

# AGENDA FOR 227<sup>th</sup> OCC MEETING

## **Date: 26.05.2025** Eastern Regional Power Committee

### Contents

1. PA	RT-A: CONFIRMATION OF MINUTES1
	Confirmation of Minutes of 226 <sup>th</sup> OCC Meeting held on 22 <sup>nd</sup> April 2025 virtually S Teams
2. PA	RT-B: ITEMS FOR DISCUSSION1
2.1	Islanding Schemes in Eastern Region: ERPC1
2.1.1	In-Service Islanding Schemes1
2.1.2	Update on under-implementation Islanding schemes2
2.1.3	Update on Patna Islanding scheme2
2.2	Status of ERS in Eastern Region
2.3	Review of AUFLS in Eastern Region: SCADA Integration & Data Updation4
2.4	Issues for follow up5
2.5 Prade	Allocation of power from Hydro Electric Projects (HEPs) in Arunachal esh :ERPC
2.6 :SLD	Challenges in intra-state network of Odisha: C Odisha
2.7 capa	Relocating of existing 220/132kV Switchyard of TTPS for future city addition: OPTCL
2.8 Prote	Supply & Installation of Bus-Bar Protection Panels including Bus Differential ection in different 220 kV & 400 kV Sub• stations of WBSETCL: WBSETCL. 13
2.9	Bus split operationalization at NTPC Kahalgaon: ERPC
2.10	Shutdown proposal of generating units for the month of June 2025: ERPC 15
2.11	Shutdown request for NTPC Barh: NTPC
2.12	Change in Over Hauling schedule of Unit#2 : BRBCL16
2.13	Agenda for North Karanpura STPP: NTPC16
2.9.1	Provision of Reliable Power Evacuation from NKSTPP16
2.9.2	Forest clearance issue of NKSTPP Ash dyke Lagoon 2: NTPC16
2.9.3	Land related issues of NKSTPP External Pipe Conveyor:
	Constitution of 'Standing Committee on Short Term and Perspective Power em Planning:ERLDC
3. PA	RT-C: ITEMS FOR UPDATE/FOLLOW-UP/INFORMATION
3.1.	ER Grid performance during April 2025 19
3.2.	Non-Submission of FRC data in stipulated timeframe: ERLDC
3.3.	Regarding Non-Submission of Forecasting Data from States: ERLDC 21
3.4.	Mock Black Start: ERLDC
4. PA	RT-D: OPERATIONAL PLANNING25
4.1.	Anticipated power supply position during June-2025

	Major Thermal Generating Units/Transmission Element outages/shutdown	
ER G	rid (as on as on 15-05-2025)	25
	Commissioning of new units and transmission elements in Eastern Grid in t	
	n of April -2025	
4.4.	UFR operation during the month of April 2025	31

### EASTERN REGIONAL POWER COMMITTEE

AGENDA FOR 227<sup>th</sup> OCC MEETING TO BE HELD ON 26.05.2025 (MONDAY) AT 10:30 HRS

#### 1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 226<sup>th</sup> OCC Meeting held on 22<sup>nd</sup> April 2025 virtually on MS Teams

The minutes of 226<sup>th</sup> Operation Coordination Sub-Committee meeting held on 22.04.2025 was circulated vide letter dated 06.05.2025.

Members may confirm the minutes of 226<sup>th</sup> OCC meeting.

#### 2. PART-B: ITEMS FOR DISCUSSION

#### 2.1 Islanding Schemes in Eastern Region: ERPC

#### 2.1.1 In-Service Islanding Schemes

	Detalls	of Operation	ai isianuni	y schemes		
State	Islanding Scheme Reference	Number of units in Bus	Max. Load (MW)	Min. Load (MW)	Freq. (Hz) @ which Island will form	Status
DVC	CTPS Islanding Scheme, DVC	2	440	270	48.4Hz with 500ms delay	Operational & healthy
	BKTPP	3	559	282	47.7Hz	Operational & healthy
	BTPS	1	160	139	47.7Hz	Operational & healthy
	TPH	84	38		47.7Hz	Operational & healthy
WEST BENGAL	CESC islanding scheme	All internal generators			U/F: 47.8 Hz for 0.5 sec delay O/F: 52.3 Hz for 0.5 sec delay	Operational & healthy

#### Details of Operational Islanding schemes

As per IEGC-23 clause No. 29.11

Page | 1

#### Quote:

"29. (11) Mock drill of the islanding schemes shall be carried out annually by the respective RLDCs in coordination with the concerned SLDCs and other users involved in the islanding scheme. In case 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.

#### Unquote:

ERLDC, in compliance with IEGC 2023, had notified all the SLDC and users in 215<sup>th</sup> OCC regarding information of date of physical mock test or requirement of data to conduct simulation studies in case of non-possibility of the same.

After several follow-ups in the OCC, an online meeting (Details enclosed at **Annex B.2.1.1**) was organized by ERLDC on 15.01.2025 to discuss about the mock testing of islanding scheme as per IEGC-23.

DVC and West Bengal may update. Members may discuss.

#### 2.1.2 Update on under-implementation Islanding schemes

Besides, **IB valley TPS IS** & **Farakka STPS(NTPC)** Islanding scheme have also been put on hold for long time. The status regarding the same has been sought on urgent basis by Ministry of Power(Govt of India).

All concerned utilities may update. Members may discuss.

#### 2.1.3 Update on Patna Islanding scheme

- The Patna islanding scheme would be formed with Units of NPGCL along with loads of Patna city.
- NTPC was entrusted for carrying out study of NPGC units and M/S Solvinia had submitted report on study of islanding scheme dated 08th May 2024. Thereafter based on comments received from ERLDC, replies were submitted by M/S Solvinia. NTPC had communicated the report to all concerned including SLDC Bihar.
- Some further tests needed could not be carried out due to non-receipt of relevant data from Bihar.
- The proposed Patna islanding scheme aims to isolate one running unit of NPGC (660 MW) with pre-identified load of Patna city and nearby areas. After isolation of selected loads and NPGC through the identified network, run the island in islanded mode to cater the city load and to extend start-up supply to generating stations in adjoining area to facilitate early restoration.
- Patna city and nearby loads will be islanded with one of the running units of NPGC (660 MW).

#### As per 53<sup>rd</sup> ERPC meeting:

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

Page | 2

225 <sup>th</sup> OCC	226 <sup>th</sup> OCC
<ul> <li>225<sup>th</sup> OCC</li> <li>Bihar updated :</li> <li>✓ For preparation of estimate, budgetary offers are awaited to be received from the concerned vendors(M/S GE, M/S Schneider and M/S Siemens).</li> <li>✓ Approved DPR of the islanding scheme shall be submitted for PSDF funding latest by April 2025.</li> <li>OCC Decision</li> <li>OCC advised Bihar SLDC to expedite submission of Final DPR of Patna islanding scheme along with detailed cost breakup for PSDF grant.</li> </ul>	<ul> <li>226<sup>th</sup> OCC</li> <li>SLDC Bihar submitted:</li> <li>Bids have been submitted by vendors, but the element-wise cost breakup has been provided only by M/s Siemens. The final DPR, along with the cost breakup, will be submitted after receiving the element-wise cost breakup from the other vendors.</li> <li>OCC Decision         <ul> <li>OCC Taised concern on the delay in finalization of DPR for Patna islanding scheme despite being accorded approval for approaching PSDF in 53<sup>rd</sup> ERPC meeting.</li> <li>The Patna islanding scheme will be discussed in the next NPC meeting.</li> <li>Therefore, OCC advised SLDC Bihar to expedite the submission of the final DPR for the patna islanding scheme, along with the detailed cost breakup from the other vendors.</li> </ul> </li> </ul>

#### 2.2 Status of ERS in Eastern Region

Transmission lines are the arteries of the electricity grid and these are most prone to damage due to earthquakes, cyclones, floods etc. In case of damage to the transmission line, temporary arrangements for the restoration of power supply can be made with the help of ERS, which consists of a special type of lightweight modular structures, with lightweight polymer insulators and number of stays. In this regard CEA has issued guidelines for requisition of ERS and also an advisory has been issued by Ministry of Power to all state utilities.

As per Central Electricity Authority (grid standards) regulations, 2010 and "Disaster Management Plan for Power Sector" the following are mandated in case of the ERS:

i.Each transmission licensee shall have an arrangement for the restoration of transmission lines of 400 kV and above and strategic 220 kV lines through the use of Emergency Restoration System in order to minimise the outage time of the transmission lines in case of tower failures.

ii.Strategic locations should be decided for spares on centralized/ regional /zonal basis.

MOP guidelines attached at **Annex B.2.2 All Transmission licensees(ISTS, State & Private) may update.** 

Page | 3

#### 2.3 Review of AUFLS in Eastern Region: SCADA Integration & Data Updation

Based on the recommendation and decisions in 14th NPC meeting held on 05.02.24, 214th OCC meeting and special meeting on 10.07.2024, a load relief quantum of 6916MW was finalized for Eastern Region. UFR Feeders real time monitoring has been discussed in NPC as well as various forums of ERPC. Further, with new IEGC 2023 the same has been mandated as quoted below: IEGC 2023, Clause 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."* 

The UFR integration work is pending with Bihar, Jharkhand & Sikkim. Besides, the SCADA integration and data availability of the UFR feeders is very low and needs immediate attention by the states.

I.r.o significance of healthy AUFLS, it is pertinent to mention that grid frequency had dipped to 49.42 Hz( on verge of stage-I of AUFLS) due to sustained overdrawl by some ER states.NLDC has issued letter expressing concern over LGB in states, to principal Secretaries(Energy) of Bihar, West Bengal

State	Stage	UFR Req (MW)	UFR Inst. (MW)	Pending (MW)	SCADA Integrated feeders	Data Updating of UFR feeders	Remarks
	Stg 1	315	292	23	0	0	Feeders
	Stg 2	379	344	35	18	12	identified for all
BSPTCL	Stg 3	442	361	81	0	0	4 stages. UFR integration for
	Stg 4	442	394	48	362	118	rest feeders in
	Total	1578	1391	187	380	130	progress.
	Stg 1	172	173	0	173	159	
	Stg 2	207	209	0	72	72	Installation and
DVC	Stg 3	241	242	0	32	32	testing complete
	Stg 4	241	239	2	38	17	for all 4 stages
	Total	861	864	0	315	280	
	Stg 1	87	85	2	89	26	Feeders
	Stg 2	105	104	1	105	71	identified for
JUSNL	Stg 3	122	45	77	33	33	St.3 & 4.
	Stg 4	122	0	122	0	0	Installation in
	Total	436	234	202	227	131	progress.

A list is prepared highlighting present status of UFR feeders and presented below:

Page | 4

		6916	6418	498	3070	2553	
ER Total	10181	25	0	0	0	0	
	Stg 4 <b>Total</b>	7 25	0	0	0	0	_
Sikkim	Stg 3	7	0	0	0	0	
<b>G *1 1 *</b>	Stg 2	6	0	0	0	0	_
	Stg 1	5	0	0	0	0	_
WBSEDCL+CESC	Total	2486	2561	0	957	936	
	Stg 4	160	160	0	160	160	for all 4 stages
(CESC)	Stg 3	160	160	0	160	160	testing complete
West Bengal	Stg 2	140	140	0	140	140	Installation and
	Stg 1	120	120	0	120	120	
	Stg 4	536	555	0	0	0	
(WBSEDCL)	Stg 3	536	552	0	86	65	for all 4 stages
West Bengal	Stg 2	457	434	23	191	191	testing complete
	Stg 1	377	440	0	100	100	Installation and
OPTCL	Stg 2 Stg 3 Stg 4 Total	367 428 428 1529	354 334 364 <b>1368</b>	13 94 64 <b>161</b>	281 314 299 <b>1190</b>	255 260 276 <b>1076</b>	94 and 64 MW in St.2,3 ad 4 respectively. As stated by OPTCL, peak load of identified feeders will increase to required quantum in the coming summer.
	Stg 1	306	316	0	297	286	Shortage of 13

All STUs are also requested to update UFR testing status. All states may update. Members may discuss.

#### 2.4 Issues for follow up.

Issue Reference	Last updated Status	Action Point
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Update on Rajarhat GIS	<ul> <li>Vide 226th OCC dated 22.04.2024.</li> </ul>	As per 226 <sup>th</sup> OCC:     NIT for procurement of 3rd ICT at	Powergrid
(POWERGRID	ualeu 22.04.2024.	Rajarhat (PG) has been floated on	
) 400/220kV	The need to prioritize	14th May 2025.Further progress	
S/S:	the installation of a 3rd	shall be shared in subsequent	
2x500MVA	400/220KV,500MVA	OCC meetings.	
	ICT at Rajarhat (PG) with the same urgency		
	as Subhasgram (PG) to	Deliberation/Decision in Meeting	
	prevent a recurrence of	chaired by Power	
	similar critical situations	Secretary(Govt of W.B): ( MOM at Annex B.2.1)	
	in the future	As Rajarhat Transformer will take	
	If the proposed 3rd ICT	almost 01 month to reach Kolaghat	
	is not operational by the	from Hyderabad, continuing the	
	summer of 2026, severe	cross bridge (Temporary bridge) at	
	congestion is likely to	Charial till onset of monsoon will be	
	affect the ICTs at Rajarhat (PG).	difficult from Irrigation perspective.	
		So, the 500 MVA transformer for	
		Subashgram sub-station will be	
		transported on priority basis.	
		The said transformer from Maithon	
		will reach Kolaghat at around 25th	
		of May, 2025 and will reach Budge	
		Budge point through river transportation within 5th of June,	
		2025.	
Upgradation	Vide 217th OCC	• In case there is no funding from	WBSETCL
of 220kV	dated 24.07.24	PSDF for upgradation of 220 kV	WB SLDC
Network in	Due to persistent N-1	feeders ,OCC advised WBSETCL	
Kolkata Region	violation, Upgradation of	to meet fund requirement from its	
Region.	these 220 KV feeders to be	own sources in view of its urgent need.	
	planned:	neeu.	
	✓ 220kV Subhasgram		
	(WB)-Lakshmikantpur D/C		
	<ul><li>✓ 220 kV Jeerat-Barasat</li></ul>		
	D/C		
	<ul> <li>✓ 220 kV Barasat-Kasba</li> <li>D/C</li> </ul>		
Restoration	Vide 221st OCC		
status of	dated 27.11.24	OCC requested WBSETCL to	
220kV-		expedite the cable reparing works and	

Rajarhat (PG) - New Town IIC – II.	<ul> <li>The faulty b phase cable already is isolated at both ends. As, the repair of the b phase cable involves kits and spares(particularly for the jointing portion of two different sized cables) from abroad, which is time consuming, so to keep the other two phase UG cables healthy, it was extremely necessary to keep those in no load charging condition.</li> <li>Repair of the faulty cable(B phase) is getting delayed due to non-availability of the imported cable joiniting kit.</li> <li>Neither charging the cable at low voltage nor charging from WBSETCL end was feasible</li> <li>The said no load charging may please be allowed within shortest possible time to reduce any possibility of damage of R, Y phase cables in respect of Rajarhat(PG)-New Town AAIIC circuit II.</li> </ul>	to share progress status of the same with ERPC. In 222 <sup>nd</sup> OCC it was updaed that cable shall be put into healthy operation by June 2025.	
Update on Reconductori g of ISTS lines under Eastern Region Expansion Scheme-44	<ul> <li>Vide 226th OCC dated 22.04.2024</li> <li>Approved in 52nd TCC NCT (National Committee on Transmission) meeting dated 23.10.2024</li> </ul>	<ul> <li>As per 226<sup>th</sup> OCC:</li> <li>Reconductoring Package (OH1/OH2/OH03) Tender for various 220kV Lines associated with Eastern Region Expansion Scheme-44 (ERES 44) has been floated. In view of request from several bidders, the date of bid opening has been extended till 29.04.2025.</li> </ul>	Powergrid

	Decendurate view of	1	Fronthe an experience of the state of	
	<ul> <li>Reconductoring of ISTS portion of 220 kV corridor viz. Alipurduar (POWERGRID) – Falakata (WBSETCL) – Birpara (POWERGRID) – Binaguri (POWERGRID) – Siliguri (POWERGRID) – Kishanganj (POWERGRID) – Dalkhola (POWERGRID) – Gazole (WBSETCL) – Malda (POWERGRID), may be taken up under ISTS</li> </ul>	•	Further certain specifications have been changed for various reconductoring packages and under discussion with CEA. In view of the same, the extension in bid submission is done for facilitating all prospective bidders	
Update on Restoration of 132kV Rangit- Kurseong & 132kV Siliguri-Melli- Rangpo lines	<ul> <li>Vide 226th OCC dated 22.04.2024</li> <li>Due to incessant rain and several landslides, towers at loc. 125-128 of 132 kV Rangit-Kurseong and 132 kV Siliguri-Melli got badly affected</li> <li>Consequently, Kurseong and Melli (Kalimpong source) are fed through single source of Siliguri and Rangpo respectively</li> <li>After necessary reconfiguration, 132 KV Siliguri-Kurseong-II (interim) arrangement charged on 9th October and 132kV-Rangit-Melli (interim) has been charged tentatively on 22<sup>nd</sup> October. POWERGRID intimated that it would take 15-20 Days to restore the original configuration after rectifying damaged</li> </ul>	•	As per 226 <sup>th</sup> OCC: NOC has been received dated 16.04.25 from Soom Tea Garden & administration, necessary construction activity has been initiated from 17.04.2025. As new tower foundation, erection and moreover string is required, restoration of the original configuration may be anticipated till 15.07.2025.	Powergrid

Page | 8

Automatic tripping of Pumped Storage Plant or ESS in pumping/char ging mode during low frequency.	•	Vide: 214th & 223rd OCC dated 23.04.24 & 24.01.25 WB SLDC urged for implementation of the automatic tripping mechanism after end of General Election 2024 as was submitted by WBSEDCL in State Level Summer Preparedness meeting. WBSEDCL representative underlined need of consultation with concerned OEM prior to Purulia Pumped storage plant being equipped with provision of auto- tripping at 49.5 Hz.	•	As per 214 <sup>th</sup> OCC: OCC further advised West Bengal SLDC to share the action plan of implementing this automatic tripping mechanism at Purulia Pumped storage plant as soon as consultation with concerned OEM is completed by WBSEDCL. As per 223 <sup>rd</sup> OCC: WBSEDCL was advised to submit the report from concerned OEM in next OCC, highlighting the practical constraints involved in implementing the automatic tripping mechanism at Purulia PSP.	WBSLDC/ WBSEDCL
Strengthenin g of SLDCs	•	Vide 53 <sup>rd</sup> ERPC dated 11.02.2025 ERLDC presented an assessment on manpower adequacy at SLDCs, highlighting existing gaps and challenges.	•	Chairperson of ERPC emphasized the need for all states to formulate an action plan to address manpower shortages and ensure compliance with workforce adequacy guidelines.	All states
MTDL of Intra- state generators (55%).	•	218th & 220th OCC dated 13.08.24 & 25.10.25 WBPDCL updated that all the thermal generating units including that of Kolaghat, are technically capable to operate at 55% MTDL ,But in absence of appropriate regulations of WBERC, generating units not operating at 55% MTL or below on sustained basis.	•	As per 218 <sup>th</sup> OCC: 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. As per 220 <sup>th</sup> OCC: All states were advised to pursue necessary regulatory support from SERCs.	All SLDCs

Implementati on of AGC in Intra-state generating units.	that they have already highlighted the matter to WBERC & WBERC has assured to come up with appropriate regulation to incentivize generators. • 218 <sup>th</sup> OCC dated 13.08.24 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.	•	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	All state GENCOs
Reliable Power Supply of Tenughat.	<ul> <li>Vide 216th OCC dated 21.06.24</li> <li>After reconfiguration of 220kV Patratu-Tenughat for extending start-up power to PVUNL, one evacuation path from Tenughat was reduced, which impacted the reliability of Tenughat. Now, with the outage of 220kV Biharsariff-Tenughat, the evacuation of the entire generation remains with Govindpur only.</li> <li>Jharkhand needs to explore network strengthening at Tenughat to enhance reliability</li> </ul>	•	OCC urged JUSNL to expedite the entire process to complete the construction of planned 220 kV lines at the earliest. OCC advised JUSNL to make all possible efforts for construction of 220 kV Tenughat-Gomia Transmission line(25KM) at first as its length is less compared to 220 kV Tenughat-Hazaribagh(80KM) line. Update yet to be recieved on status of upcoming feeders	SLDC Jharkhand/ JUSNL
Repeated tripping of 132 kV	• Vide 220th OCC dated 28.10.24	•	OCC advised Sikkim to expedite in implementation of Committee recommendations i.r.o increasing ground clearance by construction	Sikkim SLDC

Page | 10

Chuzachen-		of new tower(between loc. 28-29)	
Rangpo D/c.	132 kV Chuzachen-Rangpo D/C tripped more than 10 times since May'24 causing total generation loss occurred at Chuzachen HEP (110 MW).	<ul> <li>and hill cutting (around tower no. 27).</li> <li>Update on the same needs to submitted to ERPC/ERLDC every week.</li> </ul>	
	Committee visited site with following observations:		
	• Critical tree infringement and bamboo trees between loc. 27-29 along the corridor.		
	• Severe infringement along with several flashover marks on the conductor and burnt trees along the corridor.		
	<ul> <li>Less ground clearance b/w loc. 28-29 for Ckt-1 (4.1 meter instead of minimum requirement</li> </ul>		
	<ul> <li>of 6.1 meter).</li> <li>The Committee recommended two new towers to be constructed between loc. 28-29 and 35-36 (one each) and hill cutting along the periphery of tower no. 27 to improve ground discussion.</li> </ul>		
	<ul> <li>clearance.</li> <li>Considering the severity of less ground clearance and potential of damage to human life, the recommended measures need to be implemented on an immediate basis</li> </ul>		
ADMS	Vide 225 <sup>th</sup> OCC dated 18.03.25 • The automatic demand management scheme	<ul> <li>As per 225<sup>th</sup> OCC</li> <li>OCC advised BSPTCL to share the feeder list of ADMS with ERLDC positively within a week.</li> </ul>	SLDC Biha & ERLDC
	(ADMS) has been		<u> </u>

Page | 11

<ul> <li>already commissioned in West Bengal, DVC, Odisha, and Jharkhand and partially implemented by Bihar.</li> <li>In the 216th OCC meeting the forum advised Bihar to share detailed action plan for implementation of additional 400 MW load under ADMS.</li> <li>BSPTCL yet to update the status.</li> </ul>	ERLDC was advised to take up with BSPTCL through a formal communication.
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#### All concerned may update. Members may discuss.

#### 2.5 Allocation of power from Hydro Electric Projects (HEPs) in Arunachal Pradesh: ERPC

North Eastern Electric Power Corporation Limited (**NEEPCO**) is developing the following Hydro Electric Projects (HEPs) in Arunachal Pradesh:

- 1. 240 MW Heo HEP
- 2. 186 MW Tato-1 HEP
- 3. 700 MW Tato-11 HEP
- Further, the Ministry of Power, Government of India has already accorded the investment approval for 240MW Heo HEP & 186 MW Tato-I HEP. Moreover, the PIB for 700 MW Tato-II HEP will be taking place within a short period.
- In this regard, NEEPCO has been exploring potential buyers for the sale of power from these projects and has approached various states viz. Bihar, Gujarat, Assam, Arunachal Pradesh, Tamil Nadu, Maharashtra, as well as Indian Railways.
- Ministry of Power has also issued order for waiver of ISTS charges for transmission of hydro power.
- All ER states are requested to express their willingness so that PPA can be signed prior to 30.06.2025 in order to avail transmission charge waiver facility by the beneficiaries as per Order dt. 01.12.2022 issued by Ministry of Power. (Annex B.2.6)

#### Members may discuss.

#### 2.6 Challenges in intra-state network of Odisha: SLDC Odisha

- During the last month, multiple contingencies have been observed due to 400KV Meramundali- Mendhasal D/C tower failure, restoration thereof on ERS( one by one line), tripping of 400KV Meramundali - Lapanga Circuit -II and other instances.
- The load centre command area of Bhubaneswar, Puri & CuttackCity is fed from 400KV Mendhasal Grid Sub - Station, which draws power from Talcher, Sundargarh, and OPGC Plants of that geographical area.
- In order to provide redundancy & share some of the load of this area a 400KV Pandiabil Sub-station is established. This Sub-station needs to draw power from Baripada CTU & upward network beyond Baripada.
- Unfortunately, it is observed that there is a limited flow from Baripada and Pandiabil continues to draw power from Mendhasal & New - Duburi (Odisha network) resulting into jeopardize of the evacuation of OPGC, Talcher, Kaniha Projects.
- It is requested to deliberate on this matter during ensuing 227<sup>th</sup> OCC Meeting & Grid -India may facilitate more power flow from Baripada & beyond network to Pandiabil, so that designated purpose of CTU Station gets addressed and the jeopardized network gets relieved from this power stress. The solution to this issue is of utmost importance for balancing the Peak Demand of 2024-25 & peak period of 2025-26.

#### SLDC Odisha may update. Members may discuss.

### 2.7 Relocating of existing 220/132kV Switchyard of TTPS for future capacity addition: OPTCL

Vide the letter reference: TTPP/OPTCL/11/01 dtd 09.11.2024, NTPC has stated that they are going to set up an additional 600MW / 800MW unit at Talcher after the commissioning of TTPS Stage-III. They have expressed their intention to utilize the land currently occupied by the existing 220/132kV TTPS switchyard for their expansion project.

In this regard, OPTCL has conducted a system study for the phased shifting of transmission lines from the TTPS switchyard. A detailed study report, including the existing connectivity and proposed connectivity, has been attached at **Annex B.2.7** for ready reference. **OPTCL may update. Members may discuss.** 

#### 2.8 Supply & Installation of Bus-Bar Protection Panels including Bus Differential Protection in different 220 kV & 400 kV Sub• stations of WBSETCL: WBSETCL

To enhance capacity of existing network with an objective to maintain N-1 contingency and to improve reliability and voltage profile in the State as well as National Grid, one proposal amounting to Rs. 55.41 Crore has been submitted to the PSDF authority. Accordingly, the proposal was also discussed in the meeting of the Techno-Economic Subgroup (TESG) held on 25.08.2023.

OCC is requested to grant consent to the proposal to achieve reliable and economic power transmission system with highest system availability within the state of West Bengal.

#### WBSETCL may update. Members may discuss.

#### 2.9 Bus split operationalization at NTPC Kahalgaon: ERPC

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

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

- 1. Determination of underground cable conduit path for 400/132 kV ICT-3, 4 and 5 allocated for stage 2 supply.
- 2. Excavating the existing cable and relaying from Stage-1 132kV to New Stage-2 132 kV switchyard, where ICT 3 & 4 will be connected.
- 3. Laying of additional 22.8 ckt. km control cable for STs.
- 4. Jumpering of ICTs in 132kV & 400kV level.
- 5. Bay equipment testing.
- NTPC apprised that determination of underground power cables is one of the major challenges to proceed further with laying of cables between two 132kV switchyards.
- Meanwhile in view of increased fault level of NTPC Kahalgaon and to facilitate interim arrangement of standby ISTS connectivity to Godda Thermal Power project of M/s Adani Power (Jharkhand) Ltd. (APJL) with Indian grid, Bus splitting at 400KV Kahalgaon needs to be done on priority.

As per update from NTPC (15.04.2025):

SI No	Description	Status	Remark
1	Contractual issue	Resolved	
2	Arrangement of 5KM 19Cx2.5 sqmm and 21 KM 10Cx2.5 sqm Control cable	Arrived at site	
3	Laying of control and power cables towards 400KV side	Completed	
4	Laying of control cables towards 132KV side	50% completed	Target date- 30.04.2025
5	Revival of 400KV isolators of ICT-3 & 4	2/4 revived	<ul> <li>✓ Revived isolators Jumpers will be connected during Bus-4 shutdown.</li> <li>✓ For revival of rest of the isolators, Bus-3 shutdown reqd.</li> </ul>
6	ICT-3 Earthing work	Completed	
7	132KV side BPI structure modification work	60% completed	Target date- 30.04.2025
8	132KV relay interpanel wiring work	Completed	

Page | 14

9	400KV relay interpanel wiring work	Completed	
10	Revival of 400KV & 132KV CBs	Defective spares arrived at site. Service engineer will be deployed for attending the defects	Target Date: 30.04.2025
11	Charging of ICT-3 & ICT-4 towards 400KV side		Target Date: 30.04.2025

NTPC may update. Members may discuss.

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

N	laintenanc	e Sch	edule of T	Thermal	Generati	ng Un	its of ER d	uring 202	5-26
System	Station	Unit	Capacity	Prop	osed	No. of	Approved i	n 226 <sup>th</sup> OCC	Reason
System	Station	0///	(MW)	From	То	Day s	From	То	Reason
DVC	CTPS	8	250	25-06- 2025	29-07- 2025	35	01-07-2025	04-08-2025	COH-Boiler RLA, turbogen. & De-Nox
NPGCL	New Nabinagar STPS	1	660	21-06- 2025	19-08- 2025	60	01-11-2025	30-12-2025	AOH: Boiler+Turbin e + Gen
WBPDCL	Kolaghat TPS	4	210	27-06- 2025	21-07- 2025	25	27-06-2025	21-07-2025	Boiler License Renewal + AOH
NTPC	Darlipalli STPS	2	800	01-04- 2025	10-05- 2025	45	01-07-2025	15-08-2025	AOH (Main Turbine Thrust bearing temperature is high(110 °C)

#### Members may discuss/update.

#### 2.11 Shutdown request for NTPC Barh: NTPC

- In view of increased BTL and as per the Boiler internal assessment by the station Barh Unit 5 needs to be taken under O/H.
- It is requested to allow NTPC Barh Unit 5 O/H from 15.06.25 for 40 days for safe and continuous reliable operations.

#### NTPC may explain. Members may discuss.

Page | 15

#### 2.12 Change in Over Hauling schedule of Unit#2 : BRBCL

- > BRBCL is supplying 90% of its power to Indian Railways and balance 10% to Bihar state.
- Indian Railways has requested BRBCL that it requires full power during the period May '2025 to Aug 2025. As during that period increase in passenger traffic and Goods train is anticipated. Also, various Summer special trains will be put into service. (Copy of Railway letter enclosed at Annex B.2.11)

Unit no.	Approved O/H start date	Approved O/H end date	Duration (days)	Proposed O/H start date	Proposed O/H end date
2	1st Jul 2025	14th Aug 2025	45	6th Nov 2025	21st Dec 2025
4	24th Aug 2025	23rd Sep 2025	30	No change	-

#### Therefore, it is proposed to reschedule BRBCL Overhauling (O/H) of unit#2 as below:

Revised BRBCL unit#2 Over Hauling schedule is submitted for kind consideration and approval.

#### BRBCL may explain. Members may discuss.

#### 2.13 Agenda for North Karanpura STPP: NTPC

#### 2.9.1 Provision of Reliable Power Evacuation from NKSTPP

- Presently, only the 400 KV D/C Chandwa line is available for power evacuation from NKSTPP, as the 400 KV NKSTPP–Gaya D/C line is still under construction.
- As per the system study conducted by ERLDC for power evacuation, in the scenario where all three units at NKSTPP are operational, stable operation is possible only up to 1700 MW in the event of a trip or shutdown of one circuit of the 400 kV D/C Chandwa line.
- In this context, ERLDC is requested to kindly provide the necessary guidelines and recommend special protection measures to ensure power system stability in the event of a trip of one circuit of the 400 kV D/C Chandwa line.
- The second evacuation corridor, i.e., the 400 kV NKSTPP-Gaya D/C line, is under construction and is being expedited by M/s NKTL. This issue was also discussed during the PMG Review Meeting chaired by Secretary (Coordination) under PRAGATI Portal on 06.03.2025.

Support and intervention from OCC is requested for early resolution of the matter.

#### 2.9.2 Forest clearance issue of NKSTPP Ash dyke Lagoon 2: NTPC

The Forest Clearance (FC) proposal for 10.24 hectares of land is being expedited for the completion of Ash Dyke Lagoon 2. The Divisional Forest Officer (DFO) has forwarded the FC file to the Regional Chief Conservator of Forests (RCCF), Hazaribagh, who has returned it with some queries to the DFO, Chatra. At present, the file is with the DFO, Chatra.

The matter is being actively pursued by NTPC with the concerned officials of the Government of Jharkhand Forest Department and the District Administration.

Support and intervention from OCC are requested for early resolution of the issue.

#### 2.9.3 Land related issues of NKSTPP External Pipe Conveyor:

The coal conveyor of the external Coal Handling Plant (CHP) of NTPC North Karanpura passes through land owned by CCL. As per the Memorandum of Understanding (MoU) signed between NTPC and CCL in July 2018, CCL is to hand over encumbrance-free land along with Forest Clearance. However, the progress of erection work has been slow. Out of the total 7.5 km, only 6.0 km of foundation and 4.8 km of gallery erection have been completed. The delay is primarily due to land compensation issues (to be resolved by CCL) and Local issues.

The matter is being expedited with CCL, the District Administrations of Latehar and Chatra, and the Government of Jharkhand.

This issue was also discussed in the PMG Review Meeting chaired by Secretary (Coordination) under the PRAGATI Portal on 06.03.2025.

Support and intervention from OCC are requested for early resolution of the issue.

All these issues are posing hindrance in COD of Unit-3 expected by month June '2025.

#### NTPC may explain. Members may discuss.

#### 2.14 Constitution of 'Standing Committee on Short Term and Perspective Power System Planning: ERLDC

The 'Manual on Transmission Planning Criteria with Amendment-1' has been issued by Power System Planning & Appraisal Division-II, CEA dtd. 08.01.2025. To cover the planning procedure, a new chapter (chapter 7 has been added) in the manual. The roles of agencies for planning of the transmission systems have been notified in Electricity Act 2003.

- As per Section 38 (2) (b) of the Act, CTU will discharge all functions of planning and coordination related to Inter-State Transmission System.
- As per Section 39 (2) (b) of the Act, STUs will discharge all functions of planning and coordination related to Intra-State Transmission System.

As outlined in Cl. 7.2.2 of the planning criteria, CEA shall consult relevant stakeholders for preparation of short term and perspective plan and for coordinating the activities of planning agencies through regional standing committees namely Standing Committee on Short Term and Perspective Power System Planning (SCSTPPSP).

Based on the perspective plan of CEA, STUs (including DVC) to make their own plan considering Intra-state generation capacity addition/phasing out of transmission system, load growth, operational feedback etc on annual rolling basis.

Post dissolution of ERPCTP vide MoP office order dated 20<sup>th</sup> Oct. 2021, certain coordination gaps in planning by STUs have been observed. It is proposed that the 'Standing Committee on Short Term and Perspective Power System Planning' be constituted for better coordination among the stakeholders. The standing committee will review the existing and under implementation intra-

Page | 17

state and inter-state transmission system in the region, review the operational constraints faced by the system operators, examine new proposals from ISTS/STUs/Electricity Departments and associated transmission system for generating stations. **Members may discuss**.

Page | 18

#### 3. PART-C: ITEMS FOR UPDATE/FOLLOWUP/INFORMATION

#### 3.1. ER Grid performance during April 2025

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

AVERAGE CONSUMPTION (MU)	MAXIMUM CONSUMPTION(MU)/ DATE	MAXIMUM DEMAND (MW)	MINIMUM DEMAND (MW)	SCHEDULE EXPORT	ACTUAL EXPORT
(1110)		DATE / TIME	DATE / TIME	(MU)	(MU)
578 MU	664 MU, 25.04.2025	31362 MW, 24.04.2025 at 23:22 Hrs.	15829 MW, 11.04.2025 at 02:09 Hrs.	2261	2357

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

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

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

#### 226<sup>th</sup> OCC Decision

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

The latest data receipt status is given below: ( as on 15.05.2025):

STATIONS		12-03-2025	12-03-2025
STATIONS		14:51 HRS	15:37HRS
FSTPP #STG 1 & 2	ISGS		
FSTPP # STG 3	ISGS		
KhSTPP #STG 1	ISGS		
KhSTPP #STG 2	ISGS		
TSTPP #STG 1	ISGS		
Barh stage-1	ISGS		
Barh stage-2	ISGS		
BRBCL	ISGS		
Darlipalli	ISGS		
North Karanpura	ISGS		
NPGC	ISGS		
TEESTA V	ISGS		
GMR	СРР		
MPL	СРР		
ADHUNIK	СРР		
JITPL	СРР		
TEESTA III	СРР		
Bihar	STATE		
Jharkhand	STATE		
DVC	STATE		
OPTCL	STATE		
WB	STATE		
Updated as on	15.05.2025		Received
o pulled us on	20.00.2020		Not Received
			Plant Out
			Data freeze at plant
			Data neeze at plant

Received Not Received Plant Out Data freeze at plant

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

ERLDC may explain. Members may discuss.

#### 3.3. 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.

Current data submission status is given in the table below: 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.

#### 226<sup>th</sup> OCC Decision

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

Bihar																														
Jharkhand																														
DVC																														
Odisha																														
West Bengal																														
Sikkim																														
Date	30-04-25	29-04-25	28-04-25	27-04-25	26-04-25	25-04-25	24-04-25	23-04-25	22-04-25	21-04-25	20-04-25	19-04-25	18-04-25	17-04-25	16-04-25	15-04-25	14-04-25	13-04-25	12-04-25	11-04-25	10-04-25	09-04-25	08-04-25	07-04-25	06-04-25	05-04-25	04-04-25	03-04-25	02-04-25	01-04-25
				Statu	s of F	urnis	hing o	of Day	Ahea	d For	recas	t data	by El	R Stat	es as o	on 15.	05.25					Rece	eived		Not	Recei	ved		Dela	yed

Bihar																														
Jharkhand																														
DVC																														
Odisha																														
West Bengal																														
Sikkim																														
Date	30-04-25	29-04-25	28-04-25	27-04-25	26-04-25	25-04-25	24-04-25	23-04-25	22-04-25	21-04-25	20-04-25	19-04-25	18-04-25	17-04-25	16-04-25	15-04-25	14-04-25	13-04-25	12-04-25	11-04-25	10-04-25	09-04-25	08-04-25	07-04-25	06-04-25	05-04-25	04-04-25	03-04-25	02-04-25	01-04-25
		•	Statu	s of F	urnis	hing o	of Day	Aheo	id Re	source	e Ade	quacy	data	by EF	R State	es as o	on 15.	05.25				Rece	eived		Not	Recei	ved		Dela	yed

			Stati	us of 1	Furnis	shing	of Int	ra Da	v Res	ource	Adeq	uacy	data l	by ER	State	s as o	n 15.0	95.25				Rece	eived		Not	Recei	ved		Dela	ve
Date	30-04-25	29-04-25	28-04-25	27-04-25	26-04-25	25-04-25	24-04-25	23-04-25	22-04-25	21-04-25	20-04-25	19-04-25	18-04-25	17-04-25	16-04-25	15-04-25	14-04-25	13-04-25	12-04-25	11-04-25	10-04-25	09-04-25	08-04-25	07-04-25	06-04-25	05-04-25	04-04-25	03-04-25	02-04-25	01-04-20
Sikkim																														
West Bengal																														
Odisha																														
DVC																														
Jharkhand																														
Bihar																														
				Stati	is of 1	<i>Furnis</i>	hing	of Inti	ra Da	y Fore	ecast	data l	by ER	State	s as o	n 15.	05.25					Rece	eived		Not	Recei	ved		Dela	ye
Date	30-04-25	29-04-25	28-04-25	27-04-25	26-04-25	25-04-25	24-04-25	23-04-25	22-04-25	21-04-25	20-04-25	19-04-25	18-04-25	17-04-25	16-04-25	15-04-25	14-04-25	13-04-25	12-04-25	11-04-25	10-04-25	09-04-25	08-04-25	07-04-25	06-04-25	05-04-25	04-04-25	03-04-25	02-04-25	01 01 00
Sikkim																														
West Bengal																														
Odisha																														
DVC																														
Jharkhand																														
Bihar																														

	Status of Fu	urnishing of V	Veek Ahead F	orecast data l	y ER States	Status of Fu	rnishing of W	eek Ahead R ER States	esource Adeg	uacy data by
Bihar										
harkhand										
ovc										
disha										
Vest Bengal										
ikkim										
Date	28-04-25 to 04-05-25	21-04-25 to 27-04-25	14-04-25 to 20-04-25	07-04-25 to 13-04-25	31-03-25 to 06-04-25	28-04-25 to 04-05-25	21-04-25 to 27-04-25	14-04-25 to 20-04-25	07-04-25 to 13-04-25	31-03-25 to 06-04-25
	Status of L	urnishing of	Received	d Forecast d	ata hy FR St	Not Received	f Furnishing	Delayed F		ce Adequacy
Bihar	Status of F	furnishing of	Received	ud Forecast d	ata by ER Sta	Status a	f Furnishing		head Resour	ce Adequacy
	Status of F	Furnishing of		ad Forecast d	ata by ER Sta	Status a	f Furnishing	of Month A	head Resour	ce Adequacy
Bihar Jharkhand DVC	Status of F	urnishing of		ad Forecast d	ata by ER Sta	Status a	f Furnishing	of Month A	head Resour	ce Adequacy
Iharkhand	Status of F	urnishing of		ud Forecast d	ata by ER Sta	Status a	f Furnishing	of Month A	head Resour	ce Adequacy
Iharkhand DVC	Status of F	Turnishing of		ud Forecast d	ata by ER Sta	Status a	f Furnishing	of Month A	head Resour	ce Adequacy
Iharkhand DVC Odisha	Status of F	furnishing of		ud Forecast d	ata by ER Sta	Status a	f Furnishing	of Month A	head Resour	ce Adequacy
Iharkhand DVC Odisha West Bengal	Status of F					Status a		of Month A	head Resour	

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

#### 3.4. Mock Black Start: ERLDC

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

(a) Black start capability of the generator;

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

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

Sl.	Name of Hydro	2024-25 Actual Date	Tentative date date for blackstart
No.	Station	of Test	exercise for FY 2025-26
1	U. Kolab		Yet to be informed
2	Balimela	15 <sup>th</sup> January 2025	
3	Rengali		Yet to be informed
4	Burla	December-24	
5	U. Indravati	Sep-24	
6	Maithon	December-24	
7	TLDP-III		Yet to be informed
8	TLDP-IV	December-24	
9	Subarnarekha	3 <sup>rd</sup> December 2024	
10	Teesta-V	N/A	N/A
11	Chuzachen		Yet to be informed
12	Teesta-III	N/A	N/A
13	Jorethang		25th February 2025
14	Tashiding		29-31 March 2025
15	Dikchu	N/A	Yet to be informed

Page | 23

16	Rongnichu	Yet to be informed
10	Rongmond	i et to be informed

#### 226<sup>th</sup> OCC decision:

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

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

Members may note.

#### 4. PART-D: OPERATIONAL PLANNING

#### 4.1. Anticipated power supply position during June-2025

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of June-2025 is prepared by ERPC Secretariat (**Annexure D.1**) on the basis of LGBR for 2025-26 and feedback of constituents, keeping in view that the units are available for generation and expected load growth etc.

#### Members may update.

## 4.2. Major Thermal Generating Units/Transmission Element outages/shutdown in ER Grid (as on as on 15-05-2025)

#### a) <u>Thermal Generating Stations outage report:</u>

SL No	STATION	STATE	AGENCY	UNIT NO	CAP ACIT Y (MW )	REASON(S)	OUTAGE DATE
1	TENUGHAT	JHARKHAN D	TVNL	2	210	Due to high vibration in Turbine	13-Apr-2025
2	BOKARO-A'	DVC	DVC	1	500	Annual Overhauling	25-Mar-2025
3	BARH	BIHAR	NTPC	2	660	Boiler tube Leakage	12-May-2025
4	BARH	BIHAR	NTPC	1	660	Due to abnormal sound in the boiler	10-May-2025
5	TENUGHAT	JHARKHAN D	TVNL	1	210	Boiler tube Leakage	13-May-2025
6	RTPS	DVC	DVC	2	600	Boiler tube Leakage	10-May-2025
7	DPL	WEST BENGAL	DPL	8	250	Unit 8 station transformer flashing and fire event	07-May-2025
8	HEL HIRANMAY EE	WEST BENGAL	HEL	1	150	Turbine vibration high and rotor earth fault	26-Apr-2025

All Generating stations are requested to update expected restoration time and reason outage to ERLDC/ERPC on weekly basis in case of any change at their end. b) <u>Major Generating stations Out on Reserve Shutdown due to low system</u>

Page | 25

SL				UNIT	CAPACITY		OUTAGE	
No	STATION	STATE	AGENCY	NO	(MW)	REASON(S)	DATE	
	NIL							
	c) <u>Hydro L</u>	Jnit Outag	e Report:					
S.	STATION	STATE	AGENCY	UNIT	CAPACITY	REASON(S)	OUTAGE	
NO	UTATION	UTALE	AGENOT	NO	(MW)		DATE	
1	TEESTA STG III Hep	SIKKIM	TUL	1 to 6	1200	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 HPS	SIKKIM	NHPC	1 to 3	510	Sudden cloudburst at glacier fed LOHNAK Lake followed by huge inrush of water in Teesta River and damage of Teesta III Dam & downstream Powerhouses	04-Oct- 2023	
3	JORETHANG	SIKKIM	DANS	1	48	Annual Maintenance	11-Mar- 2025	
4	BALIMELA HPS	ODISHA	OHPC	5	60	Repair and maintenance work	16-Jan- 2025	
5	BALIMELA HPS	ODISHA	OHPC	6	60	Initially unit was out due to Severe water leakage from turbine, later unit was taken under Repair and maintenance workfrom 00:00 hrs of 16.01.25	06-Jan- 2025	
6	CHIPLIMA HPS / HIRAKUD II	ODISHA	OHPC	1	24	Capital Overhauling	15-Dec- 2023	
7	RANGIT HPS	SIKKIM	NHPC	1	20	Annual Maintenance	15-Apr- 2025	
8	U.KOLAB	ODISHA	OHPC	2	80	Tripped on Stator Earth fault	18-Apr- 2025	

Page | 26

d)Long outage report of transmission lines (As on 15.05.2025):						
Transmission Element / ICT	Outage From	Reasons for Outage				
220/132KV 100 MVA ICT II AT LALMATIA	22.01.2019	220/132KV, 100MVA Transformer (NTPC side) is charged on 07.02.2024 from HV side on no load. Now, it is in idle charged condition				
220KV-FSTPP-LALMATIA-I	21.04.2021	Two nos. of tower collapsed on 29.05.2024 near to Lalmatia GSS in the Loc. No. 246 & 247. Presently 220 kV Farakka-Lalmatia line is charged (from loc no 241 to loc 84) at 132 kV voltage level for anti-theft purpose by tapping at loc. No. 100- 101.				
220KV-WARIA-BIDHANNAGAR-1 & 2	08.06.2022	To control overloading of 220 kV Waria-DSTPS (Andal) D/C line				
132KV-BARHI-RAJGIR-1	25.03.2023	Dismantling of tower no. 227, 228, and 229 crossing the premises of Mahabodhi Cultural centre				
132KV-NALANDA-BARHI(DVC)-1	25.03.2023	along with Destringing of conductor of both circuits and Earth wire between tension tower no. 218-237 in same line.				
400KV-RANGPO-TEESTA-V-1 & 2	04.10.2023	Tower near gantry of Teesta V powerhouse collapsed due to sudden cloudburst at glacier fed LOHNAK Lake followed by huge inrush of water in TEESTA river and damage of Teesta III Dam & downstream Powerhouses				
400KV-TEESTA-III-RANGPO-1	04.10.2023	Hand tripped from Teesta-III end due to sudden cloudburst at glacier fed LOHNAK Lake followed				
400KV-TEESTA-III-DIKCHU-1	04.10.2023	by huge inrush of water in TEESTA river and damage of Teesta III Dam & downstream Powerhouses				
132KV-RANGPO-SAMARDONG-1	22-05-2024	Rangpo: Y-N fault with fault distance 0.157 kM 14.562kA Samardong: NA				
220KV-RAJARHAT-NEW TOWN(AA-II)-2	10-07-2024	Initially line out due to rectification of gas leakage problem from B-Ph breaker pole. Line declared under breakdown after charging attempt after return of shutdown. After that fault found in b-phase cable.				
400KV/220KV 315 MVA ICT 1 AT NORTH KARANPURA	12-09-2024	Tripped on Differential protection				
132KV-MADHEPURA (BH)- SAHARSA(PMTL)-1	23.09.2024	To control loading on 132kV Madhepura-Saharsa line				
132KV-MELLI-SILIGURI-1	05-10-2024	S/d for inspection of tower of Loc.127 found twisted due to heavy landslide & heavy continuous rainfall in Soom Tea Garden under Darjeeling section. Line charged as 132 KV Siliguri-Melli II (Interim arrangement) at 19:20 hrs on 09-10-2024. This interim arrangement is obtained by horizontal				
Page   27		a for 227 <sup>th</sup> OCC meeting 26 05 2025				

#### d)Long outage report of transmission lines (As on 15.05.2025):

Page | 27

		immening at Lag 120 often discompating main
		jumpering at Loc-129 after disconnecting main jumper for both Rangit & Melli side.
132KV-RANGIT-KURSEONG-1	05-10-2024	S/d for inspection of tower of Loc.127 found twisted due to heavy landslide & heavy continuous rainfall in Soom Tea Garden under Darjeeling section. Line charged as 132 KV Siliguri-Melli II (Interim arrangement) at 19:20 hrs on 09-10-2024. This interim arrangement is obtained by horizontal jumpering at Loc-129 after disconnecting main jumper for both Rangit & Melli side.
400KV/220KV 315 MVA ICT 1 AT TSTPP	01-11-2024	Tripped on PRD protection
132KV-PATRATU-PATRATU-1 & 2	16-11-2024	Diversion/Heightening of line due to inadequate clearance from under construction railway Line by PVUNL
132KV-CHUZACHEN-RANGPO-1	29-11-2024	Rangpo : B-N ,Z-1, 7.8 KA, 5.61 KM
400KV-ALIPURDUAR (PG)- PUNASANGCHUN-JIGMELING-2	02-12-2024	SD Availed by Bhutan for rectify/Replace the LA for 400kV Jigmeling _Puna_ALI-1.
400KV-KHSTPP-BARH-2	07-12-2024	Uprating of bay & line equipments
400KV-ALIPURDUAR (PG)- PUNASANGCHUN-JIGMELING-1	10-12-2024	Jumper connection and interconnection removal at Kamichu
400KV/220KV 315 MVA ICT 2 AT MEJIA-B	20-01-2025	Tripped during charging of ICT#1 bay with cable from 220 kv GIS side
132KV-CHUZACHEN-RANGPO-1	04-02-2025	Maintenance Activities
220KV-DALKHOLA (PG)-GAZOLE- 1&2	06-02-2025	To reduce loading of malda gazole after dalkhola pg bus return
400KV-NEW PURNEA- KISHANGANJ-1 & 2	18-02-2025	Facilitating Erection of New Tower on Pile foundation
220KV-KISHANGANJ(PG)- DALKHOLA (PG)-2	22-02-2025	Bus Isolator & Bus Conductor Replacement
400KV-MEDINIPUR-KHARAGPUR-1 &2	02-04-2025	Line tripping
132KV TRANSFER BUS COUPLER BAY AT GANGTOK	20-03-2025	For conversion of existing TBC bay into upcoming ICT-3 feeder Bay.
400KV/220KV 315 MVA ICT 1 AT LATEHAR(JUSNL)	22-04-2025	REF protection operated
132KV-BIRPARA(PG)- BIRPARA(WB)-1	01-04-2025	FOR INTEGRATION OF 132KV CRP PANELS IN NEW SAS
400KV/220KV 315 MVA ICT 2 AT LATEHAR(JUSNL)	16-04-2025	Transformer REF protection operated
		to undate expected restoration date & work

Transmission licensees/ Utilities are requested to update expected restoration date & work progress regarding restoration regularly to ERLDC/ERPC on monthly basis by 5<sup>th</sup> of each month so that status of restoration can be reviewed in OCC. Utilities are also requested to

Page | 28

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).

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

	उत्पादन इकाइयाँ / GENERATING UNITS						
SI N o.	स्थान Location / Pooling Station	NEW ELEMENTS COMMISSIONED DURING February, 2025	यूनिट संख्या /स्रोत Unit No/S ource	संकलित क्षमता (मेगावा ट) Capacit y added (MW)	कुल/स्था पित क्षमता (मेगावाट) Total/Ins talled Capacity (MW)	दिनांक DATE	टिप्पणी Remarks क्र
			<u> </u>	NI	L I		1
आई	.सी.टी/जी.टी	/एस.टी / ICTs/ GTs / STs					
क्र SI N o.	एजेंसी/मा लिक Agency/ Owner	उप-केन्द्र SUB-STATION	आई सीटी संख्या ICT NO	वोल्टेज (केवी) Voltag e Level (kV)	क्षमता (एमवीए) CAPACITY (MVA)	दिनांक DATE	टिप्पणी Remarks
			1	NI	L	•	
			प्रेषण लाः	इन / TRAN	SMISSION L	NES	
क्र SI N o.	एजेंसी/मा लिक Agency/ Owner	लाइन का नाम LINE NAME	लंबाई (किमी) Length (KM)	कंडक्टर प्रकार Conduct or Type	दिनांक DATE	टिप्पणी Remarks	
NIL							
लिलो / प्रेषण लाइन की पुनर्व्यवस्था / LILO/RE-ARRANGEMENT OF TRANSMISSION LINES							
क SI	एजेंसी/मा लिक Agency/ Owner	लाइन का नाम / लिलो पर Line Name/LILO at		लंबाई (किमी) Length (KM)	कंडक्टर प्रकार Conduct or Type	दिनांक DATE	टिप्पणी Remarks
Pa	age   29	L		Agen	da for 22	7 <sup>th</sup> OCC me	eting_26.05.2025

N o.						
			NI	L		
		बस/लाइन	रिएक्टर / В	US/LINE RE	ACTOR	
क्र SI N o.	एजेंसी/मा लिक Agency/ Owner	एलेमेंट का नाम Element Name	उप- केन्द्र SUB- STATIO N	वोल्टेज (केवी) Voltage Level (kV)	दिनांक DATE	टिप्पणी Remarks
1	PGCIL ER-II	63MVAR NON-SWITCHABLE L/R OF 400KV-MAITHON- KHSTPP-1 AT MAITHON	MAITH ON	400	12.04.2025	The existing 50 MVAr line reactor with Neutral Grounding Resistor (NGR) on this line was replaced with a 63 MVAr line reactor, also equipped with an NGR, at Maithon.
			बस /	BUS		
क SI N	एजेंसी/मा लिक Agency/ Owner	एलेमेंट का नाम Element Name	उप- केन्द्र SUB- STATIO	वोल्टेज (केवी) Voltage Level	दिनांक DATE	टिप्पणी Remarks
o.			N	(kV)		
1	NTPC Kahalgao n	400KV TIE BAY OF (FSTPP-1 AND BARH-2) AT KHSTPP	NTPC Kahalga on	400	05.04.2025	NTPC has upgraded the bay (3252) equipment(s) at the Kahalgaon switchyard to match the capacity of the Kahalgaon-Patna 400kV (Quad) D/C line, increasing the rating of Circuit Breaker from 2000A to 3150A.
	एच.वी.डी.सी/ए.सी फिल्टर बैंक/फैक्ट्स डिवाइस संबद्ध प्रणाली / HVDC /AC Filter bank / FACTS DEVICE associated System					
क्र SI N o.	एजेंसी/मा लिक Agency/ Owner	एलेमेंट का नाम Element Name	उप- केन्द्र SUB- STATIO N	वोल्टेज (केवी) Voltage Level (kV)	दिनांक DATE	टिप्पणी Remarks

Page | 30

	NIL					
	बे / BAYS					
B≎ · SI · N o.	एजेंसी/मा लिक Agency/ Owner	एलेमेंट का नाम Element Name	उप- केन्द्र SUB- STATIO N	वोल्टेज (केवी) Voltage Level (kV)	दिनांक DATE	टिप्पणी Remarks
	NIL					

#### Members may note.

#### 4.4. UFR operation during the month of April 2025

Frequency profile for the month as follows:

	MAX	MIN	% LESS	% WITHIN	% MORE	
MONTH	(DATE/TIME)	(DATE/TIME)	IEGC BAND	IEGC BAND	IEGC BAND	
April, 2025	50.49 Hz on 06- 04-2025 at 13:03 Hrs	49.42 Hz on 21-04- 2025 at 19:04 Hrs	5.33	75.50	19.17	

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

Members may note.

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Page | 31

#### Annex B.2.1.1

An online meeting was convened between ERLDC, WB SLDC and ERPC on 20.05.2025 to the findings of the assessment carried out by ERLDC.

Representative from various CGPs, SLDCs of Odisha, DVC, West Bengal and ERPC attended the said meeting. In the meeting, ERLDC briefly presented the purpose of Islanding schemes and regulatory mandate.

In the meeting, representative of all the islanding scheme expressed that mock testing in live system may not be possible as it poses risk of load loss in the system, instead mentioned that RLDC may carry out simulation studies. There have been instances where certain islands have survived successfully after being subjected to disturbances. These cases may be considered as automatically complied against IEGC CI. 29.11 and no separate simulation studies needed.

Hence, ERLDC requested SLDCs to share the following:

- 1. Brief presentation of the islanding scheme
- 2. Underlying logic of islanding scheme
- 3. Required data for carrying out simulation studies in the format to be shared by ERLDC.
- 4. Number of islanding operation in 2024-25 along with report of the event.

Post-submission of data by the West Bengal and DVC, ERLDC conducted simulation studies for these islanding schemes.

A preliminary assessment report of each of the islanding schemes was shared with the users on 31<sup>st</sup> March 2025.

Station/ System	State	ERLDC findings based on Simulation	Submission By SLDC
CESC	West Bengal	No simulation carried out as all the six-islanding events were successful during 2024-25 which shows effectiveness of the islanding scheme.	_
Bakreswar Islanding Scheme	West Bengal	<ol> <li>Implementation of graded over-frequency tripping for units.</li> <li>Increasing all frequency settings related to island formation.</li> <li>Disabling 2<sup>nd</sup> stage of UFLS inside the island as during minimum generation maximum load scenario, keeping 2<sup>nd</sup> stage load shedding</li> </ol>	<ol> <li>SLDC mentioned that presently to handle high surplus scenario manual tripping of unit is already there in their SOP. Therefore, ensuring similar operation by automatic graded O/F setting could be implemented. The same will be taken up with WBPDCL.</li> <li>WB SLDC mentioned that changing the complete frequency settings of the islanding scheme needs approval from higher management of all the utilities. Therefore, the same will be discussed during next review meeting.</li> </ol>

		at Bolpur and Sainthiya is leading to excess load trip increasing possibility of machine trip on over frequency	<ol> <li>SLDC also mentioned that stability during generation surplus scenarios would be better in field as compared to simulation as HP-LP bypass system can reduce turbine input very fast.</li> </ol>
Tata Power Haldia Islanding Scheme	West Bengal	<ol> <li>Implementation of graded over-frequency tripping for units.</li> <li>Increasing all frequency settings related to island formation.</li> <li>Introduction of load in the islanding scheme to increase the minimum load.</li> </ol>	<ol> <li>SLDC mentioned that presently to handle high surplus scenario manual tripping of unit is already there in their SOP. Therefore, ensuring similar operation by automatic graded O/F setting could be implemented. The same will be taken up with WBPDCL.</li> <li>WB SLDC mentioned that changing the complete frequency settings of the islanding scheme needs approval from higher management of all the utilities. Therefore, the same will be discussed during next review meeting.</li> </ol>
Bandel Islanding Scheme	West Bengal	<ol> <li>Increasing all frequency settings related to island formation.</li> <li>Introduction of load in the islanding scheme to increase the minimum load.</li> </ol>	<ol> <li>SLDC mentioned that presently to handle high surplus scenario manual tripping of unit is already there in their SOP. Therefore, ensuring similar operation by automatic graded O/F setting could be implemented. The same will be taken up with WBPDCL.</li> <li>WB SLDC mentioned that changing the complete frequency settings of the islanding scheme needs approval from higher management of all the utilities. Therefore, the same will be discussed during next review meeting.</li> </ol>
CTPS	DVC	No requirement of modifications was suggested.	Despite small changes in the 220kV network of DVC system, no requirement of changes was found out. Both SLDC and ERLDC simulations was matching.
र्रदीप कुमार सिऱ्हा सचिव भारत सरकार

PRADEEP K. SINHA Secretary Government of India



Ministry of Power Shram Shakti Bhawan New Delhi - 110001 विद्युत मंत्रालय श्रम शक्ति भवन नई दिल्ली–110001

Tele : 23710271/23711316 Fax : 23721487 E-mail : secy-power@nic.in

D.O. No.20/6/2014-OM

Dear Shri Negi,

05.12.2014

As you are aware, India has one of the largest A.C. Synchronous Transmission Grids in the world with more than 3 lakhs circuit kms of 220kV and above lines which form the backbone of the Indian Power System.

2. However, this huge network needs to be operated in a sustained and secure manner, particularly, during the time of natural disasters. Failure to do so leads to severe constraints not only in meeting the power demand but also poses serious problems in maintaining safety and security of the Grid. Difficult situations came to light in the wake of recent natural disasters, such as, floods in J&K and Phailin as well as Hud-Hud cyclone in Odisha and Andhra Pradesh. These disasters caused extensive damage to transmission networks resulting in wide spread disruption of many important transmission links and substations affecting power supply for long periods due to the time taken in restoration.

3. You would appreciate that under such adverse situations, the availability of an effective mechanism for emergent restoration of transmission lines in the shortest possible time is of utmost importance. Immediate and temporary restoration of transmission networks is possible by deploying the "Emergency Restoration Systems (ERS)." Grid Standards notified by the Central Electricity Authority(CEA) stipulate that every Transmission Licensee shall have an arrangement for restoration of transmission lines of at least 220kV and above through the use of ERS. However, presently the States do not possess such ERS infrastructure. Consequently, POWERGRID becomes the last resort whose ERS infrastructure is also limited.

4. Therefore, deployment of adequate ERS infrastructure with the States is necessary. In this connection, CEA had recently convened a meeting of the representatives from State Utilities, CTUs and RPCs to deliberate and review their preparedness to effectively restore transmission networks in times of emergency. Based on the inputs received, an indicative requirement of ERS for States has been assessed which is at Annex-I. Further, CEA has also formulated guidelines for planning, deployment and procurement of such ERS infrastructure (Annex-II).

5. I would, therefore, request you to please issue necessary directives to Transmission Utilities/ Transmission licensees operating in your State to take stock, procure appropriate number of ERS infrastructure and place them at strategic locations. Action taken by the Utilities in this regard may be informed to the CEA and the Ministry of Power, at the earliest.

0 1.

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With regards,

Yours sincerely,

(Pradeep K. Sinha

Encl: as above

Shri Ramesh Negi Chief Secretary Govt of Arunachal Pradesh Itanagar

Dist: - As per list attached.



स्वच्छता को ओ

## Availability and Proposed Plan for deployment of ERS

SI. No.	Region	State Utilities / PGCIL	Availabi lity of ERS sets	Additional # ERS set to be procured	
I	Northern Region				
	PGCIL	NR1	. 3		
		NR2	- 1	•	×
	1	Haryana	-	- 1	541
4	2	HP ·		- 1	Hilly terrain
	3	J&K	- 	1	-do-
	4	Punjab	-	2 .	
	5	Rajsthan	-	3	
	6	Uttar Pradesh	24) <del>-</del> 1	3	
	7	Uttarakhand	· -	1	
	8.	Chandigarh		-	
	9	Delhi	-	1	DTL is procuring 2 ERS sets
5.e.				8 8 2	
	5		ke Le		
į.					
	10	POWERLINKS	2	400 10 10 10	1 set each is located in NR and ER; each setting <sup>C</sup> having 14 towers of 400 kV
	Total		6	14	
u	Western Region	đ	<b>N</b> )		
	PGCIL	WR1	2	1	
	÷.	WR2	2		
	10	Gujarat		3	

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ŕΤ	11 -	MP	1	2, -	· .
i	12	Chhattisgarh	-		99 221
	13	Maharashtra	. 2	2	· .
	14	Goa	-	1 1	e .
;	15	D&NH	-		
-	16	Daman& Diu		-	
	Total		7	9	
m	Southern Region			2.	
	PGCIL	SR1	• 1	2 ·	
		SR2	1		
	17	AP		3	(To be located at
		· · ·			Vishakahapatnam, Vijawada, Nellore)
		Telengana		1	
	18	Karnataka		2 ·	
	19	1		1	<u> </u>
	20	Kerala	-	2	
	21	Tamil Nadu		-	
	22	Lakshadweep	-		
1	23	Puducherry			
	Total		2	ш.,	<u>.</u>
IV	Eastern Region	PGCIL	<u> </u>		5 1
	PGCIL	ER1	1.	-	
		ER2	2		
	24.	Bihar	- 2	2	
	25	Jharkhand		1	
	26	Orissa	.3	2(compris ing of 12	Existing ERS located at Bhubaneswar,
-				nos. of	Chatrapur and Budhipada (each
				400kV towers	with 14 ERS towers)
4				which is in the	×
	2 ×			process of	
			·	procurem ent).	
		West Description		-2	
•	27	West Bengal			
	28 .	DVC		 	].
		20 8		17	

	29	A&N Island	-	-	1	
<b>/</b>	-30	Sikkim	1943 - El 14			
-	Total		8 .	8 -		
<b>v</b> ·	North Eastern Region					
	PGCIL	NER	1			
	31	Assam	4			
-	32	Manipur		2		3 9
	33	Meghalaya	·			
+	3.4 -	Nagaland			+ D	<u></u>
920	35	Tripura	la si		1	
<u>.</u>	36	Ar. Pradesh	-			•
	37	Mizoram .				
2	Total		5	• 2		
	Total All India		28	44		E.

Note: POWERGRID has informed that they are procuring 6 additional sets of ERS for different regions.

Strategy adopted

The primary criterion for deciding number of ERS to be arranged by a transmission utility has to be the length of transmission line (ckt-kms) at different voltage levels (e.g 220 kV, 400 kV, 765 kV and +/- 500kV HVDC). Other factors to be taken into account while deciding the number of ERS are

Importance of the line considering security of Grid

Areas prone to tower failure and failure pattern in different areas

Command area of the transmission utility and transportability across the command area

2.

1.

For any transmission utility, one set of ERS has been planned to cater to failure of towers for transmission line lengths of up to 5000 Ckt. Kms. Accordingly, two (2) sets of ERS have been planned for transmission line lengths of about 5000 to 10,000 Ckt. Kms. and three (3) sets for more than 10,000 Ckt. Kms and so on.

The transmission Utility with line length less than 500 ckt kms (of 400kV lines) may be given option either to procure ERS or have agreement with other transmission utilities for providing ERS on mutually agreed terms, when need arises.

### GUIDELINES FOR PLANNING, PROCUREMENT AND DEPLOYMENT OF EMERGENCY RESTORATION SYSTEM (ERS)

- One set of ERS should include all accessories [structures (Aluminum Alloy), polymer insulators & hardware, anchor assembly, guy wires, foundation plates, guy plate, other equipment & fittings, special Tools & Plants required for erection & stringing of ERS and trailer mounted detachable containers (without engine) for storage & transportation of ERS hardware / material etc.] and associated software.
- 2. One set of ERS shall be capable of restoring few numbers of suspension towers and tension towers of the transmission line corresponding to the highest transmission voltage in operation in the utility with required type of conductors. The same ERS can be used for lower voltage lines as well. The number of suspension, tension towers, insulators and associated hardware etc., to be included under one set of ERS, may be decided by the utilities at the time of procurement depending on their requirement.
- 3. Proper management of ERS and training of personnel for erection of towers on ERS and use of associated software is essential. A dedicated and specialized erection & commissioning gang, which is properly trained to execute such work, would be required.
- 4. ERS should be utilized only for emergency purposes and the line should be restored on normal towers as early as possible. It should not be a practice to run transmission line on ERS for a long time instead of shifting to normal towers. Moreover, ERS should not be used in new lines under construction. Otherwise, the very purpose of ERS will be defeated.
- 5. The deployment of ERS by any transmission utility / licensee should be reported to concerned RLDC and RPC.
- 6. The transmission utilities may approach Appropriate Commission for approval and initiate procurement process on urgent basis to comply with Grid Standards. Utilities may also approach State Disaster Management Authorities for funding.
- 7. The funding for procurement of ERS could be considered from PSDF for North Eastern States and a proposal be submitted by Member Secretary, NERPC.

### Annex

List of Chief Secretaries of State and UTs

S. No. 1.	State Andhra Pradesh	Name and Address Shri I.Y.R. Krishna Rao Chief Secretary Government of Andhra Pradesh, Secretariat, Hyderabad-500022	Telephone/ Fax/Email Tel: 040-23453620 040-23455340 Fax: 040-040-23453700, 23451133, 23451144
2.	Arunachal Pradesh	Shri Ramesh Negi Chief Secretary & Principal Secretary (Relief & Rehabilitation & Disaster Management) Arunachal Pradesh Civil Secretariat, Government of Arunachal Pradesh, Itanagar- 791 111	Tel: 0360-2212595 Fax: 0360-2212446, 2215719 M: 9436040035
3.	Assam	Shri Jitesh Khosla Chief Secretary Government of Assam, Assam Sachivalaya, Block C, 3rd Floor, Dispur, Guwahati-781006	Tel: 0361-2261120, 2261403 Fax:-0361-2260900
4.	Bihar	Shri Anjani Kumar Singh Chief Secretary Government of Bihar Old Secretariat, Patna-800015	Tel: 0612-2215804 Fax: 0612-2217085
5.	Chattisgarh	Sh. Vivek Kumar Dhand Chief Secretary Government of Chattisgarh, DKS Bhawan, Mantralaya, Raipur-492001	Tel: 0771-2221207/8 Fax: 0771-2221206
6.	Goa	Shri R.K. Srivastava Chief Secretary Govt. of Goa Secretariat Porvorim	Tel: 0832-2419402 Fax: 0832-2415201
7.	Gujarat	Shri D.J. Pandian Chief Secretary Government of Gujarat New Sachivalaya Gandhingar-382010	Tel: 079-23220372, 079-23250301-3 Fax: 079-23250305
8.	Haryana	Shri. P.K. Gupta Chief Secretary Government of Haryana, Room No4, 4 <sup>th</sup> floor, Harayana, Civil Secretariat, Sector-1, Chandigarh-160009	Tel: 0172-2740118 Fax: 0172-2740317
9.	Himachal Pradesh	Shri P. Mitra Chief Secretary Government of Himachal Pradesh Secretariat, Shimla- 171002	Tel: 0177-2621022 Fax: 0177-2621813

10.	Jammu & Kashmir	Sh. Mohammad Iqbal Khandey Chief Secretary Government of J &K Jammu Secretariat, Jammu	Tel: 0191-2546773, 2544338 (Jammu) Fax: 0191-2546188
11.	Jharkhand	Shri Sajal Chakrabarty Chief Secretary Government of Jharkhand Secretariat, Ranchi-834004	Tel: 0651-2400240, 2400250 Fax: 0651-2400255
12.	Karnataka	Shri Kaushik Mukherjee Chief Secretary Government of Karnataka 3rd Floor, R. No. 320, Vidhan Sauda, Secretariat, Bangalore-560001	Tel: 080-22252442, 22092476 Fax: 080-22258913
13.	Kerala	Ms E K Bharat Bhushan Chief Secretary Government of Kerala Secretariat, Thiruvananthapuram-695001	Tel: 0471-2333147, 2327376 Fax: 0471-2327176
14.	Madhya Pradesh	Shri Anthony J C Desa Chief Secretary Government of Madhya Pradesh Mantralaya, Vallabh Bhawan, Bhopal-462004	Tel: 0755-2441370, 2441848 Fax: 0755-2441521
15.	Maharashtra dscsoffice @gmail.com	Shri Swadheen S Kshatriya Chief Secretary Government of Maharashtra Mantralaya, Mumbai-400032	Tel: 022-22852626 22025042,22028762 22793762 Fax: 022-22028594
16.	Manipur	Shri P.C. Lawmkunga Chief Secretary Government of Manipur Manipur Secretariat, Imphal-790001	Tel: 0385-2451144, 2450064 Fax: 0385-2452629
17.	Meghalaya	Shri P B O Warjri Chief Secretary Government of Meghalaya, Meghalaya Civil Secretariat Shillong-793001 Email: barkos.warjri@nic.in	Tel: (O)0364-2224801, 222250, Mob:-977403392 (R)-0364-2534629 Fax: 0364-2225978
18.	Mizoram	Shri Lalmalsawma Chief Secretary Government of Mizoram, Block C, Civil Secretariat, Aizwal- 796001	Tel: 0389-2322411 Fax: 0389-2322745
19.	Nagaland	Shri M.T. Aier Chief Secretary Government of Nagaland Nagaland Civil Secretariat, Kohima-790001	Tel: 0370-2270082, 2270076 Fax: 0370-2270057
20.	Orissa	Shri Gokul Chandra Pati Chief Secretary Government of Orissa Secretariat, Bhubaneshwar- 751001	Tel: 0674-2534300, 2536700 Fax: 0674-2536660
21.	Punjab	Shri Sarvesh Kaushal Chief Secretary Government of Punjab Punjab Secretariat, Chandigarh-160017	Tel: 0172-2740156, 2740860 Fax: 0172-2742488, 2740936

22.	Rajasthan	Shri C.S. Rajan Chief Secretary Government of Rajasthan Secretariat, Jaipur-302001	Tel: 0141-2227254 Fax: 0141-2227114
23.	Sikkim	Smt. Rinchen Ongmu Chief Secretary Government of Sikkim Secretariat, Gangtok- 737101	Tel: 03592-202315, 204323 (fax) Fax: 03592-222851 03592-204323
24.	Tamil Nadu	Shri. K. Gnanadesikan Chief Secretary Government of Tamil Nadu Secretariat, Chennai-600009	Tel: 044-25671555 Fax: 044-25672304
25.	Tripura	Shri G. Kameswara Rao Chief Secretary Government of Tripura Civil Secretariat, Agaratala-799001	Tel: 0381-2323200, 2324392 Fax: 0381-2324013
26.	Uttar Pradesh	Shri Alok Ranjan Chief Secretary Government of Uttar Pradesh Secretariat, Lucknow-226001	Tel: 0522-2621599 0522-2238212 0522-2238212 Fax: 0522-2239283
27.	Uttarankhand	Shri N. Ravi Shanker Chief Secretary Government of Uttarakhand 4, Subhash Road, Secretariat, Dehradun-248001	Tel: 0135-2712094 0135-2712100, 2712200 Fax: 0135-2712113 0135-2712500
28.	West Bengal	Shri Sanjay Mitra Government of West Bengal Secretariat, Writers Building Kolkata-700001	Tel: 033-22145858 Fax: 033-22144328
29.	Andaman & Nicobar	Sh. Anand Prakash Chief Secretary Secretariat & Administration, Government of Andaman & Nicobar Islands, Port Blair	Tel: 03192-233110, 234087 Fax: 03192-231100, 03192-232656
30.	Chandigarh	Shri K.K. Sharma Advisor to Administrator Union Territory of Chandigarh, Punjab Raj Bhawan, Sector – 6 Chandigarh-160017	Tef: 0172-2740154 Fax: 0172-2740317 0172-2740165
31.	Dadra & Nagar Havelli	Shri Ashish Kundra Administrator Government of Dadra & Nagar Havelli, Secretariat, Silvassa-396230	Tel: 0260-2230700 2642777 Fax: 0260- 2230775 0260-2642702
32.	Daman & Diu	Shri Ashish Kundra Administrator Secretariat Daman, Government of Daman & Diu, Daman & Diu	Tel: 0260-2230770, 2230700 Fax: 0260-2230775

33.	Delhi	Shri D.M. Spolia Chief Secretary Govt of NCT Delhi, Delhi Secretariat, I.P. Estate, New Delhi- 110002	Tel: 011-23392100 Fax: 011-23392102
34.	Lakshadweep	Shri H. Rajesh Prasad Administrator Union Territory of Lakshadweep, Kavaratti, Lakshadweep-682555	Tel: 04896-262255, 262279 Fax: 04896-262184
35.	Puducherry	Shri Chetan B Sanghi Chief Secretary Puducherry Administration, Chief Secretariat, 1 Beach Road, U.T. of Puducherry, Puducherry- 605001	Tel: 0413-2334145 0413-2335512 Fax: 0413-2337575

36.

Telangana

Dr. Royiv Sharma, Chief Secretary, Gorto of Telangana, Hyderabad.

Annexure B.2.1



Government of West Bengal Department of Power Bidyut Unnayan Bhavan, 5<sup>th</sup> floor 3/C, LA Block, Sector-III, Bidhannagar Kolkata – 700106

Minutes of the Meeting held on 06-05-2025 at Vidyut Bhavan, Bidhanagar, Kolkata-91 regarding transportation of 500MVA ICT for Subashgram & Rajarhat Sub-station of PGCIL: -

The Principal Secretary, Department of Power, Govt of W.B presided over the meeting.

The following officials were present at the meeting held on 06-05-2025: -

SI No.	Name of official S/Shri	Organization
1.	Sri Santanu Basu,IAS	Pr. Secretary
1.	on Santana Dasa, 145	Power Dept
2.	Sri AnishDasgupta,IAS	ADM, 24 Pgs(S)
3.	N.S Mondal	MS, ERPC
4.	Sajan George	CGM, ERLDC
5.	Bilash Achari	DGM ERLDC
6.	A.K Naik	CGM In Ch
		ER II PGCIL
7.	Partha Ghosh	PGCIL
8.	Vineet Sikka	MD(Dist),CESC
9.	Sanjoy Mukherjee	ED(Tech),CESC
10.	Sandip Pal	SVP(System
1		Operation) CESC
11.	Sabyasachi Roy	Director (Operation)
		WBSETCL
12.	Asit Kr. Maity	Director(Projects),
		WBSETCL
13	S.Mukherjee	Director(Distribution)
14.	Rana Chatterjee	I & W Dept
15.	Ashis Dutta	PWD
16.	Aditya Banka	Prism Logistics
17.	Sattik Samaddar	Prism Logistics
18.	Soumen Datta	PWD
19.	Rana Chatterjee	I & W Dept
20.	D Routary	PGCIL
21.	H.P. Biyani	Prism Logistics

The Power Secretary and CMD of WBSEDCL explained the context and requested PGCIL to arrange for transportation of 2(two) 500 MVA power transformers for Subashgram and Rajarhat sub-station of PGCIL as early as possible.

12/125.

The officials of ERPC, ERLDC, PGCIL, WBSEDCL, CESC and officials from Irrigation & Water ways Dept and PWD deliberated on the matter at length. After detailed discussion the following points were resolved:-

- 1. The 500 MVA transformer for Subashgram sub-station needs to be transported on priority basis.
- 2. It transpired that it would take time for commissioning of 500 MVA power transformer of Rajarhat sub-station as PGCIL yet to finalize the contracts for Substation work. Hence, if transportation of the same begins from factory premises at Hyderabad, it may be kept at any secured place within West Bengal, preferably at any sub-station of PGCIL at Medinipur/Howrah etc.
  - 3. As Rajarhat Transformer will take almost 01 month to reach Kolaghat from Hyderabad, continuing the cross bridge (Temporary bridge) at Charial till onset of monsoon will be difficult from Irrigation perspective. Accordingly, only Subhasgram Transformer may be prioritized as it can pass the subject bridge before 05.06.25 and temporary bridge can be immediately taken for dismantling as per prevailing procedure followed by Irrigation department/WB.
  - 4. It is confirmed by M/s. PGCIL that the 500 MVA transformer meant for Subashgram sub-station will be loaded on the carrier within 7 days and the carrier will start its journey from Maithon within 7 days.
  - 5. It is expected that the said transformer from Maithon will reach Kolaghat at around 25<sup>th</sup> of May, 2025 and will reach Budge Budge point through river transportation within 5<sup>th</sup> of June, 2025.
- 6. The construction of temporary bridge at Charial point will start from 28<sup>th</sup> May,2025 and the construction will be completed in all respect within 5<sup>th</sup> of June,2025.
  - 7. Necessary letter seeking permission for construction of temporary bridge at Charial point will be issued by the Irrigation and Water Waste Dept, Govt of WB to PGCIL very shortly with a copy to Power Dept, Govt of WB.
  - 8. Letter to PWD requesting carry out fitness test of the temporary constructed bridge at Charial point will also be issued by PGCIL with a copy to Power Dept.

The meeting ended with thanks to and from the chair.

(Santanu Basu) Principal Secretary, Deptt of Power, GoWB

### F.No. 23/12/2016- R&R (MoP) Government of India Ministry of Power

Shram Shakti Bhawan, Rafi Marg New Delhi, dated the 1<sup>st</sup> December, 2022

### ORDER

### Subject: Waiver of ISTS charges for transmission of power from Hydro Power Plants.

This is in continuation to this Ministry's Orders No. 23/12/2016-R&R dated 23.11.2021 and dated 30.11.2021 regarding Waiver of inter-state transmission charges on transmission of the electricity generated from solar and wind sources of energy.

2. Large Hydro Projects (>25 MW) have been declared as Renewable Energy sources vide MoP O.M. no 15/2/2016-H-I(Pt.) dated 08.03.2019. With a view to encourage faster capacity addition of hydro power projects, the following is notified in accordance with sub-rule 12 of rule 5 of the Electricity (Transmission System Planning, Development and Recovery of Inter-State Transmission Charges) Rules, 2021:

(i) No ISTS charges shall be levied for the transmission of power from Hydro Power Projects where construction work is awarded and PPA is signed till 30.06.2025.

(ii) ISTS charges shall be levied for transmission of power from Hydro Power Projects where construction work is awarded and PPA is signed after 30.06.2025 as per the following trajectory:

S. No.	Award of construction work + Signing of PPA	ISTS charges
1.	01.07.25 to 30.06.26	25% of applicable ISTS charges
2.	01.07.26 to 30.06.27	50% of applicable ISTS charges
3.	01.07.27 to 30.06.28	75% of applicable ISTS charges
4.	from 01.07.28	100% of applicable ISTS charges

(iii) The waiver/or concessional charges as shown in table above shall be applicable for a period of 18 years from the date of commissioning of the hydro power plants.

(iv) The waiver shall be allowed for Inter-state transmission charges only and not losses.

(v) The waiver would be made applicable from prospective date. No waiver would be provided to the capacity where PPAs have already been signed.

3. This issues with the approval of Competent Authority.

mel

(Debranjan Chattopadhyay) Deputy Secretary to the Govt. of India Tel. 23715250 То

Secretary, CERC, New Delhi.

Copy to:

- 1. Secretary, MNRE, New Delhi.
- 2. Chairperson, Central Electricity Authority, New Delhi.
- 3. Pr. Secy/Secy/ACS in charge, Power/ Energy Dept., State Governments/ UTs.
- 4. Secretary, State Electricity Regulatory Commissions/ Joint Electricity Regulatory Commissions.

Copy for information to:

- 1. PS to Minister for Power and NRE, APS to MoSP.
- 2. Joint Secretaries/ Chief Engineer/ Economic Adviser, Ministry of Power.
- 3. Sr. PPS to Secretary (Power), PPS to SS&FA (AU), Sr. PPS to AS (AT). PSO to CE (R&R)

Annexure B.2.7



ବଡ଼ିଶା ବିଦ୍ୟୁତ୍ ଶକ୍ତି ସ୍ଥଚାରଣ ନିଗମ ଲିଃ. ODISHA POWER TRANSMISSION CORPORATION LTD. (A Government of Odisha Undertaking) REGD. OFFICE: OPTCL TOWER, Janpath, Saheed Nagar, Bhubaneswar – 751007 CIN – U401020R2004SGC007553

No. CP-CTU-55/2022/

### 432

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/ Date: 15 105 2025

То

The Member Secretary, Eastern Regional Power Committee, 14, Gulf Club Road, Tollygunge Kolkata-700033

# Sub.: Relocating of existing 220/132kV Switchyard of TTPS for future capacity addition-reg

Ref.: TTPP/OPTCL/11/01 dtd 09.11.2024 of HoP(CGM), NTPC Ltd.

Sir,

Vide the letter under reference, NTPC has stated that they are going to set up an additional 600MW / 800MW unit at Talcher after the commissioning of TTPS Stage–III. They have expressed their intention to utilise the land currently occupied by the existing 220/132kV TTPS switchyard for their expansion project.

In this regard, OPTCL has conducted a system study for the phased shifting of transmission lines from the TTPS switchyard. A detailed study report, including the existing connectivity and proposed connectivity, has been attached for your ready reference. It is requested that the matter may be deliberated in the forthcoming OCC meeting.

With kind regards

Yours faithfully,

Director (Project), OPTCL

CC: i) Sr. P.S. to CMD, OPTCL for kind information of CMD, OPTCL.

ii) Director (Operation), OPTCL for kind information.

iii) ED, Central Zone, OPTCL for kind information.

### Annexure

Existing Connectivity	Proposed Connectivity	Remarks
220kV Rengali – Kaniha S/c Line	No change	-
220kV Rengali – Nalco S/c Line	Removal of temporary connectivity of NALCO	
220kV Nalco – TTPS S/c Line	Short Rengali – TTPS with TTPS –	
220kV TTPS – Meramundali ckt- 1	Meramundali ckt-1(Rengali–Meramundali line)	
220kV TTPS – Meramundali ckt- 2	Short Kaniha – TTPS with TTPS –	
220kV Kaniha - TTPS S/c Line	Meramundali ckt-2 (Rengali – Kaniha – Meramundali line)	
220kV Nalco - Meramundali D/c Line	No change	
220kV Kaniha – Meramundali ckt-2	No change	
220kV Kaniha – Meramundali ckt-1	By shorting joda – TTPS & Telkoi – TTPS with Kaniha – Meramundali ckt-1 leads to	
220kV TTPS – Joda S/c Line		
220kV TTPS – Telkoi S/c Line	( Kaniha – Telkoi – Joda – Meramundali line)	
5		
132kV TTPS – Angul S/c Line	132kV kV Angul – Chainpla (Short TTPS	
132kV Angul – Chainpal S/c line	– Chainpal one ckt with TTPS – Angul)	
132kV TTPS – Chainpal D/c line	-	
132kV TTPS – OPCL – Duburi ckt-1	Short TTPS – Duburi Ckt- 1 & 2 at TTPS	
132kV TTPS – Gondia – Duburi ckt-2	_ end	

A detailed power flow study has been carried out and the results are attached for ready reference.



Annexure B.2.11

पश्चिम मध्य रेल West Central Railway



महाप्रबंधक कार्यालय, विद्युत विभाग, जबलपुर-482 001 General Manager's Office Electrical Branch, Jabalpur- 482 001

WCR

No: WCR/L/03/7560/

Date: 01.05.2025

Chief Executive Officer Bhartiya Rail Bijlee Company Limited Nabinagar, Bihar 824307

Sub: Availability of Power to Indian Railways for the period from May'25 to August'25.

Ref.: (1) BPPA executed between ECR & BRBCL dated 16.12.2010.

With reference to the BPPA executed with East Central Railway for supply of 189 MW power to WCR, please ensure that full Declared Capacity is maintained for the period of high power demand i.e. May'25 to August'25, as there is expected to be increase traffic of passenger and goods train operations along with introduction of Summer Special trains.

Under exceptional circumstances, if the declared capacity for Indian Railways is to be reduced, the same should only be during non-peak hours such as Solar Hours.

We request for your kind cooperation and support in this matter.

DA/- As Above

f. Chitan los 125

(Chetan Gulwani) Dy.CEE/Tr.D/HQ

### Annexure B.2.11 File No.NWR-HQ0ELCT(TR)/31/2020-O/o PCEE/HQ/NWR



### उत्तर पश्चिम रेलवे NORTH WESTERN RAILWAY

प्रधान कार्यालय, Head Office, जयपुर - 302017 Jaipur – **3020**17

Date: As Digitally Signed

No. NWR-HOOELCT(TR)/31/2020

Chairman, Bhartiya Rail Bijlee Company Limited, Nabinagar, Distt -Aurangabad,Bihar-824303.

Sub: Availability of Power to Indian Railways for the period from May'25 to August'25. Ref: PPA executed between Indian Railways and BRBCL dated 16.12.2010.

With reference to the PPA executed with Indian Railways for supply of **10 MW quantum to** Rajasthan state, please ensure that full Declared Capacity is maintained for the period of high power demand i.e. May'25 to August'25, as an increase in traffic of passenger and goods train operation is expected along with introduction of Summer Special trains.

Under exceptional circumstances, if the declared capacity for Indian Railways is to be reduced, the same should only be during non-peak hours such as Solar Hours.

We request for your kind cooperation and support in this matter गुप्ता SANJAY KUMAR

GUPTA Date: 08-05-2025 10:28:29 Reason: Approved

(Sanjay Kumar Gupta) Principal Chief Electrical Engineer North Western Railway

### Annexure D.1

SURPLUS(+)/DEFICIT(-) (I(In Case of CPP Drawal of 900 MW(peak) and

average drawlm of 700 MW)

NET MAXIMUM DEMAND

NET MAXIMUM DEMAND

TOTAL AVAILABILITY OF CESC

EXPORT (To SIKKIM)

IMPORT FROM HEL

SURPLUS(+)/DEFICIT(-)

NET MAXIMUM DEMAND

NET MAXIMUM DEMAND

SURPLUS(+)/DEFICIT(-)

and average drawl of 700 MW)

SURPLUS(+)/DEFICIT(-)

EXPORT BY WBSEDCL TO SIKKIM

EASTERN REGION NET MAXIMUM DEMAND

NET MAXIMUM DEMAND (Incl. Sikkim)

Central Sector+Bi-lateral+IPP&CPP+TLDP

SURPLUS(+)/DEFICIT(-) AFTER EXPORT

NET POWER AVAILABILITY- Own Source

WEST BENGAL (WBSEDCL+CESC+IPCL) (excluding DVC's supply to WBSEDCL's command area)

NET POWER AVAILABILITY- Own Source

NET POWER AVAILABILITY- Own Source

BILATERAL EXPORT BY DVC (Incl. Bangladesh)

NET TOTAL POWER AVAILABILITY OF ER

EXPORT TO B'DESH & NEPAL OTHER THAN DVC

CS SHARE+BILATERAL+IPP/CPP+TLDP+HEL

SURPLUS(+)/DEFICIT(-) BEFORE WBSEDCL'S EXPORT

NET MAXIMUM DEMAND ((In Case of CPP Drawal of 800 MW(peak)

(INCLUDING CS ALLOCATION +BILATERAL+IPP/CPP+HEL)

SURPLUS(+)/DEFICIT(-) (In Case of CPP Drawal for Odisha)

SURPLUS(+)/DEFICIT(-) AFTER WBSEDCL'S EXPORT

NET POWER AVAILABILITY- Own Source (Incl. DPL)

WEST BENGAL

WBSEDCL

CESC

SIKKIM

Central Sector

5

5.1

5.2

6

	Updated Anticipated Peak Demand (in MW) of ER & its constituents for June 2025						
1	BIHAR	Demand (MW)	Energy Requirement (MU)				
	NET MAX DEMAND	8070	5435				
	NET POWER AVAILABILITY- Own Sources	429	308				
	Central Sector+Bi-Lateral	5959	4094				
	SURPLUS(+)/DEFICIT(-)	-1682	-1033				
2	JHARKHAND						
	NET MAXIMUM DEMAND	2394	1279				
	NET POWER AVAILABILITY- Own Source	262	242				
	Central Sector+Bi-Lateral+IPP	1083	779				
	SURPLUS(+)/DEFICIT(-)	-685	-258				
3	DVC						
	NET MAXIMUM DEMAND	3600	2498				
	NET POWER AVAILABILITY- Own Source	6161	3618				
	Central Sector+MPL	327	202				
	Bi- lateral export by DVC	2522	1816				
	SURPLUS(+)/DEFICIT(-) AFTER EXPORT	365	-494				
4	ODISHA						
	NET MAXIMUM DEMAND (OWN)	7100	4412				
	NET MAXIMUM DEMAND (In Case of CPP Drawal of 900 MW(peak)	7898	4052				
	and average drawl of 700 MW)						
	NET POWER AVAILABILITY- Own Source	3262	2425				
	Central Sector	2025	1204				
	SURPLUS(+)/DEFICIT(-) (OWN)	-1812	-783				

-2610

10760

10765

5749

2361

-2655

2820

830

541

1371

-1449

13580

6579

2902

-4099

-4104

105

402

81

378

34849

35749

2498

5

642

26792

-11201

-12101

5

-423

6741

5916

3219

1388

-1309

1330

574

387

961

-369

8071

3793

1775

-2503

-2507

50

220

56

226

21745

21385

1816

4

462

16894

-7134

-6774