



सत्यमेव जयते

GOVERNMENT OF INDIA

MINISTRY OF POWER

Eastern Regional Power Committee

AGENDA

FOR

2nd MEETING ON EASTERN

REGIONAL DISASTER MANAGEMENT

Date: 09.05.2025

Time: 11:00 Hrs

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AGENDA FOR 2nd MEETING ON EASTERN REGIONAL DISASTER MANAGEMENT

1. PART-A: CONFIRMATION OF MINUTES

1.1. Confirmation of Minutes of 1st Meeting On Eastern Regional Disaster Management held on 9th July 2024 virtually on MS Teams

The minutes of 1st Meeting On Eastern Regional Disaster Management held on 9th July 2024 was circulated vide letter dated 16.07.2024.

All Members of ER Disaster Management Group may confirm the minutes of 1st Meeting On Eastern Regional Disaster Management.

2. PART-B: ITEMS FOR DISCUSSION

2.1 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.

All Transmission licensees(ISTS, State & Private) may update the ERS status.

2.2 Creation of Disaster Management Fund

The financial aspects of Disaster Risk Management play crucial role in development of planning to immediate relief post disaster, Disaster Management Act, 2005 ensures special provision for allocation of funds by Ministries and Departments, which states:

“(1) Every Ministry or Department of the Government of India shall make provisions, in its annual budget, for funds for the purposes of carrying out the activities and programmes set out in its disaster management plan.

(2) The provisions of sub-section (1) shall, mutatis mutandis, apply to departments of the Government of the State.”

Disaster Management Plan for Power Sector mandates each power utility shall create a fund for meeting the requirement of disaster management plan. The disaster management fund would be 1.5% of the annual revenue of the utility. Besides the above, every utility should have a core corpus of sufficient amount especially for immediate relief and rehabilitation depending upon revenue potential of the utility and the same should be replenished on an annual basis.

As per decision in 1st Meeting On Eastern Regional Disaster Management decision:

- In compliance to provisions of Disaster Management Act 2005, all utilities were directed to update the following:
 - ✓ Creation of the disaster management fund by utilities.
 - ✓ Status of the funds available in the disaster management fund.
 - ✓ Utilization pattern of the fund under various circumstances.

All ER utilities may update.

2.3 Sharing of warning alerts for impending natural calamities to Power Sector Utilities

Power sector with vast network of infrastructure and highly vulnerable to damage caused by natural disasters like cyclone, floods, earthquake, etc, availability of information in advance shall aid the power sector utilities in minimizing the extent of damage and thereby faster restoration can be facilitated.

As per decision in 1st Meeting On Eastern Regional Disaster Management :

CWC and IMD were requested to share warning alerts i.r.o impending floods and cyclones of high damage potential with ERPC and all members of RDMG so that adequate preventive measures may be undertaken in advance to safeguard power sector establishments and regional grid. Both CWC and IMD representatives agreed to the same.

CWC and IMD requested to update. Members may discuss.

2.4 Periodic Mock Drill Exercises in areas of generation, transmission and distribution of the power sector

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

In this regard, Secretary (Security) , Cabinet Secretariat, Govt of India has stressed on undertaking the following measures:

- ✓ Availability of details pertaining to local district authorities, revenue authorities, law enforcement, fire management authorities, etc., across the townships

- ✓ Adequate vetting of personnel/organisation responsible for township security by local law enforcement agencies.
- ✓ Regular conduct of mock drills in the townships, especially evacuation drills with ambulance and drills for handling major fire accidents.

☐ **Action points:**

As per deliberation of **1st MEETING ON REGIONAL DISASTER MANAGEMENT (EASTERN REGION)** dated **09.07.2024**(MOM at **Annex-B.2.19** :

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

This has been deliberated repeatedly in severam OCC meetings at ERPC level.

Mock Drill reports received from **NTPC, NHPC and WBPDC**(on regular basis)

All other GENCOs(Central sector/state/private) and Transmission utilities(Central sector/state/private) are requested to share the details.

2.5 Status of Emergency Operation Centers (EOCs)/Control Rooms and Back up EOC/Control room in Power Sector

An Emergency Operation Centre (EOC) i.e. a centralized facility with full communication infrastructural facilities, should be set up at each power establishment level from which Disaster related operations are directed and coordinated.

a)The objective of the EOCs shall be to provide centralized direction and control of any or all of the following functions:

- i.Receive and process disaster alerts and warnings from nodal agencies and other sources and communicate the same to all designated authorities.
- ii.Monitor emergency operation.
- iii.Requisition additional resources during the disaster phase.
- iv.Issue disaster/incident specific information and instructions specific to all concerned;
- v.Consolidation, analysis, and dissemination of damage, loss and needs assessment data.
- vi.Forward consolidated reports to all designated authorities.
- vii.Facilitate coordination among internal departments and external agencies.

b)The EOCs/Control Rooms shall have the following resources to effectively handle Crisis/disasters –

- i.State-of-the-art communication facilities (conventional and alternative communication systems) for seamless communication during threatening disaster situations or disasters.

ii. Necessary IT support, disaster dashboard facility & connectivity with Distribution Companies, SCADA & breakdown management system, so that monitoring of network outage, list of breakdowns and off supply of VVIP consumer & vital installations e.g. Police Station, Fire Station etc. can be directly viewed and necessary guidance for faster restoration/rebuilt of the system can be generated.

iii. The EOC building should be disaster resistant, so as to withstand the Functionalities and features available in EOCs should be periodically checked and should be suitably upgraded as per requirement.

Back up EOC/ Control room should also be set up preferably at remote location & kept ready to manage adverse situations if main control room dysfunctions or gets affected due to any disaster. Backup control room should be tested periodically for intended functionality by making it main control room.

As per decision in 1st Meeting On Eastern Regional Disaster Management :

All utilities were urged to update the operational practices of the established Emergency Operation Centers (EOCs)/Control Rooms and back up EOC/ Control rooms status.

All ER utilities may update.

2.6 Cybersecurity: Risk Assessment and Mitigation Plan

Developing a cyber risk assessment and mitigation plan is crucial for safeguarding critical assets and systems in the power sector against cyber threats. The CEA (Central Electricity Authority) Guidelines on Cyber Security in the Power Sector, particularly for 2021, would hold significant importance for various stakeholders involved in the power sector. These guidelines mandates framework of Cyber Crisis Management Plan for dealing with cyber related incidents for a coordinated, multi-disciplinary and broad-based approach for rapid identification, information exchange, swift response and remedial actions to mitigate and recover from malicious cyber related incidents impacting critical processes. Chief Information Security Officer (CISO) of the entity shall be responsible for implementation and regular review, on the basis of internal and external feedbacks, of the Cyber Risk Assessment and Mitigation Plans.

As per decision in 1st Meeting On Eastern Regional Disaster Management :

All Utilities were instructed:

- ✓ To ensure compliance to CEA Guidelines on Cyber Security in the Power Sector.
- ✓ To update the status of the Cyber Risk Assessment and Mitigation Plan developed by them and also provide the incidents of cyber threats in the recent times.
- ✓ To have proper CCMP (Cyber Crisis Management Plan) in place

All ER Utilities are requested to update the status of the Cyber Risk Assessment and Mitigation Plan developed by them and also provide the incidents of cyber threats in the recent times.

2.7 Restoration plan for failure of Electricity Grid & Black Start Facilities

Integrated operation of National Grid (all-India grid) is a vast and complex task and demands utmost vigil and care from the viewpoint of disaster management. In the event of a grid failure, coordinated actions are required to be taken at the generation stations, substations and

transmission lines under the directions of NLDC/RLDC(s) and SLDC(s) for speedy restoration of power supply.

IEGC, 2023 mandates:

i. SLDC of each State and the RLDC of each region shall prepare restoration procedures for the grid for their respective control areas, which shall be updated every year by the concerned SLDC and RLDC taking into account changes in the configuration of their respective power systems

ii. Detailed procedures for restoration post partial and total blackout of each user system within a region shall be prepared by the concerned user in coordination with the concerned SLDC, RLDC or NLDC, as the case may be.

iii. NLDC, RLDC and SLDC shall identify the generating stations with black start facility, grid forming capability of inverter based generating stations, house load operation facility, inter-State or inter-regional ties, synchronizing points and essential loads to be restored on priority.

ER Utilities are requested to update on the following:

i. Black Start procedure adopted by RLDCs/SLDCs.

ii. RLDCs/SLDCs update the list of black start reserves identified.

iii. The start-up procedure adopted for generating units.

2.8 Mock Black Start

As per **IEGC Reg. 34.3**: A mock trial run of the procedure for different sub-systems including black-start of generating units along with grid forming capability of inverter-based generating station and VSC-based HVDC black-start support at least once a year under intimation to the concerned SLDC and RLDC.

Eastern region has 16 hydro power plants, which has capability to play a crucial role during restoration after any grid disturbance. Mock black start testing along with grid forming capability is being carried out on yearly basis, as mandated by IEGC reg 34.3, to ensure the capability & readiness of those generators for any contingency.

Also, diesel generator sets and other standalone auxiliary supply source to be used for black start shall be tested on a weekly basis and the test reports are to be shared to the concerned SLDC, RLDC and NLDC on a quarterly basis.

As per IEGC Reg. 34.4: Simulation studies are to be carried out by each user in coordination with RLDC for preparing, reviewing and updating the restoration procedures considering the following:

- (a) Black start capability of the generator;
- (b) Ability of black start generator to build cranking path and sustain island;
- (c) Impact of block load switching in or out;
- (d) Line/transformer charging;

(e) Reduced fault levels;

(f) Protection settings under restoration condition

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

Sl. No.	Name of Hydro Station	2024-25 Actual Date of Test	Tentative date as on 18.02.25
1	U. Kolab		Yet to be informed
2	Balimela	15 th 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 rd 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
16	Rongnichu		Yet to be informed

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

[2.9 Any other item with permission of the chair.](#)