सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
पूर्वी क्षेत्रीय विद्युत समिति
**Eastern Regional Power Committee**
14, गोल्फ क्लब रोड, टालीगंज, कोलकाता-700033
14 Golf Club Road, Tollygunj, Kolkata-700033

**स./NO. पू.क्षे.वि.स./PROTECTION/2026/** 209 **दिनांक /DATE: 28 /04/2026**

सेवा में / To,

संलग्न सूची के अनुसार / As per list enclosed.

**विषय : दिनांक – 16.04.2026 को आयोजित 157 वीं पीसीसी बैठक का कार्यवृत्त ।**

**Sub: Minutes of the 157th PCC meeting held on 16.04.2026**

महोदय/ Sir,

Please find enclosed the **Minutes of the 157th PCC** Meeting of ERPC held on **16.04.2026 at ERPC Conference Hall** for your kind information & necessary action.

Observations, if any, may please be forwarded to this office at the earliest.

**भवदीय / Yours faithfully,**

for प्रणय जैना
28.4.26
**अधीक्षण अभियंता(पी.एस)**
**Superintending Engineer (PS)**

**LIST OF ADDRESSES:**

| | |
|---|---|
| Chief Engineer, Trans (O&M)<br>Bihar State Power Transmission Limited, Vidyut Bhawan, Bailey Road, Patna-800021 | Electrical Superintending Engineer (CRITL)<br>Bihar State Power Transmission Limited, Vidyut Bhawan, Bailey Road, Patna-800021 |
| Chief Engineer (SLDC)<br>Damodar Valley Corporation, GOMD-I Premises,<br>P.O.- Danesh Seikh Lane, Howrah- 711109 | Chief Engineer (CTC)<br>Damodar Valley Corporation, P.O. Maithon Dam,<br>Dist. Dhanbad, Jharkhand-828207 |
| Chief Engineer, (CRITL)<br>Jharkhand Urja Sancharan Nigam Limited<br>Kusai Colony, Doranda, Ranchi-834002 | General Manager (CLD)<br>Jharkhand Urja Sancharan Nigam Limited,<br>Kusai Colony, Doranda, Ranchi-834002 |
| Chief General Manager (O&M),<br>OPTCL, Janpath, Bhubaneswar,<br>Odisha – 751 022. FAX: 0674-2542932<br>cgm.onm@optcl.co.in | Sr. General Manager (PPA), Technical Wing,<br>OHPCL, Odisha State Police Housing & Welfare Corpn. Bldg. Vanivihar Chowk, Janpath,<br>Bhubaneswar-752022 |
| Chief Load Dispatcher, SLDC<br>OPTCL, P.O. Mancheswar Rly. Colony<br>Bhubaneswar-751017 | Chief Engineer (Testing), WBSETCL<br>Central Testing Laboratory, Abhikshan, Salt Lake,<br>Kolkata-700091 ( Fax no. 2367-3578/1235 ) |
| Chief Engineer (CLD)<br>WBSETCL, P.O. Danesh Sheikh Lane,<br>Andul Road, Howrah-711109 | Addl. Chief Engineer (ALDC)<br>West Bengal Electricity Distribution Company Ltd<br>Vidyut Bhavan, 7th Floor, Bidhannagar, Sector-I<br>Salt Lake City, Kolkata-700091(Fax-033-2334-5862) |
| Dy. Chief Engineer (Testing)/ Sr. Manager (Testing)<br>CESC Ltd.,4, Sasi Sekhar Bose Road,<br>Kolkata-700025 | Dy. General Manager (Engineering),<br>WBPDCL, OS Dept. Corporate Office, 3/C, L.A Block,<br>Salt Lake-III, Kolkata-700098 (Fax-033-23350516) |
| General Manager (OS), ERHQ-I, NTPC Ltd.,<br>Loknayak Jaiprakash Bhawan, (2nd Floor),<br>Dak Bunglow Chawk, Patna-800001 | General Manager (OS), ERHQ-II, NTPC Ltd., 3rd flr.<br>OLIC Building, Plot no. N 17/2, Nayapalli, Unit-8<br>Bhubaneswar- 751012 (Fax No. 0674-2540919) |
| General Manager(O&M)<br>FSTPS, NTPC Ltd., P.O. Nabarun,<br>Dist. Murshidabad, West Bengal-742236 | General Manager (O&M)<br>KhSTPS, NTPC Ltd., P.O. Deepti Nagar,<br>Dist. Bhagalpur, Bihar-813203 |
| General Manager(O&M), TSTPS, NTPC Ltd.,<br>P.O.Kaniha, Dist. Angul, Odisha-759117 | General Manager (O&M)<br>Barh STPS, NTPC Ltd., P.O. NTPC Barh,<br>Dist. Patna, Bihar-803213 |
| General Manager(O&M)<br>Darlipalli STPS, PO: NTPC Darlupalli, Dist-Sundargarh, Odisha-770025 | General Manager(O&M)<br>NPGCL, Nabinagar Super Thermal Power Station,<br>Post: Ankorha, Distt. Aurangabad, Bihar- 824303 |
| General Manager(O&M)<br>BRBCL, PO- Pirouta, P.S.- Khaira<br>Nabinagar Distt – Aurangabad, Bihar- 824 303 | General Manager(O&M)<br>North Karanpura Super Thermal Power Project,<br>P.O. Tandwa, Dist. Chatra,<br>Jharkhand, India - 825321 |
| Chief General Manager (AM), ER-I<br>Power Grid Corporation of India Ltd.,<br>Alankar Place, Boring Road, Patna-800001 | Chief General Manager (AM), ER-II<br>Power Grid Corporation of India Ltd.,<br>J-I-15, Block-EP, Sector-V,Salt Lake,Kolkata-91 |
| General Manager (AM),<br>Power Grid Corporation of India Ltd, Odisha Projects, Sahid Nagar, Bhubaneswar – 751 007 | Executive Director (O&M)<br>NHPC Ltd., NHPC Office Complex, Sector-33,<br>Faridabad, Haryana-121003 (Fax-01292272413) |
| Electrical Superintending Engineer, TTPS,<br>Tenughat Vidyut Nigam Ltd., Lalpania, Dist. Bokaro,<br>Jharkhand-829149 | Dy. General Manager (Electrical)<br>IB Thermal Power Station, OPGCL<br>Banhapalli, Dist. Jharsuguda-768234, Odisha |
| Chief Engineer (Trans.)<br>Power Deptt., Govt. of Sikkim, Gangtok-731010 | Executive Director,<br>ERLDC, POSOCO, Tollygunge, Kolkata-700033 |
| Sr. Manager (CTMC)<br>Durgapur Projects Limited, Durgapur-713201 | Manager (Electrical), Adhunik Power & Natural Resources Ltd. "Lansdowne Towers, Kolkata-700020 |

| | |
|---|---|
| Plant Head, Maithon Power Limited, Maithon Office, MA 5 Gogna, Dist. Dhanbad, Jhankand State, PIN-828207 | Plant Head, JIPL, Angul, Odisha |
| GM(Electrical), GMRKEL, Kamalanga, Odisha 759121 | Plant Head, JSW Energy (Utkal) Ltd. , Dist.-Jharsuguda, Odisha, Pin-768211 |
| Vice President, Vedanta Ltd. Jharsuguda, Odisha, 768202 | DGM(E&I), Haldia Energy Limited, Barik Bhawan, Kokata-700072 |
| General Manager(O&M). Teesta Urja Limited, 2nd floor, Barakhamba Road, New Delhi-110001 | Shiga Energy Pw. Ltd., 5th Floor, DLF Building No. 8, Tower-C, Gurgaon - 722OO2 |
| General Manager(O&M), Darbhanga Motihari Transmission Company Limited (DMTCL) | President, Dans Energy Pvt. Ltd, 5th Floor, DLF Building No. 8, Tower-C, Gurgaon - 722002 |
| Head(Asset Management), Indigrid Ltd. | |

# GOVERNMENT OF INDIA

# MINISTRY OF POWER

# Eastern Regional Power Committee

# MINUTES

# OF

# 157th PCC MEETING

## Date: 27/04/2026

## Venue: ERPC Conference Hall

# Contents

# Eastern Regional Power Committee, Kolkata

## Minutes of 157th PCC MEETING
## Date: 16th April, 2026(Thursday) at 11:00 Hrs

*List of participants is attached at **Annexure A.***

*Member Secretary, ERPC chaired the meeting. He welcomed all the participants to 157th PCC Meeting. He advised all transmission utilities to take necessary preventive measures like tree cutting, rectification of clearance issues, tightening of joints etc so that trippings can be reduced in summer season. He stressed the need for timely sharing of Disturbance recorder/Event Logger, Reports for the incidents reported by ERLDC for detailed analysis and recommendations of the events. He further advised to use DMNS portal of Protection Database System to share & update the relay settings in the ER Protection Database.*

*The presentation on protection performance of ER shared by ERLDC is attached at Annexure-B.*

## 1. PART-A

### 1.1. Confirmation of Minutes of 156th PCC Meeting held on 13th March 2026.

The minutes of 156th 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 156th PCC Meeting.

**Deliberation in the meeting**

*Members confirmed the minutes of 156th PCC Meeting.*

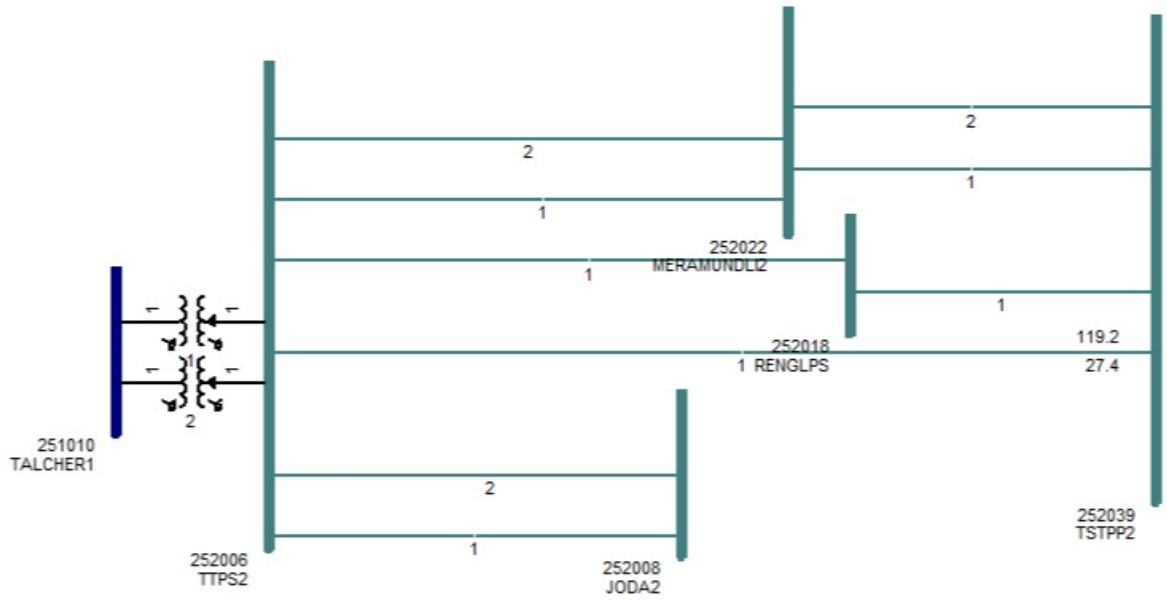
## 2. PART-B: ITEMS FOR DISCUSSION

### 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/NTPC may explain.

**Deliberation in the meeting**

*NTPC representative informed that in both the incidents, B-pole breaker of 220 kV TTPS-TSTPP line got struck which resulted in operation of LBB protection. As all the feeders were connected to single bus, there were total power failure occurred at 220 kV TTPS S/s during the disturbances.*

*He added that the breaker issues were observed in recent past as the demolition work is going on in the switchyard. The existing TTPS S/s is going to be relocated along with all the feeders to some nearby location. The work is to be carried out by OPTCL in a timeframe of 2.5 years.*

*However, the breaker issues were now resolved and 220 kV TTPS-TSTPP line has been shifted to Bus-2 with Bus Coupler closed. Now both 220 kV Bus and busbar protection in service.*

*He further informed that as the circuit breakers are old, they have recently engaged M/s GE for overhauling of the breakers along with supply of spare. PCC advised for proper maintenance of the Breakers, isolators and other elements till the shifting of the substation.*

*Regarding tripping of GT#1 at Rengali HEP in REF protection during the incident, OHPC representative replied that they found some wiring issues in the relay which they have rectified. Further the relay settings in REF relay (pickup& slope setting) have been modified and the relay has been tested and put into operation.*

*PCC advised OHPC to share the revised settings to ERPC for record. PCC further advised OHPC to investigate the reason for tripping of 220kV Rengali PH-Nalco & 220 kV Rengali-TSTPP line during the above disturbance.*

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

WBPDCL 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 I

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, WBPDCL 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.

WBPDCL may explain. WBSETCL may update.

**Deliberation in the meeting**

*WBPDCL representative reported three grid events at remote end substations connected to Bandel TPS in which the lines at BTPS end tripped to clear the fault. The mentioned events were deliberated as follows:*

- *For the event occurred on 05.04.2025, WBSETCL informed that there was a bus fault at 220 kV Rishra S/s and both Bus I & II tripped on busbar differential protection. WBPDCL intimated that during the event 132 kV BTPS-Chanditola D/C tripped on zone-3 protection and 132 kV BTPS-Bighati D/C tripped on Overcurrent protection.*
- *PCC observed that as the fault at 220 kV Bus had been cleared by the busbar protection, the tripping of 132 kV Lines from BTPS end in zone-3 is not in order. PCC advised WBSETCL & WBPDCL to share the DR /EL of the said event to ERPC/ERLDC for analysis. Further WBPDCL was advised to share the relay settings file for 132 kV feeders to ERPC/ERLDC.*
- *For the events on 01.09.2025 & 30.03.2026, it was informed that there were bus faults at 132 kV Adisaptagram & 132 kV Chanditala respectively. As busbar protection is not available for 132 kV level, the faults were cleared from the remote end i.e. BTPS end in zone-2 protection.*

*During deliberation, WBSETCL informed that they have reduced zone-4 timer settings to 250 msec for 132 kV Adisaptagram S/s and suggested that the reduced zone-4-time setting can also be implemented for other two 132 kV S/s. In absence of Busbar protection, this will result in faster fault clearance of the bus fault from local end.*

*PCC agreed to it and advised WBSETCL to reduce the zone-4-time settings to 250 msec for the feeders connected to 132 kV Chanditala & 132 kV Bighati S/s.*

*WBSETCL further informed that they are in process of implementing carrier communication through DTPC for all the 132 kV Lines connected to BTPS. The DTPC is expected to be commissioned by end of Dec-26. After commissioning of DTPC, carrier aided tripping scheme will be implemented for theses lines which would result in faster fault clearance.*

*On the suggestion of WBPDCL for implementation of busbar protection at 132 kV Level, it was clarified that as per CEA Technical Standards Regulation, the busbar protection is mandatory for 220 kV & above voltage level Substations.*

### 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.

**Deliberation in the meeting**

*BSPTCL representative made a brief presentation on the event. The presentation is enclosed at Annexure 2.3. The followings were informed:*

*The 220 kV Naubatpur–Khagaul Ckt-2 (with LILO at Naubatpur) tripped due to R-phase fault in the line on account of decapping of insulator string. The fault initially appeared as a Zone-1 fault. The auto-reclosure (AR) was initiated; however, the fault subsequently evolved into a multi-phase fault, resulting in tripping of all three phases.*

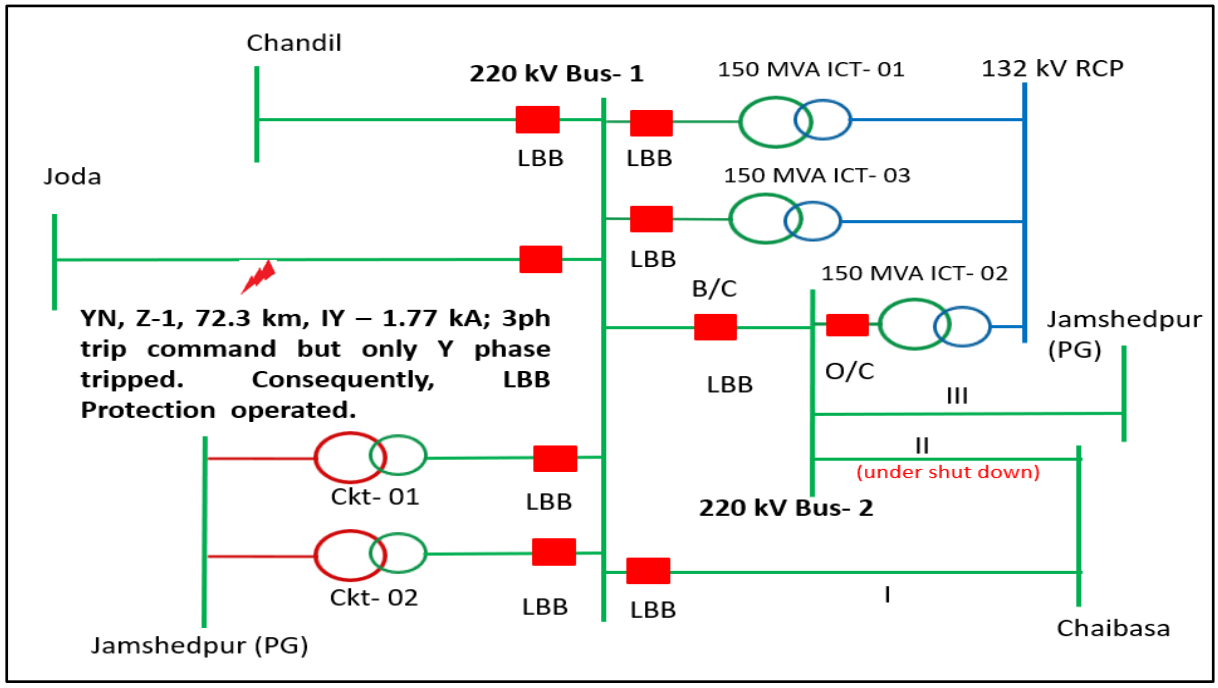
*A residual current (~80 mA) was observed even after circuit breaker operation. The LBB (Local Breaker Backup) protection was initiated as the LBB pickup setting was 100 mA, and during the disturbance, the current approached and likely exceeded the pickup threshold. Subsequently the LBB operated.*

*He informed that the LBB pickup settings was revised from 100 mA to 200 mA for all the bays at Khagaul S/s.*

*Powergrid informed that PID scanning has been planned for the insulators and based on the PID scanning report, replacement of the defective insulator will be carried out.*

### 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.

**Deliberation in the meeting**

*JUSNL representative made a brief presentation on the event. The presentation is enclosed at Annexure 2.4.*

*JUSNL representative explained that on 04.04.2026, a Y–Earth fault occurred on the 220 kV Ramchandrapur–Joda line for which the relay at Ramchandrapur end sensed the fault in Zone-1 protection and issued trip command. However, only the Y-phase pole tripped, while the R and B poles failed to operate (stuck condition), resulting in operation of Main Bus–1 LBB protection.*

*He informed that breaker timing tests were carried out, and all three poles were found to be operating simultaneously with no discrepancy observed.*

*He further informed that due to carrier fail issue at Joda end. The carrier protection is not working, and this resulted in three phase tripping for a single phase to ground fault.*

*PCC advised JUSNL & OPTCL to carry out testing of carrier scheme for 220 kV Joda-Ramchandrapur line and resolve the carrier fail issue at the earliest.*

*PCC further advised JUSNL to submit a compliance report on the recommendations of third party protection audit for 220 kV Ramchandrapur S/s.*

### 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.

**Deliberation in the meeting**

*BSPTCL representative informed that 220 kV Bus-II at Amnour Substation tripped due to busbar protection operation, caused by a fault in the B-phase Main Bus-II Earth Switch (E/S) of 220 kV Hajipur–Amnour Line-2 (Q2 GIS compartment). He informed that testing of the affected GIS compartment revealed elevated $SO_2$ gas levels (>100), confirming internal flashover.The GIS has been inspected by OEM(M/s Siemens) and restoration is expected by one month.*

*PCC suggested to follow up the restoration of the Bus-II in next PCC meeting.*

### 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.

**Deliberation in the meeting**

- **Tripping of 400KV/220KV 250 MVA ICT 1 AT TENUGHAT on 30th March 2026 at 15:01 Hrs**

  *TVNL representative informed that ICT 1 was synchronized on 20th March 2026. On 30th March 2026, ICT-1 tripped on REF protection for an external fault. He further r informed that the REF settings were checked and no discrepancy was found. Further REF stability test was conducted and found in order.*

  *He submitted that the REF relay is of low impedance type and presently the relay is under observation. In case of further tripping, they are plaiining to replace with high Impedance type relay.*

- **Tripping of 400KV/132KV 200 MVA ICT 2 AT KAHALGAON on 28th March 2026 at 01:51 Hrs**

  *NTPC Kahalgaon representative was not present in the meeting. PCC took a serious view of the repeated absence of NTPC representatives in PCC Meeting and advised ERPC Secretariat to send communication to higher authorities of NTPC to attend the PCC Meeting.*

- **Tripping of 400KV/11KV 80 MVA ICT 3 AT MPL on 13th March 2026 at 14:35 Hrs**

  *MPL representative informed that insulation of LV side control cable was damaged which resulted in tripping of ICT 3 in REF protection. He updated that the issue was rectified after the disturbance.*

- **Tripping of 400KV/220KV 315 MVA ICT 1 AT INDRAVATI on 24th March 2026 at 20:24 Hrs**

  *OHPC representative informed that there are two number of 400/220 kV ICTs present at Indravati S/s. ICT 1 is maintained by OHPC and ICT 2 is maintained by Powergrid. He said that on 24th March 2026, work related to changing star point connection for ICT 2 was in progress by Powergrid during which bus bar protection operated which resulted in tripping of ICT. He informed that DR/EL is not available for the event as the busbar relay is of static type.*

- **Tripping of 400KV/132KV 200 MVA ICT 2 AT KAHALGAON on 12th March 2026 at 18:02 Hrs**

  *NTPC Kahalgaon representative was not present in the meeting.*

## 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 Bhutan end in one instance. | PG ER-II /Bhutan |
| **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.

**Deliberation in the meeting**

- **Repeated tripping of 400KV-BINAGURI-NORBUGANG-1 in March 2026**

  *ERLDC informed that autoreclosure was successful at Powergrid end however the line tripped from Bhutan end. The issue has been communicated to NLDC.*

- **Repeated tripping of 400KV-KHSTPP-BARH-2**

  *NTPC Kahalgaon representative was not present in the meeting.*

- **Repeated tripping of 400KV-ALIPURDUAR (PG)-JIGMELLING-2**

  *ERLDC informed that the issue has been communicated to NLDC for onward discussions with Bhutan.*

- **Repeated tripping of 220KV-KARAMNASHA (NEW)-SAHUPURI-1**

  *It was informed that the fault distance is in UP(NR) jurisdiction.*

## 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.

Members may discuss.

**Deliberation in the meeting**

*Explanation from constituents of either end for single line tripping incidences in month of March 26 is attached at* ***Annexure 2.8.***

## 3. PART-C: FOLLOW UP ITEMS

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

In 156th 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.

**Deliberation in the meeting**

*PCC noted the final list of fifteen substations for which protection audit is to be carried out in 2026-27.*

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

In 152nd 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 155th 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 156th 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.

**Deliberation in the meeting**

*ERLDC representative informed that separate meeting was held with WBSETCL to finalise overvoltage settings for their lines.*

*PG ER-II representative informed that they are having few observations associated with the proposed settings which they have shared to ERPC/ERLDC vide email dated 13th April 2026.*

*PG ER-I representative said that they will study the proposed settings and will provide observations.*

*PCC advised concerned utilities to go through the proposed overvoltage settings and submit their observations by end of April 2026.*

*It was decided that after receiving observation from concerned utilities , a special meeting may be convened to finalize the settings.*

### 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. Utilities are requested to submit the details every month for necessary grid code compliance.

Members may discuss.

**Deliberation in the meeting**

*PCC forum advised utilities to share protection performance indices data of particular month by 10th day of subsequent month to ERPC/ERLDC.*

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

| Sl No. | Name of the Incidence | PCC Recommendation | Latest status |
|---|---|---|---|
| **156th PCC Meeting dated 13.03.2026** | | | |
| **1.** | Disturbance at 220 kV Begusarai (BSPTCL) S/s on 06.02.2026 at 09:35 Hrs | BSPTCL was advised following:<br>➢ 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 | *Compliance report received from BSPTCL is Attached at Annexure3.4.1.* |

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| | | which are old shall be replaced to avoid recurrence of such incidents.<br>➢ Definite time overcurrent protection & Undervoltage protection present in 220 kV IOCL feeder at IOCL end shall be disabled immediately.<br>➢ 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.<br>➢ 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. | |
| **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. | *Sterlite representative informed that report on ICT tripping will be shared by 16th April 2026. Regarding GCB tripping, he informed that exact cause of the tripping could not identified however It is expected that tripping was caused due to ground potential rise. They are planning to carry out earthing audit of the substation.* |
| **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, WBPDCL was advised to check reason behind transmission of DT trip signal. | *WBDPCL representative informed that as per existing scheme, DT is sent in 4 cases i.e LBB operation, bus differential protection operation, overvoltage protection operation and manually hand tripping.*<br>*PCC observed that for one and half breaker bus arrangement, the existing DT send scheme will lead to tripping of healthy feeders from remote end though the feeder is* |

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| | | | *charged though tie bay from source end. PCC advised WBPDCL to review the DT send logic in case of LBB operation.* |
| **4.** | 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. | *OPTCL representative informed that A/R scheme is implemented in Main 1 protection. He said that main 1 is P444 relay and main 2 is D60 relay. When D60 relay issues trip command to breaker, DR is not getting extracted from P444 hence A/R is not getting implemented.*<br>*PCC advised to implement A/R by goose communication in case of non-availability of slots.* |
| **155th PCC Meeting dated 19.02.2026** | | | |
| **5.** | 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. | *OPTCL representative informed that bus bar protection has not been restored yet due to non-availability of shutdown of line.*<br>*PCC advised OPTCL to coordinate with SLDC Odisha and ERLDC for the requisite shutdown and restore the bus at the earliest.* |
| **6.** | Total Power Failure at 220 kV Rengali S/s on 12th Dec 2025 at 19:06 Hrs | PCC advised followings:<br>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.<br>2. OPTCL was advised to enable overcurrent highest protection in bus coupler at Rengali S/s after the segregation of feeders.<br>3. OPTCL would submit a timeline for restoration of the busbar protection at Rengali S/s.<br>4. 220 kV Rengali(PH)-Rengali(OPTCL) & 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 | In 156th 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.<br><br>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.<br><br>*OPTCL representative informed that work related to segregation of feeder* |

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| | | necessary action to implement the line differential protection in coordination with OHPC & Powergrid. | *had been completed at Rengali and Balimela S/s.* |
| **154th PCC Meeting dated 20.01.2026** | | | |
| **7.** | Total Power Failure at 400 kV PVUNL S/s on 20th Dec 2025 at 11:23 Hrs | PCC advised JUSNL representative to take rectification measures as suggested by the OEM and submit a compliance to ERPC/ERLDC.<br><br>In 155 PCC Meeting, JUSNL representative informed that differential relay for 400 kV PVUNL-Patratu Line will be implemented by Feb-26.<br>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. | *JUSNL vide letter dated 08.04.2026, updated the status of restoration of 400 kV Busbar Protection. The letter is enclosed at Annexure 3.4.7.* |