सत्यमेव जयते
भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
पूर्वी क्षेत्रीय विद्युत समिति
Eastern Regional Power Committee
14, गोल्फ क्लब रोड, टालीगंज, कोलकाता-700033
14 Golf Club Road, Tollygunj, Kolkata-700033
Tel. No.:033-24239651,24239658 FAX No.:033-24239652, 24239653 Web: **www.erpc.gov.in**

सं /NO. ERPC/EE/OPERATION/2024/ 914 **दिनांक/DATE: 30.08.2024**

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

विषय : 23.08.2024 (शुक्रवार) को ईआरपीसी सचिवालय, कोलकाता में भौतिक रूप से आयोजित 218वीं OCC बैठक का कार्यवृत्त - संबंध में।

Sub: Minutes of 218th OCC Meeting held on 23.08.2024 (Friday) physically at ERPC Secretariat, Kolkata - reg.

महोदय/महोदया,
Sir(s)/Madam,

कृपया अपनी जानकारी और आवश्यक कार्रवाई के लिए **23.08.2024(शुक्रवार)** को **ईआरपीसी सचिवालय, कोलकाता में 10:30 बजे भौतिक रूप** से आयोजित **218वीं ओसीसी बैठक** के **संलग्न कार्यवृत्त** देखें। यह ईआरपीसी वेबसाइट (**www.erpc.gov.in**) पर भी उपलब्ध है।

Please find enclosed **Minutes of 218th OCC Meeting** held on **23rd August 2024 (Friday) physically at ERPC Secretariat, Kolkata** 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,

30/08/2024

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

LIST OF ADDRESSES:

1. CHIEF ENGINEER (TRANS., O&M), BSPTCL, PATNA, (FAX NO. 0612-2504557/2504937)
2. CHIEF ENGINEER (System Operation), BSPTCL, PATNA, (FAX NO. 0612-2504557/2504937)
3. CHIEF ENGINEER, TRANSMISSION (O&M), JUSNL, RANCHI (FAX NO.-0651-2490486/2490863)
4. CHIEF ENGINEER, TVNL, DORANDA, RANCHI - 834102 (FAX NO. 06544-225414)
5. CHIEF LOAD DISPATCHER, SLDC, OPTCL, BHUBANESWAR (FAX NO.0674-2748509)
6. CHIEF GENERAL MANAGER (O&M), OPTCL, BHUBANESWAR
7. SR. GENERAL MANAGER (PP), GRIDCO, JANPATH, BHUBANESWAR (0674-2547180)
8. DIRECTOR (OPERATION), IB TPS, AT/PO BANHARPALI, JHARSUGUDA, (FAX NO. 06645-222225/222230)
9. GENERAL MANAGER, TTPS, TALCHER, (FAX NO. 06760-243212)
10. SR. GENERAL MANAGER (ELECTRICAL), OHPC LTD., BHUBANESWAR, (FAX NO.0674-2542102)
11. CHIEF ENGINEER, CLD, WBSETCL, HOWRAH, (FAX NO. 033-26886232)
12. CHIEF ENGINEER, CENTRAL PLANNING WING, WBSETCL, SALT LAKE (FAX NO.: 033-23591955)
13. CHIEF ENGINEER (PTR), WBSEDCL, SALT LAKE, KOLKATA (FAX:033-23345862)
14. CHIEF GENERAL MANAGER (OS), WBPDCL, KOLKATA-98 (FAX NO. 033-23393286/2335-0516)
15. GM, KOLAGHAT TPS, WBPDCL, KOLAGHAT (FAX NO.03228231280)
16. DGM (OPERATION), DPL, DURGAPUR, (FAX NO. 0343-2555052)
17. GM (SYS OPERATION), CESC, CHOWRINGHEE SQUARE, KOLKATA (FAX NO.033-22253756/22129871)
18. CHIEF ENGINEER, SLDC, DVC, HOWRAH (FAX NO. 033-2688-5094)
19. ADDL.CHIEF ENGINEER, SLDC, POWER DEPT., GOVT. OF SIKKIM, GANGTOK, (FAX NO. 03592-228186/201148/202284)
20. EXECUTIVE DIRECTOR, ERLDC, POSOCO, KOLKATA, (FAX NO. 033-2423-5809)
21. GENERAL MANAGER, FSTPP, NTPC, FARAKKA, (FAX NO. 03512-224214/226085/226124)
22. GENERAL MANAGER , KhSTPP, NTPC, KAHALGAON (FAX NO.06429-226082)
23. GENERAL MANAGER, TSTPP, NTPC, TALCHER, (FAX NO. 06760-249053)
24. GENERAL MANAGER (OS), POWERGRID, ER-II, KOLKATA(Fax no: 033-23572827)
25. GENERAL MANAGER , POWERGRID, ER-I, PATNA, (FAX NO.0612-2531192)
26. GENERAL MANAGER (O&M), POWERGRID, ODISHA PROJECTS, SAHID NAGAR, BHUBANESWAR – 751 007
27. 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)
32. CHIEF ENGINEER, RANGIT POWER STATION, NHPC, P.O. RANGIT NAGAR, SOUTH SIKKIM (FAX NO.03595-259268)
33. SENIOR VICE PRESIDENT, PTC LTD., NBCC TOWERS, 15-BHIKAJI KAMA PLACE, NEW DELHI- 110066 (FAX NO. 011-41659504)
34. PLANT HEAD, ADHUNIK POWER & NATUARAL RESOURCES, JHARKHAND(FAX NO.: 0657-6628440)
35. AGM (OPERATION), MAITHON POWER LTD, DHANBAD (FAX: 08860004758)
36. VICE PRESIDENT(POWER), VEDANTA LIMITED, BHUBANESWAR- 751023 (FAX NO 0674-2302920)
37. CHIEF ELECTRICAL ENGINEER, EASTERN RAILWAY, KOLKATA-700 001 (FAX NO.: 033-22300446)
38. CHIEF ELECTRICAL ENGINEER, SOUTH EASTERN RAILWAY, KOLKATA-43 (FAX: 033-24391566)
39. DEPUTY DIRECTOR, EASTERN RPSO, SALT LAKE, KOLKATA- (FAX NO:033-23217075)
40. GENERAL MANAGER (O&M), NHPC LTD, FARIDABAD, FAX: 0129-2272413
41. ASSOCIATE VICE PRESIDENT, GMR KEL, BHUBANESWAR-751007. (FAX NO: 0674-2572794)
42. GM (SO & COMML), NTPC VVNL, NEW DELHI-110033. Fax:011-24367021
43. SHRI D. P. BHAGAVA, CHIEF CONSULTANT (O&M), TEESTA URJA LIMITED, NEW DELHI-110 001 (FAX:011-46529744)
44. SHRI BRAJESH KUMAR PANDE, PLANT HEAD, JITPL. (FAX:011-26139256-65)
45. DIRECTOR (NPC), CEA, NRPC BUILDING, KATWARIA SARAI, NEW DELHI- 110016
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

पतों की सूची:

1. मुख्य अभियंता (ट्रांस., ओ एंड एम), बीएसपीटीसीएल, पटना, (फैक्स नं. 0612- 2504557/2504937)।
2. मुख्य अभियंता (सिस्टम ऑपरेशन), बीएसपीटीसीएल, पटना, (फैक्स नं. 0612- 2504557/2504937)।
3. मुख्य अभियंता, ट्रांसमिशन (ओ एंड एम), जेयूएसएनएल, रांची (फैक्स नं.-0651- 2490486/2490863)।
4. मुख्य अभियंता, टीवीएनएल, डोरंडा, रांची - 834102 (फैक्स नंबर 06544-225414)
5. मुख्य लोड डिस्पैचर, एसएलडीसी, ओपीटीसीएल, भुवनेश्वर (फैक्स नंबर 0674-2748509)
6. मुख्य महाप्रबंधक (ओ एंड एम), ओपीटीसीएल, भुवनेश्वर
7. एसआर. महाप्रबंधक (पीपी), ग्रिडको, जनपथ, भुवनेश्वर (0674-2547180)
8. निदेशक (संचालन), आईबी टीपीएस, एटी/पीओ बनहरपाली, झारसुगुड़ा, (फैक्स नंबर 06645-222225/222230)
9. महाप्रबंधक, टीटीपीएस, तालचेर, (फैक्स नंबर 06760-243212)
10. एसआर. महाप्रबंधक (विद्युत), ओएचपीसी लिमिटेड, भुवनेश्वर, (फैक्स नंबर 0674-2542102)
11. मुख्य अभियंता, सीएलडी, डब्ल्यूबीएसईटीसीएल, हावड़ा, (फैक्स नंबर 033-26886232)।
12. मुख्य अभियंता, केंद्रीय योजना विंग, डब्ल्यूबीएसईटीसीएल, साल्ट लेक (फैक्स नंबर: 033-23591955);
13. मुख्य अभियंता (पीटीआर), डब्ल्यूबीएसईडीसीएल, साल्ट लेक, कोलकाता (फैक्स:033-23345862)।
14. मुख्य महाप्रबंधक (ओएस), डब्ल्यूबीपीडीसीएल, कोलकाता-98 (फैक्स नंबर 033- 23393286/2335-0516)।
15. जीएम, कोलाघाट टीपीएस, डब्ल्यूबीपीडीसीएल, कोलाघाट (फैक्स नंबर 03228231280)
16. डीजीएम (ऑपरेशंस), डीपीएल, दुर्गापुर, (फैक्स नंबर 0343-2555052)
17. जीएम (एसवाईएस ऑपरेशन), सीईएससी, चौरंगी स्क्वायर, कोलकाता (फैक्स नंबर 033- 22253756/22129871)।
18. मुख्य अभियंता, एसएलडीसी, डीवीसी, हावड़ा (फैक्स नंबर 033-2688-5094)।
19. अपर मुख्य अभियंता, एसएलडीसी, विद्युत विभाग, शासन। सिक्किम, गंगटोक, (फैक्स नंबर 03592-228186/201148/202284)
20. कार्यकारी निदेशक, ईआरएलडीसी, पोसोको, कोलकाता, (फैक्स नंबर 033-2423-5809)
21. महाप्रबंधक, एफएसटीपीपी, एनटीपीसी, फरक्का, (फैक्स नंबर 03512- 224214/226085/226124)
22. महाप्रबंधक, खएसटीपीपी, एनटीपीसी, कहलगांव (फैक्स नंबर 06429-226082)
23. महाप्रबंधक, टीएसटीपीपी, एनटीपीसी, तालचेर, (फैक्स नंबर 06760-249053)
24. महाप्रबंधक (ओएस), पावरग्रिड, ईआर-II, कोलकाता (फैक्स नंबर: 033-23572827)
25. महाप्रबंधक, पावरग्रिड, ईआर-I, पटना, (फैक्स नं.0612-2531192)
26. महाप्रबंधक (ओ एंड एम), पावरग्रिड, ओडिशा प्रोजेक्ट्स, साहिद नगर, भुवनेश्वर - 751 007
27. प्रबंध निदेशक, ड्रुक 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 03595-259268)

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- 751023 (फैक्स नंबर 0674-2302920)।

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, भुवनेश्वर-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)।

44. 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

<u>सीसी:</u>

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

ईआरपीसी:: कोलकाता

MINUTES
OF
218TH OCC MEETING

Date: 23.08.2024

Eastern Regional Power Committee
14, Golf Club Road, Tollygunge
Kolkata: 700033

Contents

EASTERN REGIONAL POWER COMMITTEE

MINUTES OF 218TH OCC MEETING HELD ON 23.08.2024 (FRIDAY) AT 10:30 HRS

Member Secretary, ERPC chaired the 218th OCC meeting. On welcoming all the participants, he outlined the performance of ER grid during July 2024 and highlighted the following points:

- *In **July-2024**, energy consumption of ER was **19037 MU** which is **4%** more than **July-2023.***
- *In **July-2024**, Peak demand met of ER was **30622** MW which is **3.3%** more than **July-2023**.*
- *During **July-2024**, **78.4%** of time, the grid frequency was in IEGC Band (49.90Hz-50.05Hz).*
- *Thermal **PLF** of ER during **July-2024** was **74 %**.*
- *Generating stations whose PLF was more than **90%** during **July-2024** are listed below:*

Utility	***Generating Stations***	***PLF %***
NTPC	*Darlipali STPS*	*96*
WBPDCL	*Santaldih TPS*	*97*
CESC	*Haldia TPP*	*99*

- *All the above-mentioned Thermal generating units were lauded for maintaining PLF more than **90%**.*
- ***Coal stock position:***

➢ *Coal stock position (As on 20.08.2024) is as follows:*

SL NO	***Name of states/Power Stations***	***% of Actual Stock vis-à-vis Normative Stock***
1	*Jharkhand (TVNL)*	*55*
2	*Odisha/IBTPS*	*98*
3	*WBPDCL*	*61 (Min.Kolaghat TPS-38%, Max. Bandel TPS- 95 %)*
4	*DPL TPS*	*25*
5	*DVC*	*86 (Min. RTPS-58% & Max CTPS- 137%)*
6	*NTPC*	*101 (Min Talcher STPS-55% & Max. Farakka STPS-177%)*

❖ *He appreciated coal stock position of Gencos of ER considering the prevailing bad weather & persistent rainfall in the Region.*

❖ *He further highlighted the following:*

- *About the massive land slide that event occurred on 20.08.2024 (about 07:00AM to 10:00 AM), in East Sikkim causing substantial damage to 500MW Teesta V Power station run by NHPC.*

- *Teesta V Power station was under restoration following a glacial lake outburst in October 2023. As per preliminary report, Pot head area and TRT (Tailrace tube) area, part of GIS building and entire GIS installation have been damaged. PowerTel OPGW connectivity and OFC connectivity to power house damaged. No loss of human life reported. The detailed report assessing the actual damage in the power station yet to be released by NHPC.*
- *CERC DSM regulations have been implemented w.e.f 05.08.2024.*
- *The Converter Transformer from HVDC Kolar has presently reached Durg (Chhattisgarh) after traversing 1430 km (580 km yet to cover) and expected to arrive at HVDC Talcher station by October 2024.*
- *Both LGBR (2024-25) approved and OCC approved/Actual shutdown have **slightly increased** in **September '2024** to allow maintenance activities in generating units that had been denied from **April to July 2024** in line with **MOP** guidelines*

He also expressed his concern regarding low (<30%) availing percentage of planned shutdown of transmission elements by Transmission Licensee & advised all the Transmission licensee to carry some internal assessment before applying shutdown so that maximum requested shutdown can be availed.

Sr GM of ERLDC at the outset welcomed all the participants of 218th OCC Meeting & highlighted the following:

❖ *High Frequency event that occurred on 3rd & 4th August across pan India & the problem they faced in maintaining the Grid Frequency within the IEGC band.*

❖ *Urged State GENCOs to integrate their existing system with AGC & SCED as contribution of each Thermal unit is very much crucial to deal with any such major grid disturbances.*

❖ *Requested all the stakeholder to give due importance to Resource Adequacy & periodically conduct mock drills as per the guidelines issued by Ministry of power in order to face any unforeseen & unpleasant evenst in power sector.*

1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 217th OCC Meeting held on 24th July 2024 physically at ERPC Secretariat, Kolkata

The minutes of 217th Operation Coordination Sub-Committee meeting held on 24.07.2024 was circulated vide letter dated 30.07.2024.
Members may confirm the minutes of 217th OCC meeting.

Deliberation in the meeting

- *In line with observations received from ERLDC, some alterations are hereby incorporated in the Minutes of 217th OCC Meeting as detailed hereunder:*

1. ***Highlights of ED, ERLDC*** *section: 'Successful integration of DVC generating units with AGC in coordination with NLDC.' This clause needs to be replaced by 'Initiatives have been taken by DVC to integrate generating units with NLDC AGC system' in ED, ERLDC comments section. (page-2)*
2. *Agenda* ***2.13, Reliable Power Supply of Tenughat****:*

☐ ***Paragraph 3*** *- In this regard, ERLDC convened one meeting on 18.07.2023 over video conference where SLDC & STU of Jharkhand, TVUNL….*

☐ ***Action Plan*** *- One discussed action plan on SPS is required to be included ---- Implementation of SPS to safeguard 220kV Maithon-Dumka D/C lines with a proposed load relief of 160MW in 2 stages (80MW+80MW).*

☐ ***OCC decision****: OCC referred the matter of implementation of SPS to PCC for discussion and finalization.*

3. *Agenda* ***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.:*** *ERLDC suggested to have the new Bus coupler ready before dismantling of existing one.*

- *These modifications shall form part and parcel of MOM of 217th OCC circulated vide letter dated 30.07.2024*
- *Other OCC members confirmed the minutes of 217th OCC meeting.*

2. PART-B: ITEMS FOR DISCUSSION

2.1 Flexible operation of Coal based Thermal Power Plants: ERPC

- As per gazette notification dated 30.01.2023 issued by CEA regarding flexible operation of coal fired thermal generating units, ramp rate of 2% between 55-70% along with a ramp rate of 3% above 70% was mandated within one year of notification of the regulations,i.e by Jan 2024.
- The SOP for operating at 55% load with recommendation for necessary training of the plant operators, was also circulated. (enclosed at **Annexure B.2.1.1**)
- Relevant communication in this regard was also passed on to State Electricity regulatory Commissions as well as principal secretaries of concerned states outlining measures for execution of CEA regulations.

- As per above mentioned regulations, coal based thermal generating units, whose implementation shall be as per phasing plan specified by CEA.Implementation plan for unit operation at 40% minimum load in phased manner (pilot+4 phases) (attached at **Annexure B.2.1.2**) This phased implementation has been notified, with specific targets and timelines for compliance.
- A comprehensive report published by CEA on flexible operation coal based thermal power plants highlighting various challenges as well as mitigation plan for achieving 40% minimum technical load (enclosed at **Annexure B.2.1.3**)

❖ **Regarding 55% Minimum Technical Load (MTL)**

Thermal GENCOs may share details w.r.t the following:
a) Whether the target of achieving 55% Technical Minimum Load (MTL) has been met & if not, the reasons for the same & tentative date for achieving the same.
b) Whether the specified ramp rates outlined in the regulations i.e., 3% for 100-70% load & 2% for 70-55% load have been adhered to, if not, the reasons & tentative date for achieving the same.
c) How many operators have been trained in your organisation? (May treat this matter as Most Urgent)
Further, it is requested that attendees bring duly filled progress report (**Annexure- B.2.1.4**) as per enclosed format on the date of meeting.

❖ **Regarding 40% Minimum Technical Load (MTL) & status of units under pilot phase (May,2023-March,2024).**

Phase	Sector	Organization	Name of Project	Unit No.	Capacity (MW)	Region
Pilot	Central	DVC	MEIJA TPS	8	500	ER
Pilot	State	WBPDCL	SAGARDIGHI TPS	3	500	ER

Thermal GENCOs may share details w.r.t the following:
- ❖ Whether the target of achieving 40% Technical Minimum Load (TML) has been met and if not, the reasons for the same and tentative date for achieving.
- ❖ Whether the specified ramp rates outlined in the regulations, i.e., **3% for 100-70% load, 2% for 70%-55% load, 1% for 40%-55%** have been adhered to. If not, the reasons for behind and tentative date for achieving the target.

Furthermore, it is requested that attendees bring duly filled Progress report (**Annexure-B.2.1.5**) as per enclosed format on the date of the meeting.

As per deliberation in **214th OCC:**

OCC decision:
- OCC advised all thermal GENCOs to share updated status of their respective units i.r.o achieving 55% MTL and 40% MTL as per **Annexure - B.2.1.4** and **Annexure- B.2.1.5** respectively.
- In absence of OPGC representative,OCC requested SLDC Odisha to confirm present operating capability of IB TPS (OPGC) upto 55% or 40% MTL.

It is requested to provide progress reports and outcomes related to the achievement of both 55% and 40% MTL as early as possible.

- **Progress report has been received from WBPDCL i.r.o** SAGARDIGHI TPS U#3 (attached at **Annex B.2.1.6).**
- **Similar progress report is still awaited to be received from DVC.**

Thermal GENCOs may update. Members may discuss.

Deliberation in the meeting

❖ *ERPC Secretariat apprised the forum about the directives issued by CEA for implementing flexible operation of Thermal Generating stations with specified Ramp Rates i.e. 3% for 100-70% load & 2% for 70-55% load so that increased amount of RE power can be integrated in the Grid.*

Regarding 55% Minimum Technical Load (MTL):

❖ *NTPC, CESC & DVC informed that all Generating Units are well capable to operate at 55% MTDL.*
❖ *SLDC, Odisha on behalf of OPGC apprised that both units(2*660MW) are technically capable to operate at 55% MTL.*
❖ *WBPDCL submitted that except generating units of Kolaghat TPS, 55% MTL operation is technically feasible in all other generating Units .*
❖ *DPL informed that operation upto 55% MTL is not feasible in Unit#8.*

Regarding 40% Minimum Technical Load (MTL):

❖ *DVC highlighted that Mejia TPS unit#8(Under pilot phase) is technically capable to operate at 50% MTL. However, because of non-availability of M/S BHEL Engineer necessary governor system tuning & testing is pending.*
❖ *WBPDCL submitted that Sagardighi TPS Unit#3(Under pilot phase) operation at 40% MTL is successfully tested for a short duration but it's performance & subsequent response for a longer period is yet to be ascertained.*

OCC Decision:

❖ *OCC opined that flexible operation of Coal based thermal power plants holds paramount significance for reliable and secure grid Operation, especially during solar hours amid high variability of RE generation. Thus timely adherence to the regulations issued by CEA is essential for smooth energy transition.*
❖ *OCC recommended all the Generating utilities to ensure technical capability to operate at 55% MTDL in compliance to CEA regulations.*
❖ *In absence of OPGC representative, SLDC Odisha was advised to update on operation upto 55% MTDL i.r.o remaining 210 MW units of OPGC in next OCC.*
❖ *OCC directed all the respective generating stations to adhere to the CEA timeline w.r.t phase-wise implementation (phasing plan enclosed) flexible operation in their respective units.*

❖ *OCC advised DVC and WBPDCL to take up with BHEL for expediting technical feasibility of operation at 40% MTDL.*

❖ *OCC also referred the matter to TCC for further deliberation.*

2.2 MTDL of Intra-state generators (55%): ERLDC

- "CEA (Flexible Operation of coal based Thermal Generating Units) Regulations, 2023" was notified on 25th January 2023. According to this regulation, all thermal generators should achieve 55% technical minimum within one year from notification of this regulation and should attain 40% technical minimum as per CEA phasing plan notified on 15th Dec 2023. CEA phasing plan is attached in the **Annexure-B.2.1.2.**
- Recently during 3rd and 4th Aug 2024, System operators across Pan-India faced severe challenges in maintaining frequency within the band during solar hours. Mainly high frequency was persisting for more than hours during solar hours. While all central sector thermal plants are scheduled up to 55% TM to accommodate RE, however it was observed many states thermal plants were running at much higher level. Without reducing these state generators to the 55% TM, decommitting units from ISGS could lead to a serious shortage during non-solar hours.
- In response to these issues and to ensure compliance with CEA regulations, a detailed analysis of the generation patterns of all intra-state units was conducted for the period from August 1st to August 10th, 2024. Following observation are the observations:

Unit details	**Minimum Generation During 1st Aug to 10th Aug 2024**	**Remarks**
Sagardighi 300 MW units	67%	
Sagardighi 500 MW units	66%	
Bakreswar 210 MW units	71.43%	
DPL 250 MW unit	72%	
DPL 300 MW unit	80%	* Unit was out for the duration mentioned therefore from 15th July to 1st Aug 2024 data is used
Haldia 300 MW unit	63.33%	
Budge Budge 250 MW units	40%	As per ERLDC SCADA data few small duration operations at 40% level is seen, however as per information received from BBGS 55% is achieved without stability issue, whereas stable operation at 40% is yet to be achieved.
Barauni (2x250)	52%	

Tenughat (2x210)	64%	For Tenughat whole plant data used for the period 25.07.24 to 29.07.2024 (Data not available)
Bokaro(1x500)	55%	For Bokaro whole plant data used for the period 25.07.24 to 29.07.2024 (Data not available)
Mejia (210x3)	55%	
Mejia (250x2)	60%	
Mejia (500x2)	55%	
CTPS (250x2)	55%	
Koderma(1x500)	55%	
Raghunathpur(2x600)	55%	
Durgapur(2x500)	55%	
OPGC (660x2)	87%	For OPGC whole plant data used for the period 10.07.24 to 14.07.2024 (Data not available)
IBTPS STG 1	71%	For IBTPS STG-1 Whole plant data used for the period 25.07.24 to 29.07.2024 (Data not available)

- It is observed that **most of the plant in ER not achieving 55% despite making full use of available resources**. Even though there is a national need for providing tertiary down services, these left out margin are not being used by state sector generators which are not running at 55%.
- It is essential to address the challenges faced by **intra-state generators** in operating flexibly **up to 55%** and develop an immediate action plan to enhance this flexibility.

ERLDC may explain. Members may discuss.

Deliberation in the meeting

- *ERLDC highlighted:*
  - *A sustained high frequency event that occurred in 3rd & 4th August 2024 when in absence of available reserves after backing down of ISGS, steep challenge was faced in maintaining grid frequency within IEGC Band.*
  - *During this high frequency event, All CGS were scheduled at 55% MTDL to accommodate large quantum of RE power during solar hour but most of state Generating units were running beyond 55% MTL. Hence Flexible operation of State thermal units are equally important for*

maintaining Grid Stability, Reliability & Security while accommodating the increased RE power Integration.

- ❖ *Most of ER state Generators were running way above the 55% MTL. For e.g.*
  - ➢ *All the Units of WBPDCL were running beyond 65% MTL.*
  - ➢ *OPGC units were running almost flat at 87% MTL.*
- ❖ *WBPDCL representative informed*
- ❖ *For implementation of generation backing down, WBERC Guidelines is required & Compensation Mechanism needs to be developed for operating at part load in order to support Grid mainly during Solar Hours.*
- ❖ *HEL intimated:*

WB SLDC has been approached for NOC for participation in Ancillary Services market.

- ❖ *CESC pointed out the non-feasibility of their embedded generation for participating in Ancillary services owing to risk of overdrawl from the grid.*

OCC Decision:

- *OCC directed WBPDCL to support the grid at the time of need by backing down of generation. WBPDCL was also suggested to approach WBERC with the above-mentioned issues*
- *OCC referred the matter to TCC for further deliberation.*

2.3 Implementation of AGC in Intra-state generating units: ERLDC

AGC is now operational at most ISGS plants across India, which together have a total installed capacity exceeding 70 GW. However, the dispatchable margin provided through AGC and Secondary Reserve Ancillary Services (SRAS) remains insufficient for maintaining frequency within the IEGC band. With the increasing penetration of renewable energy, managing frequency is expected to become more challenging in the future. Therefore, it is crucial to enhance frequency control and stability through increased participation from intra-state AGC.

- In response to this need, efforts are underway to encourage more intra-state generators to join the SRAS scheme. Feasibility reports have been prepared, and stakeholder meetings have been held with DVC, West Bengal, and Bihar to explore potential solutions and address any concerns.
- Present status of **Intra-state AGC integration** process is as follows:

SLDC/State	Generator name	Unit Capacity (MW)	Status
Bihar	Barauni unit # 8 & 9	2x250	Pending discussion between NTPC Barauni, SLDC Bihar and its DISCOM for mutually agreeing to Mechanism for recovery of one-time cost of AGC implementation and Mechanism for Sharing of gains which is to be fixed bilaterally.
DVC	Mejia-B, DSTPS and Koderma	(2x500) (2x500) (2x500)	Final procurement order was awarded to Siemens on **7th August 2024** with timeline of completion of **4 months.**
West Bengal	Units of WBPDCL	-	West Bengal SERC notified WBERC (Ancillary Services) regulation, 2023 dated 26th December 2023.

			M/s WBPDCL refers to WBSERC for implementing the AGC server at WBSLDC after which plants will be connected to SLDC one by one.

ERLDC may explain and SLDCs may update the status. Members may discuss.

Deliberation in the meeting

❖ *ERLDC mentioned:*

- *With increased penetration of RE power in the Grid because of its seasonality & variable nature, it has become challenging to maintain frequency within IEGC band.*
- *In order to avert wide frequency excursion, participation of Intra-state Gencos in SRAS are equally important.*
- *Detailed workshop was conducted at Bihar SLDC in this regard.*

❖ *DVC apprised that final procurement order was awarded to Siemens on 7th August 2024 for all identified six Units & it is expected that within 4 months AGC implementation will be completed.*

❖ *NTPC representative informed that NOC for implementing AGC in its Barauni unit # 8 & 9 is yet to be received from SLDC, Bihar & also discussion is pending between NTPC Barauni, SLDC Bihar and its DISCOM for mutually agreeing to cost recovery and gain sharing mechanism.*

❖ *WBPDCL informed:*

- *Tendering process has been initiated. Siemens & ABB have already been approached for procurement.*
- *Cost recovery of the same shall be from CAPEX or tariff.*

❖ *WB, SLDC submitted :*

- *As per deliberation of the meeting held with WBERC, CESC & WBPDCL, Modus Operandi is already finalized by WBERC wherein AGC signal has been decided to be sent from WB SLDC to all intra-state generators based on ACE(Area Control Error) of the entire state. Accordingly, all tendering process shall be done by WBPDCL.*
- *As same vendor needs to be deployed at both WB SLDC end and generating stations to address compatibility issue, proper selection of vendor is the main bottleneck in executing the overall process.*
- *WBPDCL agreed to communicate regarding any progress in award of contract.*

❖ *WBSEDCL representative stated:*

- *Participating in ancillary market for power purchase beyond certain quantum poses inherent risk to DISCOMs in managing demand portfolio in event of contingency.*
- *Moreover in event of high frequency, generation back down will impact frequency after 7-8 blocks.*
- *In WBERC regulations there is no mention of tertiary services.*

OCC Decision

- *OCC opined that participation of Intra-state generators is very much crucial to tackle wide frequency variation in the grid.*
- *WBPDCL was advised to approach WBERC for redressal of their concerns regarding AGC implementation in their generating units.*
- *OCC advised all State Gencos to expedite the process of implementing AGC system.*

- *OCC referred the matter to TCC for further deliberation.*

2.4 Deviation between OCC approved and availed shutdown of Transmission elements: ERPC

- In the monthly Outage OCC meetings, it is observed that approved shutdowns by OCC are not being availed in real-time, resulting in a availing percentage in the range of only **25%-40%.**
- The matter of non-availing the OCC approved shutdowns was already discussed in several Outage meetings and in 204th Outage OCC meeting, restriction on shutdown requisition was imposed. It was decided to restrict the requisition of shutdowns based on the maximum availing shutdown in a month from the previous year, with a 25% escalation. It was anticipated that by setting a limit on the number of shutdowns requested, the planning process can be better aligned with realistic shutdown requirements. But, the status of availing percentage is still in the same trend.
- **Furthermore, there is a notable increase in non-OCC and emergency shutdowns**, which are **exceeding the number of OCC-approved shutdowns**. This difference necessitates prompt attention to optimize outage management and ensure alignment with approved schedules. Due to lack of proper planning, to accommodate the emergency shutdowns in real-time is becoming a great challenge.
- To address this issue, all utilities are required to take necessary actions to ensure that planned shutdowns are to be availed in real-time utmost which are approved in OCC.
- For smooth operations, one **nodal person** from **each utility** shall be shared who will be contacted and updated about the element status as and when required.

All ISTS licensees/STUs/SLDCs may update. Members may discuss.

Deliberation in the meeting

❖ *The representatives of PowerGrid, Odisha & SLDC, WB submitted that the main reasons for low availing OCC shutdowns are*

- *ROW issues*
- *Administrative issues like Forest clearance.*
- *Non-availability of man,material at site because of bad weather, road connectivity issues etc.*

OCC Decision:

❖ *OCC expressed serious concern on low availing percentage of OCC approved shutdowns by all transmission licensee in each month which is always less than 30%.*

❖ *OCC acknowledges the ground level problems faced by transmission licensee while carrying out shutdown activities of Transmission lines but there is still ample scope for improvement.*

❖ *OCC also raised concern of not availing the shutdown of substation equipment as per OCC approved list where no such ROW or administrative issues prevails.thus shutdown of all substation equipment must be planned in line with approved schedule.*

❖ *OCC advised all transmission licensee to conduct an internal meeting/study to assess the feasibility of availing proposed shutdown before submitting shutdown list of transmission elements in the ERLDC portal before 10th of every month & the submitted list may be thoroughly reviewed by a higher official (ED or Chief Engineer) of respective Licensees.*

❖ *ERLDC was advised to segregate proposed shutdown list for substation equipment and transmission lines to facilitate proper monitoring.*

❖ *OCC advised all transmission licensee to plan the shutdowns taking into account all possible factors that may affect shutdown so that overall OCC approved shutdown availing percentage will increase.*

2.5 Difficulties faced by DVC Generators in Complying to the FGMO Logic as per IEGC, 2023: DVC

- Referring to the provisions laid down under Cl. 10 on 'Primary Control' in the CERC (IEGC) Regulations, 2023, the generating Stations and units thereof needs to operate under Free Governor mode of Operation with an inherent deadband of +/- 0.03 Hz. The deadband is to be set with respect to the reference frequency of 50.000 Hz and not with respect to the tracking/ current frequency – clarified in the detailed Operating Procedure of NLDC. The scan rate of frequency input to the governor needs to be kept at minimum possible also.
- The above criteria deviate significantly from that of the earlier requirements for Governor Response, as per the IEGC, 2010 Regulations wherein a concept of "Ripple Filter" of +/- 0.03 Hz introduced, and it was supposed to be measured w.r.t. the tracking/ current frequency and not against a fixed refence frequency. The purpose was to ignore the small changes in frequency in order to prevent governor hunting.
- It is agreed that the national grid frequency has stabilized over the years with reduction in Frequency Variation Index. However, it may also be appreciated that as on date the deviation is not being maintained strictly within +/- 0.03 Hz w.r.t. the Reference Frequency, (within 49.97Hz to 50.03 Hz) for most of the time in a day. Even, the 15-min avg. block frequency is found to remain ~38% of the time outside +/- 0.03 Hz Band on avg. in a day with a max. daily fig. of 52% (**derived considering the frequency data of June'24*). For a finer time-resolution, the above figures expected to be even large and frequent and hence the FGMO logic remains activated for a significant period of time in a day.
- Even outside the band, the back-and-forth movement of frequency within a short span of time, accounts for frequent reversal of FGMO influence and thus results in hunting of Turbine Control Valve and machine parameters. A sample illustration of DSTPS U#2 is being shown in below table showing frequent change in FGMO correction input and its effect on various plant parameters.

Parameters	**15:54:30**	**16:01:30**	**16:05:00**	**16:08:30**
Actual load	426	413	416	420
Load SP	420	420	420	420
Drum Pressure	172.96	186.81	188.26	180.09
MS pressure	158.20	176.65	173.34	165.0
MS Pr. Set Point	161.64	163.19	161.11	161.11
Coal flow	244	222	225	226
FGMO correction	7.7MW	-17.3	-12	00
Drum Level	-7	-75	-92	-167
MS temp.	547	528	491	497
HPBP Opening	0	0	25%	0

- It can be observed from above parameters that due the effect of FGMO there is sharp rise in Drum pressure resulting opening of HPBP. Also, very sharp fall in MS temp and drum level can also be observed.
- The situation even gets worsened when the Load setpoint (SP) variation, on account of revised despatch instruction of SLDC, is in opposite direction of FGMO output. For example, say the case when Load SP has been increased at higher Frequency excursion outside the +/-0.03 Hz band. Under such case, the additional fuel-flow due to increase in Load SP will cause MS pressure increase after a boiler dead time of 3-4 mints. However, at the same time the Turbine control valves will get closing command due to FGMO effect, resulting an increase

in Main Steam Pressure. The Deviation of Main Steam pressure (∆P) sometimes exceeds the Main steam Pressure set-point of 12 Kg/cm2 for this dual effect causing opening of HP Bypass valve in auto. Which in terms causes significant instability in drum level control and SH temperature control.

- Such type of incidents is appearing roughly 3-4 times daily in each of the unit, resulting unstable operation of the units and increase chances of unit tripping on Drum Pressure fluctuation. Further, such stressed operation of various equipment/ components due to fluctuating FGMO commands on persistent basis, may account for significant damage in long run.
- Therefore, it is requested to review the implementation of FGMO logic, in vogue at present, in order to avoid unstable operation of the Generating Stations.

DVC may explain. Members may discuss.

Deliberation in the meeting

❖ *DVC briefed the forum:*

- ➢ *In all DVC units (500 MW), FGMO is fully implemented with a droop setting of 5% as per provision on 'Primary Control' in the CERC (IEGC) Regulations, 2023.*
- ➢ *As frequency deviation is not being maintained within dead band of +/-0.03 Hz for most of the period in a day , FGMO logic remains in operation for a considerable time of a day.*
- ➢ *Due to frequent FGMO activation the units experience governor hunting, Drum pressure Fluctuation etc, thereby significantly impacting stable operation of units.*
- ➢ *Continuous effort is being put in running the units at lower efficiency in throttle mode at 5% above MCR.*

❖ *ERLDC representative gave a brief presentation highlighting FGMO implementation & it's response in ER Generators. It was observed that in most of NTPC units, FGMO is operating successfully while hunting & instability in operation is mainly seen in DVC units.*

OCC Decision:

❖ *DVC was advised to coordinate with NTPC and ERLDC for pin-pointing the exact cause behind instability of units on comparing with NTPC units where FGMO operation is successful.*

❖ *OCC referred the issue to upcoming TCC for deliberation.*

2.6 Delay in implementation of Incentive to Generators for providing PFR: DVC

- Earlier, there was no specific incentive allowed to generators for providing Primary Frequency Response. However, as per maximum response limit of FRC i.e. upto 105%, generators were allowed to declare their DC upto 105%. In that way, generators were benefitted in terms of excess DC, if %availability falls short of 85% on annual basis. However, the same has been restricted in the CERC (IEGC) Regulations, 2023 by way of limiting DC upto 100%.
- The provision of performance linked incentive to the generators, ceiling upto 10% of annual Capacity Charge of the station, is still not implemented due to delay in finalisation of the detailed procedure of NLDC.
- Under such scenario, the plants are deprived of any financial benefit in spite of providing grid support through Primary Response.
- Therefore, it is requested to initiate action to devise some interim methodology to incentivize the generators for providing the PFR service until the NLDC Procedure gets finalized.

DVC may explain. Members may discuss.

Deliberation in the meeting

❖ *DVC submitted:*

- *Based on FGMO response of generator, the beta factor of the generator is calculated & accordingly generators are incentivised as per IEGC 2023. if there is no such event in any month, there will be no incentive despite the FGMO logic remains active for a significant period of time. Earlier, the event of past month was taken as reference while giving compensation to generators*
- *Despite generators are providing grid support at major frequency events through Primary Response, plants are not receiving any incentives because of delay in finalization of the detailed procedure of performance linked incentive by NLDC*
- *Earlier, generators were allowed to declare DC up to 105% by which generators were benefited in terms of excess DC, if %availability falls short of 85% on annual basis. However as per New IEGC 2023, DC is limited up to 100%.*

❖ *ERLDC informed:*

❖ *NLDC will soon come up with a detailed procedure addressing the performance linked incentive to the generators & all the generators who has contributed till date through Primary Response will be incentivized in terms of arrear.*

OCC Decision:

❖ *OCC advised ERLDC to take up the matter with NLDC & expedite the process of finalizing the procedure of incentivising Generators for supporting grid through Primary Frequency Response.*

❖ *OCC referred the matter to TCC for further deliberation.*

2.7 Prospects of existing 132 kV D/C PTPS-DVC Patratu Tie Line 5C&6C: DVC

- This has reference to the subject matter regarding the status of the existing 132 kV D/C PTPS-DVC Patratu Tie Line 5C&6C, as outlined in DVC's correspondence with JUSNL on 28.06.24, and the deliberations during the meeting held on 31.07.2024. The operation of these circuits, which are controlled by ERLDC, is crucially supported by ERPC's administrative oversight to ensure smooth load flow.
- In light of this, below are the key points for consideration, further deliberation and resolution.:

- The 132 kV JUSNL PTPS-DVC Tie Circuits 5C/6C (84, 85) were commissioned in 1972 to address the emergent power requirements of both organizations (DVC & JUSNL) during exigencies. Historically, these lines have been utilized for bidirectional power transmission, ensuring steady supply as needed.
- The Patratu and North karnpura DVC substations are directly connected to the Ramgarh Substation in a radial configuration. The Patratu-PTPS Tie Lines #85 (5C) & #84 (6C) play a critical role in maintaining grid connectivity and providing an alternative power source for the Patratu Substation. This connectivity is vital for esteemed consumers such as CCL, Railways, NTPC Mines, JSPL, etc., who rely heavily on these networks for their power needs. The availability of these Tie Circuits significantly enhances system stability in the region, thereby improving the overall grid profile.
- With the ongoing construction of 3x800 MW Super Critical Thermal Units at PTPS, Patratu, under the joint venture of NTPC and PVUNL, the existing switchyard is planned to be relocated to the newly constructed PGCIL Katia Substation for power evacuation. Given the importance of the 132 kV D/C PTPS-DVC Patratu Transmission Line 5C&6C, DVC expresses concern regarding the final connectivity at the JUSNL end. It is imperative that JUSNL develops a concrete plan for the construction of bays for the termination of the Patratu-PTPS Tie Lines #85 (5C) & #84 (6C) at the Katia Substation, following the establishment of the powerhouse at Patratu.

- As per the Minutes of the Meeting dated 31.07.2024(**Annex-B.2.6**), JUSNL has agreed in principle to divert the DVC Line to the newly under-construction 220/132/33 kV GSS within the premises of the 400/220 kV GSS Katia Patratu. JUSNL needs to conduct a technical feasibility study regarding the construction of the diversion of the Transmission Line and the establishment of 2 Nos. 132 kV bays at the newly under-construction GSS Katia Patratu.

OCC approval is crucial for proceeding with this plan.

Given the significance of these points, OCC may consider this for thorough discussion and strategic resolution.

DVC may explain. Members may discuss.

Deliberation in the meeting

❖ *DVC submitted:*

- *The importance of existing 132KV D/C PTPS-DVC Patratu Transmission Line 5C&6C from point of view of its critical role in grid connectivity and providing an alternative power source for the Patratu substation.*
- *The diversion and termination of DVC Line at the new under-construction 220/132/33 kV GSS within the premises of the 400/220 kV GSS Katia Patratu may be considered for improving reliability in the region.*
- *JUSNL has agreed to develop a concrete plan for construction of Bay at the Katia Substation as per the minutes of meeting held on 31.07.2024(copy enclosed) & entire project cost will be borne by DVC.*

OCC Decision:

❖ *OCC consented to the proposal of DVC for termination of 132 kV D/C PTPS-DVC Patratu Tie Line 5C&6C at the Katia substation.*

❖ *OCC also referred the matter to TCC for information.*

2.8 Condition assessment of very old transmission lines: ERLDC

It was decided in **217th OCC** meeting under Agenda point 2.6 (Operational Planning studies and constraints in Eastern Regional Grid) 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.

- Thus, ERLDC has prepared a list of transmission lines in ER which have already crossed **35 years of useful life** or nearing completion of their useful life. The list is as follows

Transmission System	Name of Line	Date of COD	Completed Years
400kV Transmission lines			
Chukka Transmission system	400kV Farakka-Malda Ckt I & II	01-10-1986 & 01-09-1991	37 Years
Jeypore-Talcher Transmission system	400kV Jeypore-Indravati TL	01-12-1990	34 Years
	400kV Rengali - Indravati-TL		

Kahalgaon Transmission system	400 kV Kahalgaon-Maithan Ckt-I & II	01-10-1994 & 01-03-1993	>30 Years
	400 kV Jamshedpur – Maithon Ckt-I & II	01-06-1994 & 01-01-1994	
	400 kV Jamshedpur-Rourkela Ckt-I & II	01-01-1994	
Farakka transmission system (I&II)	400 kV Farakka-Jeerat Ckt-I TL 400 kV Farakka-Jeerat Ckt-II TL (LILOed at Sagardighi)	01-01-1986 & 01-12-1994	>37 Years
	400 kV Farakka-Durgapur Ckt-I TL 400 kV Farakka-Durgapur Ckt-II TL (Reconfigured as 400kV Durgapur-Kahalgaon)	01-07-1987 & 01-08-1992	
	400 kV D/C Farakka-Kahalgaon Ckt-I&II TL	01-05-1993 & 01-10-1991	>31 Years
	400 kV D/C Kahalgaon-Biharsharif Ckt-I&II Line	01-10-1991 & 01-01-1993	
	400kV S/C Durgapur-Jamshedpur line	01-09-1994	
Talcher Transmision System	400kV Talcher-Rengali Ckt-I &II	01-08-1995	29 Years
	400kV Talcher-Rourkela Ckt-I & II		
220kV Transmission lines			
***Chukka Transmission system**	220kV Birpara Siliguri Ckt I & II (LILOed at Binaguri)	01-10-1986	38 Years
	220kV Chukha Birpara -I & II	01-10-1986	
	220kV Siliguri Dalkhola -I & II (LILOed at Kishanganj)	01-12-1986	
	220kV Dalkhola Malda -I & II (LILOed at Gazole)	01-12-1986	
	220kV Birpara -Salakati -I & II	01-04-1987	
	220kV Dalkhola Purnea-I & II	01-12-1986	
	220kV Chukha -Birpara -III	01-11-1990	

ERLDC may explain. Members may discuss.

Deliberation in the meeting

❖ *ERLDC submitted that in line with the discussion in 217th OCC meeting, they have prepared a list of transmission lines in ER which have already crossed 35 years of useful life or nearing completion of their useful life.*

❖ *WBSETCL stated:*

- *Usually RLA study of conductors are carried out depending on the frequency of breakdown of any line, not just on their Life span.*
- *Farakka-Jeerat ckt-I & Farakka-Sagardighi ckt-II, these lines have tripped only twice in last one year though they have crossed 37 years of useful life so replacing line just on the basis of its age is not technically justified.*

❖ *Powergrid,DVC and OPTCL informed that AI based Drone survey is done to carry out healthiness assessment of conductors & based on statistical analysis, preventive maintenance of the lines is planned.*

❖ *WBSEDCL requested for phase-wise execution of reconductoring process to alleviate burden on the consumers.*

OCC Decision:

❖ *OCC advised all the transmission licensee to conduct RLA study of the respective lines & submit the assessment report to ERPC Secretariat at the earliest. Assessment should be done on priority basis in vulnerable zones i.e railway crossings, highway crossings,etc.*

❖ *OCC opined that implementation mode of reconductoring to be decided later once the technical justification is finalized.*

❖ *OCC further opined that based on the RLA study report, decision shall be taken for preventive maintenance or HTLS reconductoring of the lines in order to avoid any threat to the safety of public & for enhancing reliability of the overall transmission system.*

2.9 Joint Declaration of Total/Available transfer capability by SLDC and RLDC: ERLDC

- **Total/available transfer capability (TTC/ATC)** is an important reliability assessment done by the system operators.
- SLDC does the assessment considering the transmission system within their jurisdiction and RLDC checks both intra-state and inter-state system constraints. Therefore, for a common figure joint assessment is necessary by RLDC & SLDC.
- On **6th Aug 2024,** ERLDC organized a physical meeting for joint assessment of TTC/ATC with following objectives:

1. Adhering to TTC/ATC declaration timeline as per CERC approved procedure.
2. Declaration of Common value.
3. Sharing of automation tools by ERLDC for easing out the TTC/ATC calculation procedure.
4. Declaration of TTC/ATC value between two state which are having tie lines between them.

- **Two Executives involved in system study from West Bengal, Bihar, Jharkhand, DVC & Sikkim participated physically and executives of SLDC Odisha joined online**. ERLDC executives along with SLDC executive jointly conducted study and calculated TTC/ATC value for Sep-24 and Aug-25. Finally, the results found by manual study were also validated using **"Automatic TTC/ATC calculation tool"** developed by ERLDC. SLDC executives found the Automatic tool to be very useful.
- **As per the CERC approved timelines, states need to declare month ahead TTC/ATC by 10th of every month and by 8th of every month for 12 months ahead.**
- Status of TTC/ATC declaration as per CERC approved timelines are as follows:

State	Sep-24 TTC/ATC Declaration status during 6th Aug meeting	Aug-25 TTC/ATC Declaration status during 6th Aug meeting
Jharkhand	**Completed**	**Completed**

DVC	**Completed**	**Completed**
Sikkim	**Completed**	**Completed**
Bihar	**Completed**	**Pending**
Odisha	**Completed**	**pending**
West Bengal	**Pending**	**Completed**

- Minutes of the meeting is attached in **Annexure B.2.8**. All the declarations were done honoring ISTS and intra-sate constraints. ERLDC emphasised that during all the month declaration of state ATC/TTC needs to be done at least honouring constraint coming in ISTS which can trigger serious cascading effect needs to be honoured by all states.
- ERLDC highlighted that as of now ATC/TTC value between two states need to be declared by RLDC based on the input from SLDC as per IEGC-23. Therefore, all SLDC are requested for sharing ATC/TTC with all other connected states.

ERLDC may explain. Members may discuss.

Deliberation in the meeting

❖ *ERLDC requested all SLDCs to timely declare ATC/TTC of respective states as per CERC Approved timelines & During declaration of state ATC/TTC, constraint coming in ISTS which can trigger serious cascading effects needs to be HONOURED.*

❖ *He further submitted that all SLDC needs to share ATC/TTC data with all other connected states in line with IEGC 2023 so that ATC/TTC value between two states can be declared by RLDC based on the data received from SLDCs.*

❖ *He also mentioned about the physical meeting organized by ERLDC on 6th August to address ATC/TTC issues with all SLDCs & status of ATC/TTC declared by respective SLDCs are mentioned above.*

❖ *SLDC, Bihar submitted that ATC/TTC data for the month of September 2024 will be shared shortly with ERLDC.*

❖ *SLDC, Odisha informed that ATC/TTC data for the month of September 2024 will be shared on 23.08.2024.*

OCC Decision:

❖ *OCC underscored the importance of timely declaring ATC/TTC for seamless planning i.r.o real time system operation.*

❖ *OCC advised all SLDCs to strictly adhere to the CERC approved timeline for sharing ATC/TTC data with ERLDC.*

2.10 Issuance of code from ERLDC for Activation/Deactivation of FGMO mode-For Information: ERLDC

- In accordance with IEGC Clause 30.10.D&G, generating units are required to operate their governors or frequency controllers in FGMO mode continuously, without exception. Any deviations from this mandate necessitate prior approval from the concerned RLDC.
- Furthermore, RLDCs are responsible for calculating the Frequency Response Performance (FRP) of generators, which is again linked to financial incentives under Terms and Conditions of Tariff regulations-2024.
- As per the prevailing practice, status change of governor is being communicated via mail from ISGS plants. No such information generally received from In SGS.
- To ensure adherence to these requirements, monitoring of FGMO status and maintenance of records are essential. Therefore, all generators are requested to obtain a CODE from ERLDC when activating (ON) or deactivating (OFF) FGMO mode, providing valid reasons for the change.

- All SLDC may coordinate on behalf of the generating units under their jurisdiction.

ERLDC may explain. Members may note.

Deliberation in the meeting

❖ *ERLDC stated:*

➢ *The need of continuous operation of Generating units in FGMO mode to balance out the wide fluctuation observed in the grid frequency.*

➢ *Need of monitoring FGMO status as FRP of generators are now linked to financial incentives under Terms and Conditions of Tariff regulations-2024.*

➢ *Henceforth, activation or deactivation of FGMO status i.r.o of all generators shall be made on valid ground and upon receipt of code from ERLDC.*

- *OCC noted.*

2.11 Shutdown proposal of generating units for the month of September'2024-ERPC

Maintenance Schedule of Thermal Generating Units of ER during 2024-25 in the month ofSeptember'2024							
System	**Station**	**Unit No.**	**Capacity (MW)**	**Period (as per LGBR 2024-25)**		**No. of Days**	**Reason**
				From	**To**		
DVC	CTPS	8	250	01-09-2024	05-10-2024	35	COH-Boiler RLA, turbogen. & De-Nox
IPP	GMR	3	350	11-09-2024	30-09-2024	20	BOH
	IND-BARATH	1	350	01-09-2024	25-09-2024	25	AOH

Members may discuss.

Deliberation in the meeting

❖ *DVC requested for availing the shutdown of Mejia TPS unit #1 in place of CTPS unit#8 for 28 days i.e. from 12-09-2024 to 09-10-2024 for Boiler RLA & AOH activities.*

❖ *GMR representative requested the forum for rescheduling its unit#3 i.e. from 16.09.2024 to 10.10.2024 for BOH activities for a period of 25 days.*

❖ *The detailed shutdown schedule as approved by OCC forum is provided at Annexure **B.2.11**.*

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.
- **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.

- Based on submission by DVC, revised load relief quantum as follows:

Constituent	Stage-1	Stage-2	Stage-3	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 Bengal	497	597	696	696	**2486**	**2472**	**+14**
Sikkim	5	6	7	7	**25**	**25**	**0**
Total	**1383**	**1660**	**1937**	**1937**	**6916**	**6918**	**-2**

Constituent wise	Annual Consumption	Consumption 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	26214	0.141	3476	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

As per deliberation in **217th OCC:**
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.

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

Deliberation in the meeting

❖ *CESC updated that they have added new feeders to implement the AUFLS & list of feeders' data will be soon shared to SLDC, WB.*

❖ *SLDC, WB updated:*

- *Shifting the load quantum from Stages –III & IV to stage-I & II will be carried out within 15 days. However, for implementing AUFLS in stage III & IV, new feeders are yet to be identified.*
- *Relevant inputs have been received from WBSEDCL but the same is awaited from IPCL. In this regard, IPCL was directed by OCC to share action plan of load shifting to stages-I&II of AUFLS with WB SLDC at the earliest.*

❖ *DVC apprised that load shifting from Stages –III & IV to stage-I & II has already been completed & Feeder identification is going on to implement AUFLS in Stage III & IV.*

❖ *SLDC, Odisha submitted:*

Communication is already sent to DISCOM highlighting the need of identification of feeder to implement AUFLS but they have not received any feedback yet.

OCC Decision

❖ *OCC raised serious concern on delay in load shifting to stages-I & II of AUFLS and advised SLDC, Odisha to expedite the discussion with DISCOM to identify the feeder list and shifting of load at the earliest. In this regard SLDC Odisha agreed to update the status within a week after conducting bilateral discussion with concerned DISCOM.*

❖ *OCC further opined that SLDCs who have successfully implemented AUFLS in stage I & II by shifting load quantum from stage III & IV, should explore the identification of new feeders to incorporate AUFLS in stage III & IV. The list of newly identified feeders may be shared with ERPC Secretariat for information.*

❖ *OCC also advised SLDCs to ensure periodic testing of UFR to ascertain their healthiness and submit report to ERPC/ERLDC.*

2.13 Incorporation of some essential features in new WBES: WB SLDC

- New WBES has gone live w.e.f. 00:00 Hrs of 05.08.2024. Necessary clarifications and day to day operational issues are being addressed by ERLDC.
- Majority of the essential changes as put forward by SLDC, WB in the 217th OCC meeting have already been incorporated. SLDC, WB would like to highlight the changes that are yet to be incorporated in the new WBES but which were deliberated and recorded in the **minutes** of the **217th OCC** meeting.
- Provision for viewing MTDL values of all the generating stations catering power to the state of West Bengal is a mandatory requirement in the context of merit order despatch. The matter has commercial implications on the intra-state Discoms and need to be resolved at the earliest.
- 217th OCC opined in favour of deploying standard nomenclature of all utilities as per CEA (OPM Division) to rule out the mismatch of nomenclature between NOAR and new WBES before Go-Live. Incorporation of necessary changes may please be expedited.
- Requirement of providing facility for viewing consolidated scheduling dashboard with details like date, time, name of affecting utility was pointed out in the last OCC. The required provision is yet to be implemented.
- 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. The issue needs to be resolved at the earliest.
- During several discussions with ERLDC implementation team, it was suggested that a new API may be developed and shared in which only the current revision number to be provided. This API should have a different rate limit from the existing API.
- As new WBES has been integrated with SAMAST scheduling module, it is requested to intimate SLDC, WB before deploying any relevant modifications/update in new WBES.
- As per deliberation in **217th OCC:**

❖ 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.

WB SLDC and ERLDC may update. Members may discuss.

Deliberation in the meeting

- *ERLDC stated:*
- *Following requirements as desired by WB SLDC have been implemented:*
  - *Schedule data visibility of all India entities through user credential-controlled access.*
  - *Contract Rate has been made Non mandatory field.*
  - *DC and Schedules of all generating stations in which West Bengal has share allocation.*
  - *Partially Fulfilled: Making nomenclature in NOAR and WBES same as CEA (OPM division)- all utilities of WBES and NOAR synched with NOAR ID.*
- *Following requirements as sought by WB SLDC, are yet to be completed:*
  - *MTDL values to be made available for all generators together in Reports section*
  - *GNA Contract details like contract quantum, approved period etc to be provided in API*
  - *Report to view block wise quantum excl loss for all transactions together to be prepared*
  - *Date and time stamp in all report downloaded shall be provided.*

- *WB SLDC requested ERLDC to intimate in advance before deploying any changes in New WBES portal.*

OCC Decision:

- *OCC advised ERLDC to incorporate the requirements in New WBES as desired by WB SLDC to the best feasible extent.*
- *OCC also instructed ERLDC to strictly follow a standard nomenclature of all generating station as per CEA(OPM) Division in order to eliminate mismatch in nomenclature in New WBES.*

2.14 Requirement of some essential features in new WBES i.r.o DISCOMs: WBSEDCL

- At the outset, appreciation is expressed to ERLDC for their efforts in addressing the requirements of State entities as discussed in the earlier meeting in the new WBES system. However, some below mentioned issues still require attention from ERLDC to be resolved.
- Previously, in the old WBES portal, DISCOMs could view and download both Net Schedule and Full Schedule separately without user credentials. The Full Schedule was displayed at the regional periphery, while the Net Schedule was shown at the State periphery, considering CTU loss.

- ❖ However, in the new WBES system, both Full Schedule and Net Schedule have become numerically identical and are displayed at the State periphery, considering CTU loss. This change has deviated from the conventional distinction between Net and Full Schedules.
- ❖ To facilitate ease of Energy Accounting at each bus, we request that the convention of Net and Full Schedules be reinstated to its original format, as in the old WBES system. This would enable separate viewing and downloading of Net Schedule and Full Schedule, maintaining the distinction between Regional and State peripheries.
- ❖ At present a single DISCOM login allocated to West Bengal, shared by CESC, IPCL, and WBSEDCL. The present arrangement poses a challenge, as repetitive login attempts with incorrect passwords by any user lock the portal, impacting the activities of other users. As WBSEDCL is a registered DISCOM of RLDC and the sole state beneficiary DISCOM of ISGS shares, we request a dedicated Login ID to ensure uninterrupted access and prevent potential disruptions caused by shared login credentials.
- ❖ WBSEDCL has a significant share of around 38% of its power purchase portfolio from different interstate sources under the Indian Electricity Grid Code (IEGC) framework. The Merit Order Dispatch (MOD) position of these source-wise ISGS generations falls between various state sector generators.
- ❖ To streamline scheduling processes and automate operations, we request that an API (Application Programming Interface) facility be provided to WBSEDCL. The API should be compatible with dynamic IP addresses to ensure seamless integration and efficient data exchange.
- ❖ At present the downloaded reports from new WBES system, such as Net schedule, Entitlements lack date and time stamp & making it challenging to identify and reference them in the future. So, ERLDC may please be requested to incorporate such minor modification which will significantly benefit our record-keeping and reference processes

WBSEDCL and ERLDC may update. Members may discuss.

Deliberation in the meeting

- ❖ *WBSEDCL highlighted following features that needs to be incorporated in WBES:*
- ➢ *In New WBES only a single DISCOM login is allocated to West Bengal which is shared by CESC, IPCL, and WBSEDCL & if there are multiple logins attempt with incorrect passwords by any user then portal gets locked. It adversely affects the activities of other users.*
- ➢ *Dynamic IP based API access to ensure seamless integration and efficient data exchange.*
- ➢ *To provide Date and time stamp in all report downloaded which will significantly benefit record-keeping and reference process.*
- ❖ *WBSEDCL, being the only intra-state DISCOM of WB having ISGS share, pitched for separate login in New WBES.*

- ❖ *ERLDC submitted:*
- ➢ *Intra-state DISCOM wise login needs further deliberation as across pan India, only one Login id is shared by all state entities & all are operating smoothly without any such issues mentioned above. Also the WBES system may get slowed down with provision of multiple access by many intra-state entities.*
- ➢ *Implementation of Dynamic IP based API access will not be possible because of cyber security threats.*
- ➢ *Date and time stamping shall be provided in all downloaded reports.*

***OCC Decision**:*

OCC advised ERLDC to incorporate the necessary requirements in New WBES to the best feasible extent.

2.15 Declaration of high inflow season for Hydro-generating stations of Eastern Region for calculation of RTDA Accounts for FY 2024-25: ERPC

- As per the minutes of 3rd meeting of CERC with RPCs and further in line with the discussions held in the 45th CCM meetings, the high inflow season for hydro generating stations is to be finalized in the OCC meetings. Subsequently, as per the minutes of 190th OCC meeting, it was decided that the months in which spillage was there on daily basis throughout the complete months for last 3 years submitted data, the corresponding months would be taken as high-inflow period. Further in case of partial spillage during a month, high inflow month would be considered in case the spillage is more than 15 days during the month according to the last 3 years submitted data.
- Based on the spillage data received for the last 3 years, the high inflow period for hydro-generators were determined for the FY 2022-23 & FY 2023-24 on the above-mentioned methodology.
- The details are mentioned below:

For FY 2022-23 (Finalized in 190th OCC Meeting)

Hydro-Station	High Inflow Period	Duration
Teesta-V	June, July, August, September	04 months
Rangit	July, August, September, October	04 months
Jorethang	July, August, September	04 months
Tashiding	July, August, September	02 months
Dikchu	July, August, September	04 months
Chuzachen	June, July, August	03 months
Teesta-III	June, July, August, September	04 months
Rongnichhu	June, July, August, September	04 months

For FY 2023-24 (Finalized in 49th CCM Meeting)

Hydro-Station	High Inflow Period	Duration
Teesta-V	June, July, August, September	04 months
Rangit	June, July, August, September, October	05 months
Jorethang	June, July, August, September	04 months
Tashiding	July, August	02 months
Dikchu	June, July, August, September	04 months
Chuzachen	June, July, August	03 months
Teesta-III	June, July, August, September	04 months
Rongnichhu	June, July, August, September	04 months

- Rongnichhu vide mail dated 21st May 2024 submitted that due to poor rainfall in the fiscal year 2023-24, the number of spillage days has decreased. Consequently, the generation has also fallen from 434.81 MU to 396.00 MU. Therefore, Rongnichhu has requested to consider the spillage date from the past three years for the declaration of high inflow months.
- Jorethang vide mail dated 24.06.2024, has also requested to consider the month of June 2024 & October 2024 as high inflow period for projects Jorethang Loop Hydro Electric Project & Tashiding Hydro Electric Project

Members may discuss.

Deliberation in the meeting

The representatives of NHPC & hydro stations of Sikkim were not present in the meeting.

***OCC Decision**:*

- *OCC opined that in case of actual spillage more than 10 days during a particular month, the corresponding months shall be considered as high inflow period for respective hydro generating units of ER. This shall be decided based on submitted data for last 3 years and should be henceforth considered in calculation of RTDA accounts of FY 2024-25.*
- *Based on the spillage data as received from the various hydro stations for last 3 years(**Annex B.2.15**) , the hydro station wise inflow period for 2024-25 will be as follows:*

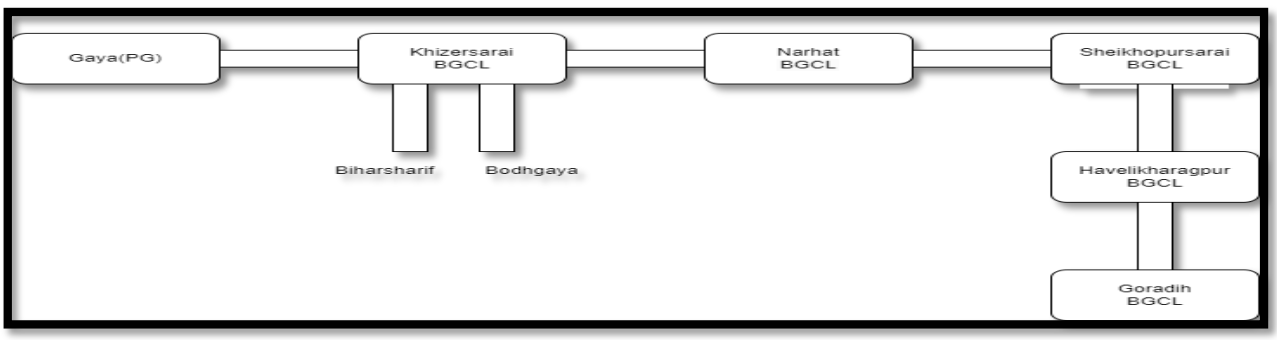
Hydro Station	***High Inflow Period***	***Months***
Rangit	*June, July, August, September, October*	*05 months*
Jorethang	*June, July, August, September, October*	*05 months*
Tashiding	*June, July, August, September, October*	*05 months*
Rongnichu	*June, July, August, September*	*04 months*

** Data is not received from Teesta - III, Dikchu, Chuzachen hydro stations*
**Since Teesta-V HEP is under forced outage of long duration and having negligible chance of restoration by FY 2024-25, spillage details of the same are not being considered in declaration of high inflow period of FY 2024-25 .*

ADDITIONAL AGENDA

2.16 Utilization of existing one no. line bay at Goradih BGCL of 220 KV D/C Goradih (BGCL) - Haveli Kharagpur (BGCL) transmission line for power evacuation from PGCIL (Banka) to BGCL (Goradih) through under construction 220 KV D/C PGCIL (Banka) - BGCL (Goradih) transmission line: BSPTCL

Present connectivity

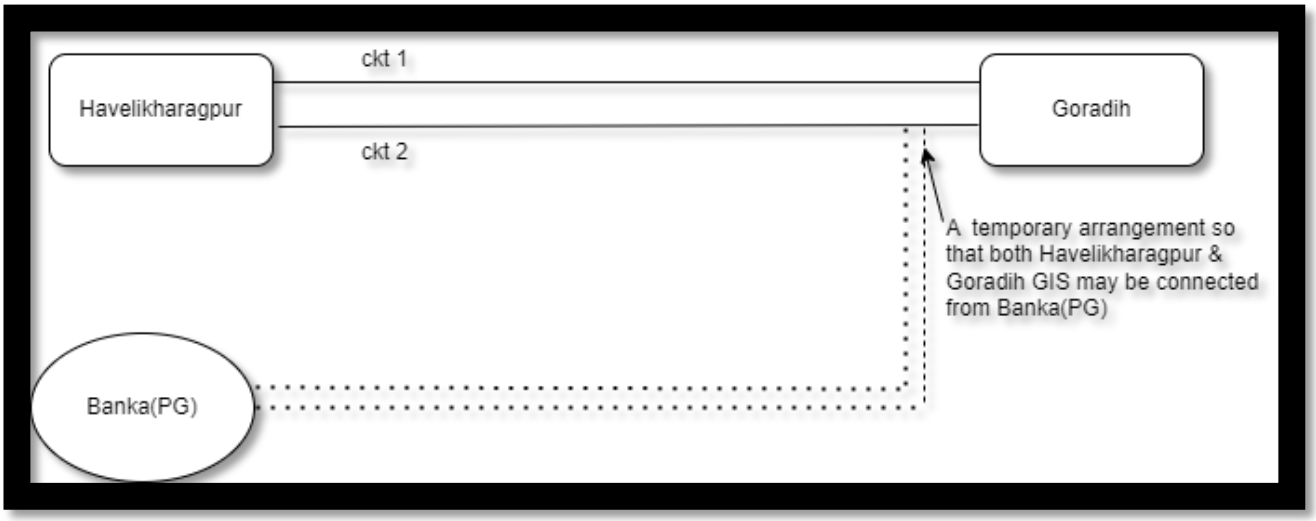


- At present Gaya(PG) is the only main source (400 kV Substation) feeding power to downward network of BGCL system causing low voltage issues at Goradih & Havelikharagpur.
- Goradih has D/C connectivity to Sabour & Kahalgaon GSS at 132 kV level and due to back feeding of power & low voltage, synchronization operation is not practically feasible.

Further in case of outage of available sources to Sabour ie Banka(PG) and Kahalgaon ie NTPC(Kahalgaon) complete Bhagalpur district goes under black out.

Future proposal

- 220 kV D/C connectivity of Goradih to Banka(PG) is proposed and construction of transmission line is in completion stage.
- The work of construction of 02 nos of 220 kV GIS line bays at Goradih (BGCL) has been awarded by BSPTCL on 05.03.2024 & will be completed by 04.09.2025.
- In case of unavailability of bays at Goradih GIS following connectivity may kindly be approved so that BSPTCL may provide more reliable & quality power in the Bhagalpur district of Bihar.
  1. Bay of 220 kV Havelikharagpur ckt 2 at Goradih GIS can be utilized for 220 kV Banka(PG)-Goradih ckt 1(U/C).
  2. Isolated part of Havelikharagpur ckt 2 may be connected to 220 kV Banka(PG)-Goradih(BGCL) ckt 2 (U/C).
  3. After this arrangement both Havelikharagpur & Goradih will have 220 kV connectivity from Banka(PG).



BSPTCL may update.Members may discuss.

Deliberation in the meeting

- *SLDC, Bihar briefed about the low voltage issues prevails at Goradih & Haveli Kharagpur since a single source at Gaya (PG)feeding entire downstream network causing a significant line voltage drop.*
- *He also highlighted the power reliability issue in Bhagalpur as its entire power requirement is fed by 400 KV Gaya (PG) S/S & NTPC Kahalgaon. If these two sources fail entire district goes under black out.*
- *He requested to consider the proposed interim arrangement so that both Goradih GIS & Haveli Kharagpur may be connected from Banka (PG) So that BSPTCL may provide more reliable & quality power in the Bhagalpur district of Bihar.*

OCC decision

- *BSPTCL was advised to approach CTU with this proposal.*
- *OCC referred the matter to CMETS-ER for further deliberation.*

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

3.1. ER Grid performance during July 2024.

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

AVERAGE CONSUMPTION (MU)	MAXIMUM CONSUMPTION(MU)/ DATE	MAXIMUM DEMAND (MW)	MINIMUM DEMAND (MW)	SCHEDULE EXPORT	ACTUAL EXPORT
		DATE / TIME	DATE / TIME	(MU)	(MU)
607.5 MU	647.0 MU, 18.07.2024	30622 MW, 18.07.2024 at 22:58 Hrs.	20460 MW, 03.07.2024 at 06:25 Hrs.	2328	2355

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

Deliberation in the meeting

The grid performance of ER for the month of July 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 **217th OCC:**

- 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.

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

Deliberation in the meeting

- *PowerGrid Odisha apprised :*
  - *The Converter Transformer has reached at Durg, Chhattisgarh after traversing 1480kms & yet to cover 580km to reach at the Talcher HVDC SS.*
  - *4 Railway crossing & one underpass (Bridge) that comes on the way where they may face some problem while transporting the consignment from Durg, Chhattisgarh.*
  - *Considering all constraints hindering transportation, by end of September 2024, the converter Transformer will reach the site & thereafter 15 more days will be needed to complete the commissioning activities.*

OCC Decision:

OCC advised PowerGrid Odisha to expedite the transportation of Converter Transformer so that Talcher-Kolar HVDC system can be restored at the earliest.

3.3. Status of upcoming Thermal Generation Projects: ERPC

- Enhancing thermal capacity is imperative due to escalating load demands. As we approach the summer season, ensuring preparedness is of utmost importance. Possessing adequate capacity during peak load periods is crucial for effective grid management. There are several forthcoming thermal projects within the region, with a few Thermal Power Plants (TPPs) awaiting their CODs such as North Karanpura, Barh, Patratu, IBEUL (Unit #02) and SJVN.
- It is necessary for these thermal power plants to strategize for their timely completion and integration into the grid, ensuring the region's readiness for the upcoming demand surge.
- COD of Unit #02(660 MW) of North Karanpura TPP was completed on 20.03.2024. Status of Unit#03(660 MW) may please be confirmed by NTPC.

Generating unit	**Update as per 212th OCC meeting**	**Update as per 214th OCC meeting**	**Update as per 215th OCC meeting**
North Karanpura TPP U#3(660 MW)	-	to be commissioned by **December 2024**.	to be commissioned by **December 2024**.
Barh stage-I U#3 (660 MW)	-	to be commissioned by **April 2025.**	to be commissioned by **April 2025.**
Patratu	COD expected in Q4 of FY 2024-25.	-	
Buxar TPP(SJVN)	-	Synchronization of Unit#1 is targeted in **September, 2024** and Unit#2 in **December, 2024**	SJVN representative was not present in the meeting.

All concerned Thermal GENCOs may update. Members may discuss.

Deliberation in the meeting

- *NTPC updated:*
  - *NKSTPP Unit#3 COD will be tentatively by March,2025.*

- *Patratu generating unit is planned to be synchronized by Dec,2024 & it's COD shalll be tentatively done by Q4 of FY 2024-25.*
- *SJVN representative was not present in the meeting.*

OCC Decision:

OCC advised NTPC to expedite the process of COD for the above mentioned generating Units.

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

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

The latest data receipt status is given below: (as on **12.08.2024)**

STATIONS	03.04.2024	06.04.2024	19.04.2024	23.04.2024	02.05.2024	10.05.2024	28.05.2024	04.06.2024	04.06.2024	11.06.2024	17.06.2024	19.06.2024	16.07.2024
	05:29	11:24	10:28	20:15	14:41	19:35	19:45	10:26	10:34	14:10	13:53	12:42	22:10
Barh stage-1	Pending	Pending	Pending	Pending	Pending	Pending	Pending	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**
Barh stage-2	Pending	Pending	Pending	Pending	Pending	Pending	Pending	**Received**	**Received**	**Received**	**Received**	Pending	**Received**
BRBCL	Pending	Pending	**Received**	**Received**	**Received**	**Received**	Pending	Pending	Pending	Pending	Pending	Pending	Pending
Darlipalli	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**
FSTPP #STG 1 & 2	Pending	Pending	Pending	Pending	Pending	**Received**	Pending	**Received**	**Received**	**Received**	Pending	Pending	**Received**
FSTPP # STG 3	Pending	Pending	Pending	Pending	Pending	**Received**	Pending	Pending	Pending	**Received**	Pending	Pending	Pending
KhSTPP #STG 1	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
KhSTPP #STG 2	Pending	**Received**	**Received**	**Received**	**Received**	**Received**	Pending	**Received**	Pending	Pending	**Received**	**Received**	**Received**
NPGC	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	Pending	**Received**	**Received**	**Received**
TSTPP #STG 1	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	Pending	**Received**	**Received**	**Received**	**Received**	Pending	**Received**
TEESTA V	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	Pending
North Karanpura	Pending	Pending	Pending	Pending	Pending	**Received**	Pending	Pending	Pending	Pending	Pending	Pending	**Received**
TEESTA III	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	Pending
ADHUNIK	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**
DIKCHU	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	PLANT OUT	Pending
TASHIDING	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
GMR	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	Pending	**Received**
JITPL	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**
MPL	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**
Bihar	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
Jharkhand	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
DVC	Pending	Pending	Pending	Pending	Pending	Pending	Pending	**Received**	**Received**	Pending	Pending	Pending	Pending
OPTCL	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**	**Received**
WB	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending

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

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

MOM of 02.08.2024 attached at **Annex-B.3.4.**

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.*

❖ *He also requested all stakeholders to to follow the stipulated timeline and submit the data to ERLDC and also fill the google sheet mentioned above, to include the email address where notifications of reportable events should be sent.*

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

3.5. 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.

The latest Forecast receipt status is shown below:

AS ON 01-08-2024	Forecast Receipt Status		
Entity Name	Day ahead	Weekly	Monthly
JHARKHAND	REGULAR	REGULAR	NOT RECEIVED
WEST BENGAL	REGULAR	NOT RECEIVED	NOT RECEIVED
DVC	REGULAR	REGULAR	NOT RECEIVED
BIHAR	REGULAR	REGULAR	REGULAR
SIKKIM	REGULAR	NOT RECEIVED	NOT RECEIVED
ODISHA	REGULAR	NOT RECEIVED	NOT RECEIVED

As per deliberation in **217th OCC**:

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

- 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.

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

Deliberation in the meeting

❖ *SLDC, Odisha submitted that weekly forecast data may be shared after implementation of SAMAST.*
❖ *WB SLDC informed that Weekly forecast data may be shared after confirming with their Board & WBERC.*

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.*
❖ *SLDCs who are submitting day ahead & weekly forecast were also advised to share the monthly forecast data with ERLDC.*

3.6. 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
CTPS Islanding Scheme	DVC	500

*CTPS Islanding Scheme was inadvertently missed in the last two agendas.

- 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**

Letters have already been issued to the SLDCs regarding the sharing of the above information, but any response is yet to come. It is again requested that all the concerned SLDCs may expedite.

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

3.7. 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.

Sl 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	23rd,July2022		July-2024	
2	Balimela	08th Sep-2022		July-2024	
3	Rengali	08-December- 2022	12th July 2023	July-2024	
4	Burla	23-July-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	14thSeptember2023	Dec-2024	
7	TLDP-III			Oct-2024	
8	TLDP-IV			Oct-2024	

9	Subarnarekha	13th December 2022		Sep-2024 4th week	
10	Teesta-V			N/A	
11	Chuzachen			Oct-2024	
12	Teesta-III	08-April-2022		N/A	
13	Jorethang		19th and 20th December 2023	Dec-2024 3rd week	
14	Tashiding		12th December 2023	2nd week of Dec 2024	
15	Dikchu			N/A	
16	Rongnichu			March 2024	18th March and 20th 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 **217th** 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.*

3.8. 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 was apprised by ERPC secretariat that mock drill reports have only been received from ERLDC,NHPC and some generating units of WBPDCL.

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).*

3.9. 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**.

Deliberation in the meeting

- *DVC has shared revised feeder with ERLDC in which ADMS has been implemented after operationalization of Chandrapura islanding scheme.*

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.*

4. PART-D: OPERATIONAL PLANNING

4.1. Anticipated power supply position during September-2024

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of September2024 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 September 2024 is provided at ***Annexure D.1***

4.2. Major Thermal Generating Units/Transmission Element outages/shutdown in ER Grid (as on as on 13-08-2024)

a) Thermal Generating Stations outage report:

SL No	STATION	STATE	AGENCY	UNIT NO	CAPACITY (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	BOKARO-A'	DVC	DVC	1	500	Low water level at intake	10-Aug-2024
4	BAKRESHWAR	WEST BENGAL	WBPDCL	5	210	Turbine high vibration.	07-Aug-2024
5	BARH	BIHAR	NTPC	2	660	ABNORMAL SOUND FROM BOILER	13-Aug-2024
6	GMR	ODISHA	GMR-Infra	1	350	Problem in Submerged Scraper Conveyor-I	12-Aug-2024
7	BARH	BIHAR	NTPC	1	660	Unit#1 was taken out of Bar on 11th July 2024 due to BTL. During shutdown of Unit#1, Cold Reheat Line support structure got damaged.	11-Jul-2024
8	SAGARDIGHI	WEST BENGAL	WBPDCL	2	300	Annual Overhauling	07-Aug-2024
9	OPGC	ODISHA	OPGC	4	660	Annual Overhauling	06-Aug-2024
10	MEJIA TPS	DVC	DVC	2	210	Unit tripped on 95% stator earth fault(SEF) and protection Relay-86A operated. Later unit was taken under	28-Jul-2024

						overhauling from 23:05 hrs of 28-07-2024 for 25 days.	
11	KOLAG HAT	WEST BENGAL	WBPDCL	6	210	Capital Overhauling	11-Jul-2024
12	FSTPP	WEST BENGAL	NTPC	5	500	Annual overhauling	01-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) Major Generating stations Out on Reserve Shutdown due to low system demand:

SL No	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
1	**SOUTHERN**	**WEST BENGAL**	**CESC**	**1**	**67.5**	**Low system demand**	**11-Aug-2024**

c) Hydro Unit Outage Report:

S. NO	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
1	TEESTA STG III Hep	SIKKIM	TUL	1-6	200x6	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	TEESTA STG III Hep	SIKKIM	TUL				
3	TEESTA STG III Hep	SIKKIM	TUL				
4	TEESTA STG III Hep	SIKKIM	TUL				
5	TEESTA STG III Hep	SIKKIM	TUL				
6	TEESTA STG III Hep	SIKKIM	TUL				
7	DIKCHU Hep	SIKKIM	SKPPL	1-2	48x2	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
8	DIKCHU Hep	SIKKIM	SKPPL				
9	TEESTA HPS	SIKKIM	NHPC	1-3	170x3	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
10	TEESTA HPS	SIKKIM	NHPC				
11	TEESTA HPS	SIKKIM	NHPC				
12	CHIPLIMA HPS / HIRAKUD II	ODISHA	OHPC	1	24	Capital Overhauling	15-Dec-2023

13	BALIMELA HPS	ODISHA	OHPC	2	60	High Turbine Vibration	19-May-2024
14	BALIMELA HPS	ODISHA	OHPC	1	60	High Turbine Vibration	19-Aug-2024

d)Long outage report of transmission lines (As on 13.08.2024):

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 Destringing of conductor of both circuits and Earth wire between tension tower no. 218-237 in same line.
132KV-NALANDA-BARHI(DVC)-1	25.03.2023	
400KV-RANGPO-TEESTA-V-1 & 2	04.10.2023	Tower near gantry of Teesta V powerhouse collapsed due to sudden cloudburst at glacier fed LOHNAK Lake followed by huge inrush of water in TEESTA river and damage of Teesta III Dam & downstream Powerhouses

400KV-TEESTA-III-RANGPO-1	04.10.2023	Hand tripped from Teesta-III end due to sudden cloudburst at glacier fed LOHNAK Lake followed by huge inrush of water in TEESTA river and damage of Teesta III Dam & downstream Powerhouses
400KV-TEESTA-III-DIKCHU-1	04.10.2023	
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 July -2024.

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

NEW ELEMENTS COMMISSIONED DURING July, 2024							
GENERATING UNITS							
SL. NO.	**Location**	**Owner/ Unit name**	**Unit No / Source**	**Capacity added (MW)**	**Total/Installed Capacity (MW)**	**DATE**	**Remarks**
NIL							
ICTs/ GTs / STs							
SL. NO.	**Agency/ Owner**	**SUB-STATION**	**ICT NO**	**Voltage Level (kV)**	**CAPACITY (MVA)**	**DATE**	**Remarks**
1	**NTPC North Karanpura**	**NTPC North Karanpura**	**1**	**400/220 kV**	**315**	**09-07-2024**	
TRANSMISSION LINES							
SL. NO.	**Agency/ Owner**	**Line Name**		**Length (KM)**	**Conductor Type**	**DATE**	**Remarks**
NIL							
LILO/RE-ARRANGEMENT OF TRANSMISSION LINES							
SL. NO.	**Agency/ Owner**	**Line Name/LILO at**		**Length (KM)**	**Conductor Type**	**DATE**	**Remarks**

NIL						
BUS/LINE REACTORS						
SL. NO.	**Agency/ Owner**	**Element Name**	**SUB-STATION**	**Voltage Level (kV)**	**DATE**	**Remarks**
NIL						
BUS						
SL. NO.	**Agency/ Owner**	**Element Name**	**SUB-STATION**	**Voltage Level (kV)**	**DATE**	**Remarks**
NIL						
BAYS						
SL. NO.	**Agency/ Owner**	**Element Name**	**SUB-STATION**	**Voltage Level (kV)**	**DATE**	**Remarks**
NIL						

Members may note.

***Deliberation in the meeting*:**

Members noted.

4.4. UFR operation during the month of July 2024.

Frequency profile for the month as follows:

MONTH	MAX (DATE/TIME)	MIN (DATE/TIME)	% LESS IEGC BAND	% WITHIN IEGC BAND	% MORE IEGC BAND
July, 2024	50.37 Hz on 06-07-2024 at 13:12 hrs	49.64 Hz on 09-07-2024 at 21:14 hrs, 22-07-2024 at 15:24 hrs and 25-07-2024 at 14:18 hrs	6.41	78.43	15.16

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

Members may note.

***Deliberation in the meeting*:**

Members noted.

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Annex-A

Participants in 218th OCC Meeting

Venue: ERPC Conference Hall, Kolkata **Time: 10:30 Hrs.** **Date: 23.08.2024 (Friday)**

Sl. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
1	N S Mondal	Member Secretary	ERPC	9958389967	mserpc-power@nic.in	
2	R Sutradhar	Executive Director	ERLDC	9436302714	rajibsutradhar@grid-india.in	
3	Sajan George	CGM	ERLDC	9910378041	Sajan@grid-india.in	
4	S. Kumar	Sr GM	ERLDC	9436335370		
5	S. K. BHOWMIK	SE	ERPC	9831919509		
6	BILASH ACHARYA	DGM (SO)	ERLDC	7003472016	bilash.achar@grid-india.in	
7	J. P. Mallik	Manager	GMR	9777452737	jitendra.mallik@gmrgroup.in	
8	D. CHAKI	CE, CPD	WBSETCL	9434910019		
9	S. Banerjee	ACE, SLDC	do	9434916379	srkbanerjee@yahoo.com	
10	D Mukherjee	Sr. Mgr.	WBPDCL	9830052830	d.mukherjee@wbpdcl.co.in	
11	SURAJIT ROY	Mgr.	HEL	8335050 67270	surajit.roy@rpsg.in	
12	P. Sen	Manager	DPL	8013843947		
13	[illegible]	[illegible]	CESC	9163[illegible]	[illegible]	
14	P. Barman	ACE	WBSEDCL	7003871189	preeben72@gmail.com	
15	A. K. GHOSH	GM(OS)	WBPDCL	8336904026	[illegible]	
16	Rounak Kar	DE (E)	WBSEDCL	8906024332	rounak.kar@wbsedcl.in	
17	M. Podder	AGM (OS)	WBPDCL	8336904077	mpodder@wbpdcl.co.in	
18	Uzum Ishey	CE	DGPC			
19	Jamyangla	Engineer	BPSO	+97577203702	jamyangla@bpso.bt	
20	Chimi Dema	SO	DGPC	9751757777 40	c.dema@[illegible]	
21	Arvind Kumar	ESE	BSPTCL	7763812227	[illegible]	
22	Rita Chakraborty	CE	SLDC WB	9433491049	[illegible]	
23	[illegible]	[illegible]	NPNCL	9711454984	[illegible]	
24	S. K. Bag	ACE	SLDC, WB	9434910265	[illegible]	
25	A. K. Sinha	DManager	DVC	8961202820	[illegible]	
26	P. Ghosh	Dy. Manager	SLDC, DVC	9674299618	[illegible]	P. Ghosh
27	SUSHIL KUMAR	Sr. Manager	DVC	9431805285	[illegible]	
28	B. Purkait	C.G.M	DVC SLDC	9434745905	[illegible]	
29	MANAS DAS	DGM	ERLDC, GRID-INDIA	9007070925	manasdas@grid-india.in	

Participants in 218th OCC Meeting

Venue: ERPC Conference Hall, Kolkata **Time: 10:30 Hrs.** **Date: 23.08.2024 (Friday)**

Sl. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
30	SAIBAL GHOSH	Manager	ERLDC,	8584072079	Saibal@grid-india.in	Saibal Ghosh
31	C. Mallick	C.M	ERLDC	9007039661		
32	Rahul Anand	DGM	NTPC	9425823430	rahulanand@ntpc.co.in	
33	S K Pandey	CGM	DVC	9471959119	Sunil.pandey@dvc.gov.in	
34	D. Nikhondia	Sr. GM	PGCIL. Odisha	7504890330	dnikhondia@powergrid.in	
35	Birendra Kr	EEE	TVNL	6299998789	bk20tvnl@gmail.com	Biswar
36	S.M.S. Sahoo	DGM(El.)	OPTCL	9438908353	ele.smsahoo@optel.co.in	Sahoo
37	M P Nath	DGM (SO)	ERLDC	7605634022	mpnath@grid-india.in	
38	Sourav Mandal	CM (CMO)	ERLDC	9674012324	souravmandal@grid-india.in	
39	Raju Kachhap	Sr. Manager	SLDC, Ranchi	7783087568	rajmailme82@gmail.com	
40	SUDEEP EKKA	Sr. Manager	Engg. JUSNL	9717694926	sudeepekka448bit@gmail.com	
41	P. K. DE	SE	ERPC	9433125844	secomml.erpc@gov.in	
42	P. P. Jena	EE	ERPC	9776195991	ppjena.erpc@gov.in	
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ANNEXURE B.2.11

APPROVED MAINTENANACE SCHEDULE OF THERMAL GENERATING **UNITS**

SYSTEM	STATION	UNIT NO.	CAPACITY(MW)	PERIOD (AS PER LGBR 2024-25)		NO OF DAYS	REASON	APPROVED PERIOD		NO OF DAYS	WHEATHER AS PER LGBR OR NOT	REMARK
				FROM	TO			FROM	TO			
IPP	GMR	3	350	11.09.2024	30.09.2024	20	BOH	16.09.2024	10.10.2024	25	NO	APPROVED
	IBEUL	1	350	01.09.2024	25.09.2024	25	AOH	01.09.2024	25.09.2024	25	YES	APPROVED
DVC	CTPS	8	250	01-09-2024	05-10-2024	35	COH-Boiler RLA, turbogen.& De-Nox	-	-	-		NOT AVAILING
	Mejia TPS	1	210	01-01-2025	25-01-2025	25	Boiler RLA & overhauling	12.09.2024	09.10.2024	28	NO	APPROVED

Annex-B.2.15

SPILLAGE DETAILS FROM HYDRO STATIONS

Spillage in number of days

	Rangit			Tessta-V			Jorthang			Tashiding			Rongnichu		
	2021-22	2022-23	2023-24	2021-22	2022-23	2023-24	2021-22	2022-23	2023-24	2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
June	28	29	20	30	28	17	12	12	12	8	15	11		25	11
July	31	31	31	31	31	31	31	18	31	31	19	31	28	29	2
August	31	31	31	31	31	31	31	31	31	31	31	31	30	31	22
Septemb	30	30	30	25	30	27	21	30	7	14	30	13	20	21	1
October	29	30	28	4	19		7	14	8	5	11	8	3	7	1

Data not received from Teesta - III, Dikchu, Chuzachen

Annexure D.1

Updated anticipated Peak Demand (in MW) of ER & its constituents for September 2024

1	**BIHAR**	**Demand (MW)**	**Energy Requirement (MU)**
	NET MAX DEMAND	7782	4269
	NET POWER AVAILABILITY- Own Sources	429	335
	Central Sector+Bi-Lateral	6144	3986
	SURPLUS(+)/DEFICIT(-)	-1209	52
2	**JHARKHAND**		
	NET MAXIMUM DEMAND	2065	1175
	NET POWER AVAILABILITY- Own Source	290	222
	Central Sector+Bi-Lateral+IPP	1161	759
	SURPLUS(+)/DEFICIT(-)	-614	-194
3	**DVC**		
	NET MAXIMUM DEMAND	3350	2135
	NET POWER AVAILABILITY- Own Source	5650	3293
	Central Sector+MPL	250	266
	Bi- lateral export by DVC	2500	1520
	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	50	-96
4	**ODISHA**		
	NET MAXIMUM DEMAND (OWN)	5700	3384
	NET MAXIMUM DEMAND (In Case of CPP Drawal of 900 MW(peak) and average drawl of 700 MW)	6659	3182
	NET POWER AVAILABILITY- Own Source	3736	3305
	Central Sector	1905	1226
	SURPLUS(+)/DEFICIT(-) (OWN)	-59	1147
	SURPLUS(+)/DEFICIT(-) (I(In Case of CPP Drawal of 950 MW(peak) and average drawlm of 700 MW)	-1018	1349
5	**WEST BENGAL**		
	WBSEDCL		
5.1	NET MAXIMUM DEMAND	9829	5643
	NET MAXIMUM DEMAND (Incl. Sikkim)	9839	5650
	NET POWER AVAILABILITY- Own Source (Incl. DPL)	5060	2944
	Central Sector+Bi-lateral+IPP&CPP+TLDP	2646	1632
	EXPORT (To SIKKIM)	10	7
	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	-2133	-1074
5.2	**CESC**		
	NET MAXIMUM DEMAND	2120	1137
	NET POWER AVAILABILITY- Own Source	830	555
	IMPORT FROM HEL	541	374
	TOTAL AVAILABILITY OF CESC	1371	929
	SURPLUS(+)/DEFICIT(-)	-749	-208
	WEST BENGAL (WBSEDCL+CESC+IPCL)		
	(excluding DVC's supply to WBSEDCL's command area)		
	NET MAXIMUM DEMAND	11949	6780
	NET POWER AVAILABILITY- Own Source	5890	3499
	CS SHARE+BILATERAL+IPP/CPP+TLDP+HEL	3187	2006
	SURPLUS(+)/DEFICIT(-) BEFORE WBSEDCL'S EXPORT	-2872	-1275
	SURPLUS(+)/DEFICIT(-) AFTER WBSEDCL'S EXPORT	-2882	-1282
6	**SIKKIM**		
	NET MAXIMUM DEMAND	105	49
	NET POWER AVAILABILITY- Own Source	378	308
	Central Sector	178	117
	SURPLUS(+)/DEFICIT(-)	452	376
	EASTERN REGION		
	NET MAXIMUM DEMAND	31910	17792
	NET MAXIMUM DEMAND ((In Case of CPP Drawal of 800 MW(peak) and average drawl of 700 MW)	32810	17590
	BILATERAL EXPORT BY DVC (Incl. Bangladesh)	2110	1520
	EXPORT BY WBSEDCL TO SIKKIM	10	7
	EXPORT TO B'DESH & NEPAL OTHER THAN DVC	642	462
	NET TOTAL POWER AVAILABILITY OF ER	28279	17802
	(INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL)		
	SURPLUS(+)/DEFICIT(-)	-6393	-1979
	SURPLUS(+)/DEFICIT(-) (In Case of CPP Drawal for Odisha)	-7293	-1777