

भारत सरकार Government Of India विद्युत मंत्रालय Ministry Of Power पूर्वी क्षेत्रीय विदयूत समिति

Eastern Regional Power Committee

14 Golf Club Road, Tollygunje-70033 Website: www.erpc.gov.in

NO. ERPC/EE/OPERATION/2023/875

DATE: 21.09.2023

То

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As per list enclosed.

Sub: Minutes of 207th OCC Meeting held on 15.09.2023 (Friday) physically at ERPC secretariat, Kolkata - reg.

15.09.2023 (शुक्रवार) को ईआरपीसी सचिवालय, कोलकाता में भौतिक रूप से आयोजित 207वीं ओसीसी बैठक का कार्यवृत्त - संबंध में।

Sir,

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Please find enclosed minutes of 207th OCC Meeting held on 15.09.2023 (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).

कृपया अपनी जानकारी और आवश्यक कार्रवाई के लिए 15.09.2023 (शुक्रवार) को ईआरपीसी सचिवालय, कोलकाता में 10:30 बजे आयोजित 207वीं ओसीसी बैठक के संलग्न कार्यवृत्त देखें। यह ईआरपीसी वेबसाइट (www.erpc.gov.in) पर भी उपलब्ध है।

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

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

Regards/ सम्मान,

Yours faithfully/ आपका विश्वासी,

(A De) DD(Opération) ईई(ऑपरेशन)

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CC:

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



MINUTES OF 207TH OCC MEETING

Date: 15.09.2023 Eastern Regional Power Committee 14, Golf Club Road, Tollygunge Kolkata: 700033

EASTERN REGIONAL POWER COMMITTEE

MINUTES OF 207TH OCC MEETING HELD ON 15.09.2023 (FRIDAY) AT 10:30 HRS

Member Secretary, ERPC chaired the 207th OCC meeting. On welcoming all the participants, he outlined the performance of ER grid during August'2023 and highlighted the following points:

- In August -2023, energy consumption of ER was 17578.42 MU which is 2.81 % more than August -2022.
- In August -2023, Peak demand met of ER was 28,711 MW which is 5.48 % more than August -2022.
- During August -2023, 77.25 % of the time, grid frequency was in IEGC band(49.90 Hz-50.05Hz)
- Thermal PLF of ER during August 2023 was 71.2 %.
- Generating stations whose PLF is more than 90% during August -2023:

Utility	Generating station	PLF(%)	
WBPDCL	Santaldih TPS	94.1	
NTPC	Muzaffarpur TPS	94.3	
	Nabinagar STPP	90.9	
DVC	Chandrapura TPS	92.3	
	Bokaro "A" TPS	95.6	
TATA POWER	Jojobera TPS	92.4	
APNRL	Mahadev Prasad STPP	93.9	
CESC	Budge Budge TPS	91.5	
	Haldia TPP	95.9	
HEL	Hiranmaye TPP	94.2	

- During the month of August -2023, no new transmission line (132 kV and above) has been commissioned:
- As far as coal stock is concerned, stock position is optimum in most generating units except WBPDCL, DPL TPS(only 3% stock) along with Mejia TPS (DVC)(with 19% stock) need to focus on building their actual coal stock as per their normative requirement.

Coal stock position (As on 14.09.2023) is detailed as follows:

SL.	Name of States/Power Stns.	% of Actual Stock vis-à-vis Normative Stock
1.	Jharkhand (TVNL)	112 %
2.	Odisha/IBTPS	84 %
3.	WBPDCL	12 % (Min. DPL TPS-3%,
		Max. Bakreswar TPS-29 %)
4.	DVC	46 % (Min. Mejia TPS-19 %;
		Max. Bokaro A TPS- 111 %)
5.	NTPC	77 % (Min. Barh STPS – 25 %;
		Max. Darlipalli 244 %)

He also expressed serious concern on unforeseen rise in forced shutdown of generating units and thereby stressed on beforehand planning for preventive maintenance by all generating stations in *ER*.

Lauding efforts of ERPC in successfully organizing workshop on IEGC 2023(to be implemented w.e.f 01.10.2023) at Bhubaneswar, ED, ERLDC underscored significance of operational and outage planning in reliable grid operation and thereby urged strict compliance to demand estimation timeline by all concerned SLDCs in accordance with clause no:31.2.h of IEGC 2023 regulations.

He further asserted reliable telemetry and RTCA (Real time contingency analysis) in SCADA to remain functional in all SLDCs aiding in robust communication framework.

SLDC West Bengal representative submitted that West Bengal SLDC, unlike other states, not being involved in regular demand portfolio management of respective DISCOMS, has to inevitably wait for relevant inputs from concerned DISCOMS as well as generating units for strict adherence to demand estimation timeline as mandated in IEGC 2023 regulations. Thus, in this regard he appealed to all individual DISCOMs of WB to assist in adhering to timeline for demand estimation. His further requested for declaring at least five/six months as peak demand period besides regular summer peak of April, May and June was consented to by OCC.

Chief Engineer(Operation Performance Monitoring Division), CEA raised genuine concern on inexorable rise in nationwide demand upto 240 GW, which seems hard to meet despite having installed capacity of around 416 GW due to higher demand experienced in non-solar hours against solar hours and thereby advised all generating units of ER to strictly maintain timelines of planned maintenance, scale down unscheduled outages along with furnishing maintenance data for onward planning by CEA.In this regard he underlined non-receipt of any intimation on persistent nil generation by some generating units of ER including Titagarh thermal station of CESC along with Kasba and haldia Gas turbine stations of WBPDCL. Titagarh TPS(CESC) was thereby requested to furnish the anticipated Generation programme for the year 2024-25 as the same has been under Outage for more than 5 years and the details about the decommissioning /coming back of units on bar may also be shared with CEA.

Further ,noting the decommissioning of Kasba and haldia Gas turbine stations, WBPDCL was requested to formally communicate the decommissioning status of these stations to CEA. In view of high peak demand, CE (OPM division), CEA requested immediate furnishing of anticipated Generation details in regard to power generating units of ER to aid in yearly assessment, generation Planning and finalization of the generation program for the year 2024-25. List of generating stations not having furnished necessary data yet is attached at **Annexure-01**

SLDC West Bengal representative highlighted possibility of West Bengal facing severe power shortage in event of decommissioning of Titagarh TPS(CESC) and pleaded CESC for proper demand planning in absence of Titagarh TPS.

ERLDC representative raising concern on long-term viability of CESC Budge Budge thermal station, urged CESC to undertake proper planning in this regard too besides Titagarh TPS.

In regard to long-term generation planning of ER, OCC requested NTPC to prepone commissioning of Barh Unit-03 before summer of 2024-25 along with sharing monthly status report of commissioning two 660 MW units at North Karanpura TPS.

<u> PART – A</u>

ITEM NO. A.1: Confirmation of Minutes of 206th OCC Meeting held on 31st August 2023 virtually through Microsoft teams Online platform.

The minutes of 206th Operation Coordination sub-Committee meeting held on 31.08.2023 was circulated vide letter dated 13.09.2023.

Members may confirm the minutes of 206th OCC meeting.

Deliberation in meeting

Members confirmed the minutes of 206th OCC meeting.

PART B: ITEMS FOR DISCUSSION

ITEM NO. B.1: Approval from ERPC for seeking PSDF grant for implementation of WAMS(Wide Area Monitoring System)in JUSNL under Jharkhand State.– JUSNL

Objective:

WAMS system uses Phasor Measurement Unit (PMU) as smart sensor. The PMU measures the system state viz. voltage and angle of a particular location at a rate of multiple samples per second (say 25/50 samples per second). This data is then time stamped through a common reference of GPS time and transmitted to the Phasor Data Concentrator (PDC) installed at a nodal point, through high speed wideband communication medium (such as Optical Fiber).

In view of the above WAMS System provides the greater visibility of Grid to make decision on real time basis with implementing the WAMS applications.

- Phasor data is valuable for online as well as off-line investigation of grid disturbances, improving both the speed and quality of analysis.
- > It helps in quicker post-mortem analysis, sequence of events & root cause analysis.
- Dynamic model verification: Generator model calibration, CT/PT calibration, Load characterization
- Base-lining: Assess dynamic performance of the grid, Steady-state angular separation, System disturbance impact measures.

Purpose:

- > Post Event Analysis Tools with Accurately Time-Tagged Data
- Oscillation Monitoring, Detection & Location Tool (Non-Control Room Initially)

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- Offline Planning Model Validation Tool
- > Wide Area Visibility and Situational Awareness in Control Room
- > Monitoring of V, f, df/dt, P, Q, and Angle Difference at Boundaries
- > Enhanced System Oscillation Monitoring, Detection & Location (Online)
- > Asset Commissioning and Compliance Monitoring

According to guidance of FOR Technical Committee this Project is classified as per clause 5.1(c) of the PSDF Guidelines for disbursements of Funds from PSDF – "Installation of standard & special protection schemes, pilot and demonstrative projects, projects for setting right the discrepancies identified in protection audits on regional basis, any communication/ measurement/ monitoring scheme including installation of Phasor Measurement Unit (PMU's) etc.

As per PSDF scheme, a certain percentage which is up to 90 % of total project cost utility may receive as a grant and can be utilized for **WAMS (Wide Area Monitoring System) in JUSNL under Jharkhand State.** Accordingly, approval from BoD of JUSNL has been obtained regarding infusion State Government fund as grant to JUSNL for balance fund after approval from PSDF.

Proposal for WAMS:

The analog & digital information related to the power system, measured at the substation level is presented (typically, every 10 seconds) to the Load Dispatch Centre through the SCADA/ EMS, whereas Phasor Measurement Units (PMU's) can report as many as 60 measurement per second. High-speed monitoring can detect and record events that SCADA fails to capture, enabling much better visibility into grid conditions.

The beneficiaries of the project are State of Jharkhand in particular JUSNL and Consumers connected to JUSNL Grid. With implementation of the scheme, the JUSNL grid, part and person of one grid, will run more efficiently and more effectively. So, reliability of the grid can be achieved.

JUSNL don't have enough infrastructure for implementation of WAMS in Jharkhand. Presently 53 nos. GSS are running. Also due to unavailability of financial resources, JUSNL is not able to implement WAMS at its own cost. DPR had been prepared for implementation of WAMS.

DPR had been submitted to NLDC - Grid India (Nodal agency of PSDF) (**Annexure B1.2**) for approval of grant. DPR was placed before TESG (Techno Economic Sub-Group of PSDF) for examination of the DPR(**Annexure B1.1**).

During 56th meeting of TESG of PSDF held on 07.07.2021, following observations were raised by the committee regarding submitted DPR.

- (i) Approval of BoD JUSNL seeking grant from PSDF is required.
- (ii) "It is suggested that the scheme may be discussed in the ERPC to confirm the locations of PMUs, quantity as per optimal placement method and MoM of the same may be provided to TESG."

(iii) "TESG asked the entity to submit the approval from Standing Committee on Power communication system planning for the subject work. Entity shall ensure that there should not be repetition of PMUs."

JUSNL Board in its 53rd meeting on 26th June 2023 accorded approval for seeking grant from PSDF upto 90% for implementation of Wide Area Monitoring System (WAMS) in JUSNL. Now, DPR of WAMS along with recommendation of BoD, JUSNL is being put up before ERPC

List of important 132 kV GSS for WAMS implementation attached at (Annexure B1.3)

Point of Decision:

In light of observation of TESG, ERPC may confirm the locations of PMUs, Quantity as per optimal placement method and provide MoM of the same for submission before PSDF.

JUSNL may update. Members may discuss.

Deliberation in meeting

JUSNL representative summarized the proposal for WAMS implementation to the OCC forum for necessary approval of fund from PSDF. He also expressed concern on delay in WAMS implementation and sought assistance from OCC in this regard.

OCC was of the view that DPR should be self-certified by respective state rather than forwarding to RPC for examination of technical details.

Representative of ERPC submitted that the DPR may be prepared in line with the latest PMU guidelines as finalized in the 13th NPC Meeting held on 05.07.2023 at Kolkata.

He further submitted that Jharkhand may forward the agenda to PCD division of CEA for further approval.

ITEM NO. B.2: Approval from ERPC for seeking PSDF grant for implementation of Reconductoring of Existing 132kV Line by HTLS (High Temperature Low Sag) Conductor for Relieving Congestion in JUSNL under Jharkhand State-JUSNL.

Objective

As per the Load Flow Study conducted by M/s Power Research and Development Consultants Pvt. Ltd. (PRDC) on request of JUSNL for the year 2020-21 to 2025-26, few of the 132 kV Transmission Lines were observed with loading higher than 100% of its rated capacity during N-1 Condition. In order to increase the Overall Reliability of the JUSNL network and to relieve congestion, renovation of these lines are necessary.

The overall reliability and to relieve congestion of the JUSNL network can be achieved through construction of new transmission lines or increasing the power transmission capacity through use of higher capacity conductor.

Under several Transmission Projects of JUSNL, new Transmission Lines are under construction which will relieve congestion at several extent. Still, necessity of re-conductoring of Existing 132 kV Trans Lines of JUSNL with higher capacity conductor (HTLS) has multiple benefits:

- 1. Can transfer up to twice the power carried by conventional conductor
- 2. Lesser transmission losses
- 3. Uses the existing towers
- 4. Lower sag than the conventional conductor at the higher operating temperatures
- 5. Usage of Existing Trans Line corridor leading to no additional clearances are required (Forest, Land acquisition, etc.)
- 6. Faster implementation

The Central Transmission Utility, Different State Transmission Utilities and Private Transmission Utilities have already used HTLS conductors for replacing existing overloaded trans line conductors and performance is satisfactory fulfilling the purposes as follows:

- 1. Overall improvement in redundancy and reliability of the transmission system
- 2. Faster implementation
- 3. No requirement of separate right of way or land acquisition
- 4. Increased Revenue
- 5. Reduced Capital Cost
- 6. Reduction in Trans Lines losses

As per the old system study report (2021-22) & a Detailed Project Report (DPR) was prepared by M/s TATA Power DDL (Special Consultant) appointed by JUSNL submitted to PSDF considering 02 Nos of Transmission Lines only, which is as follows:

- 1. Existing 132kV D/C line from Ramchandrapur (220/132/33kV substation) to Adityapur (132/33kV substation) loaded upto 85.2 % of its rated capacity.
- 2. Existing 132kV D/C line from Golmuri (132/33 kV substation) to Chandil (220/132 kV substation) with one circuit LILO at Mango (132/33 kV substation) loaded up to 90.9% of its rated capacity.

Detailed Project Report (DPR) (Annexure B2.1). prepared by the consultant was submitted to NLDC-Grid India (Annexure B2.2). (Nodal agency of PSDF) and during 55th meeting of TESG of PSDF held on 14.06.2021, observations raised by the committee regarding submitted DPR is as follows:

- (i) "The requirement of re-conductoring of the transmission lines with HTLS conductors needs to be justified with proper system study report and vetting by Eastern Regional Power Committee (ERPC)."
- (ii) "Statutory approvals are required for the project from Regional Power (standing) Committee (Transmission Planning) or in case if the proposed line is incidental to the Interstate Transmission System (ISTS) than approval is required from National Committee (Transmission Planning) i.e. standing committee".

In the meanwhile, as per the recommendation of New System Study Report (2025-26) & Addendum Report prepared and submitted by M/s PRDC, there are total Seven (07) Transmission Lines in which Element outage causes Over-Loading & during N-1 Contingency, which are considered for HTLS reconductoring W.R.T. future loading and N-1 contingency as follows:

- 1. 132kV D/C line from Ramchandrapur (220/132/33kV substation) to Adityapur (132/33kV substation) is loaded up to 110.1 % of its rated capacity.
- 2. 132kV S/C line from Sikidri (132/33 kV substation) to Namkum (132/33 kV substation) is loaded up to 125.4 % of its rated capacity.
- 3. 132kV D/C line from Hatia New (220/132/33 kV substation) to Hatia old (132/33 kV substation) is loaded up to 135.9 % of its rated capacity.

- 4. 132kV D/C line from Dumka Madanpur (220/132/33 kV substation) to Dumka Maraho (132/33 kV substation) is loaded up to 191.7 % of its rated capacity.
- 5. 132kV S/C line from Adityapur (132/33 kV substation) to Rajkharsawan (132/33 kV substation) is loaded up to 107.8 % of its rated capacity.
- 6. 132kV S/C line from Chandil (220/132/33kV substation) to Rajkharsawan (132/33 kV substation) is loaded up to 112.2 % of its rated capacity.
- 7. 132kV D/C line from Ramchandrapur (220/132/33kV substation) to Jadugoda (132/33kV substation) is loaded up to 130.2 % of its rated capacity.

On the basis of recommendation of New System Study Report (2025-26) & Addendum Report and observations of TESG meeting, DPR has been revised by the Consultant which consists of Estimate for the project in which rates has been considered after escalation of 10% of the rates in the SOR of JUSNL for FY 2022-23 after comparing the rates in SOR of JUSNL for FY 2022-23 with the orders issued by the other utilities, which was approx. 10% higher than the rates in SOR of JUSNL for FY 2022-23, resulting to an Estimated Project Cost of Rs 170.55 Crore inclusive of GST.

JUSNL don't have enough infrastructure for implementation of HTLS in Jharkhand. Presently 53 Nos. of Grid Substations are running. Also, due to unavailability of sufficient financial resources, JUSNL may utilise the PSDF fund as grant upto 75% of this Transmission Project and Balance Fund as grant will be requested from Govt. of Jharkhand after approval of PSDF for which approval of Board of Directors of JUSNL has already been obtained.

Fund Proposition for this Project

75% of the Project Cost Estimate as grant from PSDF Balance fund of the Project Cost Estimate as grant from Energy Department, Govt. of Jharkhand.

Point of Decision:

Approval of Eastern Region Power Committee (ERPC) is solicited on Detailed Project Report for Implementation of Reconductoring of Existing 132 kV Transmission Lines by High Temperature Low Sag (HTLS) Conductor for Relieving Congestion in JUSNL under Jharkhand State.

JUSNL may update. Members may discuss.

Deliberation in meeting

JUSNL representative apprised the forum about the proposal for reconductoring of existing 132kV Line by HTLS Conductor for relieving congestion in JUSNL.

After detailed deliberation, OCC opined that a special meeting may be convened to look into the intricate technical aspects of the project. OCC further opined that Jharkhand may forward the agenda to PSPA division of CEA for further approval.

ITEM NO. B.3: Highest outage duration of Eastern Region Generators-ERLDC.

ERLDC has done analysis on unit tripping data for the last 5 months i.e., April to August 2023. Some of the few findings are as follows:

a. Unit-wise analysis:

It was found that at least 19 nos of units have gone under outage more than 5 times and 22 units have outage period more than 500 hours. CGS/IPP units are also in this list.

The list of units having more than 5-time outages:

Unit name	No of Forced Outage s (Apr- Aug'23)	Total Outage hours (Apr- Aug'23)	No of forced Outage s (Yr. 22-23)	Total Outage hours (Yr. 22-23)
BARH - UNIT 1	11	696	21	1914
NORTH KARANPURA - UNIT 1	10	504	3	44
KHSTPP - UNIT 3	6	467	7	395
FSTPP - UNIT 1	6	312	1	66
FSTPP - UNIT 4	6	120	14	478
MPL - UNIT 2	6	384	6	427

The list of units having more than 500 hours outages:

Unit name	No of Forced Outages (Apr- Aug'23)	Total Outage hours (Apr- Aug'23)	No of Forced Outages (Yr. 22- 23)	Total Outage hours (Yr. 22- 23)
ADHUNIK - UNIT 2	2	2304	10	558
Sterlite - UNIT 2	8	1109	10	1279
KHSTPP - UNIT 3	6	467	7	395
BARH - UNIT 1	11	697	21	1914
GMR - UNIT 1	4	578	5	355

b. Reason Analysis for Forced outage

In case of forced outage, boiler tube leakage is the major reason for the outage of units. A total of 97 nos of tripping were registered under any kind of tube leakage for the total period of 6888 hours. Other than Annual maintenance, boiler tube leakage is the top reason for the outage for planned and forced outages in both categories. Other reasons such as ash handling, flame failure, Air preheater issue & Electrical fault or protection etc. are significantly less. However, these issues also need to be addressed.

Reason wise list is as per the following table:

Type of Fault	No of Outage	Total Outage hours
Tube leakage	97	6888
Electrical Fault/protection	41	9888
Ash Related	22	4488
Preheater	7	288
Flame failure	26	240

c. <u>Timely Intimation of Unit Outage /Revival:</u>

We have noticed a critical issue concerning the lack of timely intimation for unit desynchronization and tentative revival times. This oversight has resulted in significant financial losses for our beneficiaries as they struggle to manage their demand portfolios. This problem is further exacerbated by the nationwide power shortage and high spot market prices. A similar incident has been reported by the representative of WBSEDCL for Farakka's unit #4 sudden outage and delayed intimation.

It is requested to communicate (through email to the ERLDC control room) the information (Tripping time/lighting up details as well as tentative synchronization time/deferment time) regarding the units for advance intimation to respective beneficiaries.

ERLDC may update. All SLDCs and Gencos may respond.

Deliberation in meeting

Concerns were raised by MS ERPC regarding frequent unit tripping, mainly on boiler tube leakage, even some of them belonging to newly commissioned units.

NTPC explained various reasons for BTL and challenges in limited Annual maintenance period within the sleek window of the lean demand period. However, NTPC ensured proper maintenance of the units to meet supply obligations.

MPL representative shared boiler tube leakage, dissimilar metal joints in boiler, malfunctioning of boiler circulating water pump and maloperation of protective relay as reasons behind frequent outage of MPL - UNIT 2 while at the same time affirming steady service of UNIT-01 with no outage during current financial year.

ERLDC representative stressed the importance of timely information for unit desynchronization and tentative revival times. Requests were made to communicate unit revival details (lit up and synchronization times/ deferment time) via email to ERLDC control room for advance beneficiary notification to manage their demand portfolios. NTPC agreed to the same.

OCC advised NTPC to give prior notice of boiler tube leakage with aid of predictive technologies and provide beforehand intimation on probability of outage to facilitate respective beneficiaries in managing their demand portfolio with advance planning.

Aiming to bridge communication gap between generating units and respective beneficiaries in case of forced outage, OCC advised all generators of ER to appoint nodal officers for proper and timely intimation of unit restoration time on behalf of each generating station.

ITEM NO. B.4: Shutdown proposal of generating units for the month of October 2023. – ERPC

Maintenance Schedule of Thermal Generating Units of ER during 2023-24 in the month of October'2023							
System	Station	Unit No.	Capacity (MW)	Period (as per LGBR 2023-24)		No. of	Reason
				From	То	Days	

DVC	Mejia TPS	5	250	25.10.2023	28.11.2023	35	COH-Boiler,
							Turbine, Gen,FGD
							& DeNOx
WBPDCL	Bakreshwar	1	210	30.08.2023	03.10.2023	35	СОН
	TPS						
WBPDCL	Santaldih	6	250	09.10.2023	18.10.2023	10	PG Test/ Boiler
	TPS						License Renewal
CESC	Southern	2	67.5	06.10.2023	15.10.2023	10	Not Specified
NTPC	Barh-I	1	660	22.10.2023	25.11.2023	35	Boiler +Generator
KBUNL	KBUNL	3	195	21.08.2023	04.10.2023	45	Boiler + Turbine
							+Generator
GMRKEL	GMR	2	350	25.09.2023	09.10.2023	15	AOH

Members may update.

Deliberation in meeting

DVC representative requested shutdown of Mejia TPS Unit-08 from 18.09.2023 to 22.10.2023 owing to impeding turbine shaft failure subjected to high stress.

WBPDCL representative apprised deferment of shutdown of Santaldih TPS(Unit-06) as well as bringing Bakreshwar TPS (unit-01) to service on 25.09.2023.

CESC representative submitted that shutdown of Southern TPS is deferred upto completion of festive season.

In absence of GMR representative, OCC granted shutdown of GMR unit-02 subject to consent from concerned beneficiaries outside eastern region.

The approved shutdown schedule for month of September 2023 is provided at Annexure B.4.

ITEM NO. B.5: Deferred overhauling of NTPC units in ER-I

Overhauling of NTPC units had been deferred due to various reasons in previous OCC meetings.

Overhauling of following units was deferred considering high demand of beneficiaries as per the decision of 197th as well as 202nd OCC meetings and in line with MOP guidelines.

Station	Unit	LGBR date	Deferment reason	New dates		Bihar share
	Unit 2	04.07.0000				
NPGC	(660 MW)	to 18.09.2023 (80 days)	request	25-11-2023	13-02-2024	545 MW
	Unit 3		In line with MOP guidelines			
KBUNL	(195 MW)	21.08.2023 to 04.10.2023 (45 days)	for anticipated peak demand in September'23	25-11-2023	09-01-2024	141 MW

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	Unit 4		197th OCC as per Bihar request & 202nd OCC on condition of Unit 2 COD again deferred due to			
		01.12.2022 to	high demand in			570
Barh	(660 MW)	14.01.2023 (45 days)	September'23	01-10-2023	09-01-2024	MW
	Unit 1					
		01-12-2023 to 14-01-				23
BRBCL	(250 MW)	2023 (45 days)		01-12-2023	14-01-2023	MW

All the dates proposed are after completion of important festivals viz Durga Puja and Chhathh. Communication regarding overhauling was given to Bihar however no response has been received till date.

Following points may also be considered:

- 1. Last overhauling dates of KBUNL Unit 3 January 2021 and Barh Unit 4 is February 2020. Around **3** years have passed for both units without overhauling.
- 2. NPGCL overhauling involves boiler modification which cannot be delayed further.
- 3. **Mobilization** for overhauling takes time and decision regarding same may be given in time for proper planning and execution.

NTPC may update. Members may discuss.

Deliberation in meeting

NTPC representative apprising the bringing of Barauni Unit-07 and Unit-08 to service by 22.09.2023, requested for shutdown of Barh unit-04 on ground that the unit had its last overhauling in February 2020 and was also under reserve shutdown during October '2022. OCC granted shutdown of Barh unit-04 as per requested timeline from 01.10.2023 to 15.11.2023.

OCC also consented to proposed timeline for shutdown of BRBCL (Unit-01).

OCC further opined that shutdown of NPGC (unit-02) as per the proposed timeline would be allowed once Barh unit-04 gets back to service as per the said timeline.

SLDC Bihar representative pleaded the forum to relook into shutdown schedule of KBUNL which is overlapping with the shutdown of NPGC, thereby to defer shutdown of KBUNL till restoration of NPGC unit.

KBUNL representative submitted that shutdown of Unit-03 has been inordinately deferred since August 2023 causing the plant to presently operate at threshold limit of safety and thereby any further deferment may result in inevitable forced outage. She further informed that repeated deferment of unit shutdown proposal results in revision of labour and material costs, thus further delaying the process on account of restructuring of work estimates.

Considering relatively small share allocation of Bihar in KBUNL and availability of Barh units during the proposed period, OCC granted shutdown to KBUNL from 01.12.2023 upto 15.01.2024.

The list of approved shutdown schedule is provided below:

				Approv	ed Period			
System	Station	Unit No.	Capacity (MW)	From	То	No. of Days	Reason	Remarks
NTPC	Barh	4	660	01.10.2023	15.11.2023	45	_	Approved
NTPC	BRBCL	1	250	01.12.2023	15.01.2024	45	Boiler+ LPT O/H + Generator rotor thread out and checking +NOX Work	Approved
NTPC	NPGC	2	660	25.11.2023	13.02.2024	80	Overhauling with Boiler modification	Approved subject to revival of Barh Unit-04
NTPC	KBUNL	3	195	01.12.2023	15.01.2024	45	Boiler + Turbine +Generator	Approved

ITEM NO. B.6: Extension of shutdown 400KV-Kh-Barh-1 up to 31.10.2023 and 400KV Bus MAIN BUS-IV of Kahalgaon STPS for Isolator Jumper disconnection – NTPC.

- Shutdown of 400KV-Kh-Barh-1 Line was received on OCB basis from 04.08.2023 to 20.09.2023 vide ERLDC Ref. No. ERLDC/ddmmyy/Rev- Dtd. 03.08.2023 at SI No. 12. The equipment Up-gradation work for the aforesaid 400KV-Kh-Barh-1 is in progress at site, however we are facing several hindrances during execution of Foundation & Civil works due to incessant rain in the area and relatively high water table, which needs continuous de-watering and also movement of construction equipment is also restricted for long time. In view of the above, the existing Shutdown for 400KV-Kh-Barh-1 from 04.08.2023 to 20.09.2023 may be extended up to 31.10.2023.
- 400KV Bus MAIN BUS-IV of Kahalgaon STPS for Isolator Jumper disconnection for appx. 4 hr.

NTPC may update. Members may discuss.

Deliberation in meeting

NTPC representative shared comprehensive presentation elucidating unfavorable working condition due to heavy water-logging at work site of upgradation of 400 KV Kh-Barh-1 line, thereby seeking further 40 days extension in line shutdown. He also informed that NTPC Kahalgaon terminal equipment (2000 A) not commensurate to Powergrid Patna substation(3150 A), needs replacement thereby necessitating 400 kV main bus-IV of Kahalgaon STPS disconnection for 4 hours.

OCC granted consent in favor of above proposed shutdown and further advised NTPC to put forward such kind of agenda items in monthly S/D meeting.

ITEM NO. B.7: Request to furnish the data for preparation of LGBR 2024-25 of Eastern region – ERPC.

As per the IEGC Clause **32.3(a)** & (**b**) issued by CERC on 2**9**.0**5**.20**23**, "RPCs shall prepare and finalize the annual outage plan for the next financial year in respect of grid elements of their respective regional grid," "RPCs shall prepare Load Generation Balance Report (LGBR) for the respective region based on the LGBR submitted by SLDCs for their respective states and the data submitted by the regional entity generating stations, inter-State transmission licensees and other entities directly connected to ISTS in such format as may be stipulated by the RPCs and shall prepare annual outage plan for generating units and transmission elements in their respective region after carrying out necessary system studies in order to ensure system security and resource adequacy."

In this regard, Load Generation Balance Report (LGBR) for the year 2024-25 in respect of Eastern Region is to be finalized by September, 2023 (as advised by CEA vide mail dated. 14.08.2023). The approved programme of planned maintenance in respect of Thermal and Hydro stations in the region, along with the estimated monthly generation programme, the estimated monthly energy requirement (MU) and estimated monthly peak/off-peak demand (MW) for the year 2024-25 of each state / utility shall be the input for preparation of LGBR of Eastern Region for 2024-25.

To prepare the LGBR of Eastern Region, the following data/ information for the financial year 2024-25(April'2024 to March'2025) in respect of the constituents/ generators of Eastern Region is required:

State and Central Sector Generators/IPPs/CPPs/SLDCs/Utilities

- i) The Unit-wise and Station-wise monthly energy generation proposed from existing units during 2024-25 (thermal, hydro and RES).
- ii) Annual maintenance programme for each of the generating units (thermal, hydro and RES)
- iii) Generating units under R&M/ long outage indicating date of outage and reasons of outage and expected date of return (thermal and hydro both).
- iv) Partial and forced outage figures (in %) of generating units and auxiliary power consumption for the last 3 years.
- v) Month-wise peak/off-peak demand (MW) restricted and unrestricted.
- vi) Month-wise energy requirement (in MU) restricted and unrestricted.
- vii) Month-wise and source-wise power purchase and sale plan (both MU & MW).
- viii) Schedule of commissioning of new generating units during 2024-25 and unit-wise monthly generation programme (in MU) upon COD.
- ix) Allocation of power from new generating units.

ISTS/STU/Transmission licenses in the states and Central Sector

i) Monthly and annual planned outage of transmission system (Transmission lines 220kV and above / ICTs / Reactors/ other elements (TCSC, SC etc.)).

It is therefore requested to provide the above information (as applicable), at earliest, for compilation of data and preparation of draft LGBR of ER for the year 2024-25.

ERPC may update. Members may discuss.

Deliberation in meeting

ERPC representative apprised the forum regarding receipt of LGBR relevant data only from MPL and NTPC, while receipt of the same is still pending from all other constituents despite strong appeal for cooperation being made in this regard in 206th OCC meeting. It was also informed that LGBR for 2024-25 has to be finalized by September 2023 for onward submission to CEA in line with MOP instructions, which would not be feasible without active assistance from all ER constituents.

Advising all the State and Central Sector Generators, IPPs, CPPs, SLDCs and Utilities of ER for urgent submission of necessary data pertaining to preparation of LGBR 2024-25 of Eastern region, as detailed above. OCC also urged the transmission licensees to share monthly and annual planned outage of transmission system (Transmission lines 220kV and above / ICTs / Reactors/ other elements) for FY 2024-25.

ITEM NO. B.8: Poor quality of cable received with Genus meters – NTPC

Downloading cables received with Genus meters provided by Powergrid are of poor quality and are failing frequently. This poses serious concerns related to downloading of SEM data for accounting purposes.

NTPC may update. Members may discuss.

Deliberation in meeting

NTPC representative submitted that inconvenience being faced in downloading SEM data owing to faulty data cables supplied thereby hampering energy accounting process and the issue has been conveyed via mail to M/s Powergrid.

Taking into consideration that inaccurate metering may pose significant commercial implications, OCC advised M/s Powergrid for immediate replacement of the faulty cables.

ITEM NO. B.9: Transmission constraints in Jharkhand network - ERLDC.

Maximum Demand of Jharkhand has already crossed 1900 MW. With the increase in demand, it is observed that 220 kV Maithon Dumka D/C fails to meet the N-1 reliability criteria. Loading of this line is also aggravated due to the long outage of 220 kV Farakka-Lalmatia S/C. The proposed LILO of 220 kV Tenughat-Govindpur at 400/220 kV Dhanbad (NKTL) is also long pending.

Apart from this , voltage of 220 kV Tenughat continuously hovers on the higher side. This resulted in teeting issues while first time charging 400 kV Tenughat-PUVNL S/C line. As this line will be used for drawing of startup power by PUVNL ,proper voltage management at Tenughat by regulating the VAR exchane of 2 x 210 MW units needs to be maintained.



ERLDC may update. Members may discuss.

Deliberation in meeting

ERLDC representative explained the present transmission constraints in the Jharkhand Network, where the major part of north Jharkhand is hanging on only two major interconnection points. One is 220 kV Maithon(PG)-Dumka D/C and the second is 220 kV Biharshariff-Tenughat S/C. Out of which 220 kV Maithon(PG)-Dumka D/C is heavily loaded, and for most of the timeline is not N-1 complied. Thus, tripping of one line will eventually lead to tripping of another line and may lead to a large-scale disturbance as it happened on 8th Sep 2023. He further said that SLDC Jharkhand should plan some SPS to take care of this contingency.

He further added that as per IEGC-2023 33(7)

Quote

NLDC, RLDCs, RPCs and SLDCs shall maintain records of the completed operational planning study, including date-specific power flow study results, the operational plan and minutes of meetings on the operational study.

Unquote

In line with the above an agenda item may be kept in upcoming OCCs of ER by ERLDC/SLDC for the operational planning. GM, SLDC Jharkhand informed that he would explore the possibility of implementation of SPS. He further updated that with LILO of 220 kV Dumka-Tenughat at Dhanbad the loading of the line is expected to reduce.

ITEM NO. B.10: Lack of UFR Telemetry data- ERLDC

Real time Telemetered data of the feeders (MW power flow in Real Time and circuit breaker status) having UFR and df/dt relays are not available at ERLDC. As we are aware that IEGC 2023 is going to be implemented w.e.f 01.10.2023, thus we need to ensure the availability of Real Time Telemetry data of the feeder under UFR scheme as per the following clause of IEGC 2023:Clause no 13 (d):-

"SLDC shall ensure that telemetered data of feeders (MW power flow in real time and circuit breaker status) on which UFR and df/dt relays are installed is available at its control centre. SLDC shall monitor the combined load in MW of these feeders at all times. SLDC shall share the above data with the respective RLDC in real time and submit a monthly exception report to the respective RPC. RLDC shall inform SLDCs as well as the concerned RPC on a quarterly basis, durations during the quarter when the combined load in MW of these feeders was below the level considered while designing the UFR scheme by the RPC. SLDC shall take corrective measures within a reasonable period and inform the respective RLDC and RPC, failing which suitable action may be initiated by the respective RPC."

Members may discuss.

Deliberation in meeting

ERLDC representative shared a concise presentation regarding status of receipt of UFR telemetry data from different SLDCs in real time.

The presentation highlighted non-receipt of data from any of Jharkhand UFR feeders and in response JUSNL representative affirmed that RTU installation is currently under progress.

DVC representative apprised that data is regularly received at DVC SLDC but could not be forwarded to ERLDC owing to some technical glitch that shall be resolved at the earliest.

SLDC West Bengal representative apprised that total 7 RTUs of CESC and 18 RTUs of WBSEDCL have been installed for sharing UFR data among which 9 RTUs being unable to fetch 33 kV feeder data, the issue has been taken up with concerned OEM. He also requested OCC to approach West Bengal STU for early resolution of the matter related to integration of UFR feeders to SCADA.

OCC advised all the constituents to ensure real time availability of UFR telemetry data to SLDC as well as RLDC in compliance with provisions mandated in IEGC 2023 regulations and further advised ERLDC to carry out a further detailed study highlighting the feeder wise non-receipt of UFR data under jurisdiction of each SLDC.

ITEM NO. B.11: Review of UFR setting- ERLDC.

Based on the last event (11:52hrs, 15th May) of triggering of Under frequency relay, it was found that load relief was inadequate. ERLDC collected and compiled State-wise UFR status, additional intentional time delay kept by the states other than the measurement delay and Relay type etc. Percentage of UFR installed with respect to the highest demand met is also calculated. For Bihar it seems very low while same for other states also may be reviewed.

State	STG- 1/49.4	STG- 11/49.2	STG- III/49	STG- IV/48.8	Total	Maxim um Deman d Met	Percentag e laod relief by UFR(%)	Remarks
DVC	122	145	147	138	552	3751	14.7	100 Ms Intentional delay, Al are Numerical relay

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CESC C'LL									
CESC	65	90	125	120	400	2606	15.349194 17		
HAND	70	69	45	79	263	1923	13.7	numerical relays.	
JHARK								Uneven stage wise distribution, No intentional delay with all	
ODHIS HA	183	184	184	186	737	7192	10.2	No time delay with mostly numerical type.	
WEST BENGA L	381	374	390	386	1531	11868	12.9	200 Ms Intentional Delay, with mostly Numerical type.	
BIHAR	84.5	104.5	133	82.5	404.5	7578	5.3	Uneven stage wise distribution, No intentional delay but mostly Static relay	

As per the IEGC 2023, the following shall be factored in while designing and implementing the UFR and df/dt relay schemes:

- a) Demand disconnection shall not be set with any time delay in addition to the operating time of the relays and circuit breakers.
- b) There shall be a uniform spatial spread of feeders selected for UFR and df/dt disconnection.

SLDC shall report the actual operation of UFR and df/dt schemes and load relief to the concerned RLDCs and RPCs and publish the monthly report on its website.

ERLDC may update. Members may discuss.

Deliberation in meeting

In view of not obtaining adequate load relief on UFR operation, OCC advised all the ER constituents to regularly review load relief quantum of UFR feeders along with exploring the possibility of increasing the number of UFR feeders as this serves as the last defence mechanism to combat plunge in grid frequency. OCC further opined that guidelines regarding the same was finalized in the 13th NPC Meeting held on 05.07.2023 at Kolkata.

Since many years, the subject line is kept under idle charged condition to avoid theft of conductor & maintain healthiness.

In past it was mutually decided to keep this line charged from Odisha(Balimella P.H)-Andhra Pradesh(U.Sileru) end alternatively for a fortnight,to avoid continuous loss from either end.

While practically implementing above, as the both states are in different regions, the release of idle charging code for changeover operation takes a lort of time. In this regard, it is requested to decide upon quick code issue mechanism for once in a month to idle charge from either end for facilitating changeover operation.

Matter may be deliberated in forthcoming OCC meeting and support in favour of this genuine requirement is requested.

ITEM NO. B.12: Standing approval for idle charging of 220 kV Balimela-U.Sileru line-SLDC,Odisha.

Deliberation in meeting

SLDC Odisha representative explained the forum about practical constraints in changeover operation along with incurring significant energy loss, being faced by them in keeping 220 kV Balimela-U.Sileru line in idle charged condition; further submitting that the entire line length of 24.7 Km is solely being maintained by OPTCL as on date.

He further informed that the line connecting two hydro stations was erected primarily to support black start operation.

ERLDC representative apprised that SRLDC as well as NLDC have consented to the proposed idle charging mechanism from either end aiding smooth changeover operation and accordingly instruction has already been issued to Andhra Pradesh from SRLDC in this regard.

OCC suggested OPTCL on exploring proper utilization of the line in active power transfer rather than merely keeping in idle charged condition as anti-theft measure and urged for bilateral discussion between OPTCL and its counterpart in Andhra Pradesh.

Upon detailed consideration, OCC advised OPTCL to flag the issue to SRPC for deliberation as well as to seek assistance from CTU in unravelling the background of the matter prior to being granted standing approval for proposed idle charging mechanism of 220 kV Balimela-U. Sileru line.

PART C: ITEMS FOR UPDATE

ITEM NO. C.1: ER Grid performance during August 2023.

The average and maximum consumption of Eastern Region and Max/Min Demand (MW), Energy Export for the month August-2023 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)	
		28711 MW,	20188 MW,			
569 MU	622 MU	10-08-2023	26-08-2023	2010	3806	
500 1010	31-08-2023	at 19:03	at 08:21	3049		
		Hrs.	Hrs.			

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

Deliberation in meeting

The grid performance of ER for the month of August 2023 was highlighted.

ITEM NO. C.2: Latest Status of States ATC/TTC declared by States for the month of June-2023.

To harmonize the ATC/TTC calculation methodology and timeline One to one meeting and hands on training with each SLDC was conducted in the month of Sep-21 and Oct-21. As per the common agreed procedure and timeline ATC/TTC calculation in three-month advance and reconciliation of the TTC/ATC figure for the upcoming month between RLDC and SLDC has started from month Dec-21. Reconciled ATC/TTC figures for June-2023 are as follows:

As per the agreed philosophy the status of month wise ATC/TTC submission is as follows:

SI	State/Utility	TTC (MW)		RM(MW)		ATC Import (MW)		Remark
INO		Import	Export	Import	Export	Import	Export	
1	BSPTCL	6990		þ		6850		May-23
2	JUSNL	1586		39		1547		June-23
3	DVC	1940	3371	72	56	1868	3315	June-23
4	OPTCL	3898	1338	145	70	3753	1268	June-23
5	WBSETCL	6475		450		6025		June-23
6	Sikkim	170		1		169		May-23

As per the agreed philosophy the status of month wise ATC/TTC submission is as follows: State Bihar Jharkhand DVC

Odisha

Sikkim

Month					West		
					Bengal		
May-23	Submitted	Submitted	Submitted	Submitted	Submitted	Submitted	
June-23	Pending	Submitted	Submitted	Submitted	Submitted	Pending	
July-23	Pending	Submitted	Submitted	Submitted	Submitted	Pending	
Aug-23	Pending	Pending	Submitted	Submitted	Pending	Submitted	
Sep-23	Pending	Pending	Pending	Pending	Pending	Pending	

Declaration of TTC/ATC on SLDC Website

SI N o	SLDC	Declare d on Website	Website Link	Constrai nt Available on Website	Type of Websit e Link
1	BSPTCL	Yes	http://www.bsptcl.in/ViewATCTTCWeb.aspx?GL=12& PL=10	Yes	Static Link- Table
2	JUSNL	Yes	http://www.jusnl.in/pdf/download/ttc_atc_nov_2020.pdf	Yes	Static link – pdf file
3	DVC	Yes	https://application.dvc.gov.in/CLD/atcttcmenu.jsp#	Yes	Static Link- Word file
4	OPTCL	Yes	https://www.sldcorissa.org.in/TTC_ATC.aspx	Yes	Static Link- pdf file
5	WBSETC L	Yes	http://www.wbsldc.in/atc-ttc	No (Not updating)	Static Link- Table
6	Sikkim	No	https://power.sikkim.gov.in/atc-and-ttc	No (Not updating)	Static Link- Excel file

All the states having net export schedule should declare their export TTC. In view of the same West Bengal is once again requested to share export TTC. Sikkim are requested to share the ATC/TTC on regular basis. All states are again requested to follow the time line and make necessary changes for being able to calculate TTC on 11 month ahead basis once T-GNA regulation comes into effect.

Deliberation in meeting

Members noted.

PART D: OPERATIONAL PLANNING

ITEM NO. D.1: Anticipated power supply position during October 2023.

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of October 2023 were prepared by ERPC Secretariat (**Annexure D.1**) on the basis of LGBR for 2023-24 and feedback of constituents, keeping in view that the units are available for generation and expected load growth etc.

Members may update.

Deliberation in meeting

The updated anticipated power supply position for September 2023 is provided at Annexure D.1

ITEM NO. D.2: Major Generating Units/Transmission Element outages/shutdown in ER Grid (as on 07.09.2023)

a)	Inermal	Generating	Stations of	outage	report:	
				TINT		

SL No	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
1	DPL	WEST BENGAL	WBPDCL	8	250	Unit taken for overhauling from 01.08.2023. Earlier it was out due to poor fuel stock w.e.f 00:00 hrs on 14.07.2023. Before poor fuel stock, unit was out due to leakage in low temperature super heater.	11-Jul-2023
2	FSTPP	WEST BENGAL	NTPC	4	500	Initially out due to GT Y-phase oil leakage & Generator Hydrogen pressure low. Further Generator Stator bar developed some leakages.	16-Jul-2023
3	BARAUNI TPS	BIHAR	NTPC	7	110	Poor condenser vacuum	19-Jul-2023
4	BARAUNI TPS	BIHAR	NTPC	6	110	Low vacuum	22-Jul-2023
5	BARAUNI TPS	BIHAR	NTPC	9	250	Generator internal fault	07-Aug-2023
6	GMR 3	ODISHA	GMRKEL	3	350	Annual Overhauling	14-Aug-2023
7	IB.TPS	ODISHA	OPGC	1	210	Annual Overhauling	20-Aug-2023
8	BAKRESHWAR	WEST BENGAL	WBPDCL	1	210	Boiler turbine generator overhauling activity	22-Aug-2023
9	BARH	BIHAR	NTPC	1	660	Boiler Tube Leakage	03-Sep-2023
10	HEL HIRANMAYEE	WEST BENGAL	HEL	2	150	High vibration in PA Fan 2A	05-Sep-2023
11	MEJIA TPS	DVC	DVC	6	250	Boiler Tube Leakage	06-Sep-2023
12	KHSTPP	BIHAR	NTPC	6	500	Boiler Tube Leakage	07-Sep-2023
13	MEJIA TPS	DVC	DVC	3	210	coal feeding issue.	07-Sep-2023

14	MEJIA TPS	DVC	DVC	1	210	CHP coal feeding issue.	07-Sep-2023	
15	MEJIA TPS	DVC	DVC	2	210	Coal feeding problem	07-Sep-2023	
16	TENUGHAT	JHARKHAND	TVNL	1	210	PA Fan tripped	07-Sep-2023	

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:

NIL

c) Hydro Unit Outage Report:

S. NO	STATION	STATE	AGENCY	UNIT NO	CAPACITY (MW)	REASON(S)	OUTAGE DATE
1	BALIMELA HPS	ODISHA	OHPC	3	60	The unit taken out under R&M since 08/07/2022 for 18 months.	08-Jul-22
2	BALIMELA HPS	ODISHA	OHPC	4	60	The unit taken out under R&M since 08/07/2022 for 18 months.	08-Jul-22
3	INDRAVATI	ODISHA	OHPC	4	150	Capital maintenance for 6 Months, New stator change by OEM, Turbine OH	09-Dec-22
4	U. KOLAB	ODISHA	OHPC	2	80	Rotar earth Fault	25-Aug- 2023
3	BURLA HPS/HIRAKUD I	ODISHA	OHPC	6	43.65	Mixing of oil and water at UGB chamber	26-Aug- 2023

d) Long outage report of transmission lines (As on 14.06.2023):

Transmission Element / ICT	Outage From	Reasons for Outage
400 KV IBEUL JHARSUGUDA D/C	29.04.2018	As information gathered, around 40-50 nos of towers were collapsed and conductor theft more than 400Ckm and restoration work is in progress
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 KV PANDIABILI - SAMANGARA D/C	03.05.2019	Tower Collapsed during Cyclone FANI (Restoration project is entrusted upon PGCIL & 220kV Samangara-Pandiabili ckt-I&II are anti-theft charged from Pandiabili end from loc no.01 to loc no.74)
220/132KV 100 MVA ICT 3 AT CHANDIL	30.04.2020	Due to Fire hazard ICT damaged and burnt.
400/220KV 315 MVA ICT 4 AT JEERAT	09.04.2021	Due to Fire hazard ICT damaged and burnt. New Transformer procurement under pipeline and shall be replaced in the near future.
220KV-FSTPP-LALMATIA-I	21.04.2021	Conductor stringing 12.965 km has been completed and Stringing between Tower Loc. no. 152 to 159 is under progress. Transmission line is idle charged between Lalmatia GSS end to Tower Loc.no.169
220KV-MUZAFFARPUR(PG)-GORAUL(BH)-1	11.06.2022	To rectify the CVT voltage missing issue
220KV-WARIA-BIDHANNAGAR-1 & 2	08.06.2022	To control overloading of 220 kV Waria-DSTPS

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		(Andal) D/C line
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)
220/132KV 160 MVA ICT 1 AT MALDA	04.01.2023	For 132 KV GIS Commissioning work (GIB erection of ICT-I)
132KV-BARHI-RAJGIR-1	25.03.2023	Dismantling of tower no. 227, 228, and 229 crossing the premises of Mahabodhi Cultural
132KV-NALANDA-BARHI(DVC)-1	25.03.2023	centre along with Destringing of conductor of both circuits and Earthwire between tension tower no. 218-237 in same line.
220KV-TSTPP-MEERAMUNDALI-2	10.06.2023	Tower collapse at loc no 41, 42 (from Meramundali end). Ckt1 charged through ERS.
400KV-KHSTPP-BARH-1	04.08.2023	Upgradation of Bay equipments at KHSTPP
400/220KV 315 MVA ICT 1 AT TSTPP	09.08.2023	Acetylene violation in ppm during routine DGA analysis
220KV-BUDHIPADAR-KORBA-2	16.08.2023	For Checking and rectification work for Both Main and Check meter at Korba end
220KV-KARAMNASHA (NEW)-PUSAULI-1	04.09.2023	Tripped on Y-Ph Fault. Tower bending was observed after patrolling. It is under the process of restoration.
400/220KV 315 MVA ICT 2 AT TSL KALINGANAGAR	04.09.2023	Yearly Maintenance & connection of cable at LV side of the ICT

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 meeting

Members noted.

ITEM NO. D.3: Commissioning of new units and transmission elements in Eastern Grid in the month of August-2023

The details of new units/transmission elements commissioned in the month of August -2023 based on the inputs received from beneficiaries:

	LIST OF NEW ELEMENTS CHARGED DURING AUGUST, 2023									
	GENERATING UNITS									
SL. NO.	Location	OWNER/UNIT NAME	Unit No/So urce	Capacity added (MW)	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	WBSETCL	Durgapur (Biddhanagar)	3	400/220	315	17-08-2023	ICT 3 was first time charged on 17-08-2023 at 19:37 Hrs. with charging code			

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						ER/08/C/00805. Format IV was issued on 2 08-2023.		
	TRANSMISSION LINES							
SL. NO.	Agency/ Owner	LINE NAME	Length (KM)	Conductor Type	DATE	Remarks		
1	JUSNL	400 kV Tenughat – Patratu S/C Line anti-theft charging from Tenughat end [upto 64 kms] (upto Patratu gantry)	64	ACSR Twin Moose	16-08-2023	Line was first time anti- charged on 16-08- 2023 at 13:02 Hrs with code ER/08/AC/00733 from Tenughat end upto gantry of Patratu. Format IV was issued on 16-08-2023.		
2	PGCIL	400 kV Sitamarhi (PGCIL) - Dhalkebar (Nepal) Line 1 anti- theft charge from Sitamarhi end upto Indian portion along with associated Main bay and Tie bay at Sitamarhi end	35.744	ACSR Moose	01-09-2023	Line was anti-theft charged on 01-09-2023 at 00:25 Hrs with code ER/09/AC/00002 & NL/0001 upto Indian portion. Format IV was issued on 31-08-2023.		
3	PGCIL	400 kV Sitamarhi (PGCIL) - Dhalkebar (Nepal) Line 2 anti- theft charge from Sitamarhi end upto Indian portion along with associated Main bay and Tie bay at Sitamarhi end	35.744	ACSR Moose	01-09-2023	Line was anti-theft charged on 01-09-2023 at 00:47 Hrs with code ER/09/AC/00007 & NL/0002 upto Indian portion. Format IV was issued on 31-08-2023.		
4	PGCIL	400 kV Maithon (PGCIL) - Maithon RB (MPL) Line 1 after re- conductoring work along with associated bays at both ends	31.5	Twin HTLS	05-08-2023	Line was first time charged on 05-08-2023 Format IV was issued on 04-08-2023.		
5	PGCIL	400 kV Maithon (PGCIL) - Maithon RB (MPL) Line 2 after re- conductoring work along with associated bays at both ends	31.5	Twin HTLS	05-08-2023	Line was first time charged on 05-08-2023 Format IV was issued on 04-08-2023.		
6	NTPC	33 kV Darlipalli (NTPC) - Dulanga CMP Line 2	8.3 (OH) + 0.8 (XLPE cable)	Panther	31-08-2023	Line was charged for the first time on 31-08 2023 at 18:37 Hrs. with charging code ER/08/C/01548. Format IV was issued on 29 08-2023.		
		LILO/RE-	ARRANGEME	NT OF TRANSM	AISSION LINES			
SL. NO.	Agency/ Owner	Line Name/LILO at	Length (KM)	Conductor Type	DATE	Remarks		
				NIL				
			BUS/LI	NE REACTORS				
SL. NO.	Agency/ Owner	Element Name	SUB- STATION	Voltage Level (kV)	DATE	Remarks		
1	WBSETCL	400 kV 125 MVAR Bus Reactor 2 at Durgapur (Bidhannagar-WB) [Bay Number 412]	Durgapur (Biddhan agar)	400	31-08-2023	Reactor was first time charged on 31-08- 2023 at 18:31 Hrs. with charging code ER/08/C/01552. Format IV was issued on 31- 08-2023.		
		HVDC /AC F	ilter bank / F	ACTS DEVICE as	ssociated Syste	em		
SL. NO.	Agency/ Owner	Element Name	SUB- STATION	Voltage Level (kV)	DATE	Remarks		
				NIL				
<u></u>			CUD	BAYS				
SL. NO.	Agency/ Owner	Element Name	SUB- STATION	Level (kV)	DATE	Remarks		

<u>Bihar</u>: Nil

<u>Odisha:</u>

Elements charged for first time in August-2023							
SI No.	Name of the element charged first time	Date	Time				
1	132kV DC line (4 conductor) from 132/33kV GSS, Brajarajnagar to Belpahar RTSS Ckt-I & II	23/08/2023	14:51HRS & 14:52HRS				

Members may note.

Deliberation in meeting

Members noted.

ITEM NO. D.4: UFR operation during the month of August 2023.

Frequency profile for the month as follows:

MONTH	MAX (DATE/TIME)	MIN (DATE/TIME)	% LESS IEGC BAND	% WITHIN IEGC BAND	% MORE	
Aug, 2023	50.29 Hz on 24- 08-2023 at 13:02 hrs	49.50 Hz on 31- 08-2023 at 22:25 hrs	7.1	77.3	15.6	

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

Members may note.

Deliberation in meeting

Members noted.

STATION NAME	CAP (MW)	SECTOR_TYPE	STATE	UTILITY	FUEL
BAKRESWAR TPS	1050	STATE SECTOR	West Bengal	WBPDC	COAL
BANDEL TPS	270	STATE SECTOR	West Bengal	WBPDC	COAL
BARAUNI TPS	710	CENTRAL SECTOR	Bihar	NTPC Ltd.	COAL
BARH STPS	2640	CENTRAL SECTOR	Bihar	NTPC Ltd.	COAL
BUDGE BUDGE TPS	750	PVT SECTOR	West Bengal	CESC	COAL
BUXAR TPP	New Unit	CENTRAL SECTOR	Bihar	SJVNL	COAL
DARLIPALI STPS	1600	SECTOR	Odisha	Ltd.	COAL
DERANG TPP	1200	IPP SECTOR	Odisha Wost		COAL
DISHERGARH TPP	12	PVT SECTOR	Bengal	D	COAL
D.P.L. TPS	550	STATE SECTOR	Bengal		COAL
FARAKKA STPS	2100	SECTOR	Bengal	Ltd.	
HALDIA GT (Liq.)	40	STATE SECTOR	Bengal	WBPDC	DIESEL
HALDIA TPP	600	IPP SECTOR	Bengal	HEL	COAL
IB VALLEY TPS	1740	STATE SECTOR	Odisha	OPGC	COAL
JOJOBERA TPS	240	IPP SECTOR	Jharkhand	TATA PCL	COAL
KAHALGAON TPS	2340	CENTRAL SECTOR	Bihar	NTPC Ltd.	COAL
KASBA GT (Liq.)	40	STATE SECTOR	West Bengal	WBPDC	HIGH SPEED DIESEL
KOLAGHAT TPS	840	STATE SECTOR	Bengal	WBPDC	COAL
LANCO BABANDH TPP	New Unit	IPP SECTOR	Odisha	LBPL	COAL
MAHADEV PRASAD STPP	540	IPP SECTOR	Jharkhand	ADHUNI K	COAL
MAITHON RB TPP	1050	IPP SECTOR	Jharkhand	MPL	COAL
MAITRISHI USHA TPS	New Unit	IPP SECTOR	Jharkhand	CPL	COAL
NABINAGAR STPP	1980	CENTRAL SECTOR	Bihar	NPGCL	COAL
NABINAGAR TPP	1000	SECTOR	Bihar	BRBCI	COAL
NORTH KARANPURA TPP	660	CENTRAL SECTOR	Jharkhand	NTPC Ltd.	COAL
ROURKELA PP-II		CENTRAL	-		
EXPANSION	New Unit	SECTOR	Odisha West	NSPCL	COAL
SAGARDIGHI TPS	1600	STATE SECTOR	Bengal West	WBPDC	COAL
SANTALDIH TPS	500	STATE SECTOR	Bengal	WBPDC	COAL
SOUTHERN REPL. TPS	135	PVT SECTOR	Bengal	CESC	COAL
TALCHER STPS	3000	SECTOR	Odisha	Ltd.	COAL
TITAGARH TPS	240	PVT SECTOR	West Bengal	CESC	COAL
UTKAL TPP (IND BARATH)	350	IPP SECTOR	Odisha	IBPIL	COAL
VEDANTA TPP	600	IPP SECTOR	Odisha	VEDANT A	COAL

Annexure 8.4 Maintenance Schedule of Thermal Generating Units of ER during 2023-24 in the month of October'2023													
System	Station	Unit No.	Capacity (MW)	Period (as per LGBR 2023-24)		No. of Days Approv	Approved Period		Resson	Whether as per	Remarks		
				From	To		From	То			LGBR or not	Acciliar KS	
DVC	Mejia TPS	5	250	25.10.2023	28.11.2023	35	18.09.2023	22.10.2023	35	OH-Boiler, Turbine, Gen, FGD & DeNO	No		
WBPDCL	Bakreshwar TPS	1	210	30.08.2023	03.10.2023	35	30.08.2023	25.09.2023	35	COH	Yes	Yes Unit under shutdown	
WBPDCL	Santaldih TPS	6	250	09.10.2023	18.10.2023	10			10	PG Test/ Boiler License Renewal	No	No Not being availed	
CESC	Southern	2	67.5	06.10.2023	15.10.2023	10			10	Not Specified	No	Not being availed	
NTPC	Barh-I	1	660	22.10.2023	25.11.2023	35	_	_	35	Boiler +Generator No S/D to be av		S/D to be availed after revival of Unit#04	
KBUNL	KBUNL	3	195	21.08.2023	04.10.2023	45	01.12.2023	15.01.2024	45	Boiler + Turbine +Generator	No		
GMRKEL	GMR	2	350	25.09.2023	09.10.2023	15	25.09.2023	09.10.2023	15	AOH	Yes		

Annexure	D.1

	Updated Anticipated Peak Demand (in MW) of ER &	t its constituents for Octo	ober 2023
1	BIHAR	Demand (MW)	Energy Requirement (MU)
	NET MAX DEMAND	6856	4414
	NET POWER AVAILABILITY- Own Sources	556	312
	Central Sector+Bi-Lateral	6360	3990
	SURPLUS(+)/DEFICIT(-)	60	-112
2		1025	1027
	NET BOWED AVAILADU ITV. Our Source	1825	103/
	Control Scator+Pi Lateral+IDD	1270	648
	SURPLUS(+)/DEFICIT(-)	-125	-196
		-125	-190
3	DVC		
	NET MAXIMUM DEMAND	3300	2162
	NET POWER AVAILABILITY- Own Source	5200	3527
	Central Sector+MPL	350	299
	Bi- lateral export by DVC	2250	1436
	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	0	228
4	ODISHA		
	NET MAXIMUM DEMAND (OWN)	5000	3348
	NET DOWED AVAILADILITY OWN STORES	3700	3043
	Control Source	3200	1250
	SURPLUS(+)/DEFICIT(-) (OWN)	105	143
	SURPLUS(+)/DEFICIT(-) (D with)	-595	-52
	SORTEOS(+)/DEFICIT(-) (In case, 000 M/w CIT Diawai)	-575	-52
5	WEST BENGAL		
	WBSEDCL		
5.1	NET MAXIMUM DEMAND	8072	4386
	NET MAXIMUM DEMAND (Incl. Sikkim)	8077	4390
	NET POWER AVAILABILITY- Own Source (Incl. DPL)	5690	2905
	Central Sector+Bi-lateral+IPP&CPP+TLDP	2747	1732
	EXPORT (To SIKKIM)	5	4
	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	360	248
5.2	CESC		
	NET MAXIMUM DEMAND	1960	983
	NET POWER AVAILABILITY - Own Source	830	507
	TOTAL AVAILAPILITY OF CESC	1270	856
	DEFICIT() for Import	-590	127
	DEFICIT(-) for import	-550	-127
	WEST BENGAL (WBSEDCL+CESC+IPCL)		
	(excluding DVC's supply to WBSEDCL's command area)		
	NET MAXIMUM DEMAND	10032	5369
	NET POWER AVAILABILITY- Own Source	6520	3412
	CS SHARE+BILATERAL+IPP/CPP+TLDP+HEL	3287	2081
	SURPLUS(+)/DEFICIT(-) BEFORE WBSEDCL'S EXPORT	-225	125
	SURPLUS(+)/DEFICIT(-) AFTER WBSEDCL'S EXPORT	-230	121
6	SIKKIM		
L	NET MAXIMUM DEMAND	104	51
	NET POWER AVAILABILITY- Own Source	8	3
		81	57
	SUKPLUS(+)/DEFICII(-)	-15	9
	FASTERN REGION	+	
	NET MAXIMUM DEMAND	27898	16842
	NET MAXIMUM DEMAND (In Case of CPP Drawal of Odisha)	28306	16176
	BILATERAL EXPORT BY DVC (Incl. Bandladesh)	2156	1436
	EXPORT BY WBSEDCL TO SIKKIM	5	4
	EXPORT TO B'DESH & NEPAL OTHER THAN DVC	642	478
	NET TOTAL POWER AVAILABILITY OF ER	28501	16876
	(INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL)		
	,		
	SURPLUS(+)/DEFICIT(-)	598	696
	SURPLUS(+)/DEFICIT(-) (In Case, 600 MW CPP Drawal of Odisha)	190	30