220 kV Waria-DSTPS (Andal) D/C line
132KV-BARHI-RAJGIR-1	25.03.2023	Dismantling of tower no. 227, 228, and 229 crossing the premises of Mahabodhi Cultural centre along with Destringing of conductor of both circuits and Earth wire between tension tower no. 218-237 in same line.
132KV-NALANDA-BARHI(DVC)-1	25.03.2023	
400KV-RANGPO-TEESTA-V-1 & 2	04.10.2023	Tower near gantry of Teesta V powerhouse collapsed due to sudden cloudburst at glacier fed LOHNAK Lake followed by huge inrush of water in TEESTA river and damage of Teesta III Dam & downstream Powerhouses
400KV-TEESTA-III-RANGPO-1	04.10.2023	Hand tripped from Teesta-III end due to sudden cloudburst at glacier fed LOHNAK Lake followed by huge inrush of water in TEESTA river and damage of Teesta III Dam & downstream Powerhouses
400KV-TEESTA-III-DIKCHU-1	04.10.2023	

132KV-RANGPO-SAMARDONG-1	22-05-2024	Rangpo: Y-N fault with fault distance 0.157 kM 14.562kA Samardong: NA
220KV-RAJARHAT-NEW TOWN(AA-II)-2	10-07-2024	Initially line out due to rectification of gas leakage problem from B-Ph breaker pole. Line declared under breakdown after charging attempt after return of shutdown. After that fault found in b-phase cable.
400KV/220KV 315 MVA ICT 1 AT NORTH KARANPURA	12-09-2024	Tripped on Differential protection
132KV-MADHEPURA (BH)-SAHARSA(PMTL)-1	23.09.2024	To control loading on 132kV Madhepura-Saharsa line
132KV-MELLI-SILIGURI-1	05-10-2024	S/d for inspection of tower of Loc.127 found twisted due to heavy landslide & heavy continuous rainfall in Soom Tea Garden under Darjeeling section. Line charged as 132 KV Siliguri-Melli II (Interim arrangement) at 19:20 hrs on 09-10-2024. This interim arrangement is obtained by horizontal jumpering at Loc-129 after disconnecting main jumper for both Rangit & Melli side.
132KV-RANGIT-KURSEONG-1	05-10-2024	S/d for inspection of tower of Loc.127 found twisted due to heavy landslide & heavy continuous rainfall in Soom Tea Garden under Darjeeling section. Line charged as 132 KV Siliguri-Melli II (Interim arrangement) at 19:20 hrs on 09-10-2024. This interim arrangement is obtained by horizontal jumpering at Loc-129 after disconnecting main jumper for both Rangit & Melli side.
400KV/220KV 315 MVA ICT 1 AT TSTPP	01-11-2024	Tripped on PRD protection
132KV-PATRATU-PATRATU-1 & 2	16-11-2024	Diversion/Heightening of line due to inadequate clearance from under construction railway Line by PVUNL
132KV-CHUZACHEN-RANGPO-1	29-11-2024	Rangpo : B-N ,Z-1, 7.8 KA, 5.61 KM
400KV-ALIPURDUAR (PG)-PUNASANGCHUN-JIGMELING-2	02-12-2024	SD Availed by Bhutan for rectify/Replace the LA for 400kV Jigmeling _Puna_ALI-1.
400KV-KHSTPP-BARH-2	07-12-2024	Uprating of bay & line equipments
400KV-ALIPURDUAR (PG)-PUNASANGCHUN-JIGMELING-1	10-12-2024	Jumper connection and interconnection removal at Kamichu
400KV/220KV 315 MVA ICT 2 AT MEJIA-B	20-01-2025	Tripped during charging of ICT#1 bay with cable from 220 kv GIS side
400KV-BINAGURI-TALA-2	24-01-2025	Binaguri end: R-N, F dist 125.3 kM, F Current Ir-3.26kA

132KV-CHUZACHEN-RANGPO-1	04-02-2025	Maintenance Activities
220KV-DALKHOLA (PG)-GAZOLE-1&2	06-02-2025	To reduce loading of malda gazole after dalkhola pg bus return
132KV-NAGARUNTARI-NABINAGAR-1	07-02-2025	Re-sagging of conductors at various locations on OCB till 25/02/2025
400KV-NEW PURNEA-KISHANGANJ-1 & 2	18-02-2025	Facilitating Erection of New Tower on Pile foundation
220KV-KATAPALLI-BOLANGIR(PG)-1	20-02-2025	To avoid tripping due to overloading
220KV-KISHANGANJ(PG)-DALKHOLA (PG)-2	22-02-2025	Bus Isolator & Bus Conductor Replacement
400KV-KOLAGHAT-KHARAGPUR-2	17-03-2025	Line tripping
400KV-MEDINIPUR-KHARAGPUR-1 &2	17-03-2025	Line tripping
132KV TRANSFER BUS COUPLER BAY AT GANGTOK	20-03-2025	For conversion of existing TBC bay into upcoming ICT-3 feeder Bay.
400KV/220KV 315 MVA ICT 1 AT LATEHAR(JUSNL)	30-03-2025	REF protection operated
132KV-BIRPARA(PG)-BIRPARA(WB)-1	01-04-2025	FOR INTEGRATION OF 132KV CRP PANELS IN NEW SAS

Transmission licensees/ Utilities are requested to update expected restoration date & work progress regarding restoration regularly to ERLDC/ERPC on monthly basis by 5th of each month so that status of restoration can be reviewed in OCC. Utilities are also requested to update outage of any elements within their substation premises like isolator/breaker to ERLDC/ERPC regularly. (Reported as per Clause 5.2(e) of IEGC).

Deliberation in the meeting

Members noted.

4.3. Commissioning of new units and transmission elements in Eastern Grid in the month of March -2025.

NEW ELEMENTS COMMISSIONED DURING March, 2025							
उत्पादन इकाइयाँ / GENERATING UNITS							
. Sl. No.	स्थान Location / Pooling Station	मालिक/यूनिट का नाम OWNER/UNIT NAME	यूनिट संख्या /स्रोत Unit No/Source	संकलित क्षमता (मेगावाट) Capacity added (MW)	कुल/ स्थापित क्षमता (मेगावाट) Total /Installed Capa	दिनांक DATE	टिप्पणी Remarks क्र

					city (MW)		
1	बाढ़, बिहार Barh, Bihar	एनटीपीसी बरह - यूनिट 3 (स्टेज-1) NTPC BARH -UNIT 3(Stage-1)	3/Coal	660	1980	21.03.2025	Infirm generation, unit stabilization, and Pre-Trial Run activities are currently in progress.
2	चंदवा, झारखंड Chandwa, Jharkhand	एनटीपीसी उत्तर करनपुरा - यूनिट 3 NTPC NORTH KARANPURA - UNIT 3	3/Coal	660	1980	19.03.2025	Infirm generation, unit stabilization, and Pre-Trial Run activities are currently in progress.
3	पतरातू, झारखंड Patratu,Jharkhand	पीवीयूएनएल-1 PVUNL-1	1/Coal	800	800	11.03.2025	Maximum of 80 MW shall be injected by PVUNL through the Tenughat line, considering the full generation of Tenughat and N-1 reliability of the 220 kV Tenughat-Biharsharif line. This restriction shall remain in effect until the construction of the 400 kV PVUNL-Patratu D/C line is completed.
4	दिकचू, सिक्किम Dikchu, Sikkim	मेसर्स स्नेहा काइनेटिक पावर प्रोजेक्ट्स प्राइवेट लिमिटेड/ डिक्चू एच ई पी-2 M/s Sneha Kinetic Power Projects Pvt. Ltd/ DIKCHU HEP-2	2/water	48	96	05.03.2025	FTC of GT2 post restoration work after the October 2023 flash flood in Sikkim. Hence ,may not be consider as capacity addition

आई.सी.टी/जी.टी/एस.टी / ICTs/ GTs / STs

क्र. Sl. No.	**एजेंसी/मालिक Agency/ Owner**	**उप-केन्द्र SUB-STATION**	**आई सीटी संख्या ICT NO**	**वोल्टेज (केवी) Voltage Level (kV)**	**क्षमता (एमवीए) CAPACITY (MVA)**	**दिनांक DATE**	**टिप्पणी Remarks**
1	एसजेवीएन थर्मल प्राइवेट लिमिटेड SJVN Thermal Pvt Limited	बक्सर टीपीपी BUXAR TPP	ICT-1	400/220	500	15.03.2025	First time charged from 400 kV side only
2	एसजेवीएन थर्मल प्राइवेट लिमिटेड	बक्सर टीपीपी BUXAR TPP	ICT-2	400/220	500	21.03.2025	First time charged from 400 kV side only

	SJVN Thermal Pvt Limited						
3	बीएसपीटीसीएल BSPTCL	बख्तियारपुर(बिहार) BAKHTIYARPUR(BH)	ICT-1	400/220	500	06.03.2025	
4	बीएसपीटीसीएल BSPTCL	बख्तियारपुर(बिहार) BAKHTIYARPUR(BH)	ICT-2	400/220	500	06.03.2025	
5	पीवीयूएनएल PVUNL	पीवीयूएनएल PVUNL	GT-1	400/11	795	11.03.2025	
6	M/s Sneha Kinetic Power Projects Pvt. Ltd	DIKCHU HEP	GT-2	132/11	75	05.03.2025	FTC of GT2 post restoration work after the October 2023 flash flood in Sikkim. Hence ,may not be consider as capacity addition
प्रेषण लाइन / TRANSMISSION LINES							
क्र. Sl. No.	**एजेंसी/मालिक Agency/ Owner**	**लाइन का नाम LINE NAME**	**लंबाई (किमी) Length (KM)**	**कंडक्टर प्रकार Conductor Type**	**दिनांक DATE**	**टिप्पणी Remarks**	
NIL							
लिलो / प्रेषण लाइन की पुनर्व्यवस्था / LILO/RE-ARRANGEMENT OF TRANSMISSION LINES							
क्र. Sl. No.	**एजेंसी/मालिक Agency/ Owner**	**लाइन का नाम / लिलो पर Line Name/LILO at**	**लंबाई (किमी) Length (KM)**	**कंडक्टर प्रकार Conductor Type**	**दिनांक DATE**	**टिप्पणी Remarks**	
1	PGCIL	220 KV Dalkhola(PG)-Purnea(PG) D/C	41	Single Zebra	28.03.2025	The circuit configuration restored to its original state	
2	WBSETCL	220 KV Dalkhola (PG)-Dalkhola(WB) D/C	1	Single Zebra	27.03.2025	The circuit configuration restored to its original state	
3	PGCIL ODISHA PROJECT	400KV-ROURKELA-JHARSUGUDA-1	126	HTLS	29.03.2025	Reconductoring of Jharsuguda/Sundargarh (PG) – Rourkela (PG) 400kV 2xD/c Twin Moose line with Twin HTLS conductor (with ampacity of equivalent to single HTLS as 1228 A at nominal voltage) along with bay	

						upgradation at Rourkela S/S.
4	PGCIL ODISHA PROJECT	400KV-JHARSUGUDA-ROURKELA-3	126	HTLS	05.03.2025	Reconductoring of Jharsuguda/Sundargarh (PG) – Rourkela (PG) 400kV 2xD/c Twin Moose line with Twin HTLS conductor (with ampacity of equivalent to single HTLS as 1228 A at nominal voltage) along with bay upgradation at Rourkela S/S.
5	PGCIL	132KV-RANGPO-GANGTOK-2	26	HTLS	05.03.2025	Reconductoring of 132 KV Rangpo-Gangtok-II (Conductor Type-Gapped Type HTLS, 26 KM) along with upgraded line Bay (Bay No-104)
बस/लाइन रिएक्टर / BUS/LINE REACTOR						
क्र. Sl. No.	**एजेंसी/मालिक Agency/ Owner**	**एलेमेंट का नाम Element Name**	**उप-केन्द्र SUB-STATION**	**वोल्टेज (केवी) Voltage Level (kV)**	**दिनांक DATE**	**टिप्पणी Remarks**
1	BGCL	125MVAR 400KV B/R-1 AT JAKKANPUR(BH)	JAKKANPUR(BH)	400	20.03.2025	
2	BGCL	125MVAR 400KV B/R-2 AT JAKKANPUR(BH)	JAKKANPUR(BH)	400	20.03.2025	
बस / BUS						
क्र. Sl. No.	**एजेंसी/मालिक Agency/ Owner**	**एलेमेंट का नाम Element Name**	**उप-केन्द्र SUB-STATION**	**वोल्टेज (केवी) Voltage Level (kV)**	**दिनांक DATE**	**टिप्पणी Remarks**
1	M/s Sneha Kinetic Power Projects Pvt. Ltd	DIKCHU - 132KV - Bus 2	DIKCHU	132	03.03.2025	
एच.वी.डी.सी/ए.सी फिल्टर बैंक/फैक्ट्स डिवाइस संबद्ध प्रणाली / HVDC /AC Filter bank / FACTS DEVICE associated System						
क्र. Sl. No.	**एजेंसी/मालिक Agency/ Owner**	**एलेमेंट का नाम Element Name**	**उप-केन्द्र SUB-STATION**	**वोल्टेज (केवी) Voltage**	**दिनांक DATE**	**टिप्पणी Remarks**

				Level (kV)		
NIL						
बे / BAYS						
क्र. Sl. No.	**एजेंसी/मालिक Agency/ Owner**	**एलेमेंट का नाम Element Name**	**उप-केन्द्र SUB-STATION**	**वोल्टेज (केवी) Voltage Level (kV)**	**दिनांक DATE**	**टिप्पणी Remarks**
1	बी.एस.पी.टी.सी.एल. BSPTCL	400KV MAIN BAY OF 500 MVA ICT 1 AT BAKHTIYARPUR(BH)	बख्तियारपुर (बी.एच.) BAKHTIYARPUR (BH)	400	06.03.2025	
2	बी.एस.पी.टी.सी.एल.	400KV MAIN BAY OF 500 MVA ICT 2 AT BAKHTIYARPUR(BH)	बख्तियारपुर (बी.एच.) BAKHTIYARPUR (BH)	400	06.03.2025	
3	बी.एस.पी.टी.सी.एल.	220KV MAIN BAY OF 500 MVA ICT 1 AT BAKHTIYARPUR(BH)	बख्तियारपुर (बी.एच.) BAKHTIYARPUR (BH)	220	10.03.2025	
4	बी.एस.पी.टी.सी.एल.	220KV MAIN BAY OF 500 MVA ICT 2 AT BAKHTIYARPUR(BH)	बख्तियारपुर (बी.एच.) BAKHTIYARPUR (BH)	220	10.03.2025	
5	बी.एस.पी.टी.सी.एल.	400KV TIE BAY OF (PATNA-2 AND ICT-2) AT BAKHTIYARPUR(BH)	बख्तियारपुर (बी.एच.) BAKHTIYARPUR (BH)	400	06.03.2025	
6	बी.एस.पी.टी.सी.एल.	400KV TIE BAY OF (PATNA-1 AND ICT-1) AT BAKHTIYARPUR(BH)	बख्तियारपुर (बी.एच.) BAKHTIYARPUR (BH)	400	06.03.2025	
7	बी.एस.पी.टी.सी.एल.	400KV MAIN BAY OF 125MVAR B/R-2 AT BAKHTIYARPUR(BH)	बख्तियारपुर (बी.एच.)	400	01-02-2025	
8	बी.एस.पी.टी.सी.एल.	400KV MAIN BUS - 2 AT BAKHTIYARPUR(BH)	बख्तियारपुर (बी.एच.)	400	01-02-2025	
9	एसजेवीएन थर्मल प्राइवेट लिमिटेड SJVN Thermal	400KV MAIN BAY OF 500 MVA ICT 1 AT BUXAR TPP	बक्सर टीपीपी BUXAR TPP	400	15.03.2025	

	Pvt Limited					
10	एसजेवीएन थर्मल प्राइवेट लिमिटेड SJVN Thermal Pvt Limited	220KV MAIN BAY OF 500 MVA ICT 1 AT BUXAR TPP	बक्सर टीपीपी BUXAR TPP	220	17.03.2025	
11	एसजेवीएन थर्मल प्राइवेट लिमिटेड SJVN Thermal Pvt Limited	400KV MAIN BAY OF 500 MVA ICT 2 AT BUXAR TPP	बक्सर टीपीपी BUXAR TPP	400	21.03.2025	
12	एसजेवीएन थर्मल प्राइवेट लिमिटेड SJVN Thermal Pvt Limited	220KV MAIN BAY OF 500 MVA ICT 2 AT BUXAR TPP	बक्सर टीपीपी BUXAR TPP	220	19.03.2025	
13	BGCL	400KV MAIN BAY OF 125MVAR B/R-2 AT JAKKANPUR(BH)	JAKKANPUR(BH)	400	20.03.2025	
14	BGCL	400KV TIE BAY OF (125MVAR B/R-1 AND 125MVAR B/R-2) AT JAKKANPUR(BH)	JAKKANPUR(BH)	400	20.03.2025	
15	BGCL	400KV MAIN BAY OF 125MVAR B/R-1 AT JAKKANPUR(BH)	JAKKANPUR(BH)	400	20.03.2025	
16	PGCIL	400KV TIE BAY OF (CHAIBASA(PG)-I AND JHARSUGUDA-I) AT ROURKELA	ROURKELA	400	29.03.2025	
17	PGCIL	400KV MAIN BAY OF CHAIBASA(PG)-I AT ROURKELA	ROURKELA	400	29.03.2025	
18	एसजेवीएन थर्मल प्राइवेट लिमिटेड SJVN Thermal Pvt Limited	132KV MAIN BAY OF GT-2 AT DIKCHU	DIKCHU	132	05.03.2025	FTC of GT2 post restoration work after the October 2023 flash flood in Sikkim. Hence ,may not be consider as capacity addition
19	एसजेवीएन थर्मल प्राइवेट लिमिटेड	132KV MAIN BAY OF SAT AT DIKCHU	DIKCHU	132	03.03.2025	FTC of GT2 post restoration work after the October 2023 flash flood in Sikkim. Hence ,may not be

	SJVN Thermal Pvt Limited					consider as capacity addition
20	एसजेवीएन थर्मल प्राइवेट लिमिटेड SJVN Thermal Pvt Limited	132KV BUS COUPLER BAY AT DIKCHU	DIKCHU	132	03.03.2025	FTC of GT2 post restoration work after the October 2023 flash flood in Sikkim. Hence ,may not be consider as capacity addition

Members may note.

Deliberation in the meeting
Members noted.

4.4. UFR operation during the month of March 2025

Frequency profile for the month as follows:

MONTH	MAX (DATE/TIME)	MIN (DATE/TIME)	% LESS IEGC BAND	% WITHIN IEGC BAND	% MORE IEGC BAND
March, 2025	50.46 Hz on 05-03-2025 at 13:11 Hrs	49.62 Hz on 30-03-2025 at 00:08 Hrs	5.32	77.90	16.78

Hence, no report of operation of UFR has been received from any of the constituents.

Members may note.

Deliberation in the meeting
Members noted.

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Annex-A

List of Participants			
Name	**First Join**	**Last Leave**	**In-Meeting Duration**
ERPC Kolkata	4/22/25, 10:14:56 AM	4/22/25, 2:22:14 PM	4h 7m 17s
Sangram Keshari Bhoi {संग्राम केशरी भोई} (External)	4/22/25, 10:15:21 AM	4/22/25, 10:27:00 AM	11m 39s
Birendra kumar ttps (Unverified)	4/22/25, 10:15:21 AM	4/22/25, 2:22:14 PM	4h 2m 21s
SLDC,ODISHA (Unverified)	4/22/25, 10:15:22 AM	4/22/25, 2:22:14 PM	4h 6m 51s
CPD, WBSETCL (Unverified)	4/22/25, 10:18:12 AM	4/22/25, 2:22:14 PM	4h 4m 1s
JS (Unverified)	4/22/25, 10:18:13 AM	4/22/25, 2:22:09 PM	4h 3m 56s
Teesta-V PS (Unverified)	4/22/25, 10:18:56 AM	4/22/25, 10:25:52 AM	6m 55s
Santosh Kumar Panda,SLDC,DVC (Unverified)	4/22/25, 10:21:06 AM	4/22/25, 2:22:14 PM	4h 1m 7s
WBPDCL (Unverified)	4/22/25, 10:23:00 AM	4/22/25, 2:12:13 PM	3h 49m 12s
Boda Bhoja {भोज बोडा} (External)	4/22/25, 10:23:04 AM	4/22/25, 12:36:24 PM	2h 13m 19s
Rahul Anand (External)	4/22/25, 10:23:24 AM	4/22/25, 2:12:18 PM	3h 48m 54s
CE SLDC WB (Unverified)	4/22/25, 10:23:25 AM	4/22/25, 2:22:14 PM	3h 58m 48s
VENKATA VEERANJANEYULU ALAPATI (External)	4/22/25, 10:25:56 AM	4/22/25, 2:22:14 PM	3h 56m 17s
SMS Sahoo, DGM(Elect), OPTCL (Unverified)	4/22/25, 10:26:14 AM	4/22/25, 10:33:10 AM	6m 55s
Prabhakar CPRI (Unverified)	4/22/25, 10:27:28 AM	4/22/25, 11:11:53 AM	44m 24s
sldc Bihar (Unverified)	4/22/25, 10:27:29 AM	4/22/25, 1:16:15 PM	2h 48m 45s
Teesta-V PS (Unverified)	4/22/25, 10:27:30 AM	4/22/25, 2:03:32 PM	3h 36m 2s
MS ERPC (Unverified)	4/22/25, 10:30:27 AM	4/22/25, 11:34:51 AM	1h 4m 24s
Raut Pravin (External)	4/22/25, 10:30:27 AM	4/22/25, 2:22:14 PM	3h 50m 30s
Santanu Rudrapal {सान्तनू रूद्रपाल} (External)	4/22/25, 10:30:27 AM	4/22/25, 12:57:58 PM	2h 27m 30s
AVINASH SHUKLA (External)	4/22/25, 10:30:27 AM	4/22/25, 2:16:33 PM	2h 57m 37s
Sajan George (External)	4/22/25, 10:30:27 AM	4/22/25, 1:39:22 PM	3h 6m 35s
Rishav Kumar (External)	4/22/25, 10:30:27 AM	4/22/25, 10:32:43 AM	2m 15s
Manas Das (External)	4/22/25, 10:30:27 AM	4/22/25, 2:22:09 PM	3h 51m 41s
Akash Kumar Modi (External)	4/22/25, 10:30:28 AM	4/22/25, 2:22:14 PM	3h 51m 46s
Kaushal Suman {कोशल सुमन} (External)	4/22/25, 10:30:28 AM	4/22/25, 12:57:43 PM	2h 27m 14s
Manoj Taunk	4/22/25, 10:30:28 AM	4/22/25, 2:22:14 PM	3h 51m 45s
Pranav Rathore (External)	4/22/25, 10:30:28 AM	4/22/25, 2:22:14 PM	3h 51m 45s
Rajib Sutradhar (External)	4/22/25, 10:30:28 AM	4/22/25, 12:50:17 PM	2h 15m 20s
Kritika Debnath (External)	4/22/25, 10:30:28 AM	4/22/25, 2:22:13 PM	3h 51m 45s
Rakesh Kr Pradhan (External)	4/22/25, 10:30:28 AM	4/22/25, 1:15:41 PM	2h 45m 13s

List of Participants			
Name	**First Join**	**Last Leave**	**In-Meeting Duration**
Debarshi De (External)	4/22/25, 10:30:28 AM	4/22/25, 2:22:13 PM	3h 51m 45s
Priti Kumari (Unverified)	4/22/25, 10:30:29 AM	4/22/25, 2:22:14 PM	3h 51m 45s
Dr J Sreedevi (Unverified)	4/22/25, 10:30:58 AM	4/22/25, 11:11:51 AM	40m 53s
Prasant Kumar Senapathy (External)	4/22/25, 10:31:02 AM	4/22/25, 12:21:25 PM	1h 50m 23s
Bilash Achari (External)	4/22/25, 10:31:41 AM	4/22/25, 2:22:14 PM	3h 50m 32s
sgm (cp) (Unverified)	4/22/25, 10:32:23 AM	4/22/25, 11:51:33 AM	1h 19m 10s
Chandan Mallick (External)	4/22/25, 10:32:47 AM	4/22/25, 2:22:14 PM	3h 49m 26s
SMS SAHOO, DGM(ELECT), OPTCL, BHUBANESWAR (Guest) (Unveri	4/22/25, 10:33:00 AM	4/22/25, 12:42:03 PM	2h 9m 3s
S C De(MO, SCADA, TS, Communication) group ERLDC (Unverified)	4/22/25, 10:33:15 AM	4/22/25, 2:22:14 PM	3h 48m 58s
ERLDC SCADA (Unverified)	4/22/25, 10:33:23 AM	4/22/25, 2:22:14 PM	3h 48m 50s
VED PRAKASH, CPRI (Unverified)	4/22/25, 10:34:02 AM	4/22/25, 11:14:56 AM	40m 53s
Sourav Mandal (External)	4/22/25, 10:34:37 AM	4/22/25, 2:12:21 PM	3h 37m 44s
Lade Muralikrishna (External)	4/22/25, 10:34:48 AM	4/22/25, 2:22:14 PM	3h 45m 23s
RAJU KACHHAP (Unverified)	4/22/25, 10:34:55 AM	4/22/25, 12:35:12 PM	2h 17s
Ranajit Pal (External)	4/22/25, 10:35:01 AM	4/22/25, 2:12:59 PM	3h 37m 58s
p k de erpc (Unverified)	4/22/25, 10:35:47 AM	4/22/25, 2:22:12 PM	3h 46m 24s
Bibek_ERLDC (Unverified)	4/22/25, 10:35:47 AM	4/22/25, 2:11:58 PM	3h 36m 10s
Partha Ghosh {पार्थ घोष} (External)	4/22/25, 10:36:23 AM	4/22/25, 2:22:12 PM	3h 45m 48s
Shabari Pramanick (External)	4/22/25, 10:36:34 AM	4/22/25, 2:22:14 PM	3h 45m 39s
Priti Kumari (Unverified)	4/22/25, 10:36:49 AM	4/22/25, 2:22:14 PM	3h 45m 24s
Saibal Ghosh (External)	4/22/25, 10:37:17 AM	4/22/25, 2:22:10 PM	3h 44m 52s
Pratul Gupta (External)	4/22/25, 10:37:37 AM	4/22/25, 2:19:34 PM	3h 41m 56s
STPL, Buxar (Unverified)	4/22/25, 10:37:38 AM	4/22/25, 2:22:14 PM	3h 44m 35s
Gautam Ranjan (External)	4/22/25, 10:38:17 AM	4/22/25, 2:14:46 PM	3h 21m 26s
I K MEHRA Director ERPC (Unverified)	4/22/25, 10:38:46 AM	4/22/25, 2:22:11 PM	3h 43m 24s
bpc (Unverified)	4/22/25, 10:38:48 AM	4/22/25, 1:53:26 PM	3h 14m 37s
Gitesh Patel (External)	4/22/25, 10:38:50 AM	4/22/25, 1:24:02 PM	2h 45m 12s
Alok Pratap Singh (External)	4/22/25, 10:39:18 AM	4/22/25, 2:22:14 PM	3h 42m 55s
Ashish Kumar (External)	4/22/25, 10:39:18 AM	4/22/25, 2:22:14 PM	3h 42m 55s
Meena, CPRI (Unverified)	4/22/25, 10:39:50 AM	4/22/25, 11:12:07 AM	32m 16s
Rahul Anand (Unverified)	4/22/25, 10:39:50 AM	4/22/25, 2:12:12 PM	3h 32m 21s
SANJAY KUMAR SHARMA (External)	4/22/25, 10:39:58 AM	4/22/25, 2:22:12 PM	3h 42m 13s

List of Participants			
Name	**First Join**	**Last Leave**	**In-Meeting Duration**
Pinki Debnath (External)	4/22/25, 10:41:02 AM	4/22/25, 2:11:55 PM	3h 30m 53s
Pratham Kumar	4/22/25, 10:43:00 AM	4/22/25, 10:53:10 AM	10m 9s
Jyoti Krishna, AEE, ERPC (Unverified)	4/22/25, 10:43:45 AM	4/22/25, 2:22:14 PM	3h 38m 28s
Shouvik Banerjee	4/22/25, 10:44:28 AM	4/22/25, 2:22:14 PM	3h 37m 46s
EEE SLDC (Unverified)	4/22/25, 10:44:48 AM	4/22/25, 12:22:16 PM	1h 32m 32s
Nishant Kumar Shankwar	4/22/25, 10:45:13 AM	4/22/25, 2:22:14 PM	3h 26m 35s
Rahul Srivastava	4/22/25, 10:46:28 AM	4/22/25, 2:22:14 PM	3h 35m 45s
Prasanna Kumar Sahoo (External)	4/22/25, 10:46:39 AM	4/22/25, 2:16:25 PM	3h 14m 5s
ad (Unverified)	4/22/25, 10:47:57 AM	4/22/25, 1:43:38 PM	2h 55m 40s
Abhilash Gour (External)	4/22/25, 10:48:58 AM	4/22/25, 2:22:13 PM	3h 33m 15s
Ankit Jain (External)	4/22/25, 10:52:45 AM	4/22/25, 10:56:38 AM	3m 53s
pavan kumar (Unverified)	4/22/25, 10:52:47 AM	4/22/25, 12:57:09 PM	2h 1m 22s
Pratham Kumar ERPC (Unverified)	4/22/25, 10:53:04 AM	4/22/25, 2:22:14 PM	3h 16m 48s
RITISHA GARGI (External)	4/22/25, 10:53:31 AM	4/22/25, 2:22:14 PM	3h 2m 41s
sldc ranchi (Unverified)	4/22/25, 10:54:16 AM	4/22/25, 2:22:14 PM	3h 27m 57s
Saswati Sarkar {सास्वती कुंडू} (External)	4/22/25, 10:54:30 AM	4/22/25, 2:22:14 PM	3h 27m 44s
sldc (Unverified)	4/22/25, 10:56:04 AM	4/22/25, 12:40:09 PM	1h 44m 5s
M K Kirtania {एम.के. किरटानिया} (External)	4/22/25, 10:57:01 AM	4/22/25, 2:22:14 PM	3h 25m 13s
CE Communication WBSETCL (Unverified)	4/22/25, 10:57:28 AM	4/22/25, 11:03:15 AM	5m 46s
SUMEET NARANG (External)	4/22/25, 10:58:21 AM	4/22/25, 2:22:14 PM	3h 23m 52s
Anurag Gupta (External)	4/22/25, 10:58:31 AM	4/22/25, 2:22:14 PM	3h 23m 42s
Arvind Kumar (Unverified)	4/22/25, 10:59:45 AM	4/22/25, 11:02:34 AM	2m 49s
RD WBSETCL (Unverified)	4/22/25, 11:02:40 AM	4/22/25, 2:22:14 PM	3h 19m 33s
CE, COMMUNICATION, WBSETCL (Unverified)	4/22/25, 11:03:57 AM	4/22/25, 2:22:14 PM	3h 18m 16s
Atanu Mandal (External)	4/22/25, 11:09:55 AM	4/22/25, 2:22:14 PM	3h 12m 18s
Gaurav Awal {गौरव आवल} (External)	4/22/25, 11:11:06 AM	4/22/25, 12:57:13 PM	1h 46m 6s
Premkant Kumar Singh (External)	4/22/25, 11:13:13 AM	4/22/25, 1:23:54 PM	2h 10m 41s
Anjan Kumar Das {अंजन कुमार दास} (External)	4/22/25, 11:15:57 AM	4/22/25, 11:36:49 AM	20m 51s
Priya bakhla	4/22/25, 11:16:14 AM	4/22/25, 12:59:40 PM	1h 41s
Hansraj Prasad {हंसराज प्रसाद} (External)	4/22/25, 11:16:44 AM	4/22/25, 2:22:14 PM	3h 5m 29s
Saurabh Vijay Agarwal (External)	4/22/25, 11:17:17 AM	4/22/25, 2:22:14 PM	3h 4m 56s
Sunit Kumar Singh {सुनीत कुमार सिंह} (External)	4/22/25, 11:18:21 AM	4/22/25, 12:08:26 PM	50m 5s

List of Participants			
Name	**First Join**	**Last Leave**	**In-Meeting Duration**
Pritam Mukherjee (External)	4/22/25, 11:24:26 AM	4/22/25, 2:22:14 PM	2h 57m 48s
Sudeep Kumar {सुदीप कुमार} (External)	4/22/25, 11:26:18 AM	4/22/25, 2:22:14 PM	2h 55m 55s
MS ERPC (Unverified)	4/22/25, 11:35:46 AM	4/22/25, 2:22:14 PM	2h 46m 27s
Raghunath P V (External)	4/22/25, 11:36:21 AM	4/22/25, 12:55:58 PM	1h 19m 37s
ROSHAN JAISWAL (Unverified)	4/22/25, 11:38:09 AM	4/22/25, 12:56:53 PM	1h 18m 44s
Shukla Brajesh (External)	4/22/25, 11:56:10 AM	4/22/25, 2:22:14 PM	2h 26m 3s
SAMIM MONDAL (Unverified)	4/22/25, 12:01:58 PM	4/22/25, 2:22:11 PM	2h 20m 12s
Prabhakar kishore	4/22/25, 12:05:46 PM	4/22/25, 1:47:15 PM	1h 25m 47s
STPL, COMMISSIONING (Unverified)	4/22/25, 12:09:13 PM	4/22/25, 12:17:47 PM	8m 34s
Naveen Kumar {नवीन कुमार} (External)	4/22/25, 12:13:15 PM	4/22/25, 2:22:14 PM	2h 8m 58s
Subrat Swain (External)	4/22/25, 12:18:50 PM	4/22/25, 2:22:14 PM	2h 3m 23s
Priya JUSNL	4/22/25, 12:19:20 PM	4/22/25, 2:22:14 PM	2h 2m 53s
Nanda,BPC (Unverified)	4/22/25, 12:25:43 PM	4/22/25, 2:22:14 PM	1h 56m 30s
Diptikanta Panda (External)	4/22/25, 12:40:01 PM	4/22/25, 2:22:14 PM	1h 42m 12s
SMS Sahoo, DGM(Elect), OPTCL (Unverified)	4/22/25, 12:40:07 PM	4/22/25, 2:22:14 PM	1h 42m 6s
Deepak Singh CHEP (Unverified)	4/22/25, 12:44:10 PM	4/22/25, 2:22:14 PM	1h 38m 3s
Nutan Mishra {नूतन मिश्रा} (External)	4/22/25, 12:46:41 PM	4/22/25, 1:02:30 PM	15m 48s
Shiv Kumar Gupta {एस.के. गुप्ता} (External)	4/22/25, 12:48:28 PM	4/22/25, 1:33:17 PM	44m 48s
SLDC (Unverified)	4/22/25, 12:52:51 PM	4/22/25, 2:22:14 PM	1h 29m 22s
UTTAM KUMAR (External)	4/22/25, 1:01:35 PM	4/22/25, 2:16:33 PM	1h 14m 57s
Ranjan Kumar {रंजन कुमार} (External)	4/22/25, 1:04:34 PM	4/22/25, 1:32:57 PM	28m 23s
Sumit (Unverified)	4/22/25, 1:17:16 PM	4/22/25, 2:22:14 PM	1h 4m 57s
Rakesh Pradhan	4/22/25, 1:24:18 PM	4/22/25, 2:18:37 PM	54m 18s
s k gupta (Unverified)	4/22/25, 1:25:00 PM	4/22/25, 2:22:09 PM	57m 9s
Pankaj (External)	4/22/25, 1:46:12 PM	4/22/25, 1:58:01 PM	11m 48s
SASWAT RANJAN (Unverified)	4/22/25, 1:46:48 PM	4/22/25, 2:07:37 PM	20m 49s
Jitendra Kumar HOP Teesra V (Unverified)	4/22/25, 2:03:48 PM	4/22/25, 2:04:55 PM	1m 6s
GAGAN KUMAR	4/22/25, 2:21:38 PM	4/22/25, 2:22:14 PM	35s
Debanjan Sarkar {देबनजान सरकार} (External)		4/22/25, 12:14:57 PM	1h 43m

Annexure D.1

Updated Anticipated Peak Demand (in MW) of ER & its constituents for May 2025

S.NO:	STATES	Demand (MW)	Energy Requirement (MU)
1	**BIHAR**		
	NET MAX DEMAND	7607	5660
	NET POWER AVAILABILITY- Own Sources	391	291
	Central Sector+Bi-Lateral	5475	4073
	SURPLUS(+)/DEFICIT(-)	-1741	-1295
2	**JHARKHAND**		
	NET MAXIMUM DEMAND	2280	1696
	NET POWER AVAILABILITY- Own Source	165	123
	Central Sector+Bi-Lateral+IPP	2222	1653
	SURPLUS(+)/DEFICIT(-)	107	80
3	**DVC**		
	NET MAXIMUM DEMAND	3300	2455
	NET POWER AVAILABILITY- Own Source	5800	4315
	Central Sector+MPL	300	223
	Bi- lateral export by DVC	2500	1860
	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	300	223
4	**ODISHA**		
	NET MAXIMUM DEMAND (OWN)	5800	3720
	NET MAXIMUM DEMAND (In Case of CPP Drawal of 900 MW(peak) and average drawl of 700 MW)	6700	4241
	NET POWER AVAILABILITY- Own Source	3496	2620
	Central Sector	2349	1110
	SURPLUS(+)/DEFICIT(-) (OWN)	45	10
	SURPLUS(+)/DEFICIT(-) (I(In Case of CPP Drawal of 900 MW(peak) and average drawlm of 700 MW)	-855	-511
5	**WEST BENGAL**		
	WBSEDCL		
5.1	NET MAXIMUM DEMAND	10700	7961
	NET MAXIMUM DEMAND (Incl. Sikkim)	10705	7965
	NET POWER AVAILABILITY- Own Source (Incl. DPL)	5673	4221
	Central Sector+Bi-lateral+IPP&CPP+TLDP	2357	1753
	EXPORT (To SIKKIM)	5	4
	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	-2675	-1990
5.2	**CESC**		
	NET MAXIMUM DEMAND	2750	2046
	NET POWER AVAILABILITY- Own Source	830	618
	IMPORT FROM HEL	540	402
	TOTAL AVAILABILITY OF CESC	1370	1019
	SURPLUS(+)/DEFICIT(-)	-1380	-1027
	WEST BENGAL (WBSEDCL+CESC+IPCL)		
	(excluding DVC's supply to WBSEDCL's command area)		
	NET MAXIMUM DEMAND	13450	10007
	NET POWER AVAILABILITY- Own Source	6503	3928
	CS SHARE+BILATERAL+IPP/CPP+TLDP+HEL	2892	1708
	SURPLUS(+)/DEFICIT(-) BEFORE WBSEDCL'S EXPORT	-4050	-2588
	SURPLUS(+)/DEFICIT(-) AFTER WBSEDCL'S EXPORT	-4055	-1316
6	**SIKKIM**		
	NET MAXIMUM DEMAND	112	50
	NET POWER AVAILABILITY- Own Source	87	121
	Central Sector	91	54
	SURPLUS(+)/DEFICIT(-)	66	124
	EASTERN REGION		
	NET MAXIMUM DEMAND	32549	23588
	NET MAXIMUM DEMAND ((In Case of CPP Drawal of 800 MW(peak) and average drawl of 700 MW)	33449	24109
	BILATERAL EXPORT BY DVC (Incl. Bangladesh)	2498	1858
	EXPORT BY WBSEDCL TO SIKKIM	5	4
	EXPORT TO B'DESH & NEPAL OTHER THAN DVC	642	478
	NET TOTAL POWER AVAILABILITY OF ER	26792	16894
	(INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL)		
	SURPLUS(+)/DEFICIT(-)	-8902	-9035
	SURPLUS(+)/DEFICIT(-) (In Case of CPP Drawal for Odisha)	-9802	-9555