



Eastern Regional Power Committee

14, गोल्फ क्लब रोड, टालीगंज, कोलकाता-700033 14 Golf Club Road, Tollygunj, Kolkata-700033

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ਚੋਂ /NO. ERPC/EE/OPERATION/2024/

दिनांक/DATE: 30.07.2024

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

विषय : 24.07.2024 (बुधवार) को ईआरपीसी सचिवालय, कोलकाता में भौतिक रूप से आयोजित 217वीं OCC बैठक का कार्यवृत्त - संबंध में।

<u>Sub</u>: Minutes of 217th OCC Meeting held on 24.07.2024 (Wednesday) physically at ERPC Secretariat, Kolkata - reg.

महोदय/महोदया, Sir(s)/Madam,

कृपया अपनी जानकारी और आवश्यक कार्रवाई के लिए **24.07.2024(बुधवार)** को **ईआरपीसी** सचिवालय, कोलकाता में 10:30 बजे भौतिक रूप से आयोजित <u>217वीं ओसीसी बैठक</u> के संलग्न कार्यवृत्त</u> देखें। यह ईआरपीसी वेबसाइट (www.erpc.gov.in) पर भी उपलब्ध है।

Please find enclosed <u>Minutes of 217th OCC Meeting</u> held on **24.07.2024 (Wednesday)** <u>physically at ERPC Secretariat, Kolkata</u> 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,

(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)
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- **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)
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- 20. EXECUTIVE DIRECTOR, ERLDC, POSOCO, KOLKATA, (FAX NO. 033-2423-5809)
- **21.** GENERAL MANAGER, FSTPP, NTPC, FARAKKA, (FAX NO. 03512-224214/226085/226124)
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- 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.** MANAGING DIRECTOR, DRUK GREEN POWER CORPORATION, P.O. BOX -1351, THIMPU, BHUTAN —(FAX NO 00975- 2336411)
- **28.** MANAGING DIRECTOR, BHUTAN POWER CORPORATION, P.O.BOX-580, THIMPU, BHUTAN (FAX NO. 00975-2333578)
- 29. CHIEF ENGINEER (O&M), TALA H.E.PROJECT, BHUTAN (FAX NO. 009752/324803)
- 30. EXECUTIVE DIRECTOR (O&M), NHPC, FARIDABAD (FAX No.:0129-2272413)

- **31.** GENERAL MANAGER, TEESTA –V POWER STATION, NHPC, SINGTAM, EAST SIKKIM (FAX 03592 247377)
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- **38.** CHIEF ELECTRICAL ENGINEER, SOUTH EASTERN RAILWAY, KOLKATA-43 (FAX: 033-24391566)
- **39.** DEPUTY DIRECTOR, EASTERN RPSO, SALT LAKE, KOLKATA- (FAX NO:033-23217075)
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- 44. SHRI BRAJESH KUMAR PANDE, PLANT HEAD, JITPL. (FAX:011-26139256-65)
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- **46.** VP (OS), HALDIA ENERGY LIMITED, BARIK BHAWAN, KOKATA-700072, FAX: 033-22360955
- 47. GENERAL MANAGER(O&M),BRBCL,NABINAGAR,BIHAR-824003,FAX-06332-233026

CC:

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

ERPC:: Kolkata

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 स्कायर, 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-॥, कोलकाता (फैक्स नंबर: 033-23572827)
- 25. महाप्रबंधक, पावरग्रिड, ईआर-।, पटना, (फैक्स नं.0612-2531192)
- 26. महाप्रबंधक (ओ एंड एम), पावरग्रिड, ओडिशा प्रोजेक्ट्स, साहिद नगर, भुवनेश्वर 751 007
- 27. प्रबंध निदेशक, ड्रूक ग्रीन पावर कॉर्पोरेशन, पी.ओ. बॉक्स -1351, थिम्पस, भूटान (फैक्स नंबर 00975-2336411)
- 28. प्रबंध निदेशक, भूटान पावर कॉर्पोरेशन, पी.ओ.
- 29. मुख्य अभियंता (ओ एंड एम), ताला एच.ई.प्रोजेक्ट, भूटान (फैक्स नंबर 009752/324803)
- 30. कार्यकारी निदेशक (ओ एंड एम), एनएचपीसी, फरीदाबाद (फैक्स नंबर:0129-2272413)
- 31. महाप्रबंधक, तीस्ता-वी पावर स्टेशन, एनएचपीसी, सिंगतम, पूर्वी सिक्किम (फैक्स 03592 247377)।
- 32. मुख्य अभियंता, रंगीत पावर स्टेशन, एनएचपीसी, पी.ओ. रंगीत नगर, दक्षिण सिक्किम (फैक्स नंबर 03595-

- 33. वरिष्ठ उपाध्यक्ष, पीटीसी लिमिटेड, एनबीसीसी टावर्स, 15-भीकाजी काम प्लेस, नई दिल्ली-110066 (फैक्स नंबर 011-41659504)।
- 34. प्लांट हेड, आधुनिक पावर एवं नेचुरल रिसोर्सेज, झारखंड (फैक्स नं.: 0657-6628440)।
- 35. एजीएम (ऑपरेशंस), मैथन पावर लिमिटेड।
- 36. उपाध्यक्ष (विद्युत), वेदांता लिमिटेड, भुवनेश्वर- ७५१०२३ (फैक्स नंबर ०६७४-२३०२९२०)।
- 37. मुख्य विद्युत अभियंता, पूर्वी रेलवे, कोलकाता-700 001 (फैक्स नं.: 033-22300446)
- 38. मुख्य विद्युत अभियंता, दक्षिण पूर्व रेलवे, कोलकाता-43 (फैक्स: 033-24391566)।
- 39. उप निदेशक, पूर्वी आरपीएसओ, साल्ट लेक, कोलकाता- (फैक्स नं: 033- 23217075)
- 40. महाप्रबंधक (ओ एंड एम), एनएचपीसी लिमिटेड, फरीदाबाद, फैक्स: 0129-2272413
- 41. एसोसिएट वाइस प्रेसिडेंट, जीएमआर केईएल, भूवनेश्वर-751007। (फैक्स नंबर: 0674-2572794)
- 42. जीएम (एसओ एवं सीओएमएल), एनटीपीसी वीवीएनएल, नई दिल्ली-110033। फैक्स:011-24367021
- 43. श्री डी. पी. भागवा, मुख्य सलाहकार (ओ एंड एम), टेस्टा ऊर्जा लिमिटेड, नई दिल्ली-110 001 (फैक्स:011-46529744)।
- ४४. श्री ब्रजेश कुमार पांडे, प्लांट हेड, जीतपीएल। (फैक्स:011-26139256-65)
- 45. निदेशक (एनपीसी), सीईए, एनआरपीसी बिल्डिंग, कटवारिया सराय, नई दिल्ली-110016
- 46. उपाध्यक्ष (ओएस), हल्दिया एनर्जी लिमिटेड, बारीक भवन, कोकाता-700072, फैक्स: 033-22360955
- 47. महाप्रबंधक (ओ एंड एम), बीआरबीसीएल, नबीनगर, बिहार-824003, फैक्स-06332- 233026

सीसी:

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



MINUTES OF 217TH OCC MEETING

Date: 24.07.2024

Eastern Regional Power Committee

14, Golf Club Road, Tollygunge Kolkata: 700033

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EASTERN REGIONAL POWER COMMITTEE

MINUTES OF 217TH OCC MEETING HELD ON 24.07.2024 (WEDNESDAY) AT 10:30 HRS

Member Secretary, ERPC chaired the 217th OCC meeting. On welcoming all the participants, he outlined the performance of ER grid during June 2024 and highlighted the following points:

- ❖ In June-2024, energy consumption of ER was 19234.5 MU which is 7.7% more than June-2023.
- ❖ In June-2024, Peak demand met of ER was 32585 MW which is 9.8% more than June-2023.
- ❖ During June-2024, **79.2**% of time, the grid frequency was in IEGC Band (49.90Hz-50.05Hz).
- Thermal PLF of ER during June-2024 was 76 %.
- Generating stations whose PLF was more than 90% during June-2024 are listed below:

Generating Stations	PLF %
Sagardighi TPS	100
Santaldih TPS	96
Bandel TPS	95
	Sagardighi TPS Santaldih TPS

- All the above-mentioned Thermal generating units were lauded for maintaining PLF more than **90**%.
- **Coal stock position:**
- Coal stock position (As on 17.07.2024) is as follows:

SL NO	Name of states/Power	% of Actual Stock vis-à-vis Normative Stock
	Stations	
1	Jharkhand (TVNL)	60
2	Odisha/IBTPS	63
3	WBPDCL	58 (Min.Kolaghat TPS-28%, Max. Bandel TPS-77%)
4	DPL TPS	28
5	DVC	100 (Min. Mejia TPS-67% & Max Bokaro TPS `A` EXP- 184%)
6	NTPC	106 (Min Talcher STPS-48% & Max. Farakka STPS-178%)

- ❖ He advised all the generating units to maintain adequate Coal Stocks keeping in mind ongoing Monsoon period which may affect the coal excavation & it's transportation to the plants, thereby hindering optimum generation.
- ❖ He further mentioned about the revival of RTPS Unit#2 of DVC after five months of long shutdown.

- ❖ ED, ERLDC at the outset congratulated PowerGrid ER-II for successfully installing the 7th (Interim) 500 MVA ICT at 400 kV Subhasgram (PG).
- He also highlighted the following:
- Implementation of new SCADA and 5 min AMR systems in ER to aid in smooth real time operation.
- Successful integration of DVC generating units with AGC in coordination with NLDC.
- AGC integration of state sector generating units like Barauni TPS of Bihar.
- Implementation of SAMAST by WB SLDC & requested all the SLDCs to expedite the same.
- ➤ Need for Flexible operation of Thermal Generating stations i.e. at least 55% Technical minimum as per gazette notification dated 30.01.2023 issued by CEA with a ramp rate of 3% for 100-70% load & 2% for 70-55% load to accommodate the increased integration of RE power with the Grid.
- ❖ OCC suggested for including 55% Technical minimum of Thermal Generating stations as a follow-up Agenda in every OCC meeting for purpose of regular monitoring.

1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 216th OCC Meeting held on 21st July 2024 physically at ERPC Secretariat, Kolkata

The minutes of 216th Operation Coordination Sub-Committee meeting held on 21.06.2024 was circulated vide letter dated 07.07.2024.

Members may confirm the minutes of 216th OCC meeting.

Deliberation in the meeting:

❖ As per observation received from ERLDC vide mail dated 11.07.2024:

Deliberation at item no: **2.4** of 216th OCC MOM is modified as:

"The Representative of NTPC Talcher highlighted the generation curtailment of around **1000MW** thereby restricting the schedule to **1800 MW** in both Stage-I & Stage-II because of:"

- ❖ This modification shall form part and parcel of the 216th OCC MOM issued vide letter dated 07.07.2024 while rest of the recordings shall remain unaltered.
- Other OCC members confirmed the minutes of 216th Operation Coordination Sub-Committee meeting.

2. PART-B: ITEMS FOR DISCUSSION

2.1 Inviting proposal for periodic revision of the regional unallocated quota of central Sector Generating Stations for optimal utilization of power: ERPC

• The peak demand of the country has touched 250 GW during the solar hours on 30 May, 2024. It is noteworthy to mention that on June 03, 2024 while the country met a maximum demand of 236.38 GW during the solar hours, the peak demand of around 220 GW during non-solar hours was accompanied by a significant deficit of around 2.8 GW. This Shortage persists despite the installed capacity of the country being around 443 GW out of which the total thermal based capacity is only 243 GW and the capacity available on bar from this is around 195 GW.

- The State/ Union Territories meet their demand by scheduling power from Central Sector Generating Stations (CGS), State GENCOs and Independent Power Producers (IPPs). In addition to the film power, the State/ Union Territories are allocated power from the unallocated pool of Central Sector Generating Stations based on the request submitted by the respective entities and the assessment of RPCs for meeting the demand of the respective beneficiaries.
- It is to be mentioned that the Northern Region has the seasonal peculiarity of power requirement and availability. Broadly, there are two seasons which affect the power scenario in different States of Northern Region i.e. summer season (April to September) and winter season (October to March). Consequently, the allocation of power from the unallocated quota in the Northern Region is periodically reassessed based on projected power supply by NRPC for the upcoming seasons to optimize the power allocations from the pool of Central Sector Generating Stations.
- In light of the facts presented above, the following is suggested:
 - I. All the Regional Power Committees (except NRPC) shall evaluate the load profiles of the

States/ Union Territories within their respective regions.

- II. Based on the thorough assessment of the regional load profile, the high demand seasons and Low demand seasons of the State/ Union Territories can be assessed.
- III. RPCs are requested to explore the possible periodic allocation of the regional unallocated

Quota of CGSs to meet the power demand of the State/ Union Territories based on the anticipated requirement and the availability of power from various sources. Accordingly, the RPCs shall propose to CEA (GM Division) the allocation from unallocated pool for high and Low demand seasons.

 The aim is to optimize power distribution among States/Union Territories and ensure reasonable assistance to all the States/ UTs from the unallocated pool of Central Sector Generating Stations for meeting their power demand.

As per deliberation of the 216th OCC meeting:

OCC Decision:

OCC advised all states shall to share their peak & off-peak demand in their respective high demand seasons and Low demand seasons with ERPC. Accordingly, ERPC shall propose to CEA (GM Division) for power allocation from regional unallocated pool for high and Low demand seasons.

- Based on the analysis of Demand pattern (MW) as well as energy consumption (MU) of constituent ER states for last two fiscal years, following can be broadly inferred:
- 1. **MARCH-OCTOBER** are usually high demand months for ER states. Almost all states face high demand except Sikkim.
- 2. **NOVEMBER** and **JANUARY** experience Low to medium demand while **JANUARY** and **FEBRUARY** have generally medium demand.
- 3.**Sikkim** records high demand in **DECEMBER** to **MARCH** due to heating loads with corresponding low demand in Summer and Monsoon seasons.

4. Since **DVC** and **Jharkhand** witness almost flat demand profile, major energy consuming states of ER i.e **West Bengal**, **Bihar** and **Odisha** play pivotal role in deciding regional load pattern.

Members may update.

Deliberation in the meeting:

- ❖ A brief presentation was delivered by ERPC Secretariat highlighting peak & off-peak demand of ERPC Constituents in various Months taking into account of Demand Pattern (MW) as well as energy consumption (MU) of constituent ER states for last two fiscal years. (Annex-B.2.1)
- It is observed that:
- All ER states except Sikkim, usually face high power demand from March to October while demand is moderate in the months of January & February.
- Power demand of ER generally remains low in winter Months i.e. from November to January except Sikkim with high winter demand due to presence of heating loads.

OCC Decision:

- OCC advised all the states to share the respective demand profile considering demand met figs last two fiscal year as well as future growth in demand in next three financial years. The data has to be shared by end of July'2024 with ERPC Secretariat as per the Format shared with them via mail or else the inferences as above based on analysis of historical data by ERPC secretariat shall be shared with CEA.
- 2.2 Reduction in the capacity of proposed 500MVA ICT (to be installed in place of 3x105 MVA ICT at Jeypore S/S under ADD-CAP 2019-24 block) to 315 MVA ICT: POWERGRID ODISHA
- Replacement with upgradation of 400/220kV, 3x105 MVA BHEL make ICT-1 with 500MVA ICT under the JTTS ADD-CAP 2019-24 block was approved in the 45th ERPC meeting. Subsequently LOA have been issued to M/s Toshiba dtd. 17.03.2023 for manufacture and supply of the new ICT.
- M/s Toshiba has informed vide their mail dtd: 08/03/2024 that they carried out route survey of six different routes for transportation, but no feasible route has been identified by the transporter for the smooth transportation of 500MVA ICT to Jeypore S/S. However, they mentioned that transportation of 315 MVA ICT is partially feasible. Site. Copy of mail communication and route survey reports are attached herewith for reference (Annex B.2.2).
- Meanwhile, it is pertinent here to mention that another spare 315 MVA ICT is under transit from M/s Toshiba factory, Hyderabad to Rourkela S/S.
- In view of above difficulties in transportation and as the proposed ICT at Jeypore S/S is to be commissioned under ADD-CAP 2019-24 block, the only possibility is to install a 315 MVA ICT in place of earlier approved 500MVA ICT at Jeypore S/S. This can be done by interchanging the procured 500MVA ICT for Jeypore & 315 MVA ICT for Rourkela SS.
- Therefore, it is requested to accord approval for reduction of capacity of 500MVA ICT to 315MVA ICT at Jeypore S/S for commissioning under ADD-CAP 2019-24 block.

POWERGRID ODISHA may update. Members may discuss.

Deliberation in the meeting

- The Representative of Powergrid Odisha apprised the forum:
- Non-feasibility of transportation of 500MVA ICT which was supposed to be installed in place of 3*105MVA ICT at Jeypore S/S. Several constraints were highlighted in the detailed route survey carried out in six different routes.
- On the other hand, transportation of 315 MVA ICT was found feasible as per the route survey.
- ❖ Accordingly, 315 MVA ICT has been transported to Jeypore S/S. Now the ICT is ready for commissioning after completion of necessary foundation works by end of August 2024.

OCC Decision:

- OCC took serious view on transportation of the said 315 MVA ICT by PowerGrid Odisha without prior consent of OCC Forum & advised Powergrid to refrain from such practices in future.
 - ERLDC may issue FTC as and when requested by Powergrid Odisha.
- OCC referred the matter to TCC for information.
- 2.3 Difficulty in Transportation of Spare ICT at Rangpo SS and subsequent finalization of revised destination thereof: POWERGRID ER-II
- As per approval accorded in 44th ERPC meeting vide agenda point no B1.2, ERPC Board approved procurement of Spare 105 MVA 400/220/33 KV ICT (1-Ph) for Rangpo SS. Based Upon approval, POWERGRID carried out necessary procurement process and awarded the subject job to M/s Transformer & Rectifiers Ltd, Vadodara.
- As per scope of Contract M/s Transformer & Rectifiers Ltd. Has to manufacture and transport the said 105 MVA 1-Ph ICT to Rangpo SS. But due to present heavy downpour at Sikkim and North Bengal has cut off road communication between West Bengal & Sikkim (NH 10). Furthermore, onset of monsoon season has worsened the situation. The vehicular movement on NH-10 was impacted last month due to adverse weather events. As of now, the vehicle movement on the National Highway has been stopped for an indefinite period as restoration work is underway following the landslide triggered by incessant rain.
- In view of the worsening situation of road connectivity to Rangpo S/S, and subsequent uncertainty over reaching final destination (At Rangpo SS) manufacturer has not started final stage of manufacturing & assembly of the said transformer.
- Going by above it is very much evident that at present condition, subject Transformer cannot be transported to Rangpo SS. Moreover, if clearance not given at this instant, M/S. T&R will not take final assembling/manufacturing of the Transformer and it will be delayed inordinately. Accordingly, from POWERGRID side, to mature the contract and honor the decision taken in 44th ERPC meeting, it is proposed to accommodate the Transformer at Binaguri SS at this instant.
- In addition to this, it is always better to have the Transformer available near Siliguri area instead of Factory (At Vadodara/Gujrat). Hence to execute the contract duly, considering the road condition up to Rangpo SS, a revised destination is proposed as Binaguri SS of

- POWERGRID being nearer to Rangpo SS. Moreover, POWERGRID will ensure transportation of 105 MVA, 1-ph Transformer to Rangpo SS as soon as Road condition is favorable for transportation of said Transformer.
- Accordingly, after manufacturing process, M/s Transformer & Rectifiers Ltd will supply the Transformer to Binaguri SS.



NH 10 massive amount of rocks and slush rolled down the hill and blocked the highway at 29th mile area in neighbouring West Bengal, around 60 km from the Himalayan state's Rangpo border.



Stretch of NH10 that caved in at Swetijhora



20th Mile landslide



Landslides along NH 10



Melli Bazar Entrance



Landslides at Likhubhir

POWERGRID ER-II may update. Members may discuss.

Deliberation in the meeting

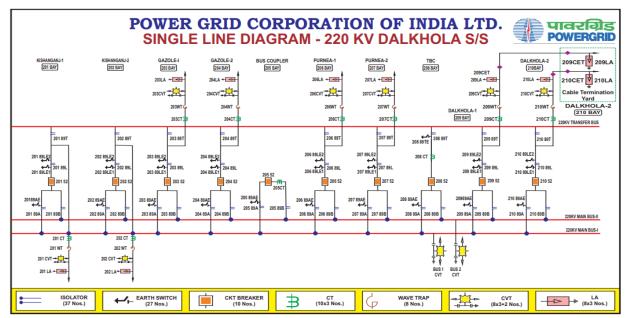
- ❖ Powergrid ER-II informed about the difficulty in transportation of 105 MVA Spare ICT(1-phase) to Rangpo S/S as the road connectivity between Sikkim and North Bengal (NH-10) has been cut off due to damage caused by heavy rain.
- ❖ Keeping in view of the prevailing conditions in Sikkim & consequent uncertainties over reaching of the ICT at Rangpo SS, it was requested to transport the ICT from Vadodara to 400 kV Binaguri S/S(PG) on interim basis.
- ❖ 400 kV Binaguri S/S being situated nearer to 400 kV Rangpo S/S, transportation of the ICT will be easier once the road connectivity between Sikkim & North Bengal (NH-10) is reestablished.

OCC decision:

Considering the connectivity between West Bengal & Sikkim being adversely affected by heavy rainfall, OCC consented to the proposal of PowerGrid ER-II i.r.o transportation of 1-ph 105MVA ICT to its 400 kV Binaguri S/S as an interim measure.

2.4 Requirement of Bus S/D at 220kV Dalkhola S/S: POWERGRID ER-II

 Presently, Dalkhola SS is under upgradation stage in ADDCAP project. Dalkhola S/S is having DMT scheme. Old isolators of all lines will be replaced under ongoing ADDCAP projects. Therefore, bus S/D as well as line S/D is required for replacement of bus & line isolators of each bay at Dalkhola S/S. SLD is attached for reference. Total 29 set of isolators will be replaced.



While CRP panels except 209/210 (i.e. 220 KV Dalkhola-Dalkhola-1/2 Bays) have already migrated to new SAS, Isolators replacement are balance for all bays. Earlier by taking single feeder S/D for 5-6 days (OCB), each bay migrated to new SAS. Further as results of change of LBB/96 relays for new CRP, existing Bus Bar system required to be integrated with only supplied CRPs with all possible combination and subsequent testing thereof.

- 220 KV Bus S/D for Isolator replacement/Bus Bar integration was asked since March-2024, however due to Assembly election and high loading of associated systems, the S/D was differed. Subject matter was also discussed in OCC outage meetings of corresponding months.
- Now, as per latest S/D meeting, it is finalized to provide Bus S/D 01 Day for taking Bus Bar protection in service.
- Going by details of work in hand for Dalkhola upgradation, following work details may be taken into consideration where Bus S/D are involved: -

Brief planning is shared below: -

SI.	Details of isolator	Requirement of S/D	Remarks
No	under replacement		
		S/D of Main Bus-I	For disconnection of jumper
1	89A of Kishanganj-I	_ODB	from Main Bus-I. Bay will be
	(Bay-201)	 Main Bay of 	transferred to TBC for jumper
		Kishanganj-I (Line	cutting from 89A terminal
		will be charged	towards CB side. After that Bus
		through TBC)	S/D will be returned & bay will
		_ODB	be charged through 89B only
			01 Day S/D.
		S/D of Main Bus-II	For disconnection of jumpers
2	89B of Kishanganj-I	_ODB	from Main Bus-II. Bay will be
	(Bay-201)	 Main Bay of 	transferred to TBC bay
		Kishanganj-I (Line	continuous basis for the whole
		will be charged	period of 89B replacement 01
			Day S/D.

		through _ OCB	TBC)	
3	89L & 89T of Kishanganj-I (Bay- 201)	S/D of required		Line will be under continuous S/D for the said period. Jumpers from transfer bus will be disconnected as the transfer bus is free after line S/D10 Days OCB (Foundation work involved).
4	After completion of all isolator replacement	I_ODB	Main Bus- Main Bus-	For connection jumpers to 89A, 89B isolators. Jumpers to 89T will also be connected as transfer bus is free. Then, line can be charged through its main bay with 89A/89B as required 01 Day Each.

- ❖ Hence, for each line bay cumulative requirement of Main Bus-I & II S/D is 4 times.
- Hence, total Bus S/D requirement will be 32 times (08 Feeders) for all isolator replacement purpose.
- ☐ Further, CRP panels have already been upgraded to SAS based panels. For integration of busbar protection with the new CRP, following Bus S/D is required at Dalkhola SS: -

SI Requirement of S/D	Reason for S/D	Remarks
No		
1 220 KV Main Bus-I & II at Dalkhola SS (ODB)	 Stability test Busbar Protection trip test LBB Protection trip test (Including Bus Coupler LBB). 	Complete S/D of Dalkhola S/S. S/D is required for 1 day only. Both Bus required for reducing numbers of S/D and also ensuring testing of all combinations.

 Alternative Power arrangement, bypassing Dalkhola Main Bus (Like 220 KV Kishanganj-Dalkhola (WB)-CKT through Transfer Bus) also may please be discussed for availing and finalizing the proposed scheme/replacements at Dalkhola S/S.

POWERGRID ER-II may update. Members may discuss.

Deliberation in the meeting:

West Bengal SLDC stated:

Considering high demand being catered to at Dalkhola(PG) and almost having no redundancy in the subject corridor to manage the loads, the complete Dalkhola bus can't be allowed S/D rather individual feeders may be permitted for shutdown one at a time.

- As of now, shutdown of 220 kV Dalkhola(PG)-Dalkhola(WB) D/C and 220 kV Dalkhola-Kishanganj lines, being highly loaded, can't be allowed. Criticality of Gazole(WB) loads was also highlighted.
- Alternate ways like segregation of bus conductor were requested to be explored by Powergrid ER-II to minimize number of major S/D for carrying out replacement of Bus Isolators.
- Agreed to provide necessary feeder S/D for completion of replacements of Line Isolators/Transfer Bus Isolators of different feeders.

Powergrid ER-II proposed the following:

- Shutdown of other feeders except 220 kV Dalkhola(PG)-Dalkhola(WB) D/C and 220 kV Dalkhola-Kishanganj may be allowed one at a time for replacement of line isolators.
- > Shutdown of 220 kV Dalkhola-Dalkhola and 220 kV Dalkhola-Kishanganj lines shall be availed after completion of isolator replacement in other feeders.
- > 220 kV bus S/D at Dalkhola(PG) may be allowed from October end for replacement of bus isolators.
- For completion of all activities, total 32 No's Bus S/D for 01 Day basis and separate 01 complete 220 KV outage for 01 Day is required.
- > S/D related with Bus Bar protection integration was also apprised. In absence of Bus Bar protection, Zone-4 timings of all connected feeders are set at 250 ms.

OCC decision:

- OCC agreed to the proposal of Powergrid ER-II on availing shutdown of individual feeders one at a time.
- OCC consented to bus S/D at 220 kV Dalkhola(PG) from mid-November for Bus Bar integration work along with Bus Isolator replacement activity and the same has to reinstated to service by mid-January 2025 on completion of relevant upgradation works.
- OCC opined that when Bus Bar is out of service, Zone-4 enabling is a standard practice.
- Powergrid ER-II was advised to provide an optimized schedule for Line/Transfer Bus Isolator replacement activities at Dalkhola SS for individual feeders, in forthcoming transmission outage coordination meeting.

2.5 Spare Reactor procurement under ER-Pool as per CEA norms: POWERGRID ER-II

- Spare Reactor proposal was forwarded from POWERGRID in 202nd OCC and further referred to special meeting convened on 05.02.2024 for feasibility study.
- Based upon outcome of the special meeting, the subject agenda put up in 29th CMETS (By ERLDC), where in CTU provides its views for operational aspects/planning perspective only.

As per deliberation in 29th CMETS-ER:

- ❖ ERLDC mentioned that recently there were deliberations in meeting(s) of ERPC regarding using old reactors for the purpose of regional spare or for using elsewhere in case of failure of reactors. The same was suggested by some state(s). Accordingly, they have identified some candidate line reactors which could be used for such purposes. This can optimise the requirement of reactors.
- CTU clarified that reactors were planned as per the system requirements in the erstwhile Standing Committee Meetings on Power System Planning of Eastern Region (SCMPSP-

- ER) / Eastern Regional Standing Committee on Transmission (ER- SCT) & Eastern Regional Power Committee Transmission Planning (ERPC-TP) in consultation of stakeholders. During shifting of such reactors, various aspects need to be looked into such as healthiness of reactor, residual life, feasibility of transportation, associated commercial issues etc. Concerned ISTS licensee may also need to be consulted for deliberation on commercial matters. Thus, it may not be techno-economically feasible to shift/rotate reactors, further, on regular basis. Moreover, majority of the reactors 50MVAr, 63MVAr & 80MVAr, it has been observed that such size of reactors does not provide much relief in bus voltage control due to high short circuit MVA of the system. All new bus reactors in last many years have been generally planned as 125MVAr. Thus, use of such reactors as bus reactor at other locations may not provide adequate operational relief during over voltage. ERPC also supported the views of the CTU.
- ❖ After detailed deliberations, all stakeholders agreed that some candidate reactors can be kept identified for use as spare or for replacement of failed reactor. As and when need arises, based on merit of the case and considering all techno- economic issues, use of reactors as spare or for replacement can be decided.
- In view of above, it is requested from POWERGRID end to finalize the spare reactor quantity, such that necessary procurement could be finalized.

Original list of spare Reactors proposed are as follows:-

STATE	VOLTAGE	SIZE	STORAGE PLACE
WEST BENGAL		125 MVAR	DURGAPUR SS
	400 KV	80 MVAR	BINAGURI SS
		63 MVAR	BINAGURI SS
SIKKIM	400 KV	80 MVAR	RANGPO SS
	220 KV	31.5 MVAR	NEW MELLI SS
		125 MVAR	BIHARSARIFF SS
BIHAR	400 KV	80 MVAR	PATNA SS
		63 MVAR	MUZAFFARPUR SS
JHARKHAND	400 KV	125 MVAR	NEW RANCHI SS
		80 MVAR	RANCHI SS
ODHISSA	400 KV	63 MVAR	ROURKELLA SS

Members may please discuss about final quantity such that POWERGRID could take subsequent procurement process.

POWERGRID ER-II may update. Members may discuss.

Deliberation in the meeting:

Powergrid ER-II referred to the studies by ERLDC and CTU as presented in 29th CMETS-ER on optimal utilization of existing reactors as spares and thereafter the above list of spares is proposed in compliance to CEA norms on spares.

OCC decision:

After detailed deliberation, OCC consented to the proposal of reactor spares as follows:

STATE	VOLTAGE	SIZE	STORAGE PLACE
WEST BENGAL		125 MVAR	DURGAPUR SS

	400 KV	80 MVAR	BINAGURI SS
SIKKIM	220 KV	31.5 MVAR	NEW MELLI SS
JHARKHAND	400 KV	125 MVAR	NEW RANCHI SS
ODHISSA	400 KV	63 MVAR	ROURKELLA SS

• OCC advised Powergrid ER-II to submit revised cost estimate as per above spares requirement in the upcoming CCM.

2.6 Operational Planning studies and constraints in Eastern Regional Grid: ERLDC

- As per IEGC Clause 33.6, Operational planning studies have been carried out. All
 probable constraints of ER were analyzed. It was observed that few constraints have a
 high probability of cascading and impacting capital city loads. Long term as well as short
 term remedial actions for a few of the constraints have been finalized.
- Constraints which are having high probability of cascading or impacting capital city load are as follows:

SI.	Corridor	Violation type	Remedial Action P	lan
No			Short-term	Long-term
1	400kV TSTPP- Meeramundali D/C	N-1 violation, Probable cascade (in some specific cases)	SPS of Talcher- Kolar pole in link with TSTPP- Meeramundali loading is present.	Reconductoring with HTLS approved (31st CMETS of ER).
2	400kV Farakka-KHSTPP D/C	N-1 violation, Probable cascade (in some specific cases)	Action to be taken.	Reconductoring with HTLS approved (31st CMETS of ER).
3	400kV Baripada- Jamshedpur & 400kV Jamshedpur-TISCO	N-1 violation, Probable cascade (in some specific cases)	SPS is proposed and agreed.	Action to be taken.
4	400 /220 kV Subhsagram ICTs	N-1	SPS is present.	7 th ICT already commissioned on 22 nd June 2024.
5	220kV Subhasgram (WB)-Lakshmikantpur D/C 220 kV Jeerat-Barasat D/C 220 kV Barasat-Kasba D/C	N-1 violation	SPS is present.	Upgradation of these 220 KV feeders to be planned

In the month of August'24, the Eastern regional demand is expected to remain moderately high. As the monsoon has already arrived, the rainfall is likely to increase and so is the **hydro**

generation and **import from Bhutan & Nepal**. Considering the above conditions, the possible deviations are listed.

As per the monthly operational study, a few other probable constraints were also identified. The details of these are listed in **Annexure B.2.4**.

ERLDC may update. Members may discuss.

Deliberation in the meeting

SLDC Odisha informed that a letter shall be issued to GRIDCO within a week regarding urgent implementation of SPS at Baripada.

WBSETCL apprised:

- ➤ Non-availability of PSDF fund has delayed reconductoring of 220kV Subhasgram (WB)-Lakshmikantpur D/C, 220 kV Jeerat-Barasat D/C and 220 kV Barasat-Kasba D/C lines but feasibility of carrying out the same with internal funds is currently being explored.
- > Reconductoring of 220 kV New Town- Subhasgram line has already commenced.

OCC Decision

- OCC opined that transmission lines over important crossings including Railway Crossings, more than 35 years old need to be replaced immediately as it poses threat to public safety & overall reliability of the system. Accordingly, reconductoring of such old lines needs to be planed before 4-5 years. A detailed survey also needs to be conducted to identify sections with any significant damage.
- OCC advised SLDC Odisha and GRIDCO to expedite SPS implementation at Baripada.
 SLDC Odisha was advised to finalize the possibility of directional features in SPS in consultation with Powergrid Odisha and update the status of implementation in next OCC.
- In case there is no funding from PSDF for upgradation of 220 kV feeders, OCC advised WBSETCL to meet fund requirement from its own sources in view of its urgent need.

2.7 Curtailment in schedule for NTPC Talcher station: NTPC TSTPP

- As discussed in 216th OCC meeting of ERPC, TSTPS has consumed LDO (total 705KL)
 to carry out soot blowing operation to avoid tripping of the units during the full day
 continuous low schedule due to curtailment of TSTPS generation schedule because of
 evacuation constraint. This situation arose because of the breakdown of a tower in cyclone
 & subsequent shutdown of 400KV Meramundali-Lapanga D/C line.
- The LDO consumption in TSTPS Stage-1, due to the above, has increased the SOC much beyond the normative of 0.5ml/kwh & is very less likely to come down below 0.5ml/kwh in this FY. Hence, as the situation is concerned with a natural calamity & beyond the control of TSTPS, the LDO consumption (705KL) may be allowed to be claimed as an additional expenditure in force majeure event.

NTPC TSTPP may update. Members may discuss.

Deliberation in the meeting

The Representative of NTPC was not present in the meeting. However, it was noted that system constraints caused by outage of **400KV Meramundali-Lapanga D/C line** resulted in backing down of generation of TSTPS units during that period.

2.8 Shutdown proposal of generating units for the month of August'2024-ERPC

Maintenan	Maintenance Schedule of Thermal Generating Units of ER during 2024-25 in the month of August '2024										
System	Station	Unit No.	Capacity (MW)	Period (as 2024	•	No. of Days	Reason				
			, ,	From	То						
DVC	Mejia TPS	5	250	01-08-2024	04-09-2024	35	СОН				
NTPC	TSTPS-I	2	500	13-08-2024	21-09-2024	40	АОН				
WBPDCL	Sagardighi TPS	2	300	04-08-2024	23-08-2024	20	АОН				
	Santaldih TPS	6	250	26-08-2024	29-09-2024	35	АОН				

Members may discuss.

Deliberation in the meeting

- ❖ DVC requested the OCC forum for availing the shutdown of Meija TPS unit #2 in place of unit#5 for 28 days i.e. from 01-08-2024 to 28-08-2024 for AOH Activities.
- ❖ The TSTPS, NTPC Representative via mail informed the forum about availing the shutdown of TSTPS-I unit #2 from 20.08.2024 to 28.09.2024 i.e. for a period of 40 days for AOH activities.
- ❖ WBPDCL apprised the forum about taking shutdown of Sagardighi TPS Unit #2 from 07.08.2024 to 10.09.2024 & Sagardighi TPS unit #6 from 04.11.2024 to 08.12.2024. Both the Units will be under shutdown for a period of 35 days for Annual Overhaul Activities.

OCC Decision

- OCC opined that shutdown of Sagardighi TPS Unit #6 of WBPDCL in the month of November 2024 shall be considered based on real time system conditions during that period.
- OCC consented to all other shutdown requests as mentioned above.
- The detailed shutdown schedule as approved by the OCC forum is provided at Annexure B.2.8.

2.9 Reschedule of Annual overhauling of Unit-II (210MW) TTPS Lalpania: ERPC

 Annual overhauling of Unit-II Tenughat TPS Lalpania was scheduled from 1/07/2024 to 14/08/2024 (45 days) as per intimation given through LGBR vide Letter No.-59/GMcum CE/TTPS dated 25.08.2023, and same proposal had been approved in LGBR 2024-25 as well as in 216th OCC.

- But overhauling programme of Unit-II has been tentatively rescheduled from 01.08.2024 to 10.09.2024(41 days) due to delay in supply of APH baskets By M/s BHEL, Ranipet and its accessories.
- OCC may accord approval to this revised schedule of overhauling.

TVNL and SLDC Jharkhand may update. Members may discuss.

Deliberation in the meeting

- > SLDC, Jharkhand submitted that TVNL may avail shutdown of Unit-II of Tenughat TPS from 20th August 2024 for carrying out annual overhauling activities.
- > TVNL representative also updated about postponement of shutdown due to delay in supply of APH baskets by M/s BHEL & thereby requested for availing the shutdown as per timeline agreed by SLDC, Jharkhand.

OCC Decision

OCC approved the shutdown of Tenughat TPS Unit#2 from 20th August 2024 for a period of 41 days for carrying out annual overhauling activities.

2.10 Challenges faced in LAN Integration for various locations/New SEMs under AMR Phase-5: POWERGRID ER-II

- AMR Phase-5 LOA (ER2/NT/W-MISC/DOM/E00/24/03816/1000022907/I-4329/P-4156/9801) was placed on 14th Mar 2024. It has scope of integration of new 320 number of SEMs with the AMR system. This covers both existing locations where AMR system is already present and new locations where AMR will be installed for the first time.
- As per the Cyber Security Guideline measure & regulation of CEA, the entire AMR system communication must be LAN based. For the AMR Phase5 scope, it is planned to complete the entire installation by 31-Aug-2024. The work has already been started and ongoing.
- In the existing sites, LAN ports were already enabled. In few of these existing locations, new LAN ports were required and those have been enabled by PGCIL.

The list of existing locations/Substations are as follows:

SI.	Stat		SI.			SI.		
No	е	Substation	No	State	Substation	No	State	Substation
	BIH	BANKA		BIHAR	KAHALGAON		ODIS	SUNDERG
1	AR	DAINNA	12	DITIAN	(NTPC)	23	HA	ARH
	BIH	CHANDAU		BIHAR	KHAGAUL		ODIS	DSTPP
2	AR	TI	13	DITIAN	KHAGAUL	24	HA	DSTFF
	BIH	KISHANGA		BIHAR	SONNAGAR		SIKKI	RANGPO
3	AR	NJ	14	DITIAN	SONNAGAN	25	М	KANGPO
	BIH	MOTIHARI		JHARKH	RANCHI		WB	FARAKKA(
4	AR	WOTITIAKI	15	AND	IVANOLII	26	VVD	NTPC)
	BIH	MUZAFFA		JHARKH	RANCHI NEW		WB	RAJARHAT
5	AR	RPUR	16	AND	INANGIIINEW	27	VVD	IXAJAIXIIAT
	BIH	PUSAULI		JHARKH	MAITHON		WB	SAGARDIG
6	AR	FUSAULI	17	AND	IVIATTION	28	VVD	HI

	BIH	SAHARSH		ODISHA	ANGUL		WB	BINAGURI
7	AR	Α	18	ODISHA	ANGUL	29	VVD	DINAGURI
	BIH	SITAMARH		ODISHA	BARIPADA		WB	MEJIA
8	AR	1	19	ODISHA	DAINIFADA	30	VVD	IVILJIA
	BIH	BARH(NTP		ODISHA	GMR		WB	SUBHASG
9	AR	C)	20	ODISHA	GIVIIX	31	VVD	RAM
	BIH	BIHARSHA		ODISHA	JEYPORE			
10	AR	RIF	21	ODISHA	JETPORE			
	BIH	DARBHAN		ODISHA	RENGALI			
11	AR	GA	22	ODISHA	INCINOALI			

However, at the new locations, opening of new LAN ports are required for data communication. PGCIL has already communicated to ERLDC/ERPC for opening of LAN ports vide email (email dated: 13th May 2024 and 24th June 2024). ERLDC has forwarded the email to the respective utilities/stations.

<u>Till date, following are the locations where LAN ports are still not enabled for AMR Data</u> Communication:

<u>SI.</u> <u>No</u>	<u>State</u>	Substation Name	<u>Utility</u>	<u>SI.</u> <u>No</u>	<u>State</u>	Substation Name	<u>Utility</u>
1	BIHAR	<u>NABINAGAR</u> (BRBCL)	<u>BRBCL</u>	<u>12</u>	<u>ODISHA</u>	<u>RENGALI</u>	<u>GRIDCO</u>
2	<u>BIHAR</u>	BARSOI	BSPHCL	<u>13</u>	<u>ODISHA</u>	<u>BALIMELA</u>	<u>GRIDCO</u>
<u>3</u>	<u>BIHAR</u>	NPGC(NTPC)	<u>NTPC</u>	<u>14</u>	<u>ODISHA</u>	<u>KEONJHAR</u>	<u>GRIDCO</u>
4	BIHAR	MTPS STG-II (NTPC)	NTPC	<u>15</u>	<u>ODISHA</u>	DULANGA CMP	<u>NTPC</u>
<u>5</u>	<u>BIHAR</u>	<u>DUMRAON NEW</u>	BSPHCL	<u>16</u>	SIKKIM	<u>TASHIDING</u>	<u>IPP</u>
<u>6</u>	<u>BIHAR</u>	<u>NAUBATPUR</u>	BGCL	<u>17</u>	SIKKIM	RONGNICHU	MBPCL
7	BIHAR	DURGAWATI	DFCCIL	<u>18</u>	SIKKIM	GYALSHING	Sikkim E&PD
<u>8</u>	JHARKHAND	DHANBAD	<u>NKTL</u>	<u>19</u>	SIKKIM	SAGBARI	Sikkim E&PD
9	<u>JHARKHAND</u>	NORTH KARANPURA	<u>NTPC</u>	<u>20</u>	SIKKIM	SAMARDANG	<u>TCL</u>
<u>10</u>	<u>JHARKHAND</u>	GOELKERA	<u>JSEB</u>	<u>21</u>	<u>WB</u>	KLC BANTALA	WBSETCL
<u>11</u>	<u>ODISHA</u>	<u>BHOGRAI</u>	<u>GRIDCO</u>	<u>22</u>	<u>WB</u>	<u>KOLAGHAT</u>	WBSETCL

Without having an active LAN port at stations, the AMR data communications will not get established with ERLDC.

So, it is requested to all utilities to enable the LAN ports and share the details with PGCIL (Mr. Partha Ghosh/Mr. Priyam Maity) and M/S TCS (Mr. Abhishek Das, Mr. Sourav Bera), such that **target completion** of **31.08.2024** can be achieved.

POWERGRID ER-II may update. Members may discuss.

Deliberation in the meeting

Powergrid ER-II representative submitted:

- > To facilitate LAN integration with AMR, LAN ports need to be enabled at the given locations above.
- In all existing AMR sites LAN ports are enabled but some new locations where both DCU
 meter are new, opening of new LAN ports are required on priority for data communication

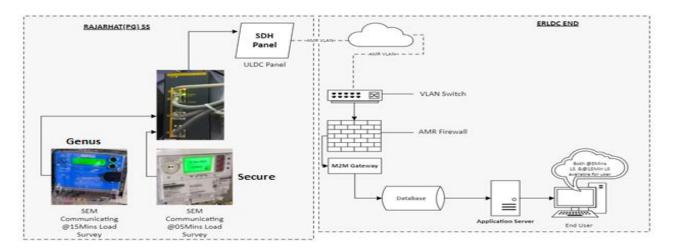
OCC Decision:

- OCC advised all the utilities to enable the LAN ports and share the details with PGCIL since the communication framework of entire AMR system must be LAN based as per the CEA Cybersecurity guidelines.
- OCC also suggested PowerGrid to form a working group, consisting of all concerned utilities for seamless co-ordination i.r.o integration of AMRs with LAN.

2.11 Successful POC of 5 min meter in AMR Eastern Region: POWERGRID ER-II

- Considering the emphasis of Govt. Of India on renewables & thus requirement of its settlement, 05 mins Load Survey Meters is slated to be part of upcoming regulations. Retrieving the data from 05 min Meter in the same AMR system (where 15 min Meter data is already present) was an extremely challenging task. A POC (proof of concept) was planned to check the feasibility so that the current AMR and allied system can be smoothly migrated to cater to the upcoming regulations.
- A 05 min Load Survey Meter (Secure make) was installed at Rajarhat-PG station. While the preparation of this POC was done long ago, after a round of DCU firmware upgradation & field trial and AMR system upgradation, the existing DCU could successfully communicate and send the 05 min Meter data. Simultaneously, we could also ensure that the same DCU retrieved data from a 15 min Load Survey Meter (Genus Make). Both 15 min and 5 min data files from the same DCU could automatically be sent to ERLDC System via LAN, and the data being downloaded in the NPC format (as per the template shared by ERLDC team for 05 min). Data has also been validated by ERLDC team.
- Once the new 05 min Meters are gradually installed in Eastern Region, the existing AMR system can easily and seamlessly be upgraded to handle simultaneously, both 05 min Meter along with the existing 15 min Meters of heterogenous make, without hampering current operations.
- Installed AMR of ER, can handle both 5-Min and 15-Min SEM with same DCU, and both DLMS complied SEM of different manufacturing company having different set of data sets are integrated in same architecture.

POC Architecture:



This is for information to all members.

POWERGRID ER-II may explain. Members may discuss.

Deliberation in the meeting

- The Representative of PowerGrid highlighted the successful implementation of 5 min Load survey Meter (Secure make) at Rajarhat-PG by DCU firmware upgradation and AMR system upgradation.
- ❖ He further highlighted that both SEM_15 Mins load survey (Genus make) & SEM_5 Mins load survey (Secure make) data are integrated in the same architecture which will enable AMRs to handle both 5-Min and 15-Min SEM with same DCU.

OCC Decision:

OCC noted the latest developments i.r.o AMR in ER and commended Powergrid for this upgradation which shall play pivotal role in metering & settlement of Renewable Generators in near future.

2.12 Review of AUFLS in Eastern region: ERPC

- A Task Force was constituted by NPC vide letter dated 25.08.2023 on Implementation of AUFLS and df/dt scheme under the chairmanship of Member Secretary, SRPC and comprising members from NPC, RPCs and Grid-India.
- The Task force after convening meeting on 11.09.2023 submitted its report to NPC in 14th NPC meeting on 05.02.2024, wherein certain recommendations were made.
- Accordingly, as per decision of 214th OCC meeting, a special meeting was convened on 10.07.2024 to deliberate on successful implementation of Automatic Under Frequency Load Shedding (AUFLS) in Eastern region wherein following course of action was delineated to all constituent ER states.
- Based on submission by DVC, instantaneous peak demand met and Annual consumption have been modified causing slight modification in load relief quantum of ER states as detailed follows:

Constituent	Stage- 1	Stage- 2	Stage-	Stage- 4	Revised Total	Previous Total	Change (MW)
Bihar	315	379	442	442	1577	1568	+9

Jharkhand	87	105	122	122	437	435	+2
DVC	172	207	241	241	861	897	-36
Odisha	306	367	428	428	1530	1521	+9
West	497	597	696	696	2486	2472	+14
Bengal							
Sikkim	5	6	7	7	25	25	0
Total	1383	1660	1937	1937	6916	6918	-2

Constituent wise	Annual Consump tion	Consump tion factor	Demand met	Peak demand factor	Demand contribution
Bihar	40952	0.220	7578	0.236	0.228
Jharkhand	12391	0.067	1923	0.060	0.063
DVC	<mark>26214</mark>	0.141	<mark>3476</mark>	0.108	0.125
Odisha	41142	0.221	7104	0.221	0.221
West Bengal	65009	0.349	11868	0.370	0.359
Sikkim	526	0.003	137	0.004	0.004
Total Consumption	186234	1.000	32086	1.000	1.000

Action points:

- □ All SLDCs were instructed to shift the load quantum from Stages –III & IV to stage-I & II respectively as an interim measure till new feeders for additional load relief gets identified by individual state DISCOMs.
 - This must be implemented at the earliest with necessary changes in frequency settings of the existing UFRs and the same shall be reviewed in upcoming OCC meeting.
- ☐ All SLDCs were advised to share the identified feeders list for revised load relief quantum within a month. The status shall be reviewed in monthly OCC meetings.
- ☐ Curtailment of critical loads should be avoided. However, in stage-III and stage-IV, as it operates only in severe threat to grid stability, industrial loads may also be considered. Accordingly, DVC and IPCL (having dominant industrial consumers) were urged to identify industrial feeders for load relief in stage-III and stage-IV.
- ☐ All SLDCs were urged to expedite and ensure SCADA visibility of existing as well as newly identified feeders under AUFLS for effective supervision of load relief quantum.

All SLDCs/STUs and individual state DISCOMs may update action taken/future plan w.r.t AUFLS. Members may discuss.

Deliberation in the meeting

❖ Based on request of DVC regarding reduction in peak demand met as well as energy consumption, the load relief quantum was modified as follows:

Constituent	Stage- 1	Stage- 2	Stage-	Stage- 4	Revised Total	Previous Total	Change
Bihar	315	379	442	442	1577	1568	+9
Jharkhand	87	105	122	122	437	435	+2
DVC	172	207	241	241	861	897	-36
Odisha	306	367	428	428	1530	1521	+9
West	497	597	696	696	2486	2472	+14
Bengal							

Sikkim	5	6	7	7	25	25	0
Total	1383	1660	1937	1937	6916	6918	-2

All constituent ER states agreed to this revised load relief quantum.

- SLDC Odisha informed that based on MOM of Special meeting on AUFLS dated, a letter has been sent to DISCOMs for implementing the AUFLS by identifying non-critical loads.
- WB SLDC stated:
- ➤ Load shifting from Stages –III & IV to stage-I & II with necessary changes in frequency settings of the existing UFRs will be done within 15 days
- > The list of identified feeders for AUFLS will be shared with ERPC.

ERLDC submitted:

- In addition to AUFLS implementation, all entities are required to ensure data telemetry of all designated AUFLS feeders for seamless monitoring in real time.
- A monthly exception report on UFR needs to be sent to ERPC by all utilities in line with IEGC 2023.

OCC Decision:

- All SLDCs were advised to shift the load quantum from Stages –III & IV to stage-I & II
 respectively within 15 days as an interim measure till new feeders for additional load relief
 gets identified by individual state DISCOMs.
- All SLDCs were instructed to monitor regular testing of installed UFRs in coordination with STUs.
- All SLDCs were urged to expedite SCADA visibility of existing as well as newly identified feeders under AUFLS for effective supervision of load relief quantum.
- ERPC/ERLDC was advised to form a working group to facilitate coordination and monitoring of activities regarding AUFLS implementation in ER.

2.13 Reliable Power Supply of Tenughat: ERLDC

- In 216th OCC meeting, reliable power evacuation of Tenughat was discussed under agenda point no 2.6 with respect to recent multiple disturbances that occurred in Tenughat due to the loss of the evacuation path from Tenughat.
- OCC advised ERLDC to explore all the possibilities of power evacuation from Tenughat generating station in coordination with SLDC Jharkhand. SLDC Jharkhand was advised to explore new lines from Tenughat at 220kV level to increase system reliability in this area.
- In this regard, ERLDC convened one meeting over video conference where SLDC & STU
 of Jharkhand, TVUNL, Powergrid ER-I and ERPC were present. A detailed discussion was
 held to improve the reliability of Tenughat area on a short-term & long-term basis. The
 following action plan was decided:
- Jharkhand will share Upgradation plan with ERPC/ERLDC:
- o Detailed plan for all the upcoming lines/substations associated with Tenughat along with the timeline.
- o Monthly Progress report to be shared for the said upcoming lines/substations.
- o Jharkhand will also inform the future plan for the temporary arrangement of 400kV-Tenughat PVUNL connectivity.

SLDC Jharkhand/JUSNL and TVNL may update. Members may discuss.

Deliberation in the meeting

- SLDC Jharkhand proposed two new transmission lines which have been identified for reliable power evacuation from Tenughat as follows:
 - 1) Tenughat-Gomia Transmission line(25KM)
 - 2) Tenughat-Hazaribagh Transmission line(80KM)
- ❖ It was further apprised that construction of these lines will be tentatively completed by Jan.2026.

OCC Decision

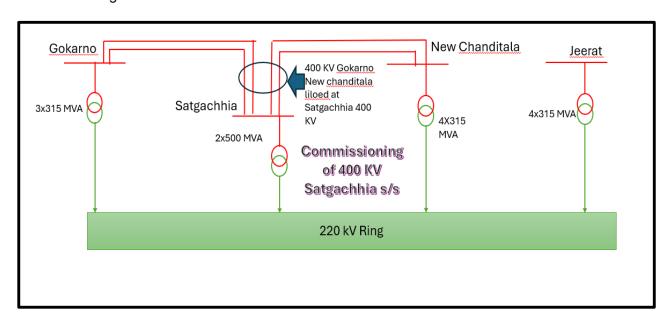
- OCC urged JUSNL to expedite the entire process to complete the construction of planned 220 kV lines at the earliest.
- OCC advised JUSNL to make all possible efforts for construction of 220 kV Tenughat-Gomia Transmission line(25KM) at first as its length is less compared to 220 kV Tenughat-Hazaribagh(80KM) line.

2.14 Joint interconnection study for upcoming elements in ER system by Jan-2025: ERLDC

Based on information received from WB SLDC on June 2024 regarding upcoming elements in WB system a joint interconnection study was carried out on 18th July 2024. Following elements are expected to be synchronized in the intra state area of west Bengal

- LILO of 400 KV Gokarno New Chanditala d/c on Satgachhia with 2x500 MVA 400/220 KV ICTs at Satgachhia.
- 220 KV D/C LILO of Alipurduar(PG) to Birpara(PG) lines at 2 x 160 MVA 220/132 KV Falakata Substations.
- Establishment of 132 KV Manichawk s/s with radial d/c connection 132 KV Malda Manikchowk with establishment of D/C radial lines.

Detailed findings related to these studies are attached in Annexure B.2.12



Few Major observations from the study were as follows:

- 1. Chance of Touching **100** % **of Thermal limit** of one ICT at Satgachhia during N-1 tripping of the other ICT.
- 2. Decongestion of Jeerat ICTs marginally & Gokarna ICT significantly.

STU, WB may validate the findings w.r.t. interconnection studies at a much closer timeframe of commissioning.

- Earlier, Start-up power extended to Buxar TPS with reconfiguration of 400KV Patna-Balia line. First unit also expected to syn by Sept-24. Therefore, similar studies to analyse the impact of Buxar TPP needs to be carried out. In view of this SLDC Bihar is requested to share the required data and coordinate with STU for a joint interconnection study at the earliest.
- ERLDC has highlighted the requirement of data sharing for interconnection studies in various OCC meetings (208th,209th,210th OCC) and through emails to relevant stakeholders. However, so far these data are not getting shared from most of the other states on time. Therefore, it is requested that all states comply with the timelines as mentioned in the TTC/Interconnection procedure so that interconnection studies can be successfully comprehensively done for the whole region.
- The following format for sharing the interconnection study results may be referred for understanding and archival-

SI. No.	Substation	New elements	Possible constraints	Expected relief of	TTC/AT change		Remarks
NO.		CICILICIIIS	Constraints	Constraints	Import	Export	
1							
2							
_							
3							

ERLDC may explain. Members may discuss.

Deliberation in the meeting

- ❖ ERLDC representative informed that on 18th July, ERLDC and WB SLDC jointly conducted interconnection study for upcoming elements (mentioned above) up to January 2025. This was highlighted as a success story of West Bengal SLDC in compliance to IEGC 2023.
- ❖ It was further highlighted that out of the three new elements to be commissioned, major observation was for LILO of 400 KV Gokarno-New Chanditala D/C at Satgachhia 400/220 KV S/S.
- Other important observations include:
- During coupling of 220 KV krishnanagar s/s, chance of touching 100 % Thermal limit of one ICT at Satgachhia during N-1 tripping of the other ICT.
- > 15.87% increase in margin in each ICT at Gokarno S/S
- 9 % increase in margin each ICT New Chanditala S/S
- > 10.79 % increase in margin in each ICT each Jeerat S/S.

- ❖ ERLDC also requested SLDC, Bihar to share the required data and coordinate with STU for a joint interconnection study on the impact of Buxar TPP in areas like Sasaram, Gaya, Patna and Chandauti.
- ❖ WBSETCL requested ERLDC to share the study with STU for necessary action.

OCC Decision

- OCC advised DVC SLDC, SLDC Odisha and SLDC Jharkhand to share relevant interconnection study details with ERLDC 6 months prior to commissioning of new transmission elements in compliance to IEGC 2023.
- OCC advised all the utilities to comply with the timelines mentioned in TTC/Interconnection procedure & share the interconnection study results with ERLDC in the above mentioned format.
- 2.15 Ensuring Real-Time Data Telemetry for New/Modified Transmission and Generation Elements with ERLDC for Real time operation and SCADA/EMS Decision support tools functioning: ERLDC
- In the fiscal year 2024-25, numerous requests have been received at ERLDC from ISTS-connected users and users under SLDC control for the integration of new or modified transmission and generation elements. However, these requests often lack ensured real-time data telemetry prior to first-time charging. Users are then providing undertakings from their management stating that real-time data telemetry will be made available within a time-bound manner.
- ERLDC, based on undertaking, has allowed charging of such elements looking at impact
 on overall reliable grid operation and security of supply. Despite this, provided timelines
 in the undertaking are not being adhered to, causing significant delays. These delays
 are impacting real-time operations, state estimation accuracy, and the effectiveness of
 the real-time contingency analysis tool within the SCADA/EMS system at the ERLDC
 level.
- A list of applications received in year 2024-25 where charging has been allowed based on undertaking for data and telemetry is provided below where undertaking timelines have not been adhered to.

Applica nt	FTC Application	Substation Name/Element Name	Date mentioned for compliance in Undertaking	Complianc e Status
Indian Railway	Main Bays of Pusauli (PG)to Durgawati (DFCCIL)	220 kV Durgawati	SCADA (30-10-2023)	No
NTPC Barh	Startup power of 54.4 MW for Unit#3(Stage- 1) NTPC Barh(660MW) through ST-3	NTPC Barh (ST-3)	SCADA (24-05-2024)	No
SLDC Bihar	Charging of 132 kV DMTCL (Motihari)-	132 kV Motihari (BSPTCL)	SCADA (18.06.2024)	No

	Motihari D/C tr. line after restoration of fallen and damaged towers at loc 122,123,124.			
SLDC Ranchi	FTC of LILO 132KV Sonenagar-Nabinagar- Nagaruntari TL at GSS Nabinagar		SCADA (02.07.2024) and VOIP (04.12.2024)	No

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

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

In view of the above, following actions points are envisaged by all users within ERLDC and SLDCs control areas:

- All users within the ERLDC control areas and Eastern Region State Control areas must prioritize the successful installation and integration of all communication systems, channels, and interfaces with the ERLDC/SLDC SCADA system before charging any new elements.
- Significant **lead time** should be provided for integration and checking of real time data availability at ERLDC level.
- Further, practice of allowing **charging based on undertakings** should be **discouraged** and communicated to all users within the State control areas so that they can take up the same during project implementation phase and their timely completion.
- Members may discuss these issues and the necessary steps to ensure compliance with improvement in real-time operations.

ERLDC may update. Members may discuss.

Deliberation in the meeting

- ❖ The Representative of ERLDC apprised the forum that as per IEGC,2023 regulations all the generating stations & transmission licensees, must integrate SCADA & telemetry for real-time data for grid operations.
- ❖ He further mentioned that despite repeated follow-ups many users have not integrated their Data telemetry system & also data is not received at ERLDC in some cases where Users have already integrated their System with SCADA.

OCC Decision

OCC referred the matter to TeST meeting of ERPC for further deliberation.

2.16 Requirement of incorporation of some essential features in new WBES: West Bengal SLDC

WBSLDC is using the New WBES portal (under development) in parallel to the existing WBES for the daily scheduling activities. Anomalies and requests for additional features have already been shared through the google sheet shared by ERLDC. Few of the essential points are being shared which are required to be resolved before declaration of go-live.

- As per the comments received from the intra-state Discoms, in absence of any regulatory mandate disclosing the price of GNA transaction during creation of new GNA Contract is required to be made optional in new WBES.
- In new WBES, WBSLDC is authorized to view the net and full schedules of the state of West Bengal only. In the login provided to WBSLDC there is no option for viewing the DC/schedules of the generating stations supplying power to the intra-state DISCOMs. This is a major deviation from the existing practice where every entity can view and monitor the schedules of Generating stations catering power to them and point out discrepancies, if any. Now in new WBES, in absence of such facility intra-state DISCOMs will not be in a position to identify whether their allocated share is properly scheduled to them or not.
- In new WBES, there is a provision for viewing the MTDL values of generating stations, necessary for calculating back-down quantum w.r.t. DISCOMS. But there is no provision for viewing the MTDL values of all the generating station, at a single sheet and also there is no provision for downloading the same in excel format. Such facility is required to be incorporated and access to be provided in the login of SLDC. A provision for viewing the number of running units along with on bar and off bar declared capacity is required to be introduced for deriving the MTDL value of the generating stations.
- There is a deviation of nomenclature w.r.t. the DISCOMs and Generating stations in new WBES as compared its present version. If the nomenclature of NOAR is used in the new WBES, it will be convenient for SLDCs and intra-state DISCOMs in understanding and integration with other applications like SAMAST.
- Providing API of contract details related to GNA/TGNA with parameters such as approval date, approved period, approved quantum etc. for seamless integration with other applications like SAMAST.
- At present any entity can view the schedules of other entities even without login to the WBES portal. In new WBES such viewing options has been restricted without any specific regulatory mandate. As informed by the intra-state Discoms such information is required for several analytical purposes like market monitoring etc. Therefore, facility of viewing of schedules of other entities may please be continued with allocation of user credentials.
- In the dashboard for displaying Revision update, name of corresponding utility and time stamp may please also be added new WBES.

Therefore, in view of efficiency, probity and transparency the above-mentioned issues are required to be addressed before the Go-live of the New WBES.

West Bengal SLDC and ERLDC may update. Members may discuss.

Deliberation in the meeting:

- West Bengal SLDC submitted:
- State DISCOMs are reluctant to furnish contract rate as provisioned in new WBES portal.
- > There is persistent integration issue of different applications due to non-uniform nomenclature.

WBSEDCL pitched for the following:

- Only energy figs should be made visible in the scheduling software.
- Visibility of MTDL details of all generators before Go-Live so that plan for demand portfolio management can be devised accordingly.
- Visibility of all India schedules should be made available through user login.
- ERLDC clarified the comments from WB SLDC related to the new features/shortcomings in new WBES portal as follows:
- > Contract rate to be made non mandatory: The contract rates are often required by NLDC for various reports to be furnished to the Hon'ble CERC and MoP. This provision is same for all buyers across India.
- > DC and Schedules of all generating stations in which West Bengal has share allocation: Viewing/Downloading rights have been provided.
- ➤ Viewing MTDL values of all generators together: This facility shall be explored after Go-Live. Individual MTDL values may please be seen till then.
- > **Nomenclature in New WBES:** The name formats are different in present WBES, NOAR and New WBES. Thus, the nomenclature may differ.
- Providing API of contract details: Similar requirement has been received from utilities of other Regions also. This facility shall be explored after Go-Live. Please see the contract details from the New WBES portal till then.
- Facility to view Schedules of all India utilities: As per IEGC only user credential controlled access needs to be provided to the utilities. Thus, the utilities shall be able to view schedule data pertaining to themselves only in New WBES through their own login credentials.
- Facility to see revision date/time stamp in dashboard: The dashboard has the facility to view DC and requisition revision with date/time stamp as per current WBES.

OCC Decision

- OCC opined in favor of deploying standard nomenclature of generating stations as per CEA (OPM Division) to rule out the mismatch of nomenclature between NOAR and New WBES portals.
- OCC suggested incorporation of features, as highlighted by WB SLDC and WBSEDCL, in New WBES before Go-Live.

2.17 Periodic Testing of power system elements: ERLDC

- As mandated in IEGC, clauses 40.1 there shall be periodic tests shall be carried out on power system elements to ascertain the correctness of mathematical models used for simulation studies as well as ensuring desired performance during an event in the system.
- List of various tests to be performed by different asset owner are as follows:

Power System	Tests	Applicability
Elements	16313	,

Synchronous Generator	 (1) Real and Reactive Power Capability assessment. (2) Assessment of Reactive Power Control Capability as per CEA Technical Standards for Connectivity (3) Model Validation and verification test for the complete Generator and Excitation System model including PSS. (4) Model Validation and verification of Turbine/Governor and Load Control or Active Power/ Frequency Control Functions. (5) Testing of Governor performance and Automatic Generation Control. 	Individual Unit of rating 100MW and above for Coal/lignite, 50MW and above gas turbine and 25 MW and above for Hydro.
HVDC/FACTS Devices	 (1) Reactive Power Controller (RPC) Capability for HVDC/FACTS (2) Filter bank adequacy assessment based on present grid condition, in consultation with NLDC. (3) Validation of response by FACTS devices as per settings. 	To all ISTS HVDC as well as Intra- State HVDC/FACTS, as applicable

- Further, IEGC clause 40.2.(b) mandates all equipment owners to submit a testing plan for the next year to the concerned RPC by <u>31st October</u> to ensure proper coordination during testing as per the schedule.
- In line with the above, following may please be submitted:
- ☐ All generators and HVDC/FACTS Devices owners are requested to submit the date of last test perform for each test mentioned above:
- ☐ All the owners of equipment (such as synchronous/non-synchronous generators, HVDC and FACTs devices, etc.) are requested to submit the testing plan as early as possible.

ERLDC may explain. Members may discuss.

Deliberation in the meeting:

- The Representative of ERLDC informed the OCC forum about the periodic testing of power system elements to ensure healthiness & reliability as mandated in IEGC, clause 40.1.
- ❖ He also requested all the Generators & owners of HVDC/FACTS Devices for submitting the data of last test performed for each test mentioned above & submit the future plan at the earliest.

OCC Decision

OCC advised all the generators & owners of HVDC/FACTS devices to strictly adhere to the IEGC 2023 guidelines & submit the required testing data & plan to ERPC at the earliest.(as per clause 40.2.(b))

Additional Agenda

- 2.18 Emergency shifting of OPGW i.r.o 132 kV DVC-Burdwan D/C line between TL 56/2-57 inside the premises of DGP 400 kV Substation of WBSETCL lying underneath 220 kV Ckts of 315 MVA ICT 1 & 2 to avoid fault tripping of said transformers due to encroachment on account of swing during stormy season: WBSETCL
- The two nos. 220 kV Ckts of 400/220 kV 315 MVA ICT 1 & 2 tripped on 15.06.24 evening at DGP 400 kV Sub-station.
- On inspection, it was observed that the OPGW of 132 kV DVC-Burdwan D/Ckt line (line No.75,76) had encroached the aforementioned lines probably due to swing in stormy weather condition causing huge flashover and damage to the B phase conductors of the LV ckts.
- The power interruption caused by the outage of 315 MVA ICT 1 & 2 could not be normalized till the swinging of the OPGW came to rest after the storm.
- The matter had been discussed with DVC on a number of occassions and joint inspection was also held several times (MOM copy enclosed).
- To overcome the issue immediately, the said OPGW has to be shifted and re-oriented as per enclosed drawing. DVC has confirmed that WBSETCL shall execute the work engaging their vendor and all cost of material, execution will be borne by WBSETCL.
- Local DVC authorities are aware of the issue & informed that they require consent of ERPC in the OCC forum for the said reorientation work.
- Considering extreme urgency for the above work at Durgapur 400KV SS the matter was placed before the 216th OCC Forum of ERPC as an additional Agenda Item for necessary discussion.
- As per deliberation in the OCC Forum it was decided that the matter will be taken up bilaterally by WBSETCL & DVC for according required approval for shifting.
- Accordingly WBSETCL took up the matter with DVC for obtaining necessary clearance from them for proposed shifting & re-orientation work of OPGW
- DVC vide e-mail dated 08.07.2024 have communicated for discussing the issue regarding
 urgent shut down for emergency maintenance job of the said OPGW line in the OCC
 meeting before giving any clearance for proposed shifting & re-orientation work of OPGW
 (Copy of e-mail enclosed).
- Considering extreme urgent requirement for the above mentioned work at Durgapur 400KV SS for ensuring reliable & secure grid operation the matter is placed before the 217 th OCC Forum of ERPC for necessary deliberation & approval.

WBSETCL may explain. Members may discuss.

Deliberation in the meeting:

DVC intimated the constraint involved in OPGW shifting of the said line owing to interruption in their SCADA data.

OCC Decision

OCC advised WBSETCL:

	, , ,	ve on 132 kV DVC-Burdwan D/Ckt line as a
Pa	age 30 Mir	nutes of 217 th OCC meeting_24.07.2024

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

3.1. ER Grid performance during June 2024.

The average and maximum consumption of Eastern Region and Max/Min Demand (MW), Energy Export for the month June -2024 were as follows:

AVERAGE CONSUMPTION (MU)	MAXIMUM CONSUMPTION(MU)/ DATE	MAXIMUM DEMAND (MW)	MINIMUM DEMAND (MW)	SCHEDULE EXPORT	ACTUAL EXPORT
(IIIO)		DATE / TIME	DATE / TIME	(MU)	(MU)
641.1 MU	692.0 MU, 10.06.2024	32585 MW, 10.06.2024 at 23:57 Hrs.	21738 MW, 30.06.2024 at 08:27 Hrs.	1536	1298

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

Deliberation in the meeting:

The grid performance of ER for the month of June was highlighted.

3.2. Update on Restriction of Talcher-Kolar HVDC Bi-pole: ERPC

- ❖ On **20th April'24**, ERLDC received one mail from HVDC Talcher stating the requirement of replacement of the R-phase converter transformer necessitating restriction of the power order of HVDC Talcher bi-pole to **1500MW** till the replacement. It was also informed that the spare Converter Transformer of HVDC Kolar is being diverted from HVDC Kolar to HVDC Talcher and is expected to reach HVDC Talcher by **31st May 2024**.
- Since April'24, either pole of HVDC blocked 5 times out of which, in 4 times the other pole went to ground return mode instead of metallic return mode resulting in overloading of 400kV Talcher-Meeramundali D/C and generation backdown was done either manually or through operation of SPS.
- ❖ Further, while availing the planned shutdown of Pole-2 on 28.04.2024, the other pole didn't go to metallic return mode as the automatic changeover sequence failed and remained in Ground return mode for around 15 minutes.
- ❖ As per deliberation in **216th** OCC:

Powergrid Odisha vide mail dated 21.06.2024 informed:

- The Accessories of converter transformer arrived at HVDC Talcher Station on 17.05.2024.
- Presently, the spare converter transformer is near Golapally, Telangana and it has travelled approximately **550 KM** from **Kolar** Station. The total distance from HVDC Kolar to HVDC Talcher is approximately **1500 KM**. Further it is anticipated that it will take more time tentatively up to **30.07.2024** to **reach HVDC Talcher Station**. However, the best possible effort is being taken for early completion of transportation of spare converter transformer from HVDC Kolar to HVDC Talcher.
- It was informed by Trasport Agency that agency is going for shifting of converter transformer tank to girder bridge truck for crossing Shahnagar Toll Plaza.

They have informed to agency for early execution of work so if everything goes as per the
anticipated timeline, considering additional 15 days for complete installation, The Recti
former may come into operation by Mid-August.

OCC decision:

- OCC advised PowerGrid Odisha to expedite the commissioning of converter transformer at Talcher end of HVDC Talcher-Kolar Bipolar link as per submitted timelines so that the same can be utilized up to rated capacity for reliable grid operation.
- OCC further advised PowerGrid Odisha for sharing weekly update with ERPC for regular monitoring of the transportation of converter transformer to HVDC Talcher station.
- > As per latest update from PowerGrid Odisha on 18.07.2024:
- Cumulative distance travelled from Kolar is 818 kms against total distance1910 kms. Balance distance pending to be travelled is 1092 kms.
- Delay in transportation is due to various types of unexpected logistic hurdles like delay in getting permission from Railway and NHAI in order to facilitate movement of the vehicles.

PowerGrid Odisha may update the present status of the Converter Transformer. Members may discuss.

Deliberation in the meeting:

- The updated status as per latest communication from Powergrid Odisha dated 22.07.2024:
- Cumulative distance travelled from Kolar is 929 kms against total distance 1910 kms. Balance distance pending to be travelled is 981 kms.
- ➤ He further mentioned that the Converter Transformer may tentatively be reached at site by last week of September & after reaching at site, it will take another 15 days to complete the commissioning process.

OCC Decision

OCC advised PowerGrid Odisha to expedite the transport of the converter transformer so that it can be commissioned at the earliest to improve stability & reliability of Grid.

- 3.3. Update on installation of 5th 400/220 KV 315 MVA ICT in place of existing age old 50 MVAR (3x16.6 MVAR single phase units) ISTS Reactor at Jeerat 400 KV SS of WBSETCL to maintain N-1 condition.: ERPC
- At present the total installed capacity of 400/220 KV ICTs at Jeerat 400 KV SS of WBSETCL is 4X315 MVA. The defective 4th 315 MVA ICT which was out of system for over 2 years has been replaced with a Regional pool spare 315 MVA ICT & put into service on 14th April-2024.
- Peak demand of Jeerat 400 KV SS in 2023-24 was 971 MVA (Jun-2023) i.e. more than full load capacity of the ICTs in service at that time i.e. 3X315 MVA.
- After recommissioning of the 4th ICT, it is evident from the load flow studies that the load shared by Jeerat SS with 4 nos of ICTs will increase considerably as compared to earlier load sharing with 3 nos of ICTs. The anticipated load during 2024-25 will increase further & may approach the full load capacity of all the four ICTs thus violating (N-1) criterion.

- So to cater the load growth at Jeerat 400 KV SS at 400/220 KV level maintaining (N-1) condition, augmentation of 400/220 KV ICT capacity from 4X315 MVA to 5X315 MVA is necessary at an early date.
- Clear space for construction of 220 KV bay for 5th ICT is available at Jeerat SS but there is no space for construction of new 400 KV bay & installation of 5th ICT.
- Due to space constraint, it is hereby proposed to use the 400 KV bay & equipment space of existing 50 MVAR (3X16.6 MVAR single phase units) Bus reactor which is at present operating with another 3-Ph 50 MVAR reactor in group control, both of which were installed under ISTS scheme a long time ago.
- Feasibility for keeping the 3-Ph 50 MVAR reactor in service by alternative arrangement is being explored by WBSETCL. WBSETCL is also considering the possibility for installation of a 3-Ph 125 MVAR Bus Reactor in place of the age old 50 MVAR 3-Ph Reactor depending on VAR compensation requirement as per system study.
- Considering the above facts proposal for installation of 5th ICT at Jeerat 400 KV SS was placed in the 29th CMETS-ER on 27.03.2024 Region for consideration and approval. It was decided that since the existing ISTS bus reactors (50MVAr (3x16.67MVAr single phase units) & 50MVAr 3-Ph) are to be disconnected and the vacated ISTS bay and space is to be used for installation of 5th ICT, the matter needs stakeholder's consultation & needs to be placed before ERPC forum for further discussion.
- Accordingly, the matter was deliberated in the 214th OCC and 215th OCC Meetings of ERPC.
- As per deliberation in **215th OCC**:

OCC decision:

- OCC agreed for the urgent requirement of the 5th ICT at 400 kV Jeerat(WB) S/S in view of system reliability.
- OCC advised Powergrid ER-II, CTU and WBSETCL to carry out joint site inspection at 400 kV Jeerat(WB) S/S by first week of June 2024 and share the report of the same with ERPC.
- OCC also opined to explore all alternate avenues for accommodating the 5th ICT at Jeerat(WB) S/S without striking off the existing ISTS assets in healthy condition owned by PowerGrid.
- Upon finalization of the technical aspect of 5th ICT installation at Jeerat(WB) S/S, commercial settlement pertaining to asset relocation also needs to be suitably sorted out in compliance to extant provisions and regulations.
- OCC observed that since the 5th ICT is being proposed to be installed in place of one no.
 of 50MVAR Bus Reactor, adequate reactive compensation also needs to be ensured at
 Jeerat(WB) S/S to prevent overvoltage conditions.
- The issue was also discussed in latest 31st CMETS-ER dated 30.05.2024 wherein the urgent requirement of the 5th ICT was acknowledged as well as importance of joint site inspection at 400 kV Jeerat(WB) S/S by PowerGrid ER-II, CTU and WBSETCL to explore all alternate avenues for accommodating the 5th ICT at Jeerat(WB) S/S was underscored.

WBSETCL and PowerGrid ER-II may update the status of joint site inspection. Members may discuss.

Deliberation in the meeting

- ❖ West Bengal STU intimated:
- A joint site inspection was carried out on 28th June 2024` & one location has been identified for shifting 50 MVAR Bus reactor.

- ➤ Shifting of Bus reactor involves construction of new 400 KV Bus-coupler bay & the freed 400 KV bus reactor Bay shall be deployed for commissioning of the new 315 MVA 400/220 kV ICT. However, the commercial aspects are not yet sorted.
- PowerGrid ER-II submitted:
- ➤ Due space constraints only feasible option is to replace the old reactors by a single 125 MVAR reactor it's final commissioning will take around 3-4 months.
- > Two existing 50 MVAR reactors to be de-capped and 125 MVAR reactor shall be installed in its place as ISTS asset under RTM.
- ➤ When the subject reactor shall be taken out of service while commissioning the new 315 MVA ICT, deemed availability shall be required from RPC for claiming 0&M charges.

3.4. Update on Dedicated Transmission line (DTL) of IBEUL project: ERPC

- As per the deliberation of the meeting dated 8th November'2023 convened by the CEA, chaired by Chairperson CEA, regarding LILO arrangement/Power evacuation of IBEUL, IBEUL was supposed to complete the DTL latest by March 2024 and shall submit monthly progress reports to CEA, ERPC, ERLDC, OPTCL and CTUIL.
- Later, as per directions from **CEA** (Power System Project Monitoring Division) dated 26.02.2024, the commissioning activities of Unit#2 was considered using LILO arrangement and further, the timeline of completion of DTL was extended till **September 2024.**
- The issue was repeatedly discussed in previous OCC meetings whose details tabulated below.

IBEUL submissions:

210 ^{tl}	th	212 th OCC(Feb'24)	21	3 th	21	4 th	215 th	
OCC(Jan'24)			00	OCC(March'24)		CC(Apr'24)	OCC(May'24)	
* 4	40% of DTL	• 62 % of	*	Connectivity	•	Dedicated	• 400 kV	
f	or IBEUL	foundation		of the to be		Transmissio	IBEUL-	
þ	olant is	works, 36% of		commission		n line (DTL)	Sundergarh DTL	
a	already	new erection		ed Unit#02		of the project	commissioning	
C	completed	and 20 % of		(350 MW)		to be	shall be	
a	and extra	stringing		has already		tentatively	completed latest	
r	manpower	works after		been applied		completed	by September	
r	nas been	LILO portion		to CTU.		by 1st week	2024.	
C	deployed by	have been	•	DTL from		of	• Status of 400	
l l	BEUL for its	completed in		IBEUL to		September	kV IBEUL	
f	final	respect of the		Sundergarh		2024.	Sundergarh	
C	completion by	DTL.		shall be	•	Status of 400	DTL(as on	
r	mid	Three		ready for		kV IBEUL	30.05.2024) is	
F	Februray'202	contractors are		commissioni		Sundergarh	as follows:	
4	4.	being deployed		ng by		DTL(as on	☐ Foundation	
		at a time to		middle of		13.04.2024)	works : 97 %	
		expedite		April 2024.		is as follows:	completed	
		progress in DTL				Foundation	□ Erection	
		works but ROW				works:	works: 94%	
		issues have				91.5%	completed	
						completed o		

delayed the	☐ Erection	□ Stringing
progress.	works: 87%	works: 58.5%
• DTL is	completed o	completed
expected to	□ Stringing	
completed by	works: 55%	
end of March	completed	
2024.		

As per deliberation of the 215th OCC meeting:

OCC decision:

- OCC advised IBEUL to expedite Boiler as well as MOEFCC clearance so that commissioning of the IBEUL U#2 can be done by June 2024.
- OCC further advised IBEUL to submit regular progress report of DTL highlighting significant progress in activities and also strictly adhere to the committed timeline for DTL commissioning i.e by September 2024.
- As per latest progress report submitted by IBEUL dated 15.07.2024, status of 400 kV IBEUL-Sundergarh DTL is as follows:

o Foundation works: 97.48% completed

Erection works: 95.47% completed

o Stringing works: **65.92%** completed

Challenges encountered in completion of DTL:

- Foundation Location are serve ROW, administration support sought- Deputy Collector Jharsuguda Meeting held on 16.07.2024
- MCL Land, Discussion under progress with MCL Team General Manager assured to resolved with in week Project Manager Lakhanpur Mines Fixed site Visit shortly.
- Illegal House Under the ROW at section 46/0-53/0 (2.605KM), Civil Court case will be resolved within a week after that eviction work will be started

IBEUL may update. Members may discuss.

Deliberation in the meeting

IBEUL informed about the long pending ROW issues being resolved that posed challenges in timely completion of DTL.

OCC Decision

• OCC advised IBEUL to expedite the pending construction works of DTL to strictly adhere to the committed timeline for DTL commissioning i.e by September 2024 and submit regular progress report of DTL highlighting significant progress in activities.

3.5. Unsatisfactory FRC performance by most of the entities & Non-Submission of FRC data: 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. If any data is not received or is incomplete, ERLDC resorts to using Scada data (low resolution)

to calculate the performance of the respective control area. Therefore, timely submission of primary response data is crucial for compliance with the **IEGC**.

As per the decision taken in the 214th OCCM, all the regional generators as well as states were advised to send the high-resolution data to ERLDC for assessing their performance. In line with the provisions of IEGC 2023, GRID-INDIA has been assessing the Frequency Response Characteristics (FRC) for grid events involving load/generation loss of more than 1000 MW or change in frequency by more than 0.1 Hz. In the month of June-2024 five of such event was reported. The Plant-wise average response as observed through 10 second SCADA data available at ERLDC & data received from generators is show in the table below. It may be noted that many power plants' performance was poor / below average and data received status also very poor from most of the plants. Respective plants/State control area may explain reasons behind deficiency in performance and all utilities may follow the timeline. As per deliberation in **215th OCC**:

- All generators whose data submission against frequency events flagged by ERLDC is pending (detailed above in agenda)were advised to submit the necessary FRC data to ERLDC at the earliest.
- All generators were also 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.

In line with the provisions of IEGC 2023, GRID-INDIA has been assessing the **Frequency Response Characteristics (FRC)** for grid events involving load/generation loss of more than 1000 MW or change in frequency by more than 0.1 Hz. In the month of **June-2024 five of such event was reported**. The Plant-wise average response as observed through 10 second SCADA data available at ERLDC & data received from generators is show in the table below. It may be noted that many power plants' performance was poor / below average and data received status also very poor from most of the plants. Respective plants/State control area may explain reasons behind deficiency in performance and all utilities may follow the timeline.

ENTITY NAME	Average FRP(Beta) for the month based on Scada data	Garde
FSTPP I&II	3.30	Excellent
FSTPP III	1.32	Excellent
KhSTPP I	0.99	Good
KhSTPP II	3.78	Excellent
TSTPS-I	0.19	Poor
Barh stage-1	0.40	Poor
Barh stage-2	1.27	Excellent
GMR	2.86	Excellent
MPL	-1.01	Poor
Adhunik	1.17	Excellent
Teesta V	Plant Out	
Teesta III	Plant Out	
N/AJITPL	-0.07	Poor
BRBCL	4.51	Excellent
NPGC	-0.87	Poor
Darlipalli	0.67	Below Average

North Karanpura	0.45	Poor
Bihar	0.11	Poor
Jharkhand	-0.03	Poor
DVC	0.49	Poor
OPTCL	0.40	Poor
WB	0.48	Poor

The data receipt status for the above events are shown below: (18.07.2024)

	04.06.2024	04.06.2024	11.06.2024	17.06.2024	19.06.2024
STATIONS					
	10:26	10:34	14:10	13:53	12:42
Barh stage-1	Received	Received	Received	Pending	Pending
Barh stage-2	Received	Received	Received	Pending	Pending
BRBCL	Pending	Pending	Pending	Pending	Pending
Darlipalli	Received	Received	Received	Received	Received
FSTPP #STG 1 & 2	Received	Received	INCOMPLETE DATA	Pending	Pending
FSTPP # STG 3	Pending	Pending	INCOMPLETE DATA	Pending	Pending
KhSTPP #STG 1	Pending	Pending	Pending	Pending	Pending
KhSTPP #STG 2	Received	Pending	Pending	Received	Received
NPGC	Received	Received	Pending	Received	Received
TSTPP #STG 1	Received	Received	Received	Received	Pending
TEESTA V	Plant Out	Plant Out	Plant Out	Plant Out	Plant Out
North Karanpura	Pending	Pending	Pending	Pending	Pending
TEESTA III	Plant Out	Plant Out	Plant Out	Plant Out	Plant Out
ADHUNIK	Received	Received	Received	Received	Received
DIKCHU	Plant Out	Plant Out	Plant Out	Plant Out	Plant Out
TASHIDING	Pending	Pending	Pending	Pending	Pending
GMR	Pending	Received	Received	Received	Pending
JITPL	Received	Received	Received	Received	Received
MPL	Received	Received	Pending	Received	Received
Bihar	Pending	Pending	Pending	Pending	Pending
Jharkhand	Pending	Pending	Pending	Pending	Pending
DVC	Pending	Pending	Pending	Pending	Pending
OPTCL	Received	Received	Received	Received	Received
WB	Pending	Pending	Pending	Pending	Pending
		Updated as	s on		

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"In line with IEGC clause 30.10.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 Annexure-2, NLDC, RLDCs, SLDCs, as the case may be, after analyzing the FRP shall direct the concerned entities to take corrective action."

In line with the above for discussing the FRC performance of Generators ERLDC will host a virtual meeting on 2nd August of 2024. All concerned are requested to attend the same. The meeting link for the above will be shared in due course. Any queries regarding the above may be sent to erldcss@grid-india.in

ERLDC may explain. Members may discuss.

Deliberation in the meeting

- ❖ ERLDC highlighted the five reportable frequency event that occurred in the Grid & the respective FRP of various Generators are shown above for the month of June 2024.
- He further underscored the data receipt status from different utilities in the five reportable frequency events.
- ❖ It was also informed that in order to discuss the FRC performance of Generators of ER, a virtual meeting has been planned on 2nd Aug 2024.

OCC decision

- All generators were also 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 concerned were also advised to attend the virtual meeting on FRC performance of generators by ERLDC on 2nd Aug 2024.

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. As a part of Handholding initiative ERLDC has successfully imparted training on forecasting to all the states. Currently, the day ahead data is regularly received from all the states except Sikkim. ERLDC is also not receiving the weekly and monthly data as well from all the states.

As per deliberation in **216th OCC**:

OCC decision:

- OCC advised all SLDCs for strictly adhering to the schedule of demand estimation as mandated in Clause 2 of Regulation 31 IEGC 2023, timely sharing with ERLDC 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 on weekly as well as monthly basis with ERLDC.
- SLDC Odisha was advised to expedite implementation of the forecasting software Hence it is again requested to all the concerned for timely submission of demand estimation data to ERLDC. This collaboration is essential for effective planning and preparedness to meet

the region's electricity demands efficiently and reliably. The latest Forecast receipt status is shown below:

AS ON 18-07-2024	Forecast Receipt Status				
Entity Name	Day ahead	Weekly	Monthly		
JHARKHAND	REGULAR	REGULAR	NOT RECEIVED		
	REGULAR				
WEST BENGAL		NOT RECEIVED	NOT RECEIVED		
DVC	REGULAR	REGULAR	NOT RECEIVED		
BIHAR	REGULAR	REGULAR	NOT RECEIVED		
SIKKIM	NOT RECEIVED	NOT RECEIVED	NOT RECEIVED		
ODISHA	REGULAR	NOT RECEIVED	NOT RECEIVED		

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 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 on weekly as well as monthly basis with ERLDC.
- SLDC Odisha was advised to expedite implementation of the forecasting software

3.7. Mock Islanding test: ERLDC

As per **IEGC cl. 29(11)**, Mock drills of the islanding schemes are to be carried out annually by the respective RLDCs in coordination with the concerned SLDCs and other users involved in the islanding scheme. In case a mock drill with field testing is not possible to be carried out for a particular scheme, simulation testing shall be carried out by the respective RLDC.

Presently, the following islanding schemes are present in the Eastern Region:

Station/System	State/Country	Installed Capacity (MW)
CHPC	Bhutan	84
CESC	West Bengal	750 (3 x 250 MW)
NALCO	Odisha	1200
ICCL	Odisha	258 (2 x 54 MW + 1 x 30 MW + 2 x 60 MW)
RSP	Odisha	255 (2 x 60 MW + 3 x 45 MW)

Bhushan Power & Steel	Odisha	506
Aryan ISPAT and power Ltd.	Odisha	18
Maithon Ispat Limited	Odisha	30
Hindalco	Odisha	467.5
IMFA	Odisha	258 (2 X 54 MW+ 1 X 30 MW + 2 X 60 MW)
VAL	Odisha	1215 (9 X 135 MW)
Bakreswar Islanding Scheme	West Bengal	1050 (5 x 210 MW)
Tata Power Haldia Islanding Scheme	West Bengal	120 (2 x 45 MW+ 1 x 30 MW)
Bandel Islanding Scheme	West Bengal	215
Narbheram Power & Steel Pvt. Ltd (Dhenkanal) Islanding Scheme	West Bengal	8

These islanding schemes shall be reviewed and augmented depending on the assessment of critical loads at least once a year or earlier if required. Therefore, all the concerned SLDCs are requested to coordinate with respective users and share a plan for conducting a Mock test or in case a mock test not possible then may share the following data for conducting simulation studies:

- 1. Update Network (in PSSE file)
- 2. Update LGBR details of the island node wise (in PSSE file)
- 3. Machine dynamic data as per FTC documents of ERLDC
- 4. Islanding logic

ERLDC may explain. Members may discuss.

Deliberation in the meeting

❖ ERLDC informed the forum that as per **IEGC cl. 29(11)**, Mock islanding test needs to be carried out annually by RLDC in co-ordination with concerned SLDCs & other users involved in the Islanding Scheme.

OCC decision

- OCC advised all the concerned SLDCs to share plan to conduct Annual Mock Islanding test with ERLDC at the earliest possible as mandated by IEGC 2023. {cl. 29(11)}.
- In case of non-feasibility of mock test, OCC advised SLDCs on sharing following details of respective users with ERLDC for carrying out simulation studies:
 - Update Network (in PSSE file)
 - Update LGBR details of the island node wise (in PSSE file)

- o Machine dynamic data as per FTC documents of ERLDC
- Islanding logic

3.8. Finalization of dates for mock black start in capable units of Eastern region: ERLDC

As per **IEGC 2023** regulations, each user is required to carry out a mock trial run of the restoration 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.

As such a tentative list for the year 2024 is prepared for conducting mock Blackstart of capable hydro units in the Eastern Region, matching with the dates in which such tests were conducted in previous years. The same agenda was discussed in the 214th OCC meeting and it was deliberated that all hydro stations of ER to update the schedule of mock black start as prepared by ERLDC.

A few tentative dates, as received, have been highlighted in sky blue color.

SI No	Name of Hydro Station	2022 Actual Date of Test	2023 Actual Date of Test	Schedule of Mock Black Start	2024 Actual Date of Test
1	U. Kolab	23 rd ,June2022		June-2024	
2	Balimela	08 th Sep- 2022		July-2024	
3	Rengali	08- December- 2022	12 th July 2023	June-2024	
4	Burla	23-June- 2022		July-2024	
5	U. Indravati	25-May- 2022		May-2024	
6	Maithon	DVC representative submitted that upgradation work is under progress due to issues in the governing system. Detailed timeline would be submitted to ERPC and ERLDC. Detail timeline yet to be received from DVC SLDC	14 th August 2023	Dec-2024	
7	TLDP-III			Oct-2024	
8	TLDP-IV			Oct-2024	
9	Subarnarekha	13 th December 2022		Sep-2024 4 th week	

10	Teesta-V			N/A	
11	Chuzachen			Oct-2024	
12	Teesta-III	08-April- 2022		N/A	
13	Jorethang		19 th and 20 th December 2023	Dec-2024 3 rd week	
14	Tashiding		12 th December 2023	2 nd week of Dec 2024	
15	Dikchu			N/A	
16	Rongnichu			March 2024	18 th March and 20 th March 2024
17	Mangdechu				

The users, in this case mean includes generating company and they are requested to kindly respond and review the tentative dates specific to their plant units and update the list. For intra state blackstart capable hydro units, SLDCs are requested to respond on their behalf. So far, only **Tashiding, Jorethang** and **Subarnarekha(JUSNL)** have updated.

As per deliberation in **215th** OCC:

- > ERLDC submitted:
- Tentative schedule of mock black starts in capable hydro generating units of Eastern region has been prepared based on available historical data.
- So far, relevant details have been received only from Tashiding, Jorethang and Subarnarekha(JUSNL).

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.
- OCC also opined to finalize this schedule of mock black start by next OCC meeting if no update on the same is received at ERLDC from concerned hydro generating units in the meantime.

ERLDC may update. Members may review and discuss.

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. 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.

3.9. Periodic Mock Drill Exercises in areas of generation, transmission and distribution of the power sector: ERPC

In compliance to **Disaster Management Plan for Power Sector (2022**) as drafted by **CEA**(as per Disaster Management Act 2005) and approved by Ministry of Power (Govt. of India) as well as in order to be prepared for any eventuality, periodic mock drill exercises are to be undertaken in various areas of generation, transmission and distribution of the power sector by considering various crisis and disaster situations like an earthquake, floods etc. Depending on the vulnerability of the installations/plant, mock drills to handle such situations need to be undertaken. The utilities are also required to ensure that at least one mock drill exercise for every crisis/disaster situation to which the installation/plant is vulnerable is undertaken in each quarter. The adverse observations made on each event of Mock drill should be taken into account and it should be ensured to prevent occurrence of such undesirable events in the future.

☐ Action points:

As per deliberation of **1st MEETING ON REGIONAL DISASTER MANAGEMENT** (EASTERN REGION) dated **09.07.2024**:

- At least one mock drill exercise for every crisis/disaster situation to which the
 installation/plant is vulnerable must be undertaken in each quarter and quarterly report by
 the utilities to be shared with CEA for review and onward submission to Ministry of Power
 (Govt of India). (Action: All thermal GENCOs (Central,IPP), all hydro generating stations,
 all ISTS licensees. SLDCs to coordinate with respective GENCOs,STUs and DISCOMs
 within their jurisdiction)
- Utilities are requested to share the experience on the mock drill exercises and scope for improvements.

All concerned utilities may update action plan.

Deliberation in the meeting

OCC advised all the utilities to:

- ❖ Conduct periodic Mock Drills i.e. at least one mock drill exercise in each quarter to which the installation/plant is vulnerable in order to be prepared for any unforeseen eventuality.
- Share Quarterly mock drill reports with ERPC which will then be sent to CEA for review & finally report will be submitted to Ministry of Power (Govt of India).

3.10. Commissioning Status of ADMS: ERLDC

- The automatic demand management scheme (ADMS) has been already commissioned in West Bengal, DVC, Odisha, and Jharkhand and partially implemented by Bihar.
- In the **216th OCC meeting** the forum advised Bihar to share detailed action plan for implementation of additional 400 MW load under ADMS.
- It was also advised by the forum that DVC to share revised feeder list with ERLDC in which ADMS to be implemented after operationalization of Chandrapura islanding scheme.

• Current Status (as of July 18, 2024): No input received from Bihar and DVC.

Bihar & DVC may update the Status. Members may discuss.

Deliberation in the meeting

OCC decision:

- OCC stressed the importance of ADMS in restricting the drawl of a control area and thereby maintain network security by confining frequency within stipulated band.
- OCC advised:
- ✓ Bihar to share detailed action plan for implementation of additional 400 MW load under ADMS with ERLDC at the earliest.
- ✓ DVC to share revised feeder list at the earliest with ERLDC in which ADMS to be implemented after operationalization of Chandrapura islanding scheme.

4. PART-D: OPERATIONAL PLANNING

4.1. Anticipated power supply position during August -2024

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of August 2024 were 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 August 2024 is provided at **Annexure D.1**

4.2. Major Thermal Generating Units/Transmission Element outages/shutdown in ER Grid (as on 18-07-2024)

a) Thermal Generating Stations outage report:

SL No	STATION	STATE	AGENC Y	UNIT NO	CAPACIT Y (MW)	REASON(S)	OUTAGE DATE
1	BARAUNI TPS	BIHAR	NTPC	7	110	Poor condenser vacuum	19-Jul- 2023
2	BARAUNI TPS	BIHAR	NTPC	6	110	Low vacuum	22-Jul- 2023
3	RTPS	DVC	DVC	2	600	Initially Unit was taken out due to very low lube oil presssure, later unit was taken under annual overhauling w.e.f 00.00 hrs of 27/02/2024, now under forced outage wef 23/03/2024 due to damage in turbine bearing.	26-Feb- 2024
4	MEJIA TPS	DVC	DVC	6	250	Boiler tube leakage	17-Jul- 2024
5	BARH	BIHAR	NTPC	1	660	Boiler Tube Leakage	11-Jul- 2024
6	IBEUL	ODISH A	IBEUL	1	339.6	Condenser tube Leakage	18-Jul- 2024
7	BARH	BIHAR	NTPC	2	660	Abnormal sound from boiler	18-Jul- 2024

8	BAKRESH WAR	WEST BENGA L	WBPDC L	5	210	Boiler-Turbine Overhauling along with De-NOx implementation	02-Jul- 2024
9	KOLAGH AT	WEST BENGA L	WBPDC L	6	210	Desynchronized for	
10	FSTPP	WEST BENGA L	NTPC	5	500	Annual overhauling	01-Jul- 2024
11	NABINAG AR(BRBC L)	BIHAR	NTPC	3	250	Annual overhauling	02-Jul- 2024
12	JITPL	ODISH A	JITPL	2	600	Annual Overhauling	05-Jul- 2024
13	KHSTPP	BIHAR	NTPC	3	210	Annual Overhauling	05-Jul- 2024
14	GMR	ODISH A	GMR- Infra	1	350	Annual Overhauling	06-Jul- 2024

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) <u>Major Generating stations Out on Reserve Shutdown due to low system demand:</u>

SL No	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
				NI	L		

c) <u>Hydro Unit Outage Report:</u>

<u>S.</u> <u>NO</u>	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
1	TEESTA STG III Hep	SIKKIM	<u>TUL</u>	<u>1-6</u>	200	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
2	DIKCHU Hep	SIKKIM	<u>SKPPL</u>	1 &2	<u>48</u>	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	TEESTA HPS	SIKKIM	NHPC	<u>1-3</u>	<u>170</u>	Sudden cloudburst at glacier fed LOHNAK Lake followed by huge inrush of water in Teesta River	04-Oct- 2023

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						and damage of Teesta III Dam & downstream Powerhouses	
4	CHIPLIMA HPS / HIRAKUD II	ODISHA	<u>OHPC</u>	1	<u>24</u>	Capital Overhauling	15-Dec- 2023
<u>5</u>	BALIMELA HPS	ODISHA	OHPC	2	<u>60</u>	High Turbine Vibration	19-May- 2024

d)Long outage report of transmission lines (As on 18.07.2024):

Transmission Element / ICT	Outage From	Reasons for Outage
220/132KV 100 MVA ICT II AT LALMATIA	22.01.2019	Commissioning work of 220/132KV, 100MVA Transformer and its associated control Panel under progress.
220/132KV 100 MVA ICT 3 AT CHANDIL	30.04.2020	Due to Fire hazard ICT damaged and burnt.
220KV-FSTPP-LALMATIA-I	21.04.2021	Transmission line is idle charged between Lalmatia GSS end up to Tower loc no 94 (50.30km)
220KV-WARIA-BIDHANNAGAR-1 & 2	08.06.2022	To control overloading of 220 kV Waria- DSTPS (Andal) D/C line
220KV-MUZAFFARPUR(PG)- GORAUL(BH)-1	11.06.2022	Main Bay is under breakdown due to flashing in GIS module at Muzaffarpur end
400/220KV 315 MVA ICT 2 AT PATRATU	27.09.2022	ICT tripped on few occasions due to Buchholz later DGA violation found, internal fault in transformer to be rectified. (DGA violation)
132KV-BARHI-RAJGIR-1	25.03.2023	Dismantling of tower no. 227, 228, and 229 crossing the premises of Mahabodhi Cultural centre along with
132KV-NALANDA-BARHI(DVC)-1	25.03.2023	Destringing of conductor of both circuits and Earth wire between tension tower no. 218-237 in same line.
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
400KV-TEESTA-III-DIKCHU-1	04.10.2023	LOHNAK Lake followed by huge inrush of water in TEESTA river and damage of Teesta III Dam & downstream Powerhouses
400KV-RANGPO-DIKCHU-1	04.10.2023	Hand tripped from Rangpo 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-KHSTPP-BANKA (PG)-1	24.02.2024	Switchyard bay updation work
400KV-JHARSUGUDA-ROURKELA-3&4	01.04.2024	Reconductoring work
132KV-MADHEPURA (BH)- SAHARSA(PMTL)-1	04.04.2024	To control loading on 132kV Madhepura-Saharsa line
400KV/220KV 315 MVA ICT 2 AT RENGALI	07.05.2024	Commissioning of ICT-2 at Rengali under ADD CAP 2019-24
132KV-KHSTPP-SABOUR-1	19-05-2024	To control loading of 400/132kV ICT-2 to rectify hotspot problem on 132kV side
132KV-RANGPO-SAMARDONG-1	22-05-2024	Rangpo:Y-n fault with fault distance 0.157 kM ,14.562kA Samardong: NA
400KV/220KV 315 MVA ICT 3 AT RANGPO	27-06-2024	SF6 Gas Leakage rectification work by OEM Hyosung
220KV-GAYA(PG)-BODHGAYA-3 & 4	02-07-2024	DT received at Gaya end
132KV-RANGPO-SAMARDONG-2	08-07-2024	132/66/11 kV Samardong S/s has been taken under shut down as road connectivity has been disrupted due to continuous raining, land sliding in Sikkim
220KV-MUZAFFARPUR(PG)- GORAUL(BH)-2	08-07-2024	Restoration of 220 KV Muzaffarpur(PG) to Goraul GIS line bay-01 along with GIS Bus-01 at Muzaffarpur(POWERGRID)
400KV/220KV 500 MVA ICT 4 AT MUZAFFARPUR	08-07-2024	To facilitate restoration of GIS line bay
220KV-RAJARHAT-NEW TOWN(AA-II)-2	10-07-2024	Rectification of gas leakage problem from B-Ph breaker pole; Line declared under breakdown after charging attempt after return of shutdown

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 June -2024.

The details of new units/transmission elements commissioned in the month of June-2024 based on the inputs received from beneficiaries:

		NEW	ELEMENTS CO	MMISSIONED DURING	G JUNE. 2024					
				IERATING UNITS	, ,					
SL. NO.	Location	Owner/ Unit name	Unit No / Source	Capacity added (MW)	Total/Installed Capacity (MW)	DATE	Remarks			
	NIL									
			IC	CTs/ GTs / STs						
SL. NO.	Agency/ Owner	SUB-STATION	ICT NO	Voltage Level (kV)	CAPACITY (MVA)	DATE	Remarks			
1	PGCIL	Subhasgram	7(Interim)	400/220 kV	500	22-06-2024	Available Regional spare of 500MVA ICT at Maithon has been installed as "interim measure" at Subhasgram in place of existing 125 MVAR Bus Reactor'			
			TRAN	ISMISSION LINES						
SL. NO.	Agency/ Owner	Line Na	ame	Length (KM)	Conductor Type	DATE	Remarks			
				NIL						
		LILO	D/RE-ARRANGE	MENT OF TRANSMIS	SION LINES					
SL. NO.	Agency/ Owner	Line Name/	LILO at	Length (KM)	Conductor Type	DATE	Remarks			
1	BSPTCL	132KV Nabina Nagaruntari(Jl Transmissid	harkhand)	123.434	HTLS Conductor equivalent to Panther and ACSR Panther	12-06-2024	LILO of 132KV Sonenagar(Old) -Nagaruntari Transmission Line at GSS Nabinagar.			
			BUS	LINE REACTORS						
SL. NO.	Agency/ Owner	Element I	Name	SUB-STATION	Voltage Level (kV)	DATE	Remarks			
				NIL	<u> </u>	I	1			
				BUS						
SL. NO.	Agency/ Owner	Element l	Name	SUB-STATION	Voltage Level (kV)	DATE	Remarks			
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			NIL							
	BAYS									
SL.	Agency/	Element Name	SUB-STATION	Voltage	DATE	Remarks				
NO.	Owner			Level (kV)						
1	BSPTCL	132KV MAIN BAY OF NAGARUNTARI-1 AT 132/33 KV GSS NABINAGAR	GSS NABINAGAR	132/33 KV	12-06-2024	LILO of 132KV Sonenagar(Old) -Nagaruntari Transmission Line at GSS Nabinagar.				

Members may note.

Deliberation in the Meeting:

Members noted.

4.4. UFR operation during the month of June 2024.

Frequency profile for the month as follows:

	MAX	MIN	% LESS	% WITHIN	% MORE	
MONTH	(DATE/TIME)	(DATE/TIME)	IEGC BAND	IEGC BAND	IEGC BAND	
June, 2024	50.67 Hz on 17-06- 2024 at 13:53 hrs	49.63 Hz on 16-06- 2024 at 04:10 hrs	4.5	79.2	16.3	

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

Members may note.

Deliberation in the Meeting:

Members noted.

Venue: ERPC Conference Hall, Kolkata

Time: 10:30 Hrs.

Date: 24.07.2024 (Wednesday)

SI. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
1	N S Mondal	Member Secretary	ERPC	9958389967	mserpc-power@nic.in	W .
2	R Sutradhar	Executive Director	ERLDC	9436302714	rajibsutradhar@grid-india.in	Ens
3	5. Konar	SV GM	ERLDC	9436335370	Konar_se grid-india in	एसम् नार
4	P. GHOXH.	Dan	GR-17	9434748263	botta showne powersid. In	Arm .
5	S K Pondey	ccem	DVC	9471959119	Sumil. pondy @ are-gov. in	B
6	D. P.PUITANDI	S. GM, SLDL	DVC		deliprosa purtandiadoc. gov.in	Dun
7	Prectam Banun	ACE, ALDE	WBSERL	7003871189	prestant2@gmail:cem	The
8	Rounak Kas	DE , ALDC	WBSEXL	8906014331	Hounax - Keal @ Wised cl. in	Quar
9	.P. Y RAUT .	Head- OPN	mer	9223501513	rautpo@ tatapower. com	RE.
10	Uggen Dorji	AECELEctricail	THP	+975 17977831	4. dorji 3584@drukgreen. bt	Your
11	Dorgee Phuntsho	AE (Electrica)	MHP, Bheitan.	9653978848	d. phurtsho3529@drukgreen.bt	the
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14	MS Mahre	Agon	JSW ENERGY	6376355214	mahendra malik ejswin	March
15	Shikoditya Chatterjee	AM	APNRL		Shiladitya Challerice Cadhunik Power.	co.in Sttyre
16	Mishart Kumar	AGM (08M)	DMTCL-Schoon	4987210324	nishant Kymar (Sel-Boseny Com.	· Mus
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18	S.K. fanda.	manager son	SLDC, DVC	6370134794	landoch panda ducgovin	20
19	Saibal Chesh	Manager	ERLDEIT	8584072079	Saipul@grid-India-in	Salah May
20	Mithun Gayen	Manager	PGCIL, KOIKata		mithin ayen@powergrid.in	& Film
21	Gitesh Patel	Dy managery	ERLDC Keelkeete		gitesh patel agoid-Irdia in	Gut
22	Laldheri Kumel	manager	BRLX, Kester	9831379478	ladhari (aghid - maig. in	Madhai a
23	RAKESH KU. PRANHAN	Ch. OMgr.	ERIDC	9831337570	Vapradhan & grid-india. in	राकेश
24	Bilash Achami	Dam (so)	ERLDC-GRID INDIA	7003472016	bilash. achari@graid-inota in	- B. anne W
25	Abhisher Muser	Deputy Man	NTPC , Bark		ABHISHEK MURARI @NTPC-CO-DV	अप्रिक कुरार
26	Ch. Eswara Rep	GM	pavergrid, odisha	9437962178	eswara powergrid, in	Eguly
27	Birendra Kuma		TVAL	9031078839	bk 20 Evnle gmail. com	
28	S. Roy Chowdhury	SE(E)	CPD, WBSETCL	9831370092	s. hay chowlhury 1971@ g and . com	9000
29	R. Das	ALE	CAD WASETLL	94349107466	ce cod Egment. com.	Karrjan

Time: 10:30 Hrs.

Date: 24.07.2024 (Wednesday)

		D i	Organisation	Contact No.	E-mail ld	Signature
SI. No.	Name	Designation	ERP C	01133125 844	secommler&c@gov.in	De zuit
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31	P. Sen			9830052830	d mukheniee@whodel.co.in	Dem 2417
32	D. Mykhenjee	SM	WBPPCL	7783087568	d. mukhenjee@wbpdcl. co. In vajmæel me 82@gmæel, com	do-
33	Raju Kachhap	SM	SLDC Ranchi	3717694926	Sudeepekka448bit agmil.com	delys
34	SUBEEP EKKA	sm	Engg. JUSNL	9163312742		MAS-
35	DEBANSIAI DE	SM	CESC		ele.smsahoo@optel.co.in	Marko
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37	MANOJ PODDER	Agm(US)	WAPDCL	833 590 407	mpedder @ wopder in	AN 27 24.07.24
38	ALOK KR SHOSH	SM(OE)	NBPDCL		svkbeneagee @ yahoo.com	Banja / 24-07-24
39	SHOUVIK BANERJEE	ACE/SLDC	SLDC, WBSETCL	9434910379	ce. wosldc@gmail.com	De 24/7/24
40	RITA CHAKRABORTY	CE: SLDC	SLAC MBSETUL	9434910041		0
41	SAJALK BAG	ACE: SLOX	SLDC, WB	9434910265	1 0 1 200 0 0 1 1	1 dadon -
42	Syntl Krauble	ESE SUBE	SUDE BILLIAN	7763817917		
43	Agrind Kumar	ESE / DEDC	SLDC, Biles	7763817777	pisces. arvind @ gmail.com	Ala -
44	DK: Khiente	AD	ERPC, KOIKeda	7683889161	delip Khante, cea@avin	ang
45	S. Keinwa	SE	ERPC, Kolkara	9831919509	Shyam. Kejnival @gev.in	Bull
46	I.K. MEHRA	SE	ERPC, Kolkater	9810688789	ikmehrad nic. in School For Tubes. in	
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217th OCC Meeting

POWER ALLOCATION FROM REGIONAL UNALLOCATED POOL

BACKGROUND

Escalating peak demand

All India Peak demand already touched 250 GW

Scheduling power from Central Sector Generating Stations (CGS) by states

Significant deficit observed in non-solar hours for some states

Optimal power allocation from CGS among constituent states

Periodic
allocation of
regional
unallocated
quota on basis of
RPC
recommendation

HIGH DEMAND SEASON LOW DEMAND SEASON STATES AND REGIONAL LOAD PROFILE

METHODOLOGY

Comparative analysis of peak demand met for last two fiscals i.e 2022-23 & 2023-24

Comparative analysis of energy consumption (MU) for last two fiscals i.e 2022-23 & 2023-24

Month	Bihar	Jharkhand	DVC	West Bengal	Odisha	Sikkim
April	MEDIUM	HIGH	HIGH	HIGH	HIGH	MEDIUM
May	HIGH	HIGH	нібн	нібн	HIGH	LOW
June	нібн	HIGH	нідн	нідн	HIGH	LOW
July	нібн	HIGH	нідн	нідн	HIGH	LOW
August	нібн	HIGH	нідн	HIGH	HIGH	LOW
September	нібн	нісн	нідн	нідн	нібн	LOW
October	MEDIUM	нісн	MEDIUM	HIGH	HIGH	LOW
November	LOW	MEDIUM	MEDIUM	MEDIUM	LOW	MEDIUM
December	LOW	MEDIUM	MEDIUM	LOW	LOW	нібн
January	MEDIUM	нідн	HIGH	LOW	LOW	нідн
February	LOW	нісн	нідн	MEDIUM	MEDIUM	нідн
March	MEDIUM	MEDIUM	HIGH	HIGH	HIGH	HIGH

MAJOR INFERENCES

MARCH-OCTOBER are usually high demand months for ER states.

Almost all states face high demand except Sikkim.

NOVEMBER and **JANUARY** experience Low to medium demand while **JANUARY** and **FEBRUARY** have generally medium demand.

Sikkim records high demand in **DECEMBER** to **MARCH** due to heating loads with corresponding low demand in Summer and Monsoon seasons.

Since **DVC** and **Jharkhand** witness almost flat demand profile, major energy consuming states of ER i.e **West Bengal**, **Bihar** and **Odisha** play pivotal role in deciding regional load pattern.



ANNEXURE B.2.8

APPROVED MAINTENANACE SCHEDULE OF THERMAL GENERATING UNITS

SYSTEM	STATION	UNIT NO.	CAPACITY(MW)	PERIOD (AS PER LGBR 2024-25)		NO OF	REASON	APPROVED PERIOD		NO OF	WHEATHER AS PER	REMARK
				FROM	ТО	DAYS		FROM	ТО	DAYS	LGBR OR NOT	
DPL	DPL	7	300	29.08.2024	07.09.2024	10	Condenser vacuum issue	25.07.2024	04.08.2024	10	NO	APPROVED
	Mejia TPS	5	250	01.08.2024	04.09.2024	35	Repair works after BTL	26.07.2024	28.07.2024	3	NO	APPROVED
DVC	Mejia TPS	2	210	01.01.2025	25.01.2025	25	AOH/BOH	01.08.2024	28.08.2024	28	NO	APPROVED
NTPC	TSTPS-I	2	500	13.08.2024	21.09.2024	40	AOH	20.08.2024	21.09.2024	40	NO	APPROVED
	Sagardighi TPS	2	300	04.08.2024	23.08.2024	20	AOH/BOH	07.08.2024	10.09.2024	35	NO	APPROVED
WBPDCL	Santaldih TPS	6	250	26.08.2024	29.09.2024	35	AOH/BOH	-	-	-		NOT AVAILED

Annexure D.1

Updated Anticipated Peak Demand (in MW) of ER & its constituents for August 2024

BILLAR Decand (NW) Except Registrone (NU)			nd (in MW) of ER & its constituents for August 2024	
NET FOWER AVAIL ABILITY - Own Sources 429	1	BIHAR	Demand (MW)	Energy Requirement (MU)
NET FOWER AVAIL ABILITY - Own Sources 429				
Central Sector IB. Learnal 5517 5699 SURPLUS PUBERETIT		NET MAX DEMAND	7770	4690
Central Sector IB. Learnal 5517 5699 SURPLUS PUBERETIT		NET POWER AVAILABILITY- Own Sources	429	345
STRPLUS- DEFERTO 1-794 546				
MAKINIAND DEMAND 125 156 157 158 1				
NET MAXIMEM DEMAND 1255 1366 1325 1366		SURPLUS(T)/DEFICIT(-)	-1704	-040
NET MAXIMEM DEMAND 1255 1366 1325 1366				
NET POWER AVAILABILITY - Own Senere 200 186	2			
Cartal Sector Ph. Latent-IPP 1307 456		NET MAXIMUM DEMAND	2100	1325
SURPLIST, DEFECT() 493 456		NET POWER AVAILABILITY- Own Source	300	186
SURPLIST, DEFECT() 493 456		Central Sector+Bi-Lateral+IPP	1307	683
NET NOVAM DIMENSION				
NET MAXIMUM DEMAND NET POPUR AVAILABILITY: Own Source 5700 2379		BORT ECS(*) BELLETT(*)	193	430
NET MAXIMUM DEMAND NET POPUR AVAILABILITY: Own Source 5700 2379		DVG		
NET POWER AVALABILITY- Own Source 3700 2279	3		2.100	1000
Central Sector-MPI 300 251				
Si- Harral export by DYC 2500 1411 1				
SURPLUSE*) DEFICIT(-) AFTER EXPORT 100 -292		Central Sector+MPL	300	251
SURPLUSH-OPERITCH, AFTER EXPORT 100 2-92		Bi- lateral export by DVC	2500	1641
A ODSINA				
NET MAXIMUM DEMAND (ONE) 5700 3423		BERGES (*) BETTETT () THE TEXT OF T	100	2,2
NET MAXIMUM DEMAND (ONE) 5700 3423	4	ODICHA		
NET MAXIMUM DEMAND (in Case of CPP Drawal of 900 MW(peak) and average drawl of 700 MW)	4			2.422
Net Power A valla ABILITY - Own Source 3736 3238				
NET FOWER AVAILABILITY-Own Source 3736 2338			6445	3190
Central Sector 1564 1131 131				
Central Sector 1564 1131 131		NET POWER AVAILABILITY- Own Source	3736	3238
SURPLUS(*)DEFICT(*) (fult Case of CPP Drawal of 950 MW(peak) and average and and word of 700 MW)				
SURPLUSE-TyDEFICITE-) ((In Case of CPP Drawal of 950 MW(peak) and average 1145				
dmwlm of 700 MW				
S			-1143	11/9
WBSEDCL		drawlm of 700 MW)		
WBSEDCL				
S.1 NET MAXIMUM DEMAND (Incl. Sikkim)	5	WEST BENGAL		
S.1 NET MAXIMUM DEMAND (Incl. Sikkim)		WBSEDCL		
NET MAXIMUM DEMAND (Incl. Sikkim)	5.1		9741	5843
NET POWER AVAILABILITY: Own Source (Incl. DPL) 5132 3081				
Central Sector Bi-lateral-IPPECPP+TLDP	-			
EXPORT (TG SIKKIM)				
SURPLUS(+)DEFICIT(-) AFTER EXPORT -2232 -1375				
S.2 CESC				
NET MAXIMUM DEMAND 2090 1152 NET POWER AVAILABILITY-Own Source 830 556 NET POWER AVAILABILITY-Own Source 341 390 TOTAL AVAILABILITY OF CESC 1371 946 DEFICIT(-) for Import -719 -206 -719 -206		SURPLUS(+)/DEFICIT(-) AFTER EXPORT	-2232	-1375
NET MAXIMUM DEMAND 2090 1152 NET POWER AVAILABILITY-Own Source 830 556 NET POWER AVAILABILITY-Own Source 341 390 TOTAL AVAILABILITY OF CESC 1371 946 DEFICIT(-) for Import -719 -206 -719 -206				
NET MAXIMUM DEMAND 2090 1152 NET POWER AVAILABILITY-Own Source 830 556 NET POWER AVAILABILITY-Own Source 341 390 TOTAL AVAILABILITY OF CESC 1371 946 DEFICIT(-) for Import -719 -206 -719 -206	5.2	CESC		
NET POWER AVAILABILITY - Own Source			2090	1152
MPORT FROM HEL				
TOTAL AVAILABILITY OF CESC 1371 946				
DEFICIT(-) for Import				
-719 -206 -719				
WEST BENGAL (WBSEDCL+CESC+IPCL) (excluding DVC's supply to WBSEDCL's command area) (excluding DVC's supply to WBSEDCL's command area) (excluding DVC's supply to WBSEDCL's command area) (1831		DEFICIT(-) for Import		
(excluding DVC's supply to WBSEDCL's command area) NET MAXIMUM DEMAND			-719	-206
(excluding DVC's supply to WBSEDCL's command area) NET MAXIMUM DEMAND				
NET MAXIMUM DEMAND				
NET POWER AVAILABILITY- Own Source			11831	6995
CS SHARE+BILATERAL+IPP/CPP+TLDP+HEL 2928 1784				
SURPLUS(+)/DEFICIT(-) BEFORE WBSEDCL'S EXPORT -2951 -1574				
SURPLUS(+)/DEFICIT(-) AFTER WBSEDCL'S EXPORT -2951 -1581	L			
6 SIKKIM NET MAXIMUM DEMAND NET POWER AVAILABILITY- Own Source 378 Central Sector 159 107 SURPLUS(+)/DEFICIT(-) 437 SURPLUS(+)/DEFICIT(-) 437 EASTERN REGION NET MAXIMUM DEMAND NET MAXIMUM DEMAND NET MAXIMUM DEMAND (In Case of CPP Drawal of 800 MW(peak) and average drawl of 700 MW) BILATERAL EXPORT BY DVC (Incl. Bangladesh) EXPORT BY WBSEDCL TO SIKKIM EXPORT TO B 'DESH & NEPAL OTHER THAN DVC EXPORT TO B 'DESH & NEPAL OTHER THAN DVC (Incl.UDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) SURPLUS(+)/DEFICIT(-) -7374 -3773				
NET MAXIMUM DEMAND 100 47 NET POWER AVAILABILITY- Own Source 378 313 Central Sector 159 107 SURPLUS(+)/DEFICIT(-) 437 373 EASTERN REGION		SURPLUS(+)/DEFICIT(-) AFTER WBSEDCL'S EXPORT	-2951	-1581
NET MAXIMUM DEMAND 100 47 NET POWER AVAILABILITY- Own Source 378 313 Central Sector 159 107 SURPLUS(+)/DEFICIT(-) 437 373 EASTERN REGION				
NET MAXIMUM DEMAND 100 47 NET POWER AVAILABILITY- Own Source 378 313 Central Sector 159 107 SURPLUS(+)/DEFICIT(-) 437 373 EASTERN REGION	6	SIKKIM		
NET POWER AVAILABILITY- Own Source 378 313			100	47
Central Sector 159 107				
SURPLUS(+)/DEFICIT(-)	-			
EASTERN REGION 30901 18659				
NET MAXIMUM DEMAND 30901 18659 NET MAXIMUM DEMAND ((In Case of CPP Drawal of 800 MW(peak) and average drawl of 700 MW) 18427 BILATERAL EXPORT BY DVC (Incl. Bangladesh) 2205 1641 EXPORT BY WBSEDCL TO SIKKIM 10 7 EXPORT TO B' DESH & NEPAL OTHER THAN DVC 642 478 NET TOTAL POWER AVAILABILITY OF ER 26384 17012 (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) 5URPLUS(+)/DEFICIT(-) -7374 -3773		SURPLUS(+)/DEFICIT(-)	437	373
NET MAXIMUM DEMAND 30901 18659 NET MAXIMUM DEMAND ((In Case of CPP Drawal of 800 MW(peak) and average drawl of 700 MW) 18427 BILATERAL EXPORT BY DVC (Incl. Bangladesh) 2205 1641 EXPORT BY WBSEDCL TO SIKKIM 10 7 EXPORT TO B' DESH & NEPAL OTHER THAN DVC 642 478 NET TOTAL POWER AVAILABILITY OF ER 26384 17012 (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) 5URPLUS(+)/DEFICIT(-) -7374 -3773				
NET MAXIMUM DEMAND 30901 18659 NET MAXIMUM DEMAND ((In Case of CPP Drawal of 800 MW(peak) and average drawl of 700 MW) 18427 BILATERAL EXPORT BY DVC (Incl. Bangladesh) 2205 1641 EXPORT BY WBSEDCL TO SIKKIM 10 7 EXPORT TO B' DESH & NEPAL OTHER THAN DVC 642 478 NET TOTAL POWER AVAILABILITY OF ER 26384 17012 (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) 5URPLUS(+)/DEFICIT(-) -7374 -3773		EASTERN REGION		
NET MAXIMUM DEMAND ((In Case of CPP Drawal of 800 MW(peak) and average drawl of 700 MW) 18427 1842			30901	18659
average drawl of 700 MW) 2205 1641 BILATERAL EXPORT BY DVC (Incl. Bangladesh) 2205 1641 EXPORT BY WBSEDCL TO SIKKIM 10 7 EXPORT TO B'DESH & NEPAL OTHER THAN DVC 642 478 NET TOTAL POWER AVAILABILITY OF ER 26384 17012 (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) 5URPLUS(+)/DEFICIT(-) -7374 -3773				
BILATERAL EXPORT BY DVC (Incl. Bangladesh) 2205 1641 EXPORT BY WBSEDCL TO SIKKIM 10 7 EXPORT TO B'DESH & NEPAL OTHER THAN DVC 642 478 NET TOTAL POWER AVAILABILITY OF ER 26384 17012 (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) 5URPLUS(+)/DEFICIT(-) -7374 -3773			51001	10127
EXPORT BY WBSEDCL TO SIKKIM 10 7			2205	1741
EXPORT TO B'DESH & NEPAL OTHER THAN DVC 642 478 NET TOTAL POWER AVAILABILITY OF ER 26384 17012 (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) 5URPLUS(+)/DEFICIT(-) -7374 -3773				
NET TOTAL POWER AVAILABILITY OF ER 26384 17012 (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) SURPLUS(+)/DEFICIT(-) -7374 -3773				
NET TOTAL POWER AVAILABILITY OF ER 26384 17012 (INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) SURPLUS(+)/DEFICIT(-) -7374 -3773		EXPORT TO B'DESH & NEPAL OTHER THAN DVC	642	478
(INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL) SURPLUS(+)/DEFICIT(-) -7374 -3773			26384	17012
SURPLUS(+)/DEFICIT(-) -7374 -3773				
			-7374	-3773
SOUTHOS() JUNETICH (-) (III Case 01 CFF Diawan 101 Outsina) -02/4 -3341				
		BORT BOS(- J/DEFTCHT(-) (III Case of CFF Drawal for Odisha)	T-02/T	-3371