

**GOVERNMENT OF INDIA**  
**MINISTRY OF POWER**  
**Eastern Regional Power Committee**

**AGENDA**  
**FOR**  
**157<sup>th</sup> PCC MEETING**

**Date: 16/04/2026**

**Venue: ERPC Conference Hall**

## Contents

<b>1. PART-A</b> .....	1
1.1. Confirmation of Minutes of 156 <sup>th</sup> PCC Meeting held on 13 <sup>th</sup> March 2026. ....	1
<b>2. PART-B: ITEMS FOR DISCUSSION</b> .....	1
2.1 Repeated Grid disturbance at 220 kV TTPS (OPTCL) S/s.....	1
2.2 Grid disturbance at Bidhannagar S/s & DPL S/s on 02.04.2026Error! Bookmark not defined.	
2.3 Grid disturbance at 400 kV JSPL and ACPP-II on 06.04.2026Error! Bookmark not defined.	
2.4 Strengthening of Protection System for 132 kV Feeders Connected with Bandel TPS: Agenda by WBPDC	2
2.5 Repeated Tripping of 220 kV Bus at Khagaul S/s due to LBB Operation .....	3
2.6 Tripping of Ramchandrapur 220 kV Bus-1 due to LBB Operation.....	3
2.7 Tripping of 220 kV Bus-II at 220/132/33 kV Amnour Substation .....	4
2.8 Tripping of ICTs during the month of March'26 .....	5
2.9 Repeated tripping of transmission lines during the month of March'26.....	5
2.10 Single Line Tripping Incidences in month of March-2026.....	6
<b>3. PART-C: FOLLOW UP ITEMS</b> .....	7
3.1. Third Party Protection audit by ERPC for the Year 2026-27 .....	7
3.2. Submission of protection performance indices on monthly basis by users to RPC and RLDC for 220 kV and above lines .....	8
3.3. Follow-up of Decisions of the Previous Protection Sub-Committee Meeting(s).....	11
Disturbance at 220 kV Begusarai (BSPTCL) S/s on 06.02.2026 at 09:35 Hrs.....	11
Grid Event at 400 kV Sterlite (Vedanta) S/s on 22.02.2026 at 22:56 Hrs .....	11
Tripping of 400 kV Bus-II at Sagardighi Substation and 400 kV Sagardighi–Jeerat-1 Line11	
Repeated tripping of 400KV-MERAMUNDALI-LAPANGA-2 during the month of February'26	
12	
Disturbance at 220 kV Bolangir New (OPTCL) S/s on 13.01.2026 at 12:38 Hrs .....	12

**Eastern Regional Power Committee, Kolkata**

**Agenda for 157<sup>th</sup> PCC MEETING**

**Date: 16<sup>th</sup> April, 2026(Thursday) at 11:00 Hrs**

---

**1. PART-A**

**1.1. Confirmation of Minutes of 156<sup>th</sup> PCC Meeting held on 13<sup>th</sup> March 2026.**

The minutes of 156<sup>th</sup> PCC meeting held on 13.03.2026 through virtual mode was circulated vide letter no. ERPC/ Protection/2026/01 dated 01/04/2026.

**Members may confirm the minutes of 156<sup>th</sup> PCC Meeting.**

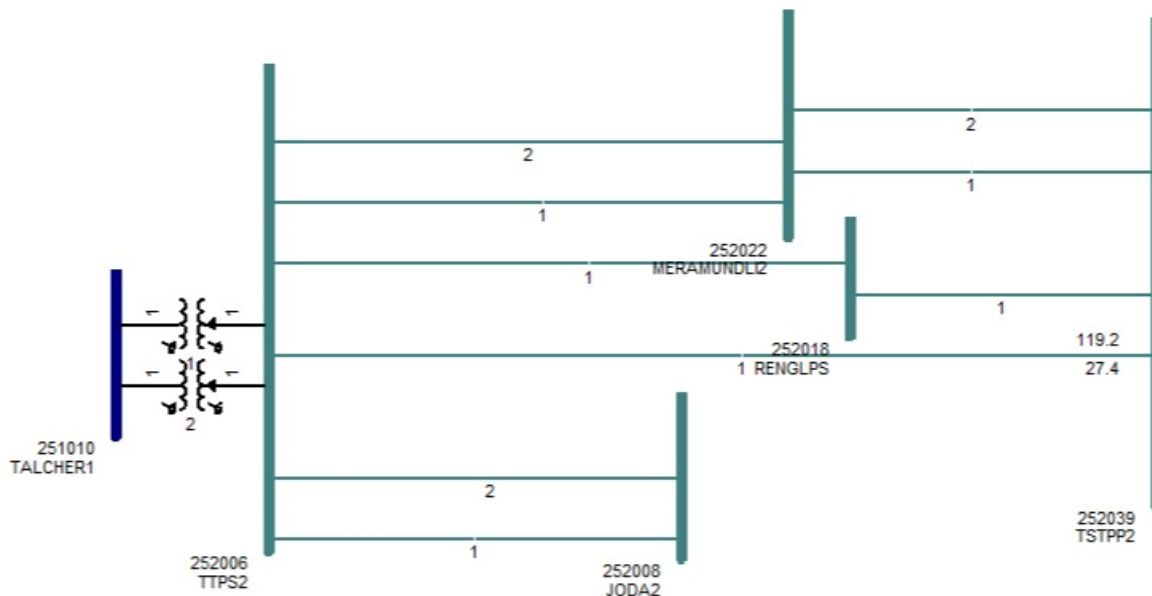
**2. PART-B: ITEMS FOR DISCUSSION**

**2.1 Repeated Grid disturbance at 220 kV TTPS (OPTCL) S/s**

- **Grid disturbance on 12.03.2026 at 06:36 Hrs**

On 12/03/2026 at 06:36 Hrs, R-phase to Y-phase fault got developed in 220kV-TTPS-TSTPP line and fault was cleared from TSTPP end only. Further after 250 msec LBB operated at TTPS end consequently all emanating feeders from TTPS end tripped due to LBB operation (All feeders are connected through single bus). At the same time Rengali PH unit-1 also tripped in generator REF protection and 220kV TTPS S/s became dead.

Report from ERLDC is attached at **Annexure 2.1**.



Gen. Loss: 50 MW

Outage Duration: 06:28 Hrs

- **Grid disturbance on 14.03.2026 at 04:23 Hrs**

On 14/03/2026 at 04:23 Hrs, B-phase to earth fault got developed in 220kV-TTPS-TSTPP line and fault was cleared from TSTPP end only. Further due to non opening of CB at TTPS end, LBB operated consequently all emanating feeders from TTPS end tripped due to LBB operation and 220kV TTPS S/s became dead.

Report from ERLDC for both incidents is attached at **Annexure 2.1**.

No Load Loss and Gen. Loss

Outage Duration: 01:39 Hrs

**OPTCL may explain.**

## **2.2 Strengthening of Protection System for 132 kV Feeders Connected with Bandel TPS: Agenda by WBPDCCL**

WBPDCCL has informed that in recent past, that there have been repeated instances of simultaneous tripping of 132 kV outgoing feeders at BTPS end without corresponding tripping at far-end substations, indicating issues related to protection coordination and adequacy of protection schemes. Some of the disturbances are given below:

- i. The incident had occurred on 05.04.2025 where simultaneous tripping of 04 Nos. 132 kV feeders (BTPS Bighati Double Circuit and BTPS–Chanditala Double Circuit) at BTPS end was reported. It was noted that no tripping occurred at the far-end substations, suggesting improper fault clearance at remote ends.
- ii. Subsequently, another incident occurred on 01.09.2025 where simultaneous tripping of 132 kV BTPS Adisaptagram Double Circuit at BTPS end was reported. In this case also, far-end substations did not respond.
- iii. Further, on 30.03.2026, 132 kV BTPS– Chanditala Double Ckt tripped at BTPS end only due to occurrence of Bus fault at 132kV Chanditala end. However, no tripping occurred at far end S/S.

Relay Details for these incidents is attached at **Annexure 2.2**.

From the above incidents, the following protection issues are evident:

- Tripping is predominantly occurring at BTPS end only
- Non-operation of protection at far-end substations
- Likely absence or inadequacy of:
  - Protection System at remote substation end
  - Bus Differential Protection Scheme
- Risk of fault isolation, leading to:
  - Grid disturbance
  - Unnecessary persistence of High Fault Current in the system.
  - Impact on generation stability |

It is pertinent to mention that BTPS Unit #5 (215 MW) is currently connected to the 132 kV grid system therefore reliability and selectivity of the protection systems at Sub-station end can only ensure the secure power evacuation from this unit without any untoward incidence.

In view of the above, WBPDCCL proposes that:

- Bus Differential Protection Schemes be implemented at all 132 kV far-end substations connected with BTPS
- Proper Protection schemes be designed to ensure:
  - Fast, selective and reliable fault clearance
  - Proper coordination between BTPS and remote substations
  - Avoidance of unnecessary tripping at BTPS end
- A comprehensive protection audit and relay coordination study may also be carried out for the entire corridor.

**WBPDCCL may explain. WBSSETCL may update.**

### **2.3 Repeated Tripping of 220 kV Bus at Khagaul S/s due to LBB Operation**

At 13:39 hrs on 16.03.2026, 220 kV Naubatpur–Khagaul Ckt-2 tripped due to snapping of conductor. Simultaneously, all elements connected to the 220 kV Khagaul bus (Main and Transfer bus scheme) tripped due to LBB operation.

A similar incident occurred at 13:36 Hrs on 18.03.2026, which is the matter of serious concern. No fault was observed at PMU during event.

A report has been received from BSPTCL in response to ERLDCs follow-up email dated 17th March'26 regarding modification of settings for re-trip and back-trip functions in the Main-1 relay of 220 kV Naubatpur–Khagaul Ckt-2 (report attached).

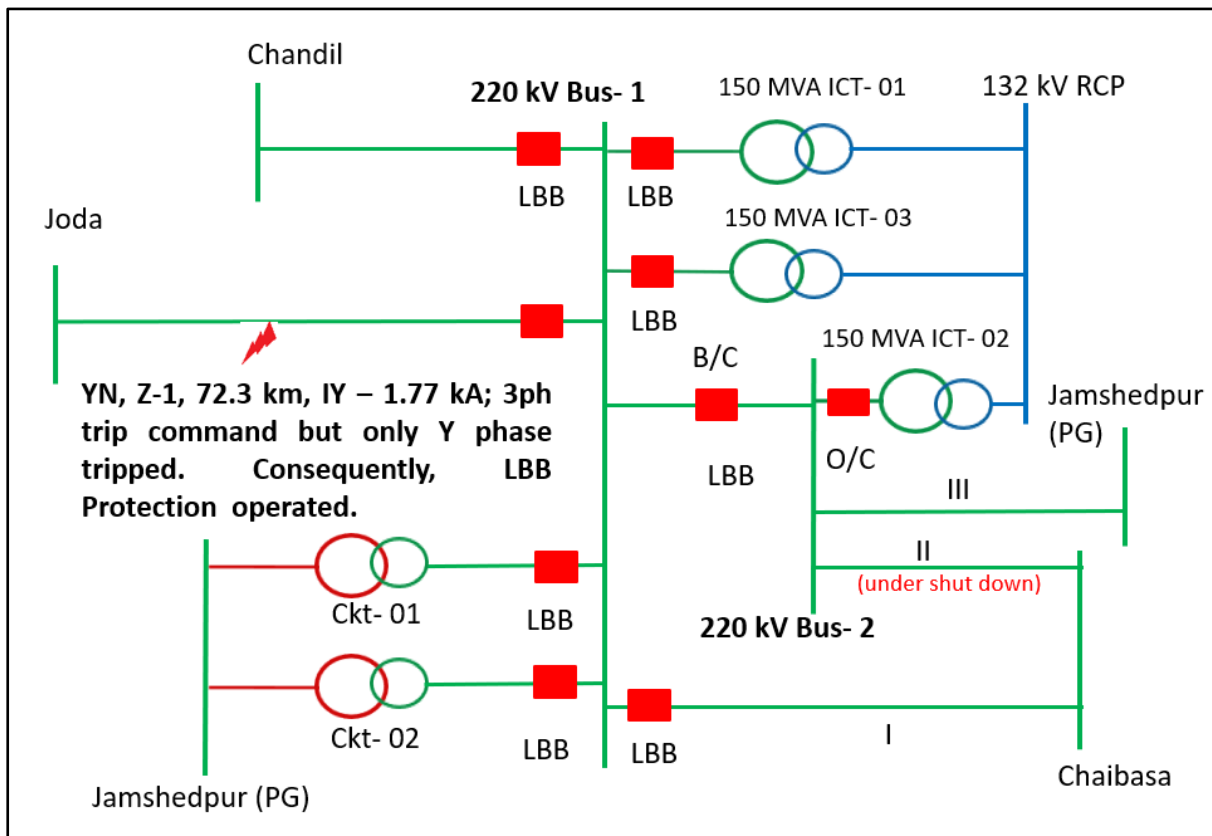
*Point of deliberation:*

- Review and verification of CB failure (LBB) settings for all connected elements.
- Detailed review of BB protection relay setting, logic , DR Channel, CT ratios and CT terminations for bus bar 87BB Relay( P746 relays)
- Reason of conductor snapping in 220 kV Naubatpur–Khagaul Ckt-2 along with corrective & preventive measures to prevent repetition.

**BSPTCL may explain.**

### **2.4 Tripping of Ramchandrapur 220 kV Bus-1 due to LBB Operation**

At 12:04 Hrs on 04.04.2026, Y-Earth fault occurred in 220kV Ramchandrapur-Joda line, which was cleared by Z-1 protection. However at Ramchandrapur end, only Y-pole tripped while remaining B & R poles failed to operate(stuck condition), leading to Main Bus – 1 LBB operation. During the event 220kV Chandil, 220 kV Joda, 220 kV Jamshedpur (PG) – 1 & 2, 220 kV Chaibasa – 1 & 150 MVA ICT – 1 & 3 got tripped.



Protection Observation:

- **Three phase tripping** for phase to ground fault in 220kV Joda-Ramchandrapur line.
- Reason for **non-opening** of R & B pole of 220kV Joda-Ramchandrapur at Ramchandrapur end.

**JUSNL may deliberate.**

**2.5 Tripping of 220 kV Bus-II at 220/132/33 kV Amnour Substation**

At 18:30 Hrs on 14.03.2026, 220 kV Bus-II at Amnour Substation tripped due to operation of Busbar Protection, resulting in outage of the following elements:

- 220 kV D/C Hajipur–Amnour Line-2
- 220 kV D/C Muzaffarpur (PG)–Amnour Line-2
- 220 kV D/C Amnour–Digha Line-2 and
- 160 MVA ICT-2

As reported, the tripping was caused by a fault in B-phase Main Bus-II Earth Switch (E/S) of 220 kV Hajipur–Amnour Line-2 (Q2 GIS compartment) at Amnour. Since the incident, the substation is operating in single bus mode, impacting system reliability.

Points for Deliberation:

- Detailed analysis and root cause of the fault.
- Latest status and action plan for restoration of 220 kV Bus-II.
- Timeline for reverting the substation to normal (double bus) operation to enhance reliability.

BGCL/BSPTCL may explain.

## 2.6 Tripping of ICTs during the month of March'26

Sl. No	Name of the Element	Trip Date/Time	Reason of tripping	Utility
1	400KV/220KV 250 MVA ICT 1 AT TENUGHAT	2026-03-30 15:01	REF Protection operated	TVNL
2	400KV/132KV 200 MVA ICT 2 AT KAHALGAON	2026-03-28 01:51	Tripped due to Bus bar protection operation	NTPC Kahalgaon
3	400KV/11KV 80 MVA ICT 3 AT MPL	2026-03-13 14:35	REF operated at LV side	MPL
4	400KV/220KV 315 MVA ICT 1 AT INDRAVATI.	2026-03-24 20:24	Bus Protection operated	PG Odisha/OHPC
5	400KV/132KV 200 MVA ICT 2 AT KAHALGAON	2026-03-12 18:02	Tripped due to Bus bar protection operation	NTPC Kahalgaon

Concerned Utilities may explain.

## 2.7 Repeated tripping of transmission lines during the month of March'26

Sl.No.	Name of the Element	No. of times Tripped	Reason of tripping	Utility
1	400KV-BINAGURI-NORBUGANG-1	5	A/r successful from Binaguri end in 2 instances and phase to phase fault in 1 instance, phase to ground fault in 3 instances	PG ER-II /Bhutan
2	400KV-KHSTPP-BARH-2	3	A/r successful from Barh end and three phase tripping in transient fault in all instances.	NPTC Kahalgaon.
3	400KV-ALIPURDUAR (PG)-JIGMELLING-2	3	Line tripped on Y-Earth and B-Earth in 2 instances. Tripped without any line fault due to DC supply issue at	PG ER-II /Bhutan

			Bhutan end in one instance.	
4	220KV-KARAMNASHA (NEW)-SAHUPURI-1	3	Tripped on R-B fault in 2 instances with fault distance was 41kM from Karmnasha end.	BSPTCL

**Concerned Utilities may explain.**

### **2.8 Single Line Tripping Incidences in month of March-2026**

Single line tripping incidents in the month of March-2026 which needs explanation from constituents of either end is attached at **Annexure 2.5**.

**Members may discuss.**

### 3. PART-C: FOLLOW UP ITEMS

#### 3.1. Third Party Protection audit by ERPC for the Year 2026-27

In 156<sup>th</sup> PCC Meeting, a list of eleven substations was proposed based on discussion of previous PCC Meeting. Subsequently WBSETCL representative informed that 400 kV Arambag S/s, 400 kV Durgapur S/s and 400 kV Gokarno S/s can be included in list for carrying out third party protection audit.

Subsequently OHPC vide letter dated 10.04.2026 requested for inclusion of 220 kV Rengali(HEP) for protection audit.

Accordingly, the list of fifteen nos. of substations have been finalized and given below:

1. 400/220 kV Mendhasal(OPTCL)	6. 220 kV Subhasgram(WBSETCL)	11. 220 kV Begusarai(BSPTCL)
2. 400/220 kV New Duburi(OPTCL)	7. 220 kV Kasba(WBSETCL)	12. 220 kV Hazipur(BSPTCL)
3. 220 kV Jayanagar(OPTCL)	8. 400/220 kV Arambag (WBSETCL)	13. 220 kV Darbhanga(BSPTCL)
4. 220 kV Indravati HEP(OHPC)	9. 400/220 kV Bidhannagar(WBSETCL)	14. 220 kV Balimela(OHPC)
5. 220 kV Rengali (OPTCL)	10. 400/220 kV Gokarno(WBSETCL)	15. 220 kV Rengali (OHPC)

**Members may note.**

#### 3.2. Over-voltage setting of 400kV & above transmission lines in Eastern Region

In 152<sup>nd</sup> PCC Meeting, it was decided that ERLDC will circulate list of 400 kV & above level lines in the ER to all the concerned utilities. Concerned Utilities will verify the details & submit the existing overvoltage settings of the lines.

In 155<sup>th</sup> PCC Meeting, ERLDC shared the draft settings and intimated that the settings have been suggested by incorporating grading in terms of voltage pick up & time delay of the overvoltage protection.

PCC advised concerned utilities to go through the proposed settings and share their observations, if any to ERPC/ERLDC.

In 156<sup>th</sup> PCC Meeting, Member Secretary ERPC advised that the observations of WBSETCL may be separately discussed with to clarify their queries.

Subsequently an online meeting was convened by ERLDC with WBSETCL to discuss and finalize the overvoltage settings of WBSETCL substations. Powergrid vide mail dated 13.04.2026 shared their observations on the proposed settings.

**Members may discuss.**

### 3.3. Submission of protection performance indices on monthly basis by users to RPC and RLDC for 220 kV and above lines

As per IEGC 2023 Clause 15(6), 15(7) all users shall submit protection performance indices of previous month by 10th of every month to ERPC and ERLDC along with reasons for performance indices less than unity of individual element wise protection system to the respective RPC and action plan for corrective measures. For the month of March '26, detailed list attached at **Annexure 3.2**. Below table shows the status of PP Indices received for last five months. Utilities are requested to submit the details every month for necessary grid code compliance.

Sl. no	Utility Name	November 2025	December 2025	January 2026	February 2026	March 2026
1	PG-ER-1	Yes (10.12.2025)	Yes (19.01.2026)	Yes (12.02.2026)		
2	PG-ER-2	Yes (31.12.2025)	Yes (12.01.2026)			
3	PG-Odisha		Yes (05.01.2026)	Yes (04.02.2026)		Yes (02.04.2026)
4	WBSETCL/ WBPDC	Yes (04.12.2025)	Yes (05.01.2026)	Yes (05.02.2026)	Yes (05.03.2026)	Yes (08.04.2026)
5	BSPTCL/ BGCL	Yes (19.12.2025)		Yes (13.02.2026)	Yes (12.03.2026)	
6	OPTCL/ OHPC					
7	DVC					

8	JUSNL	Yes (17.12.2025)		Yes (04.02.2026)	Yes (12.04.2026)	Yes (12.04.2026)
9	Sikkim					
10	OPGC					
11	PMTL					
12	NTPC- KHSTPP					
13	NTPC FARAKKA					
14	NTPC- BARH					
15	NTPC- TSTPP					
16	NTPC- KBUNL					
17	NPGC					
18	BRBCL					
19	NTPC- DARILAPLI	Yes (01.12.2025)	Yes (01/01/2026)	Yes (01/02/2026)	Yes (01/03/2026)	Yes (01/04/2026)
20	NTPC- NORTH KARNPUA RA					
21	ATL					
22	APNRL					
23	CBPTCL					
24	DMTCL	Yes (03/12/2025)	Yes (02/01/2026)	Yes (04/02/2026)	Yes (05/03/2026)	
25	ENICL	Yes (06.12.2025)				

26	Chuzachen HEP					
27	Jorethang HEP	Yes (07/12/2025)	Yes (02/01/2026)		Yes (05.03.2026)	
28	Tashiding Hep	Yes (07/12/2025)	Yes (02/01/2026)		Yes (05.03.2026)	
29	GMR					
30	IBEUL					
31	JITPL					
32	MPL					
33	NKTL					
34	OGPTL	Yes (06.12.2025)				
35	PMJTL					
36	Powerlink					
37	PKTCL	Yes (06.12.2025)				
38	CESC	Yes (26/11/2025)				
39	Rongnichu HEP					
40	SPTL					
41	TVNL					04/04/2026

**Members may discuss.**

### 3.4. Follow-up of Decisions of the Previous Protection Sub-Committee Meeting(s)

SI No.	Name of the Incidence	PCC Recommendation	Latest status
<b>156<sup>th</sup> PCC Meeting dated 13.03.2026</b>			
1.	Disturbance at 220 kV Begusarai (BSPTCL) S/s on 06.02.2026 at 09:35 Hrs	<p>BSPTCL was advised following:</p> <ul style="list-style-type: none"> <li>➤ Thermo-vision scanning of all jumpers, connectors, clamps shall be carried out to identify hotspots or loose joints, and remedial measures shall be taken in case any abnormalities found. Further the jumper/Connectors which are old shall be replaced to avoid recurrence of such incidents.</li> <li>➤ Definite time overcurrent protection &amp; Undervoltage protection present in 220 kV IOCL feeder at IOCL end shall be disabled immediately.</li> <li>➤ All feeders shall be segregated uniformly among the two bus of 220 kV Begusarai S/s and highest overcurrent E/f settings is to be enabled to avoid complete blackout of the substation in absence of busbar protection.</li> <li>➤ The zone-4 settings of 220 kV Saharsa-1 Line may be rechecked as the trip was issued within 250 msec even though the Zone-4 signal went low intermittently for 112 msec after the first start.</li> </ul>	
2.	Grid Event at 400 kV Sterlite (Vedanta) S/s on 22.02.2026 at 22:56 Hrs	Sterlite was advised to share the findings of the third- party agency on GCB tripping and the OEM report on ICT tripping to ERPC/ERLDC once they receive the same at their end.	
3.	Tripping of 400 kV Bus-II at Sagardighi Substation and 400 kV Sagardighi–Jeerat-1 Line	Regarding sending of DT trip signal to Jeerat end for Jeerat-1 line, WBPDCCL was advised to check reason behind transmission of DT trip signal.	

5.	Repeated tripping of 400KV-MERAMUNDALI-LAPANGA-2 during the month of February'26	OPTCL was advised to explore implementing the AR scheme in both the relays at Lapanga end.	
<b>155<sup>th</sup> PCC Meeting dated 19.02.2026</b>			
1.	Disturbance at 220 kV Bolangir New (OPTCL) S/s on 13.01.2026 at 12:38 Hrs	On enquiry from PCC forum, regarding status of Main bus 2, OPTCL representative replied that Main bus 2 and bus bar protection will be in service within one week.	
2.	Total Power Failure at 220 kV Rengali S/s on 12th Dec 2025 at 19:06 Hrs	<p>PCC advised followings:</p> <ol style="list-style-type: none"> <li>1. OHPC was suggested to download the DR files immediately after the tripping occurs from the relay which has limited memory space. This will enable proper analysis of the event.</li> <li>2. OPTCL was advised to enable overcurrent highest protection in bus coupler at Rengali S/s after the segregation of feeders.</li> <li>3. OPTCL would submit a timeline for restoration of the busbar protection at Rengali S/s.</li> <li>4. 220 kV Rengali(PH)-Rengali(OPTCL) &amp; 220 kV Rengali(OPTCL)-Rengali(PG) lines being short lines, line differential protection need to be implemented as per the CEA(Technical Standards for Construction of Electric Lines) Regulation, 2022. Accordingly, OPTCL was advised to take necessary action to implement the line differential protection in coordination with OHPC &amp; Powergrid.</li> </ol>	<p>In 156<sup>th</sup> PCC Meeting, OPTCL representative informed that work related to segregation of feeder is in progress and will be completed by March 2026 subsequently high set o/c protection will be enabled in the bus coupler.</p> <p>Regarding bus bar protection, he updated that tender process for 8 number of s/s is in progress and the tentative timeline for implementation is by Sep 2026.</p>
<b>154<sup>th</sup> PCC Meeting dated 20.01.2026</b>			
3.	Total Power Failure at 400 kV PVUNL S/s on 20 <sup>th</sup> Dec 2025 at 11:23 Hrs	<p>PCC advised JUSNL representative to take rectification measures as suggested by the OEM and submit a compliance to ERPC/ERLDC.</p> <p>In 155 PCC Meeting, JUSNL representative informed that differential relay for 400 kV PVUNL-</p>	<p><i>JUSNL vide letter dated 08.04.2026, updated the status of restoration of 400 kV Busbar Protection. The letter is enclosed at Annexure 3.3.</i></p>

		<p>Patratu Line will be implemented by Feb-26.</p> <p>He updated that configuration issue has been updated in relay as advised by the relay OEM. However, CT connection issue, double earthing issue and bus stability test will be done during shutdown of the line/bus.</p>	
--	--	---	--