



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

दिनांक: 21.01.2026

सेवा में

As per attached list of Members and Other invitees

विषय: संरक्षण उप-समिति की 65 वीं बैठक की कार्यवृत्त |

Subject: Minutes for 65th Protection Sub-Committee Meeting-reg

संरक्षण उप-समिति की 65 वीं बैठक, दिनांक 30.12.2025 को 11:00 बजे से एनआरपीसी सचिवालय, कटवारिया सराय, नई दिल्ली में आयोजित की गयी थी। उक्त बैठक की कार्यवृत्त संलग्न है। यह उत्तर क्षेत्रीय विद्युत् समिति की वेबसाइट (<https://nrpc.gov.in/meetings/prsub.html>) पर भी उपलब्ध है।

The 65th meeting of the Protection Sub-Committee was held on 30.12.2025 at 11:00 Hrs at NRPC Secretariat, Katwaria Sarai, New Delhi. The minutes of the meeting is attached herewith. The same is also available on the NRPC website (<https://nrpc.gov.in/meetings/prsub.html>).

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(D.K. Meena)

निदेशक (संरक्षण)

65th Protection Sub-Committee Meeting (30th Dec, 2025)-MoM

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65th Protection Sub-Committee Meeting (30th Dec, 2025)-MoM

**Minutes of
65th Meeting of Protection Sub-Committee (PSC) of
Northern Regional Power Committee**

Date and time of meeting : 30.12.2025 11.00 Hrs.

Venue : Conference Hall, NRPC Secretariat,
Katwaria Sarai, New Delhi

MS, NRPC welcomed all the participants. She urged utilities for winter preparedness to avoid trippings due to fog. CGM, NRLDC also emphasized on winter preparedness activities. The list of participants is attached as **Annexure-P**.

Part-A: NRPC

A.1. Confirmation of minutes of the 64th meeting of the Protection Sub-Committee (agenda by NRPC Secretariat)

A.1.1 AE (P), NRPC apprised that the 64th PSC meeting was held on 21.11.2025. Minutes of the meeting were issued vide letter dtd. 23.12.2025. No comment has been received till the date.

Decision of the Forum:

Forum approved the issued minutes of the 64th PSC meeting.

A.2. Status of action taken on decisions of 64th Protection Sub-Committee meeting (agenda by NRPC Secretariat)

A.2.1 The status of action taken on the decisions of the 64th PSC meeting were informed to the Forum.

A.2.2 Concerned utilities submitted the status of action taken. Updated status of action taken is attached as **Annexure-A.I**.

Decision of the Forum

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Forum instructed utilities to take necessary action on pending issues.

A.3. Submission of protection performance indices along with reason and corrective action taken for indices less than unity to NRPC Secretariat for the month of November 2025 (agenda by NRPC Secretariat)

A.3.1 AE (P), NRPC apprised that as per clause 15 (6) of IEGC 2023;

- *Users shall submit the following protection performance indices of the previous month to their respective RPC and RLDC on monthly basis for 220 kV and above (132 kV and above in NER) system, which shall be reviewed by the RPC:*

*a) The **Dependability Index** defined as $D = N_c / N_c + N_f$*

*b) The **Security Index** defined as $S = N_c / N_c + N_u$*

*c) The **Reliability Index** defined as $R = N_c / N_c + N_i$*

where,

N_c is the number of correct operations at internal power system faults,

N_f is the number of failures to operate at internal power system faults,

N_u is the number of unwanted operations,

N_i is the number of incorrect operations and is the sum of N_f and N_u

Further, as per clause 15 (7) of IEGC 2023;

- *Each user shall also submit the reasons for performance indices less than unity of individual element wise protection system to the respective RPC and action plan for corrective measures. The action plan will be followed up regularly in the respective RPC.*

A.3.2 In earlier PSC meeting, it was decided that each utility shall submit the **performance indices of previous month by 7th day of next month.**

A.3.3 Accordingly, the status of the indices reported for the month of **November 2025** was presented before Forum as attached as **Annexure-A.II**. Utilities from where, indices were pending, were asked to submit it timely in future.

A.3.4 Following issues were highlighted by AE (P):

- i. Some Utilities have not submitted data.
- ii. Utilities have submitted date for some plants but not all.

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- iii. Utilities have not mentioned corrective action taken for indices less than unity.
- iv. Some utilities have sent data after the cut-off date of 7th.

A.3.5 Forum observed that the following utilities are non-compliant as indices (November 2025) have not been received in the NRPC Secretariat, even as on meeting date:

1. **NTPC (Anta, Auriya, Rihand, Singrauli)**
2. **Meja Urja Nigam Ltd**
3. **ACME Chittorgarh Solar Energy Pvt Ltd (Ayana)**
4. **AMP Energy Green Four Pvt. Ltd.**
5. **AMP Energy Green Five Pvt. Ltd.**
6. **AMP Energy Green Six Pvt. Ltd.**
7. **Ayana Renewable Power Three Private Limited**
8. **Ayaana Renewable Power One Pvt. Ltd.**
9. **Azure Power Forty One Pvt limited**
10. **Azure Power Forty Three Pvt. Ltd._RSS**
11. **Azure Maple Pvt. Ltd.**
12. **AZURE POWER INDIA Pvt. Ltd., Bhadla**
13. **Azure Power Thirty Four Pvt. Ltd.**
14. **Eden Renewable Cite Private Limited**
15. **Mahindra Renewable Private Limited**
16. **Mega Surya Urja Pvt. Ltd. (MSUPL)**
17. **AURAIYA Solar**
18. **DADRI SOLAR**
19. **SINGRAULI SOLAR**
20. **Anta Solar**
21. **Unchahar Solar**
22. **Rising Sun Energy-K Pvt. Ltd.**
23. **Thar Surya Pvt. Ltd.**
24. **TRANSITION ENERGY SERVICES PRIVATE LIMITED**
25. **Transition Green Energy Private Limited**
26. **Transition Sustainable Energy Services Private Limited**

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- A.3.6 Incidents, where indices were found less than one, were discussed (**Annexure-A.III**). It was found that utilities have already taken corrective action except few. Utilities were directed to take corrective action wherever it was pending.
- A.3.7 Further, it was also highlighted that IEGC 2023 has given responsibility to RPCs for receiving indices from all utilities; however, all utilities are not members of NRPC. SLDCs have been requested in earlier PSC meetings to follow up with the concerned utilities of states, which are not NRPC members and to send compiled indices to NRPC.
- A.3.8 EE, NRPC highlighted that 26 entities out of 132 are non-compliant. Utilities need to take action at their organizational level for timely submission of data.
- A.3.9 SE, NRPC stated that letters may be sent to CEOs of non-compliant RE entities. Further, among CPSUs, NTPC is the only entity that is non-compliant and therefore a letter may be issued to the Regional Executive Director, NR, NTPC for sensitizing NTPC plants in the Northern Region for timely reporting of protection performance indices.

Decision of the Forum:

- i. *Utilities were asked to submit the Protection performance indices timely by the 7th day of month element wise along with corrective action taken for indices less than unity. Non-compliant utilities were asked to take necessary action for reporting data. Utilities were also requested to nominate one officer for reporting of indices.*
- ii. *Letters may be sent to CEOs of non-compliant RE entities for sensitizing plants in the Northern Region for timely reporting of protection performance indices. Consolidated data from these plants may be sent by the nodal officer by 7th date of each month.*
- iii. *Letter may be issued to the Regional Executive Director, NR, NTPC, for sensitizing NTPC plants in the Northern Region for timely reporting of protection performance indices. Consolidated data from these plants may be sent by the nodal officer by 7th date of each month.*

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A.4. Reporting of protection performance indices of SPS by SLDCs/RLDC (agenda by NRPC Secretariat)

A.4.1 AE (P), NRPC apprised that as per clause 16 of IEGC 2023;

- *The users and SLDCs shall report about the operation of SPS immediately and detailed report shall be submitted within three days of operation to the concerned RPC and RLDC in the format specified by the respective RPCs.*
- *The performance of SPS shall be assessed as per the protection performance indices specified in these Regulations. In case, the SPS fails to operate, the concerned User shall take corrective actions and submit a detailed report on the corrective actions taken to the concerned RPC within a fortnight.*

A.4.2 He added that the agenda had been discussed in the previous PSC meeting and the following was decided:

- Utilities and SLDCs shall report about the operation of SPS immediately and a detailed report shall be submitted within three days of operation to the concerned RPC and RLDC.
- SLDCs may submit protection performance indices for SPS on a monthly basis by 7th date of each month in the same format as that of protection performance indices of elements (lines/ICT etc). All utilities shall report their indices to concerned RLDC/SLDCs, then, after verifying SPS operation from all points, SLDC/RLDCs shall report performance indices to the NRPC Secretariat.

A.4.3 However, it has been observed that reporting of the operation/failure of operation of SPS is not being done regularly by the SLDCs/utilities.

A.4.4 Indices for SPS in their control area have been submitted by UPSLDC for November 2025. **Compiled status is attached as Annexure-A.IV.**

A.4.5 Rajasthan SLDC has submitted SPS operation data but they have not used prescribed format circulated for filling details. Prescribed format shall be used.

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- A.4.6 HPPTCL has submitted that SPS has operated on 30.11.2025 at 400/220/66 kV S/s at Shimla. HPSLDC was asked to confirm the status of SPS, accordingly, it shall be added in list of SPS in NR.
- A.4.7 NRLDC has informed that no SPS operation reported in November 2025.
- A.4.8 Utilities were requested to report indices even if its operation is NIL so that actual operation logic can be checked whether it is correct or not.
- A.4.9 EE, NRPC mentioned that it has been observed that Delhi SLDC, Haryana SLDC, and Uttarakhand SLDC are not attending PSC meetings regularly. Further, they are also not submitting data.
- A.4.10 SE, NRPC stated that a letter may be issued to heads of above SLDCs for ensuring attendance in PSC meetings.

Decision of the Forum:

- I. Utilities and SLDCs shall report on the operation of SPS immediately and a detailed report shall be submitted within three days of operation to the concerned RPC and RLDC.
- II. SLDCs may submit protection performance indices for SPS on a monthly basis by 7th date of each month in the same format as that of protection performance indices of elements (lines/ICT etc). All utilities shall report their indices to concerned RLDC/SLDCs, then after verifying SPS operation from all points, SLDC/RLDCs shall report performance indices to NRPC Secretariat.
- III. Utilities were requested to report indices even if their operation is NIL so that the actual operation logic can be checked whether it is correct or not.
- IV. A letter may be issued to Delhi SLDC, Haryana SLDC, and Uttarakhand SLDC for attending PSC meetings regularly.
- V. Prescribed format (Annexure-A.IV) shall be used for SPS intimation.

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A.5. Annual protection audit plan for FY 2026-27 (agenda by NRPC Secretariat)

A.5.1 AE (P), NRPC apprised that as per clause 15 of IEGC 2023;

- *Annual audit plan for the next financial year shall be submitted by the users to their respective RPC by 31st October. The users shall adhere to the annual audit plan and report compliance of the same to their respective RPC.*

A.5.2 In view of the above, all utilities were requested to submit the annual protection audit plan for FY-2026-27, latest by 31st October 2025, in the 63rd PSC & in the 56th TCC & 81st NRPC meeting (held on 29-30 October, 2025).

A.5.3 Accordingly, annual audit plans submitted by utilities have been compiled (enclosed as **Annexure- A.V**).

A.5.4 It was observed that the following utilities have not submitted (as on the meeting date) their audit plans and thus are non-compliant:

1. NTPC
2. NPCIL
3. PSTCL
4. HPGCL
5. RRVUNL
6. PSPCL
7. HPSEBL
8. **Apraava Energy Private Limited**
9. **Talwandi Sabo Power Ltd.**
10. **Nabha Power Limited**
11. **MEJA Urja Nigam Ltd.**
12. **Adani Power Rajasthan Limited**
13. **JSW Energy Ltd. (KWHEP)**
14. **JKPTCL (Jammu Region)**
15. **INDIGRID**
16. **ADHPL**
17. **Barsingsar Plant**
18. **Rajwest Plant**
19. **ABC Renewable Pvt. Ltd**

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20. ACME Heeragarh powertech Pvt. Ltd
21. ACME Pholidi
22. ACME Deagarh
23. ACME Raisar
24. ACME Dhoulpar
25. ACME Chittorgarh Solar Energy Pvt Ltd
26. Altra Xergi Pvt. Ltd.
27. AMP Energy Green Four Pvt. Ltd.
28. AMP Energy Green Five Pvt. Ltd.
29. AMP Energy Green Six Pvt. Ltd.
30. Amplus Ages Private Limited
31. Ayana Renewable Power Three Private Limited
32. Ayaana Renewable Power One Pvt. Ltd.
33. Azure Power Forty One Pvt limited
34. Azure Power Forty Three Pvt. Ltd._RSS
35. Azure Maple Pvt. Ltd.
36. AZURE POWER INDIA Pvt. Ltd., Bhadla
37. Azure Power Thirty Four Pvt. Ltd.
38. Eden Renewable Cite Private Limited
39. Grian Energy private limited
40. Mahindra Renewable Private Limited
41. Mega Surya Urja Pvt. Ltd. (MSUPL)
42. AURAIYA Solar
43. DADRI SOLAR
44. SINGRAULI SOLAR
45. Anta Solar
46. Unchahar Solar
47. NTPC Devikot Solar plant_240MW
48. NTPC Kolayat_400kV
49. Nedan Solar NTPC
50. NTPC Nokhra_300MW
51. One Volt energy Pvt. Ltd.
52. ReNew Solar Urja Private Limited (IndiGrid)

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- 53. Renew Surya Ayaan Pvt. Ltd. (IndiGrid)**
- 54. Renew Surya Ayaan Pvt. Ltd.**
- 55. Renew Solar Photovoltaic Pvt Ltd**
- 56. Renew Hans Urja Pvt Ltd**
- 57. Rising Sun Energy-K Pvt. Ltd.**
- 58. Serentica Renewables India 4 Private Limited**
- 59. Tata Power Green Energy Ltd. (TPGEL) (225MW)**
- 60. Tata Power Renewable Energy Ltd. (TPREL) (300MW)**
- 61. Thar Surya Pvt. Ltd.**
- 62. TP Surya Ltd., Noorsar (110MW)**
- 63. Banderwala Solar Plant TP Surya Ltd. (300MW)**
- 64. TRANSITION ENERGY SERVICES PRIVATE LIMITED**
- 65. Transition Green Energy Private Limited**
- 66. Transition Sustainable Energy Services Private Limited**

A.5.5 EE (P) stressed upon the fact that the 31st October deadline has already passed, but the audit plan is pending from above 66 entities.

A.5.6 SE, NRPC stated to issue letters to the above entities for the submission of audit plans.

A.5.7 Non-compliant utilities were requested to submit the sub-station-wise audit plan at the earliest.

Decision of the Forum:

- i. Non-compliant utilities were asked to submit an annual audit plan for sub-station wise audit date without any further delay.*
- ii. A letter may be issued to non-compliant entities for the submission of an audit plan.*

A.6. Third-party protection audit plan (agenda by NRPC Secretariat)

A.6.1 AE (P), NRPC apprised that as per clause 15 of IEGC 2023:

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All users shall also conduct third party protection audit of each sub-station at 220 kV and above (132 kV and above in NER) once in five years or earlier as advised by the respective RPC.

- A.6.2 In view of above, third-party protection audit plans received from utilities were apprised to the forum and the same is enclosed as **Annexure-A.VI**.
- A.6.3 It was also apprised that two different states may do a mutual third-party audit as decided in the 58th PSC meeting.
- A.6.4 Further, as per received information, third party protection audit has been planned as below by utilities-

Organization where audit is to be done	Organizations finalized for performing audit								
	DT L	RVP N	HVP N	UPPTC L	PSTC L	HPPTC L	PTCU L	POWERGR ID	External Vendor
DTL	-	-	✓	-	-	-	-	-	-
RVPN	-	-	✓	-	-	-	-	-	-
HVPN	-	✓	-	-	-	-	-	-	-
UPPTCL	-	-	-	-	-	-	-	-	ERDA
PSTCL	-	-	-	-	-	-	-	-	External
HPPTCL	-	-	-	-	-	-	-	✓	-
PTCUL	-	-	-	-	-	-	-	-	CBIP
UT of J&K	-	-	-	-	-	-	-	✓	-
UT of Ladakh	-	-	-	-	-	-	-	✓	-
UT of Chandigarh	-	-	-	-	-	-	-	-	-
POWERGRID	-	-	-	-	✓	✓	-	-	✓

- A.6.1 Utilities may update if there is any change from the above arrangement.
- A.6.2 EE, NRPC mentioned that PGCIL has not mentioned an audit plan for all the sub-stations. To this, the PGCIL representative replied that CPRI has limitations for conducting audit of all the sub-stations in a year. EE, NRPC stated that the audit plan may be submitted for all sub-stations; however, if there would be any deviation, PGCIL may inform later.

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A.6.3 It was observed that the audit plan has not been received from the following, and thus are non-compliant:

1. **PSTCL**
2. **UJVNL (Tiloth, Vyasi)**
3. **HPPCL (Sainj)**
4. **Talwandi Sabo Power Ltd**
5. **UT of J&K**
6. **UT of Chandigarh**
7. **STSL (AESL)**
8. **Barsingsar plant**
9. **Rajwest Plant**
10. **ABC Renewable Pvt. Ltd**
11. **ACME Heeragarh powertech Pvt. Ltd**
12. **ACME Pholidi**
13. **ACME Deagarh**
14. **ACME Raisar**
15. **ACME Dhoulpar**
16. **ACME Chittorgarh Solar Energy Pvt Ltd**
17. **Amplus Ages Private Limited**
18. **Azure Power Forty One Pvt limited**
19. **Azure Power Forty Three Pvt. Ltd._RSS**
20. **Azure Maple Pvt. Ltd.**
21. **AZURE POWER INDIA Pvt. Ltd., Bhadla**
22. **Azure Power Thirty Four Pvt. Ltd.**
23. **Eden Renewable Cite Private Limited**
24. **Grian Energy private limited**
25. **Mahindra Renewable Private Limited**
26. **Mega Surya Urja Pvt. Ltd. (MSUPL)**
27. **AURAIYA Solar**
28. **DADRI SOLAR**
29. **SINGRAULI SOLAR**

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30. Anta Solar
31. Unchahar Solar
32. One Volt energy Pvt. Ltd.
33. Renew Solar Photovoltaic Pvt Ltd
34. RENEW SOLAR POWER Pvt. Ltd. Bikaner
35. Rising Sun Energy-K Pvt. Ltd.
36. Serentica Renewables India 4 Private Limited
37. TRANSITION ENERGY SERVICES PRIVATE LIMITED
38. Transition Green Energy Private Limited
39. Transition Sustainable Energy Services Private Limited

Decision of the Forum:

Forum directed utilities to submit an audit plan. Subsequently, the audit reports along with compliance status may be submitted to NRPC Secretariat within one month of completion of the audit.

A.7. Discussion on audit reports submitted by utilities and compliance of recommendations of protection audit (agenda by NRPC Secretariat)

A.7.1 AE (P), NRPC apprised that as per clause 15 of IEGC 2023;

- *All users shall conduct an internal audit of their protection systems annually, and any shortcomings identified shall be rectified and reported to their respective RPC. The audit report, along with an action plan for rectification of deficiencies detected, if any, shall be shared with the respective RPC for users connected at 220 kV and above (132 kV and above in NER).*

A.7.2 As per clause 15 (4) of IEGC 2023;

- *The third-party protection audit report shall contain information sought in the format enclosed as Annexure–1 (IEGC). The protection audit reports, along with an **action plan for rectification of deficiencies detected, if any, shall be submitted to the respective RPC and RLDC or SLDC, as the case may be, within a month of submission of the third-party audit report.** The*

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necessary compliance to such a protection audit report shall be followed up regularly in the respective RPC.

A.7.3 The following **internal audit report** was discussed in the meeting and an observation was given as attached as **Annexure-A.VII**:

S.N.	FY (Audit Date)	Utility	Stations
1	2025-26	IPGCL	PPS-I
2	2025-26	RVPN	3 Substations (Khetri Nagar, Kuchera, Nagaur)
3	2025-26	JKPTCL	220kV Bishnah
4	2025-26	Avaada (discussed in 64 th PSC meeting) (now has been shared with protection settings)	4 Plants (Avaada RJHN_240MW Avaada sunce energy Pvt limited Avaada Sunrays Pvt. Ltd. Avaada Sustainable RJ Pvt. Ltd.)
5	2025-26	AGEL	4 plants (6 SPVs) (Adani Hybrid Energy Jaisalmer Four Ltd., Hybrid-2A, Hybrid-2B, Rawara 300MW - Adani Renewable Energy (RJ) Limited (200MW), Adani Solar Energy Four Limited (50MW), Adani Solar Energy Jodhpur Two Ltd

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			(50MW))
6	2025-26	Sekura	Solzen Urja Private Limited
7	2025-26	Hero Future Energies	Clean Solar Power Jodhpur Private Limited
8	2025-26	Gentari	3 Plants (Grian Energy Private Limited (GEPL) Amplus Ages Private Limited (AAPL) Onevolt Energy Pvt Limited (OVEPL))

A.7.4 Report of Gorbea Solar Pvt Ltd for GSPL_BHDL2 was not discussed as report has no mention of protection settings. Gorbea Solar Pvt Ltd may submit settings.

A.7.5 Following third party audit reports were discussed in the meeting and observation was given as attached at **Annexure-A.VIII**:

S.N.	Utility	Stations
1	SJVN	NJHPS

A.7.6 NHPC has submitted action plan on third party audit report. Same is attached as **Annexure- A.IX**.

A.7.7 Utilities were asked to submit compliance report of the issues highlighted by audit.

Decision of the Forum:

The forum discussed the audit report and directed utilities to submit a compliance report. Protection settings may be aligned with NRPC philosophy. Further, other utilities were directed to submit the protection audit report (for audited S/s as per submitted plan) to the NRPC Secretariat and to update the compliance status regularly.

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A.8. Protection coordination of STU with DISCOMs along with ISTS (agenda by NRPC Secretariat)

- A.8.1 EE, NRPC stated that a meeting under the chairmanship of the Chairperson, CEA, on the Scientific Distribution Network Planning methodology of the distribution system was held on 02.12.2025. Minutes of the meeting are attached as Annexure-A.VII. of the agenda.
- A.8.2 In the MoM, it has been mentioned that NPC/RPCs may also take up the protection coordination of STU with Discoms along with ISTS.
- A.8.3 EE, NRPC asked utilities to take up the matter and ensure the protection coordination of DISCOM feeders emanating from TRANSCO sub-stations. It will save the area from unnecessary blackout.

Decision of the Forum:

Utilities noted the requirement of protection coordination of DISCOM feeders to avoid unnecessary tripping.

A.9. Upgradation of Tele-Protection Communication Scheme from PLCC to Digital Tele-Protection Communication (DTPC) for Nathpa Jhakri HPS & Rampur HPS ends and rectification of major alarm observed in PLCC Channel-1 of Rampur-Nalagarh Ckt-1 (agenda by SJVN)

- A.9.1 SJVN representative apprised that during the 54th Protection Sub-Committee (PSC) Meeting held on 25th November 2024, the agenda regarding upgradation of the Tele-Protection Communication Scheme from PLCC to Digital Tele-Protection Communication (DTPC) for Nathpa Jhakri HPS and Rampur HPS was deliberated. The representative from POWERGRID (NR-II) informed the committee that the tendering process for DTPC had been completed and that the DTPC scheme for both Nathpa Jhakri HPS and Rampur HPS ends would be commissioned by 31st March 2025.
- A.9.2 Subsequently, after March 2025, the issue was again taken up with POWERGRID. In response, POWERGRID intimated via email dated 23.05.2025 that the replacement of one tele-protection channel for each line by DTPC was in process and was targeted for completion by December 2025.

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- A.9.3 However, no field activity related to retrofitting or commissioning of the DTPC scheme has commenced till date at either end.
- A.9.4 Further, it is also submitted that a major alarm has been observed in PLCC Channel-1 of Rampur–Nalagarh Ckt-1, which has been occurring frequently for the past 2–3 weeks. The same has been communicated to the Nalagarh end.
- A.9.5 In view of the above and considering the criticality of reliable tele-protection for high-capacity inter-regional lines, SJVN requested for expeditious action, confirmation of firm timelines and early implementation of the DTPC scheme at Nathpa Jhakri HPS and Rampur HPS ends and rectification of major alarms observed in PLCC Channel-1 of Rampur–Nalagarh Ckt-1.
- A.9.6 DGM, PGCIL, NR-2 stated that for DTPC implementation at Rampur HPS, material supply has been completed and implementation shall be done by 31st March 2026. Regarding the alarm issue at PLCC Channel-1 of Rampur–Nalagarh Ckt-1, PGCIL stated that vendor PUNCOM shall be called to attend to the issue.

Decision of the Forum:

PGCIL may complete activities within the deadline i.e. 31st March,2026.

A.10. Installation of Special Protection Scheme (SPS) for Haryana (agenda by NRPC Secretariat)

- A.10.1 AE, NRPC apprised that Haryana SLDC vide email dated 11.12.2025 has submitted that as per the minutes of the 237th OCC meeting for the agenda point no. B.11 regarding the State-wise transmission constraints during high demand season of 2025 and SPS proposals, it has been decided that Haryana will provide SPS at Panipat BBMB to mitigate the N-1 constraint observed on 400/220kV ICTs at Panipat BBMB.
- A.10.2 Accordingly, the matter has been taken up with TS/Wing HVPNL to expedite the installation of SPS at 400/220kV ICTs at Panipat BBMB at the earliest.
- A.10.3 It is to inform that the implementation of the proposed SPS involves coordination of multiple stakeholders / Utilities i.e. BBMB, DTL & Haryana, which necessitate due

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deliberation & consent from all concerned States & utilities.

- A.10.4 In view of the above submission and considering the regional impact & operational dependencies, HVPNL has requested NRPC to convene a joint meeting of all the concerned stakeholders in order to finalise the configuration, consent for tripping of feeders and operational logic for the SPS scheme to resolve N-1 non-compliance of ICTs at 400 kV Substations, BBMB, Panipat as well as to enable enhancement of ATC/TTC for Haryana while ensuring system security under contingency conditions.
- A.10.5 Haryana SLDC has also highlighted that matter is critical for the secure and economic operation of the grid and to address the enhancement of transfer capability for Haryana in the next summer season.
- A.10.6 In the meeting, a representative from Haryana SLDC was absent. Accordingly, it was decided to take up the agenda on the availability of Haryana SLDC in the upcoming OCC/PSC.

Decision of the Forum:

Representative from Haryana SLDC was absent. Accordingly, it was decided to take up agenda on availability of Haryana SLDC in the upcoming OCC/PSC.

A.11. Updation of protection settings database (agenda by NRPC Secretariat)

- A.11.1 AE, NRPC apprised that as per regulation 14 (3) of IEGC 2023:
RPCs shall maintain a centralized database and update the same on a periodic basis in respect of their respective region containing details of relay settings for grid elements connected to 220 kV and above (132 kV and above in NER). RLDCs shall also maintain such a database.
- A.11.2 The agenda was discussed in the 62nd PSC meeting held on 26.08.2025. Accordingly, data available with the NRPC Secretariat has been placed in the Microsoft OneDrive link and has been shared with Nodal Officers for review. It was requested that if any element (line/ICT/etc) is missing, the same may be intimated to the NRPC Secretariat.
- A.11.3 However, **NRPC Secretariat has not received any feedback from Nodal Officers.**

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- A.11.4 Further, some utilities have not nominated nodal officers as on date. Letter dated 25.09.2025 asking for nomination is attached as Annexure-VIII (of agenda) for reference. List of nodal officers received is attached as **Annexure-X**.
- A.11.5 In the meeting, UPPTCL and HVPN representatives apprised that folders need updation as some elements' name is missing.
- A.11.6 Utilities were requested to inform the NRPC Secretariat of the requirement for requirement of addition of elements in the folder. Accordingly, "edit" permission shall be granted for the updation of the database.
- A.11.7 Utilities were also requested to expedite the nomination of nodal officers.
- A.11.8 SE, NRPC stated to issue a reminder.

Decision of the Forum:

- i. *Utilities were requested to inform the NRPC Secretariat for the addition of elements in the folder. Accordingly, "edit" permission shall be granted for updation of database.*
- ii. *Nomination of Nodal Officers may be expedited. A letter may be issued for reminder.*

A.12. Higher 5Th order Harmonics at Rihand Dadri Terminals (Agenda by NR-3/PGCIL)

- A.12.1 PGCIL, NR-3 apprised that tripping of Type-3 filters (5/27) Harmonic on overload protections at HVDC Rihand & Dadri terminals was discussed under 58th Protection Sub-Committee Meeting. There is total 03 nos. of Type 3 Filter Banks named Z13, Z23 & Z33 are installed at HVDC Rihand. It has been observed that whenever any of the Type-3 Filter Bank (5/27) is charged either from RPC or manually, filter banks got tripped on resistive or reactive overload protections due to higher 5th Order Harmonics coming from Grid.
- A.12.2 **Decision of the 58th PSC Forum:** Forum decided that POWERGRID may issue a letter to NTPC, Hindalco and other utilities for arranging the measurement of power quality i.e. 5th Harmonics on HVAC network and submit the reports within 2 months from issuance of the letter.
- A.12.3 In view of the forum decision, POWERGRID had served the letter to NTPC Rihand,

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Hindalco, Renu Sagar. In response to the letter issued to NTPC, NTPC Rihand asked for the procedure for carrying out the measurement on verbal communication.

A.12.4 During the Hindalco visit, it was conveyed to POWERGRID that Hindalco has carried out the 5th Harmonic Measurement in 02 nos. 132 kV Lines connected with the Grid from 25 to 27th Dec 2024 by PRDC, Bangalore and the results are in permissible limit. Only a limited response was received to POWERGRID.

A.12.5 In view of the above scenario and as the measurement may require the outage of a few elements, the following are being submitted as below:

1. Location/Station for measurement of harmonics needs to be finalized based on the "Transmission Grid map of Southeast Zone-UP" by PSC. Measurements to that utility where 06 Pulse converter are installed may be given first preference for measurements.
2. Finalization of an Institutional body like CPRI may be done to finalize the measurement-related SOP, duration of measurement and the submission of the post measurement analysis report.
3. Cost booking methodology shall also be finalized towards measurement.

A.12.6 After discussion, it was decided that since the issue is faced by PGCIL, the lead may be taken by PGCIL. PGCIL needs to shortlist possible causes of harmonics. Accordingly, a course of action may be taken by PGCIL. The forum shall extend its support if PGCIL is facing any issue in coordination with utilities

A.12.7 PGCIL stated that harmonics are injected by converters installed in the grid. All installations connected with the grid shall comply harmonics injection limit.

A.12.8 NRPC Secretariat stated that CEA regulations and the Supply Code of States has mention of harmonic limits, but the challenge here is to identify the cause of harmonics and its location.

A.12.9 PGCIL was asked to explore the cause of harmonics. If required, PGCIL may hire a consultant. As the issue has affected PGCIL, cost is to be borne by PGCIL.

A.12.10 TRANSCO utilities were asked to enforce CEA regulations and Supply Code to control injection of harmonics by connected load. TRANSCO may sensitize the issue to all DISCOMs in state.

Decision of the Forum:

- i. PGCIL was asked to explore the cause of harmonics. If required, PGCIL may

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hire a consultant. As the issue has affected PGCIL, the cost is to be borne by PGCIL.

- ii. TRANSCO utilities were asked to enforce CEA regulations and Supply Code to control the injection of harmonics by connected load. TRANSCO may sensitize the issue to all DISCOMs also in the state.

Part-B: Agenda by NRLDC

B.1 Status of remedial actions recommended during previous PSC meetings (agenda by NRLDC)

- B.1.1 As per the discussion in pervious PSC meetings, necessary remedial actions were recommended based on the analysis and discussion of the grid events. In view of the same, a mail dt 22.12.2025 has also been sent from NRLDC to constituents requesting to share the status of remedial actions taken. It is expected that necessary actions would have taken place. List of points discussed in 65th PSC meeting is attached as Annexure-B.I of agenda.
- B.1.2 NRLDC representative presented all the points and a discussion was held with all the respective constituents. Constituents were requested to apprise the status of the remedial actions. Updated status on the basis of the discussion held in 65th PSC meeting is attached as **Annexure-B.I**. Further, concerned members were requested to take expeditious corrective actions and resolve the issues at the earliest.

Decision of the Forum:

Forum requested all the concerned members to take necessary corrective actions at their end. Actions need to be expedited, and the healthiness of the protection & control system need to be ensured.

B.2 Multiple elements tripping events in the Northern region in the month of November 2025 (agenda by NRLDC)

- B.2.1 A total of 07 grid events occurred in the month of November 2025 of which 03 are of

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GD-1 Category, 01 is of GI-2 Category and 03 are of GI-1 Category. The tripping report of all the events has been issued by NRLDC. The list of Grid events along with the status of DR/EL submission is attached as Annexure-B.II of the agenda.

- B.2.2 Maximum delayed clearance of fault observed in the tripping event at 220/132/33kV Jammu/Gladni(J&K) at 16:24 hrs on 11th November 2025 (As per PMU at Kishenpur(PG), R-B phase to phase fault converted to 3-phase fault was observed with delayed fault clearing time of 1040ms).
- B.2.3 Delayed clearance of fault (more than 100ms for 400kV and 160ms for 220kV system) was observed in total 02 events out of 07 grid events that occurred in the months. In 02 (no.) of grid events, there were no fault in the grid.
- B.2.4 As per IEGC clause 37.2 (c), Disturbance Recorder (DR), station Event Logger (EL), Data Acquisition System (DAS) shall be submitted within 24 hrs of the event and as per IEGC clause 37.2 (e), the user shall submit a detailed report in the case of grid disturbance or grid incidence within one (1) week of the occurrence of event to RLDC and RPC.
- B.2.5 NRLDC requested utilities share DR/EL and the detailed report of the tripping events as per timeline mentioned in IEGC 2023 and share the same with NRLDC, NRPC and PSC forum. Remedial actions taken by constituents to avoid such multiple elements tripping may also be included in the detailed report.
- B.2.6 Members stated that delay occurred due to non-submission of DR/EL & tripping details from site; however, they are taking continuous follow-up actions to ensure the timely completion of tripping analysis within the stipulated timeline.
- B.2.7 Further, NRLDC highlighted the major tripping events that occurred during November 2025 (attached as Annexure-B.III of the agenda). Concerned constituents/utilities were requested to share the detailed analysis of the tripping elements along with the status of remedial action taken/to be taken.
- B.2.8 Utilities were requested to prepare a detailed analysis report and present the event details during 65th PSC meeting. Events involving more than one utility may be jointly prepared and presented.
- B.2.9 **Discussion during the meeting:**
Tripping Events

A. Multiple element tripping event at 220/132kV Kota Sakatpura(RS) and 220kV KTPS(RS) at 01:11 hrs on 05.11.2025

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NRLDC representative shared the following observations w.r.t. tripping event:

- i. Reason for the delayed clearance of fault need to be shared.
- ii. Time delay setting of Z-4 distance protection needs to be reviewed and set in line with the NRPC protection philosophy.
- iii. Reason of multiple elements tripping at KTPS along with supporting relay flags need to be shared.
- iv. DR/EL of all the tripping elements need to be shared.
- v. Remedial action taken report need to be shared.

Rajasthan representative informed the following points:

As per time stamping in the bus bar scheme at 01:20:31:610 hours, a fault occurred in the Y-phase (middle phase) live tank CT on the 220 kV side of the 220/132 kV, 100 MVA Transformer-IV. The CT was severely burnt, and due to the resultant fire, several control cables and CT secondary cables in the trenches associated with Transformer-IV, as well as the adjoining 220 kV Mandalgarh feeder, were damaged. Since the CT was located on the bus side, the fault fell within the busbar protection zone, resulting in operation of the busbar protection scheme and tripping of the associated elements.

The root cause of the disturbance was the failure and bursting of the Y-phase live tank CT on the 220 kV side of the 220/132 kV, 100 MVA Transformer-IV.

As the CT was located on the bus side, the fault was effectively within the busbar protection zone, leading to the operation of busbar protection.

Initial pickup occurred in the check zone, followed by main zone operation, confirming correct busbar protection logic.

The transformer differential protection operated promptly due to the CT failure and subsequent fault escalation.

Fire and CT damage likely caused a secondary phase fault involving the R-phase of the jack bus.

Earth fault protection of the bus coupler also operated in coordination, based on its TMS and plug setting.

PSC Recommendations:

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- *Time delay setting of Z-4 distance protection needs to be reviewed and set in line with the NRPC protection philosophy (Action: RVPNL).*

B. Multiple element tripping event at 220kV RSJPL(IP) at 13:40 hrs on 07.11.2025

NRLDC representative shared the following observations w.r.t. tripping event:

- i. Exact reason of tripping need to be shared.
- ii. Exact location and nature of fault need to be shared.
- iii. DR/EL along with tripping report need to be shared.
- iv. Remedial action taken report to be shared.

RENEW representative informed that there was transient fault in the line.

NRLDC representative highlighted that A/R should have operated during transient fault; however as per PMU there was no fault in the system during this time.

PSC Recommendations:

- *DR/EL (.dat/.cfg file), along with a detailed tripping report need to be shared within one week (Action: RENEW)*

C. Multiple element tripping event at 220/132/33kV Jammu/Gladni(J&K) at 16:24 hrs on 10.11.2025

NRLDC representative shared the following observations w.r.t. tripping event:

- i. The exact nature and location of the fault need to be shared.
- ii. Reason of delayed clearance of fault needs to be shared.
- iii. SCADA data of 220/132/33kV Jammu/Gladni(J&K) and 220kV Salal(NHPC) S/s were freezed during the event. Availability and healthiness of SCADA need to be ensured.
- iv. DR/EL (.dat/.cfg) file of all the tripped elements along with tripping report need to be shared from J&K end.
- v. Remedial action taken report to be shared.

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NRLDC representative highlighted that distance protection relay settings of lines need to be reviewed at 220kV Jammu/Gladni(J&K) at the earliest.

JKPTCL, Jammu representative informed that distance protection relay settings will be reviewed at 220kV Jammu/Gladni(J&K) in co-ordination with POWERGRID.

PSC Recommendations:

- *Distance protection relay settings need to be reviewed at 220kV Jammu/Gladni(J&K) (**Action: JKPTCL, Jammu, in co-ordination with POWERGRID**).*
- *DR/EL (.dat/.cfg file) of all tripped elements, along with a detailed tripping report need to be shared within one week (**Action: JKPTCL, Jammu**).*

D. Multiple element tripping event at 220/66/33kV Gopalpur(DTL) at 16:35 hrs on 14.11.2025

NRLDC representative shared the following observations w.r.t. tripping event:

- i. The exact reason of bus bar protection operation during the carrying out of protection work on 220kV Gopalpur-Timarpur Ckt need to be analysed and shared.
- ii. DR/EL (.dat/.cfg file) of all tripped elements along with detailed tripping report need to be shared.
- iii. Remedial action taken report needs to be shared.

DTL representative informed that connection to distance protection was in series with LBB. During testing of distance protection LBB was not taken out of service inadvertently. Hence busbar protection mal-operated sensing differential current during testing.

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PSC Recommendations:

- SOP need to be followed during testing work to avoid any inadvertent tripping in future (**Action: DTL**).
- DR/EL (.dat/.cfg file) of all tripped elements along with detailed tripping report need to be shared within one week (**Action: DTL**).

E. Multiple element tripping event at 400/220kV Kishenpur(PG) at 11:51 hrs on 21.11.2025

NRLDC representative shared the following observations w.r.t. tripping event:

- i. DR/EL (.dat/.cfg) file of 400 KV Kishenpur-Moga (PG) Ckt-2 need to be shared for Moga(PG) end.

POWERGRID NR-2 representative agreed to share DR/EL (.dat/.cfg) file of 400 KV Kishenpur-Moga (PG) Ckt-2 need to be shared for Moga(PG) end.

PSC Recommendations:

- DR/EL (.dat/.cfg) file of 400 KV Kishenpur-Moga (PG) Ckt-2 need to be shared for Moga(PG) end within one week (**Action: POWERGRID**).

F. Multiple element tripping event at 220/33kV Chowadhi(JK) at 19:44 hrs on 22.11.2025

NRLDC representative shared the following observations w.r.t. tripping event:

- i. Exact nature and location of fault need to be shared.
- ii. Carrier communication issue at Chowadhi(JK) end need to be resolved at the earliest.
- iii. Distance protection settings may be reviewed for 220 KV Samba(PG)-Chowadhi (JK) (PG) Ckt and 220 KV Chowadhi (JK)-Gladni(PDD) (PG) Ckt.

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- iv. SCADA data of 220/132/33kV Jammu/Gladni(J&K) and 220/33kV Chowadhi(JK) S/s were freezed during the event. Availability and healthiness of SCADA need to be ensured.
- v. Remedial action taken report to be shared.

POWERGRID NR-2 representative informed that distance protection settings is already reviewed for 220 KV Samba(PG)-Chowadhi (JK) (PG) Ckt and 220 KV Chowadhi (JK)-Gladni(PDD) (PG) Ckt. However no issue was found. Both zone-2 and zone-4 settings of 220 KV Chowadhi (JK)-Gladni(PDD) (PG) Ckt were kept as 500 ms.

PSC Recommendations:

- *Carrier communication issue at Chowadhi(JK) end need to be resolved at the earliest.*

G. Multiple element tripping event at 765/400/220kV Agra(PG) at 12:12 hrs on 29.11.2025

NRLDC representative shared the following observations w.r.t. tripping event:

- i. Exact reason of bus bar protection operation including fault details need to be shared.
- ii. DR/EL along with detailed tripping report need to be shared by PG.
- iii. Remedial action taken report need to be shared.

POWERGRID NR-3 representative informed the following points:

- i) During antecedent condition, 220kV Bus-2 at Agra(PG) was already under shutdown.
- ii) Due to cable fault isolator of Bus-2 side of one charged bay got closed and fault occurred in the healthy bus, i.e. 220kV Bus-1 at Agra(PG). This led to operation of busbar protection operation.

PSC Recommendations:

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- *Timely submission of DR/EL & tripping report need to be ensured (Action: PGCIL).*

Grid event analysis details of all the aforementioned grid incidents is attached as Annexure-B.II.

Decision of the Forum:

PSC forum requested members to take necessary preventive measures to avoid such grid incidents / disturbances in future and report the actions taken by respective utilities in PSC forum. Moreover, utilities may impress upon all concerned for providing the Preliminary Report, DR/EL & detailed report of the events to RLDC in line with the regulations.

B.3 Frequent elements tripping during November 2025 (agenda by NRLDC)

B.3.1 The following transmission elements were frequently tripping during the month of **November 2025**:

S. NO.	Element Name	No. of forced outages	Utility/SLDC
1	250 MW (PSP) TEHRI HPS - UNIT 5	8	Tehri PSP
2	250 MW (PSP) TEHRI HPS - UNIT 6	4	Tehri PSP
3	400 KV Agra-Unnao (UP) Ckt-1	3	UP
4	400 KV Bareilly-Unnao (UP) Ckt-1	3	UP
5	400 KV Orai-Mainpuri (UP) Ckt-1	3	UP
6	400 KV Suratgarh(RVUN)-Bikaner(RS) (RS) Ckt-1	3	Rajasthan
7	220 KV Gorakhpur(PG)-Anand Nagar(UP) (UP) Ckt-1	3	PGCIL/UP
8	220 KV RAPS_A(NP)-Sakatpura(RS) (RS) Ckt-2	3	NPCIL/ Rajasthan

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- B.3.2 List of tripping is attached as Annexure-B.IV of the agenda.
- B.3.3 It may be noted that frequent tripping of such elements affects the reliability and security of the grid. Hence, **utilities are requested to analyse the root cause of the tripping and share the remedial measures taken/being taken in this respect.**
- B.3.4 Regarding **250 MW (PSP) TEHRI HPS - UNIT 5 & 6**: *NRLDC representative raised concerned on the frequent tripping of Tehri PSP units and requested to share the details of actions taken / planned to be taken to avoid such frequent tripping in future. Tehri PSP representative shared a detailed presentation, including root cause analysis and corrective action attached as **Annexure-B.III.***

NRLDC representative emphasized that A/R (auto re-closer) issue was found in many of these tripping. All the utilities were sensitized to ensure healthiness/in service of A/R in 220 kV and above transmission lines in compliance to CEA Grid Standards. It was further informed that most of the tripping were of transient in nature but due to non-operation of A/R, it resulted into tripping of the transmission element thus reducing the reliability of the grid.

It was requested that all the utilities shall endeavour to keep auto re-closer in service and healthy condition of 220 kV and above voltage level transmission line. The issue of time syncing of DR/EL at many of the stations was also highlighted, constituents were requested to ensure the time syncing of DR/EL. In addition, utilities were requested to take necessary actions to ensure the Right of Way and other operation & maintenance issues to minimize the frequent faults in the line. All the utilities agreed for the same.

Decision of the Forum

Forum reiterated that frequent outages of transmission elements affect the reliability and security of the grid. Members were requested to investigate such frequent outages and share the suitable remedial measures taken/being taken in this respect.

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B.4 Details of tripping of Inter-Regional lines from Northern Region for November 2025 (agenda by NRLDC)

- B.4.1 A total of 02 inter-regional lines tripping occurred in the month of November 2025. The list is attached at Annexure-B.V of agenda. The status of receipt of preliminary reports, DR/EL within 24hrs of the event and fault clearing time as per PMU data has also been mentioned in the table. The non-receipt of DR/EL & preliminary report within 24hrs of the event from SLDCs / ISTS licensees / ISGSs is in violation of regulation 37.2(c) of IEGC and regulation 15(3) of CEA Grid Standards. As per regulations, all the utilities shall furnish the DR/EL, flag details & preliminary report to RLDC/RPC within 24hrs of the event. They shall also furnish the detailed investigation report within 7 days of the event if fault clearance time is higher than that mandated by CEA (Grid Standard) Regulations.
- B.4.2 NRLDC representative highlighted that maloperation of Pole Control System was suspected during tripping of 70 KV Vindhyachal(PG) Pole-2 on 19.11.2025. POWERGRID was requested to analyse the same and take necessary remedial action at the earliest.

Decision of the Forum

PSC forum recommended members to take necessary actions to minimise the tripping on inter regional line and ensure proper operation of the protection system. Further utilities were requested to share DR/EL and the detailed report of the tripping events as per the timeline mentioned in IEGC 2023.

B.5 Mock testing of System Protection Schemes (SPS) in Northern Region (agenda by NRLDC)

- B.5.1 As per IEGC clause 16.2

“For the operational SPS, RLDC or NLDC, as the case may be, in consultation with the concerned RPC(s) shall perform regular load flow and dynamic studies and mock testing for reviewing SPS parameters & functions, at least once in a year. RLDC or NLDC shall share the report of such studies and mock testing including

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any short comings to respective RPC(s). The data for such studies shall be provided by CTU to the concerned RPC, RLDC and NLDC.”

B.5.2 As per IEGC clause 16.3

“The users and SLDCs shall report about the operation of SPS immediately and detailed report shall be submitted within three days of operation to the concerned RPC and RLDC in the format specified by the respective RPCs.”

B.5.3 There are 65 numbers of System Protection Scheme (SPS) approved in Northern Region. These SPS are implemented at major generation complexes, important evacuating transmission lines and ICTs which are N-1 non-complaint. System Protection Scheme Document of Northern Region has been revised/updated on 31st January, 2025.

B.5.4 SPS is designed to detect abnormal system conditions and take predetermined, corrective action to preserve system integrity and provide acceptable system performance. Therefore, correct operation of SPS as per designed logic is important to serve its purpose. To ensure this, mock testing of SPS needs to be conducted at a regular period. Clause 16.2 of IEGC 2023 also mandates the mock testing of SPS for reviewing SPS parameters & functions, at least once a year.

B.5.5 In this regard, communication has already been sent to constituents through NRLDC letter dated 01.05.2024, 21.02.2025, 05.03.2025, 04.04.2025 & 28.05.2025 and continuous follow up is being done in OCC & PSC meeting since May 2024.

During 2024-25, mock testing of 14 SPS out of total 55 SPS were not conducted. In view of high demand scenario during summer 2025-26, NRLDC vide letter dated 04.04.2025 requested all the concerned utility to conduct the mock testing of pending SPS by the end of April 2025. However, as reported, mock testing of 03 SPS out of pending 14 SPS have been done. In this regard, discussion was also held in past PSC meetings. PSC forum requested all the members to conduct the mock testing of all the SPS in their respective control area at the earliest.

B.5.6 Status of mock testing of all the SPS in NR is attached as Annexure-B.VI of agenda.

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B.5.7 Status of follow-up actions w.r.t. some of the SPS are as follows:

- i. **SPS of HVDC Rihand-Dadri:** During mock testing of SPS of HVDC Rihand-Dadri on 20.03.2025, issues i.e., faulty SPS hardware at Singrauli TPS (NTPC) and no receipt of SPS signal at 220/132kV Ratangarh(RS) were identified. Further, during recent operation of SPS on 21.05.2025 in incident of outage of both poles, desired SPS actions i.e., generation backdown at Singrauli TPS and load relief in UP, Delhi, Haryana & Punjab were not observed. Desired load / generation relief is important to ensure the security and reliability of grid during such contingency. As per details received, SPS signal was sent to all the mapped stations from POWERGRID end however either due to non receipt of signal or error in SPS system at load / generation, SPS action didn't occur. NRLDC vide letter dated 02.07.2025, requested POWERGRID and Singrauli NTPC to take necessary remedial measures and make complete SPS system healthy.

During 233rd OCC meeting, POWERGRID representative stated that the equipment's at Singrauli TPS end is owned by NTPC and need to be revived by them. SPS system at Rihand(PG) is healthy and operational. NTPC representative stated that as per details received from site, NTPC Singrauli team have initiated necessary actions in coordination with the POWERGRID. SPS operation is crucial as it is planned for special contingencies, and its unavailability may lead to cascade tripping or major grid disturbance especially in case of high demand period.

Discussion during 237th OCC meeting:

- a) NRLDC requested NTPC Singrauli and POWERGRID to share the details of necessary corrective actions taken / planned to be taken to ensure healthiness of SPS system at Singrauli TPS and load stations.
- b) Representative from NTPC informed that existing SPS system at Singrauli TPS is defective, procurement work has been initiated. NRLDC requested NTPC to share the tentative timeline for completion of work and to expedite the remedial actions for early restoration of SPS system at Singrauli TPS.
- c) Regarding issues at load stations, POWERGRID agreed to take necessary actions in coordination with the site stations.

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d) Further, NRLDC also informed that mock testing of SPS of HVDC Rihand-Dadri has been scheduled tentatively on 19.11.2025. Concerned members were requested to ensure the readiness and share the details of coordinators.

SPS mock testing of HVDC Rihand-Dadri was conducted successfully on 19.11.2025. SPS command didn't receive at 220kV Muradnagar(UP), 220kV Merta(RS), 220kV Kota Sakatpura(RS), 220kV Dhanonda(HR) and Singrauli TPS(NTPC). SPS system at Rihand HVDC, Dadri HVDC and at remaining load and generating stations are healthy.

POWERRGID, Singrauli(NTPC) and other concerned were requested to share the details of actions taken / planned to be taken to rectify the issues in HVDC Rihand-Dadri SPS system.

ii. **SPS of Anta, Kawai, Chhabra generation complex:** In one of the SPS cases i.e., N-1-1/ N-2 of 765kV Anta-Phagi 1 & 2, instantaneous generation backdown of ~2100 MW is designed as SPS action. In such scenario, to avoid overloading of WR-NR corridor and over drawl by Rajasthan, it was agreed that RVPNL shall implement the automatic load shedding of ~750 MW by 28.02.2018. However, as per details available, implementation of automatic load shedding as per SPS hasn't been done yet. This matter has already been discussed in PSC as well as OCC meetings on regular basis. The concern of grid security and reliability was also raised during request of shutdown of 765kV Anta-Phagi line. is requested to expedite implementation of the automatic load shedding of ~750 MW as per SPS (N-1-1/ N-2 contingency of 765kV Anta-Phagi-1 & 2).

During 235th OCC meeting, SLDC-Rajasthan representative informed that automatic load shedding of ~750 MW has been implemented.

During 236th OCC meeting, SLDC-Rajasthan confirmed that mock testing of automatic load shedding part of the SPS has been conducted.

Discussion during 237th OCC meeting:

a) NRLDC representative requested Rajasthan to share the mock test report of the automatic load shedding part of the SPS.

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b) RVPNL agreed to share the mock test report w.r.t. automatic load shedding part of the SPS at the earliest.

Details haven't been received yet. Rajasthan was requested to share the details at the earliest possible.

iii. **SPS of N.Jharkri, Karcham, Rampur hydro generation complex:** Status of implementation of case-6(i) and corrective actions w.r.t case-6 (ii) need to be shared.

During 235th OCC meeting, HPPTCL representative informed that the faulty communication card at Wangtoo S/s is to be replaced with new card. The case is at procurement stage, and it is estimated that work will be completed by the end of December 2025.

Karcham(JSW) through mail dated 08.12.2025 confirmed the incorporation of 400kV kala Amb-Abdullapur D/C in SPS system hence, case-6 is completely implemented now.

HPPTCL was requested to share the update w.r.t. replacement of faulty communication card at Wangtoo(HP).

iv. **SPS of 765kV Agra-Gwalior D/C:** Mock testing of the SPS was conducted on 10.10.2025. During the testing, it was observed that there is communication issue at Bhiwadi(PG), Bamnauli(DTL), Kota, Debari, Chittorgarh, Ratangarh, Nunamajra, Safidon, Ajitwal, Dandhari-II, and Ablowal substations.

NRLDC requested all the concerned states to submit the mock test report of their respective control area. Details have been received from Delhi, Rajasthan and Punjab. UP, BBMB, Haryana and POWERGRID have shared the partial details.

Further, POWERGRID was requested to share the details of actions taken/planned to be taken to resolve the issues in the SPS system.

During 237th OCC meeting, POWERGRID was requested to take expeditious corrective actions to rectify the issues and make the SPS healthy and operational at all the stations.

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NRLDC has also sent a letter dated 28.11.2025 to POWERGRID for expeditious corrective actions and make the complete SPS system healthy and operational.

POWERGRID may share the details of actions taken/planned to be taken to rectify the issues in 765kV Agra-Gwalior D/C SPS system.

Mock test report has been received from Delhi, Rajasthan and Punjab. UP, BBMB, Haryana and POWERGRID have shared the partial details.

Concerned utilities are requested to share the SPS report of your respective control area at the earliest so that final SPS mock test report can be issued timely.

In view of the above, members were requested to take following actions:

- i. Concerned constituents / utility shall conduct the mock testing of pending SPS (whose mock testing was not conducted in FY 2024-25) at the earliest.**
- ii. In compliance with IEGC clause 16.2, users shall ensure that mock testing along with the review of SPS logic of all the SPS is conducted at least once a year. Hence utilities are also requested to share the tentative schedule and conduct the mock testing of SPS schemes in their respective control area w.r.t. FY 2025-26.**
- iii. Further In compliance with IEGC clause 16.3, users shall also share the detailed report of SPS operation in their respective control area within 3 days of its operation. Presently, no such report is being received.**

B.5.8 During 60th PSC meeting, it was decided that the SPS which are not required from constraint point of view will not be disabled for keeping the assets associated with SPS healthy and will be treated as "reserve SPS", as may be required during prolonged outages of any system element. In case of reserve SPS for transformers (where logic was based on "tripping" of transformer) logic need to be modified based on "loading" of transformer in place of "tripping" of transformer.

B.5.9 During 64th PSC meeting, MS-NRPC suggested that assets of "reserve SPS" can be used in new SPS to be commissioned and hence they may be removed from existing SPS list. PSC forum suggested to remove the above mentioned 06 "reserve SPS"

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schemes.

B.5.10 During 238th OCC meeting, SLDC UP informed that SPS for Transformers at 400KV Sultanpur (UPPTCL) and Gorakhpur(UPPTCL) is required as loading exceeded (N-1) limit during summer of 2025, hence SPS may be kept in service. SLDC Delhi informed that SPS for Transformers at Bamnauli (DTL) may be kept in service until 315 MVA ICT is revived which currently is not in service.

During 65th PSC meeting, it was decided to disable and remove the following SPS:

- i. SPS for Transformers at Ballabgarh (PG)***
- ii. SPS for Transformers at 400KV Muzaffarnagar (UP)***
- iii. SPS for Transformers at 400KV Greater Noida (UPPTCL)***

*On the basis of inputs received from utilities during discussion in PSC meeting, updated status of SPS mock testing is attached as **Annexure-B.IV**.*

Implementation of SPS in POWERGRID substations in Rajasthan control area:

SPS stage wise logic (received from Rajasthan) for SPS of ICTs at POWERGRID stations in Rajasthan control area was discussed in 64th PSC meeting. The time delay logic proposed by Rajasthan was found OK and POWERGRID was requested to start the implementation process of the SPS at designated stations.

Time delay for stage-1&2 of SPS was decided as:

Stage-1: 105% loading with 1 sec delay

Stage-2: 105% loading with 1.5 sec delay

NRLDC through mail dated 02.12.2025 requested POWERGRID to implement the SPS at designated stations i.e., 400/220kV Kankroli(PG), Bassi(PG), Neemrana(PG), Kotputli(PG), Bhiwadi(PG), Jaipur South(PG) and Sikar(PG) at the earliest possible.

Decision of the Forum

PSC forum requested members to conduct the mock testing of SPS in their respective control area, share the tentative schedule of mock testing of SPS and share the report after conducting mock test.

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POWERGRID was requested to again implement the SPS at 400/220kV Kankroli(PG), Bassi(PG), Neemrana(PG), Kotputli(PG), Bhiwadi(PG), Jaipur South(PG) and Sikar(PG) at the earliest possible in co-ordination with Rajasthan.

B.6 Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS (agenda by NRLDC)

- B.6.1 On 17th May 2024 on outage of both poles (carrying total ~1500MW), SPS of 500kV HVDC Mundra-Mahindergarh inter-regional link didn't operate. This issue was discussed during 51st PSC meeting and ADANI was requested to share the details w.r.t. SPS operation during the meeting.
- B.6.2 Further, NRLDC in coordination with NLDC conducted an online discussion meeting with concerned stakeholders (SLDCs, ADANI, POWERGRID) on 12th August 2024, for further remedial actions required to make this SPS healthy.

The following actions were decided during the meeting:

- i. POWERGRID, ADANI and concerned states were requested to identify the issue in communication links and take expeditious actions to make the all the communication link healthy. POWERGRID & ADANI shall review the healthiness of SPS system at different load centres and the communication path between them in coordination with the SLDCs.
- ii. States were requested to go through the details of load feeders mentioned in SPS document and share the changes/modifications as per the present scenario and share the inputs w.r.t. unavailability in identified load feeders and load shedding. SLDCs shall share the revised updated feeder details (radial) along with expected average/peak load relief through respective feeders.
- iii. SLDCs in coordination with their transmission and protection team, shall share the status and healthiness of the existing SPS system along with details of the availability of the communication path for incorporation of proposed revised/additional feeders.

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- B.6.3 Load end details have been received from UP, Haryana, Punjab, Rajasthan & Delhi. Details and communications are attached as Annexure-B.VII of the agenda.
- B.6.4 ADANI via mail dated 29.08.2024 has submitted the status of the healthiness of the communication network and hardware system at different locations on the basis of preliminary inspection. As per details submitted, the counter status was found OFF at Alwar, Ratangarh, Gobindgarh, Malerkotla, Bamnauli, Shamli and Dhanonda.
- B.6.5 Details of nodal officer of different substation involved in SPS scheme has already been shared with ADANI team for coordination and further remedial actions.
- B.6.6 During 53rd PSC meeting, ADANI was requested to coordinate with the respective states to rectify the issues in the SPS system and share the status of remedial action taken/planned to be taken. Desired remedial actions need to be expedited.
- B.6.7 ADANI agreed for the same and stated that the update would be given within 01 week. However, no detail received yet from ADANI.
- B.6.8 During discussion in 55th PSC meeting it was decided that ADANI shall take lead in rectification work as this SPS scheme was commissioned by them. Protection nodal officers from States will provide possible necessary assistance from their end. Further, states were also requested to ensure incorporation of revised decided feeders during work at their stations. States representative assured to provide all necessary coordination from their end.
- B.6.9 During 56th PSC meeting, ADANI was requested to apprise the forum about the present status of remedial actions. ADANI representative stated that they have raised service order to COMTEL (OEM) for approval. After approval of this service order, COMTEL engineers will visit all the sites in coordination with nodal officers from respective stations. It is expected that identification of issues and estimate hardware requirement will be completed by the end April 2025. Thereafter, after financial approval, rectification of issues will be done. ADANI was requested to ensure completion of whole work before summer 2025. State representatives were also requested to coordinate with the ADANI team and ensure incorporation of identified revised feeders for load relief in SPS.

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- B.6.10 Further, through mail dt 3rd April 2025, ADANI has informed that they awarded the rectification work service to M/s COMTEL for survey and restoration of possible elements installed at the locations and engineers from M/s COMTEL shall be visiting respective stations as per the schedule.
- B.6.11 During 57th PSC meeting, ADANI representative informed that visit by COMTEL engineers at all the sites is completed and COMTEL will submit the report within 10 days.
- B.6.12 ADANI was requested to share the report at the earliest and make Action Plan accordingly to ensure completion of whole work before summer 2025.
- B.6.13 ADANI agreed to take expeditious actions and to share the action plan at the earliest.
- B.6.14 During 58th PSC meeting, ADANI representative shared the observations made by COMTEL engineers and informed that it would at least require 6 months to complete the work.
- B.6.15 NRLDC CGM (SO) highlighted that in view of envisaged growth in demand in next summer season, it is important to ensure rectification of issues and healthiness of SPS.
- B.6.16 ADANI representative further informed that cost implication in this case is estimated as approx. Rs. 1.5 Cr. Till now they conducted technical assessment and made cost estimation. They will look into the regulatory aspect of the same for finalising the action plan.
- B.6.17 During 59th PSC meeting, ADANI representative informed that they are doing discussions with ULDC for allocation of necessary links between locations. They have also initiated internal approval for placing necessary orders to the partner for execution of upgradation activity. They are expecting to complete the execution within 4-5 months in collaboration with all the stakeholders from respective utilities and ULDC team. Communication from ATIL in this regard is also sent to NRLDC through letter dated 10th April 2025.

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- B.6.18 PSC forum emphasized that considering the growing energy demands in summer season, healthiness of 500kV Mundra-Mahindergarh SPS is of utmost importance for secure & reliable grid operation. State representatives were also requested to coordinate with the ADANI team and also ensure incorporation of identified revised feeders for load relief in SPS. Desired remedial actions need to be expedited.
- During 60th PSC meeting, ADANI representative informed that internal approval is taken for placing the order and order will be released to vendor by end of August 2025. They have expedited the execution of upgradation activity and now it is expected to get completed by August 2025.
- B.6.19 NRLDC representative requested to share weekly progress report once the execution work starts and ADANI agreed for the same.
- B.6.20 ADANI is requested to apprise the forum about identified issues at various stations, action plan and progress in rectification work.
- B.6.21 During 61st PSC meeting, ADANI representative informed that order will be released by 1st week of July to the vendor for completion of work. The vendor has given 06 (six) months' timeline for completion of whole work however, we will follow up with the vendor and try to complete the whole work within 04 months.
- B.6.22 NRLDC representative requested ADANI to expedite the necessary actions at their end as corrective actions has already been delayed. It was also requested to give action plan of corrective actions for smooth coordination and actions. Weekly progress and status of actions may also be shared.
- B.6.23 Vide mail dt 30th July 2025, ADANI has informed that order has been placed with vendor for the procurement and development of the scheme on new devices and they also shared the timeline for the upcoming broader steps which has evolved based on discussions held with the vendor.
- B.6.24 During 62nd PSC meeting, ADANI confirmed the following:
- i) The system is expected to be ready by the partner and complete the Factory Acceptance Test (FAT) by 15th September 2025.

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- ii) Following the FAT, the material will be shipped to various sites and installed by 30th October 2025. Concerned constituents need to ensure the material is kept in a safe and secure area till commissioning at original location.
- iii) Implementation of the communication channel with the assistance of ULDC is also scheduled for completion parallelly by 30th October 2025.
- iv) Testing of the installation and wiring will be carried out by 15th November 2025. The same shall require support from respective site representatives.
- v) Testing of the communication link between Mahindergarh and other locations is planned for completion by 30th November 2025.
- vi) Finally, the testing of the SPS scheme is expected to be completed by 31st December 2025.

NRLDC representative apprised the forum regarding update received from ADANI via mail dt 15th September 2025. ADANI has informed that Hardware is expected to be received by the partner by 20th September 2025 and FAT is expected to be carried out by 30th September 2025. The Dispatch and site activities shall be planned based on FAT punch point closures.

B.6.25 During discussion in 63rd PSC meeting, ADANI representatives were not present in the meeting. States were requested to ensure the readiness at their end. List of feeders which are not radial may be identified, and other feeders may be identified for incorporation in SPS.

B.6.26 NRLDC, through mail dated 30.10.2025, requested ADANI to share the present status and further actions plan.

ADANI, vide mailed dated 05.11.2025, informed the following:

- i. FAT has been completed, and the material has been arrived at Mahindergarh S/s.
- ii. The tentative schedule for visit at different load substations has been planned and shared.

Further vide mailed dated 19.11.2025, ADANI informed that the team has installed and tested the commands up to the DTPC panels from Mohindergarh for the

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following locations: BBMB, Charkhi Dadri, Ratangarh, Hisar-PG, Alwar, Merta, Nuna Majra and Shamli.

- B.6.27 During 64th PSC meeting, ADANI representative informed that SPS for contingency due to tripping of HVDC Mundra-Mahendergarh will be made operational and healthy by Dec'25.**
- B.6.28 ADANI vide mailed dated 15.12.2025 informed that the scheme has been made ready and the commands have been tested between Mahendergarh and locations between DTPCs . All the commands have been terminated to respective trip circuits of the identified feeders except Gobindgarh and Malerkotla where the same is in progress and expected to be completed within a week.
- B.6.29 ADANI vide mailed dated 07.01.2026 informed that the scheme has been made ready to be taken into service and the commands have been tested between Mahendergarh and locations between DTPCs. All the commands have been terminated to respective trip circuits of the identified feeders. Details are attached as **Annexure-B.V.**

Decision of the Forum:

PSC forum requested ADANI to conduct mock testing of 500kV Mundra-Mahendergarh SPS at the earliest and share the report after conducting the same.

B.7 Confirmation regarding implementation of proposed Overvoltage protection setting by committee (agenda by NRLDC)

- B.7.1 A committee was formed by NRPC during 52nd PSC meeting held on 20th September 2024 to review the Overvoltage Protection settings of 400kV and 765kV transmission lines in Northern Region. This committee was formed for compliance of the recommendation given by the committee formed by CEA for analysis of Grid incident

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occurred on 17th June 2024. The committee reviewed the Overvoltage Protection settings of 400kV and 765kV transmission lines in Northern Region, finalized the protection settings for overvoltage protection and proposed the revised overvoltage protection settings. The proposed Overvoltage protection settings were discussed and approved in 58th Protection Sub-Committee (PSC) meeting held on 26th March 2025. The PSC forum requested all to implement the proposed overvoltage protection settings in 400kV and 765kV transmission lines in their respective control area. Status of the revised overvoltage protection setting to be implemented is attached as Annexure-B.VIII of agenda.

- B.7.2 Further, the agenda in this regard was again discussed in 230th OCC meeting and 60th, 61st, 62nd, 63rd & 64th PSC meeting. It was observed that many members are yet to confirm the implementation of revised overvoltage settings.
- B.7.3 Status of confirmation received from BBMB, Rajasthan, UPPTCL, HVPNL, PSTCL (Partial), DTL, NHPC, POWERGRID, Uttarakhand, HP, NUPPL, SJVN & APCPL.
- B.7.4 However, status of confirmation from Harayna (Generation Evacuating lines), Punjab (Partial), J&K, Indigrd and NTPC are yet to be received (38 lines pending out of 683 lines).**
- B.7.5 The list of transmission lines whose confirmation is pending is also shown during the meeting and is attached as **Annexure-B.VI**.
- B.7.6 SLDC Punjab vide mail dt 05th June 2025 informed that over-voltage settings implementation will take 3-4 months.
- B.7.7 During 61st PSC meeting, PSTCL representative stated that due to shortage of manpower in protection team, 3–4-month time is required for implementation of revised OV settings.
- B.7.8 PSC forum suggested PSTCL to address the issue and propose to form separate protection wing so that protection related compliance and grid event analysis may be done in stipulate time frame.
- B.7.9 During 62nd PSC meeting, PSTCL representative confirmed that implementation work is in progress and partially done, however work will be completed before the next PSC meeting.
- B.7.10 During 63rd PSC meeting, POWERGRID(NR-2) representative informed that revised OV setting has been implemented in almost all the lines except 10 lines. Implementation in remaining lines shall also been done at the earliest.

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- B.7.11 During 64th & 65th PSC meeting, NRLDC representative requested HVUNL, PSTCL, JKPTCL, Indigrid, APCPL and NTPC to ensure expeditious implementation of proposed Overvoltage Protection settings in the remaining 400kV and 765kV transmission lines in their respective control area at the earliest and send a confirmation mail regarding this to NRPC and NRLDC.
- B.7.12 APCPL Jhajjar vide mail dt 17th January 2026 confirmed over-voltage settings implementation at their end.
- B.7.13 All members were requested to ensure the implementation of proposed overvoltage settings in their control area at the earliest to avoid any unwanted tripping during the ongoing high demand scenario. In this regard, e-mail communication was also sent dated 07.05.2025 & 03.06.2025 to all members.
- B.7.14 NRLDC representative further highlighted that the winter season in Northern region begins from mid-October onwards and remains till February, and the challenges faced during these months are well known to all the utilities. During winter with NR load reducing significantly, the lines become lightly loaded leading to high voltages in Grid. Hence, vide NRLDC letter dated 17.09.2025, it was advised to ensure timely implementation of revised approved overvoltage protection settings in all the 400 & 765kV transmission lines to avoid any unwanted tripping of transmission lines on over-voltage.
- B.7.15 NRLDC requested HVUNL, PSTCL, JKPTCL, Indigrid, APCPL and NTPC to ensure expeditious implementation of proposed Overvoltage Protection settings in the remaining 400kV and 765kV transmission lines in their respective control area at the earliest and send a confirmation mail regarding this to NRPC and NRLDC.
- B.7.16 EE, NRPC suggested that a separate meeting may be conducted with utilities from where confirmation is awaited.
- B.7.17 Forum decided to call a separate meeting.

Decision of the Forum:

- i. PSC forum requested all the members to share the confirmation regarding the implementation of revised overvoltage protection settings in 400kV and 765kV transmission lines in their respective control areas at the earliest and send a confirmation regarding this to NRPC and NRLDC.
- ii. A separate meeting may be called by the NRPC Secretariat with utilities from

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where confirmation is awaited.

B.8 Status of connected load relief quantum during operation of UFR and df/dt (agenda by NRLDC)

- B.8.1 UFRs and df/dt are envisaged to take care of sudden contingencies arising out of outage of generation stations or separation of inter-regional lines. UFRs setting are for steady state operation of the Grid at considerably low frequency and df/dt settings are for dynamic change change when frequency falls suddenly with jerks.
- B.8.2 As per IEGC 2023 Clause 29.(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...”
- B.8.3 In view of the above, NRLDC requested SLDCs to share the list of feeders mapped for UFR and df/dt along with feeder-wise planned load relief quantum. SLDCs were also requested to share details of mapped/telemetered stage-wise quantum of load relief on UFR and df/dt operation against the planned quantum.
- B.8.4 Data is to be furnished in the format attached as Annexure-B.IX of agenda.
- B.8.5 During 64th PSC meeting, SLDC Rajasthan informed that telemetry is being done and will be **completed by Dec’25. They had already taken up the matter and sent the list to SCADA. Feeder-wise mapped/telemetered data will be made available by Jan’26.**
In view of recent events due to UFR operation, major review of UFR and df/dt settings is required to avoid unwanted tripping of feeders and load loss in states.
- B.8.6 As per IEGC 2023 Clause 30.(1),
 “The National Reference Frequency shall be 50.000 Hz and the allowable band of frequency shall be 49.900-50.050 Hz. The frequency shall be measured with a resolution of +/-0.001 Hz...”
- B.8.7 NRLDC stated that in view of recent events due to UFR operation, major review of

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UFR and df/dt settings is required to avoid unwanted tripping of feeders and load loss in states. SLDCs were requested to review UFR settings of the relays (whether frequency settings can be done upto three decimal places or not). SLDCs were also advised to look into any issue in transducer etc to avoid any unwanted tripping on UFR operation in future.

Decision of the Forum:

PSC forum requested constituents to ensure the telemetry of UFR and df/dt feeders of their respective control area at the earliest. Further, UFR & df/dt relay also need to be tested to ensure its proper operation.

Part-C: Agenda for final approval of protection settings by PSC Forum for FTCs which have been provisionally allowed by NRLDC/SLDCs

C.1. First Time Charging of transmission lines/Bays/Transformer/Reactor etc. by NRLDC

- C.1.1 NRLDC has submitted the list of FTCs for month of **November 2025**, wherein protection settings have been allowed provisionally as per NRPC procedure. The same was uploaded on NRPC website for the access of members of the forum.
- C.1.2 After deliberations, protection settings were approved by the forum on the basis of provisional acceptance granted by NRLDC. The same is attached as **Annexure-C.I**. No comments received by any members in the meeting.

Decision of the Forum:

Forum approved the settings for elements attached as Annexure-C.I.

C.2. First Time Charging of transmission Lines/Bays/Transformer/Reactor etc. by SLDCs

- C.2.1 EE (P), NRPC stated that in 63rd PSC meeting, all SLDCs were requested to share the monthly list of provisionally approved settings during FTCs, given as similar to being done by NRLDC. **However, the list is not being sent to NRPC Secretariat**

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by SLDCs.

C.2.2 HVPN has submitted settings for lines and ICT at Kharkhoda sub-station. **However, Haryana SLDC has not scrutinized the settings as per NRPC procedure. Therefore, HVPN may forward settings to Haryana SLDC for scrutiny and provisional acceptance, thereafter same may be put up to PSC Forum for final approval.**

Decision of the Forum:

- i. SLDCs were requested to send a list of elements for which provisionally approved settings have been granted in the previous month, along with compiled settings.*
- ii. Settings of HVPN for lines and ICT at Kharkhoda sub-station were not approved by the forum. HVPN may forward settings to Haryana SLDC for scrutiny and provisional acceptance, thereafter same may be put up to the PSC Forum for final approval.*

Members of Protection Sub-Committee (FY 25-26)

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19	Himachal Pradesh SLDC	Chief Engineer	cehpsldc@gmail.com
20	DTL	AGM-Protection	bharatquardtl@gmail.com
21	HVPNL	Chief Engineer (TS)	cetspkl@hvpn.org.in
22	RRVPNL	CE (M&P)	ce.mps@rvpn.co.in
23	UPPTCL*	Managing Director	md@upptcl.org
24	PTCUL	SE(T&C)	setandchld@gmail.com
25	PSTCL	Chief Engineer (P&M)	ce-pm@pstcl.org
26	HPPTCL*	Managing Director	md.tcl@hpmail.in
27	IPGCL	DGM (Protection)	arif.ipgcl@gmail.com
28	HPGCL	SE/M&T RGTPP	semt.rgtp@hpgcl.org.in
29	RRVUNL*	CMD	cmd@rvun.com
30	UPRVUNL	Chief Engineer, (L-2)	ce.ppm@uprvunl.org
31	UJVNL*	Managing Director	mdujvnl@ujvnl.com
32	HPPCL*	Managing Director	md@hppcl.in
33	PSPCL	Chief Engineer/GHTP	ce-ghtp@pspcl.in
34	DHBVN	Chief Engineer	ctorapdrp@dhbvn.org.in , semp@dhbvn.org.in
35	Ajmer Vidyut Vitran Nigam Ltd.	Managing Director	MD.AVVNL@RAJASTHAN.GOV.IN
36	Purvanchal Vidyut Vitaran Nigam Ltd.	Managing Director	md@puvvnl.in
37	UPCL*	Managing Director	md@upcl.org
38	HPSEB*	Managing Director	md@hpseb.in
39	Prayagraj Power Generation Co. Ltd.*	Head (Commercial & Regulatory), DGM - Elect	sanjay.bhargava@tatapower.com , dhananjay.singh@ppgcl.co.in
40	Aravali Power Company Pvt. Ltd*	CEO	brahmajig@ntpc.co.in
41	Aprava Energy Private Limited*	GM-Electrical	navin.chaturvedi@apraava.com
42	Talwandi Sabo Power Ltd. *	COO	Vibhav.Agarwal@vedanta.co.in
43	Nabha Power Limited*	CEO	sk.narang@larsentoubro.com
44	MEIL Anpara Energy Ltd	COO & WTD, Executive Director	anandkumar.singh@meilanparapower.com , arun.tholia@meilanparapower.com
45	Rosa Power Supply Company Ltd	GM-ELECTRICAL	Kesarinandan.pandey@reliancegroupindia.com
46	Lalitpur Power Generation Company Ltd	Head of Maintenance, GM Electrical	alokkumar.ltp@lpgcl.com , aupadhay.ltp@lpgcl.com
47	MEJA Urja Nigam Ltd.	AGM-EMD	SPSPUNDIR@NTPC.CO.IN
48	Adani Power Rajasthan Limited*	GM	Ashish.Baviskar@adani.com
49	JSW Energy Ltd. (KWHEP)*	Head Regulatory & Power Sales	ivyotiprakash.panda@jsw.in
50	Transition Cleantech Services Private Limited*	Deputy Manager	kswamidoss@evrenergy.com
51	UT of J&K*	MD, JKPTCL CE, JKPCCL	mdjkptcl1@gmail.com , cejkpccl2@gmail.com
52	UT of Ladakh*	Chief Engineer, LPDD	cepladakh@gmail.com
53	UT of Chandigarh	Executive Engineer	elop2-chd@nic.in
54	Tata Power Delhi Distribution Limited*	HOG-PMG	sandeep.k@tatapowerddl.com
55	Gurgaon Palwal Transmission Limited*	Head Regulatory	Lokendra.Ranawat@indigrid.com
56	PTC India Limited*	AVP	bibhuti.prakash@ptcindia.com
57	ReNew Power Private Limited*	CEO	sumant@renew.com
58	NTPC Green Energy Limited*	CEO, Sr. Mgr	raiivgupta@ntpc.co.in , sandeepdahiya@ntpc.co.in
59	Azure Power India Pvt. Limited*	CEO	sunil.gupta@azurepower.com
60	Avaada Energy Private Limited*	CEO	kishor.nair@avaada.com
61	Adani Green Energy Limited	AVP	saniav.bhatt@adani.com

* Organizations from where nominations are not received for PSC, members of NRPC have been mentioned. Nomination for PSC forum may be sent at the earliest.

List of Members of Renewable Energy Sub-committee

S. No.	Members of RE Sub-committee	Representative Email ID
1	Ministry of New and Renewable Energy	anindya.parira@nic.in ;
2	National Load Despatch Center	suhasd@grid-india.in ;
3	Northern Regional Load Despatch Center	somara.lakra@grid-india.in ;
4	Central Transmission Utility	sandeepk@powergrid.in
5	Powergrid Corporation of India Ltd.	saroj.mishra@powergrid.in ; yashpal@powergrid.in
6	Rajasthan Rajya Vidyut Prasaran Nigam Ltd.	se_pp@rvpn.co.in ;
7	Rajasthan State Load Despatch Center	se.ldrvpl@rvpn.co.in ;
8	Solar Energy Corporation of India	sanjaysharma@seci.co.in ; ykumar@seci.co.in ;
9	National Solar Energy Federation of India	ankur.kumar@nsefi.in ; ceoffice@nsefi.in ;
10	Indian Wind Power Association	secretarygeneral@indianwindpower.com ;
13	ABC Renewable Pvt. Ltd	aman.chaturvedi@petronas.com ; deepak.asopa@petronas.com ; urvika.acharya@petronas.com
14	ACME Heeragarh powertech Pvt. Ltd	prachi.chauhan@acme.in ; planthead.badisidd.solar@acme.in ; ashutosh.singh@acme.in ;
15	ACME Phalodi	
16	ACME Deogarh	
17	ACME Raisar	
18	ACME Dhaulpur	
19	ACME Sikar	
20	ACME Chittorgarh Solar Energy Pvt Ltd	sandeepk@ayanapower.com ; yogesh@ayanapower.com ;
21	Adani Hybrid Energy Jaisalmer One Ltd.	
22	Adani Hybrid Energy Jaisalmer Two Ltd.	
23	Adani Hybrid Energy Jaisalmer Three Ltd.	
24	Adani Hybrid Energy Jaisalmer Four Ltd.	
25	Adani Renewable Energy (RJ) limited Rawara	
26	Adani Solar Energy Jaisalmer One Pvt. Ltd. 450MW (Solar)	
27	Adani Solar Energy Four Private Limited	
28	Adani Solar Energy Jaisalmer Two Private Limited	
29	Adani Solar Energy Jaisalmer Two Private Limited Project Two	kailash.nagora@adani.com ; sanjay.bhatt@adani.com ;
30	SB ENERGY FOUR PRIVATE LIMITED, Bhadla	
31	SB Energy Six Private Limited, Bhadla	
32	Adani Solar Energy Jodhpur Two Limited, Rawara	
33	Adept Renewable Technologies Pvt. Ltd.	
34	Adani Solar Energy RJ Two Pvt. Ltd. (Devikot)	
35	Adani Solar Energy RJ Two Pvt. Ltd. (Phalodi)	
36	Adani Green Energy 19 Limited	

37	Altra Xergi Pvt. Ltd.	mahendra.kumar@O2power.in ;
38	AMP Energy Green Four Pvt. Ltd.	vbhattacharya@ampenergyindia.com;
39	AMP Energy Green Five Pvt. Ltd.	
40	AMP Energy Green Six Pvt. Ltd.	
41	Amplus Ages Private Limited	
42	Avaada RJHN_240MW	alpesh.prajapati@avaada.com ;
43	Avaada sunce energy Pvt limited	
44	Avaada Sunrays Pvt. Ltd.	
45	Avaada Sustainable RJ Pvt. Ltd.	
46	Ayana Renewable Power Three Private Limited	Venkatraman@ayanapower.com;
47	Ayaana Renewable Power One Pvt. Ltd.	rajeshshukla@ayanapower.com;
48	Azure Power Forty One Pvt limited	sourin.nandi@azurepower.com;
49	Azure Power Forty Three Pvt. Ltd._RSS	manohar.reddy@azurepower.com;
50	Azure Maple Pvt. Ltd.	sourin.nandi@azurepower.com;
51	AZURE POWER INDIA Pvt. Ltd., Bhadla	yogesh.kumar@adani.com;
52	Azure Power Thirty Four Pvt. Ltd.	manohar.reddy@azurepower.com;
53	Clean Solar Power (Jodhpur) Pvt. Ltd.	simhadri.kesapragada@herofutureenergies.com ;
54	Clean Solar Power (Bhadla) Pvt. Ltd	atul.tomar@herofutureenergies.com ; sushant.sinha@herofutureenergies.com ;
55	Eden Renewable Cite Private Limited	dejendra.sharma@eden-re.com
56	Grian Energy private limited	mehul.sharma@amplussolar.com ;
57	Mahindra Renewable Private Limited	mehar.rahmatulla@mahindra.com ; patil.saurabh2@mahindra.com ;
58	Mega Surya Urja Pvt. Ltd. (MSUPL)	msupl_250mw_ists@mahindra.com ; pankaj.vaidya@seit.co.in ; niraj.shah@seit.co.in ;
59	AURAIYA Solar	rajivgupta@ntpc.co.in ;
60	DADRI SOLAR	
61	SINGRAULI SOLAR	
62	Anta Solar	
63	Unchahar Solar	
64	NTPC Devikot Solar plant_240MW	
65	NTPC Kolayat_400kV	
66	Nedan Solar NTPC	
67	NTPC Nokhra_300MW	
68	One Volt energy Pvt. Ltd.	
69	ReNew Solar Energy (Jharkhand Three) Private Limited	purnendu.chaubey@renew.com ;
70	RENEW SOLAR POWER Pvt. Ltd. Bhadla	
71	Renew Sun Bright Pvt. Ltd. (RSBPL)	
72	Renew Surya jyoti Pvt. Ltd.	
73	Renew Surya Partap Pvt. Ltd.	
74	Renew Surya Ravi Pvt. Ltd.	
75	Renew Surya Roshni Pvt. Ltd.	
76	Renew Surya Vihan Pvt. Ltd.	
77	Renew Hans Urja Pvt Ltd.	
78	RENEW SOLAR POWER Pvt. Ltd. Bikaner	kailash.pandey@renew.com ;
79	RENEW SOLAR POWER Pvt. Ltd. Bikaner	
80	Solzen Urja Private Limited	Neeraj.Verma@energy-sel.com
81	ReNew Solar Urja Private Limited	anilbhai.chaudhari@indigrid.com , rohit.kashav@indigrid.com ,
82	Renew Surya Ayaan Pvt. Ltd.	hiteshbhai.shiyal@indigrid.com
83	Rising Sun Energy-K Pvt. Ltd.	tushar.gahlot@risingsunenergy.in ;
84	Serentica Renewables India 4 Private Limited	rajendra.gupta@serenticaglobal.com ,

85	Serentica Renewables India 5 Private Limited	regulatory@serenticaglobal.com , Serentica Asset_NR@sterlitepower.com , kunal.kaistha@serenticaglobal.com , atul.pachauri@serenticaglobal.com , lalit.shukla@serenticaglobal.com , ashwary.sharma@serenticaglobal.com
86	Khidrat Renewable energy Pvt Ltd.	
87	Tata Power Green Energy Ltd. (TPGEL)	vinod.kumar@tatapower.com ;
88	Tata Power Renewable Energy Ltd. (TPREL)	dhmahabale@tatapower.com ; imran.khan@tatapower.com ;
89	Thar Surya Pvt. Ltd.	vivek.reddy2@enel.com ; mahendra.vishnoi2@enel.com
90	TP Surya Pvt. Ltd.	sivanarayana@tatapower.com ; sagar.potdar@tatapower.com ;
91	Banderwala Solar Plant TP Surya Ltd.	arun.sahoo@tatapower.com ;
92	TRANSITION ENERGY SERVICES PRIVATE LIMITED	
93	Transition Green Energy Private Limited	kak@evrenewenergy.com ;
94	Transition Sustainable Energy Services Private Limited	
95	Gorbea Solar Pvt Ltd	richpal.singh@zelestra.energy kalpesh.umaretia@zelestra.energy

Address List of ISTS Transmission Licensees (other than NRPC members)

S.N.	TBCB/ Licensee Name	Owner Company	E-mail ID
1	Gurgaon Palwal Transmission Ltd	INDIGRID	vivek.karthikeyan1@indigrid.com
2	NRSS-XXIX Transmission Ltd		
3	Parbati Koldam Transmission Company Limited		
4	Patran Transmission Company Ltd		
5	NRSS-XXXI(B) Transmission Ltd	SEKURA	neeraj.verma@energy-sel.com
6	NRSS XXXVI Transmission Ltd	TATA POWER	rajnishmehrotra@tatapower.com
7	AD Hydro Power Limited	-	sumitgarg@lnjbhilwara.com
8	Aravali Power Company Private Limited		amit.hooda01@apcpl.co.in
9	POWERLINKS TRANSMISSION LIMITED (PTL)	-	sandeep.shukla@tatapower.com
10	Adani Transmission India Limited	ADANI	Sunil.Raval@adani.com
11	Bikaner Khetri Transmission Limited		

65th Protection Sub-Committee Meeting on 30.12.2025 (11:00 AM)				
S. No.	Name	Designation	Organization	E-mail
1	Rishika Sharan	MS	NRPC	ms-nrpc@nic.in
2	D.K. Meena	SE, NRPC	NRPC	seo-nrpc@nic.in
3	Reeturaj Pandey	EE	NRPC	pandeyr.cea@gov.in
4	Akash Jain	AE	NRPC	akashjain.cea@gov.in
5	Vijay Pal Yadav	XEN	RRVNL	xen.prot.alwar@rvpn.co.in
6	Sagar Bagra	Asst. Manager	THDC	sagarbagra@thdc.co.in
7	Shubham Thakur	AE	HPPTCL	t.shubham.tcl@hpmail.in
8	Arundeeep Singh	AE	HPSEBL	essdpaonta@gmail.com
9	Anil Kumar	Sr. XEN	HPSEBL	kunihar220kvesdivisim@gmail.com
10	Manish Pandey	AGM	Clean Sale Power Jabalpur, Bhadla	manish.pandey@herofutureenergies.com
11	Debasis Mukhrjee	SME (E)	NAPS NPCIL	dmukherjee@npcil.co.in
12	Ankit Singh	DM(E)	SEMBCORP	ankit.singh@sembcorp.com
13	Ashwani Kumawat	GM(E)	SEMBCORP	ashwani.kumawat@sembcorp.com
14	Anil Kumar	XEN	HVPNL	xenmpccfd@nic.in
15	Amit Kumar	XEN	HVPNL	xenmpccggn@hvpn.org.in
16	P.K. Mishra	SE(T&C)	UPPTCL	setnrmrt@upptcl.org
17	Sujeet Singh	AEM-EMD	MEIL Anpara	sujeet.bumar@meilanparapower.com
18	B.L. Gujar	AGM	DTL	bl.gujar@dtl.gov.in
19	Mahavir Prasad Singh	DGM	NRLDC	mahavir@grid-india.in
20	Ashaq Hussain	AEE	JKPTCL	eng.ashaq1@gmail.com
21	Somara Lakra	CGM	NRLDC	somara.lakra@grid-india.in
22	Himanshu Thakur	Manager	THDC	himanshutiwari@thdc.co.in
23	Suraj Mehta	Dy. Manager	THDC	surajmehta@thdc.co.in
24	N.S. Adhikari	Dy. General Manager	THDC, Tehri PSP	nsadhikari@thdc.co.in
25	M. Mishra	DGM	NHPC	marutimishra@nhpc.nic.in
26	Sanjeev Kumar	DGM (E)	NHPC Ltd.	sanjeevpatna@gmail.com
27	Manish	AD	BBMB	ddpntbwn@bbmb.nic.in
28	Nisha Kulshrestha	AD	BBMB	nisha.kulshrestha01@gmail.com
29	Alok Verma	Sr. XEN	PSTCL	srxen-pos@pstcl.org
30	shubham Waliah	JE	PSTCL	aee-sap-ldh@pstcl.org
31	M.P. Sharma	EE	SLDC Rajasthan	se.sold@rvpn.co.in
32	Uma Shankar	EE	UJVNL	atestdharasu@gmail.com
33	Arvind Bahuguna	AE	UJVNL	arvind.anvi222@gmail.com
34	Raman Jain	XEN	RVUNL	raman_49559@rvun.com
35	Harshit Shukla	Manager	PPGCL	harshit.shukla@ppgcl.co.in
36	Pankaj Kumar Jha	Chief Manager	POWERGRID NR-I	pankaj.jha@powergrid.in
37	Sugata Battacharya	Dy. Manager	NRLDC	sugata@grid-india.in
38	Parveen Kumar	Manager (T)	DTL	kumarparveendtl@gmail.com
39	Vaibhav Vivek	DGM	SJVN	vaibhav.vivek@sjvn.nic.in
40	Atul Nigam	GM	RPSCL	atul.v.nigam@reliancegroupindia.com
41	Dinol Singh	AEN	RVPN	xenl.prot.jaipur@rvpn.co.in

Status of action taken on decisions of 64th PSC

S.N.	Agenda No.	Agenda/ Issue	Decision of 64 th PSC	Status of action Taken
1	A3	Non participation from utilities in meeting	Letter may be sent to utilities for participating in meeting.	Letter has been issued dated 07.12.2025 to NPCIL, NTPC, PSTCL, JKPTCL, NGEL.
2	A5	Annual protection audit plan for FY 2026-27	Non-compliant utilities were asked to submit annual audit plan for sub-station wise audit date without any further delay.	Agenda was discussed in 65 th PSC meeting.
3	A6	Third-party protection audit plan	Forum directed utilities to submit audit plan. Subsequently, the audit reports along with compliance status may be submitted to NRPC Secretariat within one month of completion of audit.	Agenda was discussed in 65 th PSC meeting.
4	A8	Qualifying criteria for the selection of prospective bidders (Company) for conducting Third-Party Protection Audits	Forum decided that Scope of Work may be mentioned for protection audit in guideline document. These guidelines shall be only for reference purpose. Tender documents of utilities shall prevail over guideline.	NPC Division, CEA has been informed the decision vide mail dated 24.12.2025.

Status of performance indices reporting of November 2025 (Last date of submission 07.12.2025)

S. No.	Utility		Received Status (Yes/No)	Vide mail dated	Remarks	Indices less than 1 (Yes/No)	Reason submitted and corrective action taken		
1	PGCIL	Central Government owned Transmission Company	Y	07.12.2025	NR-1	No	NA		
			Y	07.12.2025	NR-2	Yes	Yes		
			Y	06.12.2025	NR-3	No	NA		
2	NTPC	Central Generating Company			Anta				
					Auriya				
			Y	10.12.2025	Dadri (Thermal)	No	NA		
			Y	12.12.2025	Koldam	No	NA		
					Rihand				
					Singrauli				
			Y	10.12.2025	Unchahar	No	NA		
			Y	08.12.2025	Tanda	No	NA		
			Y	05.12.2025		No	NA		
			Y	03.12.2025	Tehri	No	NA		
3	BBMB		Y	03.12.2025	Tehri PSP	Yes	Yes		
4	THDC		Y	03.12.2025	Koteshwar	No	NA		
5	SJVN		Y	06.12.2025	RHPS				
			Y	05.12.2025	NJHPS	No	NA		
6	NHPC		Y	01.12.2025	-	No	NA		
7	NPCIL		Y	03.12.2025	RAPS-A	No	NA		
			Y	04.12.2025	RAPS-B	No	NA		
			Y	02.12.2025	RAPS-C (5&6)	No	NA		
			Y	12.12.2025	RAP -D (7 & 8)	No	NA		
			Y	03.12.2025	NAPS-1&2	No	NA		
8	DTL		Y	05.12.2025		Yes	Yes		
9	HVPNL		Y	08.12.2025	-	Yes	Yes		
10	RRVPNL		Y	04.12.2025	-	Yes	Yes		
11	UPPTCL	State Transmission Utility	Y	03.12.2025	Meerut Circle	Yes	Yes		
			Y	03.12.2025	Agra Circle	No	NA		
			Y	02.12.2025	Jhansi Circle	Yes	Yes		
			Y	03.12.2025	Prayagraj Circle	No	NA		
			Y	03.12.2025	Gorakhpur Circle	Yes	Yes		
			Y	03.12.2025	Lucknow Circle	No	NA		
			Y	09.12.2025	Kumaon	No	NA		
12	PTCUL		Y	11.12.2025		Yes	Yes		
13	PSTCL		Y	11.12.2025		Yes	Yes		
14	HPPTCL		Y	04.12.2025	-	No	NA		
15	JKPTCL	UT	Y	04.12.2025	Jammu	No	NA		
		UT	Y	04.12.2025	Kashmir	No	NA		
16	Chandigarh Power Distribution Ltd	RPSG Group	Y	30.12.2025	220 Kv Kishangarh	No	NA		
17	IPGCL		Y	06.12.2025	PPS-I	No	NA		
			Y	06.12.2025	PPS-III, Bawana	No	NA		
18	HPGCL		Y	09.12.2025	PTPS, Panipat	No	NA		
			Y	09.12.2025	DCRTPP, Yamunanagar	No	NA		
			Y	09.12.2025	RGTPP (Khedar)	No	NA		
19	RRVUNL		Y	07.12.2025	KTPS	No	NA		
			Y	07.12.2025	kATPP, Jhalawar	No	NA		
			Y	07.12.2025	CSCTPP Chhabra	No	NA		
			Y	04.12.2025	RGTPP, Ramgarh	No	NA		
			Y	03.12.2025	Ctpp,Chhabra	No	NA		
			Y	05.12.2025	DCCPP, Dholpur	No	NA		
			Y	07.12.2025	STPS Suratgarh	No	NA		
			Y	07.12.2025	SSCTPS Suratgarh	No	NA		
		18	UPRVUNL		Y	04.12.2025	Parichha B (220 kV)	No	NA
					Y	02.12.2025	Parichha C (400 kV)	No	NA
	Y			02.12.2025	DTPS Anpara	No	NA		
	Y			06.12.2025	Obra A & B	No	NA		
	Y			06.12.2025	Obra C	No	NA		
	Y			06.12.2025	Harduaqanj 220 kV	No	NA		
					Harduaqanj 400 kV				
	Y			11.12.2025	Anpara-A&B	No	NA		
	Y			11.12.2025	Panki TPS				
					Jawaharpur				
	NUPPL		Y	30.12.2025	Ghatampur 765 kV	No	NA		
19	UJVNL		Y	05.12.2025	Dharasu	No	NA		
			Y	05.12.2025	Tiloth	No	NA		

62	AHEJFL(AEML_250)	ADANI GREEN	Y	03.12.2025		No	NA
63	AHEJ4L(AEML-350)	ADANI GREEN	Y	03.12.2025		No	NA
64	ASEJ2PL(Hapasar 300MW) SPC11PL	ADANI GREEN	Y	03.12.2025		No	NA
65	Adani Renewable Energy (RJ) Limited Rawra 200	ADANI GREEN	Y	03.12.2025		No	NA
66	Adani Solar Energy Four Limited SECI 50	ADANI GREEN	Y	03.12.2025		No	NA
67	Adani Solar Energy Jodhpur Two Limited Merchant 50	ADANI GREEN	Y	03.12.2025		No	NA
68	ASEJ05PL (RJ200)	ADANI GREEN	Y	03.12.2025		No	NA
69	ASERJ2PL - Phalodi 150 MW	ADANI GREEN	Y	03.12.2025		No	NA
70	ASERJ01PL-Pokhran 300 MW (SB energy six)	ADANI GREEN	Y	03.12.2025		No	NA
71	AGE25L(Badi Sid)	ADANI GREEN	Y	03.12.2025		No	NA
72	Bhadla park - South block	ADANI GREEN	Y	03.12.2025		No	NA
73	AGE24L (Bhimsar)	ADANI GREEN	Y	03.12.2025		No	NA
74	AHEJ2L - Hybrid-2A 300MW	ADANI GREEN	Y	03.12.2025		No	NA
75	ASERJ2PL - Devikot 180 MW	ADANI GREEN	Y	03.12.2025		No	NA
76	ASEJ0PL-Hybrid 450 MW	ADANI GREEN	Y	03.12.2025		No	NA
77	Altra Xergi Pvt. Ltd.		Y	02.12.2025		No	NA
78	AMP Energy Green Four Pvt. Ltd.	AMPIN ENERGY					
79	AMP Energy Green Five Pvt. Ltd.	AMPIN ENERGY					
80	AMP Energy Green Six Pvt. Ltd.	AMPIN ENERGY					
81	Amplus Aqes Private Limited	GENTARI	Y	04.12.2025		No	NA
82	Avaada RJHN_240MW	AVAADA	Y	05.12.2025		No	NA
83	Avaada sunce energy Pvt limited		Y	05.12.2025		No	NA
84	Avaada Sunrays Pvt. Ltd.		Y	05.12.2025		No	NA
85	Avaada Sustainable RJ Pvt. Ltd.		Y	05.12.2025		No	NA
86	Ayana Renewable Power Three Private Limited						
87	Ayaana Renewable Power One Pvt. Ltd.						
88	Azure Power Forty One Pvt limited						
89	Azure Power Forty Three Pvt. Ltd._RSS						
90	Azure Maple Pvt. Ltd.						
91	AZURE POWER INDIA Pvt. Ltd., Bhadla						
92	Azure Power Thirty Four Pvt. Ltd.						
93	Clean Solar Power (Jodhpur) Pvt. Ltd.	Hero Future Energies	Y	01.12.2025		No	NA
94	Eden Renewable Cite Private Limited						
95	Grian Energy private limited	GENTARI	Y	04.12.2025		No	NA
96	Mahindra Renewable Private Limited						
97	Mega Surya Urja Pvt. Ltd. (MSUPL)						
98	AURAIYA Solar						
99	DADRI SOLAR						
100	SINGRAULI SOLAR						
101	Anta Solar						
102	Unchahar Solar						
103	NTPC Devikot Solar plant-1	NGEL	Y	09.12.2025		No	NA
104	NTPC Devikot Solar plant-2		Y	09.12.2025		No	NA
105	SKB NTPC -1 (250MW)	NGEL	Y	09.12.2025		No	NA
106	SKB NTPC-2 (300MW)		Y	09.12.2025		No	NA
107	NTPC Nokhra_300MW		Y	09.12.2025		No	NA
108	NTPC Fatehgarh 296MW		Y	09.12.2025		No	NA
109	One Volt energy Pvt. Ltd.	GENTARI	Y	04.12.2025		No	NA
			Y	09.12.2025		No	NA
110	ReNew Solar Urja Private Limited	IndiGrid					
111	ReNew Solar Energy (Jharkhand Three) Private Limited		Y	07.12.2025		No	NA

112	Neemba Renew Surya Vihan Pvt. Ltd.		Y	07.12.2025		No	NA
113	Renew Sun Bright Pvt. Ltd. (RSBPL)		Y	07.12.2025		No	NA
114	Renew Surya Partap Pvt. Ltd.		Y	07.12.2025		No	NA
115	Renew Surya jyoti Pvt. Ltd.	ReNew	Y	07.12.2025		No	NA
116	Renew Surya Ravi Pvt. Ltd.		Y	07.12.2025		No	NA
117	Renew Surya Roshni Pvt. Ltd.		Y	07.12.2025		No	NA
118	Renew Surya Vihan Pvt. Ltd.		Y	07.12.2025		No	NA
119	Renew Solar Photovoltaic Pvt Ltd		Y	07.12.2025		No	NA
120	Renew Hans Urja Pvt Ltd.		Y	07.12.2025		No	NA
121	RENEW SOLAR POWER Pvt. Ltd. Bikaner		Y	07.12.2025		No	NA
122	Renew Surya Ayaan Pvt. Ltd.	IndiGrid	Y	09.12.2025		No	NA
123	Rising Sun Energy-K Pvt. Ltd.						
124	Serentica Renewables India 4 & 5 Private Limited		Y	16.12.2025		No	NA
125	Solzen Urja Private Limited	Sekura	Y	08.12.2025		No	NA
126	Tata Power Green Energy Ltd. (TPGEL)	TATA POWER	Y	06.12.2025		No	NA
127	Tata Power Renewable Energy Ltd. (TPREL)		Y	06.12.2025		No	NA
128	Banderwala Solar Plant TP Surya Ltd.		Y	06.12.2025		Yes	No
129	Thar Surya Pvt. Ltd.						
130	TRANSITION ENERGY SERVICES PRIVATE LIMITED						
131	Transition Green Energy Private Limited						
132	Transition Sustainable Energy Services Private Limited						
133	GSPL_BHDL2 (Gorbea Solar Pvt Ltd)	Zelestra	Y	05.12.2025		No	NA
134	Prerak Greentech Pvt Ltd	EVREN ENERGY	Y	23.12.2025		No	NA

FormatNo.-PI-01

Reporting of performance indices for protection system

(for elements connected at 220KV and above)

Name of Utility: Tehri PSP (4x250MW), THDCIL

Month: NOVEMBER-2025

S.N.	Sub-station	Unit (SPS/LINE/ICT/GT/etc.)	Nc	Nf	Nu	Ni	Dependability Index(D)	Security Index(s)	Reliability Index(R)
1.	TEHRI PSP	UNIT#05 (1 st Unit)	0	0	1	1	NOT DEFINED	0	0
2.		UNIT#06 (2 ND Unit)	0	0	0	0	NA	NA	NA
3.		LINE-03	0	0	0	0	NA	NA	NA

Justification for less than one index may be attached separately.

Nc is the number of correct operations at internal power System faults

Nf is the number of failures to operate at Internal power system faults

Nu is the number of unwanted Operations

Ni is the number of incorrect operations and is the sum of Nf and Nu

Maha
Asst. Manager
PSP.

[Signature]
Manager (Protection)

THDC, Tehri-PSP

Reason for Unwanted Operation

On 19th November 2025 at 00:40 hrs, Tehri PSP Unit-05 experienced a trip during the pump-mode starting sequence. When the SCB (Stator Short Circuit Breaker) was closed during electrical startup, GSU Transformer Main-2 protection operated, resulting in an Emergency Shutdown (ESD) of the unit. During the electrical startup of the machine when the SCB was just closed and the speed was about to increase, the B Phase CT of Generator Neutral side got saturated, which subsequently operated the mater trip relay of GSU Transformer Main-2 protection.

As per the GE expert, during the starting condition of variable speed pump machine in pump mode, very low frequency current flows in rotor as well as stator that may sometime saturate the CTs. Additionally, in the protection system PSL logic, the CT saturation signal was configured to directly trip the unit through mater trip relay of GSU Transformer Main-2 protection. Thus, the trip was due to logic configuration, not an actual transformer fault.

Corrective Action Taken:

PSL logic has been modified, direct tripping due to CT saturation signal has been removed as CT saturation is already considered in differential protection of GSU Transformer for its blocking in case of external faults.


Arsl Manager
PSP.


Manager (Protection)
THDC, Tehri-PSP

S.No.	Substation	Element name	Date of tripping	Time of tripping	Categorization (FU) F = Failures to operate at internal power system faults U = Unwanted operations	Reason for failures/Unwanted operation	Corrective action taken/ to be taken
1	765KV PGCIL Khetri SS	765KV, 240MVAR Line Reactor-1 at Khetri New (PGCIL)	27-Nov-25	1:19:00	U	Upon restoration of line after bus fault at Khetri SS, Line reactor got tripped upon charging in REF protection, Reactor healthiness ensured, CT circuit fault was suspected.	CT circuit tightness ensured REF circuit healthiness ensured, Tightness of circuit & control cable healthiness ensured

Reporting of Performance Indices for IndiGrid Assets in NR-Region
Month: November-25

S. No.	Name of Utility	Elements (Line/ICT/BR/LR)	Nc	Nf	Nu	Ni	Dependability Index (Nc+Nf+Nu+Ni)	Security Index (S=Nc/(Nc+Nu))	Reliability Index (R=Nc/(Nc+Ni))	Remark	
1	GURGAON PALWAL TRANSMISSION LIMITED	400kV Neemrana (PG)-Dhanonda (HVPNL)-1	-	-	-	-	-NA-	-NA-	-NA-		
2		400kV Neemrana (PG)-Dhanonda (HVPNL)-2	-	-	-	-	-NA-	-NA-	-NA-		
3		400kV Aligarh - Prithala (GPTL) Ckt-1	-	-	-	-	-NA-	-NA-	-NA-		
4		400kV Aligarh - Prithala(GPTL) Ckt-2	-	-	-	-	-NA-	-NA-	-NA-		
5		400kV Prithala(GPTL) - Kadarapur(GPTL) Ckt-1	-	-	-	-	-NA-	-NA-	-NA-		
6		400kV Prithala(GPTL) - Kadarapur(GPTL) Ckt-2	-	-	-	-	-NA-	-NA-	-NA-		
7		400kV Kadarapur(GPTL) - Sohna Road(GPTL) Ckt-1	-	-	-	-	-NA-	-NA-	-NA-		
8		400kV Kadarapur(GPTL) - Sohna Road(GPTL) Ckt-2	-	-	-	-	-NA-	-NA-	-NA-		
9		400kV D/C Sohna Road(GPTL) - Gurgaon(PG) Ckt-1	-	-	-	-	-NA-	-NA-	-NA-		
10		400kV D/C Sohna Road(GPTL) - Manesar(PG) Ckt-1	-	-	-	-	-NA-	-NA-	-NA-		
11		400kV D/C Sohna Road(GPTL) - Gurgaon(PG) Ckt-2	-	-	-	-	-NA-	-NA-	-NA-		
12		400kV D/C Sohna Road(GPTL) - Manesar(PG) Ckt-2	-	-	-	-	-NA-	-NA-	-NA-		
13		400/220kV 500 MVA ICT-1 at Prithala(GPTL)	-	-	-	-	-NA-	-NA-	-NA-		
14		400/220kV 500 MVA ICT-2 at Prithala(GPTL)	-	-	-	-	-NA-	-NA-	-NA-		
15		400/220kV 500 MVA ICT-1 at Kadarapur(GPTL)	-	-	1.00	1.00	-NA-	0	0	ICT-1 tripped at 11:38 hrs on 29-11-2025, due to 86B malfunction	
16		400/220kV 500 MVA ICT-2 at Kadarapur(GPTL)	-	-	-	-	-NA-	-NA-	-NA-		
17		400/220kV 500 MVA ICT-1 at Sohna Road(GPTL)	-	-	-	-	-NA-	-NA-	-NA-		
18		400/220kV 500 MVA ICT-2 at Sohna Road(GPTL)	-	-	-	-	-NA-	-NA-	-NA-		
19		400kV 125 MVAR Bus Reactor-1 at Prithala(GPTL)	-	-	-	-	-NA-	-NA-	-NA-		
20		400kV 125 MVAR Bus Reactor-1 at Kadarapur(GPTL)	-	-	-	-	-NA-	-NA-	-NA-		
21		400kV 125 MVAR Bus Reactor-1 at Sohna Road(GPTL)	-	-	-	-	-NA-	-NA-	-NA-		
22	NRSS-XXIX TRANSMISSION LTD	Jalandhar (PG)-Samba (PG)-I	1.00	-	-	-	1	1	1	Line tripped at 16:22 hrs on 21-11-2025 Due to R Phase to B- phase fault. Note conductor snapped at tower no.112.	
23		Jalandhar (PG)-Samba (PG)-II	-	-	-	-	-NA-	-NA-	-NA-		
24		Sambha-Amargarh -1	-	-	-	-	-NA-	-NA-	-NA-		
25		Sambha-Amargarh -2	1.00	-	-	-	1	1	1	Line Auto Reclose (A/R) was successfully operated at 22:34 hrs on 04-11-2025 due to R-phase to earth fault. (This was a correct/proper operation.)	
26		Uri1(NHPC)-Amargarh(NRSS)-1	-	-	-	-	-NA-	-NA-	-NA-		
27		Uri1(NHPC)-Amargarh(NRSS)-2	-	-	-	-	-NA-	-NA-	-NA-		
28		Amargarh(NRSS)-Wagoora(PG)-1	-	-	-	-	-NA-	-NA-	-NA-		
29		Amargarh(NRSS)-Wagoora(PG)-2	-	-	-	-	-NA-	-NA-	-NA-		
30		315 MVA ICT-1 at Amargarh	-	-	-	-	-NA-	-NA-	-NA-		
31		315 MVA ICT-2 at Amargarh	-	-	-	-	-NA-	-NA-	-NA-		
32	63 MVAR Bus Reactor-1 at Amargarh	-	-	-	-	-NA-	-NA-	-NA-			
33	63 MVAR Bus Reactor-2 at Amargarh	-	-	-	-	-NA-	-NA-	-NA-			
34	PARBATI KOLDAM TRANSMISSION COMPANY LIMITED	PARBATI3-BANALA (POOLING POINT)	-	-	-	-	-NA-	-NA-	-NA-		
35		LUDHIANA-KOLDAM-I	-	-	-	-	-NA-	-NA-	-NA-		
36		LUDHIANA-KOLDAM-II	-	-	-	-	-NA-	-NA-	-NA-		
37		NALAGARH-BANALA-I	-	-	-	-	-NA-	-NA-	-NA-		
38		KOLDAM-BANALA-II	-	-	-	-	-NA-	-NA-	-NA-		
39		PARBATI2-BANALA (POOLING POINT)-I	-	-	-	-	-NA-	-NA-	-NA-		
40		400kV Parbati-II HEP Sainj HEP	-	-	-	-	-NA-	-NA-	-NA-		
41		400kV Sainj HEP Parbati-III HEP	-	-	-	-	-NA-	-NA-	-NA-		
42		PATRAN TRANSMISSION COMPANY LTD	KAITHAL-PATRAN-I	-	-	-	-	-NA-	-NA-	-NA-	
43			PATIALA-PATRAN-I	1.00	-	-	-	1	1	1	Line Auto Reclose (A/R) was successfully operated at 01:59 hrs on 12-11-2025 due to Y-phase to earth fault. (This was a correct/proper operation.)
44	KAITHAL-PATRAN-II		-	-	-	-	-NA-	-NA-	-NA-		
45	PATIALA-PATRAN-II		-	-	-	-	-NA-	-NA-	-NA-		
46	Patran ICT-I		-	-	-	-	-NA-	-NA-	-NA-		
47	Patran ICT-II	-	-	-	-	-NA-	-NA-	-NA-			

NR222036	611092	220KV JALANDHAR-NEHRIAN (HPSEB-I)	11/5/2025 2:03	11/5/2025 2:03	LART	Line auto-reclosed successfully from both ends on transient R-N fault.	NC	
NR222036	611093	220KV JALANDHAR-NEHRIAN (HPSEB-I)	11/5/2025 6:31	11/5/2025 6:31	LART	Line auto-reclosed successfully from both ends on transient R-N fault.	NC	
NR222036	611222	220KV JALANDHAR-NEHRIAN (HPSEB-I)	11/11/2025 1:50	11/11/2025 1:50	LART	Line auto-reclosed successfully from both ends on transient R-N fault.	NC	
NR240033	611278	400KV KISHENPUR-MOGA-II	11/13/2025 12:38	11/13/2025 12:38	LART	Line auto-reclosed successfully from both ends on transient R-N fault.	NC	
NR240070	611015	400KV AMRITSAR-BANALA-I	11/1/2025 13:12	11/1/2025 13:12	LART	Line auto-reclosed successfully from both ends on transient R-N fault.	NC	
NR240108	611237	400KV PATIALA-PATRAL-I	11/12/2025 1:59	11/12/2025 1:59	LART	Line auto-reclosed successfully from both ends on transient R-N fault.	NC	
NR240120	611233	400KV KISHENPUR- NEW WANPOH-III	11/11/2025 20:41	11/11/2025 20:41	LART	Line auto-reclosed successfully from both ends on transient R-N fault.	NC	
NR240120	611235	400KV KISHENPUR- NEW WANPOH-III	11/11/2025 23:47	11/11/2025 23:47	LART	Line auto-reclosed successfully from both ends on transient R-N fault.	NC	
NR240001	611477	400KV ABDULLAPUR-BAWANA-I	11/21/2025 1:40	11/21/2025 2:38	LEFT	Line tripped on persistent Y-N fault due to insulator flashover at Loc 319. Fault data Abdullapur(AFAS):110.684km,3.804ka,faul Angle:87 Deg.	NC	
NR240033	611507	400KV KISHENPUR-MOGA-II	11/21/2025 11:51	11/21/2025 22:23	LEFT	Line tripped on persisting Y-N fault due to broken dropper and gantry conductor between loc no 1 & 2. Fault data Kishenpur: 11.89kA, 4.02kM, Fault data Moga: 2.08kA, 283.10kM.	NC	
NR240056	611359	400KV ABDULLAPUR-PANCHKULA-II	11/17/2025 2:35	11/17/2025 3:28	LEFT	Line tripped on persistent R-N fault due to bird droppings found on grading ring, ce ring & hardware fittings at loc no. 58. Fault data Panchkula:-10.213kA, 21.468kM Abdullapur: 7.561kA, 41.532kM	NC	
NR240084	611065	400KV RAMPUR-NALAGARH-II	11/3/2025 10:59	11/3/2025 15:17	LEFT	Line tripped due to persistent R-N fault in reclaim time. Fault data Nalagarh: 13.4kA, 13.51kM, Fault data Rampur: 3.2kA, 128kM	NC	
NR222042	611089	220KV ALUSTENG-DRASS	11/4/2025 21:45	11/4/2025 22:34	LNCC	Line tripped on persisting RN fault. Heavy snowstorm/Wind storm was persisting in area Sonamarg and Zojila areas. Fault data Drass: 1.5 kA, 58 km, Fault data Alusteng: 1.9 kA, 69.43 km	NC	
NR222044	611082	220KV KARGIL-KHALSTI	11/4/2025 14:48	11/4/2025 16:12	LNCC	Line tripped on persisting RN fault. Heavy snowstorm/Wind storm was persisting in the area. due to persisting R-N fault in reclaim time. FLR Khalsti:- 44.36km, 0.39kA & FLR Kargil:- 44.46km, 0.47kA.	NC	
NR222042	611249	220KV ALUSTENG-DRASS	11/12/2025 11:06	11/12/2025 11:29	OMST	Line tripped from drass end only due to manual error during cabling of ICT Bay by JKPTCL.	NU	
NR25VC02	611697	NEW WANPOH -200+300 MVAR SVC	11/27/2025 8:52	11/27/2025 12:20	OMST	SVC tripped due to melting of Copper connection between capacitors. Capacitor replaced along with copper interconnector.	NC	
NR222016	611208	220KV SALAL-JAMMU-I	11/10/2025 16:25	11/10/2025 17:34	OMSU	Bus fault in 132KV Bus at JKPTCL Station Gladni caused by failure of CT in their JKPTCL yard was neither cleared by 132KV Bus nor by 220KV ICT protection resulting in tripping of all feeders connected to 220KV Bus Section. CB of this line remains closed from Gladni and 220KV Bus voltage became zero due to tripping of 220KV lines from NHPC Salal in Zone-3.	NC	
NR222017	611209	220KV SALAL-JAMMU-II	11/10/2025 16:25	11/10/2025 17:34	OMSU	Bus fault in 132KV Bus at JKPTCL Station Gladni caused by failure of CT in their JKPTCL yard was neither cleared by 132KV Bus nor by 220KV ICT protection resulting in tripping of all feeders connected to 220KV Bus Section. CB of this line remains closed from Gladni and 220KV Bus voltage became zero due to tripping of 220KV lines from NHPC Salal in Zone-3.	NC	
NR222047	611544	220KV CHOWADI-SAMBA	11/22/2025 19:44	11/24/2025 19:14	OMSU	Line tripped on Persisting R-N fault conductor snapped at The 113-114. Fault data Samba: 2.37kA, 35.21km, Fault data Chowadi: 14.27km, Span 113-114 was in Army Firing Zone. Conductor failure is ascertained due to bullet hitting. Conductor with bullet hit marks is attached. Following documents has been attached for reference: 1. Time tag photo with GPS coordinate for tower name plate. 2. GPS tagged photo of Bullet marks on conductor. 3. Samba Relay Fault location. 4. Tower schedule & KMZ file showing Army firing zone.	NC	
NR240129	611821	400KV PANCHKULA-GUMMA - II	11/30/2025 13:29	11/30/2025 15:51	OMSU	Line tripped on persisting R-B fault due to cutting of tree by private land owner outside of ROW on uphill side in span 162-163, which fell on the conductor. Fault Data Panchkula:- 98.3km, I-6.146kA & I-6.159kA and FLR Gumma:- 18.79km, I-7.89kM, I-6.04kA. Following documents has been attached for reference: 1. GPS Tagged Tower Name plate photo. 2. GPS Tagged showing fallen tree and marks on conductor. 3. GPS Marked Tree length i.e 29.06m which is outside the corridor. 4. Gumm Relay fault location. 5. Tower Schedule and KMZ File.	NC	
NR240032	611506	400KV KISHENPUR-MOGA-I	11/21/2025 11:51	11/21/2025 12:16	SRMT	Line tripped on Y-N fault on Z-4 from Kishenpur end only due to relay malfunction and remain charged from Moga SS.	NU	Relay settings corrected
NR222002	611450	220KV BAIRASUL-PONG	11/20/2025 1:55	11/20/2025 3:03	SRMU	Line remains charged from Pong (BBMB) but tripped from Bairasul(NHPC) due to maloperation of over voltage protection in their Bay at Bairasul. Following documents has been attached for reference: 1. Bairasul NHPC DR showing tripping from Bairasul end only. 2. Mail from Bairasul NHPC.	NC	Maloperation at NHPC end
NR222036	611221	220KV JALANDHAR-NEHRIAN (HPSEB-I)	11/10/2025 23:11	11/11/2025 0:18	SRMU	Line remains charged from Jalandhar (PG) but tripped from HPPTCL, Nehrian due to relay mal-operation of Line protection in their Bay at Nehrain HPPTCL. Following documents has been attached for reference: 1. Voltage Graph at Jalandhar end(PG) showing voltages in line. 2. Email from HPS, LDC.	NC	Maloperation at HPPTCL end
NR222046	611546	220KV JAMMU-CHOWADI	11/22/2025 19:44	11/22/2025 21:05	SRMU	Line tripped on Zone 4 protection, at the same time of Persisting R-N fault in 220KV Samba-Chowadi. 220KV Jammu-Chowadi. Line remain charged at Jammu end (source was Chowadi strn., Bus voltage zero at Chowadi). Bay at chowadi is owned and maintained by JKPTCL. Following Documents attached for reference: 1. DR Chowadi showing tripping from Chowadi end.	NC	Maloperation at JKPTCL S/S Chowadi

Total tripping including LNCC & successful autoreclosures	24
NC Nc is the number of correct operations at internal power system faults	22
NF Nf is the number of failures to operate at internal power system faults.	0
NU Nu is the number of unwanted operations.	2
NI Ni is the number of incorrect operations and is the sum of NF and Nu	2
The Dependability Index defined as $D = Nc / (Nc + NF)$	100.00%
The Security Index defined as $S = Nc / (Nc + Nu)$	91.67%
The Reliability Index defined as $R = Nc / (Nc + NI)$	91.67%

Reason for Performance Indices less than Unity- NOVEMBER 2025 (RVPN)

Case-1 400 KV Main bay CB Of 765/400KV ICT-3 765 KV GSS PHAGI on 24.11.2025

No. of Unwanted operation – 1

Reason of unwanted operation –

DC extension to one pole trip coil.

Corrective Action taken – YES

DC wiring checked and fault removed.

Case-2 220 KV Ajmer -Ajmer -I Line, 220 KV Ajmer -Ajmer -II Line at 220 KV GSS AJMER on 05.11.2025

No. of Unwanted operation – 2

Reason of unwanted operation –

Bus bar Protection CU defective.

Corrective Action taken – NO

Bus Bar Protection is kept out of circuit and trying to resolve the defect in consultation with OEM.

Case-3 220 KV Ratangarh-Rawatsar Line at 220 KV GSS RAWATSAR on 21.11.2025

No. of Unwanted operation – 3

Reason of unwanted operation –

VT selection relay problem.

Corrective Action taken – YES

Problem of VT selection relay rectified.

Format No.-PI-01
Reporting of performance indices for protection system
(for elements connected at 220 kV and above)
Name of Utility: Delhi Transco Ltd
Month: November 2025

S. No.	Substation	Unit (SPS/Line/ICT/GT etc)	Nc	Nf	Nu	Ni	Dependability Index ($D=Nc/(Nc+Nf)$)	Security Index ($S=Nc/(Nc+Nu)$)	Reliability Index ($R=Nc/(Nc+Ni)$)	Remedial Action Taken (if applicable)/ Remarks
1	400kV Mundka	315MVA ICT-2	1	0	0	0	1	1	1	
2	220kV Gopalpur	220kV Mandola Ckt-1	0	0	1	1	0	0	0	Trip command issued through LBB while doing testing of relays on 220kV Timarpur Ckt.
		220kV Mandola Ckt-2	0	0	1	1	0	0	0	
		100MVA Transformer-1	0	0	1	1	0	0	0	
		100MVA Transformer-2	0	0	1	1	0	0	0	
		160MVA Transformer-4	0	0	1	1	0	0	0	
3	220kV Narela	220kV Rohtak Road Ckt-1	1	0	0	0	1	1	1	
		220kV Panipat Ckt-3	1	0	0	0	1	1	1	
4	220kV BTPS	220kV Ballabgarh Ckt-1	2	0	0	0	1	1	1	
		220kV Ballabgarh Ckt-2	1	0	0	0	1	1	1	
		220kV Alwar Ckt-1	2	0	0	0	1	1	1	
		220kV Tuglakabad Ckt-2	1	0	0	0	1	1	1	
5	220kV Kashmere Gate	220kV South of Wazirabad Ckt-1	2	0	0	0	1	1	1	
6	220kV Lodhi Road	220kV Maharani Bagh Ckt-2	2	0	0	0	1	1	1	
7	220kV Maharani Bagh	220kV Lodhi Road Ckt-2	2	0	0	0	1	1	1	
8	220kV Mehrauli	220kV Vasant Kunj Ckt-2	1	0	0	0	1	1	1	
9	220kV Patparganj	220kV Geeta Colony Ckt-1	1	0	0	0	1	1	1	
10	220kV Geeta Colony	220kV Patparganj Ckt-1	1	0	0	0	1	1	1	
11	220kV Shalimar Bagh	220kV SGTN Ckt-2	1	0	0	0	1	1	1	
12	220kV SGTN	220kV Shalimar Bagh Ckt-2	1	0	0	0	1	1	1	
13	220kV South of Wazirabad	220kV Kasmere Gate Ckt-1	2	0	0	0	1	1	1	
		160MVA Transformer-4 (220/66kV)	1	0	0	0	1	1	1	
14	220kV Tuglakabad	220kV BTPS Ckt-2	1	0	0	0	1	1	1	

Justification for less than one index may be attached separately.

Nc is the number of correct operations at internal power system faults

Nf is the number of failures to operate at internal power system faults

Nu is the number of unwanted operations

Ni is the number of incorrect operations and is the sum of Nf and Nu

मुख्य अभियन्ता (सं०)
निदेशक (आपरेशन)



U.P. Power Transmission
Corporation Ltd.
Shakti Bhawan Extn.
14 Ashok Marg, Lucknow- 226001
Tel/Fax: 0522-2287833 / 2286476
Email: director_op@upptcl.org

No: 6945 /Dir (Op)/ NRPC

Date: 03/12/2025

Subject: Protection performance indices & Performance indices (SPS) of protection system for the month of 11/2025.

SEO
NRPC
New Delhi.

Through E- Mail

Mail ID – seo-nrpc@nic.in

Kindly find enclosed herewith copy of compiled Protection performance indices & Performance indices (SPS) along with the reports obtained from all 06 Zonal offices of UPPTCL for the month of November, 2025.


(Md. Reza Ahmad)
Chief Engineer (A)

No: /Dir (Op)/

Date:

Copy to :-

- 1 Director (Operation) UPPTCL, Lucknow for information.
- 2 Chief Engineer, TC/TW/TSW/TSC/TSE/TNE, UPPTCL, Lucknow/Meerut/Agra/Jhansi/Prayagraj/Gorakhpur.
- 3 Superintending Engineer (RA), UPSLDC, Lucknow.

(Md. Reza Ahmad)
Chief Engineer (A)

Protection Performance Indices

November, 2025

S.No.	Transmission Zone	Dependability index	Security index	Reliability index	Remark
1	TC, Lucknow	1	1	1	---
2	TSC, Jhansi	1	0.91	0.91	At 400 kV Orai : 400 kV Orai-Banda-II line tripped at Banda end only due to false DT received and at Orai end line was not tripped. PLCC checked & tested at 400 kV Banda end on 21.11.2025 and found correct. PLCC checked at 400 kV Orai end and problem found in PLCC card.
3	TW, Meerut	1	0.98	0.98	400 kV Sector-123: 400 kV Ataur line unwanted tripping due to problem in direct Trip send wiring (later rectified).
4	TNE, Gorakhpur	1	0.11	0.11	220 kV S/S Anandnagar (Karkhi) : Bus Bar protection relay (Seimens type-7SS52) at 220 kV S/S Anandnagar operated on 13.11.2025 (14:50 Hrs.) on R-ph diff. and on 14.11.2025 (14:15 Hrs.) on R, Y-ph diff. protection operated. No actual fault could be found. Corrective Action : Relay was tested using universal kit, on date 14.11.2025 and current was injected through bus bar protection CT core of 220 kV PGCIL line into bus bar protection relay. During test, it was observed that bus bar protection relay did not sense current, indicating a malfunction in bus bar protection system. Bus bar protection kept out service and reverse zone time delay modified 160ms. Through testing of aforesaid 220 kV bus bar relay is being planned with online support of M/s Siemens Service Engineer on date 05.12.2025 to ensure healthiness of the relay.
5	TSW, Agra	1	1	1	---
6	TSE, Prayagraj	1	1	1	---
Total indices value		1.000	0.833	0.833	---

Performance Indices (SPS)**November, 2025**

S.No.	Transmission Zone	Dependability index	Security index	Reliability index	Remark
1	TC, Lucknow	NA	NA	NA	No SPS operated
2	TSC, Jhansi	NA	NA	NA	No SPS operated
3	TW, Meerut	NA	NA	NA	No SPS operated
4	TNE, Gorakhpur	NA	NA	NA	No SPS operated
5	TSW, Agra	NA	NA	NA	No SPS operated
6	TSE, Prayagraj	NA	NA	NA	No SPS operated
Total indices value		0	0	0	

Format No.-PI-01

Reporting of performance indices for protection system

(for elements connected at 220 kV and above)

Name of Utility: HVPNL

Month: November, 2025

S.N.	Substation	Unit (SPS/Line/ICT/GT/ etc)	Nc	Nf	Nu	Ni	Dependability Index ($D=Nc/Nc+Nf$)	Security Index ($S=Nc/Nc+Nu$)	Reliability Index ($R=Nc/Nc+Ni$)
M&P Division Gurugram									
1	220KV IMT Bawal	220/33KV 100MVA T-1	1	0	0	0	1	1	1
2	220KV Lula Ahir	220KV Lula Ahir-Rewari line	1	0	0	0	1	1	1
3	400KV Dhanonda	220KV Dhanonda-Lula Ahir Ckt-1	1	0	0	0	1	1	1
4	400KV Dhanonda	220KV Dhanonda-Lula Ahir Ckt-2	1	0	0	0	1	1	1
5	400KV Dhanonda	220KV Dhanonda-Deroli Ahir Ckt-1	1	0	0	0	1	1	1
6	400KV Dhanonda	220KV Dhanonda-Deroli Ahir Ckt-2	1	0	0	0	1	1	1
7	400KV Dhanonda	400/220KV 315MVA ICT-1	1	0	0	0	1	1	1
8	400KV Dhanonda	220KV Bus Coupler	1	0	0	0	1	1	1
9	400KV Daultabad	400KV Daultabad-Gurugram_PG Ckt-1	1	0	0	0	1	1	1
10	220KV Sec-65 GGN	220KV Sec-65 to Kadarapur Ckt-2	1	0	0	0	1	1	1
11	220KV Panchgaon	220/33KV 100MVA T-1	1	0	0	0	1	1	1
12	220KV Panchgaon	220/66KV 160MVA T-2	1	0	0	0	1	1	1
13	220KV Panchgaon	220/66KV 160MVA T-3	1	0	0	0	1	1	1
M&P Division Hisar									
1	220 KV S/Str. Fatehabd	220KV Fatehabad PG- Fatehabad Circuit-1	1	0	0	0	1	1	1
M&P Division Faridabad									
1	220KV KV Harfali	220KV Harfali-S/Pur BBMB Ckt-1	1	0	1	0	1	0.5	1

M&P Division Dhulkote									
1.	220 KV Pinjore	220 kV Panchkula-PG-Pinjore Ckt-2 (18.11.2025)	1	0	0	0	1	1	1
2.	220 KV Rajokheri	220 kV Rajokheri -Abdullapur Ckt-1 (21.11.2025)	1	0	0	0	1	1	1
M&P Division Rohtak									
1	220KV Chhajpur.	220KV Sewah (BBMB) - Chhajpur Ckt-1	1	0	0	0	1	1	1
2.		220KV Sewah (BBMB) - Chhajpur Ckt-2.	1	0	0	0	1	1	1
3.	220KV Nuna-Majra	220kV Nuna Majra - B/Garh Ckt.-1	1	0	0	0	1	1	1
4.		220kV Nuna Majra - B/Garh Ckt.-2	1	0	0	0	1	1	1
5.	220 KV Rohtak.	220kV Rohak - K/pur line	1	0	0	0	1	1	1

Note: Justification for less than one index may be attached separately.

Nc is the number of correct operations at internal power system faults

Nf is the number of failures to operate at internal power system faults

Nu is the number of unwanted operations

Ni is the number of incorrect operations and is the sum of Nf and Nu.

Tripping Details						Remarks	Nc	Nf	Nu	Ni	Dependability Index (D)	Security Index (S)	Reliability Index (R)
Punjab State Transmission Corporation Limited													
November-2025													
S.N.	Sub-Station	Unit (SPS/Line/ICT/GT/etc.)	Date on which Power System Fault occurred	Local End Indications	Remote End Indications								
1	400 kV S/S Dhuri	220 KV Dhuri(400)-Dhuri ckt-2	17-11-2025 at 05.13 Hrs	Zone-II, Y-ph, Fault Distance-19.3 km	I=670.3A, Iy=2.514 kA, Ib=465.8A	Y-ph CT damage at 220 kV Dhuri end	1	0	0	0	1	1	1
		220 kV Dhuri(400)-Chajjli ckt-1	22-11-2025 at 05.39 Hrs	Zone-I, R-ph, Fault Distance-16.28 km	R-ph, Fault current Ir=2.71 kA, Fault distance-29.33 km		1	0	0	0	1	1	1
2	400 kV S/S Muktsar	220 kV Muktsar(400)-Abohar ckt.I	06-11-2025 at 19.56 Hrs	Tripped due to Overvoltage optd., DT send	DT Received		1	0	0	0	1	1	1
		220 kV Muktsar(400)-Abohar ckt.I	07-11-2025 at 19.53 Hrs	Tripped due to Overvoltage optd., DT send	DT Received		1	0	0	0	1	1	1
		400 kV Muktsar-Talwandi ckt.II	27-11-2025 at 23.55 Hrs	A/R optd, R-Ph, Distance= 66.9 Km Ia= 4.07 KA	Zone-1 , R-Phase, Distace= 36.7 KM		1	0	0	0	1	1	1
3	400 kV S/S Rajpura	220 kV Rajpura(400)-Mandi Gobindgarh ckt.II	06-11-2025 at 02.22 Hrs	Tripped with no indications (86.1 optd.)	Not tripped	The binary output (BO) module of relay was found to be shorted due to contamination caused by rat urine intrusion within the relay housing,leading to malfunction of output circuitry.	0	0	1	1	#DIV/0!	0	0

Tripping Details													
Punjab State Transmission Corporation Limited													
November - 2025													
Sr.No.	Sub-Station	Unit (SPS/Line/ICT/GT/etc.)	Date and time when Power System Fault occurred	Local End Indications	Remote End Indications	Remarks	Nc	Nf	Nu	Ni	Dependability Index (D)	Security Index (S)	Reliability Index (R)
1	220kV Sandaur	220kV Sandaur - Pakhowal	12/11/2025 AT 04:38	Main-2,Zone -4,	CB ON	Blackout at 220 kV Sandaur	0	0	1	1	0	0	0
2		220kV Sandaur - Kupkalan Railway (TSS)	12/11/2025 AT 04:38	Dir O/C, E/F Relay Operated R Phase, 8.54KA,1.06A,9.79A, EF 8.52KA	No Indication received		1	0	0	0	1	1	1
3	220kV Doraha	220kV Doraha - Sahnewal Ckt 2	4/11/2025 AT 00.02	86 Trip	CB ON		0	0	1	1	0	0	0
4	220kV Jadla	220kV Jadla - RTP Ckt.1	10/11/2025 AT 07:29	Zone-1, Fault Location-33.7km,RY Phase, Directional E/F Relay	Zone - 1, Fault Location - 09.26 Km, RY-Phase HSU,	while Tree cutting by farmers between Span no 26 &27, Induction zone is created from 20-30 meter distance	1	0	0	0	1	1	1
5	220 kV Dhandari Kalan 2	220 kV Dhandari Kalan 2 - PGCIL CKT. 2	03/11/2025 AT 11:51	RYB Phase, Master Trip	CB ON	Due to issue in Main-2 relay internal logic, now it is rectified	0	0	1	1	0	0	0
6			09/11/2025 AT 14:35	Main-1:-Zone - 1, Fault Location - 12.87Km, RY-Phase, Main-2:-Zone -1, Fault Location - 12.680Km, RYB Phase,	Zone-1, Fault Location-6.74km, RYB Phase		1	0	0	0	1	1	1
7	220kV Sahnewal	220kV Sahnewal - PGCIL Ckt.2	04/11/2025 AT 00:02	Z1,Master trip	Zone - 1, Fault Location - 3.2 Km, B-Phase E/f		1	0	0	0	1	1	1
8	220 KV S/S G5	220 KV G5 - Sanathan	06.11.2025	Main 1 DPR Operated Indications Line differential optd R phase optd Fault current Ia=40.71 kA Ib 17.10 A Ic 17.66 A In =40.71kA	NA	Due to transient fault . Found Nothing Line charged as per instruction of PC patiala after clearance of AOTL	1	0	0	0	1	1	1
9	220kv s/s G2	G2 -Ganguwal	07.11.2025	G2 end=Micom P444 operated ,Ia= 530.0A,Ib=267.9A,Ic=372.7A, Zone 2	Ganguwal end= Breaker on.	due to transient fault.	1	0	0	0	1	1	1
10	220KV S/S Bassi Pathana	220 KV Bassi - G5	14.11.2025	Breaker Off, DPR Zone-1 R,Y Phase . Ia= 761 kA, Ib =743 kA, Ic=617 kA	Breaker On	Found nothing, Line charged as per instruction of PC patiala after clearance of AOTL	1	0	0	0	1	1	1
11	220 KV S/S G5	220 KV G5 - RTP	14.11.2025	Wazirabad end (G5) Indications Main1 protection optd Main 2 protection optd Auto reclose blocked Master trip optd Micom P444: R Phase trip, Y phase trip Ia = 0 A, Ib= 4.306 kA, Ic= 737 A REL 650 Relay indications: R, Y, Zone-1 optd. Ia= 1.73A, Ib= 4307 A, Ic = 743.82 A	RTP End : Micom P442 Ia= 6.008kA Ib= 1.704 kA Ic= 742.8 A Zone-1 Fault location 23.15 km	Breakdown occurred at tower 11 near 220 kv s/s wazirabad	1	0	0	0	1	1	1
12	220 kV S/S G3	220 KV G3 - G1	17.11.2025	DPR R,Y,B Phase E/F Trip . Ia= 0.09kA, Ib =0.13 kA, Ic=0.09 kA	Breaker On	Found Nothing, circuit has been patrolled from tower no. 243 to 230/4	1	0	0	0	1	1	1

Status of performance indices reporting of SPS for November 2025 (Last date of submission 07.12.2025)

Sr. No.	Scheme Name	Owner / Agency	Received Status (Yes/No)	Vide mail dated	Remarks	Indices less than 1 (Yes/No)	Reason submitted and corrective action taken	Submitted by Utility	Submitted by SLDC/NRLDC
1	SPS for WR-NR corridor - 765kV Agra-Gwalior D/C	POWERGRID							
2	SPS for contingency due to tripping of HVDC Mundra-Mahendergarh	ADANI							
3	SPS for high capacity 400 kV Muzaffarpur-Gorakhpur D/C Inter-regional tie-line related contingency	POWERGRID							
4	SPS for 1500 MW HVDC Rihand-Dadri Bipole related contingency	POWERGRID							
5	System Protection Scheme (SPS) for HVDC Balia-Bhiwadi Bipole	POWERGRID							
6	SPS for reliable evacuation of power from NJPS, Rampur, Sawra Kuddu, Baspa Sorang and Karcham Wangtoo HEP	SJVN/HPPTCL/JSW/POWERGRID/SORANG							
7	SPS for Reliable Evacuation of Ropar Generation	PSTCL							
8	SPS for Reliable Evacuation of Rosa Generation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
9	SPS for contingency due to tripping of evacuating lines from Narora Atomic Power Station	NAPS/UPPTCL							
10	SPS for evacuation of Kawai TPS, Kalisindh TPS generation complex	RVPNL							
11	SPS for evacuation of Anpara Generation Complex	UPPTCL	Y	02.12.2025		NO	NA	Y	Y
12	SPS for evacuation of Lalitpur TPS Generation	UPPTCL	Y	05.12.2025		NO	NA	Y	Y
13	SPS for Reliable Evacuation of Bara TPS Generation	UPPTCL	Y	01.12.2025		NO	NA	Y	Y
14	SPS for Lahal Generation	HPPTCL	Y	06.12.2025		NO	NA	Y	
15	SPS for Transformers at Ballabgarh (PG) Substation	POWERGRID							
16	SPS for Transformers at Maharaniabagh (PG) substation	POWERGRID							
17	SPS for Transformers at Mandola (PG) substation	POWERGRID							
18	SPS for Transformers at Bamnauli (DTL) substation	DTL							
19	SPS for Transformers at Moradabad (UPPTCL) Substation	Uttar Pradesh							
20	SPS for Transformers at Muradnagar (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
21	SPS for Transformers at Muzaffarnagar (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
22	SPS for Transformers at Greater Noida (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
23	SPS for Transformers at Agra (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
24	SPS for Transformers at 400kV Sarojinagar (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
25	SPS for Transformers at 220kV Sarojinagar (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
26	SPS for Transformers at 400kV Unnao (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
27	SPS for Transformers at 400kV Sultanpur (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
28	SPS for Transformers at 400kV Bareilly (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
29	SPS for Transformers at 400kV Azamgarh (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
30	SPS for Transformers at 400kV Mau (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
31	SPS for Transformers at 400kV Gorakhpur (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
32	SPS for Transformers at 400kV Sarnath (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
33	SPS for Transformer at 400kV Rajpura (PSTCL) Substation	PSTCL							
34	SPS for Transformers at 400kV Mundka (DTL) Substation	DTL							
35	SPS for Transformers at 400kV Deepalpur (JKTPL) Substation	HVPNL							
36	SPS for Transformers at 400kV Ajmer (RVPN) Substation	RVPNL							
37	SPS for Transformers at 400kV Merta (RVPN) Substation	RVPNL							
38	SPS for Transformers at 400kV Chittorgarh (RVPN) Substation	RVPNL							
39	SPS for Transformers at 400kV Jodhpur (RVPN) Substation	RVPNL							

40	SPS for Transformers at 400kV Bhadla (RVPN) Substation	RVPNL							
41	SPS for Transformers at 400kV Ratangarh (RVPN) Substation	RVPNL							
42	SPS for Transformers at 400kV Nehtaur(WUPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
43	SPS for Transformers at Obra TPS	UPPTCL	Y	06.12.2025		NO	NA	Y	Y
44	SPS for Transformers at 400kV Kashipur (PTCUL) substation	PTCUL							
45	SPS for Transformers at 400kV Fatehgarh Solar Park (AREPRL)	ADANI	Y	03.12.2025		NO	NA	Y	
46	SPS to relive transmission congestion in RE complex (Bhadla2)	POWERGRID							
47	SPS for Transformers at 400kV Bikaner (RVPN) Substation	RVPNL							
48	SPS for Transformers at 400kV Bawana (DTL) Substation	DTL							
49	SPS for Transformers at 400kV Bhillwara (RVPN) Substation	RVPNL							
50	SPS for Transformers at 400kV Hinduan (RVPN) Substation	RVPNL							
51	SPS for Transformers at 400kV Suratgarh (RVPN) Substation	RVPNL	Y	07.12.2025		NO	NA	Y	
52	SPS for Transformers at 400kV Babai(RS) Substation	RVPNL							
53	SPS for Transformers at 400kV Allahabad(PG) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
54	SPS for Transformers at 400kV Jaunpur(UP) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
55	SPS for Transformers at 765kV Jhatikara(PG) Substation (Bamnauli section)	POWERGRID							
	SPS for Transformers at 765kV Jhatikara(PG) Substation (Mundka section)								
56	SPS for Transformers at 765kV Bhiwani(PG) Substation	POWERGRID							
57	SPS for Transformers at 400kV Panki (UPPTCL) Substation	UPPTCL	Y	03.12.2025		NO	NA	Y	Y
58	SPS for Transformers at 400kV Agra(PG) Substation	POWERGRID/UPPTCL							

Status of Internal Protection Audit Plan for FY 2026 -27						
S. No.	NRPC Member	Category	Status	Schedule submitted as per utility		
1	PGCIL	Central Government owned Transmission Company	Received (NR-2) (24 Substations); NR-1 (20 sub-stations)			
2	NTPC	Central Generating Company	Received			
3	BBMB		Received (Tehri HPP)	Feb-27		
4	THDC		Received (Koteshwar HPP)	Dec-26		
5	SJVN		Received (Rampur)	Oct-26-Dec-26		
6	NHPC		Received (13 stations)			
7	NPCL					
8	Delhi SLDC		SLDC			
9	Haryana SLDC					
10	Rajasthan SLDC					
11	Uttar Pradesh SLDC					
12	Uttarakhand SLDC					
13	Punjab SLDC					
14	Himachal Pradesh SLDC					
15	DTL	State Transmission Utility	Received (47 Substations)			
16	HVPNL		Received (91 Substations)			
17	RRVNL		Received	31.03.2027		
18	UPPTCL		Meerut Zone	10/1/2027 -15/3/2027		
			Agra Zone	10/1/2027 -30/3/2027		
			Lucknow Zone	1/1/2027-10/3/2027		
			Jhansi Zone	5/1/2027 -30/3/2027		
			Prayagraj Zone	1/1/2027 -10/3/2027		
19	PTCUL	Gorakhpur Zone	10/1/2027-30/3/2027			
20	PSTCL	Received (44s/s)	Jul-26 to Jan-27			
21	HPPTCL	Received (12 Substations)				
22	IPGCL	Received (PPS-I)	15.11.2026			
		Received (PPS-II)				
		Received (PPS-III)	30.10.2026			
23	HPGCL	State Generating Company				
24	RRVUNL		Anpara B	October 2026		
25	UPRVUNL		Obra A & B	October 2026		
			Panki	October 2026		
			Anpara D	May 2026		
			Harduaganj	May 2026		
			Harduaganj D	May 2026		
			Harduaganj E	May 2026		
			Parichha	August 2026		
			Parichha Ext	August 2026		
			Obra C	October 2026		
			Jawaharpur	October 2026		
			26	UJVNL	Dharashu	December, 2026
					Tiloth	December, 2026
				Chibro	October 2026	
		Khodri	November, 2026			
27	HPPCL	Vyasi	December, 2026			
28	PSPCL	State Generating Company & State owned Distribution Company				
29	HPSEBL	Distribution company having Transmission connectivity ownership				
30	Prayagraj Power Generation Co. Ltd.	IPP having more than 1000 MW installed capacity	Received	Sep-26		
31	Aravali Power Company Pvt. Ltd		Received	Mar-27		
32	Apraava Energy Private Limited					
33	Talwandi Sabo Power Ltd.					
34	Nabha Power Limited					
35	MEIL Anpara Energy Ltd		Received	Aug-26		
36	Rosa Power Supply Company Ltd		Received	Jan-27		
37	Lalitpur Power Generation Company Ltd		Received	Sep-26		
38	MEJA Urja Niagam Ltd.					
39	Adani Power Rajasthan Limited					
40	JSW Energy Ltd. (KWHEP)					
41	UT of J&K	UT of Northern Region	Received			
42	UT of Chandigarh					
ISTS Transmission Utilities						
43	INDIGRID					
44	ADHPL					
45	Adani Transmission Limited	Received	Oct-26			
46	Bikaner Khetri Transmission Limited	Received	Oct-26			
47	Fatehgarh Bhadla Transmission Limited	Received	Sep-26			
48	Powergrid Sikar Transmission Limited					
49	Powergrid Aligarh Sikar Transmission Limited					
50	Powergrid Ajmer Phagi Transmission Limited					

51	Powergrid Bikaner Transmission System Limited			
52	Powergrid Khetri Transmission System Limited			
53	Powergrid Ramgarh Transmission Limited			
54	Powergrid Fatehgarh Transmission Limited			
55	Powergrid Bhadla Transmission Limited			
56	Powergrid Meerut Simbhavli Transmission Limited			
57	Powergrid Kala Amb Transmission Limited			
	State Utilities			
	Uttar Pradesh			
58	Vishnuprayag Hydro Electric Plant (J.P.)		Received	March, 2027
59	Alaknanda Hydro Electric Plant (GVK)		Received	Nov-26
60	Ghatampur TPS		Received	Feb-27
61	Khara Power House (Khara)		Received	Dec-26
62	WUPPTCL		Received	Oct-26
63	SEUPPTCL		Received	Dec-26
64	ATSCL	AESL	Received	Sep-26
65	GTL (765 kV Hapur extension bays)	AESL	Received	Nov-26
66	GTL (765 kV Agra and Gr. Noida extension bays)	AESL	Received	Nov-26
67	HPTSL	AESL	Received	Aug-26
68	MTSCL	AESL	Received	Aug-26
69	OBTL	AESL	Received	Dec-26
70	STSCL	AESL		
	Rajasthan			
71	Barsingsar Plant	NLC		
72	Rajwest Plant	JSW		
	RE Utilities			
73	ABC Renewable Pvt. Ltd			
74	ACME Heeraqarh powertech Pvt. Ltd			
75	ACME Pholidi			
76	ACME Deagarh			
77	ACME Raisar			
78	ACME Dhoulpar			
79	ACME Chittorgarh Solar Energy Pvt Ltd			
80	Adani Hybrid Energy Jaisalmer One Ltd.	AGEL	Received	7/16/2026
81	Adani Hybrid Energy Jaisalmer Two Ltd.	AGEL	Received	7/25/2026
82	Adani Hybrid Energy Jaisalmer Three Ltd.	AGEL	Received	8/8/2026
83	Adani Hybrid Energy Jaisalmer Four Ltd. (AEML 1 -350)	AGEL	Received	8/15/2026
84	Adani Hybrid Energy Jaisalmer Four Ltd. (AEML 2 -250)	AGEL	Received	9/11/2026
85	Adani Renewable Energy (R.J) limited Rawara	AGEL	Received	9/28/2026
86	Adani Solar Energy Four Private Limited	AGEL	Received	9/28/2026
87	Adani Solar Energy Jaisalmer Two Private Limited Project Two	AGEL	Received	10/17/2026
88	SB Energy Six Private Limited, Bhadla	AGEL	Received	10/28/2026
89	Adani Solar Energy Jodhpur Two Limited, Rawara	AGEL	Received	9/26/2026
90	Adani Solar Energy Jaisalmer One Ltd. (Hybrid450)	AGEL	Received	10/3/2026
91	Adani Solar Energy R.J Two Pvt. Ltd. (Devikot)	AGEL	Received	11/7/2026
92	Adani Solar Energy R.J Two Pvt. Ltd. (Phalodi)	AGEL	Received	11/14/2026
93	Adani Green Energy 24 Limited (Bhimsar)	AGEL	Received	11/26/2026
94	Adani Green Twenty-Five Limited (Badisid)	AGEL	Received	12/4/2026
95	Bhadla park - South block	AGEL	Received	12/16/2026
96	AEML-250 WIND (Hybrid-2A)	AGEL	Received	9/16/2026
97	AEML-260 WIND (Hybrid-2B)	AGEL	Received	9/20/2026
98	Hybrid450-WIND (SBE Hybrid 450)	AGEL	Received	10/7/2026
99	Altra Xerqi Pvt. Ltd.			
100	AMP Energy Green Four Pvt. Ltd.			

101	AMP Energy Green Five Pvt. Ltd.			
102	AMP Energy Green Six Pvt. Ltd.			
103	Amplus Ages Private Limited			
104	Avaada RJHN_240MW		Received	Aug-26
105	Avaada sunce energy Pvt limited		Received	Aug-26
106	Avaada Sunrays Pvt. Ltd.		Received	Aug-26
107	Avaada Sustainable RJ Pvt. Ltd.		Received	Aug-26
108	Avana Renewable Power Three Private Limited			
109	Ayaana Renewable Power One Pvt. Ltd.			
110	Azure Power Forty One Pvt limited			
111	Azure Power Forty Three Pvt. Ltd. RSS			
112	Azure Maple Pvt. Ltd.			
113	AZURE POWER INDIA Pvt. Ltd., Bhadia			
114	Azure Power Thirty Four Pvt. Ltd.			
115	Clean Solar Power (Jodhpur) Pvt. Ltd.	Hero Future Energies	Received	May, 2026
116	Eden Renewable Cile Private Limited			
117	Grian Energy private limited			
118	Mahindra Renewable Private Limited			
119	Mega Surya Urja Pvt. Ltd. (MSUPL)			
120	AURAIYA Solar			
121	DADRI SOLAR			
122	SINGRALI SOLAR			
123	Anta Solar			
124	Unchahar Solar			
125	NTPC Devkot Solar plant_240MW			
126	NTPC Kolayat_400kV			
127	Nedan Solar NTPC			
128	NTPC Nokhra_300MW			
129	One Volt energy Pvt. Ltd.			
130	ReNew Solar Urja Private Limited (IndiGrid)	IndiGrid		
131	Renew Surya Ayaan Pvt. Ltd. (IndiGrid)	IndiGrid		
130	ReNew Solar Energy (Jharkhand Three) Private Limited	ReNew	Received	24/11/2026
131	RENEW SOLAR POWER Pvt. Ltd. Bikaner	ReNew	Received	17/11/2026
132	Renew Sun Bright Pvt. Ltd. (RSBPL)	ReNew	Received	19/11/2026
133	Renew Surya Partap Pvt. Ltd.	ReNew	Received	21/11/2026
134	Renew Surya Ravi Pvt. Ltd.	ReNew	Received	18/11/2026
135	Renew Surya Roshni Pvt. Ltd.	ReNew	Received	24/11/2026
136	Renew Surya Vihan Pvt. Ltd.	ReNew		
137	Renew Solar Photovoltaic Pvt Ltd	ReNew		
138	Renew Hans Urja Pvt Ltd	ReNew		
139	Renew Surya Jyoti Pvt Ltd	ReNew	Received	15/10/2026
140	Neemba Renew Surya Vihan Pvt Ltd	ReNew	Received	15/10/2026
141	Rising Sun Energy-K Pvt. Ltd.			
142	Serentica Renewables India 4 Private Limited			
143	Solzen Urja Private Limited	Sekura	Received	November, 2026
144	Tata Power Green Energy Ltd. (TPGEL) (225MW)			
145	Tata Power Renewable Energy Ltd. (TPREL) (300MW)			
146	Thar Surya Pvt. Ltd.			
147	TP Surya Ltd., Noorsar (110MW)			
148	Bandenwala Solar Plant TP Surya Ltd. (300MW)			
149	TRANSITION ENERGY SERVICES PRIVATE LIMITED			
150	Transition Green Energy Private Limited			
151	Transition Sustainable Energy Services Private Limited			

70	Adani Hybrid Energy Jaisalmer One Ltd.		5 years have not completed since commissioning				
71	Adani Hybrid Energy Jaisalmer Two Ltd.		5 years have not completed since commissioning				
72	Adani Hybrid Energy Jaisalmer Three Ltd.		5 years have not completed since commissioning				
73	Adani Hybrid Energy Jaisalmer Four Ltd. (AEML 1 - 350)		5 years have not completed since commissioning				
74	Adani Hybrid Energy Jaisalmer Four Ltd. (AEML 2 - 250)		5 years have not completed since commissioning				
75	Adani Renewable Energy (R.J) limited Rawara		Received	1/15/2026			
76	Adani Solar Energy Four Private Limited		5 years have not completed since commissioning				
77	Adani Solar Energy Jaisalmer Two Private Limited Project Two		5 years have not completed since commissioning				
78	SB Energy Six Private Limited, Bhadla	AGEL	5 years have not completed since commissioning				
79	Adani Solar Energy Jodhpur Two Limited, Rawara		5 years have not completed since commissioning				
80	Adani Solar Energy Jaisalmer One Ltd. (Hybrid450)		5 years have not completed since commissioning				
81	Adani Solar Energy RJ Two Pvt. Ltd. (Devkot)		5 years have not completed since commissioning				
82	Adani Solar Energy RJ Two Pvt. Ltd. (Phalodi)		5 years have not completed since commissioning				
83	Adani Green Energy 24 Limited (Bhimisar)		5 years have not completed since commissioning				
84	Adani Green Twenty-Five Limited (Badsid)		5 years have not completed since commissioning				
85	Bhadla park - South block		Received	1/28/2026			
86	AEML-250 WIND (Hybrid-2A)		5 years have not completed since commissioning				
87	AEML-260 WIND (Hybrid-2B)		5 years have not completed since commissioning				
88	Hybrid450-WIND (SBE Hybrid 450)		5 years have not completed since commissioning				
89	Altra Xera Pvt. Ltd.		Concluded		Completed	04.02.2025	60
90	AMP Energy Green Four Pvt. Ltd.		Received	Nov-27	Completed for common substation		
91	AMP Energy Green Five Pvt. Ltd.		Received	Nov-27			
92	AMP Energy Green Six Pvt. Ltd.		Received	Nov-27		02.09.2025	63
93	Amplus Aqes Private Limited		Received				
94	Avaada RJHN 240MW		Received	Aug-26			
95	Avaada sunice energy Pvt limited		Received	Aug-26			
96	Avaada Sunrays Pvt. Ltd.		Received	Aug-27			
97	Avaada Sustainable RJ Pvt. Ltd.		Received	Aug-26			
98							
99	Avana Renewable Power Three Private Limited		Concluded		24.05.2025		61
99	Avana Renewable Power One Pvt. Ltd.		Concluded				59
100	Azure Power Forty One Pvt limited						
101	Azure Power Forty Three Pvt. Ltd. RSS						
102	Azure Maple Pvt. Ltd.						
103	AZURE POWER INDIA Pvt. Ltd., Bhadla						
104	Azure Power Thirty Four Pvt. Ltd.						
105	Clean Solar Power (Jodhpur) Pvt. Ltd.	Hero Future Energies	Received	Dec-26			
106	Eden Renewable Cite Private Limited						
107	Grian Energy private limited						
108	Mahindra Renewable Private Limited						
109	Mega Surya Urja Pvt. Ltd. (MSUPL)						
110	AURAYA Solar						
111	DADRI SOLAR						
112	SINGRAULI SOLAR						
113	Anta Solar						
114	Unchahar Solar						
115	NTPC Devkot Solar plant 240MW		Received	Aug-26			
116	NTPC Kodayal 400kv		Received	May-26			
117	Nedra Solar NTPC		Received	Jun-26			
118	NTPC Nokhra 300MW		Received	Jun-26			
119	One Volt energy Pvt. Ltd.						
120	ReNew Solar Urja Private Limited	IndiGrid					
121	Renew Surya Ayaan Pvt. Ltd.	IndiGrid					
122	ReNew Solar Energy (Jharkhand Three) Private Limited		Received	29-01-2027			
123	RENEW SOLAR POWER Pvt. Ltd. Bhadla		Not Applicable as Plant running on 33kV				
124	Renew Sun Bright Pvt. Ltd. (RSBPL)		Received	16-04-2027			
125	Renew Surya Partap Pvt. Ltd.		Received	22-07-2029			
126	Renew Surya Ravi Pvt. Ltd.		Received	24-07-2027			
127	Renew Surya Rohini Pvt. Ltd.		Received	10-02-2030			
128	Renew Surya Vihan Pvt. Ltd.		Received	27-08-2029			
129	Neemba Renew Surya Vihan Pvt Ltd		Received	30-09-2030			
130	ReNew Surya Jyoti Pvt. Ltd.		Received	11/10/2030			
131	Renew Solar Photovoltaic Pvt Ltd						
132	RENEW SOLAR POWER Pvt. Ltd. Bilkaner						
133	Rising Sun Energy-K Pvt. Ltd.						
134	Serenica Renewables India 4 Private Limited						
135	Solzen Urja Private Limited		Received	01-26			
136	Tata Power Green Energy Ltd. (TPSEL) (225MW)		Received	31-03-2027			
137	Tata Power Renewable Energy Ltd. (TPREL) (300MW)		Received	31-03-2027			
138	Thar Surya Pvt. Ltd.						
139	TP Surya Ltd., Noorsar (110MW)		Received	31-03-2027			
140							
141	Banderwala Solar Plant TP Surya Ltd. (300MW)		Received	31-03-2027			
141	TRANSITION ENERGY SERVICES PRIVATE LIMITED						
142	Transition Green Energy Private Limited						
143	Transition Sustainable Energy Services Private Limited						

RVPN (internal 2025-26)**1. 220kV Substation Khetri Nagar**

1. SOTF has been mentioned as disabled which is not as per philosophy.
2. Zone -2 reach setting has been taken as 50% of shortest adjacent line + 100% of protected line for the 220kV lines. The same may be aligned with philosophy.
3. Zone -3 reach setting has been taken as 110% of longest adjacent line + 100% of protected line for the 220kV lines. The same may be aligned with philosophy.
4. Bus Bar protection functional has been mentioned in the audit report. Still zone-4 time setting has been kept as 160msec.
5. Over current protection setting has been taken as 100% for the 100MVA ICTs.
6. Other observations including above may be complied as identified in internal audit.

2. 220kV Substation Kuchera

1. SOTF has been mentioned as disabled which is not as per philosophy.
2. Bus Bar protection functional has been mentioned in the audit report. Still zone-4 time setting has been kept as 160msec.
3. Over current protection setting has been taken as 100% for the 100MVA ICTs.
4. Over Current protection enabled on 220kV lines which is not as per philosophy.
5. Other observations including above may be complied as identified in internal audit.

3. 220kV Substation Nagaur

1. SOTF has been mentioned as disabled which is not as per philosophy.
2. Static relay may be replaced with numerical relay.
3. Over current protection setting has been taken as 100% for the 100MVA 220/132kV BHEL make ICT-II.
4. Over Current protection enabled on 220kV lines which is not as per philosophy.
5. Other observations including above may be complied as identified in internal audit.

IPGCL (PPS-I) (internal 2025-26)

1. For generator transformers, I5/I1 has been taken as 20%.

JKPTCL (internal 2025-26)

1. 220kV Substation Bishnah

1. Over current protection has been enabled in 220kV transmission lines which is not as per philosophy.
2. Distance protection is not available in 220kV & 132kV transmission lines.
3. As per audit reports, the differential protection of 220/132kV, 160MVA transformers is partial functional.
4. Low set Over Current protection settings of 220/132kV, 160MVA transformers has been kept near to 100% which is not as per philosophy. High set over current protection is not available.

SOLZEN URJA PRIVATE LIMITED (Sekura internal 2025-26)

1. Back up over current protection for 160MVA transformer has been kept at 880% IB which may be discussed.
2. Distance protection zone-2 setting is 151% of protected line. This can be kept at 120% of protected line as it is single circuit line.
3. Zone-3 setting has been kept as 672% of protected line. This can be represented in terms of protected and longest adjacent line.
4. Over current and under voltage protection applied on 220kV line which is not as per philosophy.

Clean Solar Power Jodhpur Private Limited (Hero Future Energies internal 2025-26)

1. Over current protection enabled in the transmission line as per the audit report.
2. Implemented Protection settings have not been included in the report.

Grian Energy Private Limited, Amplus Ages Private Limited, Onevolt Energy Private Limited (Gentari internal 2025-26)

1. Over current protection enabled in the transmission line as per the audit report.

Avaada Sunrays Energy Private Limited (Avaada internal 2025-26)

1. For 150MVA ICTs, $I_5/I=15\%$ has been taken which is not as per philosophy.
2. For ICTs HV side, high set over current timing may be kept between 0 to 50 msec instead of 100msec.
3. Over flux protection setting for ICTs, may be kept as per capability curve provided by OEM curve or as per philosophy.

Avaada RJHN, Avaada sunce energy Pvt limited, Avaada Sustainable RJ Pvt. Ltd. (Avaada internal 2025-26)

1. For 150MVA ICTs, $I_2/I=20\%$ & $I_5/I=35\%$ has been taken which is not as per philosophy.
2. Over flux protection setting for ICTs, may be kept as per capability curve provided by OEM curve or as per philosophy.

Adani Hybrid Energy Jaisalmer Four Ltd. (AEML 2-250MW) (AGEL internal 2025-26)

1. Differential protection is provided in Main -1 relay for transmission line (length- 8KM) while as per philosophy for very short line (less than 10 km), line differential protection with distance protection as backup (built- in Main relay or standalone) shall be provided mandatorily as Main-I and Main-II.

External 2025

SJVN (NJHPS)

1. Zone-4 time settings may be kept at 1.5sec if one 3 reach is encroaching to next voltage level at Gumma for 400kV NJHPS-Gumma Lines. (page 42)
2. Zone- 3 settings may be reviewed as per the philosophy for 400kV NJHPS-Gumma Line 1,2 . Zone-4 time settings may be reviewed as recommended by auditor.
3. Zone-2 & 3 settings may be reviewed as per the philosophy for 400kV NJHPS to Rampur Line 1,2 & Karcham Wangtoo line 1 & 2. Zone-4 time settings may be reviewed as recommended by auditor.
4. A/R and Broken conductor protection is disabled in the Main-2 of 400kV NJHPS-Gumma, Rampur lines.
5. GT backup Over-current and Earth Fault protection are not provided which may be provided as per the philosophy.

Observations of Forum on reports of External Audit for NHPC

Power Stations

Dulhasti Power Station	
1. Different make relays for either Main I or Main II protections should be used for 400kV Dulhasti-Kishenpur Circuit-1.	This will be taken care during Renovation & Modernisation of Power Station.
2. A/R disabled has been found for the 400kV Dulhasti-Kishenpur Circuit-1.	As per our existing protection scheme, A/R is enabled in one relay (either Main-I/Main-II) and disabled in another relay (either Main-II/Main-I).
3. Over Current protection settings for GTs need to aligned with philosophy.	For better co-ordination of various protection functions, two stages over current is enabled in both Main-I & Main-II of Generator Protection Relays and disabled in GT relays.
4. Issues in 2nd (25% applied instead of 10-15%) and 5th (15% applied instead of 25%) harmonic settings of GTs.	3 rd party protection audit has not recommended, however same has been noted for compliance.
5. Coordinated settings are to implemented for back up earth fault protection of transmission line as recommended by auditor.	Already Back-up E/F protection of Line is coordinated with E/F protection of GT & Bus-coupler.
6. Characteristic of Earth fault relay is to be IEC SI in place of used relay of DT characteristic for transmission lines.	Already IEC SI curve is being used.
7. Distance protection zones should be made as per the philosophy for the both 400kV Dulhasti-Kishenpur Circuit-1 & 2.	Already being complied as per protection philosophy.
8. Other observations including above may be complied as identified in internal audit.	Already complied.

Salal Power Station	
1. Different make relays for either Main I or Main II protections should be used for all 220kV lines	This will be taken care during Renovation & Modernisation of Power Station.
2. Over Current protection for transmission lines should be disabled as per the philosophy.	Already disabled & intimated to NRLDC.
3. Distance protection zones (reach + time) should be made as per the philosophy for 220kV Salal -Kishenpur lines keeping in view that Kishenpur is 400kV substation so zone-3 reach transcends to other voltage level.	Already being complied as per protection philosophy.

4. Time delay of 5 sec. should be kept instead of 10 sec. for stage -1 over voltage protection of 220kV Salal-Kishenpur ckt-4.	Already complied.
5. Coordinated settings may be implemented for back up earth fault protection of transmission lines as recommended by auditor.	Already complied.
6. Characteristic of Earth fault relay is to be IEC SI in place of used relay of DT characteristic for transmission lines.	Already IEC SI curve is being used.
7. Under Voltage protection for the transmission lines may be disabled.	Already disabled.
8. Other observations including above may be complied as identified in internal audit.	Already complied.

Bairasiul Power Station	
1. Different make relays for either Main I or Main II protections should be used for GTs.	To be taken care in future
2. Distance protection zones (reach) should be made as per the philosophy for transmission lines.	Already being complied as per protection philosophy.
3. Coordinated settings may be implemented for back up earth fault protection of transmission lines as recommended by auditor.	Already complied.
4. Characteristic of Earth fault relay is to be IEC SI in place of used relay of DT characteristic for transmission lines.	Already IEC SI curve is being used.
5. Broken Conductor protection settings (time delay) of all transmission lines need to aligned with philosophy.	Already complied.
6. Other observations including above may be complied as identified in internal audit.	Already complied.

Chamera-I Power Station	
1. Different make relays for either Main I or Main II protections should be used for GTs, Line Reactor and Chamera-II line.	This will be taken care during Renovation & Modernisation of Power Station.
2. Auto reclosing feature is disabled in Main-2 protection relays of all three	As per our existing protection scheme, A/R is enabled in one relay (either Main-

400kV lines. The same is also disabled in Main -1 of Chamera-1 to Jalandhar Line 1.	I/Main-II) and disabled in another relay (either Main-II/Main-I).
3. Zone-2 & 3 settings may be reviewed as per the philosophy for 400kV Chamera-1 to Jalandhar Line 1,2 and Chamba line. Zone-4 time settings may be reviewed as recommended by auditor.	Already being complied as per protection philosophy.
4. Over voltage protection setting stage -1 for Chamera-1 to Jalandhar circuit 2 and stage -2 for Chamera-1 to Jalandhar Line 1,2, Chamba may be aligned with committee recommendation.	Already being complied as per protection committee recommendation.
5. 2nd (20% applied instead of 10-15%) and 5th (35% applied instead of 25%) harmonic settings of GTs, Line reactors & bus Reactor.	3 rd party protection audit has not recommended, however same has been noted for compliance.
6. In REF protection of GTs, I operating is 19.6% of full load HV current ((375*.17)/324.8). while as per philosophy, it is 10-15% of full load current.	3 rd party protection audit has not recommended, however same has been noted for compliance.
7. Other observations including above may be complied as identified in internal audit.	Already complied.

Parbati-III Power Station	
1. 400kV Parbati-III to Banala is 8kM in length. Therefore, line differential protection with distance protection as backup (built-in Main relay or standalone) shall be provided mandatorily as Main -I & Main -II as per the philosophy.	This will be taken care during Renovation & Modernisation of Power Station.
2. However, as per the report, distance protection has been enabled in main- 1 & 2 taking line length as 56.8kM in main-1.	56.8 km value was prior to 3 rd party protection audit. However 8 km has been implemented post audit.
3. Zone-4-time setting is 2 sec.	2 sec was prior to 3 rd party protection audit. However 0.5 sec has been implemented post audit.
4. In Power swing, zone -1 is unblocked on the 400kV Parbati-III to Banala.	Already complied.

5. Under voltage protection is enabled on the 400kV Parbati-III to Banala & Sainj lines.	Already complied.
6. Over Voltage protection settings are not as per committee recommendation for stage -1 for 400kV Parbati-III to Banala.	Already complied.

Status of actions points recommended during previous PSC meetings

S. No.	Agenda	Remedial actions recommended during PSC meeting	64th PSC (21.11.2025)	As on date status
3	Multiple elements tripping at 400kV Sainj (HP), 400kV Parbati2 & Parbati3 (NHPC) Stations on 07th May 2024, 16:17 hrs	51 PSC: a) NHPC shall follow up with the relay engineer and taken necessary remedial actions to ensure proper operation of A/R scheme at Parbati2 end. b) NHPC and HPPTCL shall review the healthiness of PLCC at Parbati3 and Sainj end and take necessary actions to ensure their proper operation. c) Expedite the implementation of differential protection in 400kV Parbati2-Sainj line. d) Standardisation of recording instruments (DR/EL) need to be ensured.	NHPC representative stated that OPGW work will be completed by Dec'25. HPPCL representative stated that PLCC card will be made healthy by 30th Nov'25. PSC forum recommended NHPC & HPPCL to take expeditious action at their end and ensure healthiness of protection system.	OPGW laying has not yet been completed.
22	Multiple elements tripping at 400 kV Uri-II HEP (NHPC) at 21:35 hrs on 18th May, 202	61. PSC Recommendation: NHPC in coordination with the POWERGRID(NR-2) shall review the healthiness of carrier protection in 400kV Uri_2-Wagoora line	NHPC representative stated that work would be completed by 10th Dec'25. PSC forum requested to complete the work within the stipulated time.	Shutdown of the line was applied for in the recent OCC meeting to check the healthiness of the PLCC system at the Uri-2 end; however, approval was not granted due to low-voltage conditions. The testing shall be carried out after obtaining shutdown approval from NRPC/NRLDC.

Nodal officer for reporting of protection performance indices & provide the other protection related inputs for compliance of Protection Code of IEGC 2023						
Sr. No.	Organization	Name	Designation	Mobile no	Email	Present Posting Location
1	JSW KWHEP	Hunny Kalia	Manager	7018091548	hunny.kalia@jsw.in	KWHEP
2	PTCUL	Er Asim Baig	Executive Engineer	9412087885	asim@sonet@gmail.com	Kashipur
3	BBMB	Rashmi Gautam	Deputy Director	7973755001	rdtech@bbmb.nic.in	Chandigarh
4	LPGCL	Abhimanyu Upadhyay	AVP	9151897271	aupadhyay.ltp@lpgcl.com	Lalitpur
5	UPPTCL	Mohammad Reza Ahmad	Chief Engineer	8707704798	director_op@upptcl.org	Lucknow
6	IPGCL	Arif Rahman	D.G.M	9717694928	arif.ipgcl@gmail.com	Bawana
7	RVUN	Raman Jain	Executive Engineer	9413349559	raman_49559@rvun.com	Kota
8	HPPTCL	Rajat Sharma	Sr. Manager	7018482028	smprot1.tcl@hpmail.in	Hamripur
9	RVPN	Sh. R.R. Gupta	Assistant Engineer	9413393611	se.prot.engg@rvpn.co.in	Jaipur
10	UPRVUNL	Shashank Chaudhary	Executive Engineer	9453007496	cgm.to@uprvunl.org	Lucknow
11	HVPNL	Biresk Kumar Raghava	Superintending Engineer	9312599029	sempccdelhi@hvvn.org.in	Delhi
12	HPPCL	Shikhar Mahajan	Senior Manager	9736119785	shikhar.mahajan@hppcl.in	Shimla
13	Alaknanda Hydro Electric Plant (GVK)	Bishwambar Bag	Manager-Operation	9520973715	bishwambar.bag@gvk.com	Srinagar, Uttarakhand/ ALAKNANDA HYDROPOWER COMPANY LIMITE
14	MEIL	Mr. Raghavendra Singh	Dy. Manager	9329403060	raghvendra.singh@mellanparapower.com	Anpara C TPS, Anpara, District - Sonbhadra UP 231225
15	Meja	Vishal Kumar	Sr Manager	9613211321	vishalkumar01@ntpc.co.in	MUNPL-Meja
16	WUPPTCL	Rajesh Kumar Yadav	AGM	88138 05738	wupptcl.ro@gmail.com	Indrapuram
17	SEUPPTCL	Prashant Chauhan	Manager	9720490066	pchauhan@tatapower.com	765/400kV Substation Mainpuri
		Ashish Kumar Singh	Manager	9690004064	ashishk@tatapower.com	400kV GIS REWA ROAD
18	AESL	Ritesh Gupta	Manager-Protection	9764997202	Ritesh.gupta@adani.com	Ahmedabad
19	Gentari	Mehul Kumar Sharma	Manager	7414077993	mehul.sharma@gentari.co.in	Bikaner
20	Renew	AASHISH BISSA	AGM	9829633345	aashish.bissa@renew.com	Phalodi, Rajasthan
21	AGEL	Neerajchandra Patel	Associate General Manager	9687660325	Neerajv.Patel@adani.com	Ahmedabad

Status of actions points recommended during previous PSC meetings				
S. No	Agenda	Remdial actions recommended during PSC meeting	Status of remedial action taken	
			64th PSC (21.11.2025)	65th PSC (30.12.2025)
1	Frequent multiple elements tripping at 220kV Kunihar, Baddi, Upperla Nangal complex and load loss event in HP control area	51 PSC: PSC Forum requested HP to complete the protection audit as per mentioned timelines (protection audit of 220kV Kunihar has been awarded and it would be completed within next 15-20 days. In next phase, by 15th September, protection audit of substations in downstream and upstream of 220kV Kunihar S/s would be completed.) and resolve the protection related issues. HP was also requested to share the reports of protection audit to NRPC & NRLDC after completion of audits.	HPSEBL stated that case was forwarded to State PSDF for funding and they asked to curtail the budget. <i>PSC forum suggested to resolve protection related issues of more importance through own cost at the earliest and requested HPSEBL to submit the compliance report mentioning details of action taken and planned to be taken with tentative timeline. Further, these stations to be kept under observation and necessary actions need to be taken to minimise the tripping incidents.</i>	HPSEBL stated that case was forwarded again for funding with curtailed budget of 638.47 lakhs (previously 1605 lakhs). <i>PSC forum suggested to resolve protection related issues at the earliest and requested HPSEBL to submit the compliance report mentioning details of action taken and planned to be taken with tentative timeline. Further, these stations to be kept under observation and necessary actions need to be taken to minimise the tripping incidents.</i>
2	Multiple elements tripping at 220kV Hissar(BBMB) 07th May 2024, 11:16 hrs	51 PSC: a) Expedite the implementation of differential protection in short lines to avoid undesired operation of distance protection.	HVPNL representative informed that due to revision in requirement there is delay in tendering process. It will require atleast 2 months to float the tender. <i>PSC forum raised concern over long pending action and requested HVPNL to expedite the process of implementation of differential protection in short lines and also share the expected timeline.</i>	HVPNL representative informed that status is same and tender is in approval stage. <i>PSC forum raised concern over long pending action and requested HVPNL to expedite the process of implementation of differential protection in short lines and also share the expected timeline.</i>
3	Multiple elements tripping at 400kV Sainj (HP), 400kV Parbat2 & Parbt3 (NHPC) Stations on 07th May 2024, 16:17 hrs	51 PSC: a) NHPC shall follow up with the relay engineer and taken necessary remedial actions to ensure proper operation of A/R scheme at Parbat2 end. b) NHPC and HPPTCL shall review the healthiness of PLCC at Parbat3 and Sainj end and take necessary actions to ensure their proper operation. c) Expedite the implementation of differential protection in 400kV Parbat2-Sainj line. d) Standardisation of recording instruments (DR/EL) need to be ensured.	NHPC representative stated that OPGW work will be completed by Dec'25. HPCL representative stated that PLCC card will be made healthy by 30th Nov'25. <i>PSC forum recommended NHPC & HPCL to take expeditious action at their end and ensure healthiness of protection system.</i>	NHPC representative stated that OPGW work will be completed by Jan'26 due to delay from INDIGRID. HPCL representative stated that PLCC card was received on 7th Dec'25 and will be installed by 14th Dec'25. <i>PSC forum recommended NHPC & HPCL to take expeditious action at their end and ensure healthiness of protection system.</i>
4	Multiple elements tripping at 400kV Koteshwar(PG) on 17th May 2024, 17:21 hrs	51 PSC: a) In view of short line length of 400kV Koteshwar(PG)-Tehri D/C, POWERGRID shall plan for the differential protection in the line on priority in near future to avoid overreach of distance protection.	POWERGRID(NR-1) representative stated that PO will be placed by Dec'25 and work will be completed by Apr'26. <i>PSC forum requested POWERGRID(NR-1) to expedite the process of implementation of differential protection at Koteshwar HEP.</i>	POWERGRID(NR-1) representative stated that PO couldn't be placed as only 2 bidders were there and minimum bidder requirement was 3. PO will be placed after 2nd Jan'26. <i>PSC forum requested POWERGRID(NR-1) to expedite the process of implementation of differential protection at Koteshwar HEP.</i>
5	Multiple elements tripping at 220kV Sarna (PS) on 04th May 2024, 07:10 hrs	51 PSC: a) Punjab shall expedite the commissioning of new bus scheme. b) POWERGRID shall revise the Z-4 time delay setting of Kishanpur lines at Sarna (PS) end as 160msec till bus bar get operational.	PSSTCL representative informed that new panel for busbar scheme is already delivered and it is under the process of drawing from stores by P&M. Estimated timeline for BBPS installation is by March'26. <i>PSC forum requested PSSTCL to expedite the work related to implementation of bus bar protection at Sarna S/s.</i>	PSSTCL representative informed that new panel for busbar scheme will be installed at Sarna, Moga and Laltokan. Budget approval for the same is expected by Jan'26. <i>PSC forum requested PSSTCL to expedite the work related to implementation of bus bar protection at Sarna S/s.</i>
6	Multiple elements tripping at 220kV KTPS (RVUN) on 21st June 2024, 11:37 hrs	51 PSC: a) Commissioning of bus coupler between 220kV Bus-3 & 5 need to be expedited.	RVUNL representative stated that cost of commissioning of bus coupler has crossed and request regarding the same has been sent to RVPNL. It is expected to complete the work by May'26 (6 months). <i>PSC forum requested KTPS to expedite the process.</i>	RVUNL representative stated that status is same. <i>PSC forum requested KTPS to expedite the process.</i>
7	Frequent tripping of 220 KV Anta(NT)-Sakatpura(RS) (RS) Ckt-1	52 & 53 PSC: RVPNL was requested to expedite the process of relay replacement and rectification of issues related to A/R operation.	RVPNL representative informed that work is getting delayed due to extension in civil work bid. <i>PSC forum requested RVPNL to expedite the actions at their end.</i>	RVPNL representative informed that PO was issued and work will start from Jan'26 and is expected to be completed by Mar'26. <i>PSC forum requested RVPNL to expedite the actions at their end.</i>
8	Frequent tripping of 220 KV Khara(UP)-Saharanpur(PG) (UP) Ckt-1	52 & 53 PSC: UP was requested to expedite the process of relay replacement at Khara end. POWERGRID shall review and ensure the A/R operation at their end.	SLDC UP informed that status is same. Unit-2 and Unit-3 relay replacement work will be done by this winter. <i>PSC forum requested UPPTCL to expedite the replacement of relays at Khara(UP) end.</i>	SLDC UP informed that Unit-2 replacement work was done. Unit-3 work will be completed by this winter. <i>PSC forum requested UPPTCL to expedite the replacement of relays at Khara(UP) end.</i>
9	Multiple elements tripping at 220kV Khodri HEP & Chibro HEP on 5th, 11th & 19th September 2024; 15th & 20th July 2025, 17th August 2025 and 02nd & 18th October 2025	53 & 62 PSC: a) Timely submission of disturbance recorder (DR) and event logger (EL) files need to be ensured. b) HPPTCL shall taken necessary actions to rectify the protection related issue in 220kV Khodri-Majri ckt-2. c) OV protection needs to be disabled in 220kV lines at the earliest. d) Over frequency and over current protection operation in units at Khodri HEP need to be reviewed. e) A/R should be made operational in Sarsawan line at the earliest. f) UJVNL shall share the CPRI audit report and details of remedial action taken within one week. g) Replacement of Units breakers need to be expedited. 63 PSC: a) UJVNL shall review and share the complete protection settings of Khodri HEP to NRPC/NRPC within a week. b) HPSEBL in coordination with UJVNL shall review the protection setting of 220kV Khodri-Majri line-II and Majri S/s 64 PSC: a) Zone-2 settings of 220 KV Saharanpur(UP)- Saharanpur(PG) Ckt need to be reviewed	UJVNL representative informed that units standby E/F and O/C settings have been reviewed and revised accordingly. Protection related issues of 220kV Khodri-Majri line-II is yet to be resolved by HPSEBL. Khodri end bay of 220kV Khodri(UK)-Majri(HP) Ckt-2 is currently under the jurisdiction of HPSEBL, hence HPSEBL shall address protection related issues at 220kV Khodri(UK)-Majri(HP) Ckt-2 and rectify them at the earliest. <i>PSC forum further requested UPPTCL and PGCL to review Zone-2 settings of 220 KV Saharanpur(UP)- Saharanpur(PG) Ckt.</i>	HPSEBL stated that there are panel related issues which was previously installed by UJVNL. UJVNL stated that relay replacement work need to be addressed by HPSEBL as the owner of the same. PSC forum suggested that relay replacement work will be done by HPSEBL by Feb'26 and UJVNL will resolve panel related issues by Feb'26. HPSEBL and UJVNL both agreed for the same. UPPTCL stated that Zone 2 settings of 220kV Saharanpur- Saharanpur (PG) line checked at UPPTCL end and found in order.
10	Multiple elements tripping at 400/220kV Obra_A(UP) on 9th October 2024	54 PSC Recommendations: a) UPPTCL & Obra_A(UP) shall ensure the implementation of LBB protection at the earliest at 220kV side. b) GPS scheme shall be implemented at Obra_B(UP) by the end of January 2025 and time sync of recording devices will be ensured.	UPPTCL representative informed that work will be completed by Jan'26 and LBB relay will be replaced in FY 2026-27. <i>PSC forum requested UPPTCL for expedited corrective actions.</i>	UPPTCL representative informed that time sync work will be completed by Mar'26 and LBB relay work is pending from headquarters. <i>PSC forum requested UPPTCL to follow up with headquarters for expedited corrective actions.</i>
11	Multiple elements tripping at 220/132kV Obra_A(UP) on 9th October 2024	54 PSC Recommendations: Commissioning and implementation of numerical relays in 132kV ICT-1&2 at Obra_A(UP) need to be expedited. Timely commissioning of the same need to be ensured.	UPPTCL representative informed that work will be completed by Jan'26. <i>PSC forum requested UPPTCL for expedited corrective actions.</i>	UPPTCL representative informed that numerical relays were installed in 132kV ICTs.
12	Frequent tripping of 220 KV RAPS_A(NP)-Sakatpura (RS) (RS) Ckt-1 & 2	55 PSC Recommendations: Expeditious corrective actions to minimise frequent faults in line.	NPCL representatives were not present in the meeting.	NPCL representatives (RAPS) were not present in the meeting.
13	Frequent tripping of 400 KV Amritsar(PG)-Makhu(PS) (PSTCL) Ckt-1 & 400 KV Talwandi Saboo(PSG)-Nakodar (PSG) (PS) Ckt-1	55 PSC Recommendations: PSTCL was requested to plan replacement of porcelain insulators with polymer type.	PSTCL representative informed that insulator washing was already completed during shutdown availed in end of November'25. However no update received on insulator replacement work of 400 KV Amritsar(PG)-Makhu(PS) (PSTCL) Ckt-1. <i>PSC forum requested PSTCL for expeditious actions to avoid frequent trippings during fog.</i>	PSTCL representative informed that no insulator is available in stock and new procurement is needed for insulator replacement work. Insulator replacement work will be done before next winter season. <i>PSC forum requested PSTCL for expeditious actions to avoid frequent trippings during fog.</i>
14	Multiple element tripping event at 400kV Aligarh(UP) on 02nd November, 2024	55 PSC Recommendations: UPPTCL shall ensure the healthiness of carrier communication and A/R operation at Muradnagar_1(UP) end.	UPPTCL representative informed that panel is allotted, work will be completed by Jan'26 (within 2 months). <i>PSC forum requested UPPTCL to expedite the corrective actions.</i>	UPPTCL representative informed that panels are yet to be commissioned. Work will be completed by Jan'26. <i>PSC forum requested UPPTCL to expedite the corrective actions.</i>
15	Frequent tripping of 400 KV Anpara_B(UPUN)-Sarnath(UP) (UP) Ckt-2	57 PSC Recommendations: Healthiness of carrier communication need to be reviewed.	UPPTCL representative informed that work will be completed by Jan'26 (within 2 months). <i>PSC forum requested UPPTCL to expedite the corrective actions.</i>	UPPTCL representative informed that link is yet to be commissioned, firm's engineer is expected to reach at site in first week of January'26. <i>PSC forum requested UPPTCL to expedite the corrective actions.</i>
16	Multiple elements tripping at 220/132kV Ropar(PS) on 06th January, 2025	57 PSC Recommendations: PSTCL need to share the DR/EL & tripping details within one week	PSPCL (Ropar) representatives were not present in the meeting.	Tripping details received through mail on 01.12.2025.
17	Multiple elements tripping at 400/220kV Heerapura(RS) on 10th January, 2025	57 PSC Recommendations: a) Instantaneous OC relay (High set) settings of ICTs at Heerapura(RS) may be reviewed. b) Replacement of remaining electromechanical/ static relays & schemes with numerical relay need to be expedited at Heerapura(RS).	RVPNL representative stated that new bus bar relay(numerical type) procurement is delayed. <i>PSC forum requested RVPNL to expedite corrective actions at their end.</i>	RVPNL representative stated that new bus bar relay(numerical type) procurement is delayed as the same is clubbed together with other substations at Rajasthan. <i>PSC forum requested RVPNL to expedite corrective actions at their end.</i>
18	Frequent tripping of 220 KV Debari(RS)-RAPS_A(NP) (RS) Ckt-1	58 PSC Recommendations: Expeditious corrective actions to minimise frequent faults in line.	RVPNL representative informed that tender was floated for 23 towers replacement and bid opened on 20th Nov'25. RVPNL representative further informed that A/R is healthy and in operation at Debari end, however A/R is disabled at RAPS_A end. <i>PSC forum requested NPCL and RVPNL to resolve the issue of A/R at RAPS end and to take expeditious corrective action to minimise frequent faults in line.</i>	RVPNL representative informed that PO was placed for tower replacement work. <i>PSC forum requested NPCL and RVPNL to resolve the issue of A/R at RAPS end and to take expeditious corrective action to minimise frequent faults in line.</i>

19	Frequent tripping of 400 KV Merta-Kankani (RS) Ckt-1	59 PSC Recommendations: A/R operation need to be reviewed at both the ends.	RVPNL representative informed that status is same. A/R issue of Main CB will be rectified on next available shutdown. <i>PSC forum requested RVPNL to review A/R operation at Kankani end at the earliest.</i>	RVPNL representative informed that A/R issue of Main CB was rectified on 9th Dec'25. <i>PSC forum requested RVPNL to review A/R operation at Kankani end at the earliest.</i>
20	Multiple elements tripping at 400kV AGE25L & 220kV Nokhra(IP) at 10:00 hrs on 18th March, 2025	59 PSC Recommendations: NTPC need to ensure over-voltage is disabled at Nokhra end of 220kV Nokhra-Bhadla2 Ckt.	NTPC RE representative stated that with regard to the over-voltage settings of the Nokhra Plant, NTPC Green is planning to represent aseparate agenda item for retaining the existing over-voltage settings. <i>PSC forum requested to complete the work within the stipulated time.</i>	NTPC RE representatives were not present in the meeting. <i>PSC forum requested to complete the work within the stipulated time.</i>
21	Multiple elements tripping at 400 KV Uri-II HEP (NHPC) at 21:35 hrs on 18th May, 202	61 PSC Recommendation: NHPC in coordination with the POWERGRID(NR-2) shall review the healthiness of carrier protection in 400kV Uri_2-Wagoora line	NHPC representative stated that work would be completed by 10th Dec'25. <i>PSC forum requested to complete the work within the stipulated time.</i>	NHPC representative stated that work could not be completed as shutdown was not approved due to low voltage. <i>PSC forum requested to complete the work within the stipulated time.</i>
22	Multiple elements tripping at 220kV Maharaniabagh(DTL) & 220/66kV Pragati(DTL) at 03:48 hrs on 15.06.2025	62 PSC Recommendation: a) Old REB 500 scheme of bus bar protection need to be up-graded & replaced by PGCIL in coordination with DTL. b) Distance protection settings need to be reviewed at 220kV Maharaniabagh-Pragati Ckt-2. c) DR nomenclatures need to be corrected and time synchronisation issue need to be resolved at the earliest at Maharaniabagh.	DTL representative informed that material is ready, shutdown is required for Plus replacement work. Work is expected to get completed by Dec'25. <i>PSC forum requested DTL & POWERGRID(NR-1) to expedite the corrective actions.</i>	DTL representative informed that material was diverted to 400kV Maharaniabagh(PG). <i>PSC forum requested DTL & POWERGRID(NR-1) to resolve the co-ordination issue through bilateral meetings and expedite the corrective actions.</i>
23	Multiple elements tripping at 220/132kV Pampore(J&K) at 23:25 hrs on 20.06.2025	62 PSC Recommendation: a) DR/EL along with detailed tripping report along with remedial action taken details need to be shared within one week. b) Healthiness of protection system and other auxiliary equipments need to be ensured at 220/132kV Pampore(J&K). c) Line protection settings at 220/132kV Pampore(J&K) need to be reviewed in line with NRPC Protection philosophy.	J&K representative was not present during the meeting. <i>PSC forum requested PSTCL to complete the bus bar protection installation work within the stipulated time.</i>	J&K representative was present however no update received regarding the same. <i>PSC forum suggested to appoint nodal officer for DR/EL extraction work after each event and also proposed that training may be organised by POWERGRID NR-2 if needed.</i>
24	Multiple elements tripping at 220/132kV Moga(PS), 220 KV /66kV Badhni kalan(PS) & 220/66 KV Himmatpura(PS) at 11:06 hrs on 01.07.2025	62 PSC Recommendation: a) Healthiness of bus bar protection need to be ensured at Baghapurana and Ajitwal S/s. b) New busbar protection need to be installed at Moga PSTCL at the earliest. c) Line protection settings at 220/132kV Moga(PS), 220 KV /66kV Badhni kalan(PS) & 220/66 KV Himmatpura(PS) need to be reviewed in line with NRPC Protection philosophy. d) CT mismatch issue at both the ends of 220 KV Moga PSTCL – Moga ckt-2 need to be addressed and differential protection need to be installed at the earliest by PSTCL in co-ordination with PGCL.	PSTCL representative stated that new Busbar Protection Panel has arrived at 220 KV Moga PSTCL and it is under the process of drawing from stores by P&M. Estimated timeline for BBPS installation is by March'26. <i>PSC forum requested PSTCL to complete the bus bar protection installation work within the stipulated time.</i>	PSTCL representative stated that budget approval is in process. <i>PSC forum requested PSTCL to complete the bus bar protection installation work within the stipulated time.</i>
25	Multiple elements tripping at 220/66kV Narela(DTL) at 15:41 hrs on 10.07.2025	62 PSC Recommendation: a) Tele-protection communication need to be restored at 220kV Narela at the earliest. b) Line protection settings need to be reviewed at 220kV Narela-Mandola D/C as per NRPC protection philosophy. c) Availability and healthiness of SCADA data at 220kV Narela need to be ensured.	DTL representative stated that status is same and tele-protection communication system will be implemented by Dec'25. <i>PSC forum requested DTL to implemented the Tele-protection communication system at the earliest.</i>	DTL representative stated that work was completed for one ckt and work will be done for the other ckt by first week of Jan'26. <i>PSC forum requested DTL to implemented the Tele-protection communication system at the earliest.</i>
26	Multiple elements tripping at 220/132kV Ziankote(J&K) at 10:18 hrs on 24.07.2025	62 PSC Recommendation: a) DR/EL along with detailed tripping report along with remedial action taken details need to be shared within one week. b) Zone-2 settings need to be revised to 160ms at Amargarh end of 220kV Amargarh-Ziankote D/C. c) Healthiness of protection system and other auxiliary equipments need to be ensured at 220/132kV Ziankote(J&K). d) Line protection settings at 220/132kV Ziankote(J&K) need to be reviewed in line with NRPC Protection philosophy.	J&K representative was not present during the meeting. <i>PSC forum requested JKPTCL to address other protection related issues at Ziankote(JK) at the earliest.</i>	J&K representative stated that relayed were replaced at Ziankote(JK) before 6 months. <i>PSC forum requested JKPTCL to address other protection related issues at Ziankote(JK) at the earliest.</i>
27	Multiple elements tripping at 765/400kV Bara TPS(UP) at 21:33 hrs on 08.08.2025	63 PSC Recommendation: a) UPPTCL shall review and correct the DEF protection setting at Mainpuri end of 765kV Bara-Mainpuri line-2 to avoid unwanted tripping of the line. b) UPPTCL and Bara TPS shall review the logic of SPS operation (breaker status of both ends may be taken for desired decision) to ensure its proper operation in future events.	UPPTCL representative stated that SPS logic is reviewed. Modification need to be done at Bara end. <i>PSC forum requested UPPTCL to expedite the corrective actions.</i>	UPPTCL representative stated that backup earth fault protection is reviewed however comprehensive review is to be done at Mainpuri end. Bara TPS informed that they will modify the logic after receiving CB status of remote end. <i>PSC forum requested UPPTCL to expedite the corrective actions.</i>
28	Multiple elements tripping at 220/66kV Laitokalan(PS) at 04:35 hrs on 30.08.2025	63 PSC Recommendation: a) PSTCL shall ensure the bus bar protection at 220/66kV Laitokalan(PS) at the earliest possible. b) Timely submission of DR/EL & tripping report need to be ensured.	PSTCL representative informed that faulty busbar protection relays were sent to OEM by P&M for repair work. Estimated timeline for completion of work is 3-4 months (by March'26) <i>PSC forum requested PSTCL to ensure healthiness of busbar protection at the earliest.</i>	PSTCL representative informed that there is delay from OEM side; OEM will update whether relay is repairable or not. <i>PSC forum requested PSTCL to ensure healthiness of busbar protection at the earliest.</i>
29	Multiple elements tripping at 400kV Kishenpur(PG) & Baglihar stage-I HEP at 21:58 hrs on 05.09.2025	64 PSC Recommendation: a) DT was not sent to remote end on TEED protection operation at Kishenpur end. PLCC/DTPC system needs to be reviewed and DT scheme needs to be configured if not available. b) Overreach of distance protection in 400kV Kishenpur-New Wanpoh line-IV needs to be reviewed. c) Protection settings of units at Baglihar need to be reviewed.	POWERGRID(NR-2) representative informed that PLCC was not healthy during the event at Kishenpur(PG). The same will be reviewed and made healthy by Dec'25. <i>PSC forum requested JKPTCL and POWERGRID to expedite the corrective actions.</i>	POWERGRID(NR-2) representative informed that PLCC will be made healthy by Mar'26. <i>PSC forum requested JKPTCL and POWERGRID to expedite the corrective actions.</i>
30	Multiple elements tripping at 400/220kV at Ludhiana(PG) at 12:58 hrs on 30.10.2025	64 PSC Recommendation: a) Faulty BCU need to be replaced at the earliest.	POWERGRID(NR-2) representative informed that a meeting was organized with OEM (M/s Schneider) and it was decided to dispatch the BCU to OEM works for RCA and faulty BCU will be replaced with spare BCU. <i>PSC forum requested POWERGRID to replace the faulty BCU at the earliest.</i>	POWERGRID(NR-2) representative informed that faulty BCU was already replaced with spare BCU.
31	Multiple elements tripping at 400/220kV at Daulatabad(HR) at 06:02 hrs on 31.10.2025	64 PSC Recommendation: a) Bus bar protection need to be restored at the earliest.	HVPNL representative informed that 220 KV Bus-bar protection was out of circuit due to internal fault of relay (Sifang). Bus bar protection didn't operate and fault cleared with the tripping of all four 400/220kV, 315 MVA ICTs. <i>PSC forum requested HVPNL to restore bus bar protection at 220kV Daulatabad(HR) at the earliest.</i>	HVPNL representative informed that no response was received from OEM so far regarding internal fault of busbar relay (Sifang). <i>PSC forum requested HVPNL to restore bus bar protection at 220kV Daulatabad(HR) at the earliest.</i>

**Multiple element tripping event at 220/132kV
Kota Sakatpura(RS) and 220kV KTPS(RS)
at 01:11 hrs on 05.11.2025**

Tripped Elements

S. No	Name of Elements	Outage Time	Revival Time	Reason of tripping
1.	220 KV RAPS_B(NP)- Kota Sakatpura(RS) (RS) Ckt	01:11 hrs	03:16 hrs	Y-ph CT of 220kV side of 220/132kV 100 MVA Transformer-4 at Kota Sakatpura(RS) burst. Bus bar protection of 220kV Bus C operated.
2.	220kV Kota Sakatpura-KTPS ckt-3		02:52 hrs	
3.	220kV Kota Sakatpura-KTPS ckt-4		02:53 hrs	
4.	220/132kV 160 MVA Transformer-1 at Kota Sakatpura(RS)		02:54 hrs	
5.	220/132kV 100 MVA Transformer-3 at Kota Sakatpura(RS)			
6.	220/132kV 100 MVA Transformer-4 at Kota Sakatpura(RS)			
7.	220 KV RAPS_A(NP)-Kota Sakatpura(RS) (RS) Ckt-2		03:22 hrs	Z-4 distance relay operated
8.	220 KV Anta-Kota Sakatpura(RS) (RS) Ckt		03:32 hrs	exact reason awaited
9.	220kV Kota Sakatpura-KTPS ckt-2		02:36 hrs	
10.	210 MW Unit-3 at KTPS(RS)		05:11 hrs	
11.	210 MW Unit-4 at KTPS(RS)		06:04 hrs	
12.	210 MW Unit-5 at KTPS(RS)		05:08 hrs	

Brief details of the event

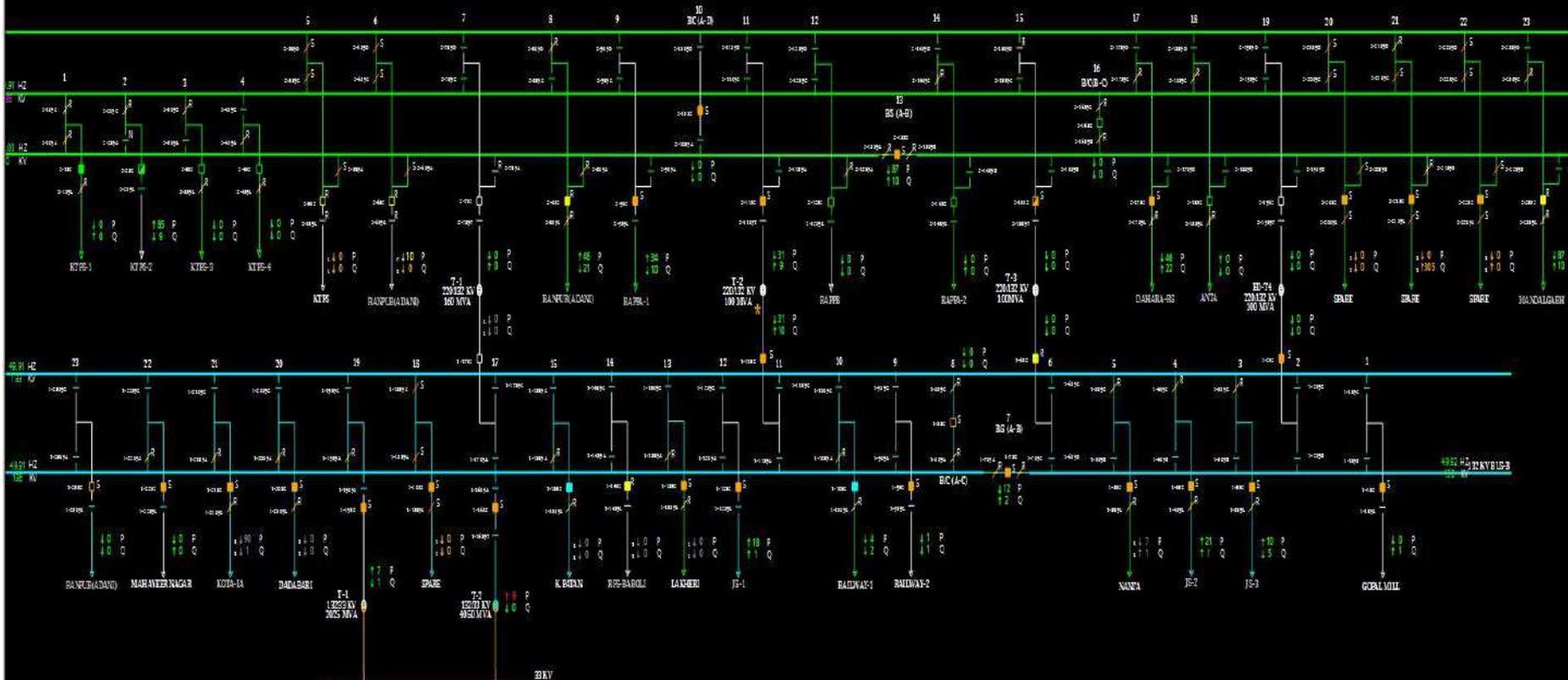
- i. 220/132kV Kota Sakatpura(RS) has four buses with double main bus scheme at 220kV level. 220kV Bus-A&B are with sectionaliser and Bus-C & D are parallel bus.
- ii. During antecedent condition, 220/132kV 160 MVA Transformer-1 and 100 MVA Transformer-3&4 and 220kV feeders to RAPS-B, KTPS-3&4 were connected at 220kV Bus-C. Other elements were on another buses.
- iii. As reported, at 01:11 hrs, Y-ph CT at 220kV side of 220/132kV 100 MVA Transformer-4 burst leading to bus fault on 220kV Bus-C.
- iv. On this fault, bus bar protection of Bus-C operated resulting into tripping of all the elements connected to 220kV Bus-C along with the bus coupler breaker.
- v. As per DR of bus bar relay, Y-N fault converted into R-Y fault with delayed clearance ~240 msec is observed.
- vi. As per PMU at Kota(PG), Y-N fault converted into R-Y fault with delayed clearance ~320 msec is observed
- vii. At the same time, 220kV Kota Sakatpura-RAPS_A line-2 also tripped from Kota Sakatpura end on Z-4 distance protection operation. Further, 220kV kota Saktapura-Anta line, 220kV Kota Sakatpura-KTPS line-2 along with 210 MW unit-3,4&5 at KTPS also tripped. Reason of multiple elements tripping at KTPS yet to be received.
- viii. As per SCADA change in demand of approx. 178 MW in Rajasthan control area and loss in generation of ~480 MW at KTPS is observed.

SLD of 220/132kV Kota Sakatpura(RS) after the event

KOTA SAKATPURA

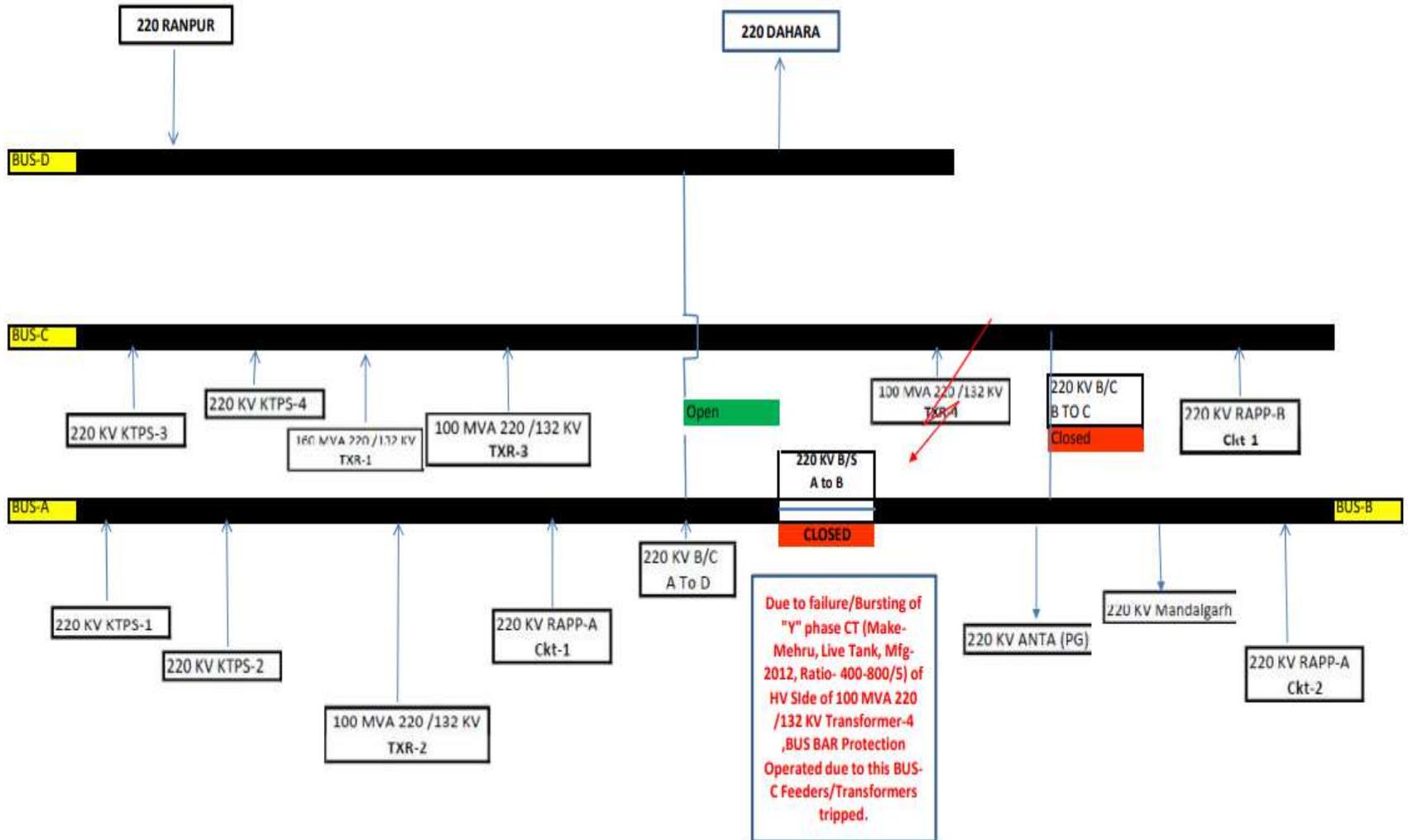
Stat. Exp. GenCum Company

DONG FANG RTU

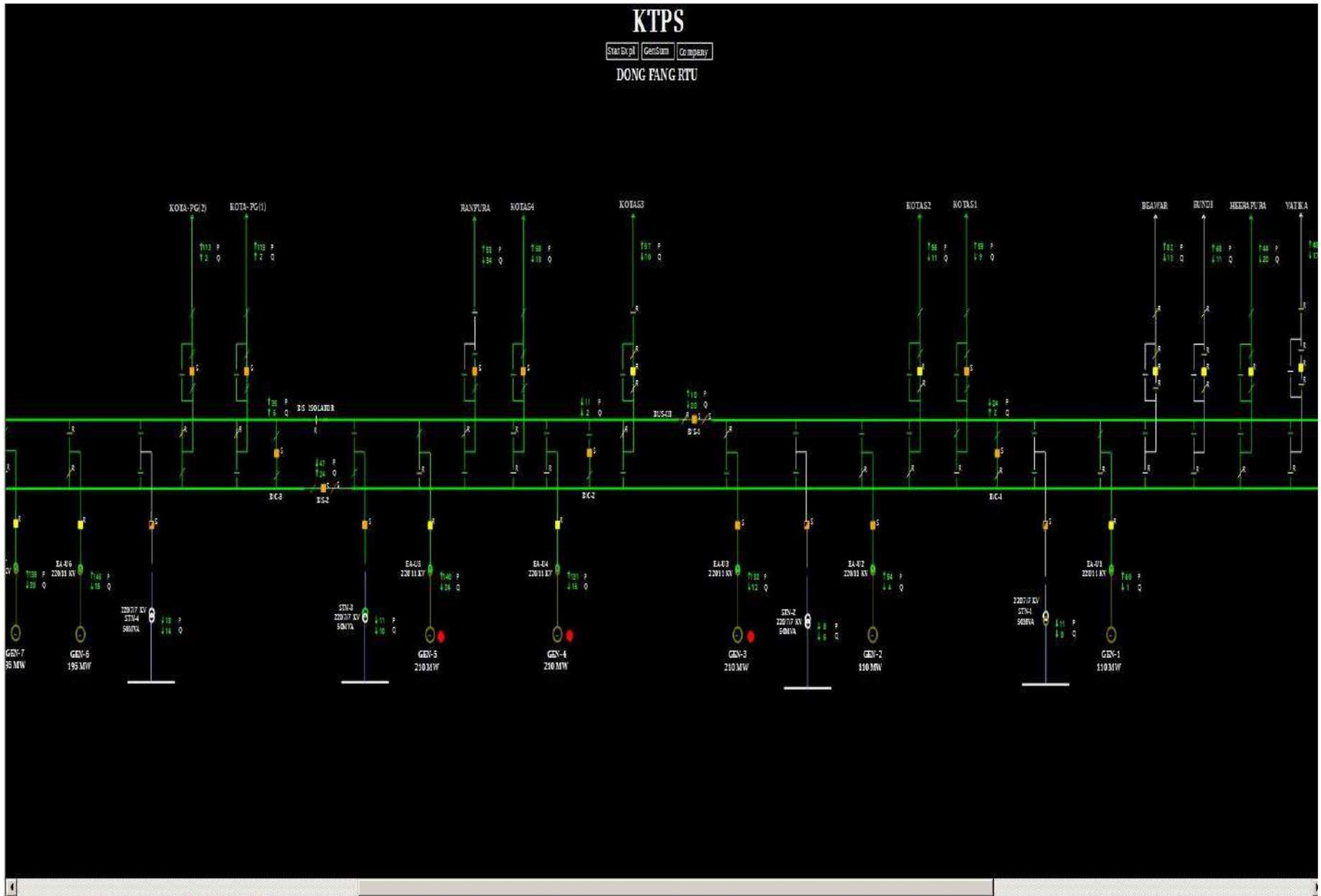


Bus wise arrangement of elements at 220/132kV Kota Sakatpura(RS)

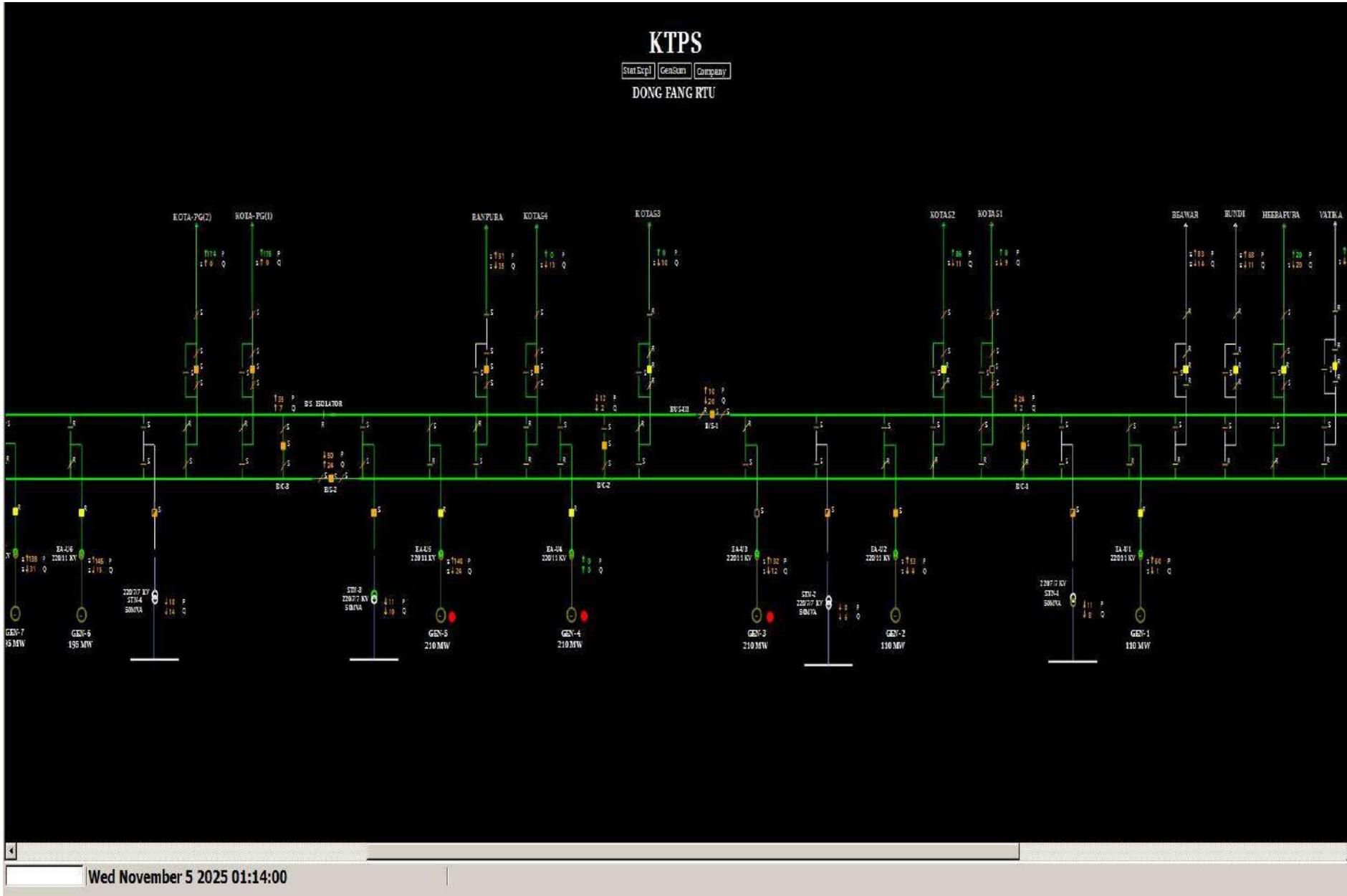
SLD of 220 KV Sakatpura at the Time of Tripping Bus Bar on dated 05.11.25 at 01:08 Hrs



SLD of 220/132kV KTPS(RS) before the event



SLD of 220/132kV KTPS(RS) before the event



SLD of 220kV RAPS A(NPCIL) before the event

CONTACT DETAILS	
EMAIL	scerappa.rrsu12@npcil.co.in
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HOTLINE	20112236

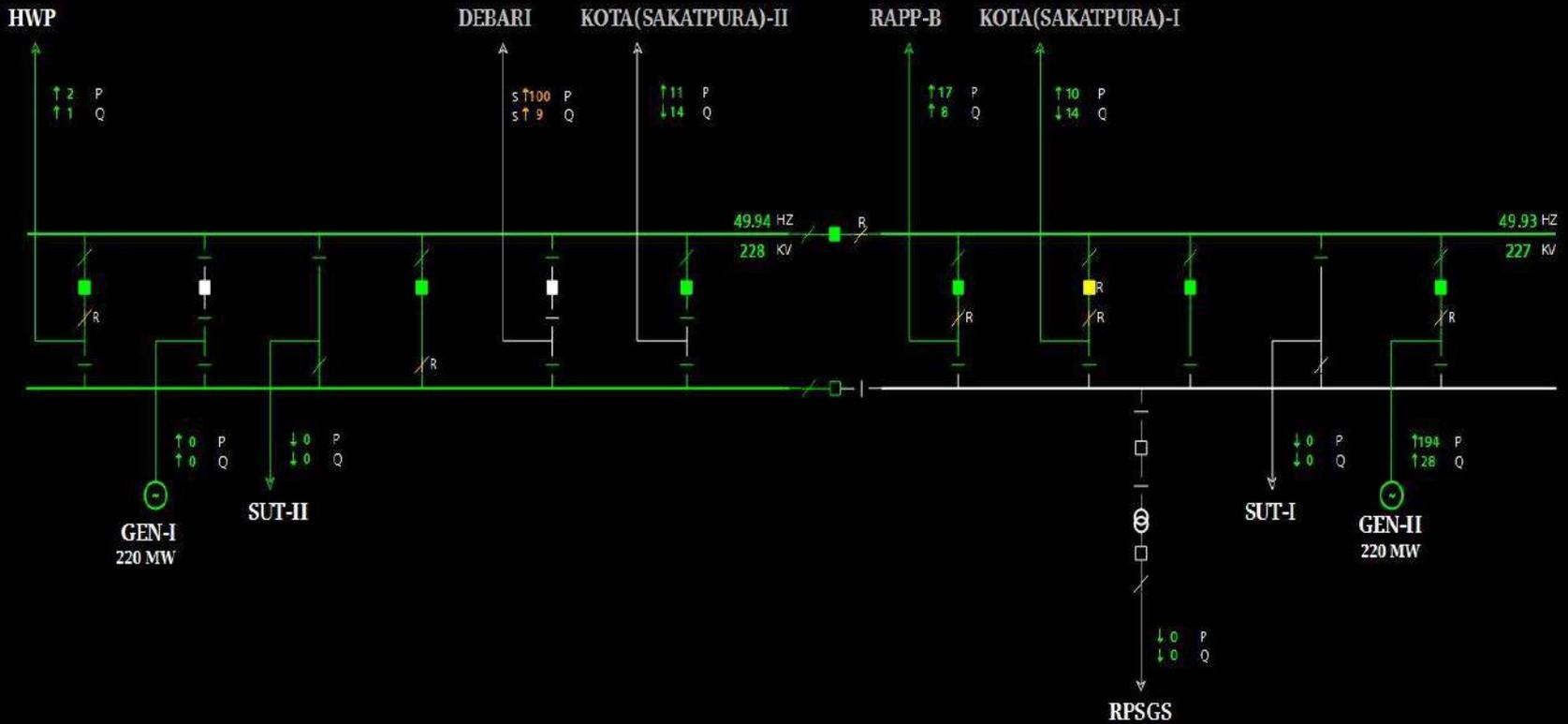
P sum(220 kV) = 5 137
 P sum(132 kV) = 5 0

RAPP-A

Q sum(220 kV) = 5 -10
 Q sum(132 kV) = 5 0

Stat Expl GenSum Company

5 .11.25 1 : 9 : 0



SLD of 220kV RAPS A(NPCIL) after the event

CONTACT DETAILS

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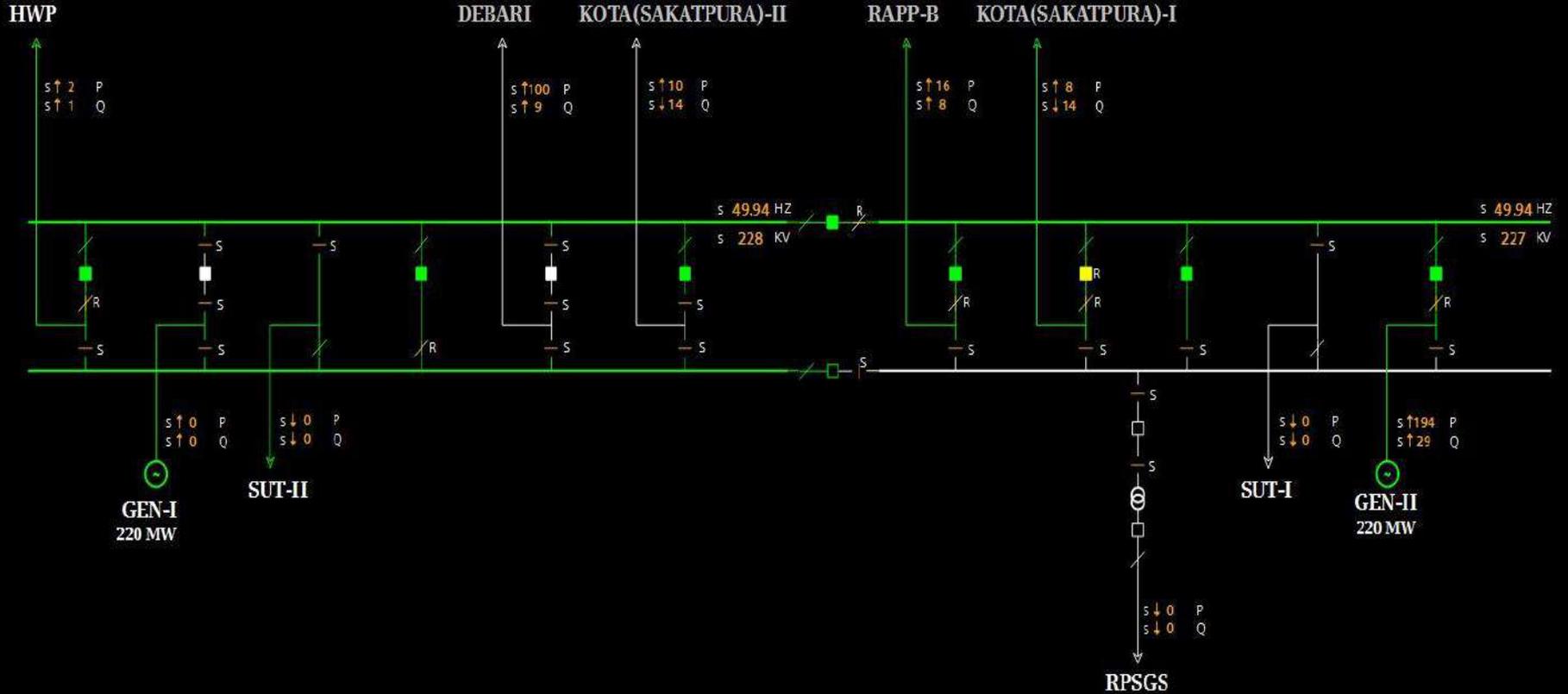
P sum(220 kV) = 5 -135
 P sum(132 kV) = 5 0

RAPP-A

Q sum(220 kV) = 5 -10
 Q sum(132 kV) = 5 0

Stat Expl GenSum Company

5 .11.25 1 :14 :0



SLD of 220kV RAPS B(NPCIL) before the event

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EMAIL	aseemsethi@npcil.co.in
MOBILE	01475242316
HOTLINE	20112228

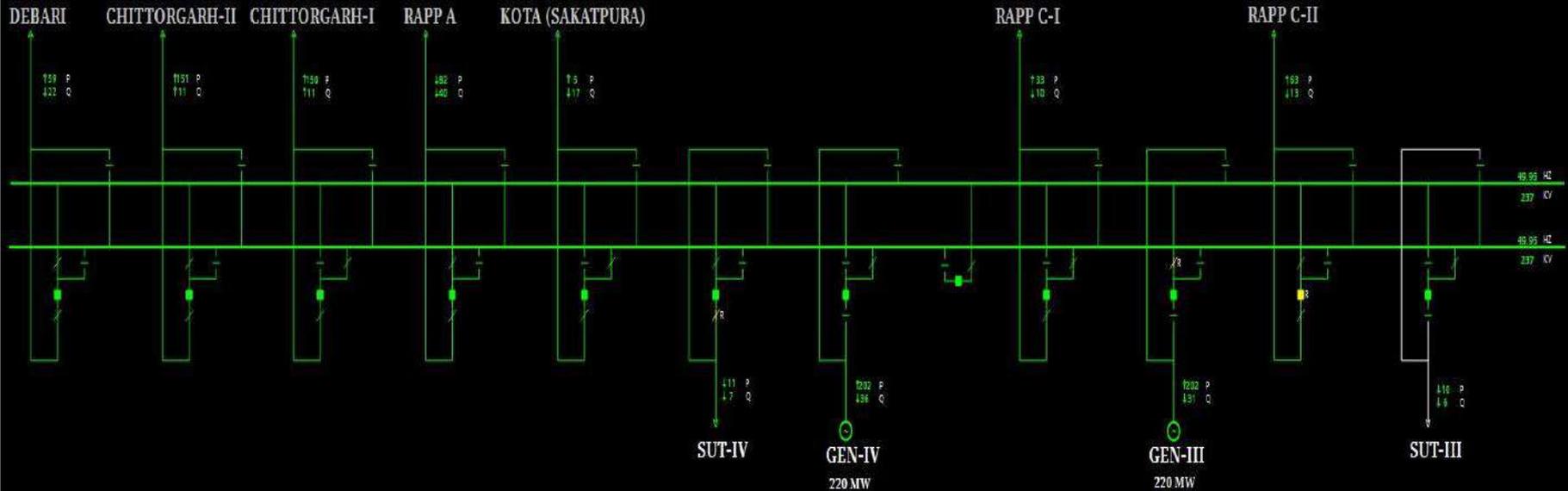
RAPP-B

P max(220KV) = 66
Q max(220KV) = 14

PL = 403
SNV7 = 388

Stat Expl GenSum Company

5-11-25 1:9:0



SLD of 220kV RAPS B(NPCIL) after the event

CONTACT DETAILS

EMAIL	a.seemcethi@npcil.co.in
MOBILE	01475242316
HOTLINE	20112223

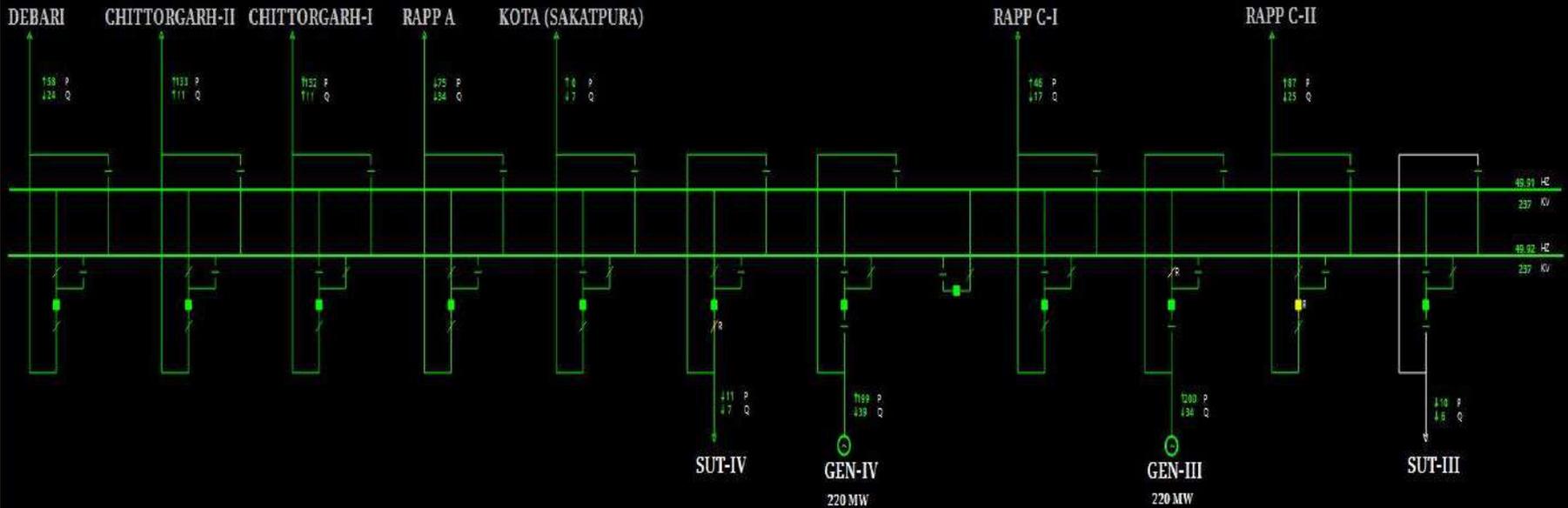
RAPP-B

P sum(wk7) = 47
Q sum(wk7) = 28

PL = 400
SEV = 373

Stat Expl GenSum Company

5/11/25 1:14:0



SLD of 400/220kV Kota(PG) before the event

CONTACT DETAILS	
EMAIL	powergridkota@powergrid.co.in
MOBILE	7443204035
HOTLINE	20112238

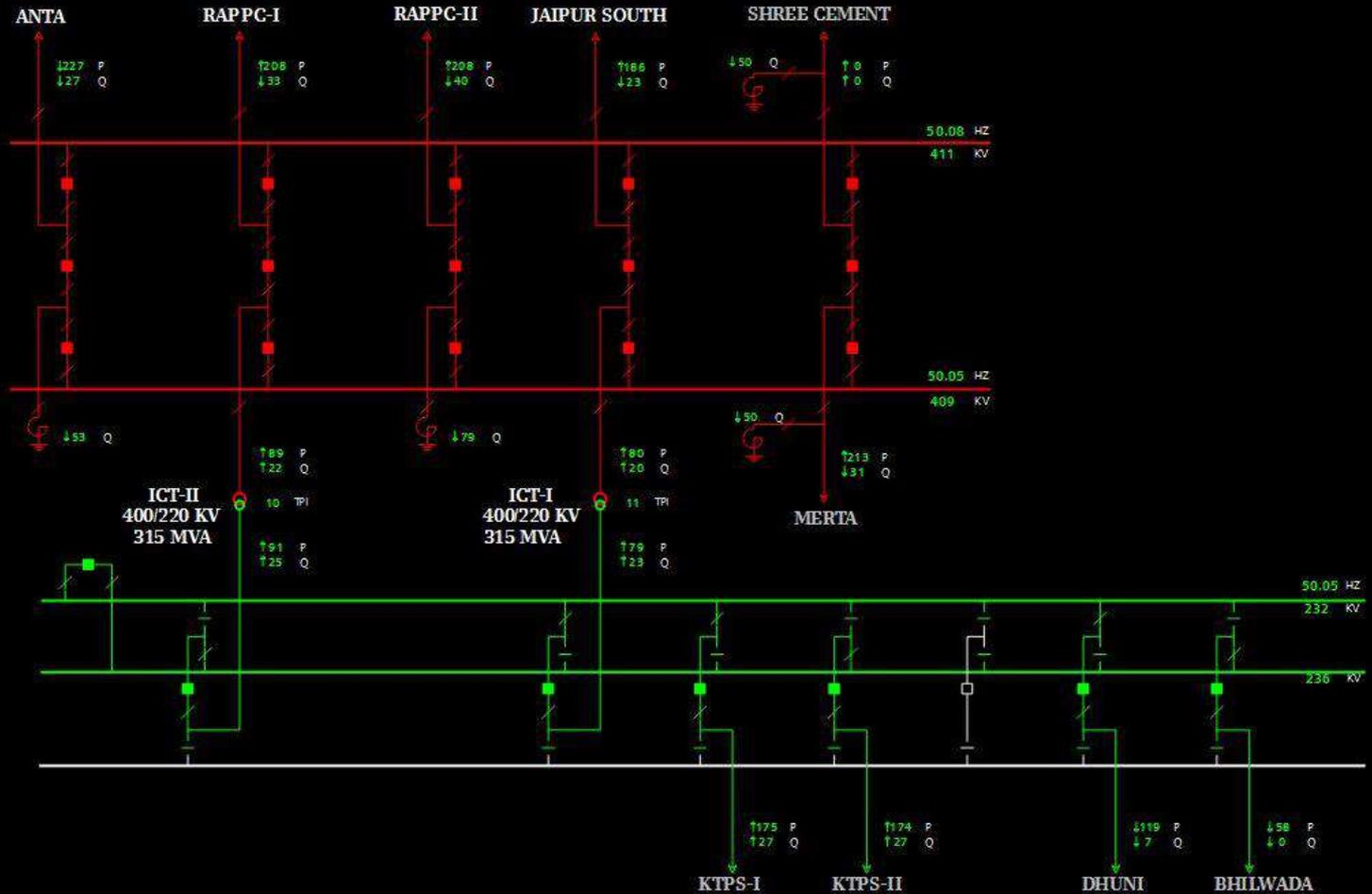
P sum(400 kV) = -7
P sum(220 kV) = -1

KOTA

Q sum(400 kV) = 34
Q sum(220 kV) = -94

Stat Expl GenSum Company

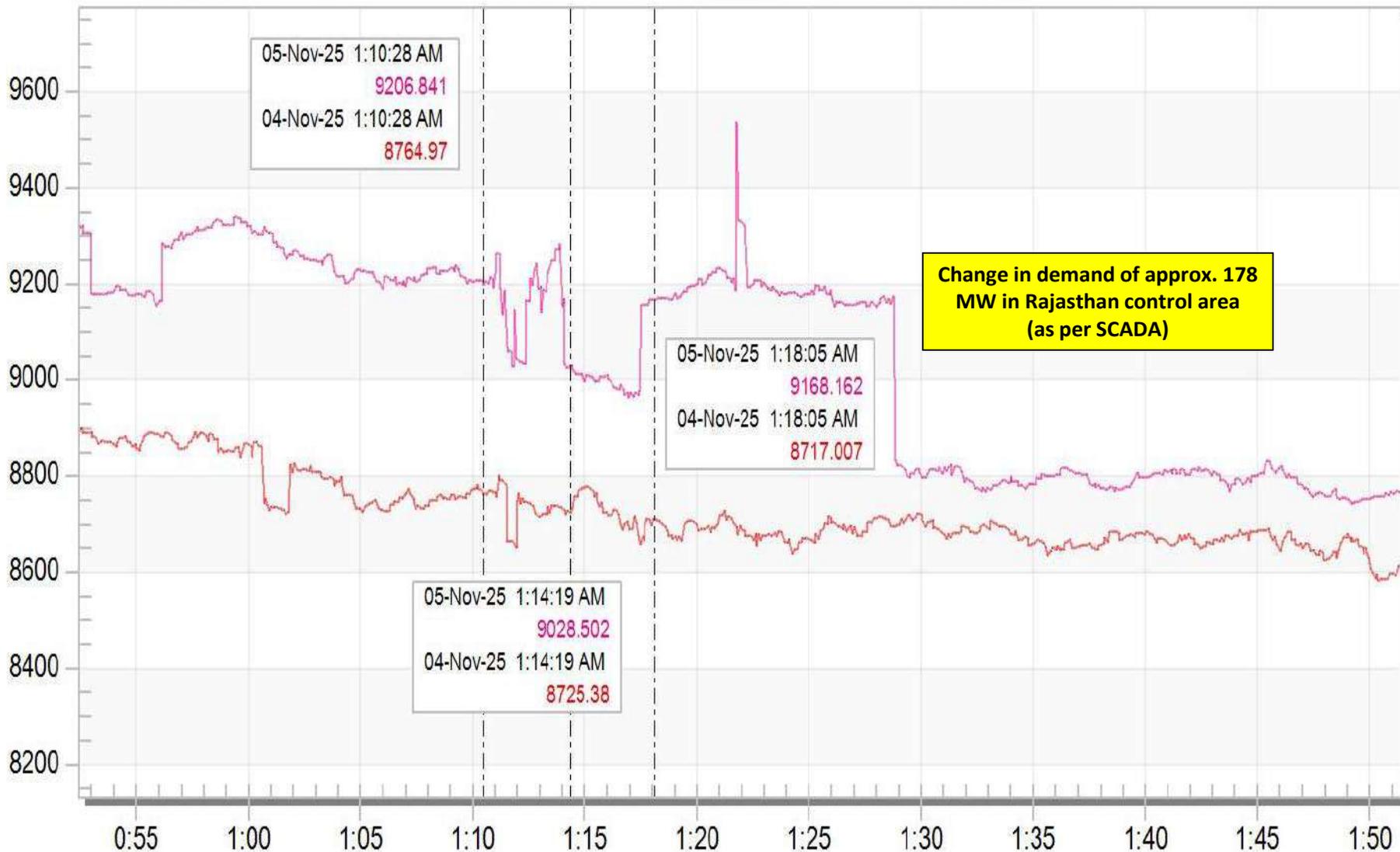
5 . 11 . 25 1 : 9 : 0



Rajasthan demand during the event

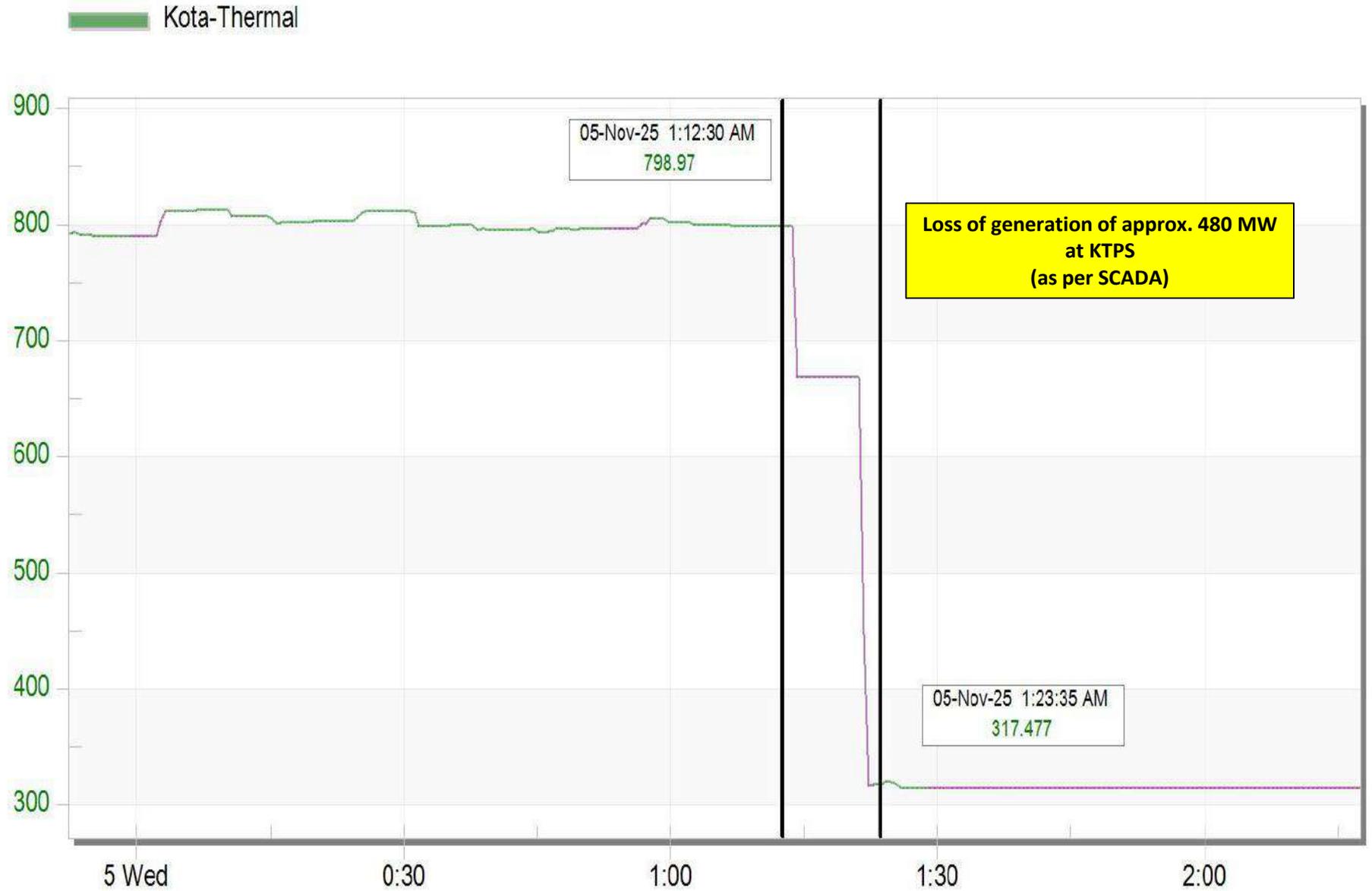
Rajasthan Demand Met - 04-Nov-25 6:00 PM

Rajasthan Demand Met - 03-Nov-25 6:00 PM



Nov 5 Wed 2025

KTPS during the event



PMU Plot of frequency at Kota(PG)

01:10 hrs/05-Nov-25

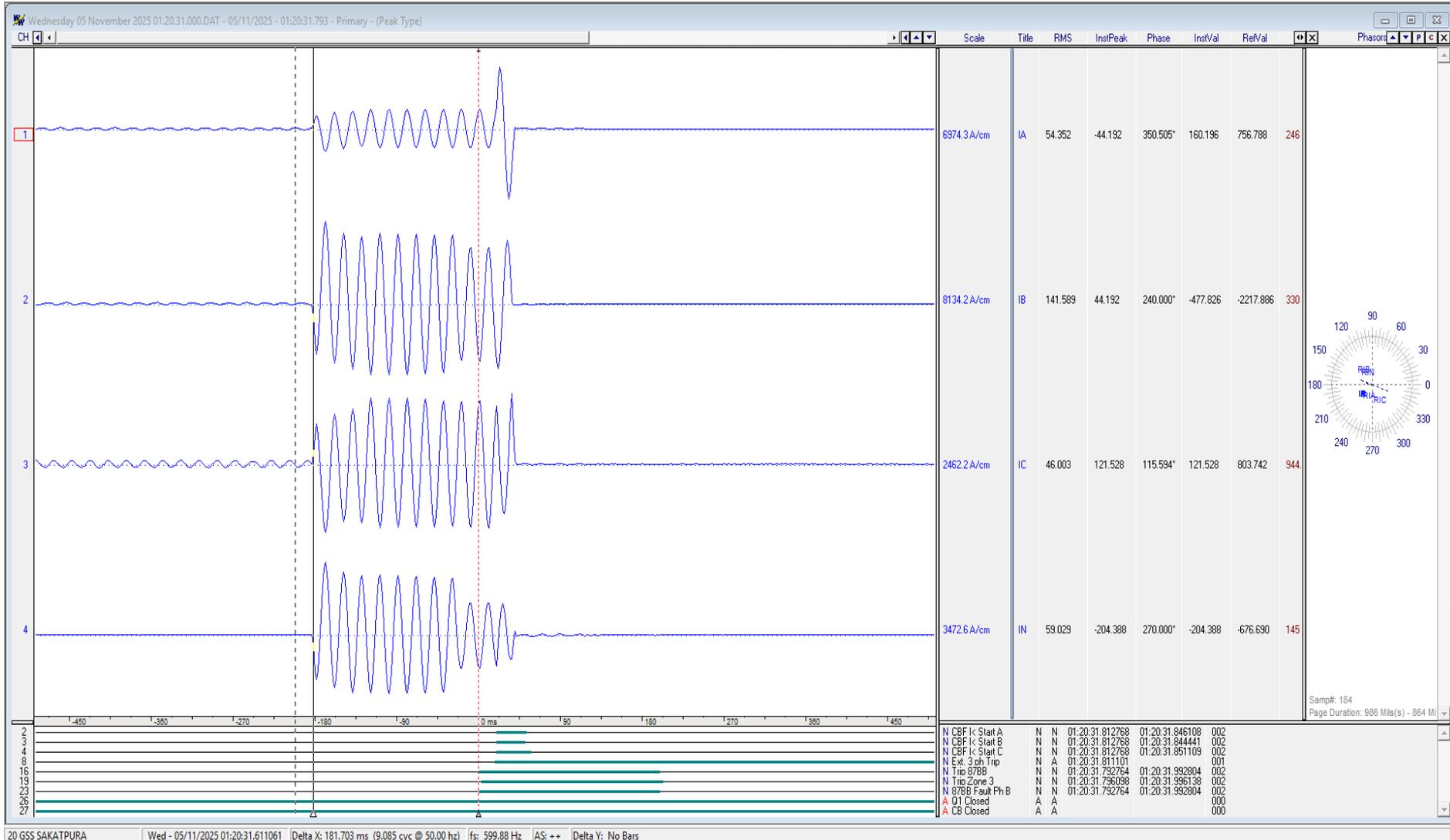


PMU Plot of phase voltage magnitude at Gurgaon(PG)

06:02 hrs/30-Oct-25

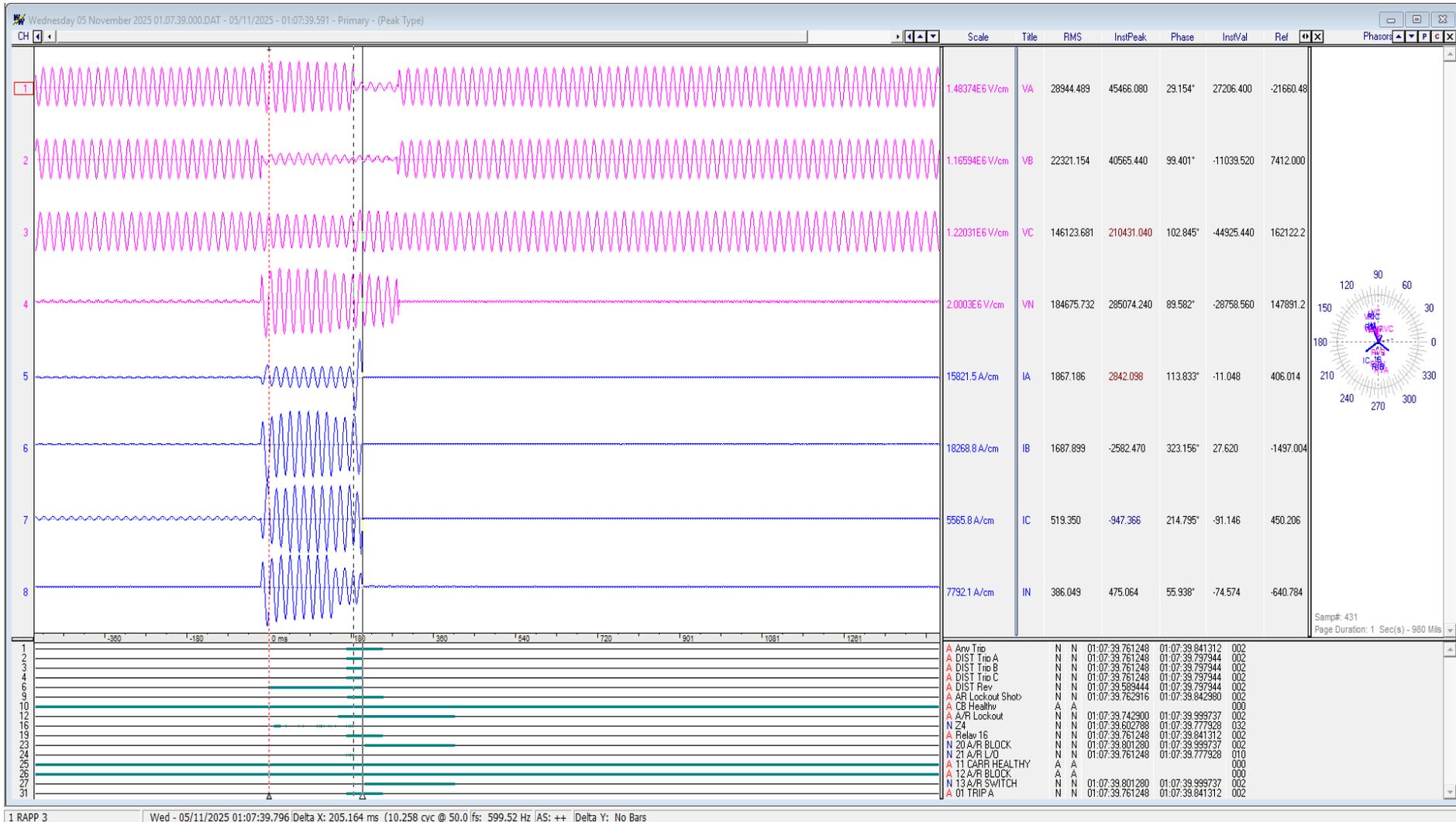


DR of bus bar relay at Kota Sakatpura(RS)



- Y-N fault converted into R-Y fault
- Bus bar protection operated with delay of ~220msec
- Time not synced

DR of 220kV kota Sakatpura(end)-RAPS-A line-2



- Y-N fault converted into R-Y fault
- Line tripped on Z-4 operation with delay of ~200msec
- Time not synced

SCADA SOE

Time	Station Name	Voltage	Element Name	Element Type	Element Status	Remarks
01:10:56,183	KOTA	220kV	14RAPP3	Circuit Breaker	Open	Line CB at Kota Sakatpura end of 220kV Kota Sakatpura-RAPS B line opened
01:10:56,183	KOTA	220kV	04KTPS4	Circuit Breaker	Open	Line CB at Kota Sakatpura end of 220kV Kota Sakatpura-KTPS line-4 opened
01:10:56,183	KOTA	220kV	03KTPS3	Circuit Breaker	Open	Line CB at Kota Sakatpura end of 220kV Kota Sakatpura-KTPS line-3 opened
01:10:56,183	KOTA	220kV	12RAPP2	Circuit Breaker	Open	Line CB at Kota Sakatpura end of 220kV Kota Sakatpura-RAPS A line-2 opened
01:10:56,183	KOTA	220kV	18ANTA	Circuit Breaker	Open	Line CB at Kota Sakatpura end of 220kV Kota Sakatpura-Anta line opened
01:10:56,183	KOTA	220kV	19T4	Circuit Breaker	Open	CB at 220kV side of 220/132kV ICT-4 opened
01:10:56,183	KOTA	220kV	16MBC	Circuit Breaker	Open	bus coupler breaker opened
01:10:56,183	KOTA	220kV	07T1	Circuit Breaker	Open	CB at 220kV side of 220/132kV ICT-1 opened
01:10:57,474	KOTA	220kV	02KTPS2	Circuit Breaker	disturbe	Line CB at Kota Sakatpura end of 220kV Kota Sakatpura-KTPS line-2 opened

Points of Discussion

- i. Reason for delayed clearance of fault need to be shared.
- ii. Time delay setting of Z-4 distance protection needs to be reviewed and set in line with the NRPC protection philosophy.
- iii. Reason of multiple elements tripping at KTPS along with supporting relay flags need to be shared.
- iv. DR/EL of all the tripping elements need to be shared.
- v. Remedial action taken report need to be shared.

**Tripping report of multiple tripping event
occurred at 220 kV GSS Sakatpura on 05.11.2025**



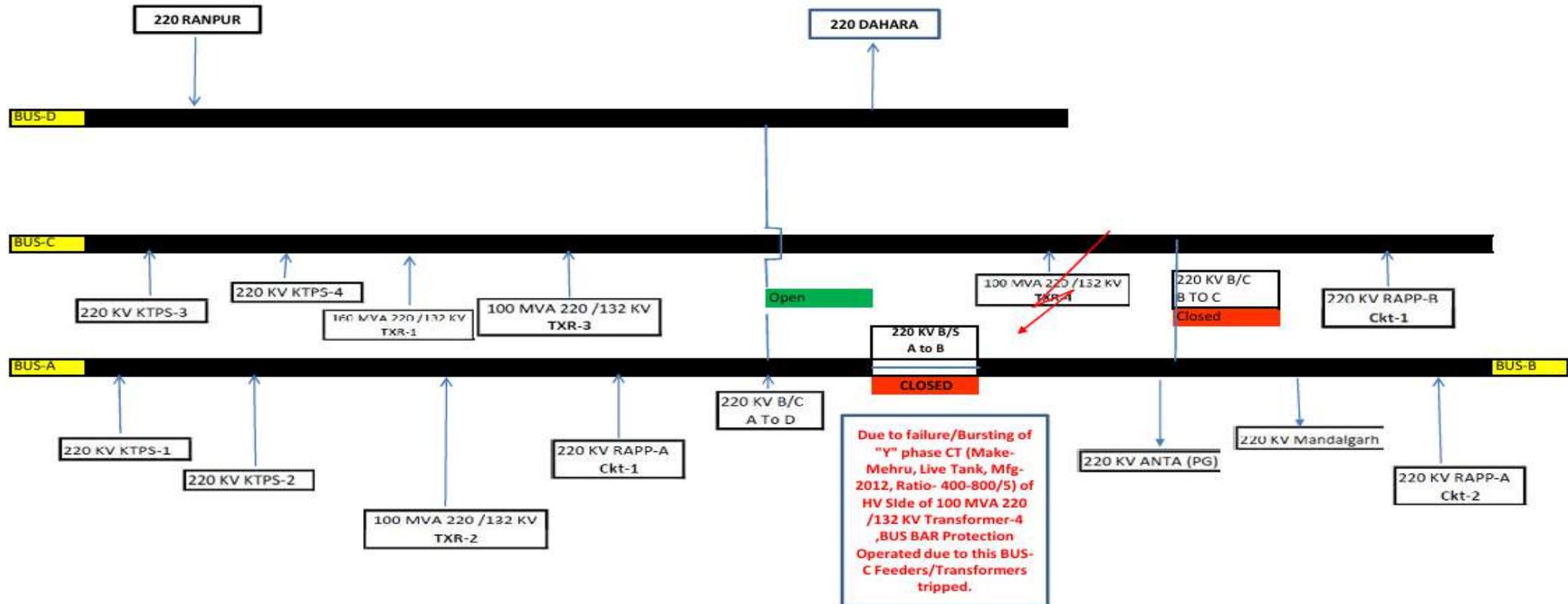
Rajasthan Vidyut Prasaran Nigam Limited

1. System Configuration:

- 220 kV GSS Sakatpura have four main buses at the 220 kV level and CTs are installed on the bus side in all bays.
- **Bus-A and Bus-B** are provided with a sectionalizer.
- **Bus-C and Bus-D** are configured as parallel buses.

2. Event Description:

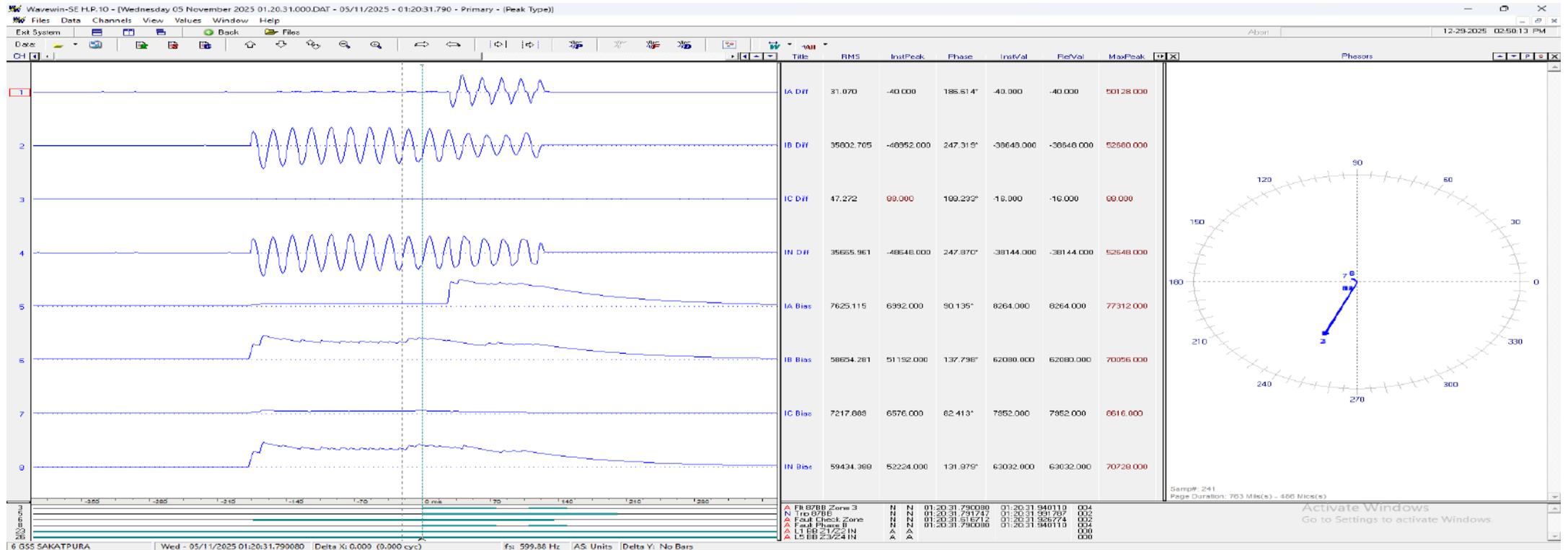
- As per time stamping in bus bar scheme at **01:20:31:610 hours**, a fault occurred in the Y-phase (middle phase) live tank CT on the 220 kV side of the **220/132 kV, 100 MVA Transformer-IV**. The CT was severely burnt, and due to the resultant fire, several control cables and CT secondary cables in the trenches associated with Transformer-IV, as well as the adjoining 220 kV Mandalgarh feeder, were damaged. Since the CT was located on the bus side, the fault fell within the busbar protection zone, resulting in operation of the busbar protection scheme and tripping of the associated elements. Bus arrangement at the time of fault is as follows:



3. Disturbance Recorder Analysis:

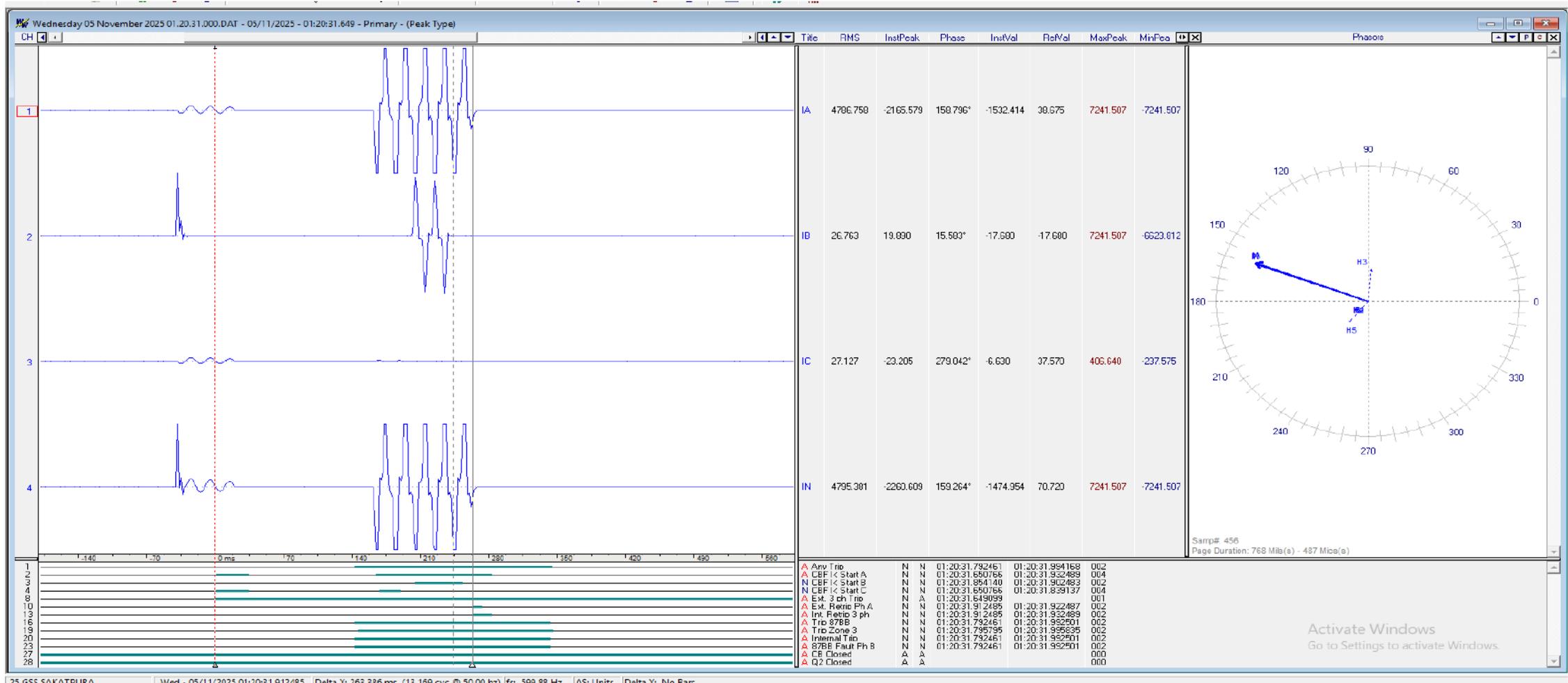
3.1 DR from Busbar Protection – Central Unit (CU)

- **01:20:31.610** – Fault initiated; current spike observed in Y-phase. Check zone picked up, while the main zone did not operate.
- **01:20:31.790** – Main zone picked up and trip command was issued.
- This indicates correct operation of the busbar protection scheme with check-zone supervision followed by main-zone tripping.



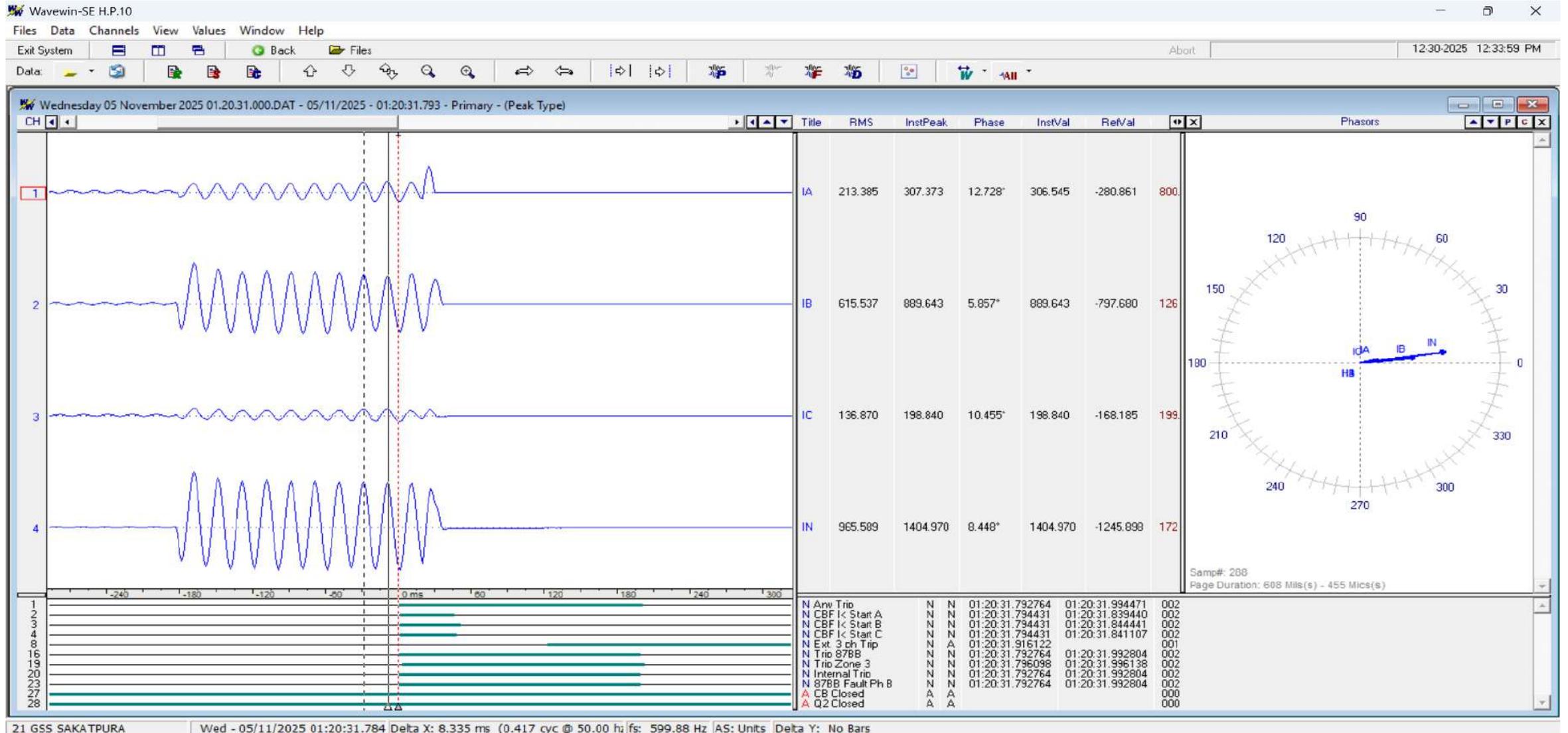
3.2 DR from PU of 220/132 kV, 100 MVA Transformer-IV

- **01:20:31.610** – Fault initiation with current spike in Y-phase.
- **01:20:31.649** – External three-phase trip signal became high, indicating operation of transformer differential protection.
- **01:20:31.810** – It appears that the damaged CT and resultant fire led to a phase fault involving the R-phase of the jack bus.



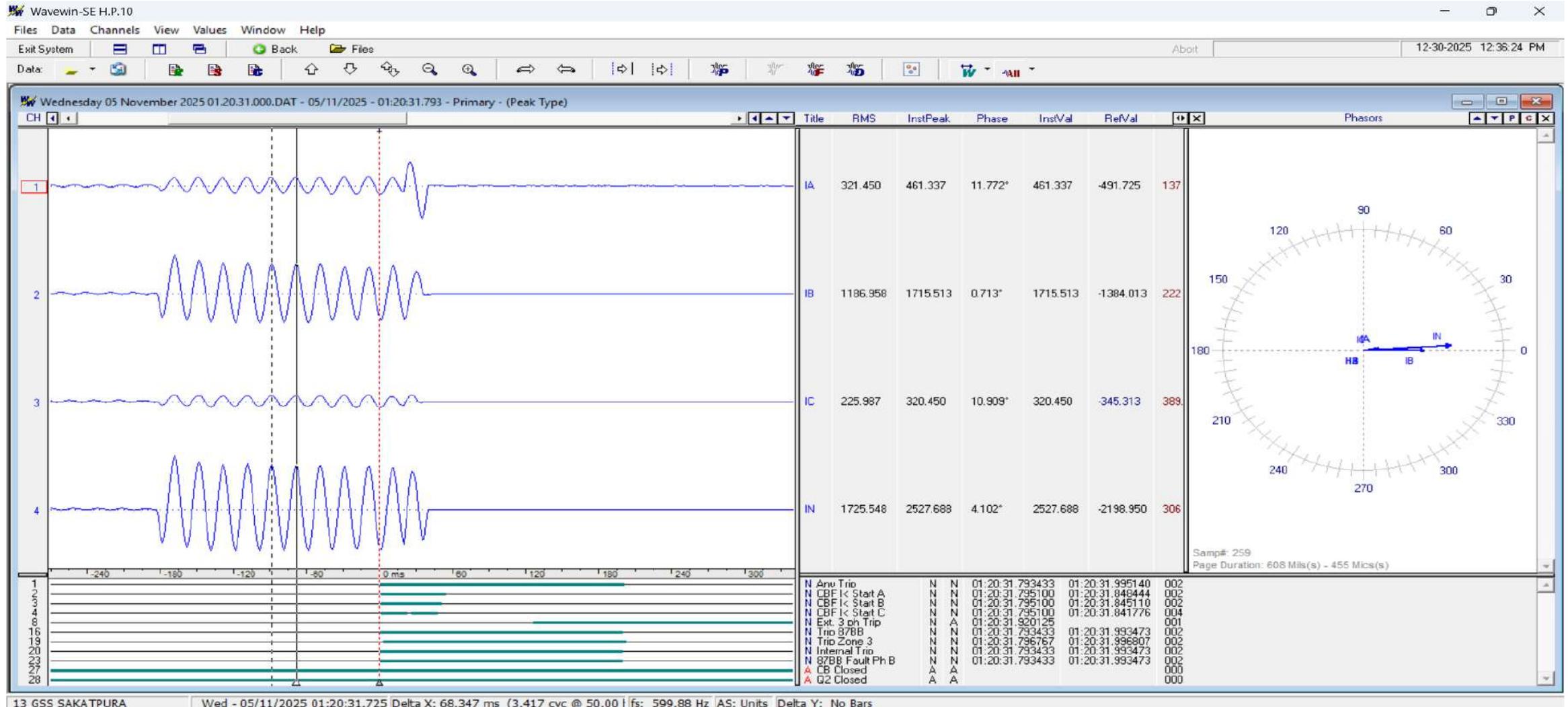
3.3 DR from PU of 220/132 kV, 100 MVA Transformer-III

- **01:20:31.610** – Fault initiation with current spike in Y-phase. Co-phaser current recorded.
- **01:20:31.792**- Tripping received from Busbar scheme.



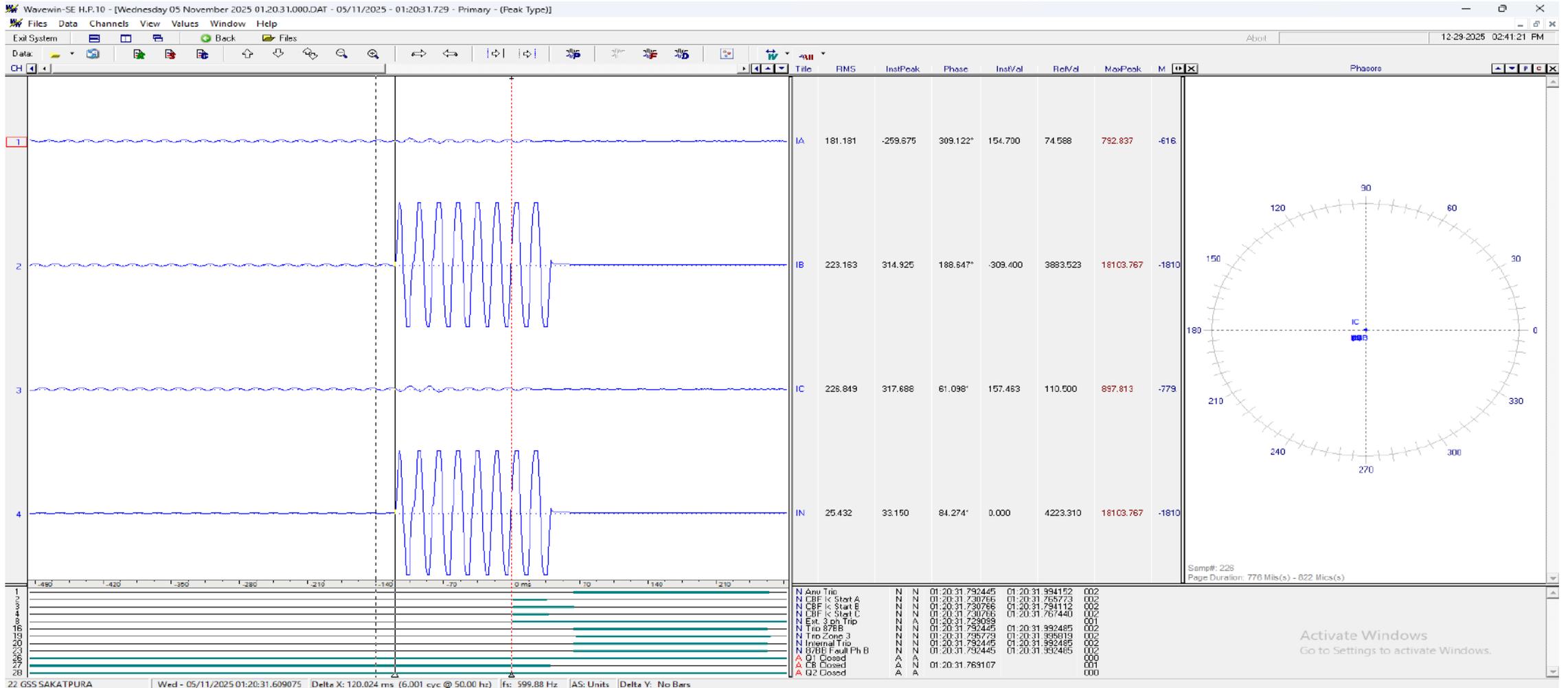
3.4 DR from PU of 220/132 kV, 160 MVA Transformer-I

- **01:20:31.610** – Fault initiation with current spike in Y-phase. Co-phaser current recorded.
- 01:20:31.792- Tripping received from Busbar scheme.



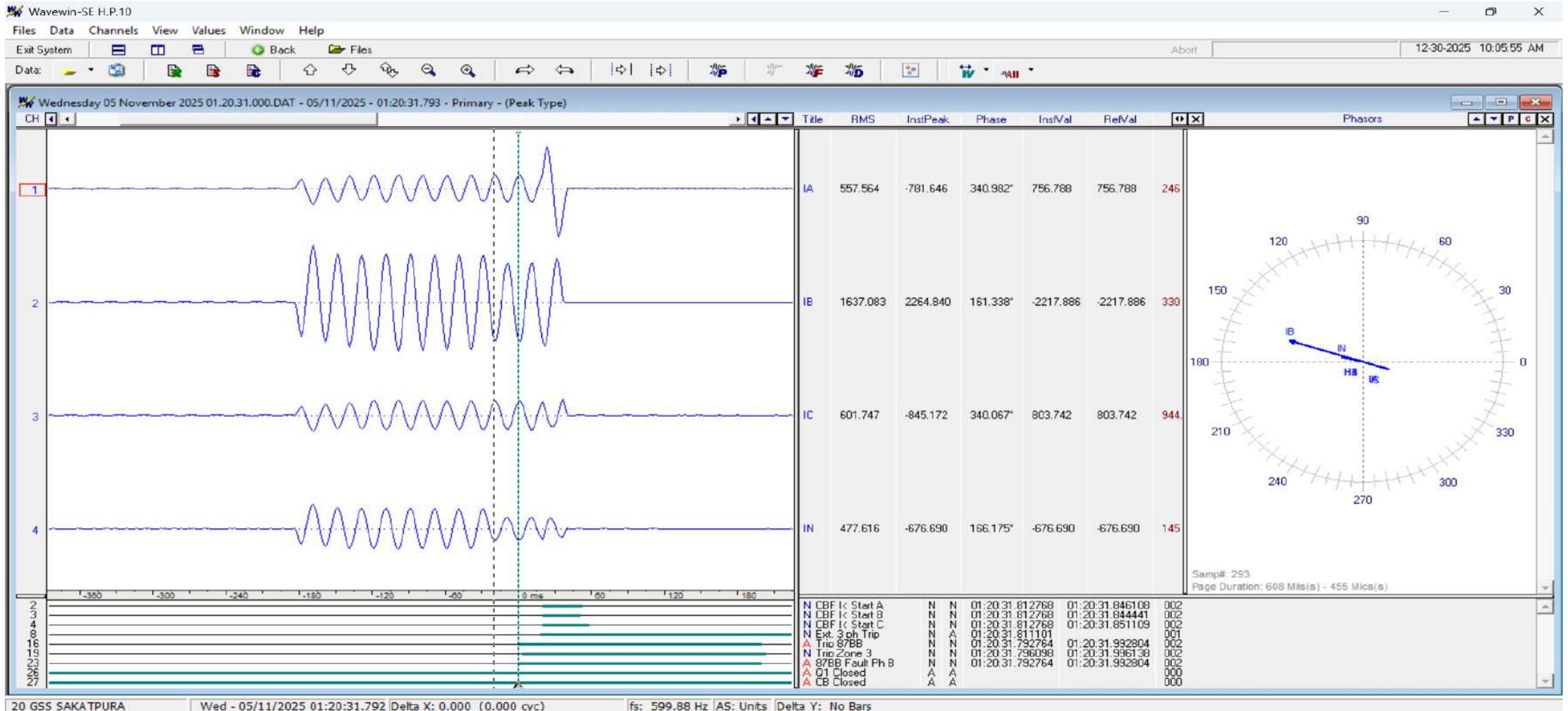
3.5 DR from PU of 220 kV Bus Coupler

- **01:20:31.610** – Fault initiation with current spike in Y-phase.
- **01:20:31.729** – External three-phase trip signal became high, indicating operation of electromechanical earth fault protection with **40% plug setting** and **TMS = 0.05**.



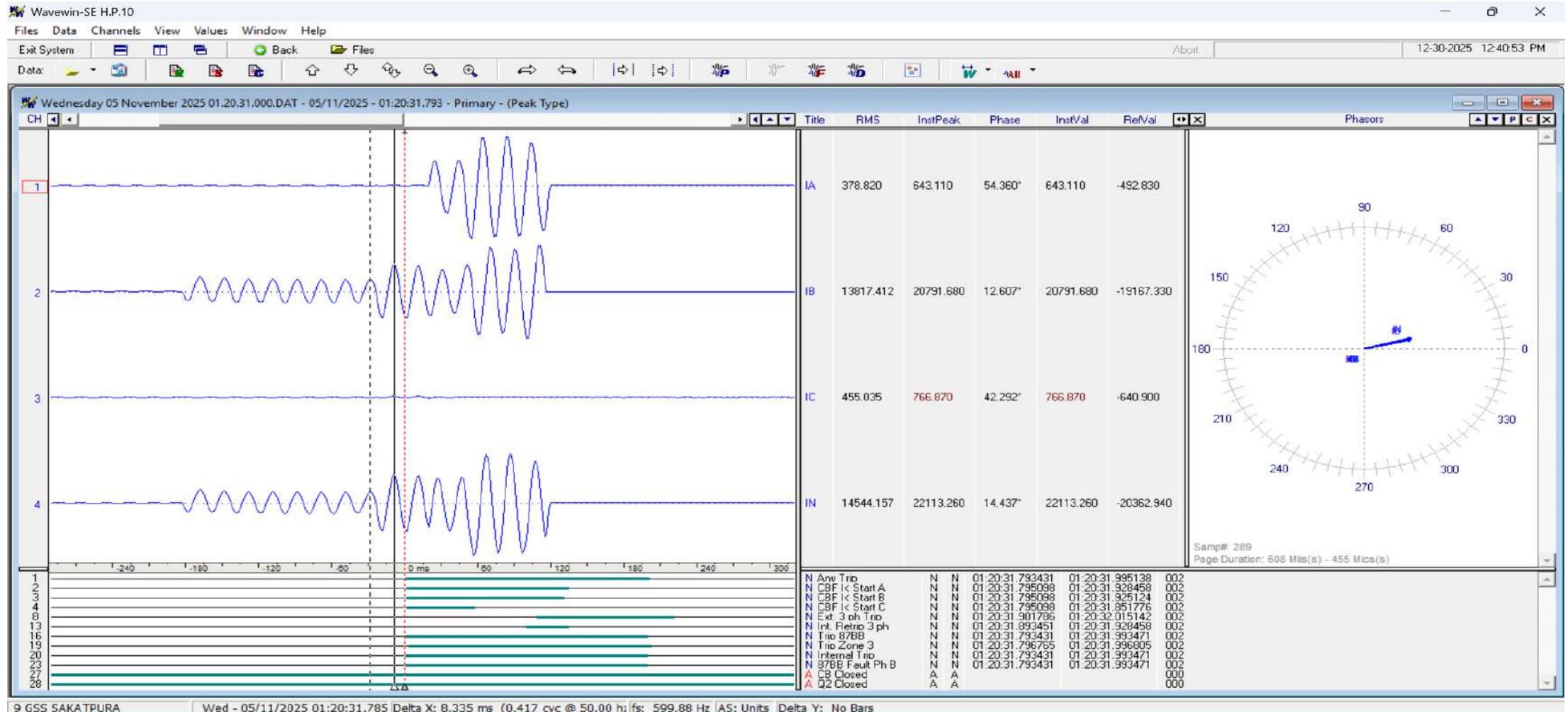
3.6 DR from PU of 220 kV RAPP-B

- 01:20:31.610 – Fault initiation with current spike in Y-phase.
- 01:20:31.792- Tripping received from Busbar scheme.



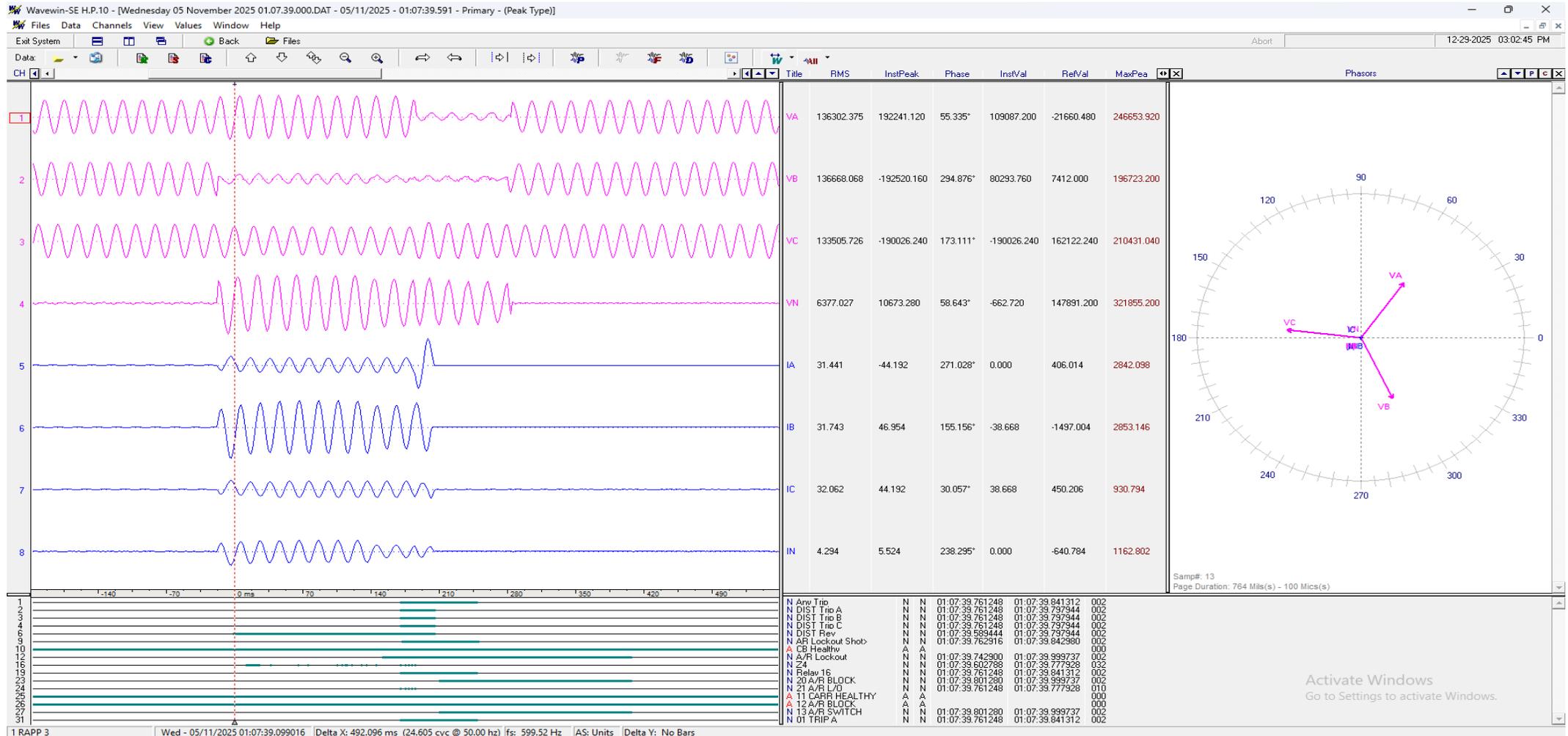
3.7 DR from PU of 220 kV KTPS-3

- 01:20:31.610 – Fault initiation with current spike in Y-phase. Co-phaser current recorded.
- 01:20:31.792- Tripping received from Busbar scheme.



3.8 DR of Distance Relay of 220 kV RAPP-A line 2

- The feeder was connected on **220 kV Main Bus-B**.
- Only the **Main-II distance relay (make MiCOM)** operated and tripped in **reverse Zone-4**.
- **Main-I distance relay** did not operate.



4. Conclusion:

- The root cause of the disturbance was the failure and bursting of the Y-phase live tank CT on the 220 kV side of the 220/132 kV, 100 MVA Transformer-IV.
- As the CT was located on the bus side, the fault was effectively within the busbar protection zone, leading to operation of busbar protection.
- Initial pickup occurred in the check zone, followed by main zone operation, confirming correct busbar protection logic.
- Transformer differential protection operated promptly, due to the CT failure and subsequent fault escalation.
- Fire and CT damage likely caused a secondary phase fault involving the R-phase of the jack bus.
- Earth fault protection of the bus coupler also operated in coordination, based on its TMS and plug setting.

Thank you

Disturbance Short Report

Disturbance Recordings Information

Device Information

Recorder ID	1
IED type	RED670
IED version	1.2.3.11
Station name	KSTPS
Object name	SAKATPUR#1
IED name	RED670

Fault Information

Trig date and time	11/5/2025 1:10:51:323 AM
Trigger signal name	PHS-STFWL2
Recording number	189
Total recording time	2665 ms
Pre-trig recording time	1000 ms
Post trig recording time	1499 ms
Max. recording time	2500 ms

General Recordings Information

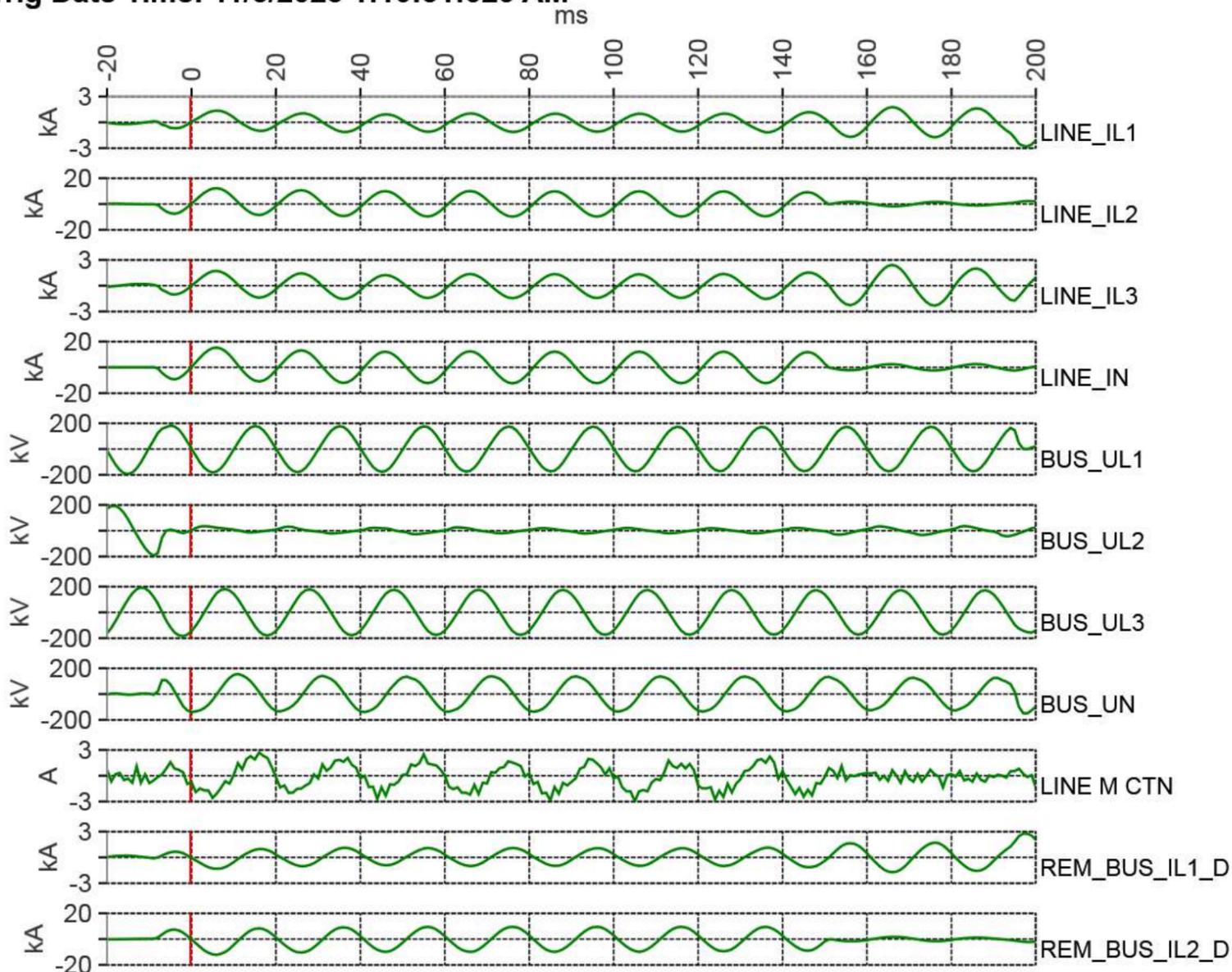
Disturbance recorder	Installed
Event recorder	Installed
System frequency	50 Hz
Sampling frequency	1 kHz
Active setting group during recording	1

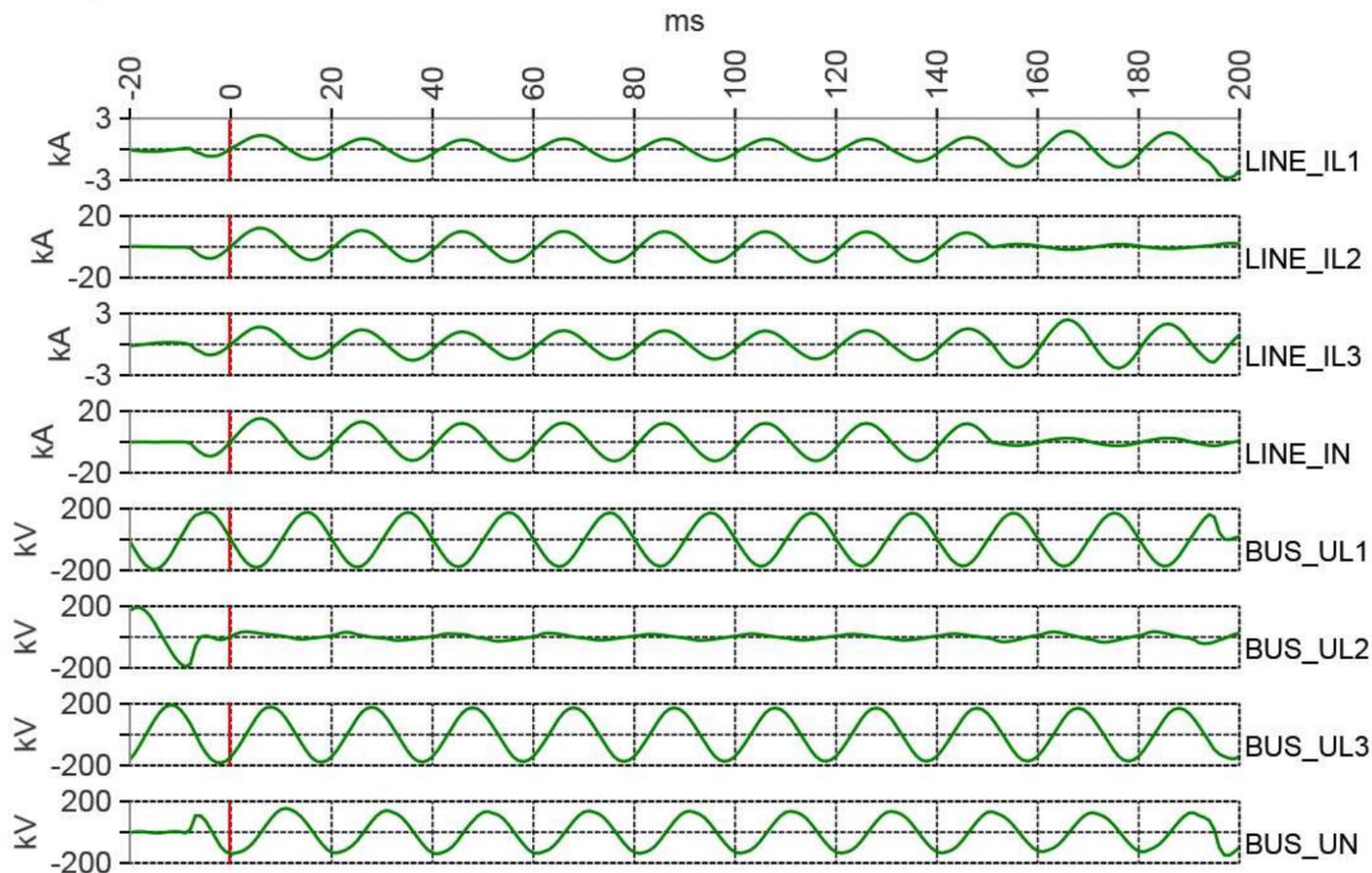
Fault Location Information

Fault loop type	L2-N
Fault location	Not Applicable
Status of fault calculation	Error
Fault direction	Not valid

Analog Time Diagram

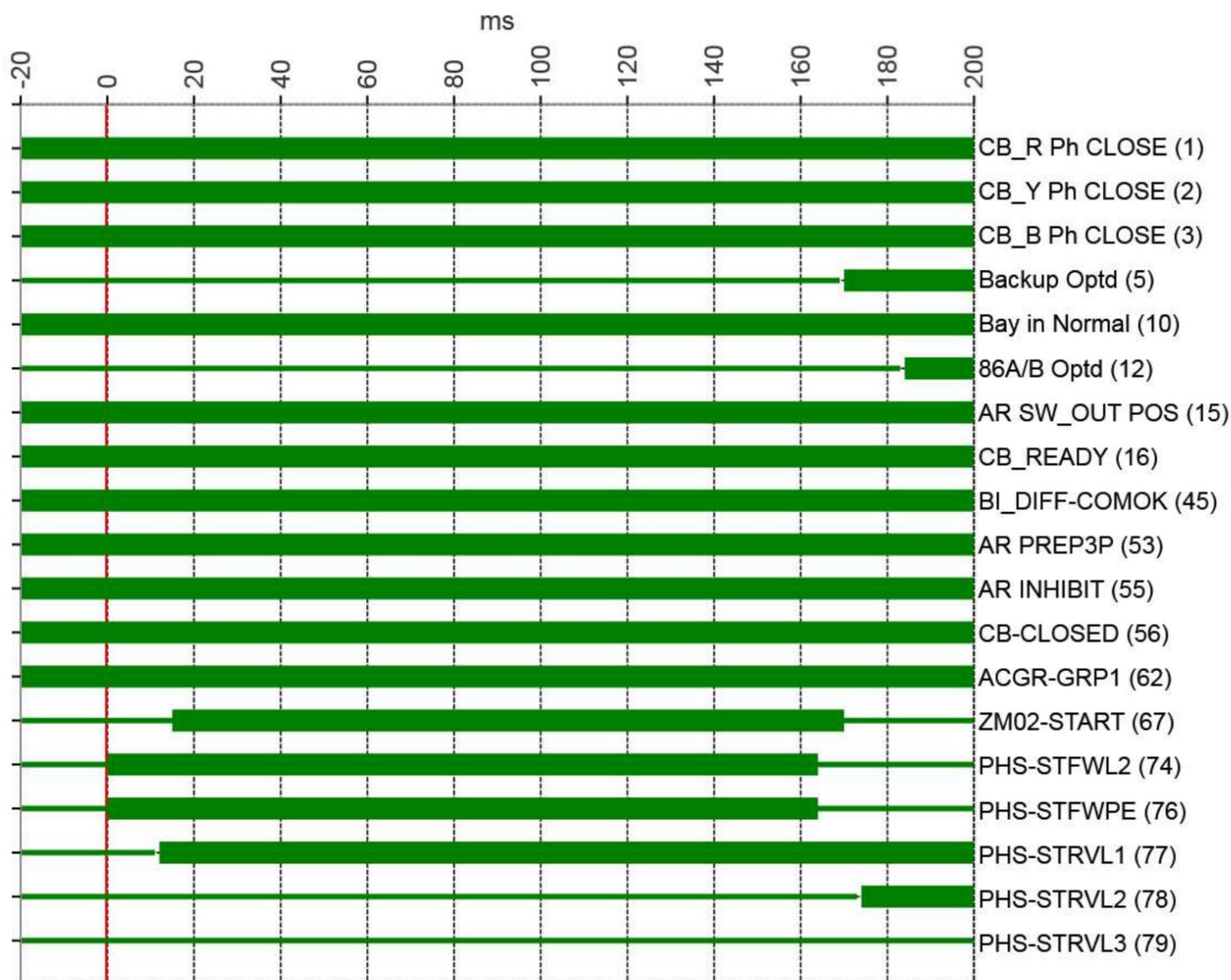
Trig Date Time: 11/5/2025 1:10:51:323 AM





Binary Time Diagram

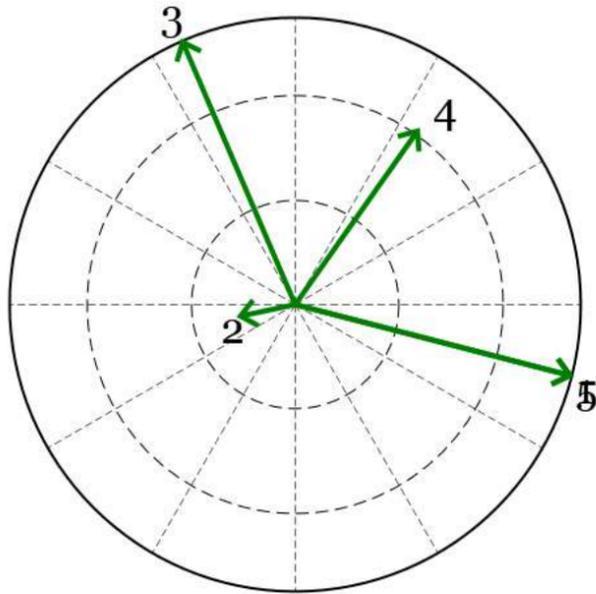
Trig Date Time: 11/5/2025 1:10:51:323 AM



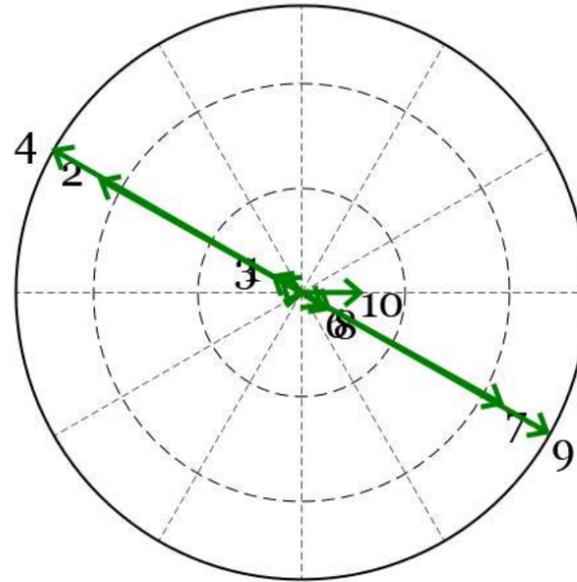
Vector Diagrams

Calculation Interval : -7 ms to 11 ms

Voltages



Currents



No.	Name	RMS	Angle
1	BUS_UL1	125330.6(V)	345.6°
2	BUS_UL2	13643.77(V)	191.9°
3	BUS_UL3	126342.9(V)	113.3°
4	BUS_UN	100616.9(V)	54.7°
5	LINE_A_1PH_VT	125064.3(V)	345.6°

No.	Name	RMS	Angle
1	LINE_IL1	766.412(A)	145.5°
2	LINE_IL2	7051.233(A)	150.9°
3	LINE_IL3	1042.171(A)	149.4°
4	LINE_IN	8856.64(A)	150.2°
5	LINE M CTN	1.427(A)	347.8°
6	REM_BUS_IL1_D	753.907(A)	325.7°
7	REM_BUS_IL2_D	6938.777(A)	331.1°
8	REM_BUS_IL3_D	1020.06(A)	329.7°
9	REM_BUS_IN_D	8709.638(A)	330.5°
10	L3D-IBIAS	0.0(A)	0.0°
11	L3D-IDL1MAG	0.0(A)	0.0°
12	L3D-IDL2MAG	0.0(A)	0.0°
13	L3D-IDL3MAG	0.0(A)	0.0°
14	L3D-IDNSMAG	0.0(A)	0.0°

Events List

Channel Number	Name	Status	Time
74	PHS-STFWL2	On	11/5/2025 1:10:51:323 AM
76	PHS-STFWPE	On	11/5/2025 1:10:51:323 AM
77	PHS-STRVL1	On	11/5/2025 1:10:51:335 AM
67	ZM02-START	On	11/5/2025 1:10:51:338 AM
74	PHS-STFWL2	Off	11/5/2025 1:10:51:488 AM
76	PHS-STFWPE	Off	11/5/2025 1:10:51:488 AM
5	Backup Optd	On	11/5/2025 1:10:51:493 AM
67	ZM02-START	Off	11/5/2025 1:10:51:494 AM
78	PHS-STRVL2	On	11/5/2025 1:10:51:497 AM
12	86A/B Optd	On	11/5/2025 1:10:51:507 AM
2	CB_Y Ph CLOSE	Off	11/5/2025 1:10:51:527 AM
3	CB_B Ph CLOSE	Off	11/5/2025 1:10:51:527 AM
1	CB_R Ph CLOSE	Off	11/5/2025 1:10:51:528 AM
78	PHS-STRVL2	Off	11/5/2025 1:10:51:530 AM
79	PHS-STRVL3	On	11/5/2025 1:10:51:530 AM
56	CB-CLOSED	Off	11/5/2025 1:10:51:530 AM
78	PHS-STRVL2	On	11/5/2025 1:10:51:536 AM
79	PHS-STRVL3	Off	11/5/2025 1:10:51:542 AM
77	PHS-STRVL1	Off	11/5/2025 1:10:51:554 AM
78	PHS-STRVL2	Off	11/5/2025 1:10:51:554 AM
5	Backup Optd	Off	11/5/2025 1:10:51:646 AM

Disturbance Short Report

Disturbance Recordings Information

Device Information

Recorder ID	1
IED type	RED670
IED version	1.2.3.15
Station name	KTPS
Object name	SAKATHPURA LINE-3
IED name	RED670-3

Fault Information

Trig date and time	11/5/2025 12:10:51:333 AM
Trigger signal name	PHS-STFWL2
Recording number	672
Total recording time	4315 ms
Pre-trig recording time	1000 ms
Post trig recording time	2999 ms
Max. recording time	4000 ms

General Recordings Information

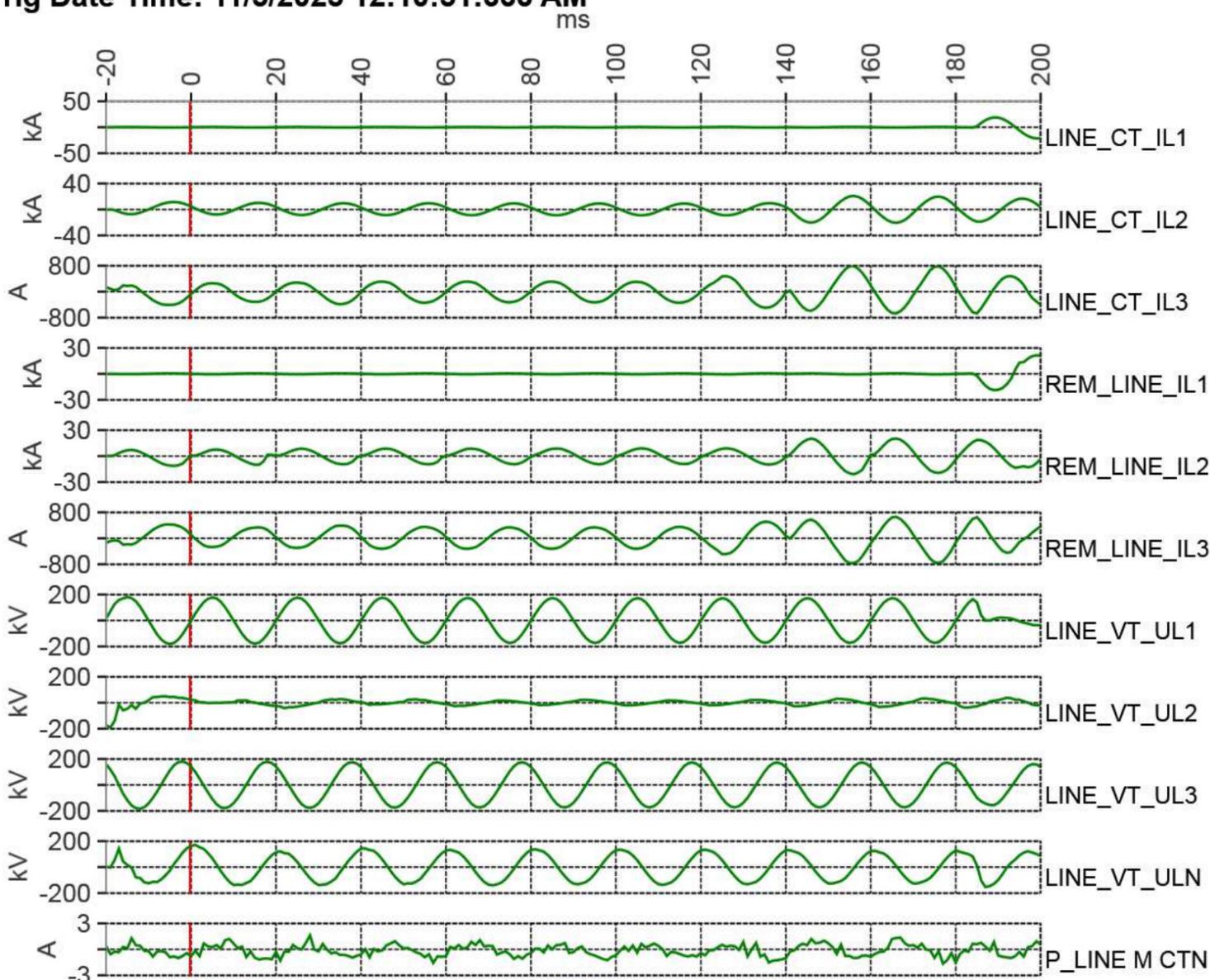
Disturbance recorder	Installed
Event recorder	Installed
System frequency	50 Hz
Sampling frequency	1 kHz
Active setting group during recording	1

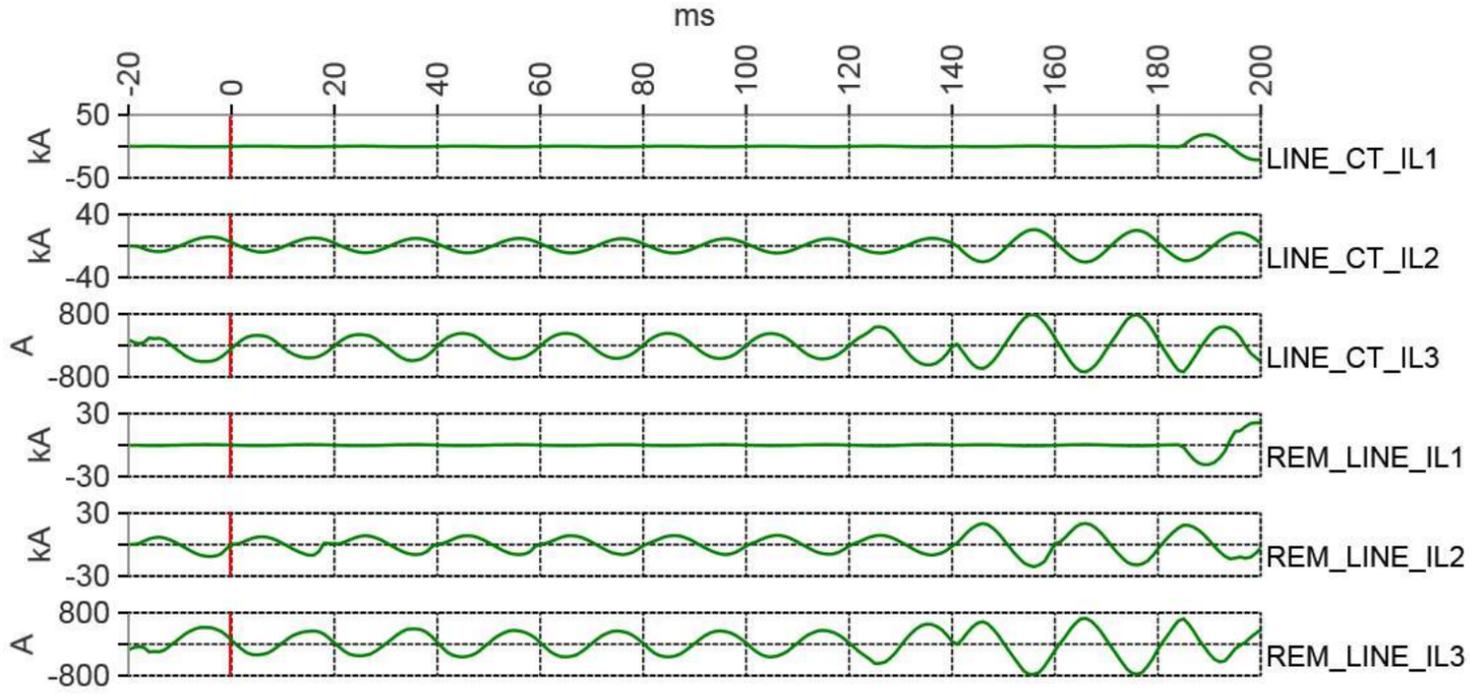
Fault Location Information

Fault loop type	Not applicable
Fault location	Not applicable
Status of fault calculation	Not applicable
Fault direction	Not applicable

Analog Time Diagram

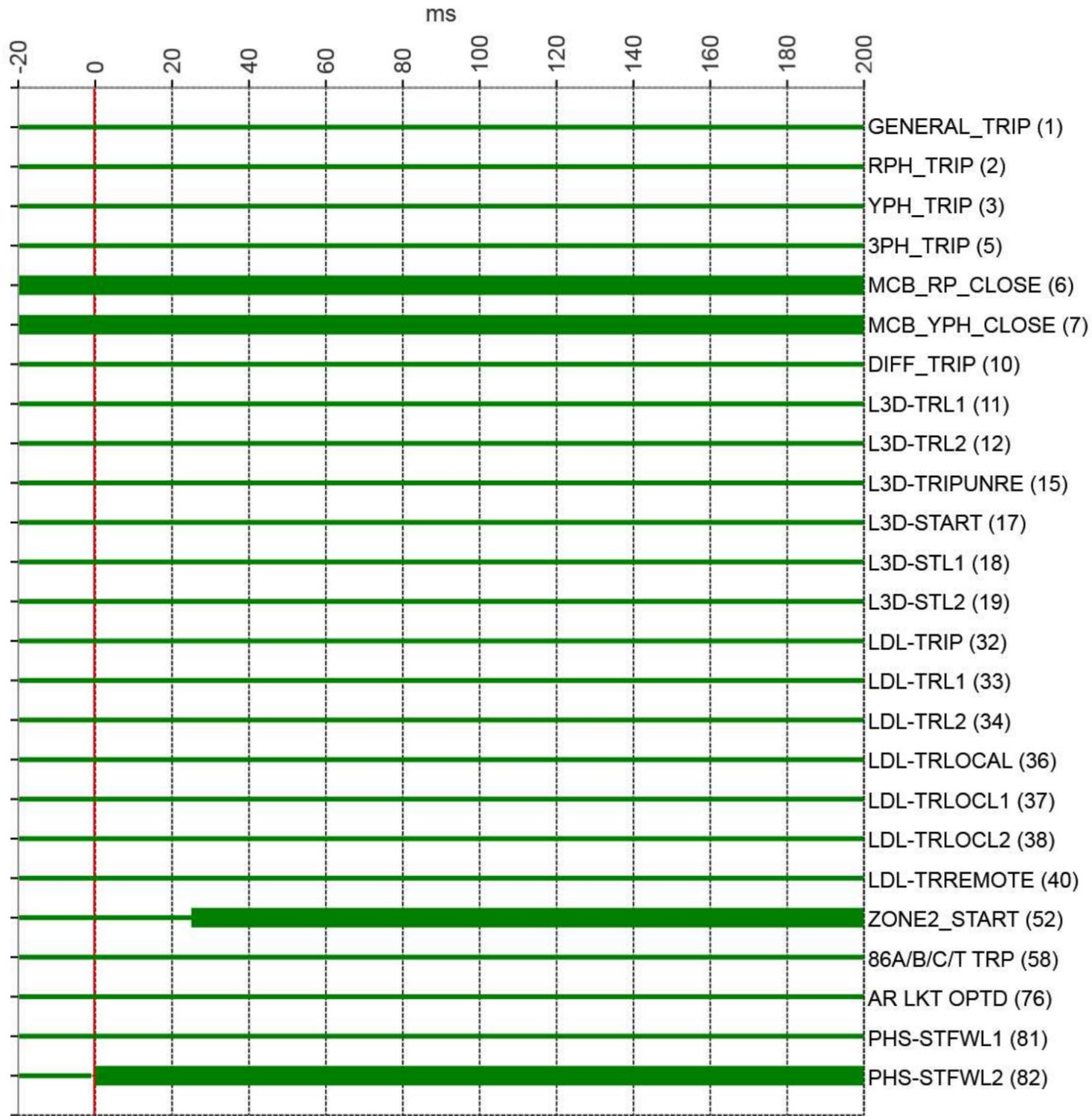
Trig Date Time: 11/5/2025 12:10:51:333 AM





Binary Time Diagram

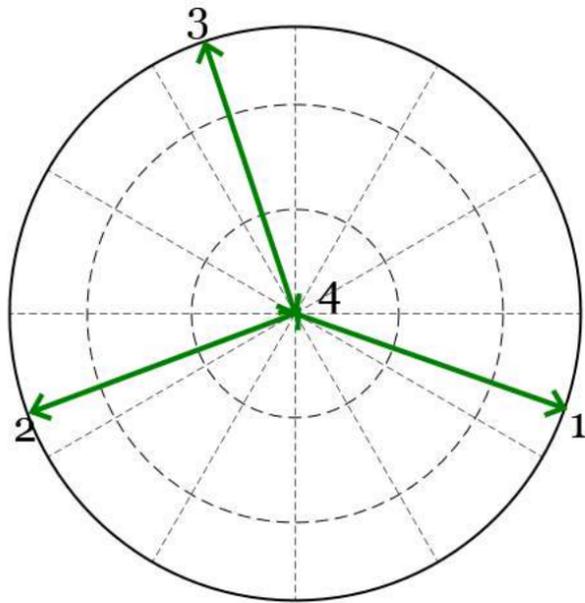
Trig Date Time: 11/5/2025 12:10:51:333 AM



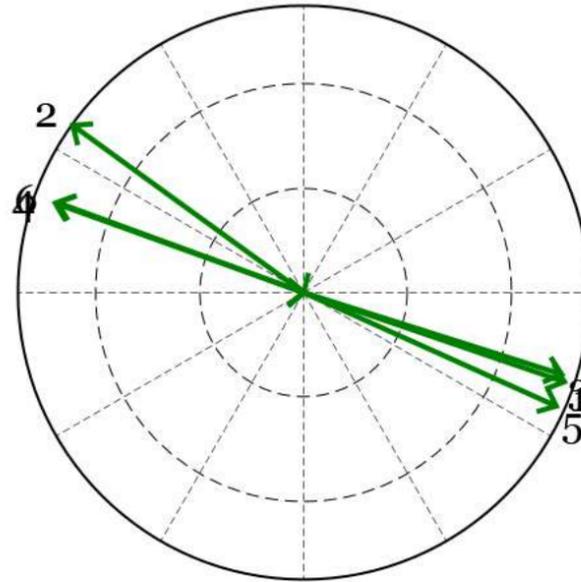
Vector Diagrams

Calculation Interval : -950 ms to -932 ms

Voltages



Currents



No.	Name	RMS	Angle
1	LINE_VT_UL1	125160.1(V)	340.7°
2	LINE_VT_UL2	12899.06(V)	200.4°
3	LINE_VT_UL3	126282.4(V)	108.5°
4	LINE_VT_ULN	99076.05(V)	48.3°
5	LINE_A_1PH_VT	36.545(V)	297.7°

No.	Name	RMS	Angle
1	LINE_CT_IL1	337.139(A)	341.2°
2	LINE_CT_IL2	6620.802(A)	144.2°
3	LINE_CT_IL3	224.826(A)	342.5°
4	REM_LINE_IL1	342.764(A)	160.3°
5	REM_LINE_IL2	5704.253(A)	335.9°
6	REM_LINE_IL3	236.369(A)	160.0°
7	P_LINE M CTN	0.619(A)	295.9°
8	L3D-IBIAS	0.0(A)	0.0°
9	L3D-IDL1MAG	0.0(A)	0.0°
10	L3D-IDL2MAG	0.0(A)	0.0°
11	L3D-IDL3MAG	0.0(A)	0.0°
12	L3D-IDNSMAG	0.0(A)	0.0°

Events List

Channel Number	Name	Status	Time
82	PHS-STFWL2	On	11/5/2025 12:10:51:333 AM
52	ZONE2_START	On	11/5/2025 12:10:51:358 AM
52	ZONE2_START	Off	11/5/2025 12:10:51:383 AM
52	ZONE2_START	On	11/5/2025 12:10:51:388 AM
81	PHS-STFWL1	On	11/5/2025 12:10:51:543 AM
17	L3D-START	On	11/5/2025 12:10:51:563 AM
18	L3D-STL1	On	11/5/2025 12:10:51:563 AM
10	DIFF_TRIP	On	11/5/2025 12:10:51:563 AM
11	L3D-TRL1	On	11/5/2025 12:10:51:563 AM
15	L3D-TRIPUNRE	On	11/5/2025 12:10:51:563 AM
1	GENERAL_TRIP	On	11/5/2025 12:10:51:563 AM
2	RPH_TRIP	On	11/5/2025 12:10:51:563 AM
32	LDL-TRIP	On	11/5/2025 12:10:51:563 AM
33	LDL-TRL1	On	11/5/2025 12:10:51:563 AM
36	LDL-TRLOCAL	On	11/5/2025 12:10:51:563 AM
37	LDL-TRLOCL1	On	11/5/2025 12:10:51:563 AM
12	L3D-TRL2	On	11/5/2025 12:10:51:578 AM
19	L3D-STL2	On	11/5/2025 12:10:51:578 AM
3	YPH_TRIP	On	11/5/2025 12:10:51:578 AM
34	LDL-TRL2	On	11/5/2025 12:10:51:578 AM
38	LDL-TRLOCL2	On	11/5/2025 12:10:51:578 AM
40	LDL-TRREMOTE	On	11/5/2025 12:10:51:578 AM
58	86A/B/C/T TRP	On	11/5/2025 12:10:51:579 AM
5	3PH_TRIP	On	11/5/2025 12:10:51:584 AM

76	AR LKT OPTD	On	11/5/2025 12:10:51:587 AM
6	MCB_RP_CLOSE	Off	11/5/2025 12:10:51:597 AM
7	MCB_YPH_CLOSE	Off	11/5/2025 12:10:51:605 AM
19	L3D-STL2	Off	11/5/2025 12:10:51:633 AM
15	L3D-TRIPUNRE	Off	11/5/2025 12:10:51:633 AM
17	L3D-START	Off	11/5/2025 12:10:51:633 AM
18	L3D-STL1	Off	11/5/2025 12:10:51:633 AM
12	L3D-TRL2	Off	11/5/2025 12:10:51:638 AM
10	DIFF_TRIP	Off	11/5/2025 12:10:51:638 AM
11	L3D-TRL1	Off	11/5/2025 12:10:51:638 AM
36	LDL-TRLOCAL	Off	11/5/2025 12:10:51:638 AM
37	LDL-TRLOCL1	Off	11/5/2025 12:10:51:638 AM
38	LDL-TRLOCL2	Off	11/5/2025 12:10:51:638 AM
82	PHS-STFWL2	Off	11/5/2025 12:10:51:648 AM
81	PHS-STFWL1	Off	11/5/2025 12:10:51:653 AM
2	RPH_TRIP	Off	11/5/2025 12:10:51:668 AM
3	YPH_TRIP	Off	11/5/2025 12:10:51:668 AM
32	LDL-TRIP	Off	11/5/2025 12:10:51:668 AM
33	LDL-TRL1	Off	11/5/2025 12:10:51:668 AM
34	LDL-TRL2	Off	11/5/2025 12:10:51:668 AM
40	LDL-TRREMOTE	Off	11/5/2025 12:10:51:668 AM
52	ZONE2_START	Off	11/5/2025 12:10:51:668 AM
5	3PH_TRIP	Off	11/5/2025 12:10:51:673 AM
58	86A/B/C/T TRP	Off	11/5/2025 12:10:51:679 AM
1	GENERAL_TRIP	Off	11/5/2025 12:10:51:738 AM
76	AR LKT OPTD	Off	11/5/2025 12:10:51:792 AM

Unit # 3

2

5-Nov-25	1:10:54.366 AM			
5-Nov-25	1:10:54.474 AM	04HHS_0411:10CG301.CIN	BOILER TRIP	<ON>
5-Nov-25	1:10:54.789 AM	04HFC_0409:20AN201.CIN	PULV_B MOTOR ON	<OFF>
5-Nov-25	1:10:55.351 AM	04MKA_0411:10HX242.CIN	TURB TRIP=1 OPTD	<ON>
5-Nov-25	1:10:55.389 AM	04HLD_0401:01AP001XB01.CIN	RAH_A SUPP BRG LOP_A ON	<ON>
5-Nov-25	1:10:55.392 AM	04MAY_0411:10HX257.CIN	TURB TRIP GEAR 2 OPTD	<ON>
5-Nov-25	1:10:55.753 AM	04MAY_0411:10HX256.CIN	TURB TRIP GEAR 1 OPTD	<ON>
5-Nov-25	1:10:55.759 AM	04MAY_0409:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<ON>
5-Nov-25	1:10:55.880 AM	04MAY_0409:10HX240.CIN	LOAD CONTROLLER ACTIVE	<OFF>
5-Nov-25	1:10:56.249 AM	04HFE_0401:10AN001XB01.CIN	PA FAN_A MAIN MTR ON	<OFF>
5-Nov-25	1:10:57.218 AM	04HNC_0402:30AN001XB01.CIN	PA FAN_C MAIN MOTOR ON	<OFF>
5-Nov-25	1:10:57.956 AM	04HNC_0402:20CG003XG01.CIN	ID FAN_B LUBE OIL PR LOW	<ON>
5-Nov-25	1:10:57.960 AM	04HBK_0411:10CP303.CIN	FURNACE PRESSURE HI	<ON>
5-Nov-25	1:10:58.260 AM	04HBK_0411:20CP301.CIN	FURNACE PRESSUR EVLO	<ON>
5-Nov-25	1:10:58.953 AM	04HAY_0408:10CE107.CIN	EHC FAULT	<ON>
5-Nov-25	1:10:58.959 AM	04MAY_0409:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<OFF>
5-Nov-25	1:10:58.984 AM	04MAY_0409:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<ON>
5-Nov-25	1:10:58.984 AM	04MAY_0409:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<OFF>
5-Nov-25	1:10:59.349 AM	04HJF_0411:00HX301.CIN	ALL FUEL SUPPLY LOST	<OFF>
5-Nov-25	1:10:59.452 AM	04MKA_0402:04MKA10RP001.CIN	REVERSE POWER ON TUR TRIP	<ON>
5-Nov-25	1:10:59.463 AM	04MKA_0411:10HX244.CIN	GEN LOCKOUT RELAY(86 G) ENGD	<ON>
5-Nov-25	1:10:59.471 AM	04MKA_0411:10HX248.CIN	GEN LOCKOUT RELAY (86 GB) ENGD	<ON>
5-Nov-25	1:10:59.482 AM	04MKA_0402:10GCB003.CIN	GT4 220 KV BREAKER CLOSE	OFF
5-Nov-25	1:10:59.486 AM	04MKA_0411:10HX248.CIN	GEN LOCKOUT RELAY (86 GB) ENGD	<OFF>
5-Nov-25	1:10:59.492 AM	04MKA_0411:10HX248.CIN	GEN LOCKOUT RELAY (86 GB) ENGD	<ON>
5-Nov-25	1:10:59.507 AM	04MKA_0402:04MKA10RP001.CIN	REVERSE POWER ON TUR TRIP	<OFF>
5-Nov-25	1:10:59.515 AM	04MKA_0411:10HX252.CIN	GT4 220 KV BREAKER OPEN	<ON>
5-Nov-25	1:10:59.521 AM	04MKA_0411:10HX252.CIN	GT4 220 KV BREAKER OPEN	<OFF>
5-Nov-25	1:10:59.527 AM	04MKA_0411:10HX252.CIN	GT4 220 KV BREAKER OPEN	<ON>
5-Nov-25	1:10:59.971 AM	04HFC_0411:20CF301.CIN	PULVERISER FDR_B COAL FLOW LOST	<ON>
5-Nov-25	1:11:00.056 AM	04HHS_0411:20AN301.CIN	SCANNER AIR FAN_B OFF	<OFF>
5-Nov-25	1:11:00.060 AM	04MKA_0410:10AP301.CIN	SEAL AIR FAN_A OFF	<OFF>
5-Nov-25	1:11:00.189 AM	04MKA_0411:10HX239.CIN	VLT BAL SCHM RLY(160)PRO PT OPTD	<OFF>
5-Nov-25	1:11:00.271 AM	04HFC_0411:20CF301.CIN	PULVERISER FDR_B COAL FLOW LOST	<OFF>
5-Nov-25	1:11:00.278 AM	04HHS_0411:20AN301.CIN	SCANNER AIR FAN_B OFF	<ON>
5-Nov-25	1:11:00.280 AM	04MKA_0410:10AP301.CIN	SEAL AIR FAN_A OFF	<ON>
5-Nov-25	1:11:00.294 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<OFF>
5-Nov-25	1:11:00.301 AM	04MKA_0410:10HX272.CIN	STATOR WATER PUMP_A TRIPPED	<OFF>
5-Nov-25	1:11:00.354 AM	04HHS_0411:10AN301.CIN	SCANNER AIR FAN_A OFF	<ON>
5-Nov-25	1:11:00.527 AM	04MKA_0411:10HX239.CIN	VLT BAL SCHM RLY(160)PRO PT OPTD	<ON>
5-Nov-25	1:11:00.763 AM	04MKA_0410:10AP203.CIN	VACUUM PUMP TRIP	<ON>
5-Nov-25	1:11:00.962 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<ON>
5-Nov-25	1:11:00.968 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<OFF>
5-Nov-25	1:11:00.974 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<ON>
5-Nov-25	1:11:00.974 AM	04MKA_0410:10HX272.CIN	STATOR WATER PUMP_A TRIPPED	<ON>
5-Nov-25	1:11:00.980 AM	04MKA_0410:10HX272.CIN	STATOR WATER PUMP_A TRIPPED	<OFF>
5-Nov-25	1:11:01.151 AM	04HHS_0411:10AN301.CIN	SCANNER AIR FAN_A OFF	<OFF>
5-Nov-25	1:11:04.155 AM	04HBK_0411:20CP301.CIN	FURNACE PRESSUR EVLO	<OFF>
5-Nov-25	1:11:11.665 AM	04MKA_0410:20AP301.CIN	SEAL AIR FAN_B TRIP OFF	<ON>
5-Nov-25	1:11:12.676 AM	04HAD_0401:01CL901XG01.CIN	DRUM LVL VERY LOW	<ON>
5-Nov-25	1:11:18.259 AM	04HFE_0410:10CP302.CIN	HOT PA HDR PRESSURE V LO	<ON>
5-Nov-25	1:11:32.438 AM	04LAD_0410:50CL302.CIN	HPH_5 LEVEL HI	<ON>
5-Nov-25	1:11:34.162 AM	04HBK_0411:10CP303.CIN	FURNACE PRESSURE HI	<OFF>
5-Nov-25	1:11:43.764 AM	04HHL_0411:22CF301.CIN	BOILER AIR FLOW <30%	<ON>
5-Nov-25	1:11:53.667 AM	04HAD_0401:01CL901XG01.CIN	DRUM LVL VERY LOW	<OFF>
5-Nov-25	1:12:25.655 AM	04LAD_0410:60CL302.CIN	HPH_6 LEVEL HI	<ON>
5-Nov-25	1:13:21.719 AM	04LBG_0410:10CP301.CIN	AUX STM HEADER PR. LO	<ON>
5-Nov-25	1:13:42.577 AM	04LAD_0410:60CL302.CIN	HPH_6 LEVEL HI	<OFF>

U # 3

11/5/2025	1:11:04.123 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:04.129 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:04.224 AM	03HFE_0302:30AN001XB01.CIN	PA FAN_C MAIN MOTOR ON	<OFF>
11/5/2025	1:11:04.320 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:04.326 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:04.529 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:04.535 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:04.555 AM	03MAY_0311:10HX256.CIN	TURB TRIP GEAR 1 OPTD	<ON>
11/5/2025	1:11:04.556 AM	03MAY_0311:10HX257.CIN	TURB TRIP GEAR 2 OPTD	<ON>
11/5/2025	1:11:04.665 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:04.671 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:04.752 AM	03MAY_0311:10HX269.CIN	HP ESV CLOSED	<ON>
11/5/2025	1:11:04.753 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:04.759 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:04.783 AM	03MAN_0311:10HX301.CIN	HPB VALVE BP_1 OPENED>2%	<ON>
11/5/2025	1:11:05.343 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:05.349 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:05.405 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:05.411 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:05.511 AM	03HJF_0311:00HX301.CIN	ALL FUEL SUPPLY LOST	<ON>
11/5/2025	1:11:06.059 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:06.065 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:06.121 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:06.127 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:06.380 AM	03HAY_0308:10CE107.CIN	EHC FAULT	<ON>
11/5/2025	1:11:06.421 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:06.427 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:06.578 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:06.584 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:07.179 AM	03MAY_0309:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<ON>
11/5/2025	1:11:07.294 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:07.300 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:07.308 AM	03HJF_0311:00HX301.CIN	ALL FUEL SUPPLY LOST	<ON>
11/5/2025	1:11:07.418 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:07.424 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:07.919 AM	03MKA_0302:03MKA_10RP.CIN	GEN REVERSE POWER INTERLOCK	<ON>
11/5/2025	1:11:07.928 AM	03MKA_0311:10HX244.CIN	GEN LOCKOUT RELAY(86 G) ENGD	<ON>
11/5/2025	1:11:07.937 AM	03MKA_0311:10HX248.CIN	GEN LOCKOUT RELAY (86 GB) ENGD	<ON>
11/5/2025	1:11:07.977 AM	03MKA_0302:03MKA_10RP.CIN	GEN REVERSE POWER INTERLOCK	<OFF>
11/5/2025	1:11:07.984 AM	03MKA_0311:10HX252.CIN	GT3 220 KV BREAKER OPEN	<OFF>
11/5/2025	1:11:07.987 AM	03BAT_0307:10CG201XG01.CIN	GCB OPEN	<ON>
11/5/2025	1:11:07.990 AM	03MKA_0311:10HX252.CIN	GT3 220 KV BREAKER OPEN	<ON>
11/5/2025	1:11:07.993 AM	03BAT_0307:10CG201XG01.CIN	GCB OPEN	<OFF>
11/5/2025	1:11:07.996 AM	03MKA_0311:10HX252.CIN	GT3 220 KV BREAKER OPEN	<OFF>
11/5/2025	1:11:07.999 AM	03BAT_0307:10CG201XG01.CIN	GCB OPEN	<ON>
11/5/2025	1:11:08.005 AM	03BAT_0307:10CG201XG01.CIN	GCB OPEN	<ON>
11/5/2025	1:11:08.011 AM	03BAT_0307:10CG201XG01.CIN	GCB OPEN	<OFF>
11/5/2025	1:11:08.134 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:08.140 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:08.189 AM	03BAT_0311:10HX201.CIN	6.6 KV BUS US_3A UNDER VOLT OPTD	<ON>
11/5/2025	1:11:08.211 AM	03BAT_0311:10HX202.CIN	6.6 KV BUS US_3B UNDER VOLT OPTD	<ON>
11/5/2025	1:11:08.332 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:08.338 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:08.456 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:08.460 AM	03HJV_0301:10AE002XB01.CIN	PA FAN_A LOP_B ON	<OFF>
11/5/2025	1:11:08.462 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:08.658 AM	03MKA_0311:10HX238.CIN	VLT BAL SCHM RLY(260)MTR PT OPTD	<ON>
11/5/2025	1:11:08.668 AM	03MKA_0311:10HX237.CIN	VLT BAL SCHM RLY(460)AVR PT OPTD	<OFF>
11/5/2025	1:11:08.747 AM	03MKA_0310:10AP201.CIN	SWC PUMP A ON	<OFF>
11/5/2025	1:11:08.818 AM	03MKA_0311:10HX239.CIN	VLT BAL SCHM RLY(160)PRO PT OPTD	<OFF>
11/5/2025	1:11:08.825 AM	03HVK_0311:20CP301.CIN	FURNACE PRESSUR EVLO	<OFF>
11/5/2025	1:11:08.827 AM	03HVK_0311:10CP302.CIN	FURNACE PRESSURE LO	<ON>
11/5/2025	1:11:08.837 AM	03MKA_0311:10HX239.CIN	VLT BAL SCHM RLY(160)PRO PT OPTD	<ON>
11/5/2025	1:11:08.838 AM	03MKA_0311:10HX237.CIN	VLT BAL SCHM RLY(460)AVR PT OPTD	<ON>
11/5/2025	1:11:08.844 AM	03MKA_0311:10HX237.CIN	VLT BAL SCHM RLY(460)AVR PT OPTD	<ON>
11/5/2025	1:11:08.850 AM	03MKA_0311:10HX237.CIN	VLT BAL SCHM RLY(460)AVR PT OPTD	<OFF>
11/5/2025	1:11:08.883 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:08.889 AM	03HLD_0301:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:08.914 AM	03HHS_0311:10AN301.CIN	SCANNER AIR FAN_A OFF	<ON>
11/5/2025	1:11:08.921 AM	03MKA_0311:10HX238.CIN	VLT BAL SCHM RLY(260)MTR PT OPTD	<ON>
11/5/2025	1:11:08.952 AM	03BAT_0311:10HX201.CIN	6.6 KV BUS US_3A UNDER VOLT OPTD	<OFF>

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5-Nov-25	1:10:50.599 AM	04PCC_04071:20AP101XB01.CIN	CLARIFERER PUMP 2 ON FDBK	<OFF>
5-Nov-25	1:10:50.603 AM	04MKA_04101:10CP203.CIN	SEAL OIL PR(TUR END_SLRN END	<OFF>
5-Nov-25	1:10:50.605 AM	04PCC_04071:20AP101XB01.CIN	CLARIFERER PUMP 2 ON FDBK	<ON>
5-Nov-25	1:10:50.646 AM	04MKA_04101:10AP203.CIN	VACUUM PUMP TRIP	<OFF>
5-Nov-25	1:10:50.656 AM	04PCC_04071:10AP101XB01.CIN	CLARIFERER PUMP 1 ON FDBK	<ON>
5-Nov-25	1:10:50.750 AM	04LAC_04041:10AP301XB01.CIN	BFP_A AOP ON	<OFF>
5-Nov-25	1:10:50.756 AM	04LAC_04041:10AP301XB01.CIN	BFP_A AOP ON	<ON>
5-Nov-25	1:10:50.762 AM	04LAC_04041:10AP301XB01.CIN	BFP_A AOP ON	<OFF>
5-Nov-25	1:10:50.811 AM	04HLD_04021:02AP002XB01.CIN	RAH_B SUPPORT BRG LOP_B ON	<OFF>
5-Nov-25	1:10:50.811 AM	04PAC_04061:60AP101XB01.CIN	SEAL WATER PUMP_C ON	<ON>
5-Nov-25	1:10:50.814 AM	04HLD_04011:01AP002XB01.CIN	RAH_A SUPP BRG LOP_B ON	<OFF>
5-Nov-25	1:10:50.817 AM	04PAC_04061:60AP101XB01.CIN	SEAL WATER PUMP_C ON	<OFF>
5-Nov-25	1:10:50.834 AM	04HNC_04111:20AN301.CIN	ID FAN B MOTOR ELECT PROT OPTD	<ON>
5-Nov-25	1:10:50.834 AM	04MKA_04101:10HX208.CIN	PWR_CONT SUPLY TO VAC PMP FAIL	<OFF>
5-Nov-25	1:10:50.844 AM	04HLD_04021:02AA201XB01.CIN	RAH_B AIR MOTOR ON	<ON>
5-Nov-25	1:10:50.862 AM	04HLD_04011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
5-Nov-25	1:10:50.870 AM	04HFC_04091:30AN202.CIN	PULV FEEDER C ON	<OFF>
5-Nov-25	1:10:50.885 AM	04HLD_04021:02AP004XB01.CIN	RAH_B GUIDE BRG LOP_B ON	<OFF>
5-Nov-25	1:10:50.889 AM	04MKA_04101:10HX256.CIN	VAPOUR EXH FAN_A	<ON>
5-Nov-25	1:10:50.891 AM	04HFC_04091:40AN202.CIN	PULV FEEDER D ON	<OFF>
5-Nov-25	1:10:50.894 AM	04HNC_04021:20AN001XB01.CIN	ID FAN_B MAIN MOTOR ON	<OFF>
5-Nov-25	1:10:50.899 AM	04HFC_04091:20AN202.CIN	PULV FEEDER B ON	<OFF>
5-Nov-25	1:10:50.903 AM	04MKA_04101:10HX208.CIN	PWR_CONT SUPLY TO VAC PMP FAIL	<ON>
5-Nov-25	1:10:50.953 AM	04HHS_04111:20AN301.CIN	SCANNER AIR FAN_B OFF	<OFF>
5-Nov-25	1:10:50.957 AM	04MKA_04101:10AP301.CIN	SEAL AIR FAN_A OFF	<OFF>
5-Nov-25	1:10:50.975 AM	04HFC_04111:20CF301.CIN	PULVERISER FDR_B COAL FLOW LOST	<ON>
5-Nov-25	1:10:50.994 AM	04MKA_04101:10CP203.CIN	SEAL OIL PR(TUR END_SLRN END	<ON>
5-Nov-25	1:10:51.059 AM	04HFC_04111:20CF301.CIN	PULVERISER FDR_B COAL FLOW LOST	<OFF>
5-Nov-25	1:10:51.060 AM	04HAY_04081:10CE107.CIN	EHC FAULT	<ON>
5-Nov-25	1:10:51.065 AM	04HFC_04111:20HX302XM07.CIN	PULV B FEEDER TRIP	<ON>
5-Nov-25	1:10:51.065 AM	04HFC_04111:30HX302XM07.CIN	PULV C FEEDER TRIP	<ON>
5-Nov-25	1:10:51.066 AM	04HFC_04111:10HX302XM07.CIN	PULV A FEEDER TRIP	<ON>
5-Nov-25	1:10:51.067 AM	04HFC_04111:40HX302XM07.CIN	PULV D FEEDER TRIP	<ON>
5-Nov-25	1:10:51.067 AM	04HHS_04111:20AN301.CIN	SCANNER AIR FAN_B OFF	<ON>
5-Nov-25	1:10:51.070 AM	04MKA_04101:10AP301.CIN	SEAL AIR FAN_A OFF	<ON>
5-Nov-25	1:10:51.072 AM	04HFC_04101:30HX302.CIN	ELEVATION_C FLAME FAILURE	<ON>
5-Nov-25	1:10:51.164 AM	04HFC_04101:20HX302.CIN	ELEVATION_B FLAME FAILURE	<ON>
5-Nov-25	1:10:51.170 AM	04LAC_04041:10CP202XG01.CIN	BFP_A LUBE OIL PR VERY LOW	<ON>
5-Nov-25	1:10:51.254 AM	04HAY_04081:10CE107.CIN	EHC FAULT	<OFF>
5-Nov-25	1:10:51.254 AM	04HFC_04091:40AN201.CIN	PULV_D MOTOR ON	<OFF>
5-Nov-25	1:10:51.256 AM	04HFC_04091:40AN201.CIN	PULV_C MOTOR ON	<OFF>
5-Nov-25	1:10:51.276 AM	04HLD_04011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
5-Nov-25	1:10:51.357 AM	04HFC_04091:30AN201.CIN	PULV_C MOTOR ON	<OFF>
5-Nov-25	1:10:51.357 AM	04HFC_04091:10AN201.CIN	PULV_A MOTOR ON	<OFF>
5-Nov-25	1:10:51.372 AM	04HLD_04021:02AA201XB01.CIN	RAH_B AIR MOTOR ON	<OFF>
5-Nov-25	1:10:51.460 AM	04MAY_04091:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<ON>
5-Nov-25	1:10:51.753 AM	04MAY_04091:10HX240.CIN	LOAD CONTROLLER ACTIVE	<OFF>
5-Nov-25	1:10:51.759 AM	04HLD_04021:02AP003XB01.CIN	RAH_B GUIDE BRG LOP_A ON	<ON>
5-Nov-25	1:10:52.204 AM	04HLD_04021:02AP001XB01.CIN	RAH_B SUPPORT BRG LOP_A ON	<ON>
5-Nov-25	1:10:52.609 AM	04HAY_04081:10CE110.CIN	EXT LOAD SPT ACTIVE	<OFF>
5-Nov-25	1:10:52.652 AM	04PAC_04061:60AP101XB01.CIN	SEAL WATER PUMP_C ON	<ON>
5-Nov-25	1:10:52.908 AM	04MAY_04091:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<OFF>
5-Nov-25	1:10:53.352 AM	04MAY_04091:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<ON>
5-Nov-25	1:10:53.358 AM	04MAY_04091:10HX240.CIN	LOAD CONTROLLER ACTIVE	<ON>
5-Nov-25	1:10:53.363 AM	04MAY_04091:10HX240.CIN	LOAD CONTROLLER ACTIVE	<ON>
5-Nov-25	1:10:53.382 AM	04MAY_04091:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<OFF>
5-Nov-25	1:10:54.166 AM	04HJF_04111:00HX301.CIN	ALL FUEL SUPPLY LOST	<ON>
5-Nov-25	1:10:54.362 AM	04HFC_04111:20HX305XM07.CIN	PULVERISER_B TRIP	<ON>

Mill/MP

Baiter
P
Fog

(1)

4-Nov-25	1:10:54.366 AM				
5-Nov-25	1:10:54.474 AM	04HHS_0411:10CG301.CIN	BOILER TRIP	<ON>	
5-Nov-25	1:10:54.789 AM	04HFC_0409:20AN201.CIN	PULV_B MOTOR ON	<OFF>	
5-Nov-25	1:10:55.351 AM	04MKA_0411:10HX232.CIN	TURB TRIP=1 OPID	<ON>	
5-Nov-25	1:10:55.389 AM	04HLD_0401:01AP001XB01.CIN	RAH_A SUPP BRG LOP_A ON	<ON>	
5-Nov-25	1:10:55.392 AM	04MAY_0411:10HX257.CIN	TURB TRIP GEAR 2 OPTD	<ON>	
5-Nov-25	1:10:55.753 AM	04MAY_0411:10HX256.CIN	TURB TRIP GEAR 1 OPTD	<ON>	
5-Nov-25	1:10:55.759 AM	04MAY_0409:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<ON>	
5-Nov-25	1:10:55.880 AM	04MAY_0409:10HX240.CIN	LOAD CONTROLLER ACTIVE	<OFF>	
5-Nov-25	1:10:56.249 AM	04HFE_0401:10AN001XB01.CIN	PA FAN_A MAIN MTR ON	<OFF>	
5-Nov-25	1:10:57.218 AM	04HFE_0402:30AN001XB01.CIN	PA FAN_C MAIN MOTOR ON	<OFF>	
5-Nov-25	1:10:57.956 AM	04HNC_0402:20CG003XG01.CIN	ID FAN_B LUBE OIL PR LOW	<ON>	
5-Nov-25	1:10:57.960 AM	04HBK_0411:10CP303.CIN	FURNACE PRESSURE HI	<ON>	
5-Nov-25	1:10:58.260 AM	04HBK_0411:20CP301.CIN	FURNACE PRESSUR EVLO	<ON>	
5-Nov-25	1:10:58.953 AM	04HAY_0408:10CE107.CIN	EHC FAULT	<ON>	
5-Nov-25	1:10:58.959 AM	04MAY_0409:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<OFF>	
5-Nov-25	1:10:58.984 AM	04MAY_0409:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<ON>	
5-Nov-25	1:10:58.984 AM	04MAY_0409:10CP213.CIN	PRESSURE CONTROLLER ACTIVE	<OFF>	
5-Nov-25	1:10:59.349 AM	04HJF_0411:00HX301.CIN	ALL FUEL SUPPLY LOST	<OFF>	
5-Nov-25	1:10:59.452 AM	04MKA_0402:04MKA10RP001.CIN	REVERSE POWER ON TUR TRIP	<ON>	
5-Nov-25	1:10:59.463 AM	04MKA_0411:10HX244.CIN	GEN LOCKOUT RELAY(86 G) ENGD	<ON>	
5-Nov-25	1:10:59.471 AM	04MKA_0411:10HX248.CIN	GEN LOCKOUT RELAY (86 GB) ENGD	<ON>	
5-Nov-25	1:10:59.482 AM	04MKA_0402:10GCB003.CIN	GT4 220 KV BREAKER CLOSE	OFF	
5-Nov-25	1:10:59.486 AM	04MKA_0411:10HX248.CIN	GEN LOCKOUT RELAY (86 GB) ENGD	<OFF>	
5-Nov-25	1:10:59.492 AM	04MKA_0411:10HX248.CIN	GEN LOCKOUT RELAY (86 GB) ENGD	<ON>	
5-Nov-25	1:10:59.507 AM	04MKA_0402:04MKA10RP001.CIN	REVERSE POWER ON TUR TRIP	<OFF>	
5-Nov-25	1:10:59.515 AM	04MKA_0411:10HX252.CIN	GT4 220 KV BREAKER OPEN	<ON>	
5-Nov-25	1:10:59.521 AM	04MKA_0411:10HX252.CIN	GT4 220 KV BREAKER OPEN	<OFF>	
5-Nov-25	1:10:59.527 AM	04MKA_0411:10HX252.CIN	GT4 220 KV BREAKER OPEN	<ON>	
5-Nov-25	1:10:59.971 AM	04HFC_0411:20CF301.CIN	PULVERISER FDR_B COAL FLOW LOST	<ON>	
5-Nov-25	1:11:00.056 AM	04HHS_0411:20AN301.CIN	SCANNER AIR FAN_B OFF	<OFF>	
5-Nov-25	1:11:00.060 AM	04MKA_0410:10AP301.CIN	SEAL AIR FAN_A OFF	<OFF>	
5-Nov-25	1:11:00.189 AM	04MKA_0411:10HX239.CIN	VLT BAL SCHM RLY(160)PRO PT OPTD	<OFF>	
5-Nov-25	1:11:00.271 AM	04HFC_0411:20CF301.CIN	PULVERISER FDR_B COAL FLOW LOST	<OFF>	
5-Nov-25	1:11:00.278 AM	04HHS_0411:20AN301.CIN	SCANNER AIR FAN_B OFF	<ON>	
5-Nov-25	1:11:00.280 AM	04MKA_0410:10AP301.CIN	SEAL AIR FAN_A OFF	<ON>	
5-Nov-25	1:11:00.294 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<OFF>	
5-Nov-25	1:11:00.301 AM	04MKA_0410:10HX272.CIN	STATOR WATER PUMP_A TRIPPED	<OFF>	
5-Nov-25	1:11:00.354 AM	04HHS_0411:10AN301.CIN	SCANNER AIR FAN_A OFF	<ON>	
5-Nov-25	1:11:00.354 AM	04MKA_0411:10HX239.CIN	VLT BAL SCHM RLY(160)PRO PT OPTD	<ON>	
5-Nov-25	1:11:00.527 AM	04MKA_0410:10AP203.CIN	VACUUM PUMP TRIP	<ON>	
5-Nov-25	1:11:00.763 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<ON>	
5-Nov-25	1:11:00.962 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<OFF>	
5-Nov-25	1:11:00.968 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<ON>	
5-Nov-25	1:11:00.974 AM	04MKA_0410:10AP201.CIN	SWC PUMP A ON	<ON>	
5-Nov-25	1:11:00.974 AM	04MKA_0410:10HX272.CIN	STATOR WATER PUMP_A TRIPPED	<ON>	
5-Nov-25	1:11:00.980 AM	04MKA_0410:10HX272.CIN	STATOR WATER PUMP_A TRIPPED	<OFF>	
5-Nov-25	1:11:00.980 AM	04HHS_0411:10AN301.CIN	SCANNER AIR FAN_A OFF	<OFF>	
5-Nov-25	1:11:01.151 AM	04HHS_0411:20AN301.CIN	SCANNER AIR FAN_B OFF	<OFF>	
5-Nov-25	1:11:04.155 AM	04HBK_0411:20CP301.CIN	FURNACE PRESSUR EVLO	<OFF>	
5-Nov-25	1:11:04.155 AM	04MKA_0410:20AP301.CIN	SEAL AIR FAN_B TRIP OFF	<ON>	
5-Nov-25	1:11:11.665 AM	04HAD_0401:01CL901XG01.CIN	DRUM LVL VERY LOW	<ON>	
5-Nov-25	1:11:12.676 AM	04HFE_0410:10CP302.CIN	HOT PA HDR PRESSURE V LO	<ON>	
5-Nov-25	1:11:18.259 AM	04LAD_0410:50CL302.CIN	HPH_5 LEVEL HI	<ON>	
5-Nov-25	1:11:32.438 AM	04HBK_0411:10CP303.CIN	FURNACE PRESSURE HI	<OFF>	
5-Nov-25	1:11:34.162 AM	04HHL_0411:22CF301.CIN	BOILER AIR FLOW <30%	<ON>	
5-Nov-25	1:11:43.764 AM	04HAD_0401:01CL901XG01.CIN	DRUM LVL VERY LOW	<OFF>	
5-Nov-25	1:11:53.667 AM	04LAD_0410:60CL302.CIN	HPH_6 LEVEL HI	<ON>	
5-Nov-25	1:12:25.655 AM	04LAD_0410:60CL302.CIN	HPH_6 LEVEL HI	<ON>	
5-Nov-25	1:13:21.719 AM	04LBG_0410:10CP301.CIN	AUX STM HEADER PR. LO	<ON>	
5-Nov-25	1:13:42.577 AM	04LAD_0410:60CL302.CIN	HPH_6 LEVEL HI	<OFF>	

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11/5/2025	1:10:57.169 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	
11/5/2025	1:10:57.298 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:57.304 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:10:57.451 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:57.457 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:10:57.616 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:57.622 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:10:58.354 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:58.360 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:10:58.766 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:58.772 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:10:58.840 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:58.846 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:10:59.146 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:59.152 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:10:59.714 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:59.720 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:10:59.721 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:10:59.723 AM	03HBK_03111:20CP301.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:00.091 AM	03HBK_03111:10CP302.CIN	FURNACE PRESSUR EVLO	<ON>
11/5/2025	1:11:00.097 AM	03HLD_03011:01AA201XB01.CIN	FURNACE PRESSURE LO	<ON>
11/5/2025	1:11:00.533 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:00.539 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:00.606 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:00.612 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:00.680 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:00.686 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:00.889 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:00.895 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:01.257 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:01.263 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:01.465 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:01.471 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:01.780 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:01.786 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:01.969 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:01.975 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:02.007 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:02.013 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:02.104 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:02.111 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:02.274 AM	03HFC_03091:50AN202.CIN	PULV FEEDER E ON	<OFF>
11/5/2025	1:11:02.320 AM	03HFC_03111:30HX305XM07.CIN	PULVERISER_C TRIP	<ON>
11/5/2025	1:11:02.320 AM	03HFC_03111:40HX305XM07.CIN	PULVERISER_D TRIP	<ON>
11/5/2025	1:11:02.322 AM	03HFC_03111:50HX305XM07.CIN	PULVERISER_E TRIP	<ON>
11/5/2025	1:11:02.323 AM	03HHS_03111:10CG301.CIN	BOILER TRIP	<ON>
11/5/2025	1:11:02.323 AM	03HFC_03111:60HX305XM07.CIN	PULVERISER_F TRIP	<ON>
11/5/2025	1:11:02.330 AM	03HFC_03101:40HX302.CIN	ELEVATION_D FLAME FAILURE	<ON>
11/5/2025	1:11:02.330 AM	03HFC_03091:50AN201.CIN	PULV_E MOTOR ON	<OFF>
11/5/2025	1:11:02.412 AM	03HFC_03111:50HX302XM07.CIN	PULV_E FEEDER TRIP	<ON>
11/5/2025	1:11:02.414 AM	03MAY_03111:10HX268.CIN	BOILER FIRE OFF	<ON>
11/5/2025	1:11:02.560 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:02.732 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:02.738 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:02.820 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:02.826 AM	03HLD_03011:01AA201XB01.CIN	TURB TRIP=1 OPTD	<ON>
11/5/2025	1:11:03.149 AM	03MKA_03111:10HX232.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:03.483 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:03.489 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:03.557 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:03.563 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:03.651 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:03.657 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<OFF>
11/5/2025	1:11:03.866 AM	03HLD_03011:01AA201XB01.CIN	RAH_A AIR MTR ON	<ON>
11/5/2025	1:11:03.872 AM	03HBK_03111:20CP301.CIN	FURNACE PRESSUR EVLO	<OFF>
11/5/2025	1:11:03.902 AM	03HBK_03111:10CP302.CIN	FURNACE PRESSURE LO	<ON>
11/5/2025	1:11:03.903 AM	03HFE_03011:10AN001XB01.CIN	PA FAN_A MAIN MTR ON	<OFF>
11/5/2025	1:11:04.062 AM			

U#5

AC/RT	Time	ms	Name	Signal	Description	Value/Quality	Limit
-	11/5/2025 01:10:34	188	HFE20CP201_XG01		PAF B LUB LIL PR > 0.8	ALARM NORMAL RN	
-	11/5/2025 01:10:34	180	05HFE20AP301_XB02		PAF B LOP A OFF FB	ALARM NORMAL RN	
•	11/5/2025 01:10:34	180	05HFE20AP301_XB01		PAF B LOP A ON FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:34	185	05HNC20AA302A_XG01		IDF B O/L DMPR TEST	ALARM NORMAL RN	
•	11/5/2025 01:10:34	055	05BAC01EH057_XG01		TRIP RELAY 86 TTR	ALARM ACTIVE AL	
-	11/5/2025 01:10:34	026	05HFE30AP301_XB02		PA C LOP A OFF FB	ALARM NORMAL RN	
+	11/5/2025 01:10:34	026	05HFE30AP301_XB01		PA C LOP A ON FB	ALARM ACTIVE AL	
+	11/5/2025 01:10:34	026	05LAC36CP206_XG01		BFP C LOP VLO	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	872	05HLD20AN001T_XG01		RAH B ELEC MOTOR TRIP	ALARM NORMAL RN	
+	11/5/2025 01:10:33	865	05HFE20AP301_PSP_1		PAF B LOP B TRIP	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	881	05HLB10AN001_FLT_5		FD FAN A TRIPPED	ALARM ACTIVE AL	
•	11/5/2025 01:10:33	857	05HFE10AN001_PSP_3		MFR TRIP	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	852	05HBK10ED002_XG01		MFR TRIP	ALARM NORMAL RN	
-	11/5/2025 01:10:33	848	05HLD20AP301_XB02		RAH B GUIDFE BRG LOP A OFF FB	ALARM ACTIVE AL	
•	11/5/2025 01:10:33	848	05HLD20AP301_XB01		RAH B GUIDFE BRG LOP A ON FB	ALARM ACTIVE AL	
•	11/5/2025 01:10:33	841	05HLB10AN001_XB02		FD FAN A OFF FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	841	05HLB10AN001_XB01		FD FAN A ON FB	ALARM NORMAL RN	
+	11/5/2025 01:10:33	860	05HFE30AP301_PSP_1		PAF C LOP A TRIP	ALARM ACTIVE AL	
•	11/5/2025 01:10:33	553	05HLD20AN001T_XG01		RAH B ELEC MOTOR TRIP	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	531	05HLD20AN001_FLT_5		RAH B MAIN MTR TRIPPED	ALARM NORMAL RN	
+	11/5/2025 01:10:33	525	05HFE20AP302_FLT_5		PA B LOP-B TRIPPED	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	515	05HLB20AN001T_XG01		FD FAN-B MOTOR TRIP	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	511	05HLD10AP304_FLT_5		RAH A GUIDE BRG LOP B TRIPPED	ALARM NORMAL RN	
•	11/5/2025 01:10:33	509	05HFE20AP302_XB02		PAF B LOP BOFF FB	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	508	05HLB10AN001_PSP_3		FD FAN A TRIP ON IDF PROT	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	455	05LCB20CE201DA_XG01		CEP B TRIP	ALARM NORMAL RN	
-	11/5/2025 01:10:33	463	04-NT-13_XG01		CEP B OFF SWGR	ALARM NORMAL RN	
+	11/5/2025 01:10:33	341	05HFE30AP302_FLT_5		PA C LOP B TRIPPED	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	327	05HFE30AP302_XB02		PA C LUB PIL PMP B OFF FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	327	05HFE30AP302_XB01		PA C LUB PIL PMP B ON FB	ALARM NORMAL RN	
+	11/5/2025 01:10:33	232	05LCB10AA109_XG01		CEP A OFF SWGR	ALARM ACTIVE AL	
•	11/5/2025 01:10:33	192	05HLD20AN001_FLT_5		RAH B MAIN MTR TRIPPED	ALARM ACTIVE AL	
•	11/5/2025 01:10:33	192	05HLD20AP302_FLT_5		RAH B GUIDE BRG LOP B TRIPPED	ALARM ACTIVE AL	
•	11/5/2025 01:10:33	191	05HFO11AA302_FLT_5		HVY FUEL OIL PMP B TRIPPED	ALARM ACTIVE AL	
•	11/5/2025 01:10:33	190	05HLB20AN001_FLT_5		FD FAN B TRIPPED	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	172	05HFO11AA302_XB02		HEAVY FUEL OIL PMP BOFF FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	172	05HFO11AA302_XB01		HEAVY FUEL OIL PMP BON FB	ALARM NORMAL RN	
+	11/5/2025 01:10:33	170	05HLD20AP302_XB02		RAH B GUIDFE BRG LOP BOFF FB	ALARM ACTIVE AL	



Unit

U#5

Company

AC/RT	Time	ms	Name	Signal	Description	Value/Quality	Limit
-	11/5/2025 01:10:33	170	05HLD20AP302_XB01		RAH B GUIDFE BRG LOP BON FB	ALARM NORMAL RN	
-	11/5/2025 01:10:33	170	05HLD20AN003A_XB02		RAH B AIR MTRCLS FB	ALARM NORMAL RN	
+	11/5/2025 01:10:33	170	05HLD20AN003_XB01		RAH B AIR MTROPEN FB	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	170	05HLD20AN001_XB02		RAH B MAIN MTROFF FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	170	05HLD20AN001_XB01		RAH B MAIN MTRON FB	ALARM NORMAL RN	
-	11/5/2025 01:10:33	170	05HFE20AP302_XB01		PAF B LOP BON FB	ALARM NORMAL RN	
+	11/5/2025 01:10:33	169	05HLD10AP304_FLT_6		RAH A GUIDE BRG LOP B TRIPPED	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	169	05HLD10AP303_FLT_5		RAH A SPRT BRG LOP A TRIPPED	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	169	05HLB20AN001_XB02		FDF FAN- B MTROFF FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	169	05HLB20AN001_XB01		FDF FAN- B MTRON FB	ALARM NORMAL RN	
+	11/5/2025 01:10:33	169	05HNC20AA302A_XG01		IDF B OIL DMPR TEST	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	165	05HNC10AN001_FLT_5		ID FAN A TRIPPED	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	164	05HNC10AN001_PSP_5		IDF A MTR ELEC PROT	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	158	05HFC11CP102A_XG01		MILL-AB SEAL AIR DP NOT OK	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	157	05HNC10AN001_XB32		IDF FAN-A ELECT PROT ACTED	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	153	05BAT13CE080_XG01		SSS-III B BUS UNDER VOLT ALRM	ALARM ACTIVE AL	
+	11/5/2025 01:10:33	150	05HLD10AP302_XB02		RAH A GUIDFE BRG LOP BOFF FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	150	05HLD10AP302_XB01		RAH A GUIDFE BRG LOP BON FB	ALARM NORMAL RN	
+	11/5/2025 01:10:33	150	05HLD10AP303_XB02		RAH A SUPPORT BRG LOP AOFF FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	150	05HLD10AP303_XB01		RAH A SUPPORT BRG LOP AON FB	ALARM NORMAL RN	
+	11/5/2025 01:10:33	148	05HNC10AN001_XB02		IDF FAN-A OFF FB	ALARM ACTIVE AL	
-	11/5/2025 01:10:33	148	05HNC10AN001_XB01		IDF FAN-A ON FB	ALARM NORMAL RN	



**Multiple element tripping event at
220kV RSJPL(IP)
at 13:40 hrs on 07.11.2025**

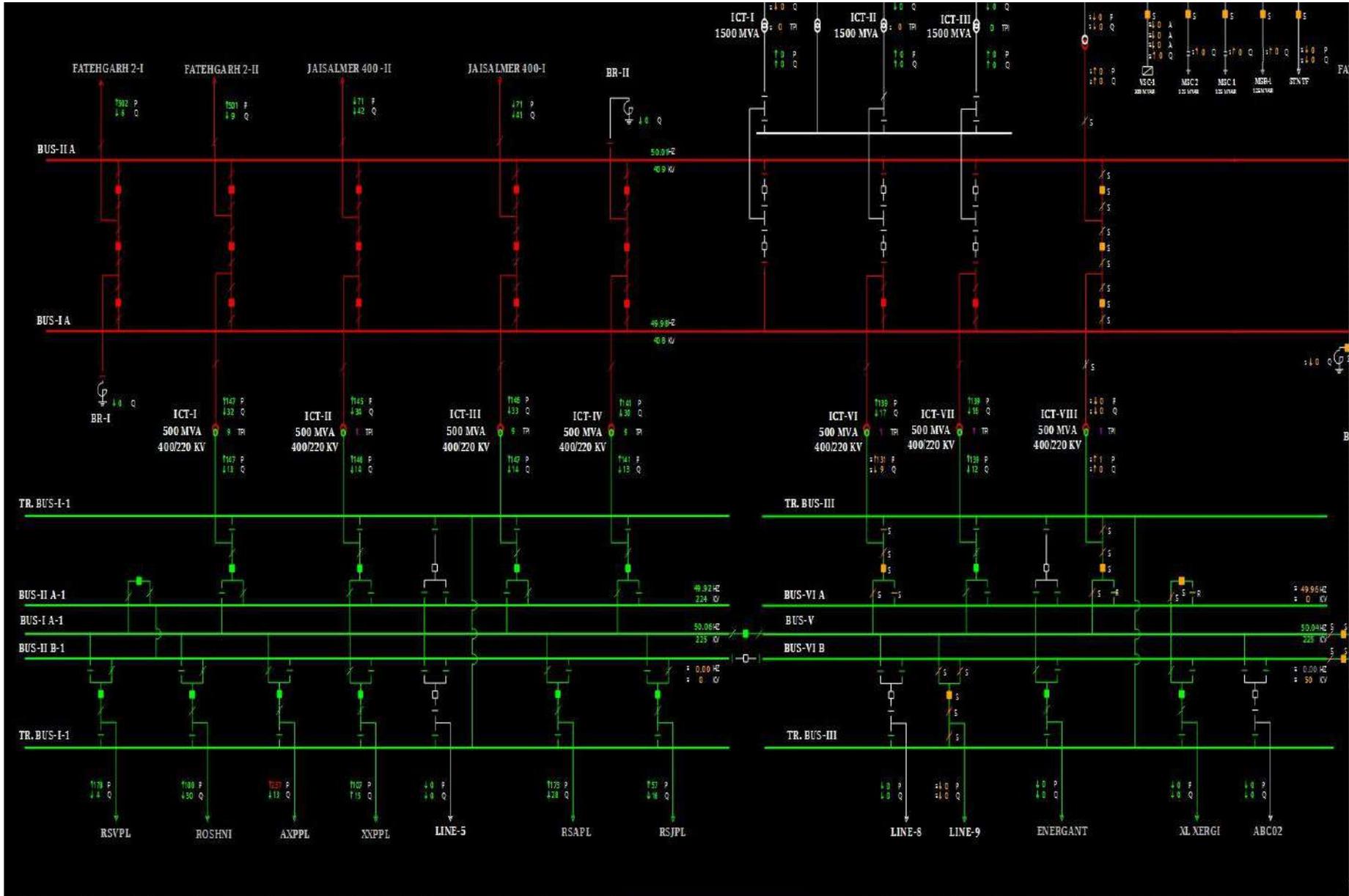
Tripped Elements

S. No	Name of Elements	Outage Time	Revival Time	Reason of tripping
1.	220kV Fatehgarh III-RSJPL line	13:40 hrs	14:14 hrs	Earth fault (as reported)

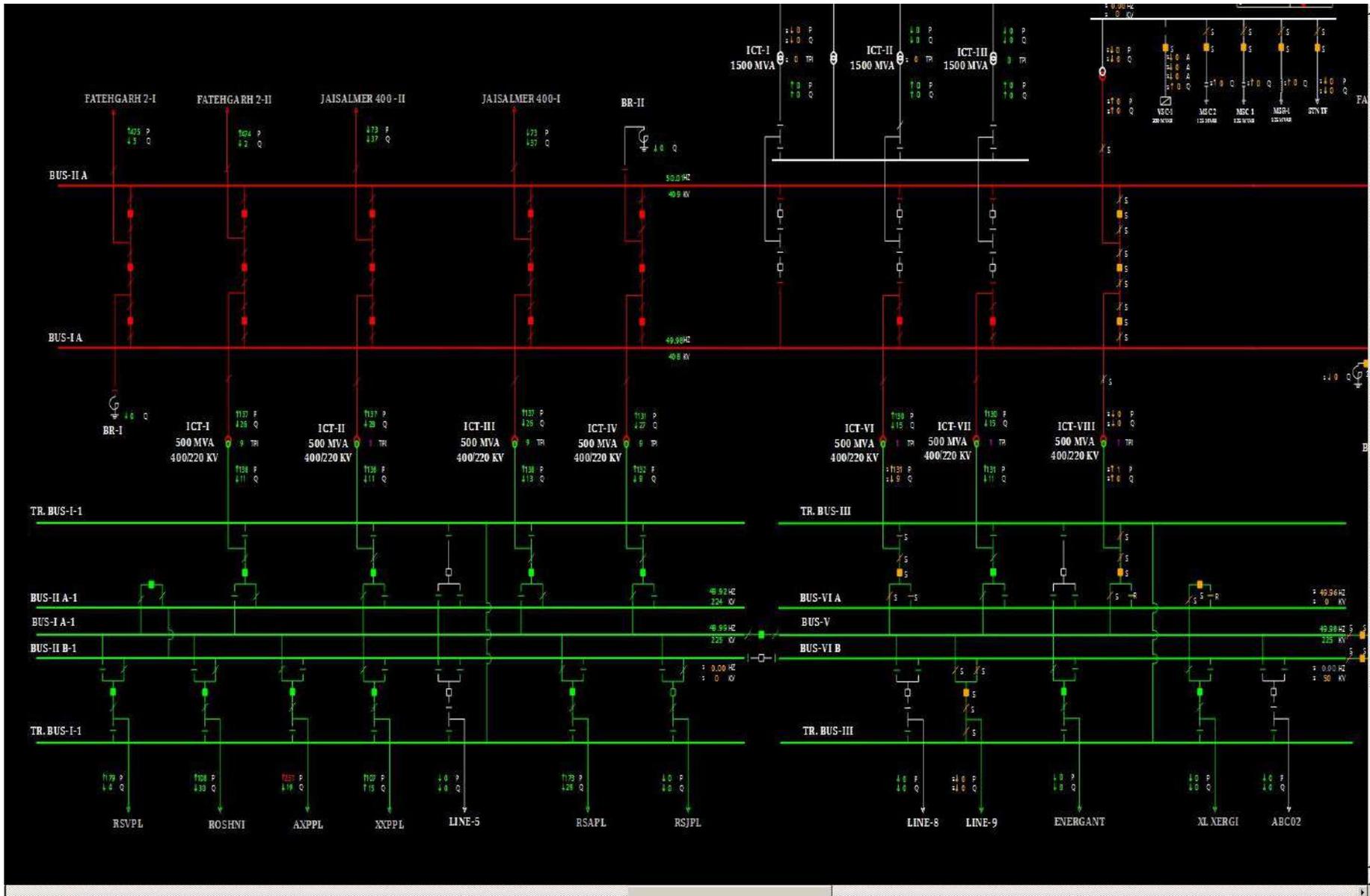
Brief details of the event

- i. Generation of 220kV Renew Surya Jyoti Pvt Ltd. (RSJPL) (IP) station evacuates through 220 KV RSJPL-Fatehgarh_III line.
- ii. During antecedent condition, 220kV RSJPL(IP) station was generating approx. 60 MW (as per PMU).
- iii. As reported, at 13:40 hrs, 220kV Fatehgarh_III-RSJPL line tripped on earth fault.
- iv. As per PMU at Fatehgarh_III(PG), no fault and fluctuation in voltage was observed in the system
- v. As per PMU MW data of RSJPL, solar generation loss of ~60 MW observed at RSJPL Restation. As per SCADA, no significant change in NR solar generation loss is observed.

SLD of 400/220kV Fatehgarh III(PG) before the event



SLD of 400/220kV Fatehgarh III(PG) after the event



SLD of 220kV RSJPL(IP) before the event

RENEW SURYA JYOTI (200MW)

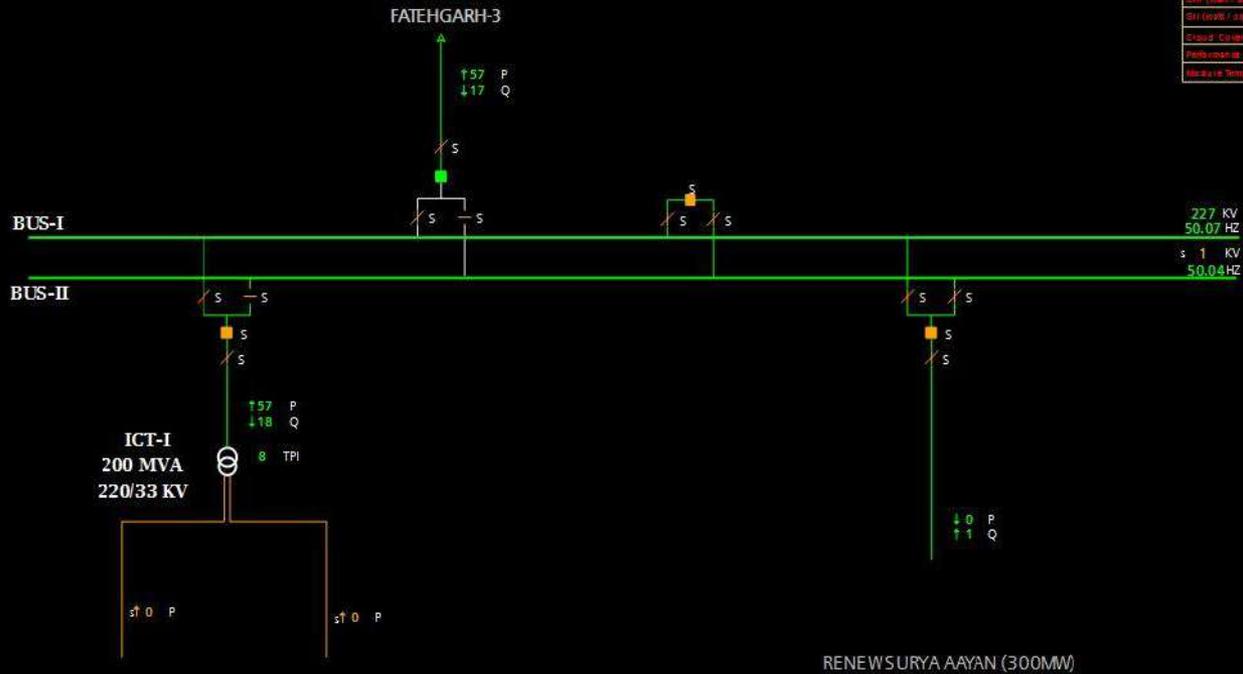
Stat Expl GenSum Company

7 .11 .25 13 :37 : 0

CONTACT DETAILS

EMAIL	
MOBILE	
HOTLINE	20112585

	Set point
Active Power Control Mode	⬇ 210.0
Passive Power Control Mode	⬇ 15.00
PI Control Mode	⬇ 1.00
Voltage Control Mode	⬇ 220.0
Frequency Control Mode	⬇ 50.00
Voltage Feedback Droop	⬇ 4.00
Dead Time	⬇ 1.00
Total Number of Inverter	⬇ 878.0
Total Number of Inverter in Invert	⬇ 878.0
Wind Speed Ref	⬇ 0.00
Ambient Air Temperature (log in Celsius)	⬇ 15.52
Relative Humidity (log in relative unit)	⬇ 75.02
Wind Direction (log in)	⬇ 90.34
Rainfall (mm/hr)	⬇ 0.00
GH Invert Log in	⬇ 47.28
Stratflow (log in)	⬇ 58.10
Cooling Curve (log in)	⬇ 2.08
Performance Rating	⬇ *****
Modbus Temperature (log in Celsius)	⬇ 14.82



Fri November 7 2025 13:37:00

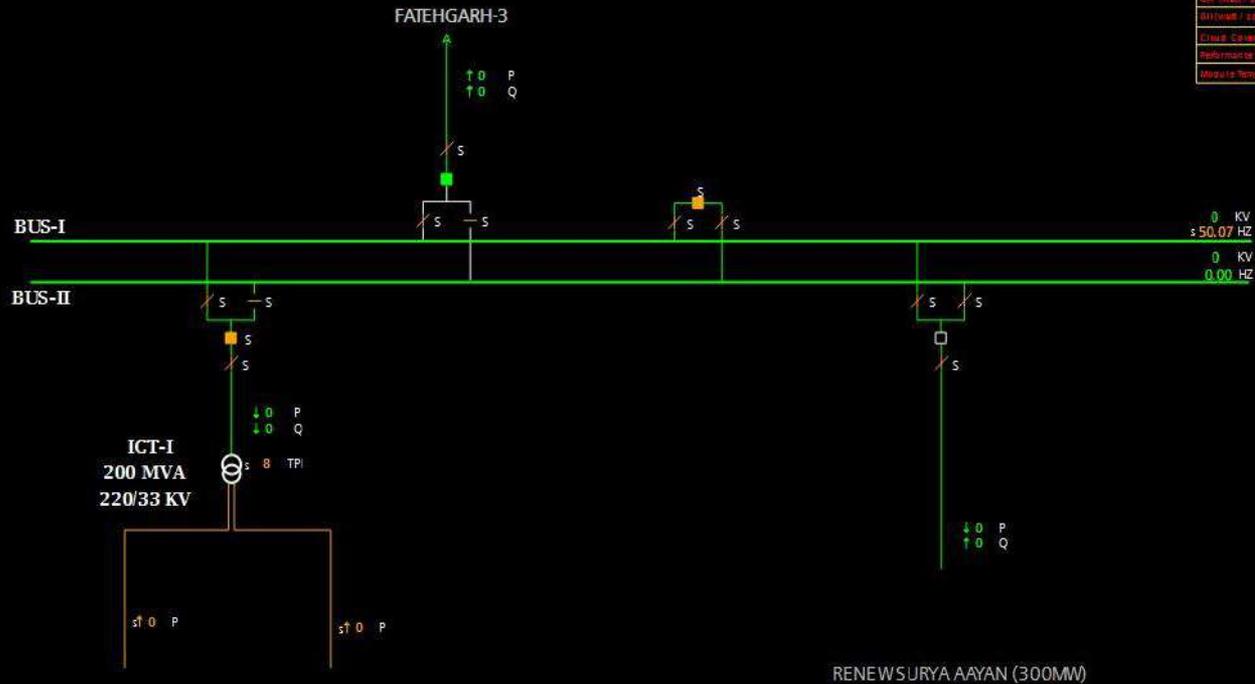
SLD of 220kV RSJPL(IP) after the event

RENEW SURYA JYOTI (200MW)

Stat Expl GenSum Company
7 .11 .25 13 :41 : 0

CONTACT DETAILS	
EMAIL	
MOBILE	
HOTLINE	20112585

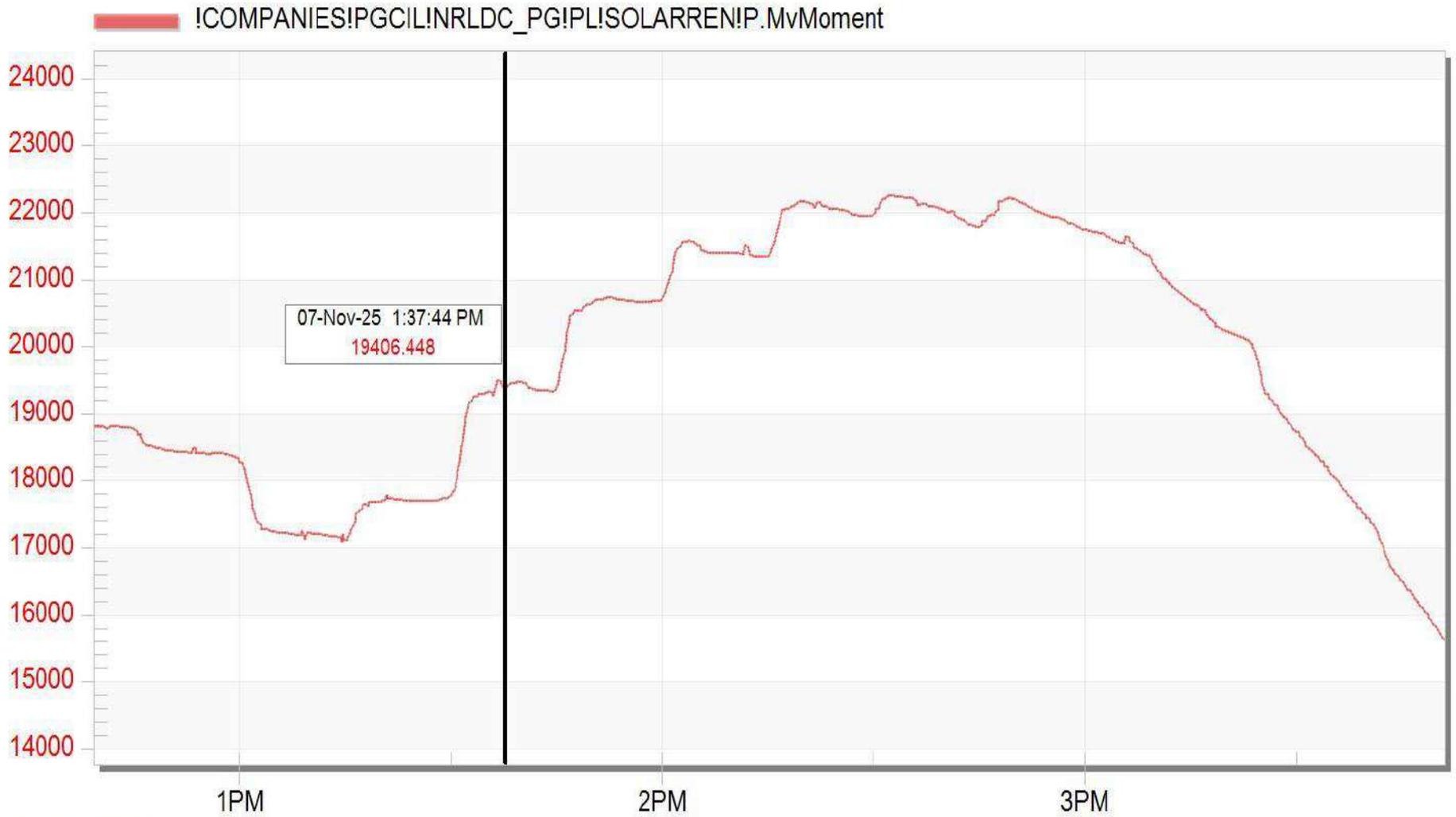
Item	Value
Active Power Control Mode	210.0
Reactive Power Control Mode	15.00
Pf Control Mode	1.00
Voltage Control Mode	220.0
Regulation Control Mode	50.00
Voltage Feedback (p.u.)	4.00
Wind Speed (m/s)	1.00
Total Number of Inverters in Service	878.0
Total Number of Inverters in Service	878.0
Wind Speed (m/s)	0.00
Ambient Air Temperature (degrees Celsius)	15.52
Relative Humidity (percent)	75.02
Wind Direction (degrees)	90.34
Wavelength (m)	0.00
Wavelength (m)	47.28
Wavelength (m)	58.10
Wind Speed (m/s)	2.08
Reference Voltage	*****
Module Temperature (degrees Celsius)	14.82



Fri November 7 2025 13:41:00

NR Solar Generation during the event

Solar Generation



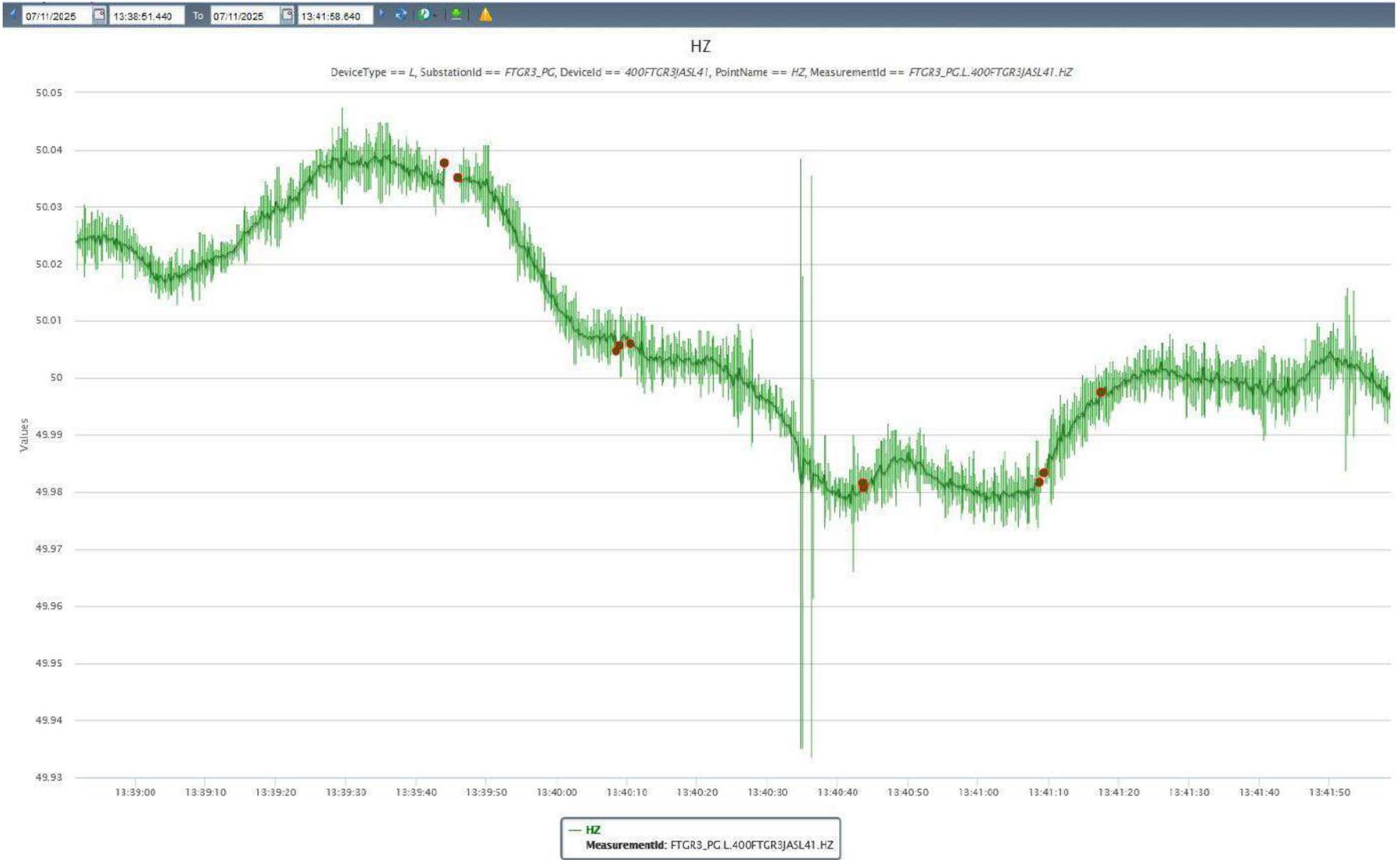
Nov 7 Fri 2025

MW PMU data of RSJPL RE station



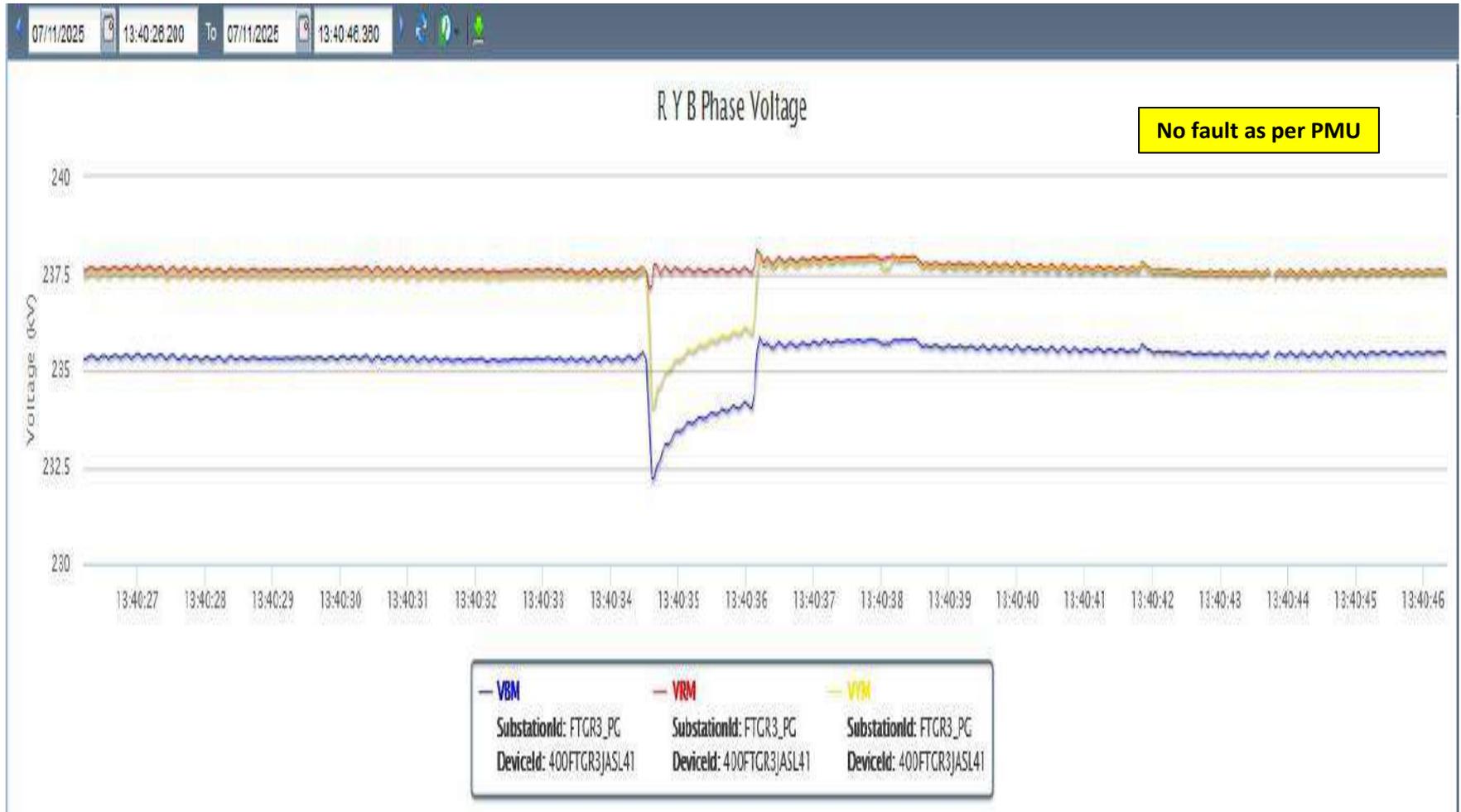
PMU Plot of frequency at Fatehgarh III(PG)

13:40hrs/07-Nov-25



PMU Plot of phase voltage at Fatehgarh(IP)

13:40hrs/07-Nov-25



SCADA SOE

Time	Station Event	Voltage(kV)	Element Name	Element Type	Element Status	Remarks
13:40:36,150	RSJPL_IP	220	04NRVPL	Circuit Breaker	Open	Line CB at RSJPL end of 220kV RSJPL-Fatehgarh_III line opened
13:40:36,185	FTGR3_P	220	12LINE7	Circuit Breaker	Open	Line CB at Fatehgarh_III end of 220kV RSJPL-Fatehgarh_III line opened

Points of Discussion

- i. Exact reason of tripping need to be shared.
- ii. Exact location and nature of fault need to be shared.
- iii. DR/EL along with tripping report need to be shared.
- iv. Remedial action taken report to be shared.

**Multiple element tripping event at
220/132/33kV Jammu/Gladni(J&K)
at 16:24 hrs on 10.11.2025**

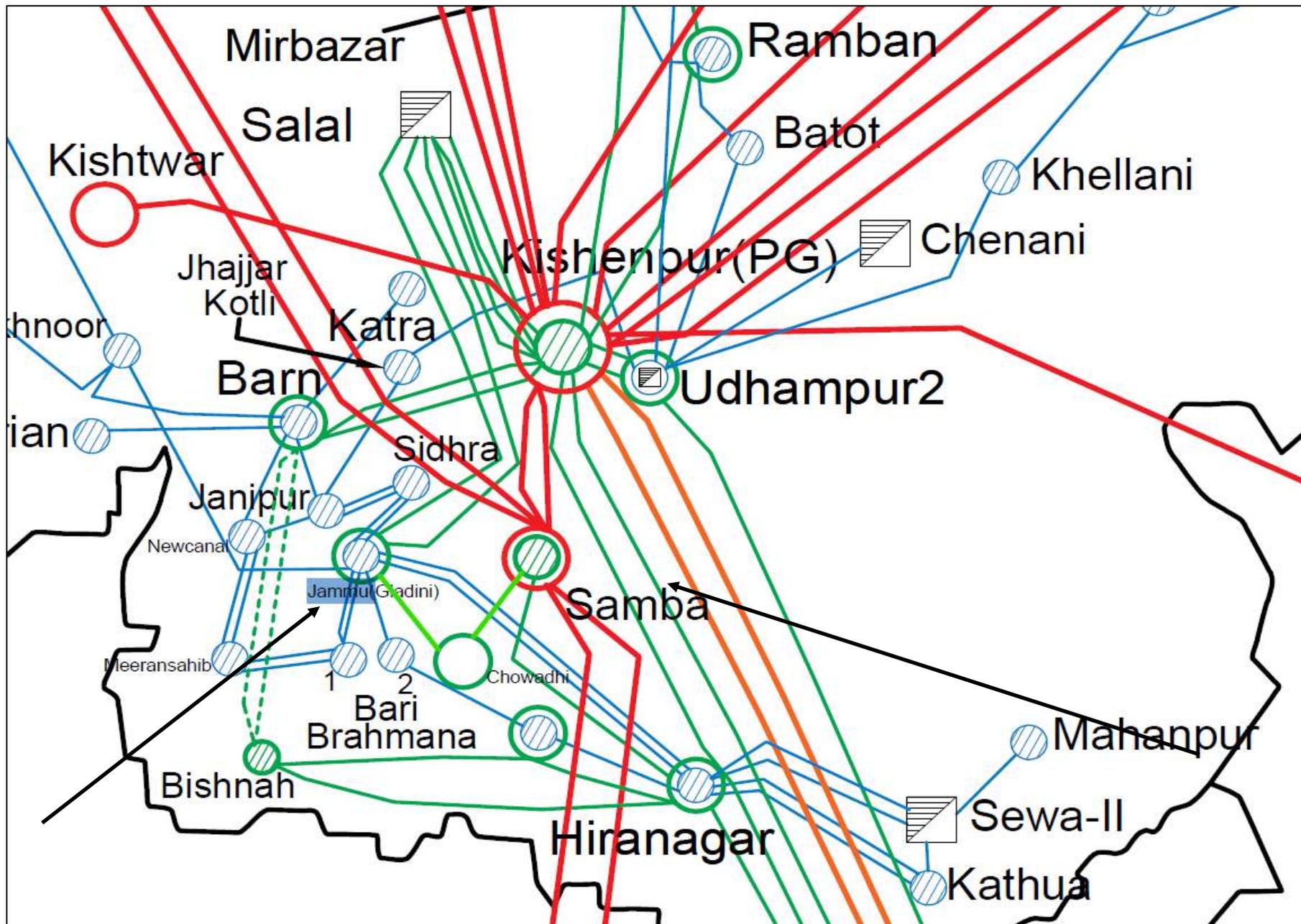
Tripped Elements

S. No	Name of Elements	Outage Time	Revival Time	Reason of tripping
1.	220 KV Salal(NH)- Jammu(PDD) (PG) Ckt-1	16:24 hrs	17:34 hrs	Blasting of 132 KV CT of B-ph Bus coupler bay
2.	220 KV Salal(NH)- Jammu(PDD) (PG) Ckt-2		17:34 hrs	

Brief details of the event

- i. 220/132/33kV Jammu/Gladni(J&K) S/s have double main bus arrangement at 220kV side.
- ii. During antecedent condition, 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-1 & 2 were carrying 73 MW and 64 MW respectively (as per SCADA).
- iii. As reported, at 16:24 hrs, 132 KV CT of B-ph Bus coupler bay blasted. During the same time, 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-1 & 2 tripped from Salal end (exact nature and location of fault yet to be shared).
- iv. As per DR at Salal(NH) end, B-N fault converted to R-B-N fault again converted to R-Y-B fault occurred. Fault current was $I_r \sim 2.105\text{kA}$, $I_y \sim 2.148\text{kA}$, $I_b \sim 2.036\text{kA}$ from Salal end for 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-1 and $I_r \sim 1.852\text{kA}$, $I_y \sim 1.951\text{kA}$, $I_b \sim 1.877\text{kA}$ from Salal end for 220 KV Salal(NH)-Jammu(PDD) (PG) Ckt-2. Fault sensed in zone-3 at Salal end. Line tripped from Salal end after zone-3 time delay.
- v. As per PMU at Kishenpur(PG), R-B phase to phase fault converted to 3-phase fault was observed with delayed fault clearing time of 1040ms.
- vi. As per SCADA, change in demand of approx. 180 MW is observed in J&K control area.

Network Diagram



SLD of 220kV Salal(NHPC) before the event

CONTACT DETAILS

salaloperation@yahoo.co.in

9419169905 / 9906904964

20112462

P sum(220 kV) = 5 81

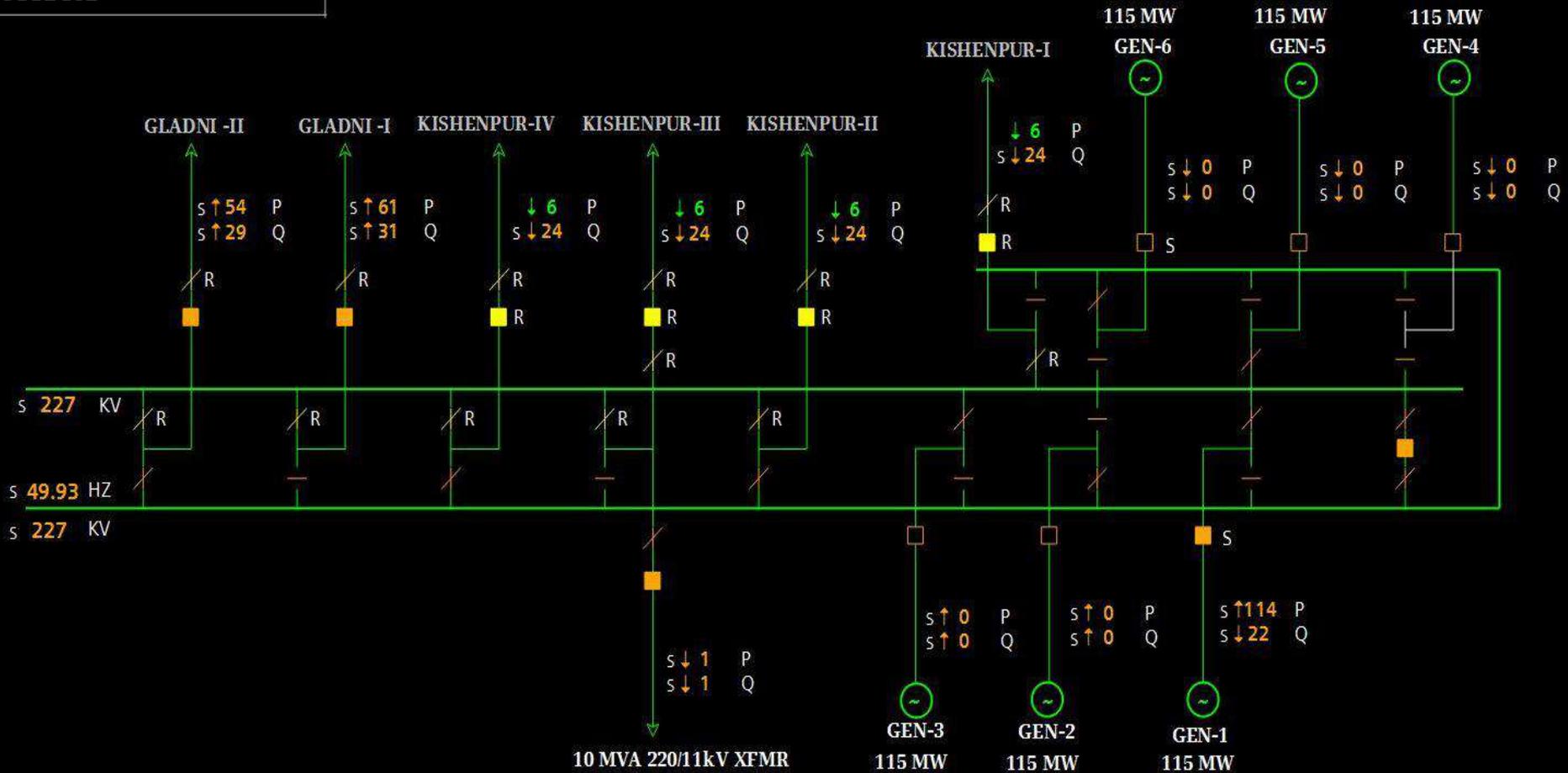
SALAL

Q sum(220 kV) = 5 -14

Stat Expl GenSum Company

10.11.25 16:21:59

SCADA data frozen



SLD of 220kV Salal(NHPC) after the event

CONTACT DETAILS

salaloperation@yahoo.co.in

9419169905 / 9906904964

20112462

P sum(220 kV) = 5 81

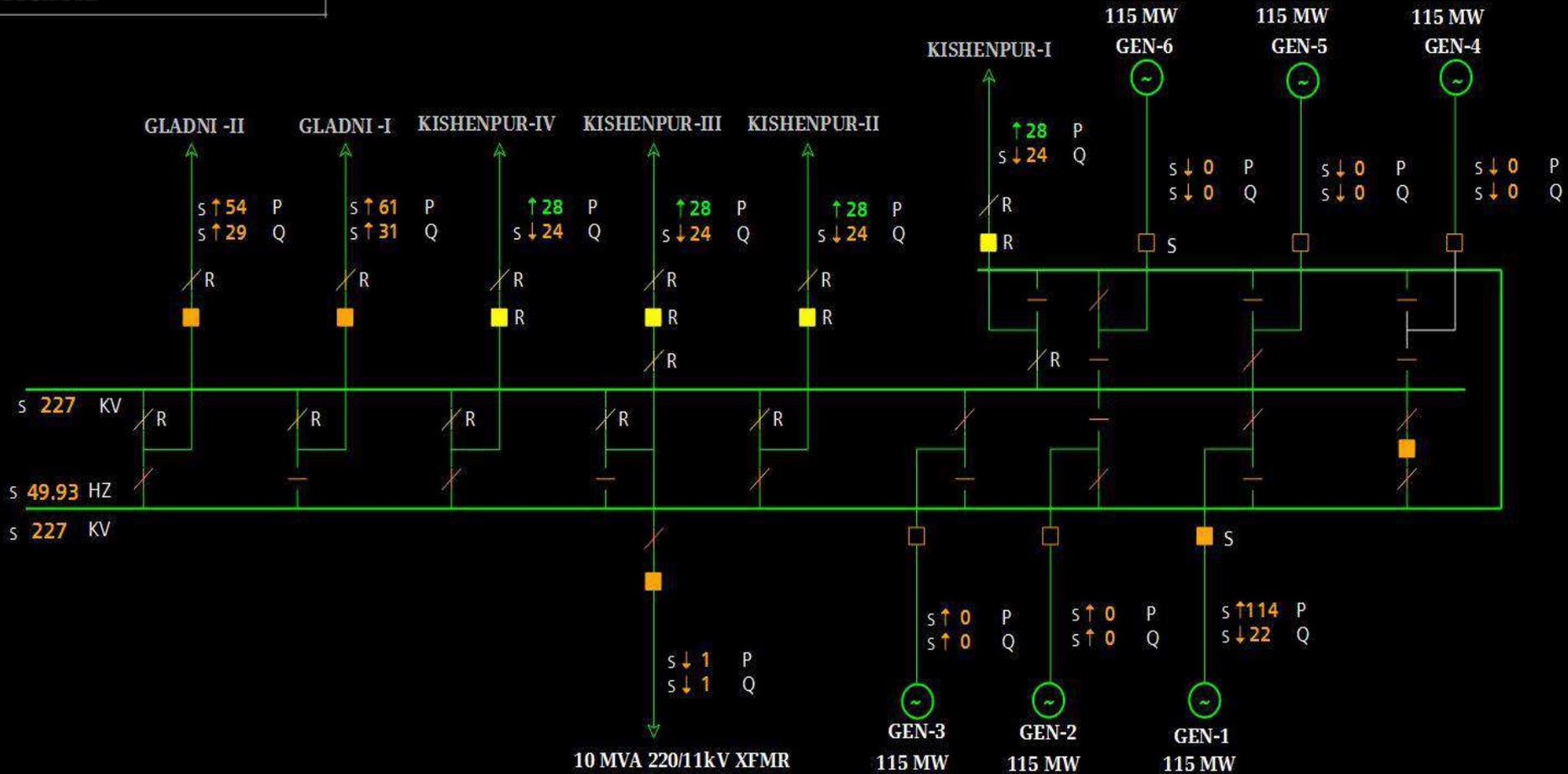
SALAL

Q sum(220 kV) = 5 -14

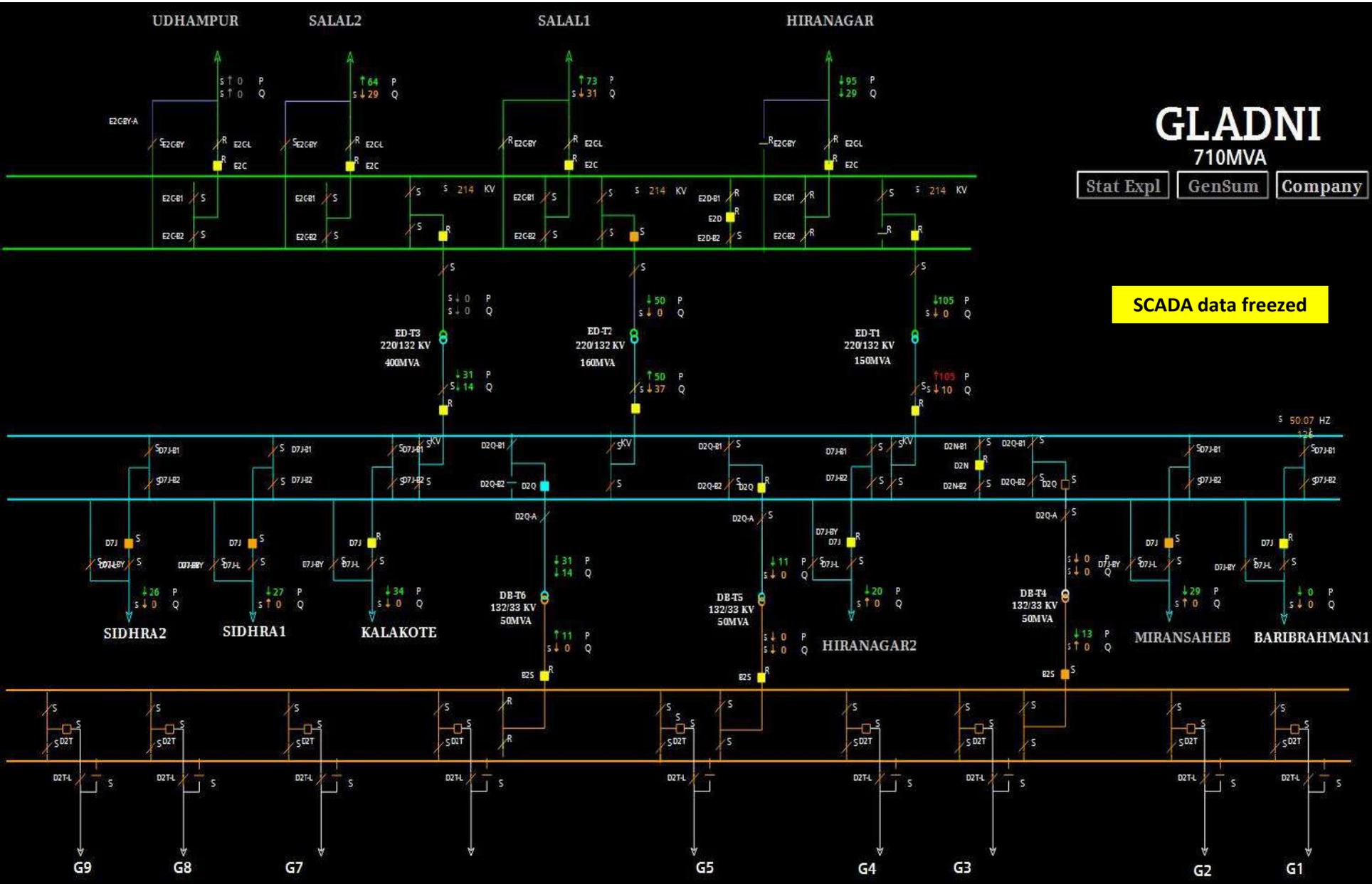
Stat Expl GenSum Company

10.11.25 16:26:59

SCADA data frozen



SLD of 220/132/33kV Jammu/Gladni(J&K) before the event

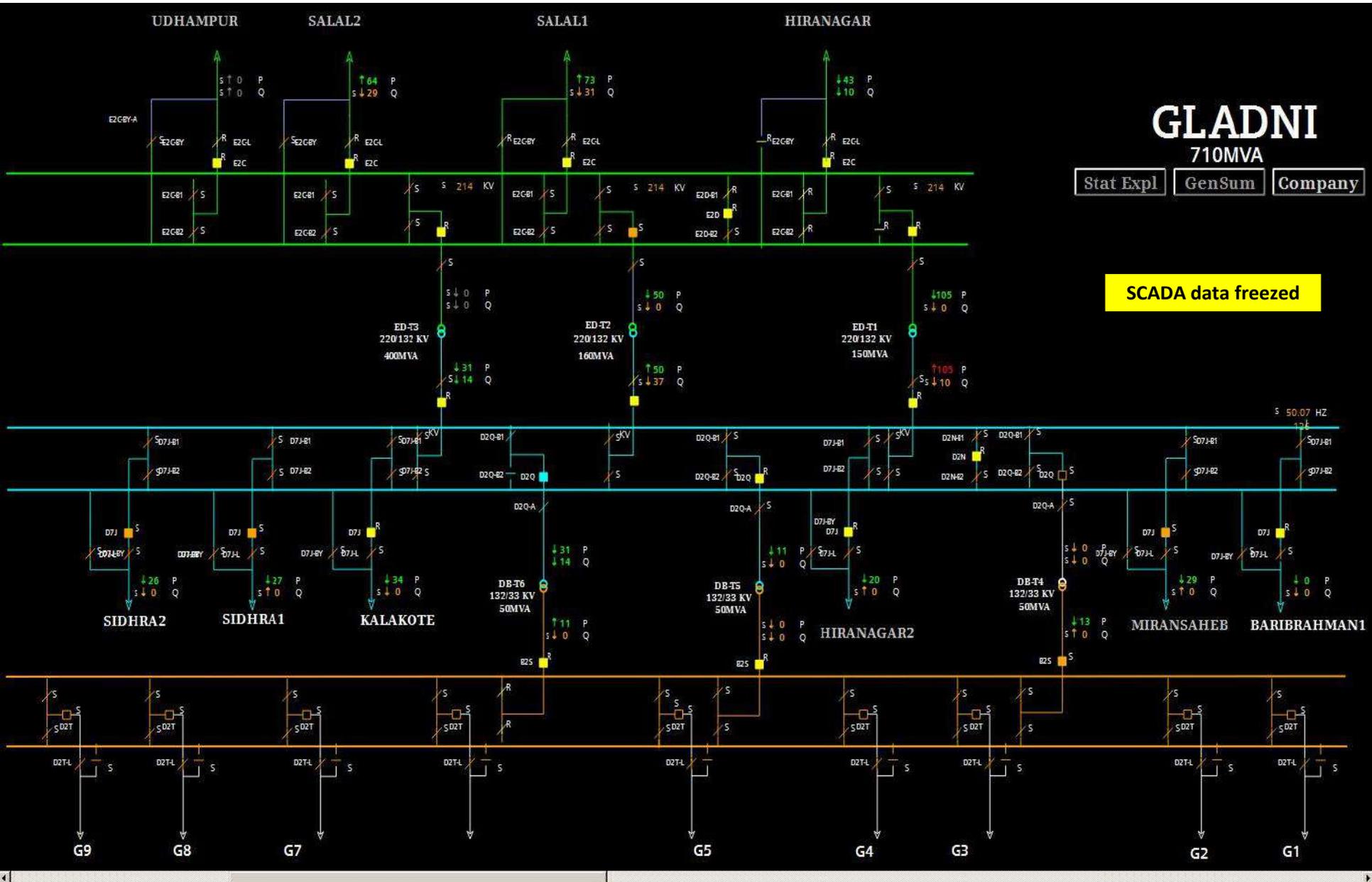


GLADNI
710MVA

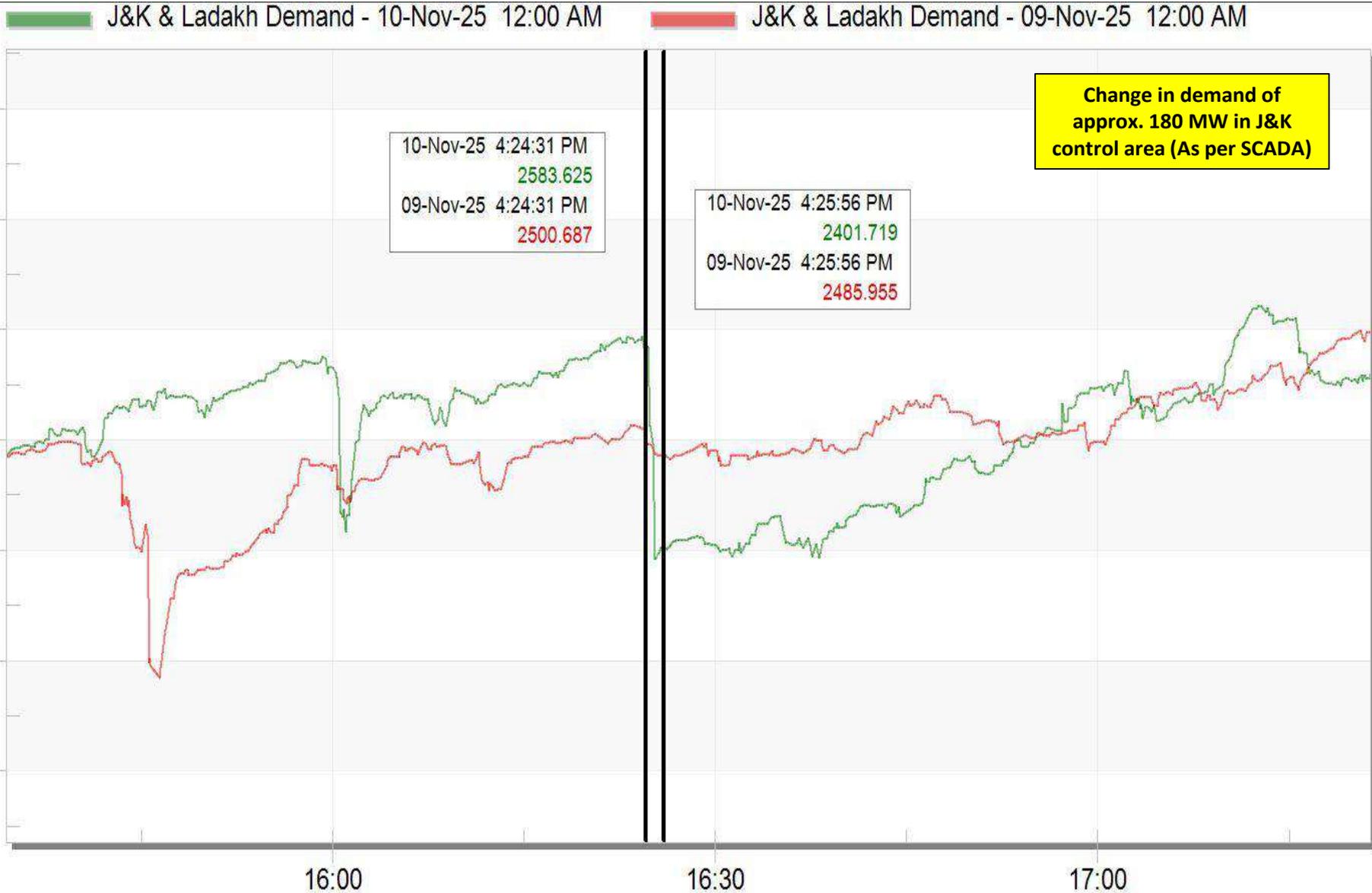
Stat Expl GenSum Company

SCADA data frozeed

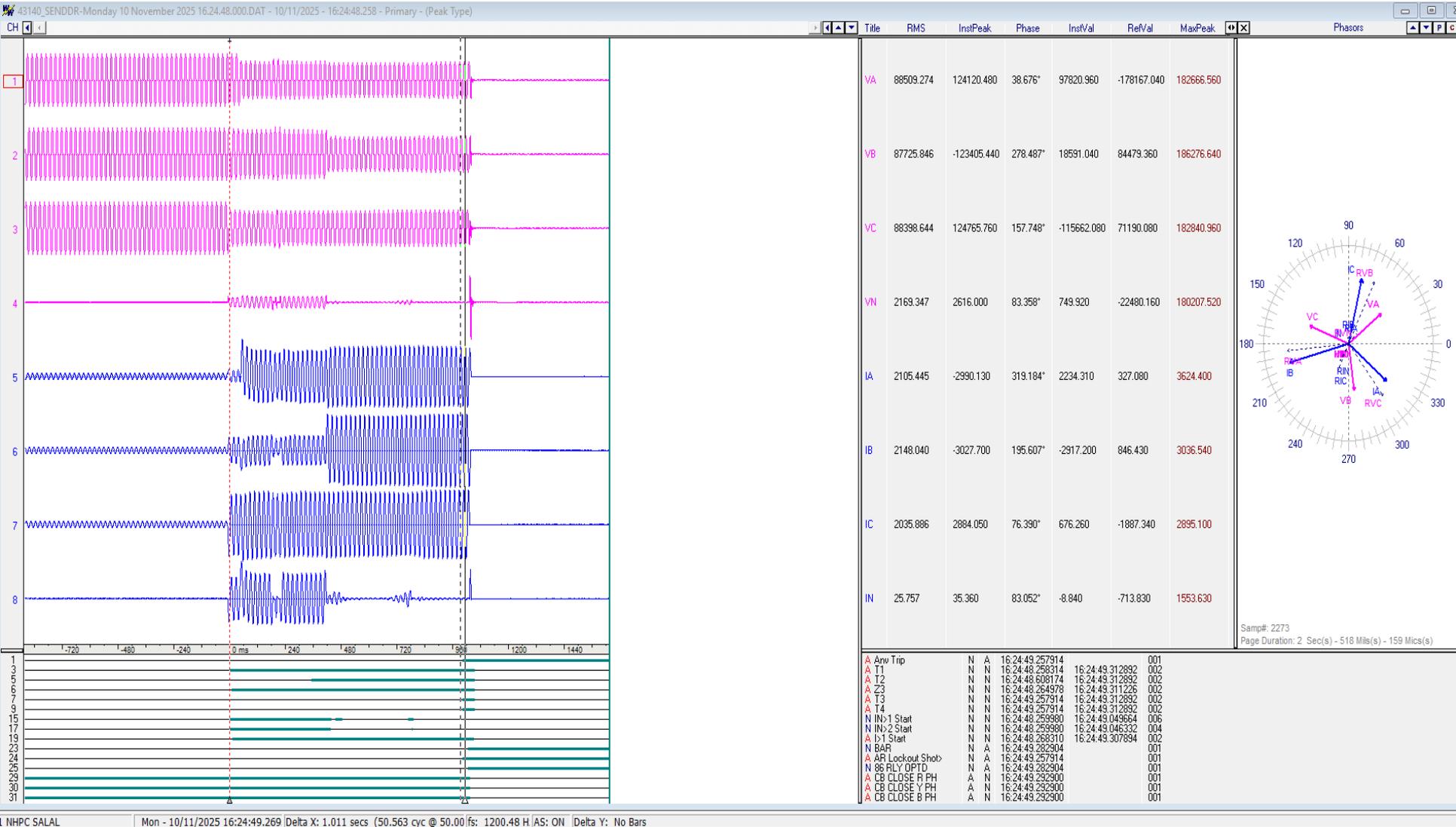
SLD of 220/132/33kV Jammu/Gladni(J&K) after the event



J&K demand during the event



DR of 220 KV Salal(NH) (end) -Jammu(PDD) (PG) Ckt-1

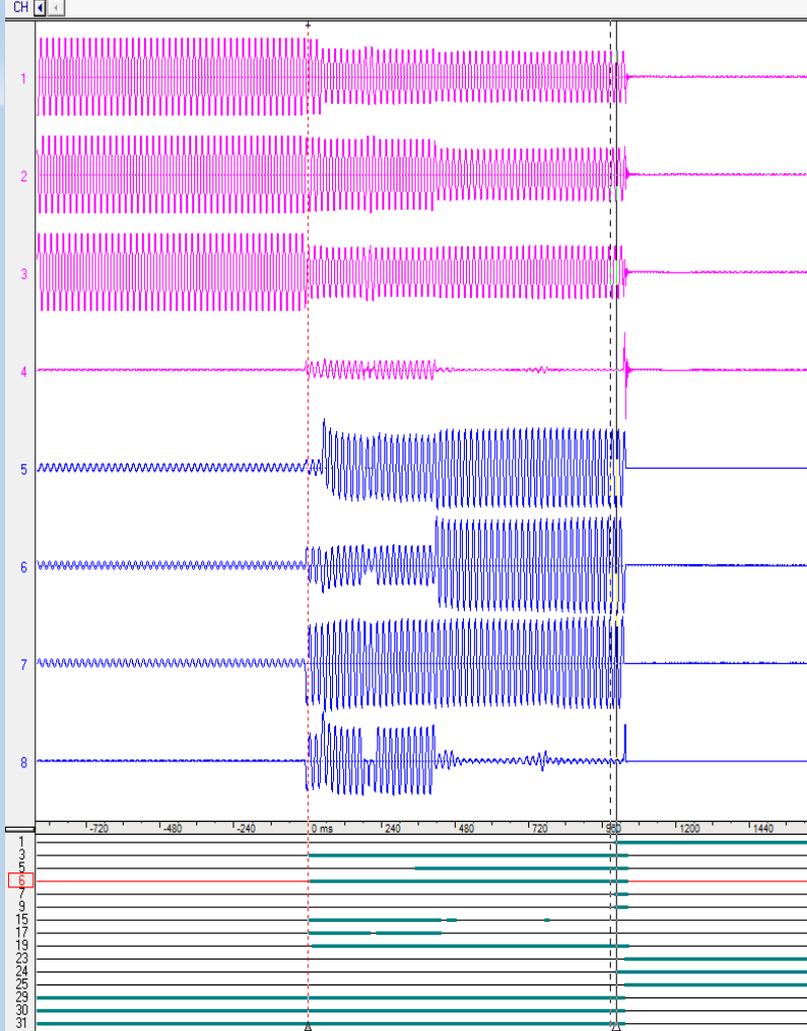


Mon - 10/11/2025 16:24:49.269 | Delta X: 1.011 secs (50.563 cvc @ 50.00 fs: 1200.48 H /AS: ON | Delta Y: No Bars

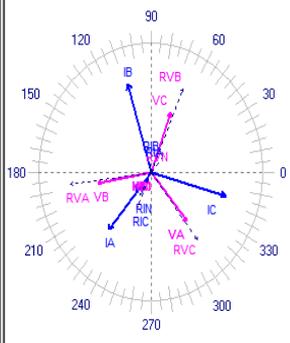
- ✓ B-N fault converted to R-B-N fault again converted to R-Y-B fault
- ✓ Fault current: $I_r \sim 2.105\text{kA}$, $I_y \sim 2.148\text{kA}$, $I_b \sim 2.036\text{kA}$
- ✓ Fault sensed in zone-3 at Salal end.

DR of 220 KV Salal(NH) (end) -Jammu(PDD) (PG) Ckt-2

43139_SENDDR-Monday 10 November 2025 16:24:48.000.DAT - 10/11/2025 - 16:24:48.260 - Primary - (Peak Type)



	RMS	InstPeak	Phase	InstVal	RefVal	MaxPeak
VA	88175.366	-122847.360	310.049°	79788.000	-176405.600	182248.000
VB	88070.065	-124783.200	190.410°	-122638.080	78235.840	185212.800
VC	88059.316	123893.760	69.113°	44628.960	73509.600	181916.640
VN	2049.076	-3854.240	322.783°	1778.880	-24642.720	178079.840
IA	1852.109	-2636.530	229.110°	-1741.480	304.980	3279.640
IB	1951.274	2753.660	106.928°	-795.600	819.910	2784.600
IC	1876.546	-2640.950	344.456°	2572.440	-1756.950	2671.890
IN	45.303	-72.930	308.604°	35.360	-632.060	1392.300



Sampl#: 2269
Page Duration: 2 Sec(s) - 518 Mls(s) - 159 Mics(s)

A Anv Trip	N	A	16:24:49.259580		001
A T1	N	N	16:24:48.259880	16:24:49.306228	002
A T2	N	N	16:24:48.609840	16:24:49.306228	002
A Z3	N	N	16:24:48.265644	16:24:49.304562	002
A T3	N	N	16:24:49.259580	16:24:49.306228	002
A T4	N	N	16:24:49.259580	16:24:49.306228	002
N IN-1 Start	N	N	16:24:48.259880	16:24:49.049664	006
N IN-2 Start	N	N	16:24:48.263312	16:24:48.696472	004
A b-1 Start	N	N	16:24:48.271642	16:24:49.307894	002
N BAR	N	A	16:24:49.291234		001
A RFL Lockout Shot	N	A	16:24:49.261246		001
N 86 RLY OPTD	N	A	16:24:49.291234		001
A CB CLOSE R PH	A	N	16:24:49.296232		001
A CB CLOSE Y PH	A	N	16:24:49.294566		001
A CB CLOSE B PH	A	N	16:24:49.296232		001

1 NHPC SALAL Mon - 10/11/2025 16:24:49.266 Delta X: 1.006 secs (50.313 cyc @ 50.00 fs: 1200.48 H/AS: ON Delta Y: No Bars

- ✓ B-N fault converted to R-B-N fault again converted to R-Y-B fault
- ✓ Fault current: $I_r \sim 1.852 \text{ kA}$, $I_y \sim 1.951 \text{ kA}$, $I_b \sim 1.877 \text{ kA}$
- ✓ Fault sensed in zone-3 at Salal end.

PMU Plot of frequency at Kishenpur(PG)

16:24hrs/10-Nov-25



PMU Plot of phase voltage magnitude at Kishenpur(PG)

16:24hrs/10-Nov-25



Points of Discussion

- i. Exact nature and location of fault need to be shared.
- ii. Reason of delayed clearance of fault need to be shared.
- iii. SCADA data of 220/132/33kV Jammu/Gladni(J&K) and 220kV Salal(NHPC) S/s were freezed during the event. Availability and healthiness of SCADA need to be ensured.
- iv. DR/EL (.dat/.cfg) file of all the tripped elements along with tripping report need to be shared from J&K end.
- v. Remedial action taken report to be shared.

**Multiple element tripping event at
220/66/33kV Gopalpur(DTL)
at 16:35 hrs on 14.11.2025**

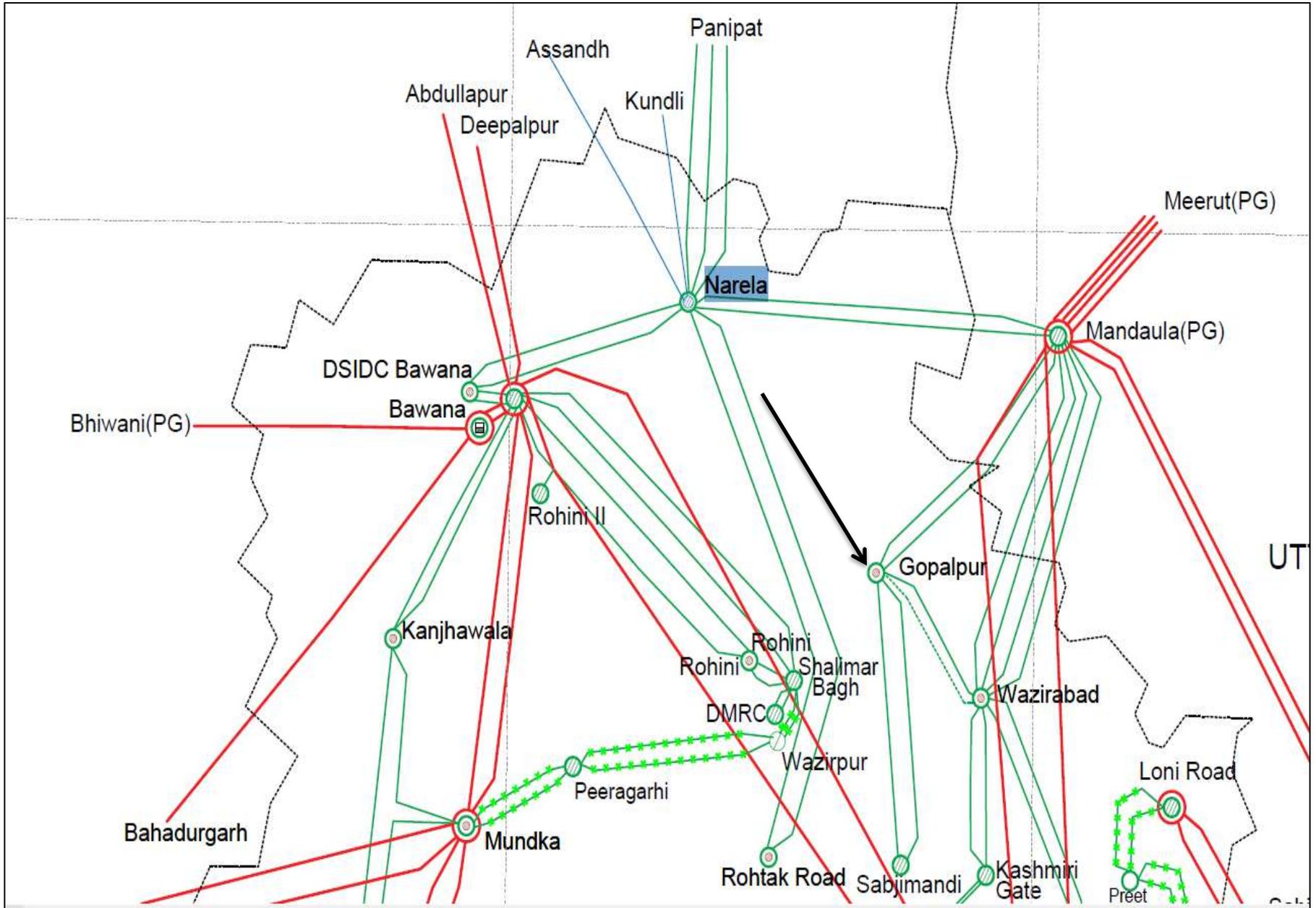
Tripped Elements

S. No	Name of Elements	Outage Time	Revival Time	Reason of tripping
1.	220 KV Mandola(PG)- Gopalpur(DTL) (DTL) Ckt-1	16:35 hrs	17:08 hrs	Busbar protection operated during protection work on 220kV Gopalpur-Timarpur Ckt
2.	220 KV Mandola(PG)- Gopalpur(DTL) (DTL) Ckt-2		17:08 hrs	
3.	220 KV Gopalpur-Sabzi Mandi (DTL) Ckt-1		16:47 hrs	
4.	220/33kV 100 MVA ICT-1 at Gopalpur(DTL)		16:47 hrs	
5.	220/66kV 100 MVA ICT-2 at Gopalpur(DTL)		16:47 hrs	
6.	220/33kV 100 MVA ICT-3 at Gopalpur(DTL)		16:47 hrs	
7.	220/66kV 160 MVA ICT-4 at Gopalpur(DTL)		16:47 hrs	

Brief details of the event

- i. 220/66/33kV Gopalpur(DTL) has double main Bus arrangement at 220kV side. 220kV Gopalpur- SOWazirabad D/C was in open condition from Gopalpur end.
- ii. During antecedent condition, 220kV Bus-2 at Gopalpur(DTL) was taken into outage due to some protection related work on 220kV Gopalpur-Timarpur Ckt.
- iii. As reported, at 16:35 hrs, bus bar protection operated at 220kV Bus-1 at Gopalpur(DTL) during carrying out protection work on 220kV Gopalpur-Timarpur Ckt (exact reason yet to be shared).
- iv. Due to bus bar protection operation, all the 220kV elements connected to 220kV Bus-1 at Gopalpur(DTL) tripped and complete blackout occurred at 220/66/33kV Gopalpur(DTL) S/s.
- v. At 16:47 hrs, 220kV Gopalpur- SOWazirabad Ckt-2 was taken into service to charge 220kV Gopalpur(DTL) S/s.
- vi. As per PMU at Mandola(PG), no fault was observed in the system.
- vii. As per SCADA, change in demand of approx. 130 MW in Delhi control area is observed.

Network Diagram



SLD of 400/220kV Mandaula(PG) before the event

CONTACT DETAILS	
pgmandola@powergrid.co.in	
902453545 (Navin Gupta)	
20113219/ 20112170	

P sum(220 kV) = -2
P sum(400 kV) = -33

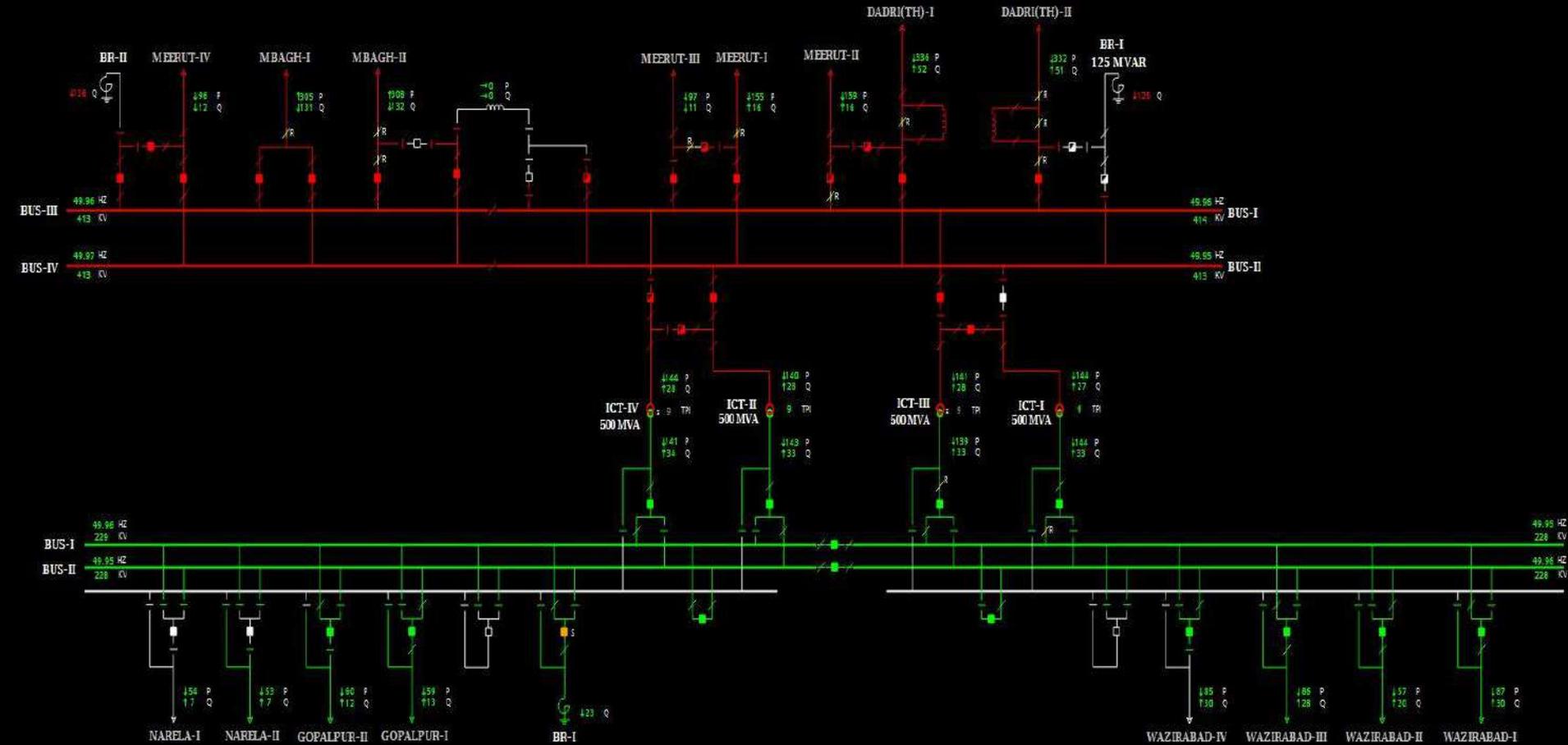
MANDAULA

Q sum(220 kV) = -160
Q sum(400 kV) = -16

Temperature 22 °C
Humidity 69 %

Stat Expl | GenSum | Company

14.11.25 16:34:0



SLD of 400/220kV Mandaula(PG) after the event

CONTACT DETAILS	
pgmandola@powergrid.co.in	
9024853545 (Navin Gupta)	
20113219 / 20112170	

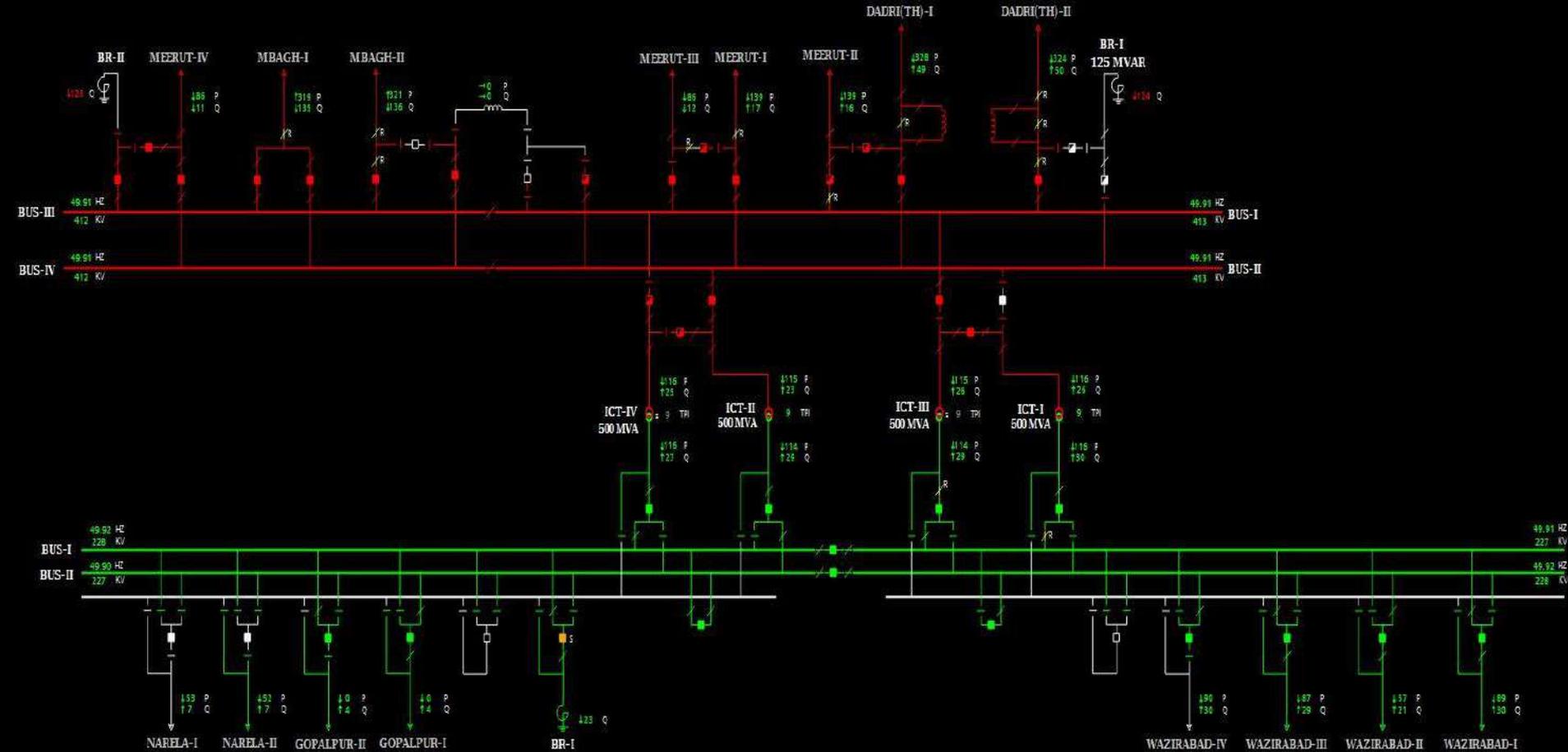
MANDAULA

Stat Expl | GenSum | Company

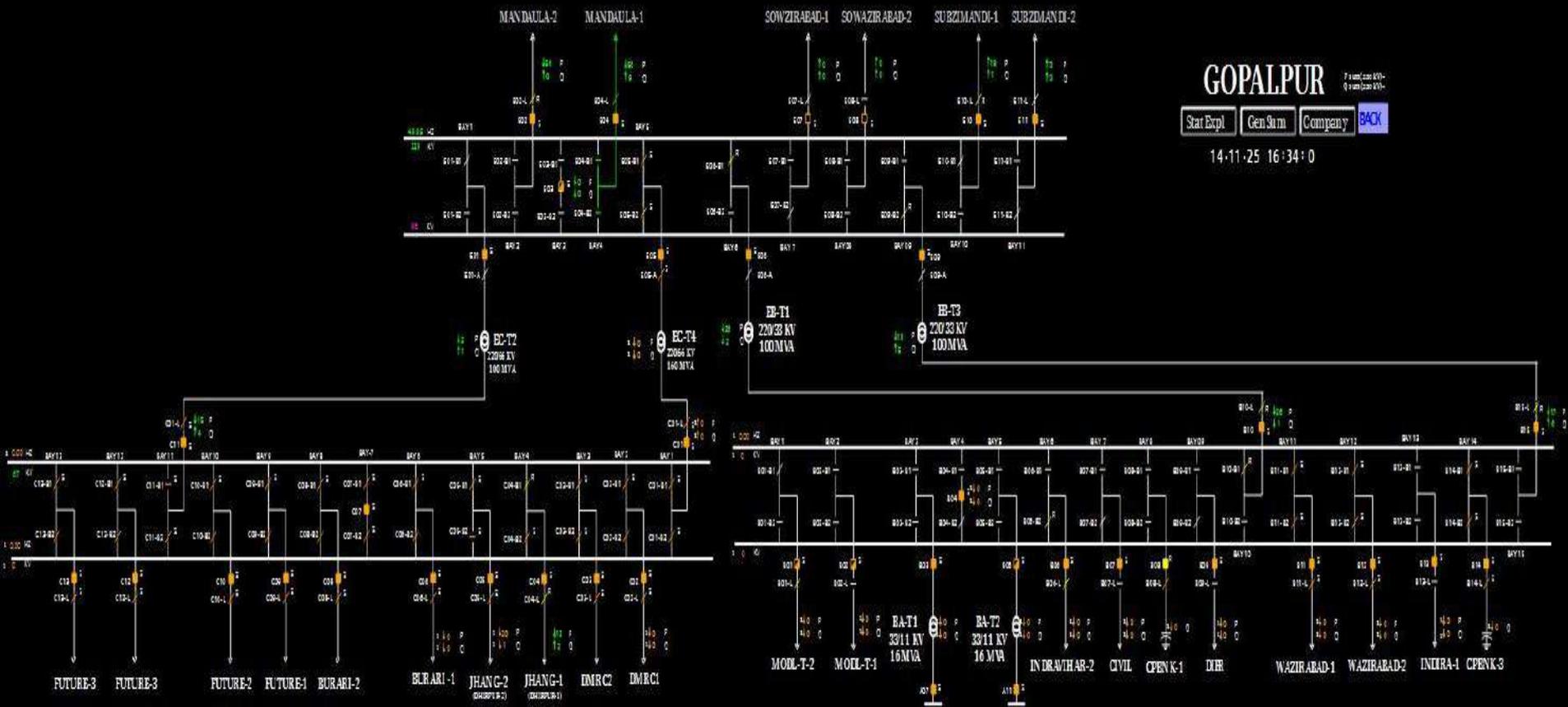
14.11.25 16:38:0

P sum(ko KV) = -2
 Q sum(ko KV) = -28
 P sum(ko KV) = -139
 Q sum(ko KV) = -41

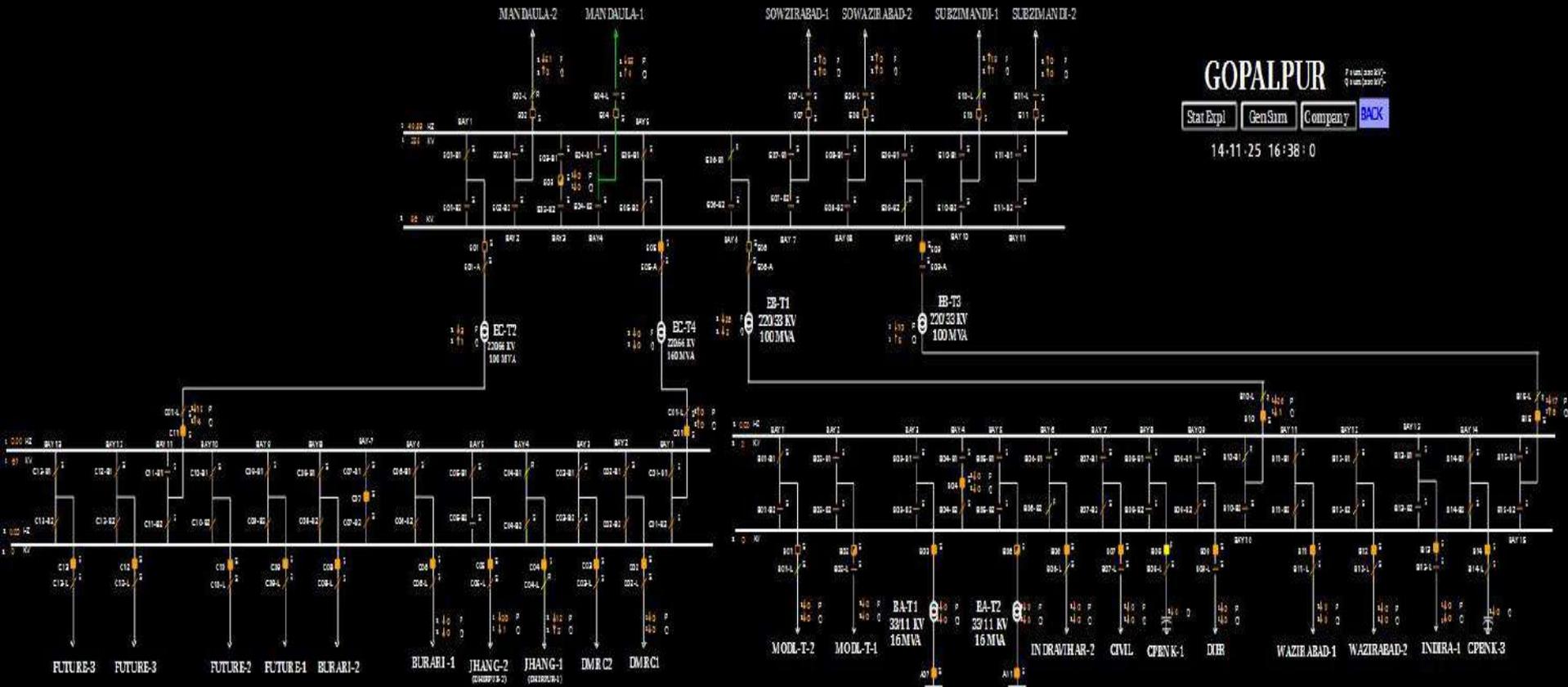
Temperature 22 °C
Humidity 69 %



SLD of 220/66/33kV Gopalpur(DTL) before the event

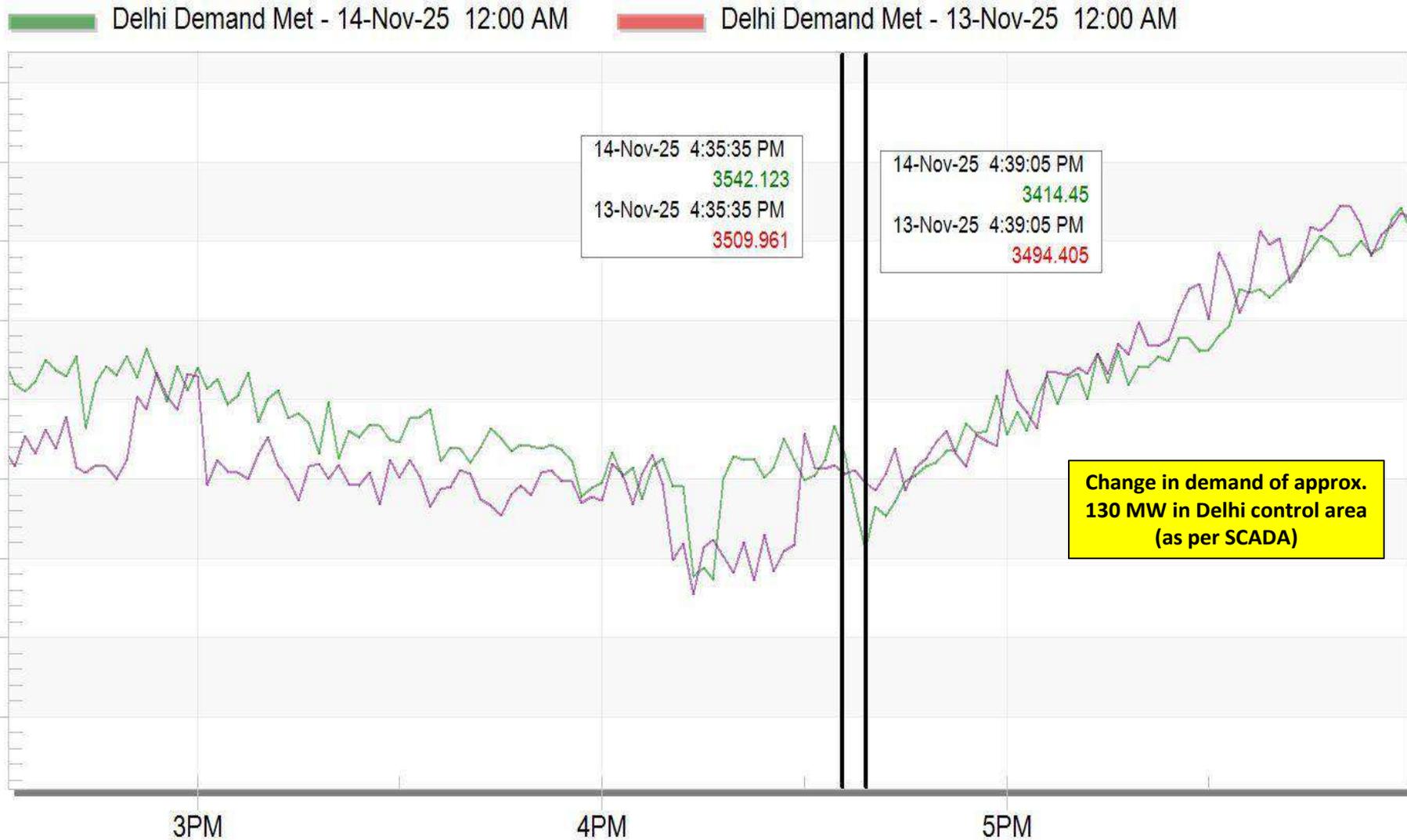


SLD of 220/66/33kV Gopalpur(DTL) after the event



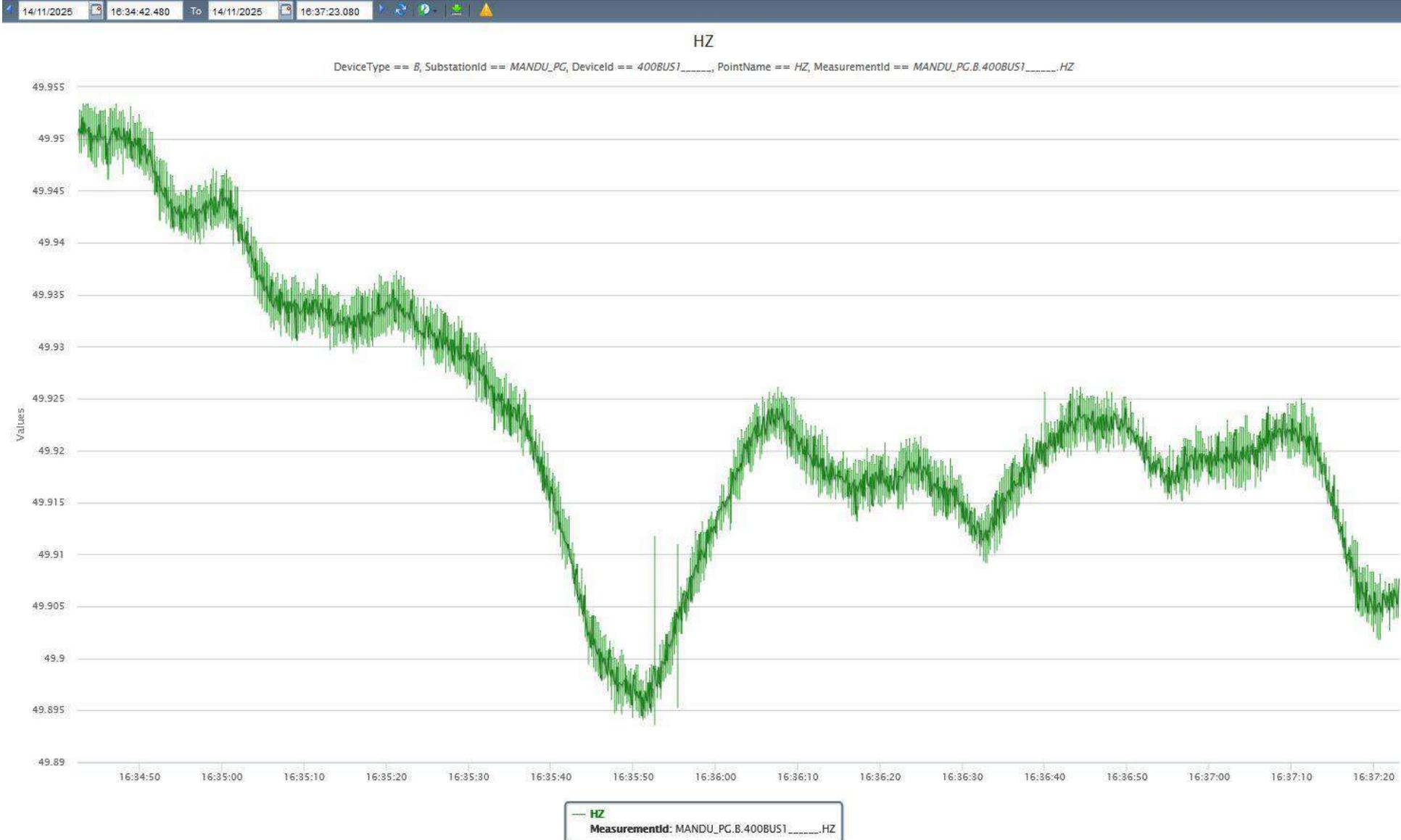
Delhi Demand during the event

Delhi Demand Met



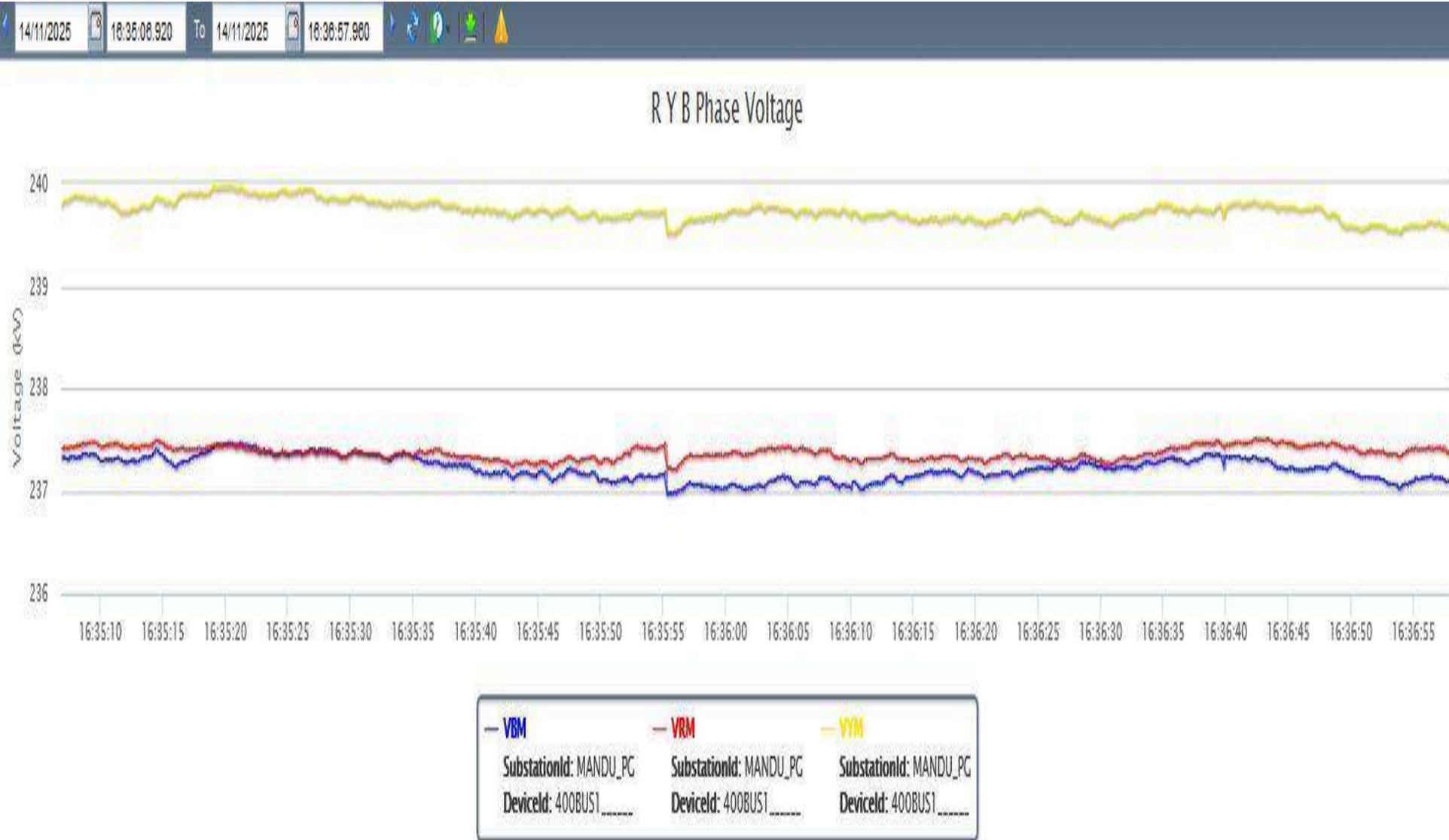
PMU Plot of frequency at Mandaula(PG)

16:35 hrs/14-Nov-25



PMU Plot of phase voltage magnitude at Mandaula(PG)

16:35 hrs/14-Nov-25



SCADA SOE

Time	Station Name	Voltage Level	Element Name	Element Type	Element Status	Remarks
16:34:53,558	GOPAL_DV	220kV	11SUBZI2	Circuit Breaker	Open	Line CB at Gopalpur(DTL) end of 220kV Gopalpur-Timarpur Ckt opened
16:35:00,986	GOPAL_DV	220kV	10SUBZI1	Circuit Breaker	Open	Line CB at Gopalpur(DTL) end of 220kV Gopalpur-Sabzi Mandi Ckt opened
16:35:00,986	GOPAL_DV	220kV	04MANDU1	Circuit Breaker	Open	Line CB at Gopalpur(DTL) end of 220 KV Mandola(PG)-Gopalpur(DTL) (DTL) Ckt-1 opened
16:35:00,986	GOPAL_DV	220kV	02MANDU2	Circuit Breaker	Open	Line CB at Gopalpur(DTL) end of 220 KV Mandola(PG)-Gopalpur(DTL) (DTL) Ckt-2 opened
16:35:00,986	GOPAL_DV	220kV	06T1	Circuit Breaker	Open	CB at 220kV side of 220/33kV 100 MVA ICT-1 at Gopalpur(DTL) opened
16:35:00,986	GOPAL_DV	220kV	01T2	Circuit Breaker	Open	CB at 220kV side of 220/66kV 100 MVA ICT-2 at Gopalpur(DTL) opened
16:35:01,184	GOPAL_DV	33kV	02AZADP2	Circuit Breaker	Open	

Points of Discussion

- i. Exact reason of bus bar protection operation during carrying out protection work on 220kV Gopalpur-Timarpur Ckt need to be analysed and shared.
- ii. DR/EL (.dat/.cfg file) of all tripped elements along with detailed tripping report need to be shared.
- iii. Remedial action taken report needs to be shared.

**Multiple element tripping event at
400/220kV Kishenpur(PG)
at 11:51 hrs on 21.11.2025**

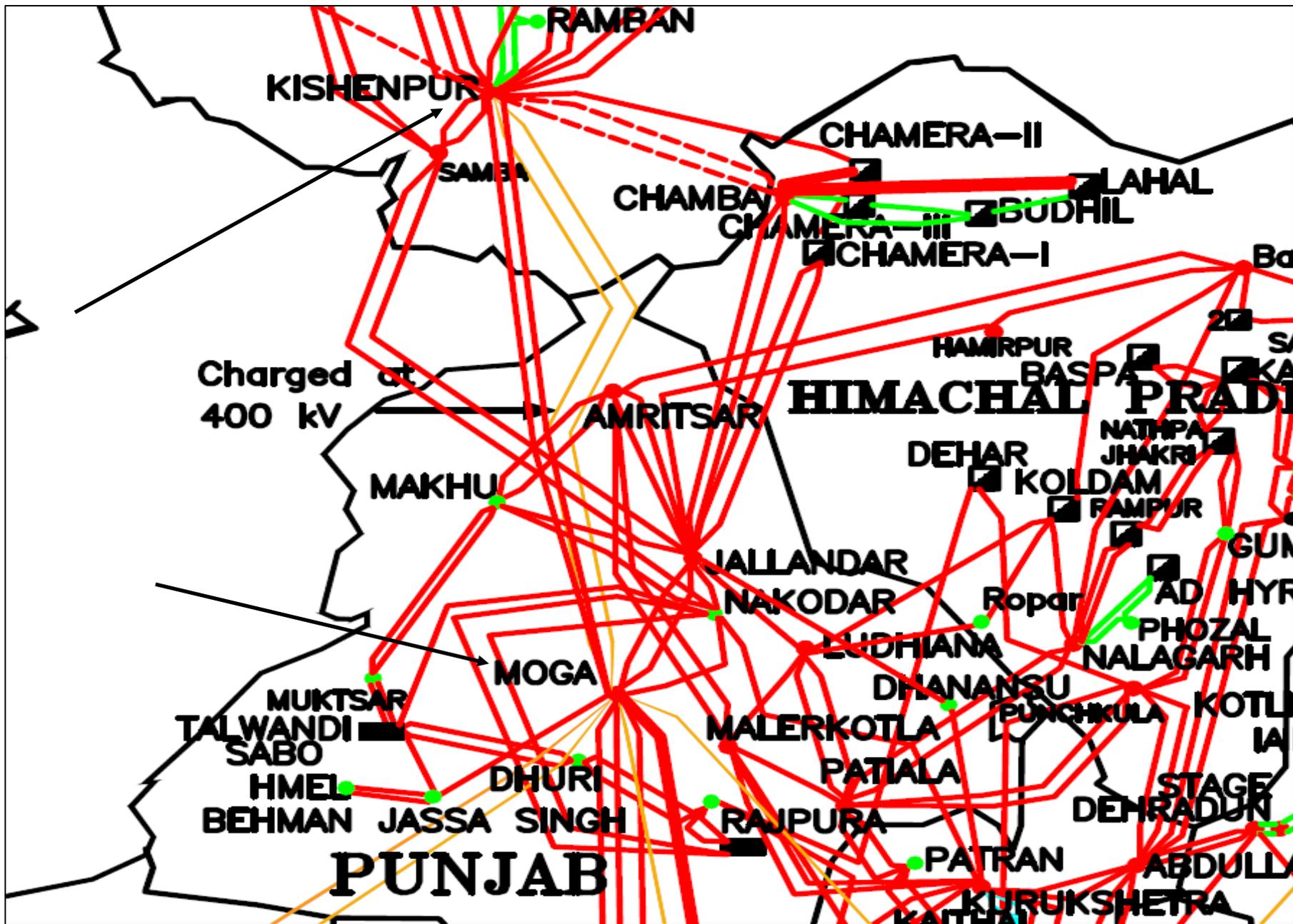
Tripped Elements

S. No	Name of Elements	Outage Time	Revival Time	Reason of tripping
1.	400 KV <u>Kishenpur-Moga</u> (PG) Ckt-1	11:51 hrs	12:16 hrs	Y-N phase to earth fault
2.	400 KV <u>Kishenpur-Moga</u> (PG) Ckt-2		22:23 hrs	

Brief details of the event

- i. 400/220kV Kishenpur(PG) S/s has one and half breaker scheme at 400kV level and double main and transfer bus scheme at 220kV level.
- ii. During antecedent condition, 400 KV Kishenpur-Moga (PG) Ckt-1 &2 were carrying 771 MW and 744 MW respectively (as per SCADA).
- iii. As reported, at 11:51 hrs, 400 KV Kishenpur-Moga (PG) Ckt-2 tripped on permanent Y-N phase to earth fault due to Y-phase jumper broken near Kishenpur(PG) S/s. As per DR, fault current was 13.41 kA and fault distance was 3.6 km from Kishenpur(PG) end; fault (with unsuccessful A/R) sensed in zone-1 and Main-II relay operated at Kishenpur(PG) end.
- iv. On the same fault, 400 KV Kishenpur-Moga (PG) Ckt-1 also tripped from Kishenpur(PG) end only. As per DR, fault current was 2.07 kA from Kishenpur(PG) end; fault sensed in zone-4 and Main-II relay operated at Kishenpur(PG) end.
- v. During investigation, it was observed that after Z4 pickup, D60 (Main-II) relay issued 3ph tripping due to “TRIPBUS-1 optd”. On examining setting parameters, it was observed that input setting parameters to Trip Bus 1 function had been assigned for “Z2,Z3 and Z4 pickup” whereas as per standard template inputs to Trip Bus function should be assigned for “Z2,Z3 and Z4 operated”.
- vi. As corrective action taken, setting in D60 relay was corrected and implemented as per standard template.
- vii. As per PMU at Kishenpur(PG), Y-N phase to earth fault with unsuccessful A/R was observed with fault clearing time of 80ms.
- viii. As per SCADA, change in demand of approx. 130 MW is observed in J&K control area.

Network Diagram



SLD of 765/400/220kV Moga(PG) before the event

CONTACT DETAILS	
EMAIL	pgmoga@powergrid.co.in
MOBILE	950 10072
HOTLINE	20113 213 / 201 12216

7 am (C) 807 -4284
 7 am (C) 807 -2272
 7 am (C) 807 -703

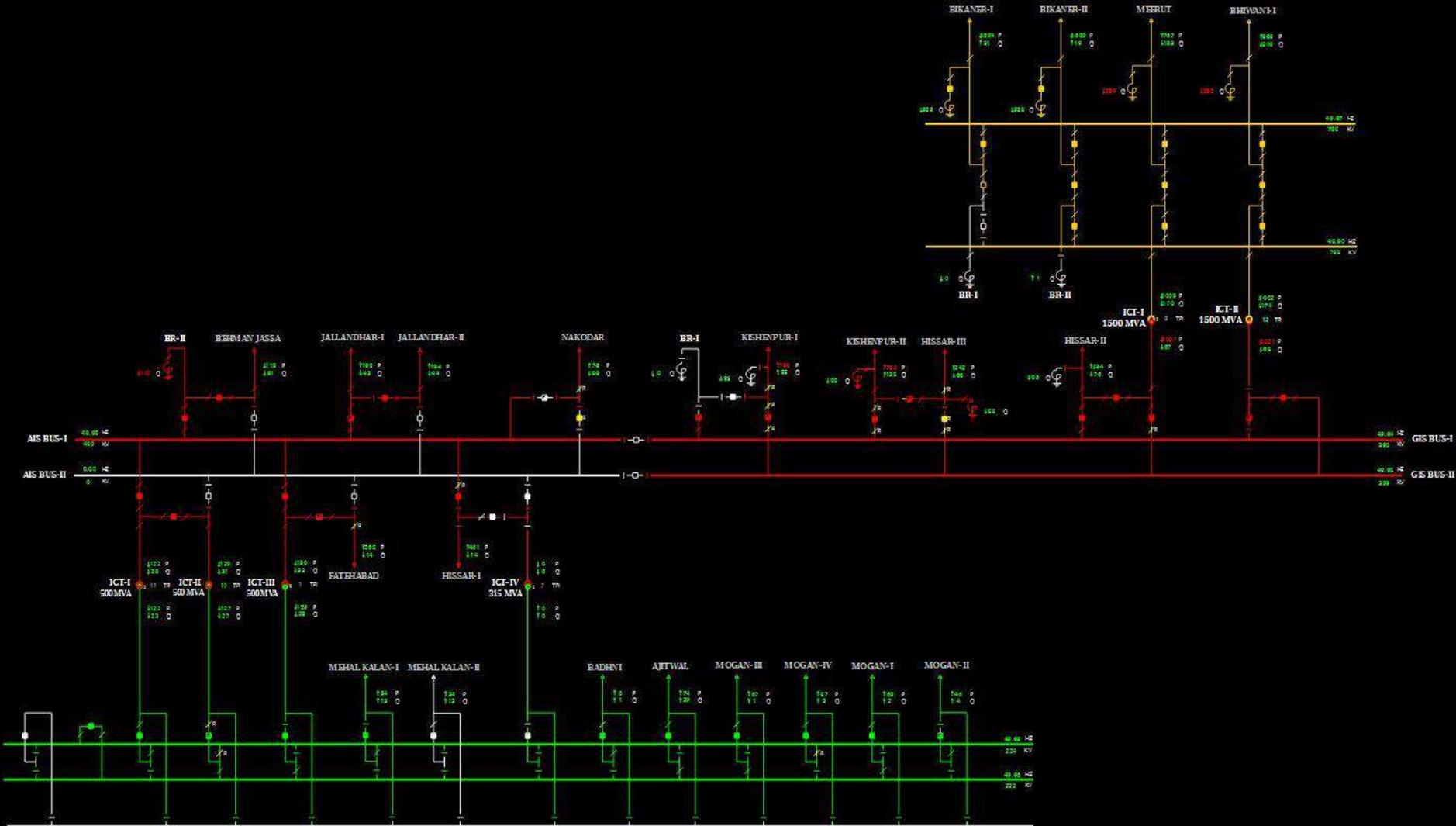
MOGA

Stat Exp Gen Sum Company

21.11.25 11:49:0

7 am (C) 807 -076
 7 am (C) 807 -116
 7 am (C) 807 -101

Temperature 21 °C
 Humidity 46 %



SLD of 765/400/220kV Moga(PG) after the event

CONTACT DETAILS	
EMAIL	pgmoga@powergrid.co.in
MOBILE	9501142472
HOTLINE	20113213 / 20112216

P (max) 001 - 2013
 P (min) 001 - 1300
 P (sum) 001 - 437

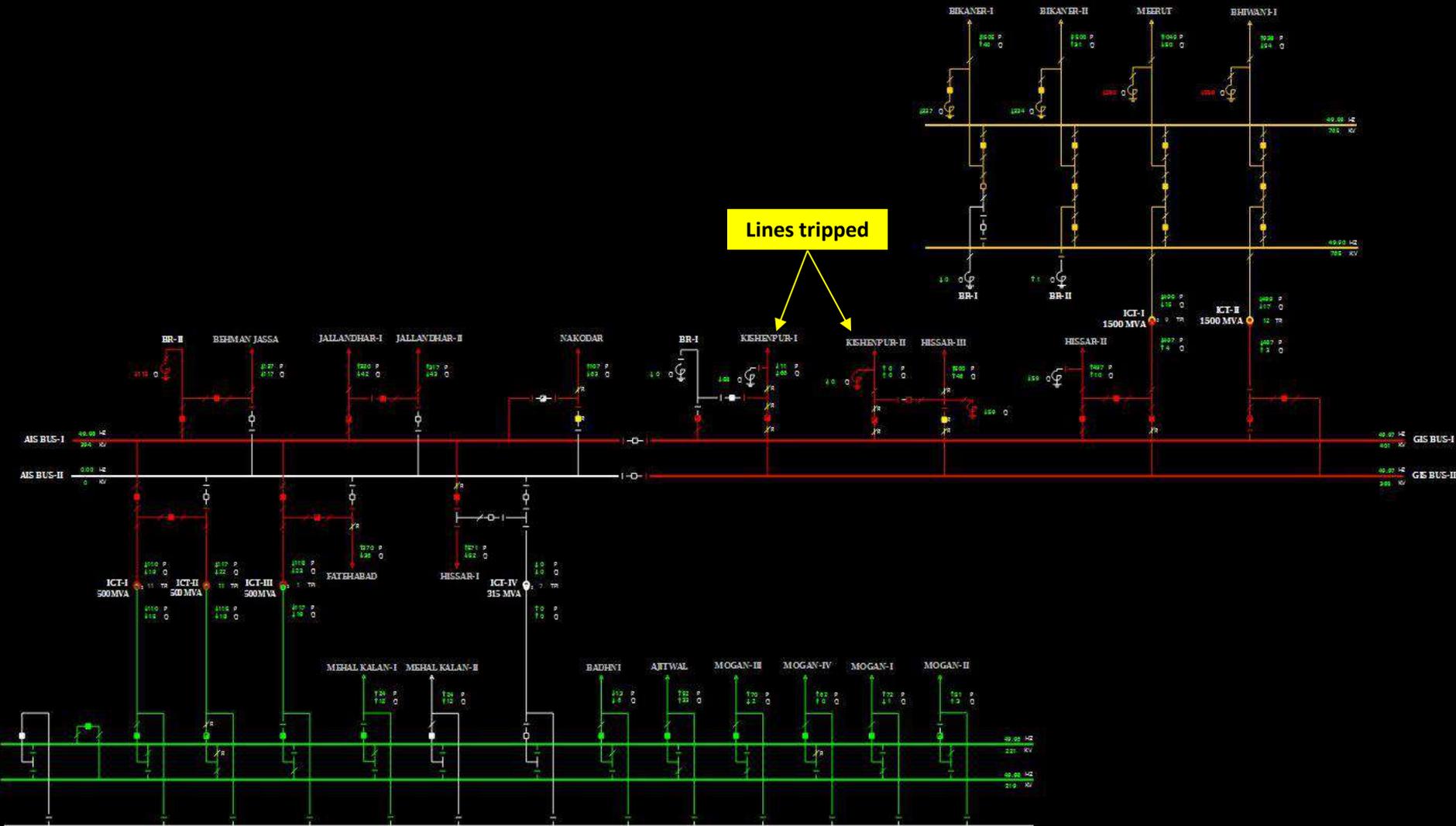
MOGA

Stat Exp | Gen Sum | Company

Q (max) 001 - 78
 Q (min) 001 - 78
 Q (sum) 001 - -244

Temperature 21 °C
 Humidity 43 %

21.11.25 11:53:0



SLD of 400/220kV Kishenpur(PG) before the event

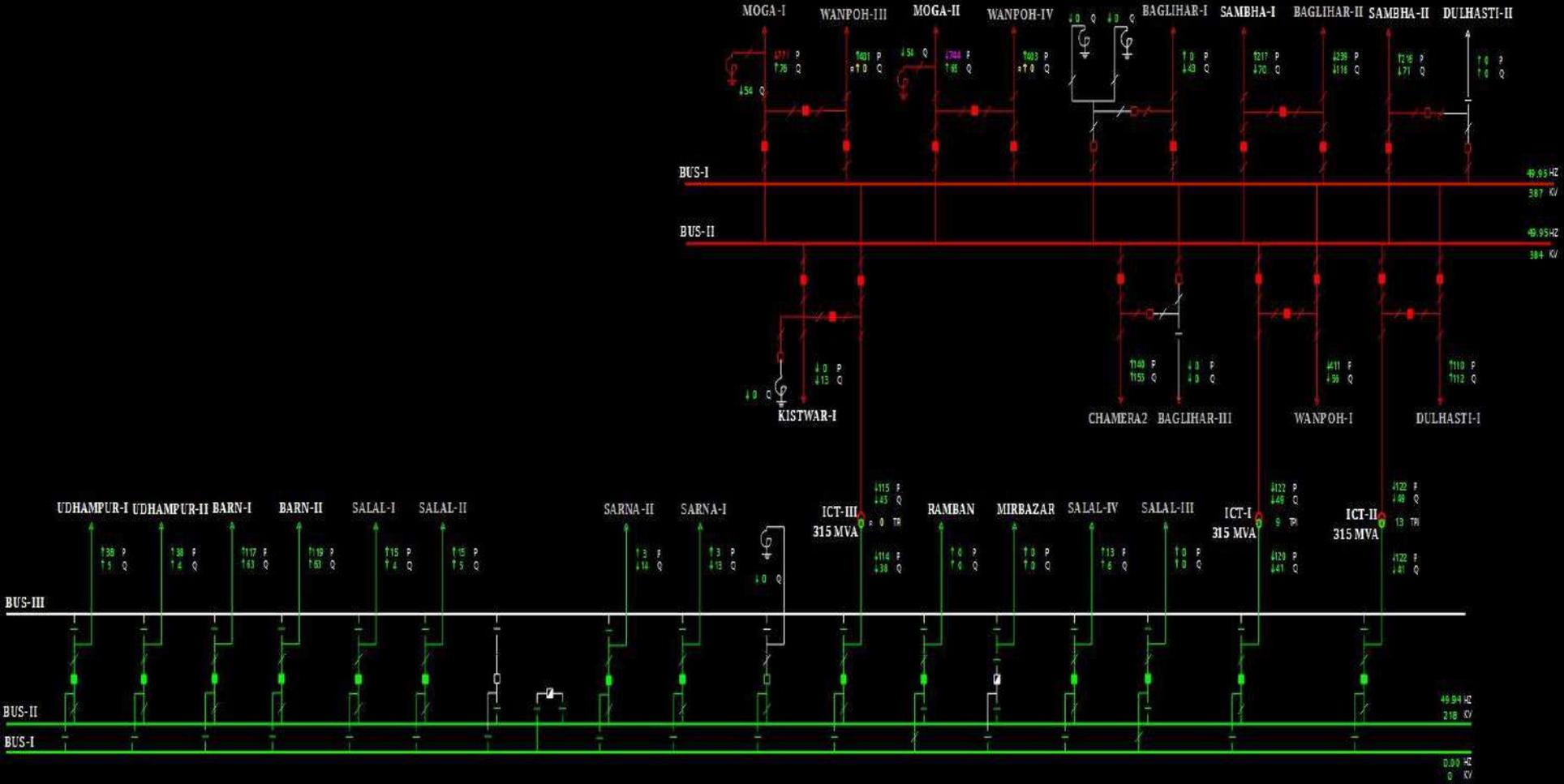
CONTACT DETAILS	
EMAIL	kishenpur2@powengrid.co.in
MOBILE	9419211831

KISHENPUR

Fam(400KV) = 5 Stat Expl GenSum Company Q amp(400KV) = 325
 Fam(220KV) = 6 Q amp(220KV) = 2

Temperature 34 °C
 Humidity 39 %

21.11.25 11:49:0



SLD of 400/220kV Kishenpur(PG) after the event

CONTACT DETAILS	
EMAIL	kishenpur2@powergrid.co.in
MOBILE	9419211831

KISHENPUR

Fault(poc M)= 6
Ftime(poc M)= 5

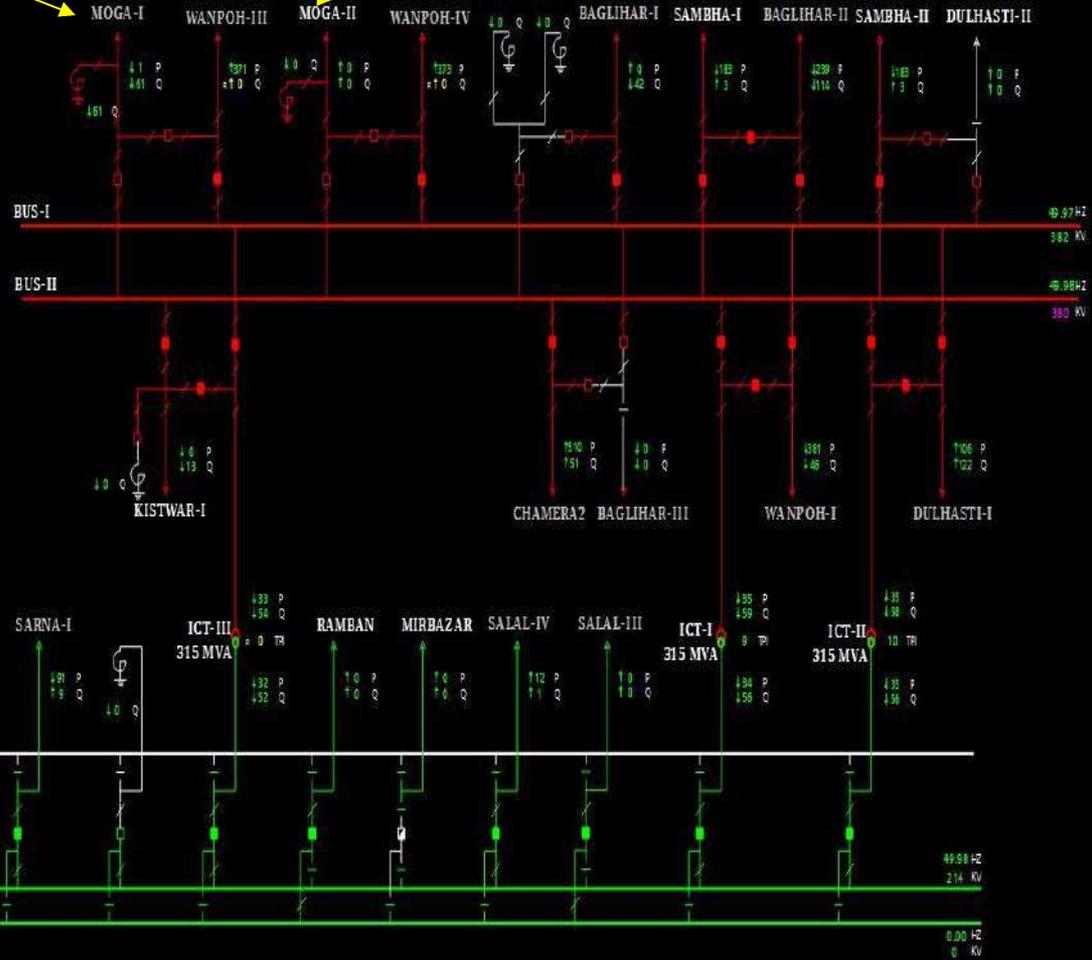
Stat Expl GenSum Company

Q sum(poc M)= -169
Q sum(zsc M)= 1

Temperature 34 °C
Humidity 39 %

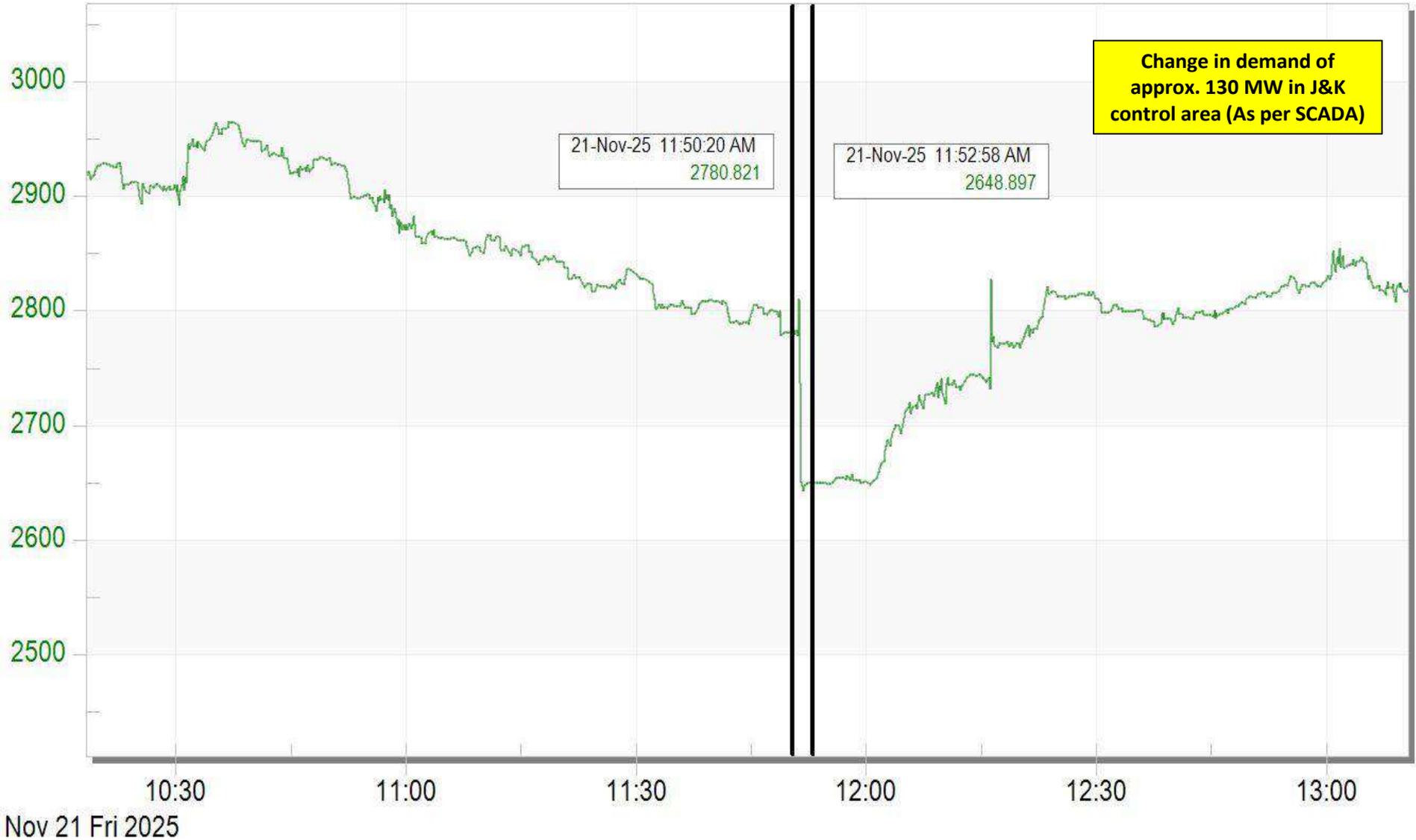
21.11.25 11:53:0

Lines tripped

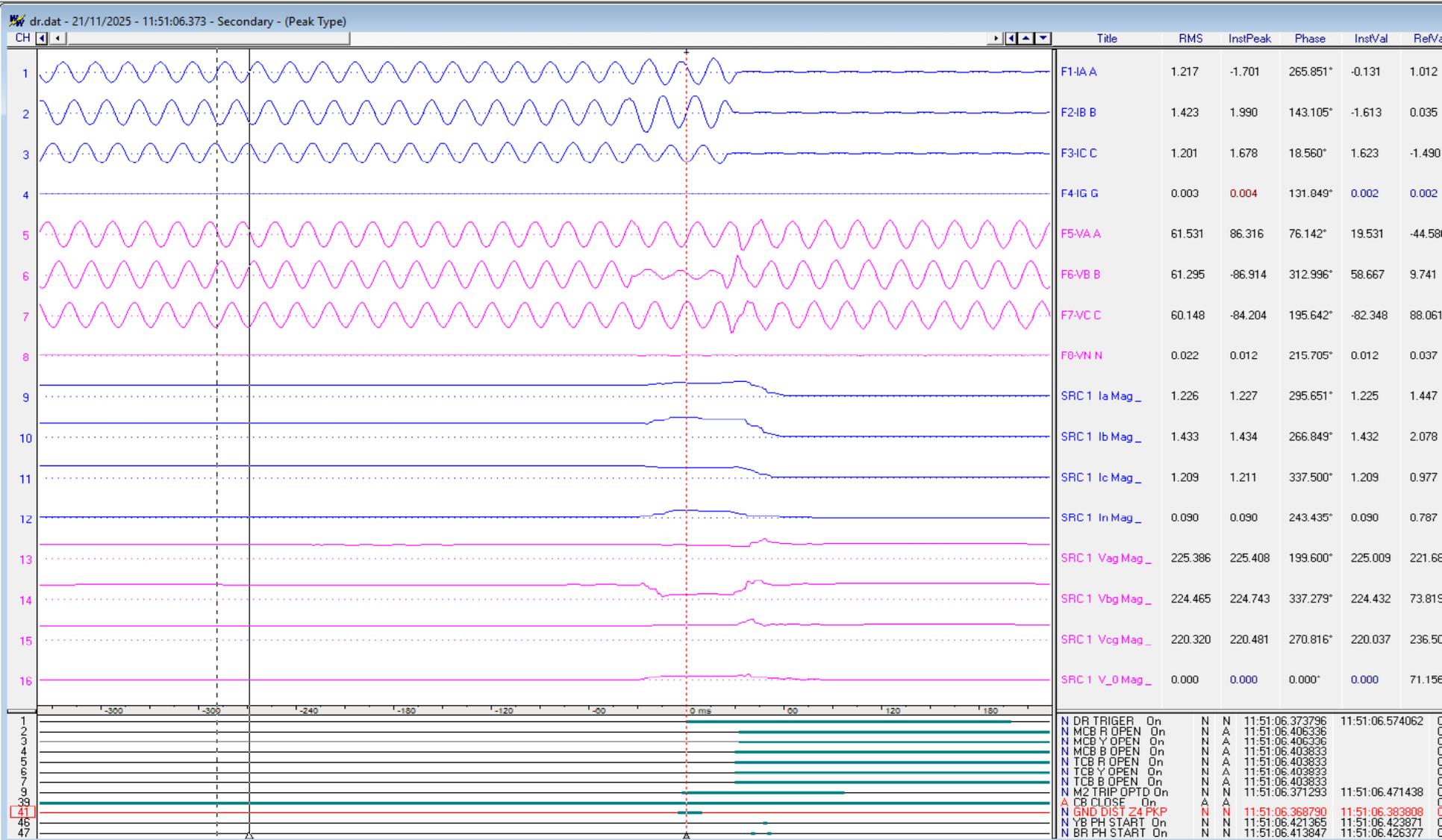


J&K demand during the event

J&K & Ladakh Demand - 21-Nov-25 12:00 AM



DR of 400 KV Kishenpur(end)-Moga (PG) Ckt-1

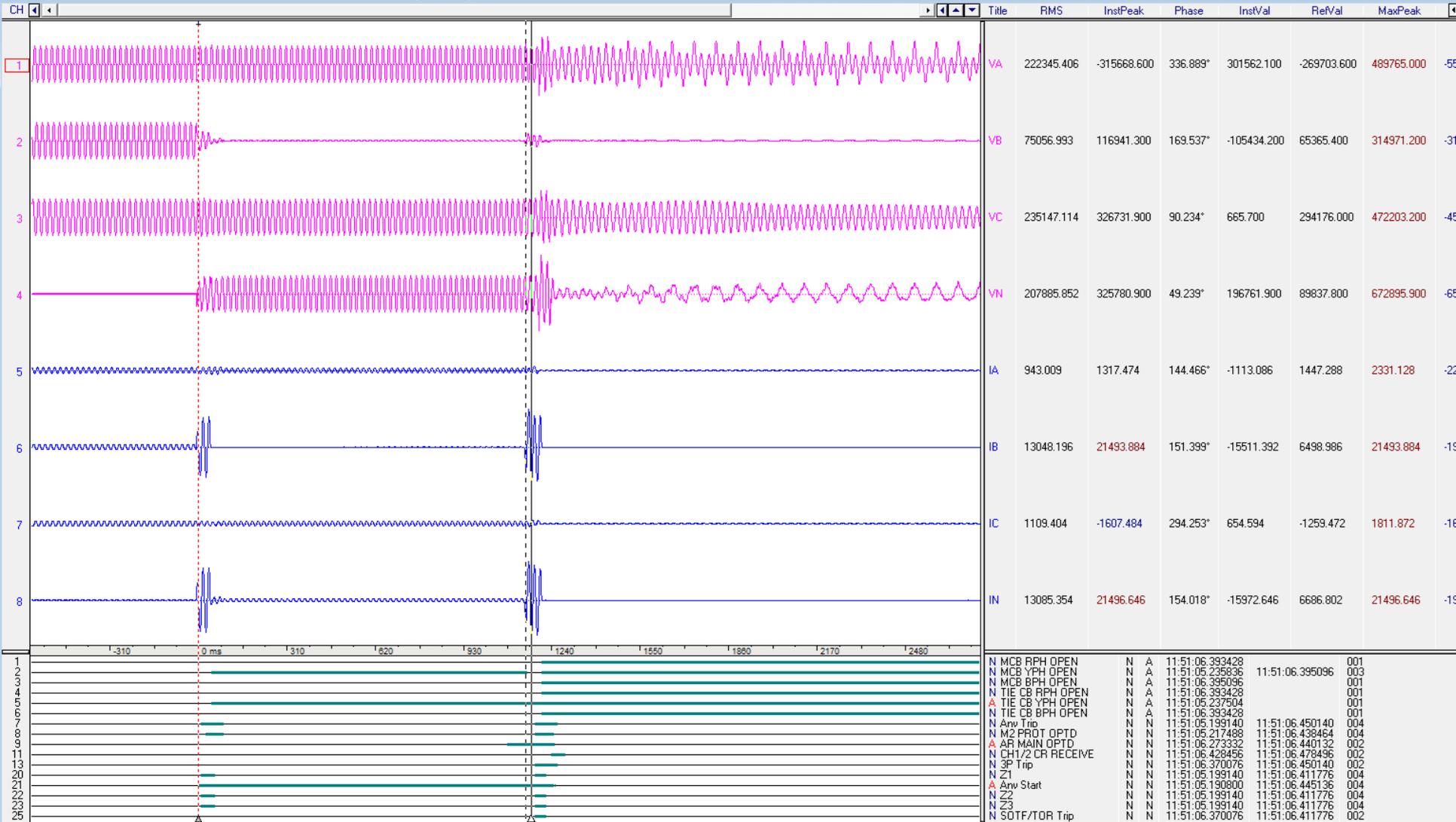


✓ Y-N fault; $I_y \approx 2.07\text{kA}$

✓ Fault sensed in zone-4 at Kishenpur end; Main-II relay operated.

DR of 400 KV Kishenpur(end)-Moga (PG) Ckt-2

Friday 21 November 2025 11:51:05.000.DAT - 21/11/2025 - 11:51:05.191 - Primary - (Peak Type)



#21_KIS-MOGA2_M1 | Fri - 21/11/2025 11:51:06.358 | Delta X: 1.167 secs (58.380 cyc @ 50.00 f/s; 1199.041 Hz) | AS: Units | Delta Y: No Bars

- ✓ Y-N fault (unsuccessful A/R=> permanent fault); $I_y \approx 13.41\text{kA}$
- ✓ Fault sensed in zone-1 at Kishenpur end; Main-II relay operated.

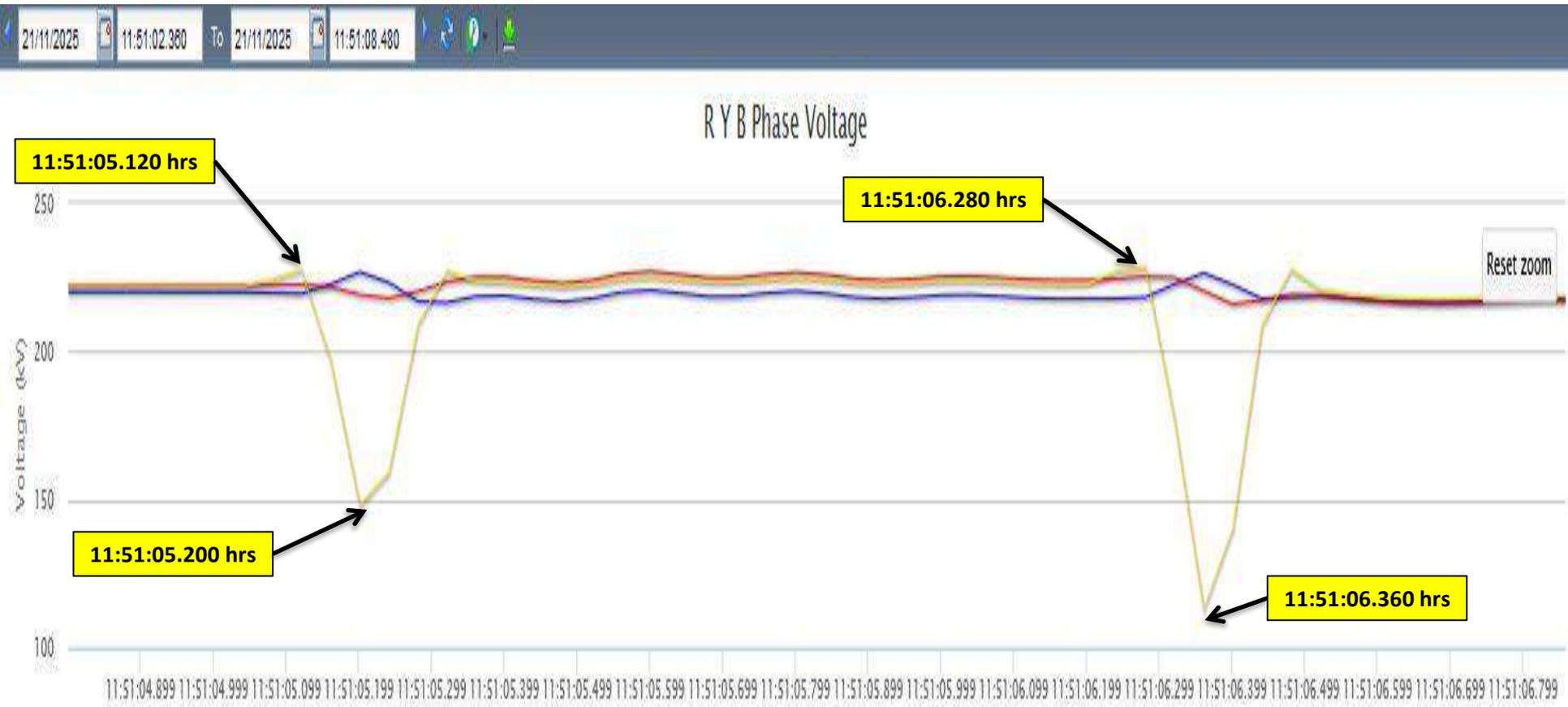
PMU Plot of frequency at Kishenpur(PG)

11:51hrs/21-Nov-25



PMU Plot of phase voltage magnitude at Kishenpur(PG)

11:51hrs/21-Nov-25



— VBM	— VRM	— YVM
SubstationId: KISNP_PG	SubstationId: KISNP_PG	SubstationId: KISNP_PG
Deviceld: 400BUS1_____	Deviceld: 400BUS1_____	Deviceld: 400BUS1_____

SCADA SOE

Time	Station Event	Voltage(kV)	Element Name	Element Type	Element Status	Remarks
11:51:06,361	KISHN_PG	400kV	21MOGA_2	Circuit Breaker	Open	Main CB at Kishenpur(PG) end of 400 KV Kishenpur-Moga (PG) Ckt-2 opened
11:51:06,367	KISHN_PG	400kV	20WNPO4T	Circuit Breaker	Open	Tie CB at Kishenpur(PG) end of 400 KV Kishenpur-Moga (PG) Ckt-2 opened
11:51:06,371	KISHN_PG	400kV	23MO1TIE	Circuit Breaker	Open	Tie CB at Kishenpur(PG) end of 400 KV Kishenpur-Moga (PG) Ckt-1 opened
11:51:06,375	KISHN_PG	400kV	24MOGA_1	Circuit Breaker	Open	Main CB at Kishenpur(PG) end of 400 KV Kishenpur-Moga (PG) Ckt-1 opened
11:51:06,433	MOGA_PG	400kV	19KISHN2	Circuit Breaker	disturbe	
11:51:06,441	MOGA_PG	400kV	20HS3KI2	Circuit Breaker	Open	Tie CB at Moga(PG) end of 400 KV Kishenpur-Moga (PG) Ckt-2 opened

Points of Discussion

- i. DR/EL (.dat/.cfg) file of 400 KV Kishenpur-Moga (PG) Ckt-2 need to be shared for Moga(PG) end.

**Multiple element tripping event at
220/33kV Chowadhi(JK)
at 19:44 hrs on 22.11.2025**

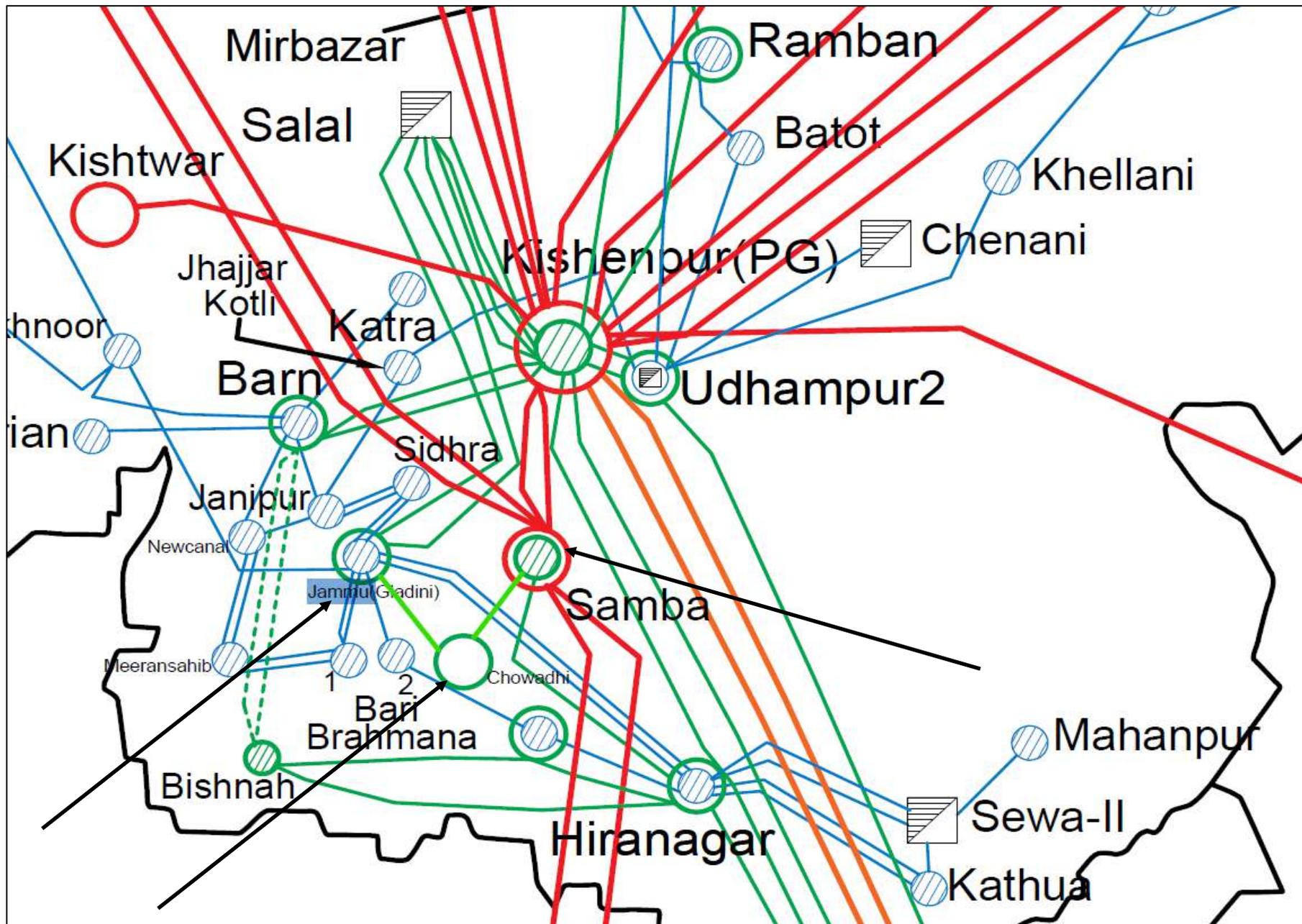
Tripped Elements

S. No	Name of Elements	Outage Time	Revival Time	Reason of tripping
1.	220 KV Samba(PG)- Chowadhi (JK) (PDD JK) Ckt	19:44 hrs	19:14 hrs on 24 th Nov'24	R-N phase to earth fault
2.	220 KV Chowadhi (JK)- Gladni(PDD) (PDD JK) Ckt		21:05 hrs	

Brief details of the event

- i. 220/33kV Chowadhi(JK) S/s has double main and transfer bus scheme at 220kV side and two 220kV lines are connected: 220 KV Samba(PG)-Chowadhi (JK) (PDD JK) Ckt and 220 KV Chowadhi (JK)-Gladni(PDD) (PDD JK) Ckt.
- ii. As reported, at 19:44 hrs, 220 KV Samba(PG)-Chowadhi (JK) (PDD JK) Ckt tripped on permanent R-N phase fault (unsuccessful A/R) due to R-phase conductor snapped. As per DR at Samba end, fault current was 2.273kA (4.134kA during A/R) from Samba(PG) end; zone-1 distance protection (Main-II) operated at Samba(PG) end. As per DR at Chowadhi end, zone-2 distance protection (Main-I) operated at Chowadhi(JK) end. Carrier sent from Samba(PG), but not received at Chowadhi(JK) (Carrier communication issue observed).
- iii. On the same fault, 220 KV Chowadhi (JK)-Gladni(PDD) (PDD JK) Ckt also tripped from Chowadhi(JK) end only. As per DR, zone-4 distance protection operated at Chowadhi end (Main-II) and fault sensed in zone-3 at Jammu/Gladini end.
- iv. During investigation, it was observed that zone-4 delay at Chowadhi(JK) end of 220 KV Chowadhi (JK)-Gladni(PDD) (PDD JK) Ckt and zone-2 delay at Chowadhi(JK) end of 220 KV Samba(PG)-Chowadhi (JK) (PDD JK) Ckt were same (500 ms).
- v. As per PMU at Kishenpur(PG), R-N phase to earth fault with unsuccessful A/R was observed with fault clearing time of 120ms.
- vi. As per SCADA, change in demand of approx. 80 MW is observed in J&K control area.

Network Diagram

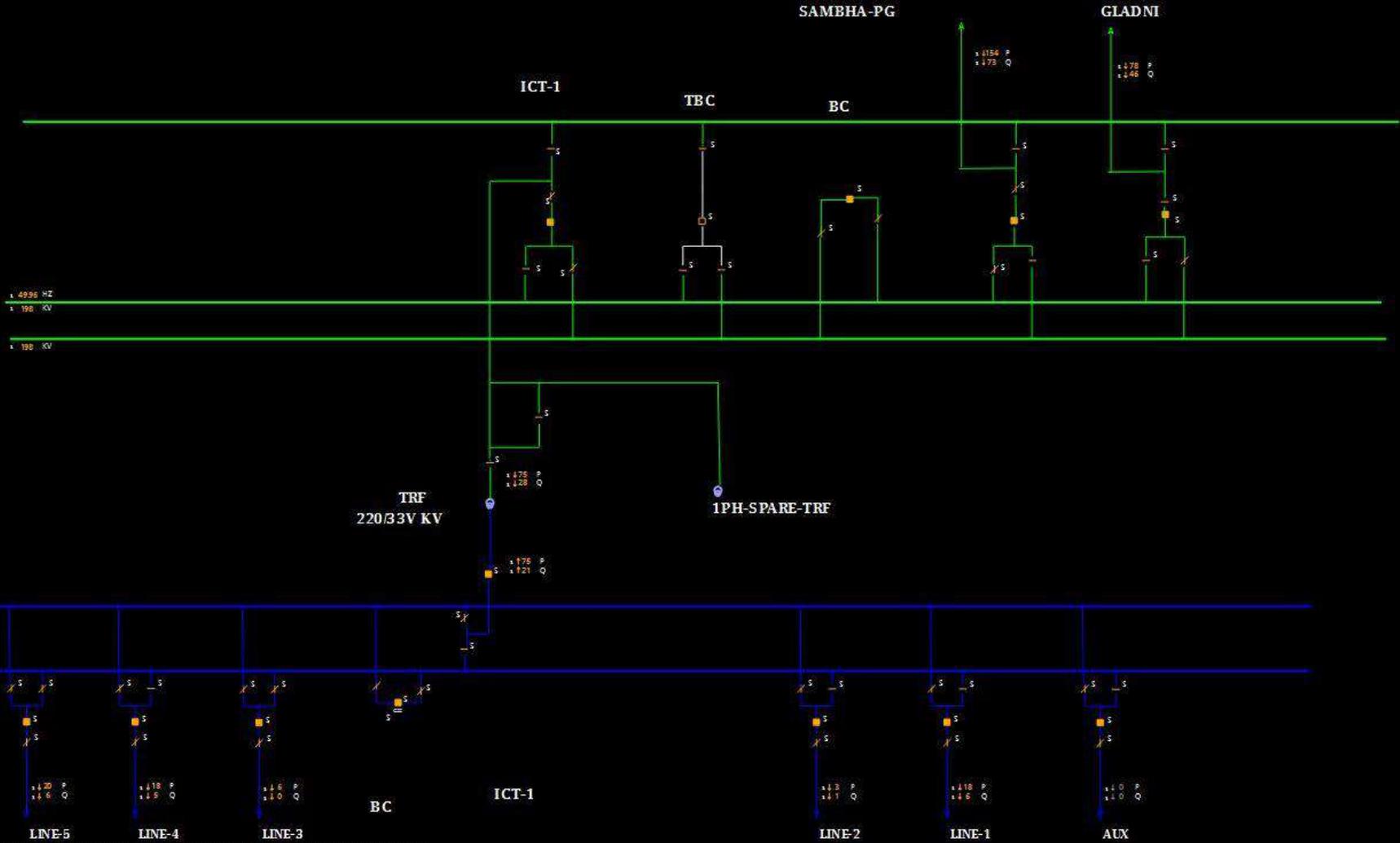


SLD of 220/33kV Chowadhi(JK) before the event

CHAWDHI-220/33kV

Stat Expl GenSum Company

SCADA data froze

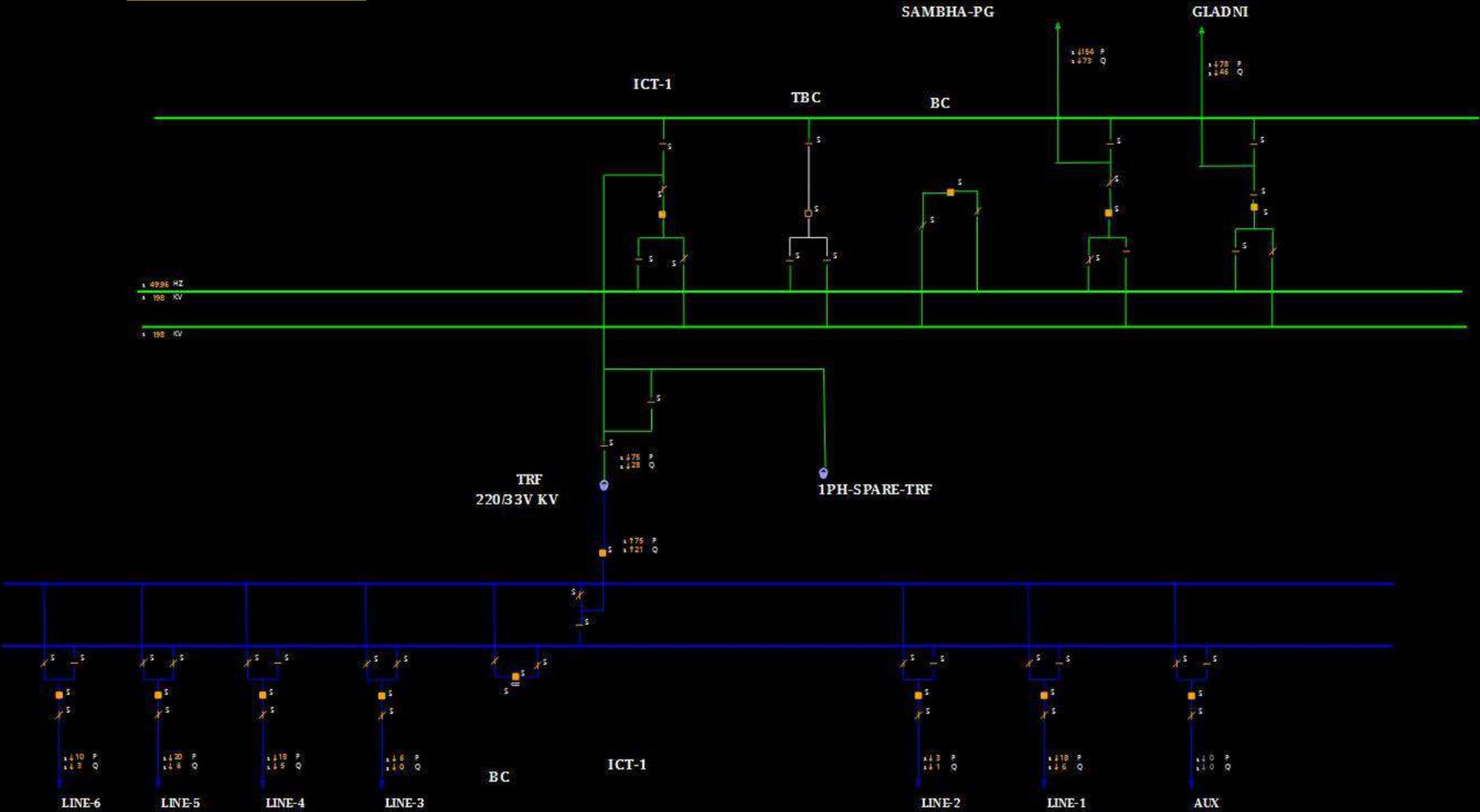


SLD of 220/33kV Chowadhi(JK) after the event

CHAWDHI-220/33kV

Stat Expl GenSum Company

SCADA data freezed



Sat November 22 2025 19:46:00

SLD of 400/220kV Sambha(PG) before the event

CONTACT DETAILS	
EMAIL	pgsamba@powergrid.co.in
MOBILE	9906399107
HOTLINE	20112491

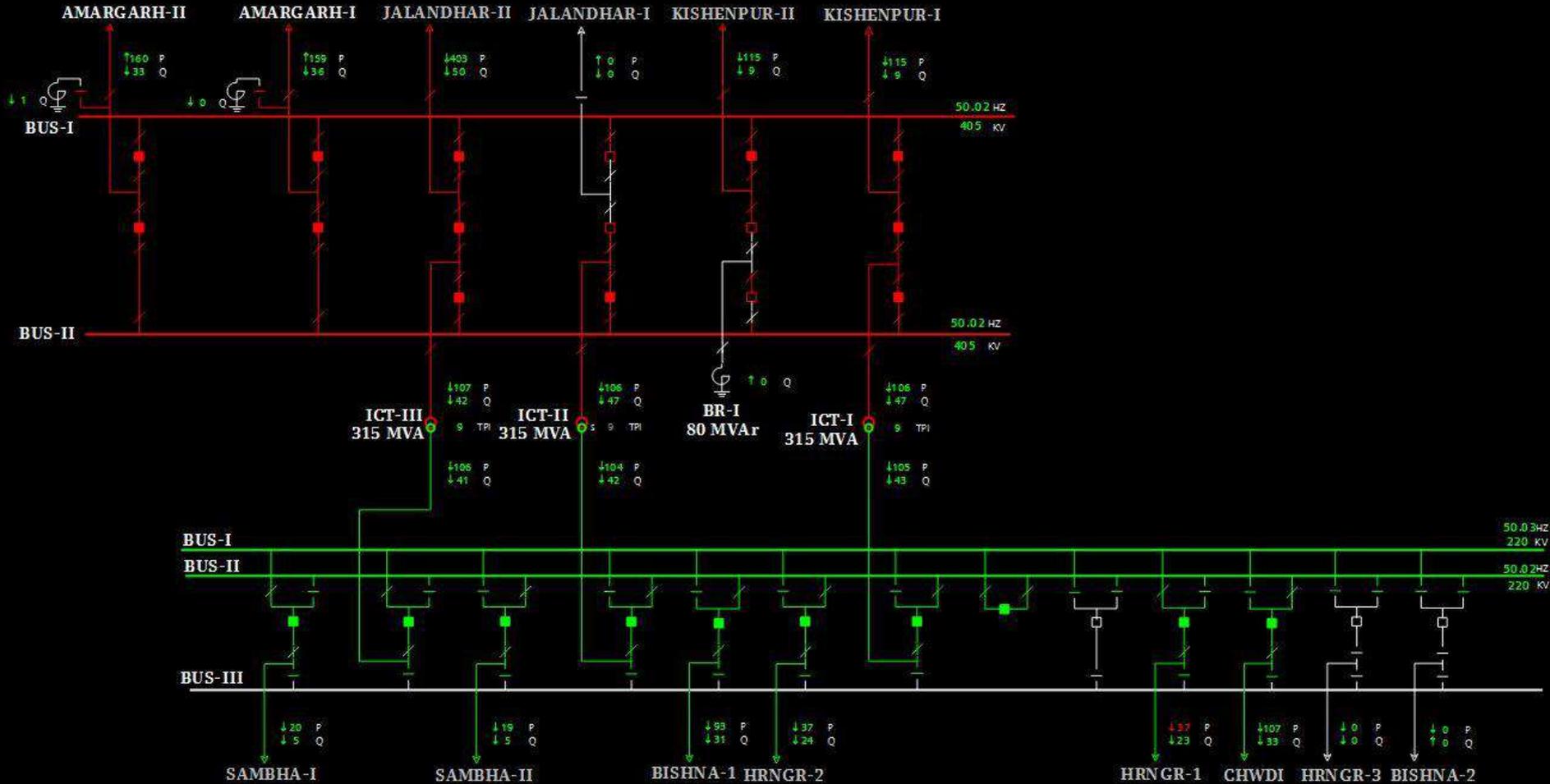
P sum(400 kV) = 5
P sum(220 kV) = -41

SAMBHA

Q sum(400 kV) = 69
Q sum(220 kV) = -16

Stat Expl GenSum Company

22.11.25 19:42:0



SLD of 400/220kV Sambha(PG) after the event

CONTACT DETAILS

EMAIL	pgsamba@powergrid.co.in
MOBILE	9906399107
HOTLINE	20112491

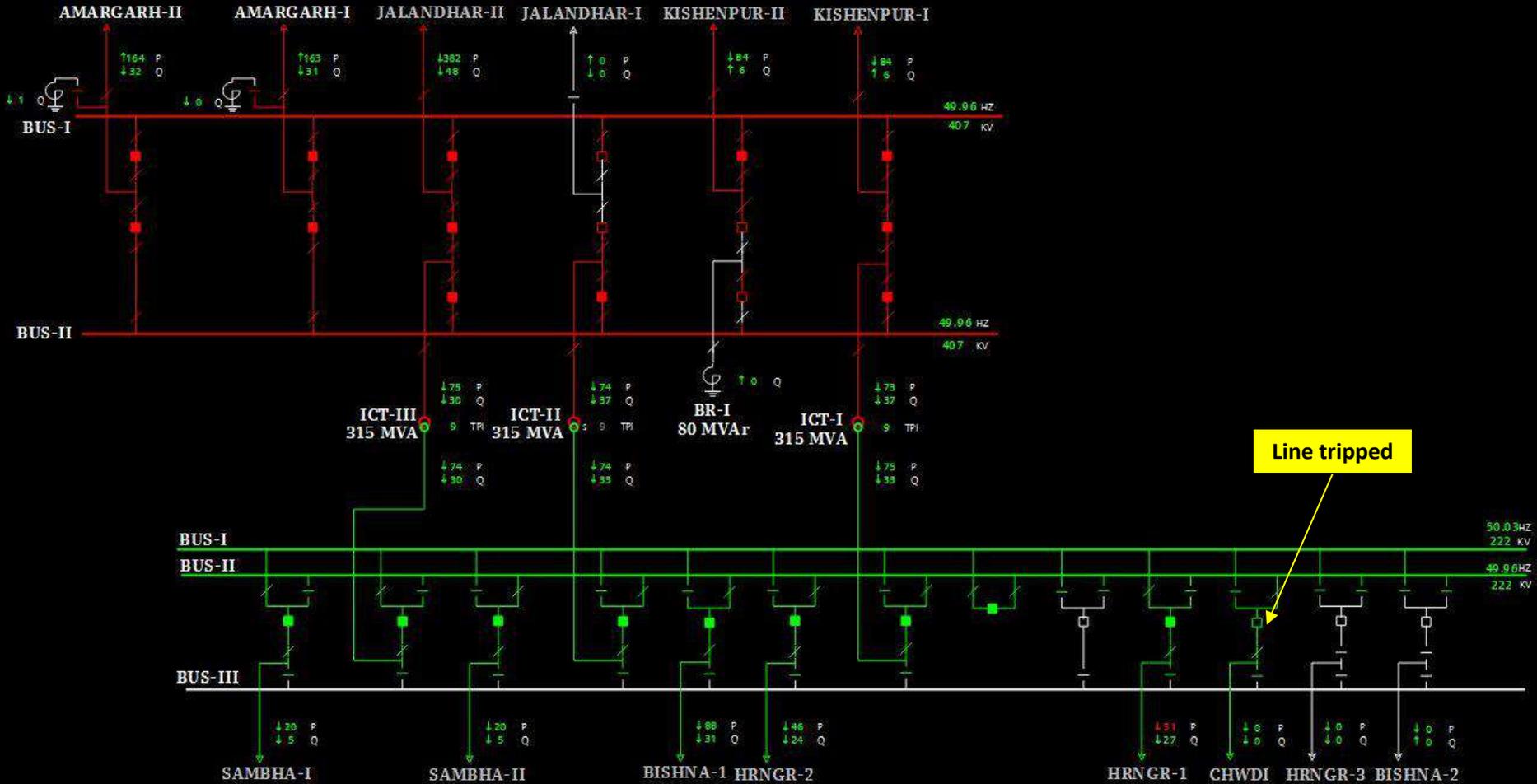
P sum(400 kV) = -1
P sum(220 kV) = -38

SAMBHA

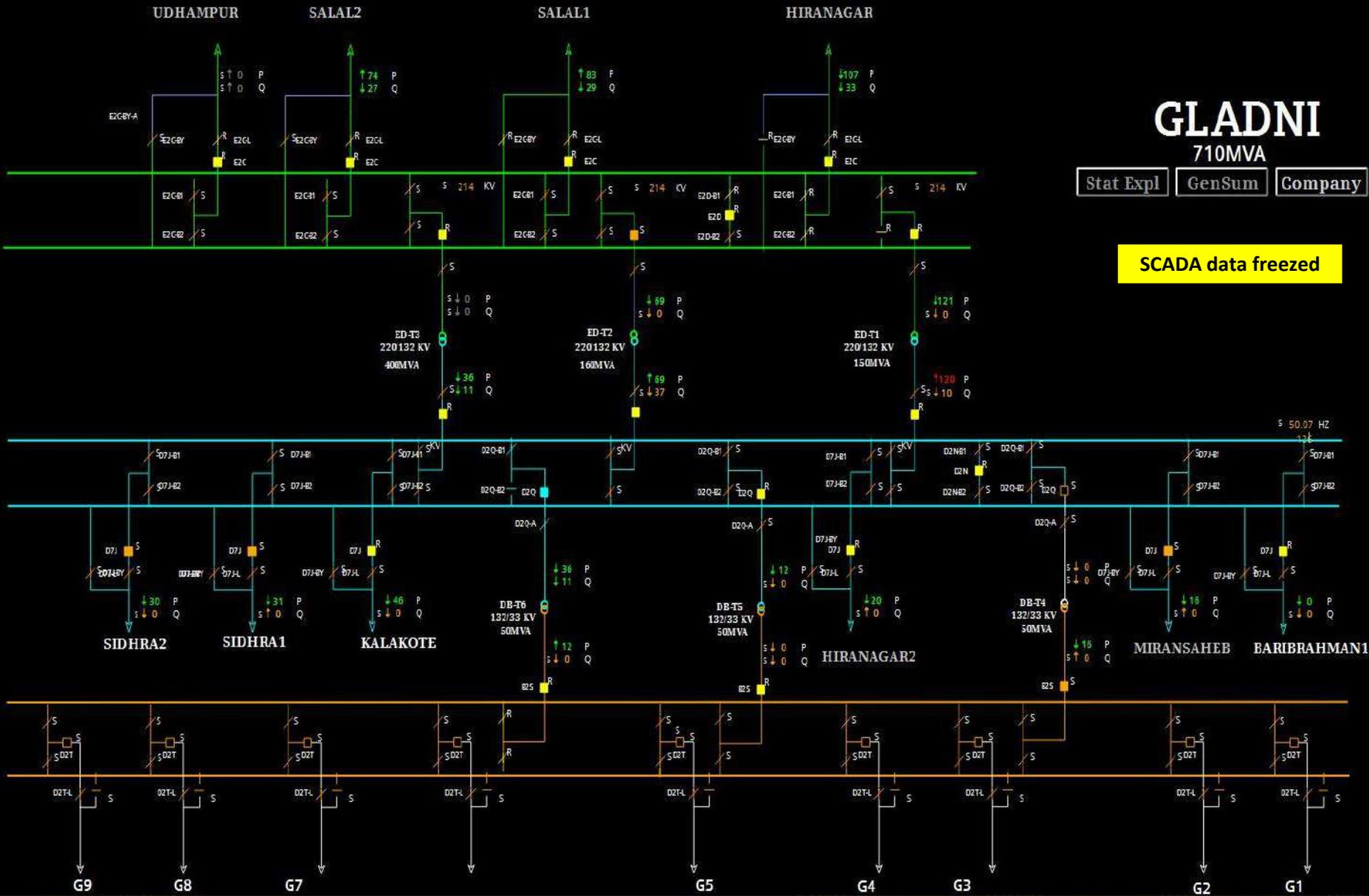
Q sum(400 kV) = 88
Q sum(220 kV) = -14

Stat Expl GenSum Company

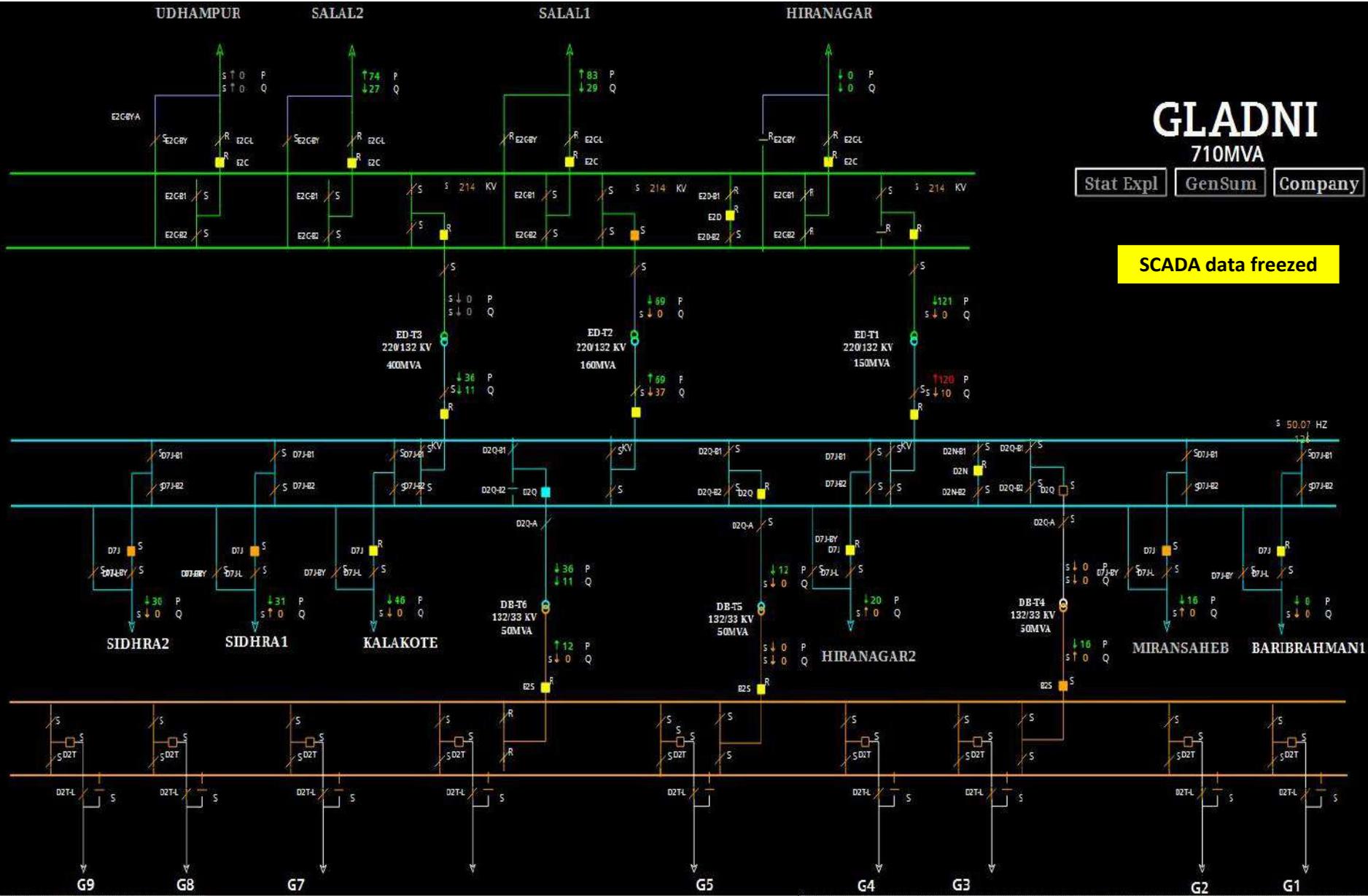
22.11.25 19:46:0



SLD of 220/132/33kV Jammu/Gladni(JK) before the event

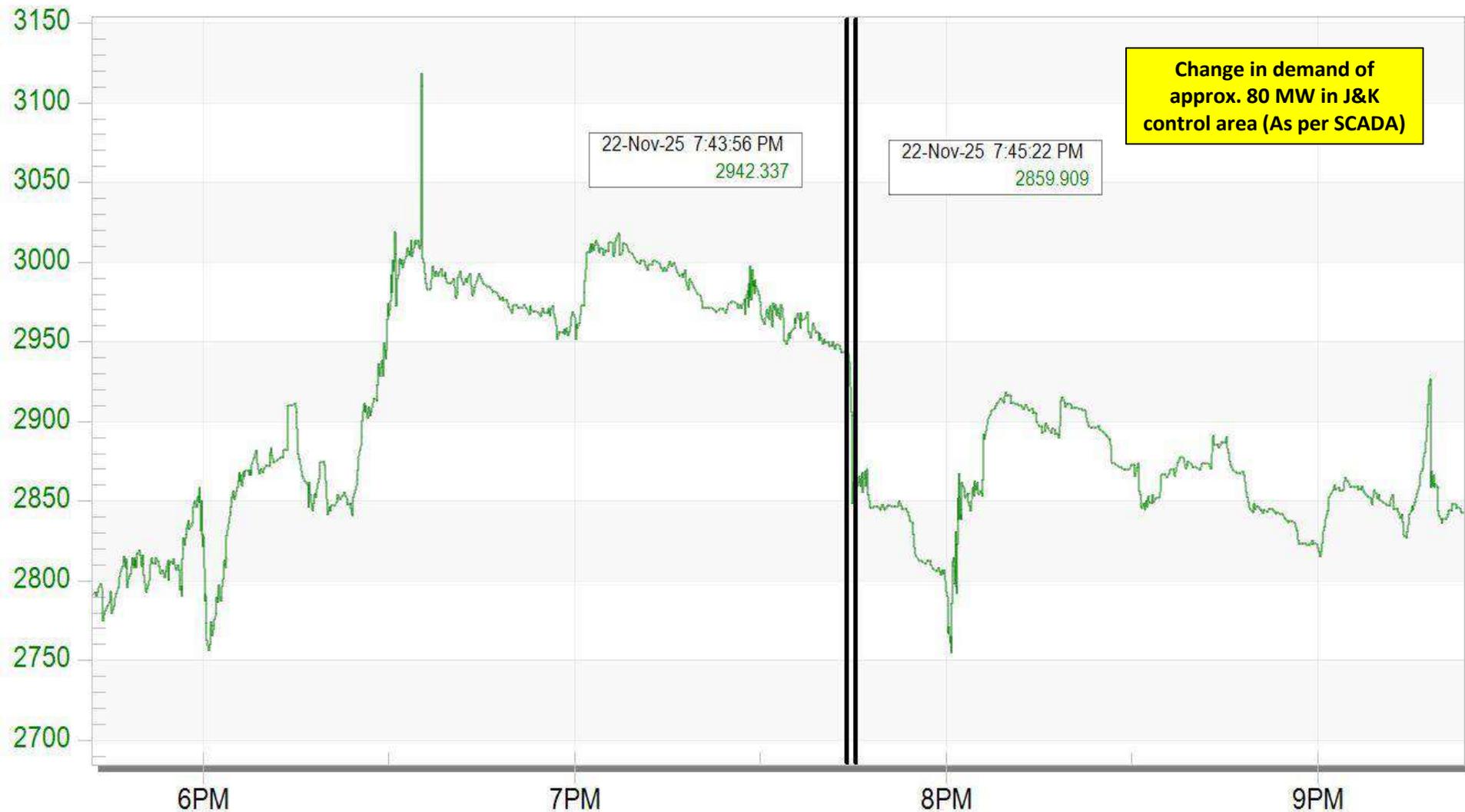


SLD of 220/132/33kV Jammu/Gladni(JK) after the event



J&K demand during the event

J&K & Ladakh Demand - 22-Nov-25 12:00 AM

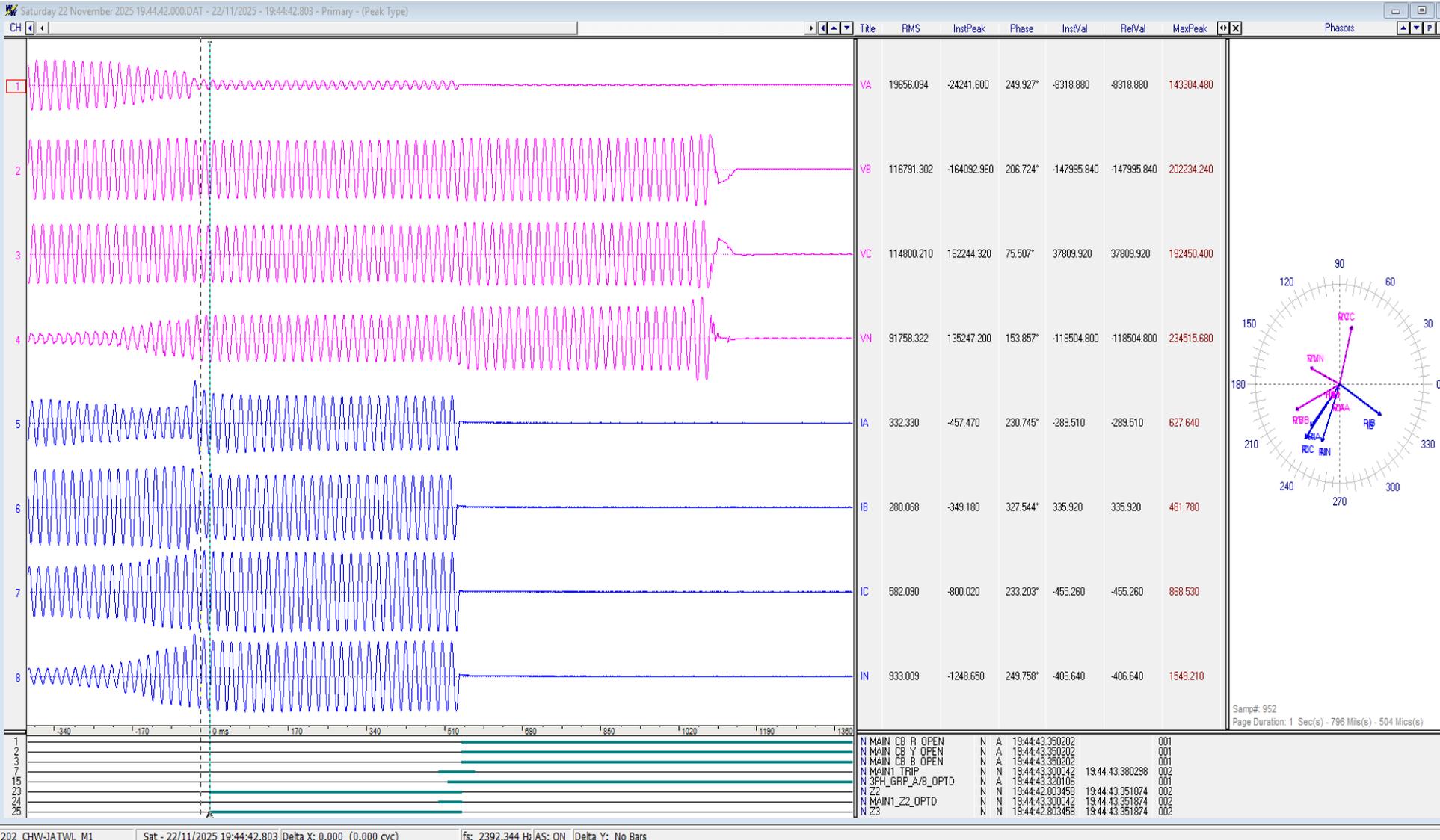


Change in demand of approx. 80 MW in J&K control area (As per SCADA)

22-Nov-25 7:43:56 PM
2942.337

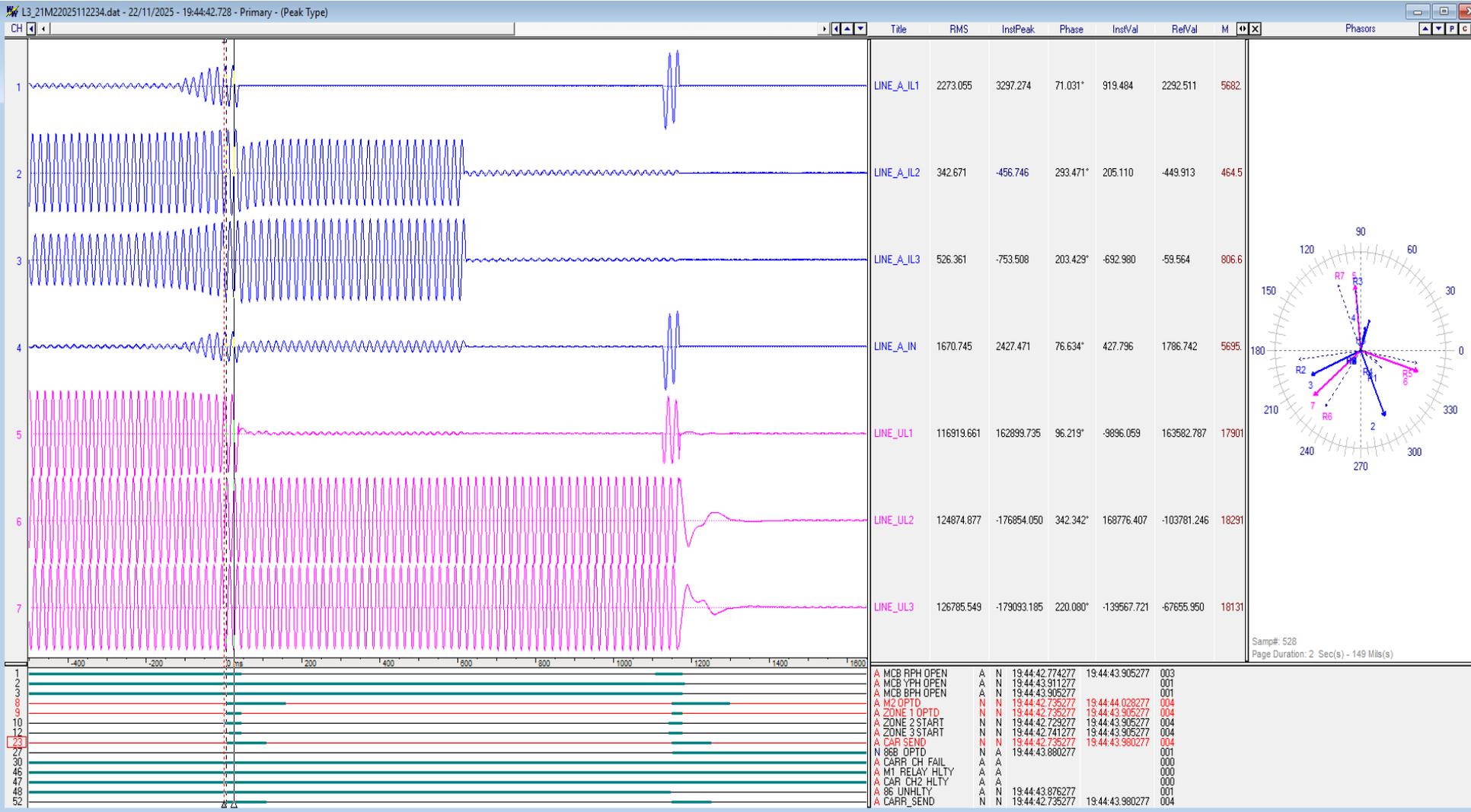
22-Nov-25 7:45:22 PM
2859.909

DR of 220 KV Samba(PG)-Chowadhi(JK) (end) (PDD JK) Ckt



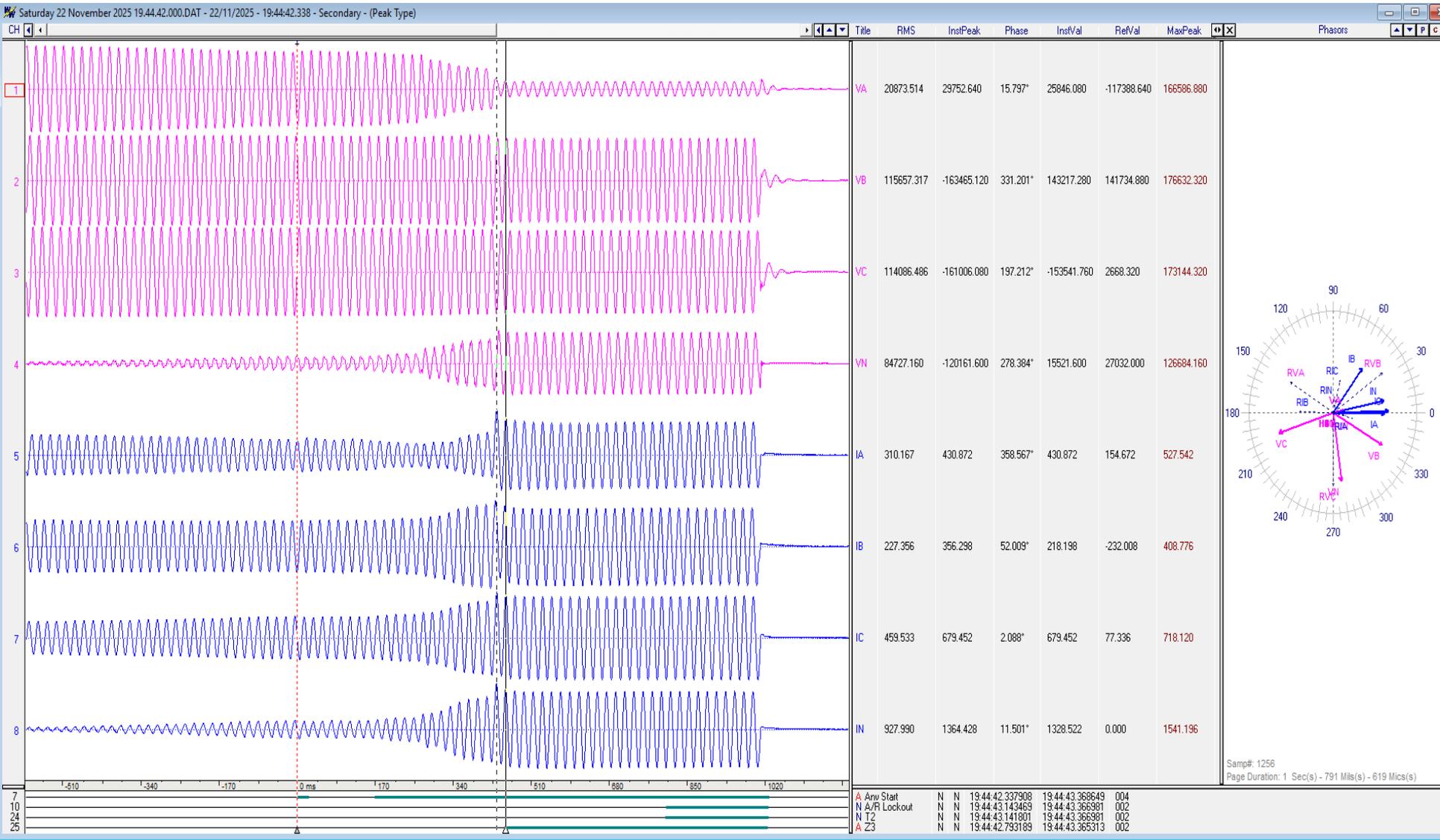
- ✓ Dip in R-ph voltage observed; $I_r \sim 332A$, $I_y \sim 280A$, $I_b \sim 582A$
- ✓ Zone-2 distance protection operated at Chowadhi end (Main-I).

DR of 220 KV Samba(PG) (end)-Chowadhi(JK) (PDD JK) Ckt



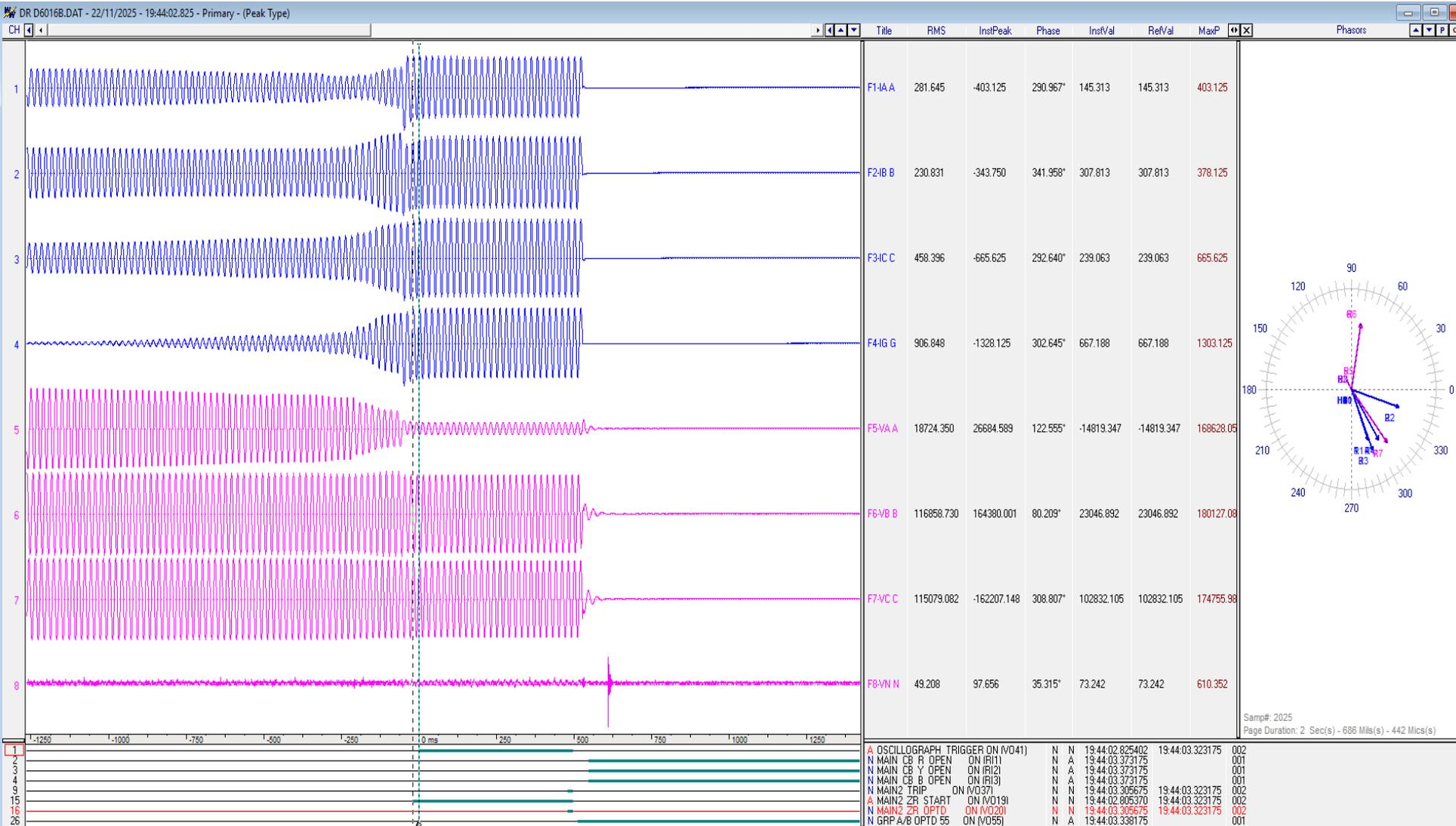
- ✓ R-N fault; Fault current: $I_r \approx 2.273\text{kA}$ and 4.134kA (during A/R)
- ✓ Zone-1 distance protection operated at Samba end (Main-II).
- ✓ Carrier sent from Samba, but not received at Chowadhi.

DR of 220 KV Jammu/Gladni(JK) (end)-Chowadhi(JK) (PDD JK) Ckt



- ✓ Dip in R-ph voltage observed; $I_r \sim 310A$, $I_y \sim 227A$, $I_b \sim 460A$
- ✓ Zone-3 distance protection sensed at Jammu/Gladni end (Main-I)

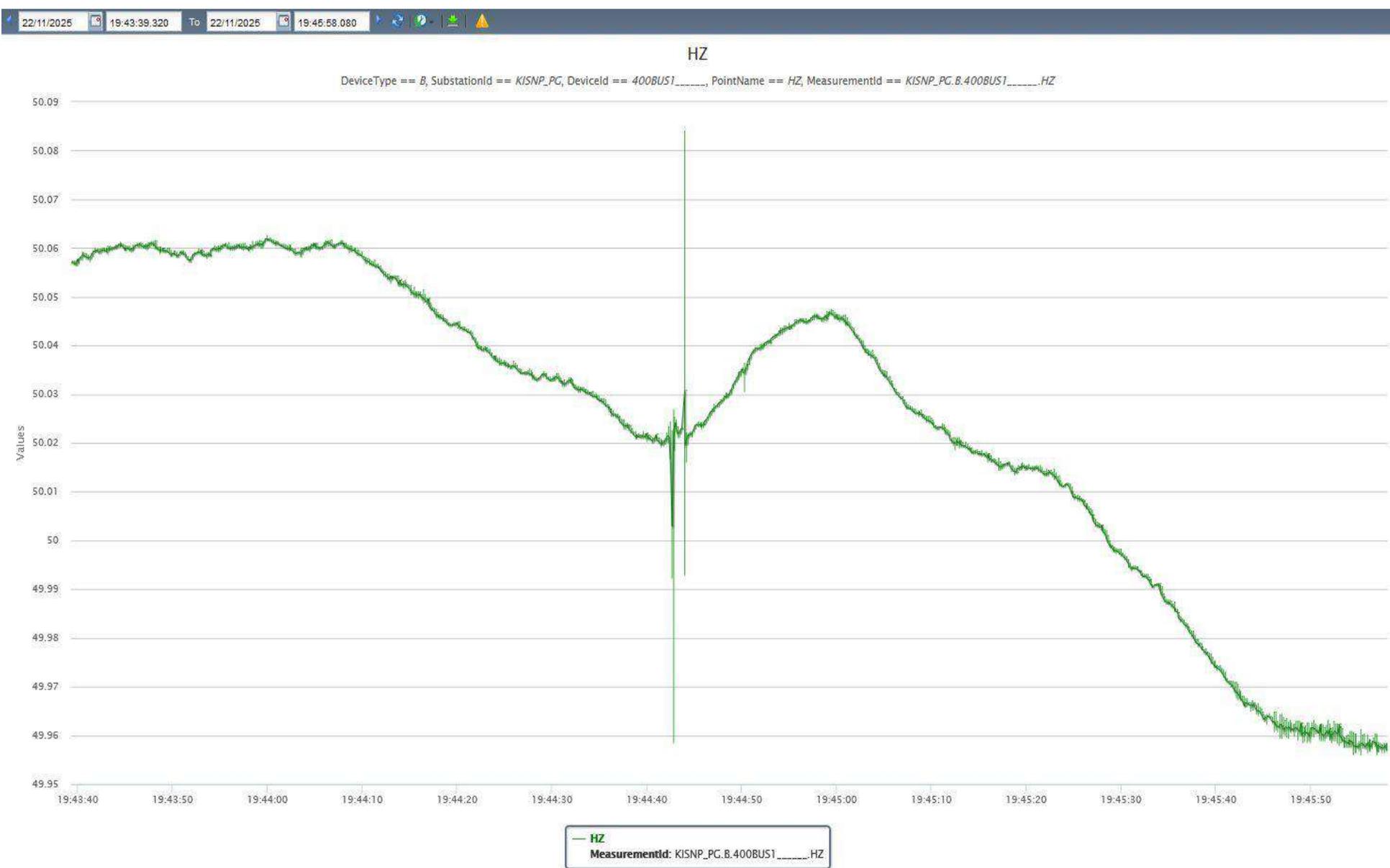
DR of 220 KV Jammu/Gladni(JK) -Chowadhi(JK) (end) (PDD JK) Ckt



- ✓ Dip in R-ph voltage observed; $I_r \sim 281A$, $I_y \sim 230A$, $I_b \sim 458A$
- ✓ Zone-4 distance protection operated at Chowadhi end (Main-II)

PMU Plot of frequency at Kishenpur(PG)

19:44hrs/22-Nov-25



PMU Plot of phase voltage magnitude at Kishenpur(PG)

19:44hrs/22-Nov-25



SCADA SOE

Time	Station Event	Voltage(kV)	Element Name	Element Type	Element Status	Remarks
19:44:42,906	SMBHA_PG	220kV	03CHWDI	Circuit Breaker	Open	Line CB at Sambha(PG) end of 220kV Samba(PG)-Chowadhi(JK) (PDD JK) Ckt opened

Points of Discussion

- i. Exact nature and location of fault need to be shared.
- ii. Carrier communication issue at Chowadhi(JK) end need to be resolved at the earliest.
- iii. Distance protection settings may be reviewed for 220 KV Samba(PG)-Chowadhi (JK) (PDD JK) Ckt and 220 KV Chowadhi (JK)-Gladni(PDD) (PDD JK) Ckt.
- iv. SCADA data of 220/132/33kV Jammu/Gladni(J&K) and 220/33kV Chowadhi(JK) S/s were freezed during the event. Availability and healthiness of SCADA need to be ensured.
- v. Remedial action taken report to be shared.

**Multiple element tripping event at
765/400/220kV Agra(PG)
at 12:12 hrs on 29.11.2025**

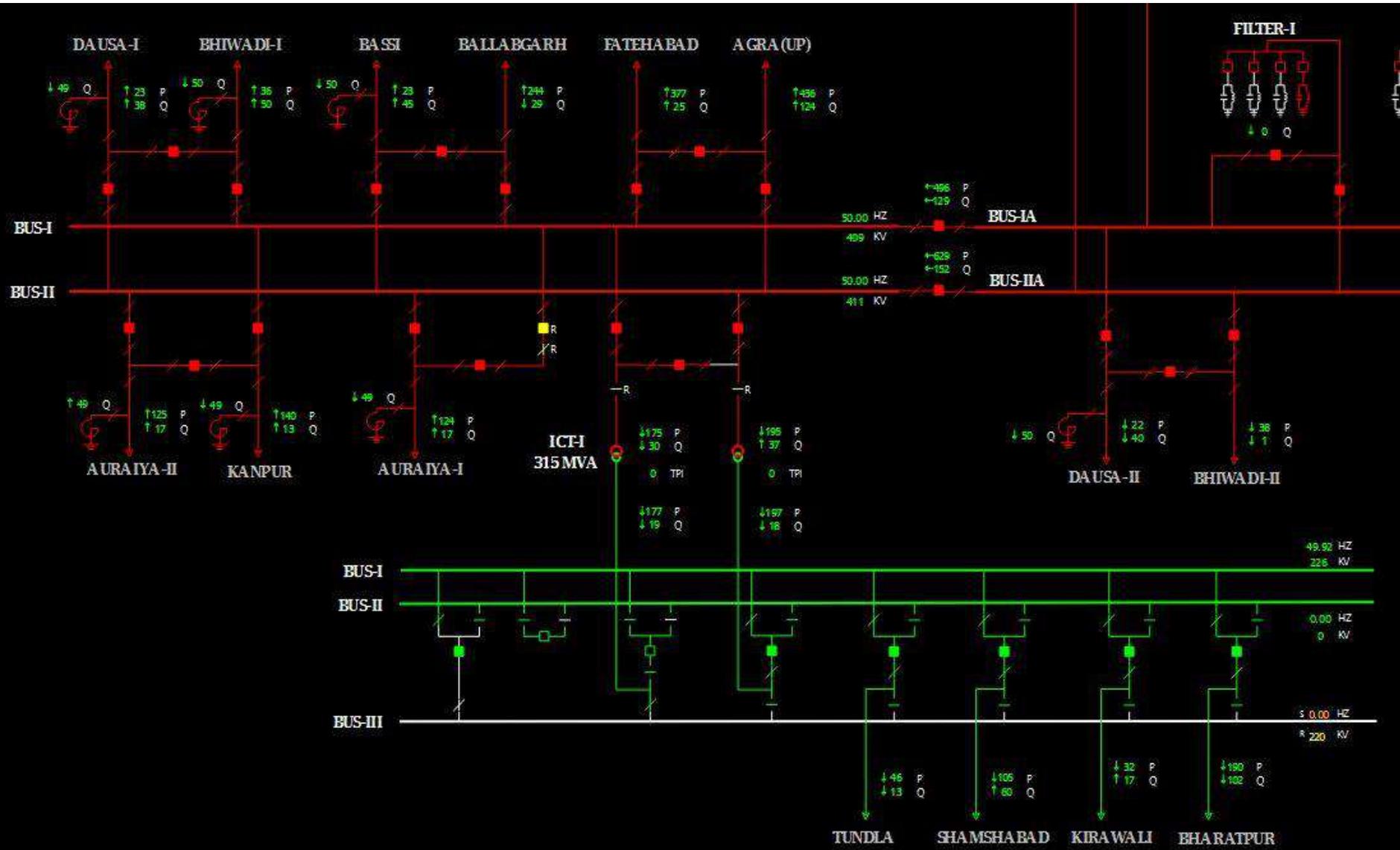
Tripped Elements

S. No	Name of Elements	Outage Time	Revival Time	Reason of tripping
1.	220kV Bus-1 at Agra(PG)	12:12 hrs	13:25 hrs	Bus bar protection operated at Agra(PG)
2.	220 KV Agra(PG)- Bharatpur(RS) (PG) Ckt		13:41 hrs	
3.	220 KV Agra(PG)- Tundla(UP) (UP) Ckt		14:01 hrs	
4.	220 KV Agra(PG)- Shamshabad(UP) (UP) Ckt		14:20 hrs	
5.	220 KV Agra(PG)- Kirawali(UP) (PG) Ckt		14:07 hrs	

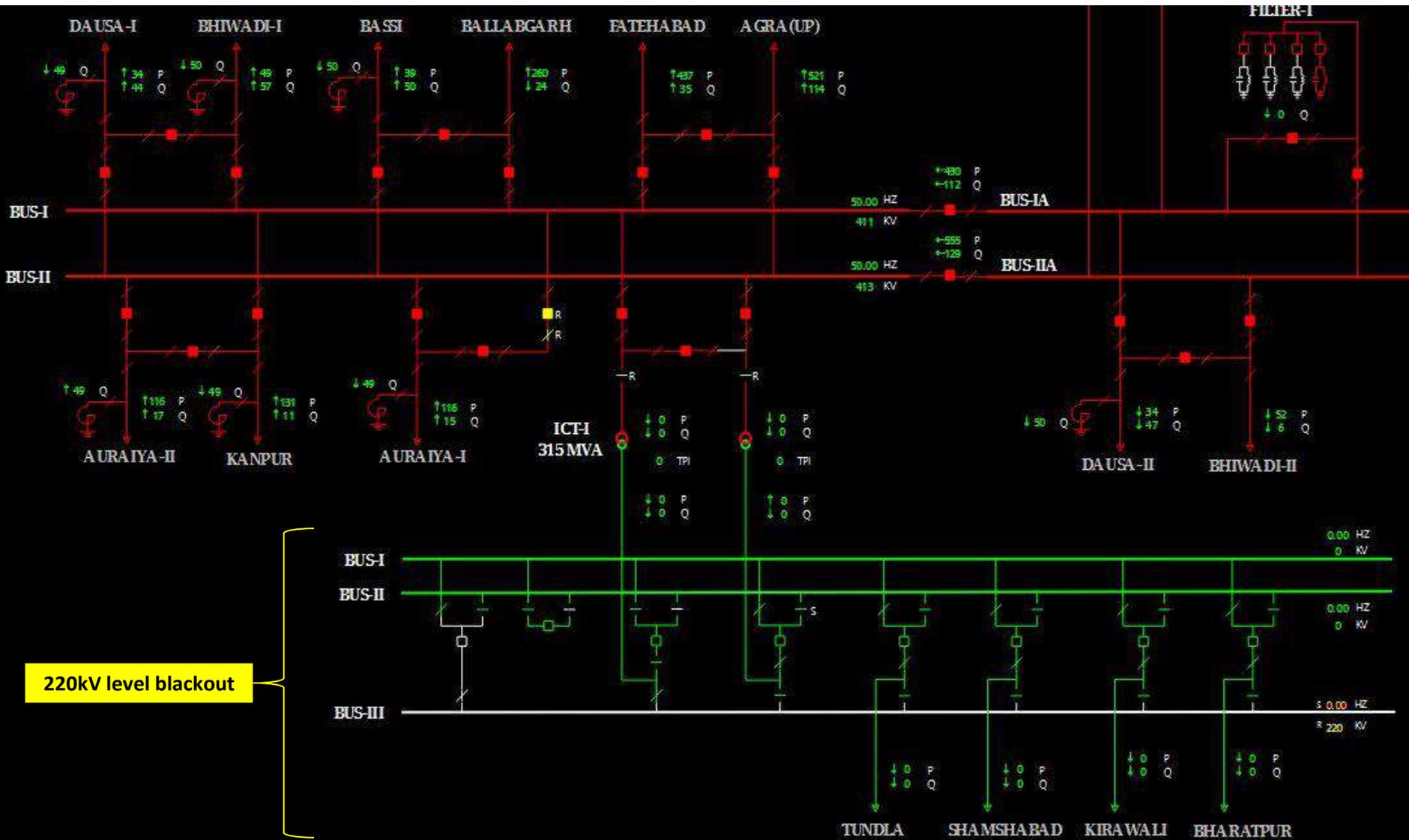
Brief details of the event

- i. 765/400/220kV Agra(PG) has double main & transfer bus scheme at 220kV level.
- ii. During antecedent condition, 220kV Bus-2 at Agra(PG) was already under planned outage due to AMP work. Hence all 220kV elements were connected to 220kV Bus-1 at Agra(PG). 400/220kV 315 MVA ICT-1 & 2 at Agra(PG) were carrying approx. 175 MW & 195 MW respectively.
- iii. As reported, at 12:12 hrs, Bus bar protection operated at 220kV Bus-1 at Agra(PG) (exact reason of bus bar protection operation including fault details yet to be shared).
- iv. Due to bus bar protection operation, all 220kV elements connected at Agra(PG) tripped and 220kV Bus-1 at Agra(PG) became dead.
- v. As per PMU at Agra(PG), B-N phase to earth fault is observed with fault clearing time of 80 ms.
- vi. As per SCADA change in demand of approx. 70 MW in UP control area and approx. 140 MW in Rajasthan control area were observed.

SLD of 765/400/220kV Agra(PG) (zoomed) before the event



SLD of 765/400/220kV Agra(PG) (zoomed) after the event



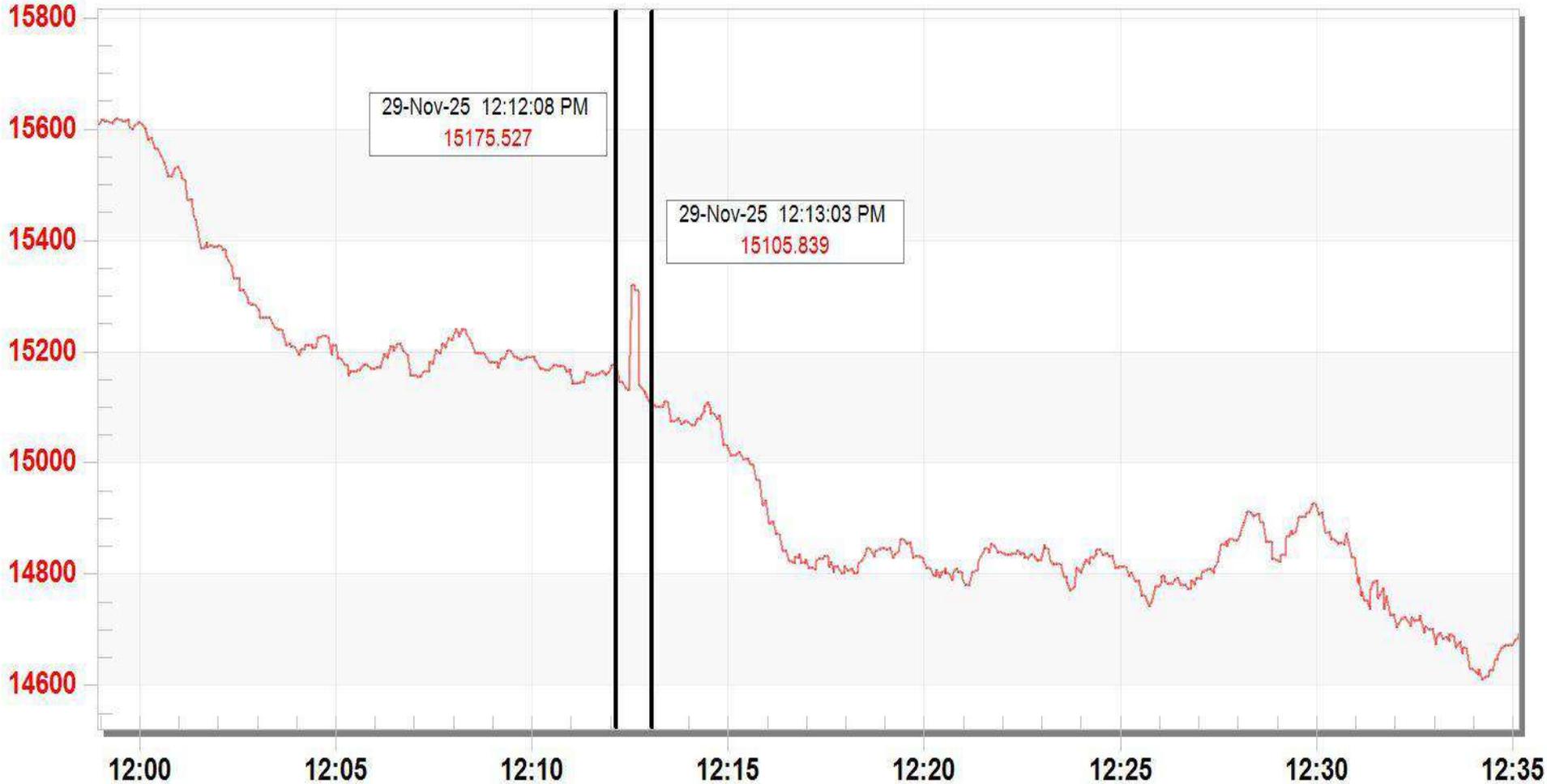
UP demand during the event

UP DEMAND

MW

Change in demand of approx.
70 MW in UP control area
(as per SCADA)

!COMPANIES!PGCIL!NRLDC_PG!LD!UP_LOAD!P.MvMoment



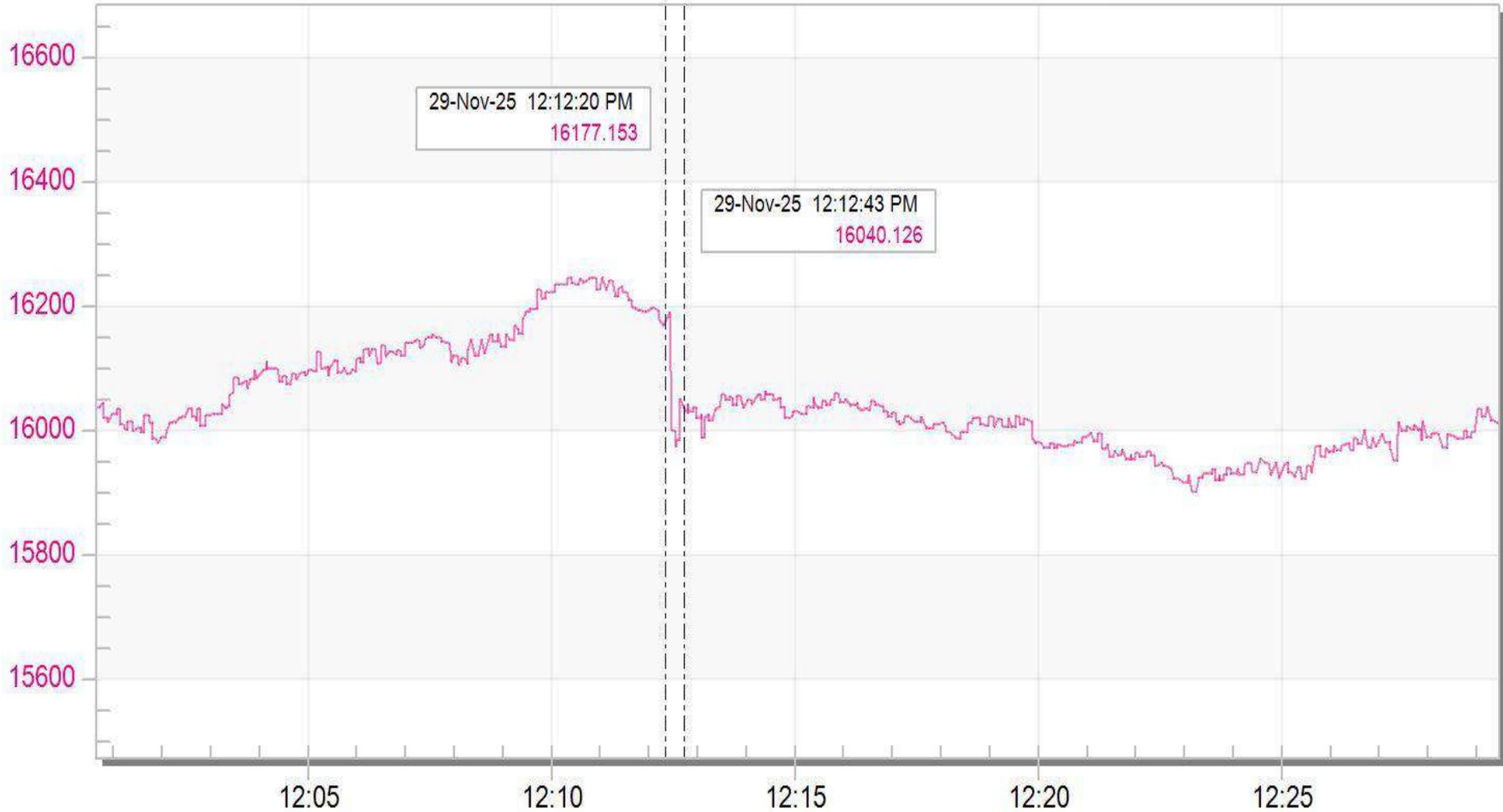
Nov 29 Sat 2025

Rajasthan demand during the event

Rajasthan Demand Met

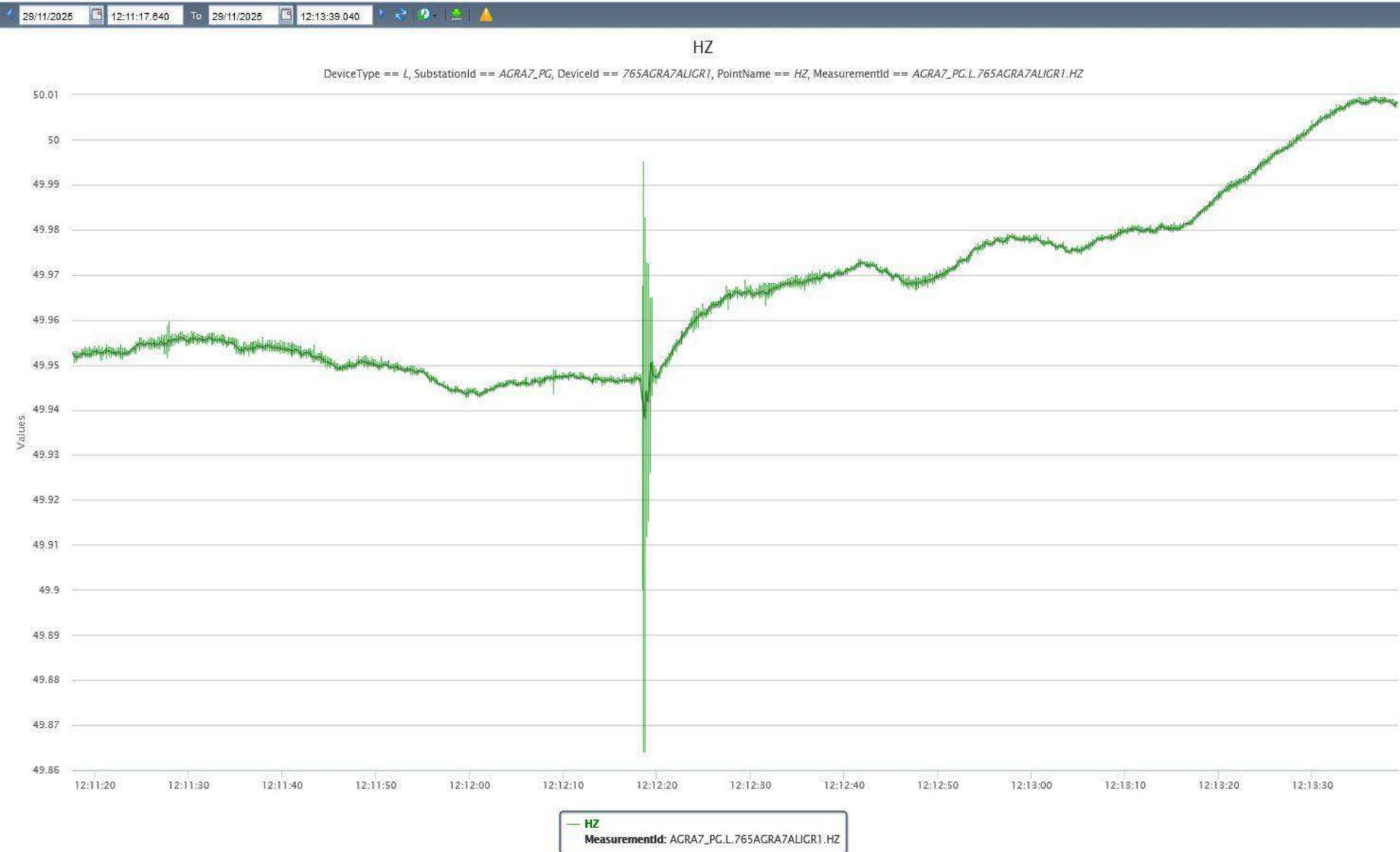
Change in demand of approx. 140 MW in Rajasthan control area (as per SCADA)

Rajasthan Demand Met - 29-Nov-25 12:00 AM



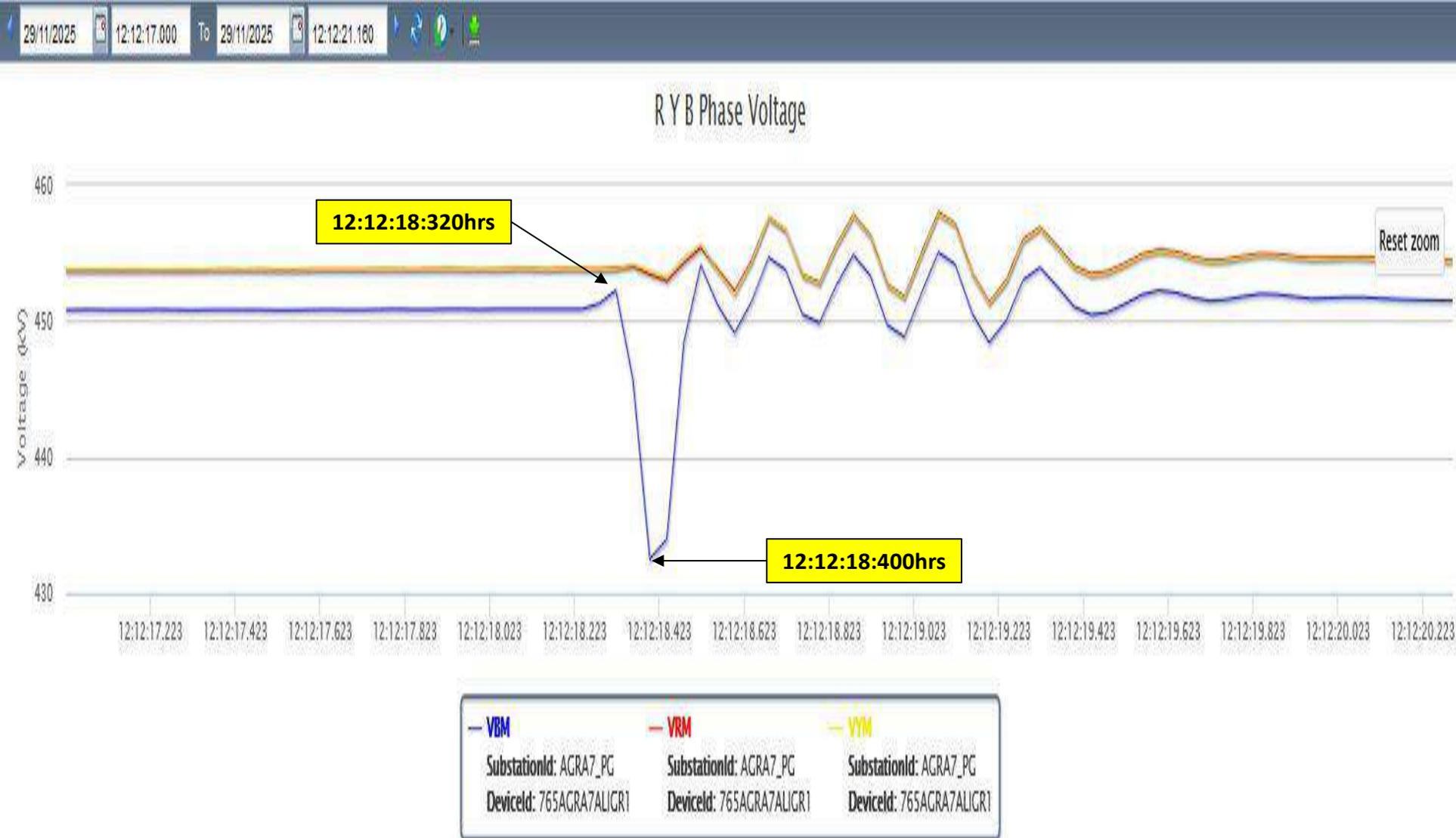
PMU Plot of frequency at Agra(PG)

12:12 hrs/29-Nov-25



PMU Plot of phase voltage magnitude at Agra(PG)

12:12 hrs/29-Nov-25



SCADA SOE

Time	Station Name	Voltage	Element Name	Element Type	Element Status	Remarks
12:12:18,437	AGRHV_PG	220kV	6T2	Circuit Breaker	Open	CB at 220kV side of 400/220kV 315 MVA ICT-2 at Agra(PG) opened
12:12:18,438	AGRHV_PG	220kV	8BHRTPR	Circuit Breaker	Open	Line CB at Agra(PG) end of 220 KV Agra(PG)-Bharatpur(RS) (PG) Ckt opened
12:12:18,438	AGRHV_PG	220kV	7KIRAW	Circuit Breaker	Open	Line CB at Agra(PG) end of 220 KV Agra(PG)-Kirawali(UP) (PG) Ckt opened
12:12:18,492	AGRHV_PG	220kV	1LINE_1	Circuit Breaker	disturbe	
12:12:18,493	AGRHV_PG	220kV	2LINE_2	Circuit Breaker	disturbe	
12:12:18,500	AGRHV_PG	220kV	5TBC	Circuit Breaker	disturbe	
12:12:18,537	AGRHV_PG	220kV	1LINE_1	Circuit Breaker	Open	Line CB at Agra(PG) end of 220 KV Agra(PG)-Shamshabad(UP) (UP) Ckt opened
12:12:18,667	TUNDL_UP	220kV	06AGRPG	Circuit Breaker	disturbe	
12:12:18,681	AGRHV_PG	220kV	2LINE_2	Circuit Breaker	Open	Line CB at Agra(PG) end of 220 KV Agra(PG)-Tundla (UP) (UP) Ckt opened
12:12:18,707	TUNDL_UP	220kV	06AGRPG	Circuit Breaker	Open	Line CB at Tundla (UP) end of 220 KV Agra(PG)-Tundla (UP) (UP) Ckt opened
12:12:19,089	AGRHV_PG	220kV	5TBC	Circuit Breaker	Open	Transfer Bus Coupler CB at 220kV Agra(PG) opened
12:12:32,000	KIRAW_UP	220kV	04AGRPG	Circuit Breaker	Open	Line CB at Kirawali(UP) end of 220 KV Agra(PG)-Kirawali(UP) (PG) Ckt opened

Points of Discussion

- i. Exact reason of bus bar protection operation including fault details need to be shared.
- ii. DR/EL along with detailed tripping report need to be shared by PG.
- iii. Remedial action taken report need to be shared.



THDC India Limited



PSP Tehri (4x250MW)

**Unit#05 & 06 Tripping details along
with Root Cause Analysis & Corrective
action**

Tripping details of Tehri PSP



COD of Unit#05: 07.06.2025

COD of Unit#06: 10.07.2025

COD of Unit#07: 12.12.2025

No. of Tripping	Unit#05	Unit#06	Unit#07	Total
During Starting	23	24	0	47
During Operation	26	30	1	57
Total tripping	49 (U#05)	54 (U#06)	1 (U#07)	104* (Total)

**as on 22.12.2025*

Out of total 104 tripping, 47 tripping/outage were during starting sequence i.e **45.19%**

Tripping details of Tehri PSP

SI No.	System / Equipment	Unit#05	Unit#06	Unit#07	Total No. of Tripping
1	Mechanical & Auxiliaries	12	16	0	28
2	VSI	8	11	1	20
3	Grid Fault	6	4	0	10
4	Generator & Auxiliaries	4	8	0	12
5	SPMAX	4	3	0	7
6	Control System	2	3	0	5
7	Due to non tuning of Dead band test & pending high head test	6	1	0	7
8	Miscellaneous electrical & common system related problems	7	9	0	15
	Grand Total	49	54	1	104

**as on 22.12.2025*

Tripping details of Tehri PSP



Month wise break up of Tripping				
MONTH (2025)	Total No. Trips (Unit wise)			
	Unit#05	Unit#06	Unit#07	Total U5+U6
JUNE	10	0	0	10
JULY	13	8	0	21
AUGUST	7	11	0	18
SEPTEMBER	2	15	0	17
OCTOBER	8	14	0	22
NOVEMBER	8	4	0	12
DECEMBER	1	2	1	4
Total	49	54	1	104*

**as on 22.12.2025*



Outages/Tripping due to VSI System



VSI System

Total Number of Tripping: 30

Grid fault: 10

Communication failure: 05

Cooling Skid: 04

Stack failure: 03

AC voltage feedback: 4

Tuning of FRT: 02

Others: 02

VSI System



Stack failure issue in VSI

Issue: Stack failure in VSI and outage of unit



VSI System



Stack failure issue in VSI

Corrective Action:

- RCA (Root Cause Analysis) of Stack failure is under progress by OEM.
- After unit#6 stack failure incident, OEM finds that cooling system of stacks may be ineffective. After primary investigation by OEM, blockage was identified in the heat sink of stack.
- OEM recommended for flushing of stacks and DM water cooling line.

VSI System



VSI Stacks Cooling issue

Issue: VSI stacks Cooling issue & outage of unit



VSI System

VSI Stacks Cooling issue



Corrective Action:

- Blockage in heatsink of stack observed.
- Flushing of Individual stack was done.
- A finer 30-micron filter was installed in the DM water line in cooling skid during flushing activity.
- Flushing of individual converter panels were done by isolating it with other converters.

VSI System



Tripping of Units during Grid faults

Issue: Tripping of unit during transient voltage dip in the Grid

Corrective Action:

- Tuning related to FRT was done by M/s GE global expert on 18.11.2025 at site.
- As per the advice of the global experts, the system behaviour shall be under monitoring for future FRT events. Further If required, the tuning of FRT will be done based on the real data recorded during FRT events. Based on real data recorded, further action shall be taken by M/s GE global experts,
- However unit found sustained on 28.11.25 at 10:35:26 hrs for voltage Dip of 19% for 61 ms.



Outages/Tripping due to Generator System & Auxiliaries



Generator System & Auxiliaries

Total Number of Tripping: 12

Slip Ring: 04

HP Oil Injection System: 04

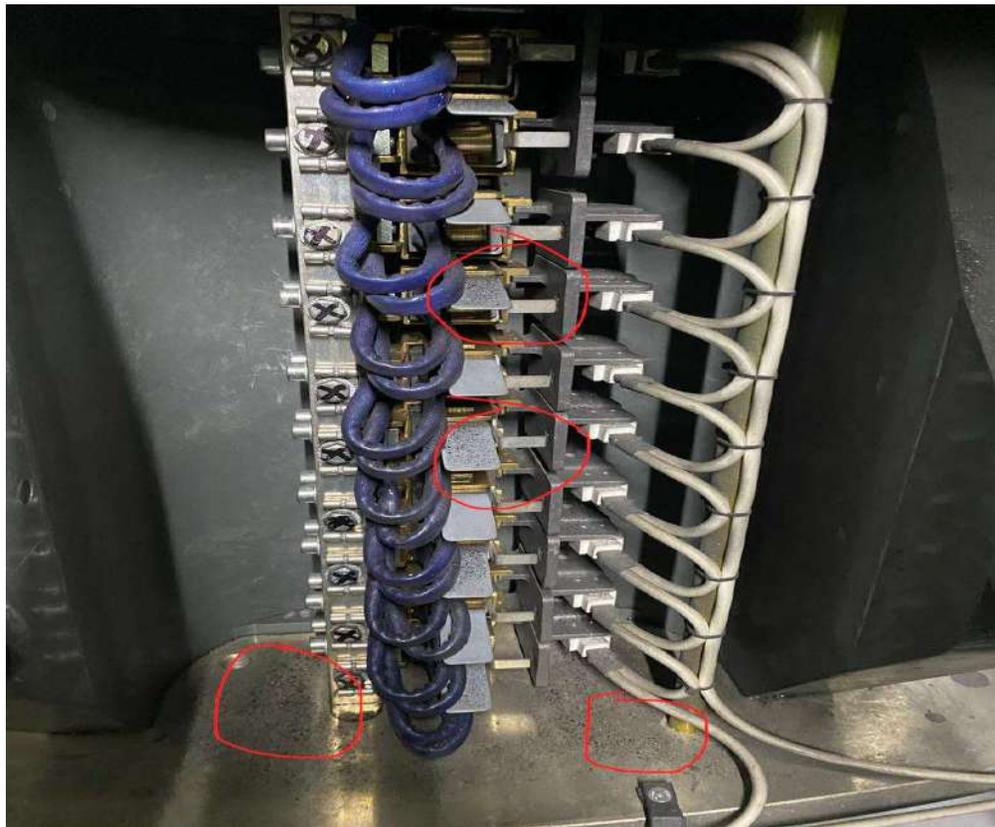
Others: 04

Generator System & Auxiliaries



Carbon dust deposition on slip ring

Issue: Carbon dust deposition on Slip ring and outage of unit on VSI crow bar protection due to this.



Generator System & Auxiliaries



Carbon dust deposition on slip ring

Corrective Action:

- A filter was installed on the suction inlet of slip ring AHU.
- Temperature criteria for slip ring cooling increased as per OEM recommendation.
- Both brush dust exhauster fan made operational during machine running, Earlier only one fan was operative during machine operation.

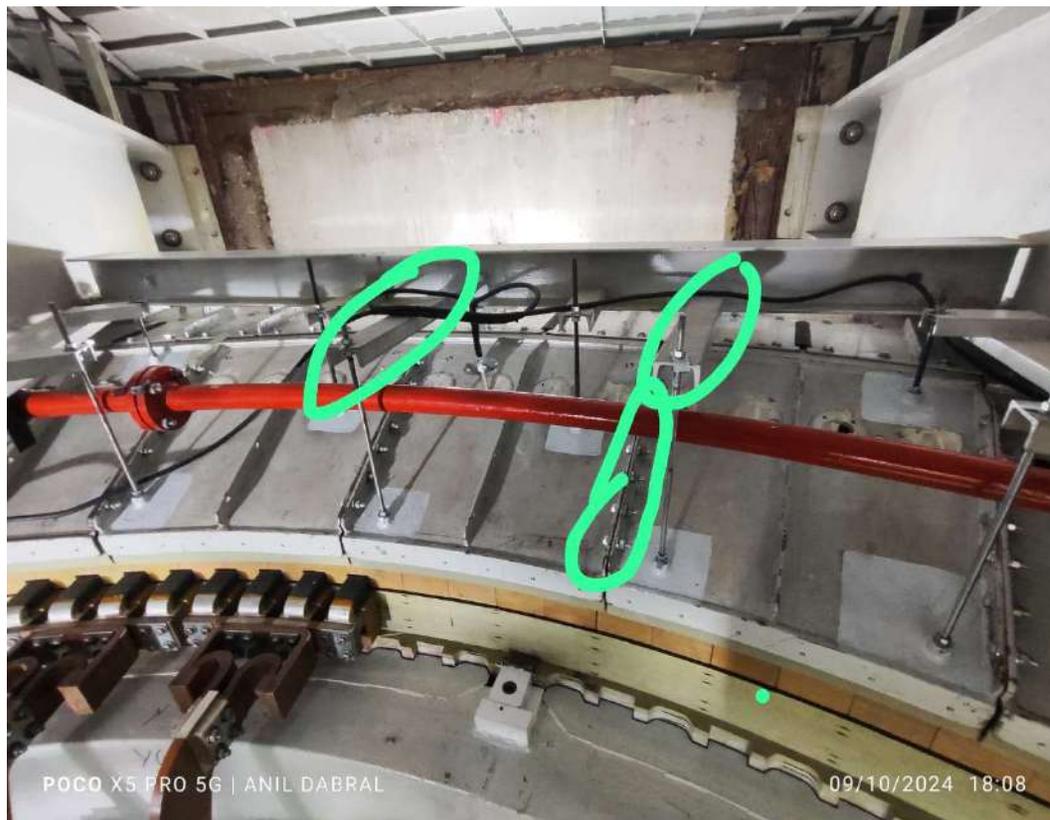


Generator System & Auxiliaries



Breaking of Generator Air Guide Bolts

Issue: Breaking of air guide cover bolts in U#5 & U#6 during over speed on emergency shutdown.



Generator System & Auxiliaries



Breaking of Generator Air Guide Bolts

Corrective Action:

- Perforated sheets were installed on air guide cover joints.
- Higher grade bolts were replaced in air guide cover.
- Vibration studies of air guide cover was carried out by M/s GE Vernova global experts during 22nd Nov. 2025 to 24th Nov. 2025.



Outages/Tripping due to SPMAX System

SPMAX System



Total Number of Tripping: 07

SPMAX fault: 07

SPMAX System



Implementation of Operational Redundancy of SPMAX Controller

Issue: THDCIL observed that the unit was unable to start when either one of the SPMAX channels developed a major fault, even though the other channel remained healthy.

Corrective Action:

During the Technical Workshop organized by M/s GE at Tehri PSP from 10th to 14th November 2025, THDCIL requested the GE experts to modify the control logic so that the unit can accept the start command in the event of a major fault in one SPMAX channel, provided the other channel is healthy. GE experts confirmed that the required logic modification would be implemented at the earliest.

Subsequently, based on THDCIL's request, the control logic has been modified and successfully implemented in Unit #07 to allow unit start-up with a single healthy SPMAX channel, with appropriate alarms configured for single-controller operation. The modified logic is currently under observation. After evaluation of the post-implementation performance of Unit #07, the same modification will be implemented in Unit #05 and Unit #06 shortly.

SPMAX System



Simultaneous absence of both N & S channels of SPMAX

Issue: Unit Tripping due to communication failure because of simultaneous absence of both N & S channels of SPMAX.

Corrective Action:

A new version of SPMAX software was loaded by GE after fine-tuning of system parameters by the SPMAX global expert.

This issue resulted in a single tripping of Unit-5, which occurred once shortly after commissioning. The matter was also discussed with the SPMAX global expert during the Technical Workshop held in November 2025. The expert confirmed that, following the parameter optimization, recurrence of this issue is not expected. However, they will continue to monitor the system and further fine-tune parameters if any such issue is observed in future.

SPMAX System



Communication Failure between SPMAX and Unit Control System (UCS)

Issue: Unit tripping due to the loss of communication between the SPMAX gateway and UCS.

Corrective Action:

A new version of SPMAX software was loaded by GE after fine-tuning of system parameters by the SPMAX global expert.

This issue resulted in a single tripping of Unit-5, which occurred once shortly after commissioning. The matter was also discussed with the SPMAX global expert during the Technical Workshop held in November 2025. The expert confirmed that, following the parameter optimization, recurrence of this issue is not expected. However, they will continue to monitor the system and further fine-tune parameters if any such issue is observed in future.

SPMAX System



Unit Tripping in Deadband during PFR operation

Issue:

Unit tripping while operating in the deadband due to changes in active power setpoints in response to Primary Frequency Response (PFR) requirements.

Corrective Action:

The issue was seriously raised by THDCIL with GE. Consequently, M/s GE SPMAX global experts agreed to test the machine operation by limiting the maximum speed to 225 RPM and prevent the machine to enter into synchronous dead band during active power response to grid frequency variation.

The same has recently been checked in Unit#5 and the operating behaviour along with relevant electrical and mechanical records has been shared with the SPMAX global expert. As per GE commissioning team, the same will be reviewed by the global expert in first/second week of Jan'26 and based on his review and approval, the same modification will be extended to the remaining units.



Outages/Tripping due to Control System



Control System

Total Number of Tripping: 05

IHR Controller failure: 05

A total of 5 tripping incidents occurred in the Control system. All these trips were due to IHR Controller failure. This was due to disturbance in field communication networks E8000-1 and E8000-2.

Control System



Prevention of Unit Tripping Due to IHR Controller failure.

Issue:

Repeated tripping of units due to IHR controller failure caused by unstable field communication networks (E8000-1 and E8000-2).

Corrective Actions:

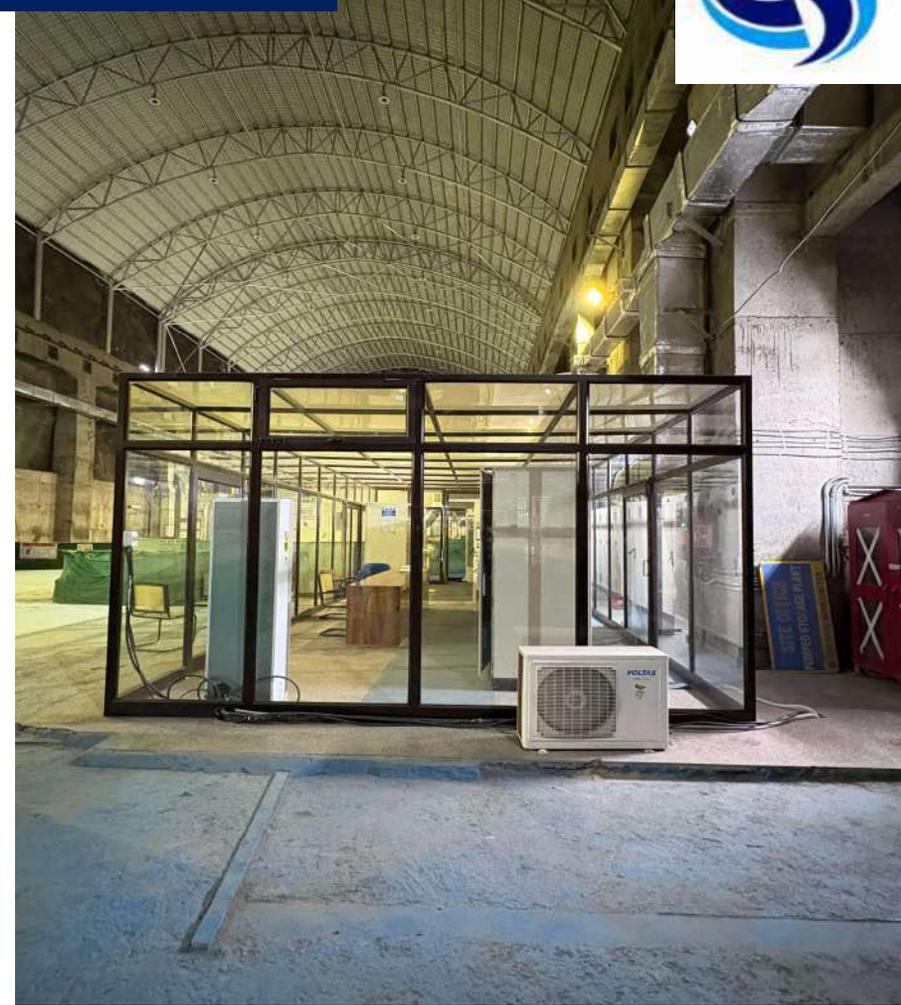
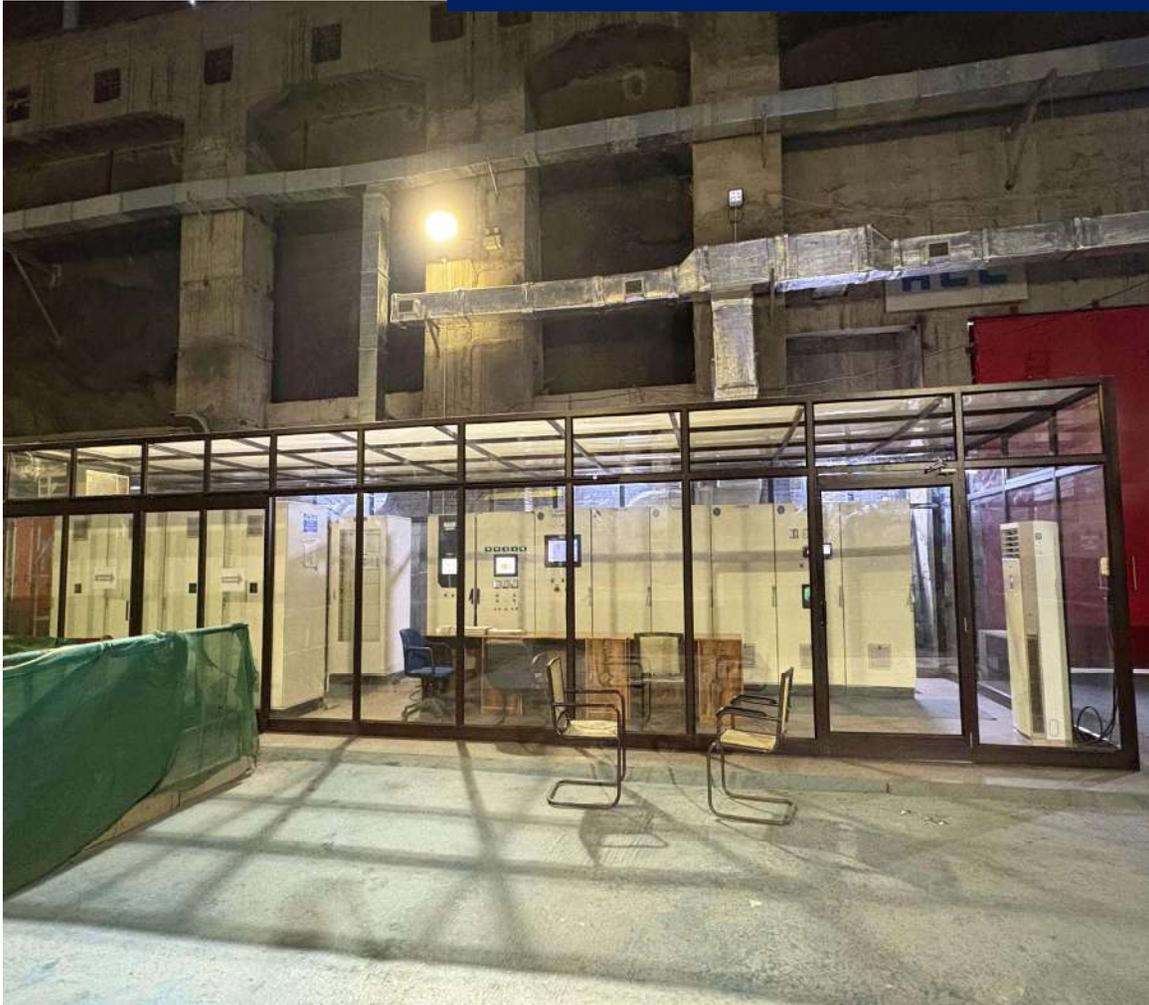
1. Communication Network Stabilization:

Dip-switch settings of MOXA converters were modified by GE expert, reducing network fluctuations and improving IHR controller stability.

2. Protection from Dust & High Temp:

As per GE, temp and dust may also be the contributory factors for this so Glass-enclosed air-conditioned chambers are being installed by THDCIL for Unit Controller panels to prevent them from dust, heat and humidity. Critical panels (Unit Controller, SPMAX, TSLG, protection) are now in a controlled, dust-free environment.

Control System



Glass encloser installed for Unit Control Panels

Control System



Dip-switch setting in MOXA multimedia converter is changed now.



**Outages/Tripping due to non tuning of
Dead band test & pending high head test**



Non tuning of Dead band test & pending high head test

Total Number of Tripping: 07

Total 07 nos tripping were observed due to non tuning of dead band test & during the fine tuning of dead band test at high head. Such trippings were observed only upto mid of Aug'25 and their reoccurrence was not observed after the fine tuning.



Outages/Tripping due to Mechanical Auxiliaries



Mechanical System & Auxiliaries

Total Number of Tripping: 28

OPU (Oil/ Tank level including): 7

Dewatering/Rewatering: 7

MOV Stuck: 5

Cooling Water System: 6

Others: 3

Mechanical System & Auxiliaries



OPU faults

Issue: Several faults were observed in the OPU, including oil leakage at the hose pipe connector, malfunction of the auto air injection system, and float level that inaccurately indicated an excessively high oil level in the pressure tanks.

Corrective Action:

The pipeline hose O-ring seal was replaced to stop leakage, the auto air injection system filter was thoroughly cleaned to restore proper operation, and the level float mechanism was inspected and corrected to ensure accurate oil level indication.



Mechanical System & Auxiliaries



TLTE Fault of Runner Rewatering Valve During Pump Mode Start

Issue:

During starting in pump mode, the unit tripped under QSD due to a TLTE fault in the runner rewatering valve. Investigation revealed foreign material in the oil system obstructing the pressure-reducing circuit, which delayed valve opening and triggered the trip.

Corrective Action:

Thorough oil filtration was performed, restoring valve circuit pressure and ensuring oil cleanliness. No further TLTE faults or QSD trips have occurred. As a preventive measure, an online kidney-loop oil filtration system is being installed to maintain sustained oil cleanliness.



**Kidney loop filter
installation is in
progress in all
Units**

Mechanical System & Auxiliaries



Dewatering Air Buffer Tank Pressure Limitation Affecting Pump Mode Operation

Issue:

The unit was unable to operate in pump mode due to inadequate pressure for achieving the dewatering stage, owing to back-to-back operation.

Corrective Action:

The dewatering air buffer tank minimum pressure limit was reduced from 70 bar to 45 bar, allowing back-to-back unit operation without restriction. No recurrence of the issue has been observed.

Mechanical System & Auxiliaries

Labyrinth Cooling Water MOV Stuck Causing QSD of the Unit



Issue:

The unit tripped under QSD due to insufficient labyrinth cooling water flow. Investigation revealed that the motorized operating valve (MOV) was stuck, causing delayed opening and closing. This prevented the required cooling water from reaching the system in time, triggering the unit trip.

Corrective Action:

Further examination showed the MOV actuator lacked sufficient torque to fully operate the valve. The actuator was replaced, restoring normal MOV operation, and no recurrence of the issue has been observed.



**Actuator was replaced in all
MOV**

Mechanical System & Auxiliaries



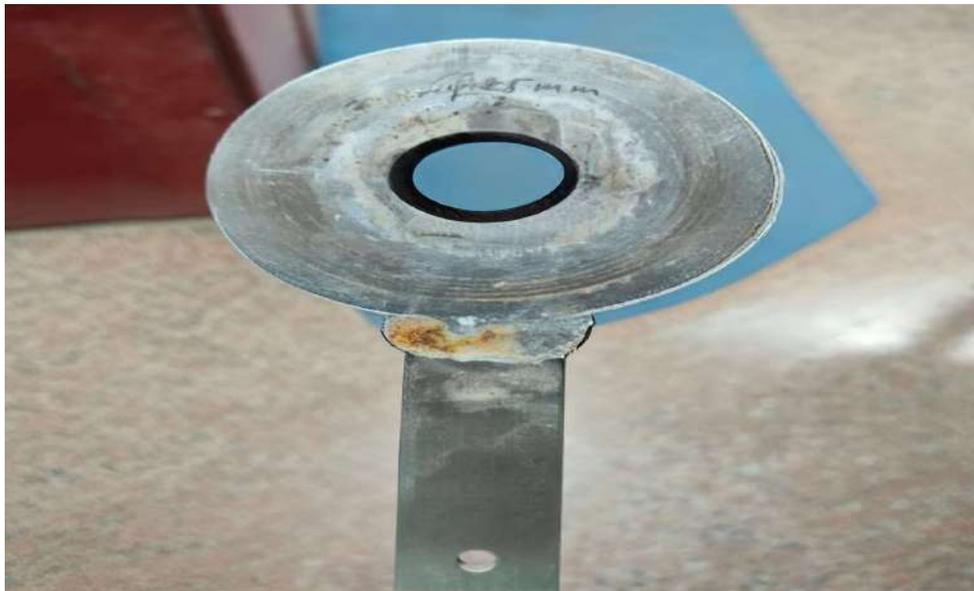
UGB (Upper Guide Bearing) Cooling Water Flow Too Low Causing tripping under QSD

Issue:

The unit tripped under QSD due to low cooling water flow to the Upper Guide Bearing (UGB). Investigation revealed that the existing orifice in the UGB cooling line was restricting flow below the required level.

Corrective Action:

The UGB cooling water orifice was increased from 25 mm to 40 mm, restoring flow to acceptable levels. No further QSD trips related to UGB cooling have occurred.



**Orifice size is
increased in UGB
cooling water pipeline
(25 to 40mm)**

Mechanical System & Auxiliaries



Shaft Seal Cooling Water Flow

Issue: The machine tripped due to a shaft seal cooling water flow-too-low fault, as the cooling water flow was insufficient

Corrective Action:

The PRS bypass line was put into service to ensure uninterrupted cooling water supply to the shaft seal. Additionally, GE was instructed to coordinate with the OEM for the required rectification.



Bypass line of PRS is put into service



Types of Shutdown in PSP TEHRI



Types of Shutdown in PSP TEHRI

- 1. Normal Shutdown (NSD):** It occurs during the normal stopping of the machine whenever command of Normal Stop is given by operator through SCADA.
- 2. Quick Shutdown (QSD):** It occurs whenever there are some mechanical abnormal conditions like temp, flow, pressure parameters are not in the normal range. The logic is completely soft logic & is referred as 86M in SCADA logics.
- 3. Emergency Shutdown (ESD):** It occurs whenever there are some electrical abnormal conditions like operation of protection function or any major fault in unit. Master trip 86E gets operated during Emergency shutdown of the machine.

Logic of Quick Shutdown (QSD):

QSD occurs when any of the following conditions are present:

Generator group QSD
OR
Generator Emergency Braking detected
OR
Generator Temp Trip Condition
OR
Turbine Group QSD
OR
Turbine Emergency Braking Condition
OR
Turbine temp trip condition
OR
Miscellaneous Condition for QSD
OR
BFV system trip condition
OR
Governor Trip condition
OR
Condition Monitoring system trip
OR
GSU & UAT Trip conditions Mech trip detected
OR
Upper/lower labyrinth water flow trip detected
OR
Sequence TLTE Trip Detected





Generator Group QSD Trip Conditions:

Gen Air cooler CW Main Outlet flow V-LOW

OR

Gen Air cooler CW Main Inlet or Outlet flow TOO HIGH

OR

Gen Hot Air temp both sensors CT311S & CT313S are at
TOO HIGH

OR

Gen Cold Air temp both sensors CT322S & CT324S are at
TOO HIGH

OR

Gen UGB Oil temp CT331S TOO HIGH

OR

Gen UGB CW Outlet flow CF327S V-LOW

OR

Gen LCB Oil level CL351S LOW

OR

Gen Upper bearing Oil level CL327S V-LOW

Generator Emergency Braking Conditions:

HP oil injection system fail at start (speed less than 30%)

OR

HP oil injection system fail at stop

OR

UGB Pad temp Stage 2 Detected

OR

Gen LTB Metal Pad Temp Stage 2 detected

OR

Gen Thrust Bearing Pad Temp Stage 2 detected

OR

Gen Lower guide bearing Pad Temp Stage 2 detected

OR

Gen LCB Oil Temp Stage 2 CT457T detected

OR

Gen UGB Oil Temp Stage 2 CT430T detected

OR

HP Oil Injection System fail at Start Seq, 0 rpm

Generator Temp Trip Conditions:

Gen Stator Winding Temp Stage 2
OR
Gen Stator Core Temp Stage 2
OR
Rotor winding temp Stage 2
OR
Gen Air Cooler O/L temp Stage 2
OR
Gen Cooler Hot Air temp Stage 2
OR
Gen Cooler Cold Air temp Stage 2
OR
Gen LTB Metal Pad temp Stage 2
OR
Gen Thrust bearing Pad Temp Stage 2
OR
Gen Lower guide bearing Temp Pad temp Stage 2
OR
Gen LCB Oil Temp Stage 2
OR
Gen Air cooler CW Main I/L temp Stage 2
OR
Gen UGB Oil CW I/L or O/L temp Stage 2
OR
LCB Cooler Oil CW I/L or O/L temp Stage 2
OR
UGB Pad temp Stage 2
OR
Slip ring Hot Air temp Stage 2
OR
Slip ring Cold Air temp Stage 2
OR
Slip ring Air cooler CW I/L or O/L temp Stage 2

Turbine Group QSD Trip Conditions:

Wicket gate shear pin failure detected
OR
Shaft seal differential pressure healthy not detected
OR
Head Cover Water level TOO HIGH
OR
Draft tube water level TOO HIGH (if runner dewatered)
OR
TGB water cooling water flow TOO LOW
OR
HP compressor Air Tank Pressure sensor fail
OR
Turbine maintenance inflatable seal applied
OR
Turbine Dewatering Main Sol Valve Combined fault
OR
Turbine Dewatering Keep Up Sol Valve Combined fault
OR
Spiral case/ Draft tube Recycling Solenoid valve
combined fault
OR
Spiral case Air drainage Solenoid valve combined fault
OR
Turbine auxiliaries trip condition
OR
Rewatering valve combined fault



Turbine Emergency Braking Condition

Turbine Guide Bearing Pad Temp Stage-2 Detected
OR
Upper labyrinth Temp Stage 2 Detected

Turbine Temp Trip Condition

Turbine Guide Bearing Pad Temp Stage-2 Detected
OR
Shaft Seal Temp Stage-2 Detected
OR
Upper labyrinth Temp Stage 2 Detected
OR
TGB water cooling O/L temp Stage 2 Detected

BFV system trip condition

BFV Oil Station Level TOO LOW
OR
BFV Oil Station Circuit pressure TOO HIGH
OR
BFV Oil Station level LOW
OR
BFV OPU Isolating Valve fault Detected

Governor & MIV System Trip condition

Governor Oil Pressure Tank Low Level
OR
TSLG Speed Tachometer Not operational
OR
TSLG Main & Backup Controller Major fault
OR
GOPU Operational Not detected
OR
HPOU Operational Not detected
OR
Turbine Speed 0% Loss/creep Detected
OR
MIV Oil Pressure Tank Low level Detected
OR
MIV Solenoid Valve AA510E Open TLTE
OR
MIV Solenoid Valve AA510E Partially open TLTE Detected
OR
Sudden Closure of MIV Detected
OR
Governor After PRV Pressure TOO HIGH

Miscellaneous Condition for QSD

Inadvertent Braking Detected
OR
Quick Stop Request-1 from VSI
OR
Quick Stop Request-2 from VSI



Condition Monitoring system trip

Bearing Insulation Trip Detected
OR
Condition Monitoring Vibration General Trip detected

Sequence TLTE Trip Detected

Stop-Transfer Stop Sequence (I01) TLTE fault
OR
Transfer Stop-SNLE Sequence (I11) TLTE fault
OR
GE to GC Sequence (I13) TLTE fault
OR
GC to GE Sequence (I15) TLTE fault
OR
GEN to SNLE Sequence (I16) TLTE fault
OR
GE/SNLE/PU to Transfer Stop Sequence (S11) TLTE fault
OR
Transfer Stop to Stop Sequence (S01) TLTE fault
OR
Transfer Stop to PC Sequence (I21) TLTE fault
OR
PC to PU Sequence (I22) TLTE fault
OR
PU to PC Sequence (I23) TLTE fault
OR
PU to GE Sequence (I24) TLTE fault
OR
GC/PC to Transfer Stop Sequence (S21) TLTE fault

Cooling Water System Trip Conditions

Upper Labyrinth Water flow CF479T Sensor fail
OR
Upper Labyrinth Water flow CF479T TOO LOW
OR
Lower Labyrinth Water flow CF480T Sensor fail
OR
Lower Labyrinth Water flow CF480T TOO LOW
OR
Two out of Three Cooling water Pump (AP001, AP002, AP003) goes into
Combined fault
OR
Cooling Water flow CF401T TOO LOW Detected



GSU & UAT Trip conditions Mech trip detected

UAT LV Winding Temp TOO HIGH
OR
GSU Transformer LV Winding Very High Temp
OR
GSU Transformer HV Winding Very High Temp
OR
GSU Transformer Oil Very High Temp

Logic of Emergency Shutdown (ESD):

ESD occurs when any of the following conditions are present:

Stator Protection Trip Main-1
OR
Stator Protection Trip Main-2
OR
Rotor Protection Trip Main-1
OR
Rotor Protection Trip Main-2
OR
MV Busbar Protection Trip Main-1
OR
MV Busbar Protection Trip Main-2
OR
GSU Transformer Protection Trip Main-1
OR
GSU Transformer Protection Trip Main-2
OR
VSI Transformer Protection Trip Main-1
OR
VSI Transformer Protection Trip Main-2
OR
UAT Protection Trip Main-1
OR
UAT Protection Trip Main-2
OR
Emergency Stop Order from CR/HMI
OR
GSU Transformer Protection Trip conditions
OR
Control system/ Other Protection Trip conditions



Mechanical & Auxiliaries (28)

OPU (Oil/ Tank level including) (7)
 Dewatering/Rewatering (7)
 MOV Stucked (5)
 Cooling Water System (6)
 Others (3)

Sr.no	Unit	Date		Operation Mode	Outage Time		Duration of Outage	Description of fault	Reason/Root cause analysis (RCA)	Rectification/Remarks
		From	To		From	To				
OPU (Oil/ Tank level including) (7)										
1	5	09.06.2025	09.06.2025	Generation	21:17	23:01	01:44	Disturbance in governor oil pressure due to Oil Leakage in Governor Oil Pressure Unit (GOPU) led to Speed Power Maximiser (SPMAX) major fault	On physical inspection it was found that there was a leakage from the control circuit pipeline of the HPOU (High Pressure Oil Unit) which is used for the opening and closing control of Desynch wicket gates, due to damage of O-ring. The leakage caused pressure drop in the oil circuit, which necessitated frequent loading and unloading of HPOU pumps.	The damaged O-ring replaced
2	5	19.07.2025	19.07.2025	Generation	18:45	19:03	00:18	Governor OPU Safety Solenoid Valve did not pick up	Upon investigating it was found that the safety solenoid valve wiring connection found loose.	Loose connection of emergency safety solenoid was rectified and machine was restored.
3	5	10.10.2025	10.10.2025	Pumping	01:30	01:52	00:22	Operating Mechanism Faulty. Major fault due to high oil level of pressure tank-1 (Governing air/oil tank)	The governor Air/Oil Pressure Tank level went too high Level in PU mode which caused QSD	Oil was drained to maintain desired level in Pressure Tank
4	5	10.10.2025	10.10.2025	Pumping	08:03	09:40	01:37	OPU auto air injection was not working.	OPU Air filter was found clogged	Air Filter was cleaned
5	6	07.08.2025	07.08.2025	Generation	20:00	21:25	01:25	Oil leakage in De-sync servomotor line.	Oil leakage observed in the Desynch servomotor pipe line and changed the O ring and fixed the leakage	O-Ring Replaced with the new one
6	6	29.08.2025	29.08.2025	Generation	14:45	15:20	00:35	Due to malfunctioning of float valve level gauge of oil leakage tank of MIV/Governing system	Leakage tank pump run continuously and pumped more oil into the sump tank and which caused oil leakage in sump tank	The floats checked, adjusted and functionality confirmed. Interlock provided to avoid such condition in future.
7	6	21.10.2025	21.10.2025	Generation	05:00	05:47	00:47	Leakage in oil pipeline of desynch servo motor observed before starting of unit.	Pipeline coupling with De-sync servomotor was loose resulting spilling of oil	Loose connection of pipeline coupling with De-sync servomotor pipeline was tightened.
Dewatering/Rewatering (7)										
1	6	20.08.2025	20.08.2025	Pumping	09:15	10:12	00:57	Spiral case rewatering valve- AA485G combined fault (QSD)	The rewatering valve failed to open during PC to PU sequence as the hydraulic oil pressure was dropped to 35bar from the set value of 40bar.	The hydraulic pressure maintained to 40bar and locked. Same has been kept under observation . Matter is being discussed with OEM and GE design. Further action will be taken after receiving suggestions from OEM & GE Design.
2	6	27.08.2025	27.08.2025	pumping	11:30:00	12:23:00	0:53:00	Due to too late to execute (TLTE) of runner rewatering process	The dewatering air injection system PRS safety valve operated and the circuit pressure was not enough to open the valve.	The safety valve adjusted and maintained the required pressure which is required for the valve operation.
3	6	10.09.2025	10.09.2025	Pumping	08:30	09:51	01:21	Due to malfunctioning of Pressure reducing valve (PRV), runner dewatering air injection valve did not operate fully.	The dewatering air injection system PRS safety valve operated and the circuit pressure was not enough to open the valve.	The Safety valve replaced and fixed the problem.
4	6	03.10.2025	03.10.2025	Generation	04:00	04:22	00:22	During the successive operation of Unit#5 & 6, the pressure in Dewatering Pressure Vessels of U#6 was below the minimum required pressure of 70 bar which caused delay in starting of Unit#6	The Dewatering pressure Vessels of Unit#6 was below the minimum threshold of 70 bar so the start of Unit#6 was delayed	As observed during successive operation of two units the minimum pressure in Dewatering pressure Vessel of each respective unit goes below the minimum required level to start the unit. This problem was highlighted to GE Design, after which the minimum threshold value has been tested changed to 45 bar from 70 bar
5	6	04.10.2025	04.10.2025	Pumping	04:00	05:15	01:15	Operating Mechanism Faulty Due to malfunction in the spool causing pressure fluctuations in the pressure release valve of dewatering & rewatering process.	Malfunction of PRV causing pressure fluctuations	Cleaning of spool of PRV & other critical parts of PRV System.
6	6	12.10.2025	12.10.2025	Generation	17:30	17:52	00:22	PRV trip. Pressure dropped in PRV of rewatering circuit.	Malfunction of PRV causing pressure fluctuations	Cleaning of spool of PRV & other critical parts of PRV System.
7	6	22.12.2025	22.12.2025	Pumping	11:00	12:54	01:54	Partial Outage QSD due to fault in main dewatering valve	During the starting sequence of the unit in Pump Mode, the Runner Dewatering Valve failed to operate due to a sudden drop in pressure in the PRV, resulting in initiation of QSD. Subsequently, upon opening the PRV, the main spool inside the valve was found to be clogged. The spool was accordingly cleaned and the valve reassembled. Thereafter, the PRV was adjusted to the required pressure of 46 bar, following which the unit was restored.	The commissioning of the Kidney Filter system for the OPU is under progress, which will prevent any clogging due to oil contamination.
MOV Stucked (5)										
1	5	13.07.2025	13.07.2025	Pumping	09:15	09:53	00:38	Labyrinth cooling water MOV did not close	Due to TLTE incident in the SCADA sequence for Labyrinth cooling water MOV.	TLTE duration of step modified as per the requirement
2	5	13.10.2025	13.10.2025	Pumping	08:00	09:35	01:35	Labyrinth cooling MOV did not operate	Due to malfunctioning of MOV of Labyrinth cooling	MOV connections were checked and the MOV was operated & checked in Local & Auto Mode.

3	5	07.11.2025	07.11.2025	Pumping	09:30	10:01:00	00:31	Operating Mechanism Faulty Labyrinth cooling water MOV did not close	The labyrinth cooling MOV got stuck and as closing feedback was not received, the Unit tripped on QSD	The MOV was adjusted & checked in both Manual & Auto mode
4	5	10.11.2025	10.11.2025	Pumping	09:15	09:39	00:24	Operating Mechanism Faulty Labyrinth cooling water MOV did not close	The labyrinth cooling MOV got stuck and as closing feedback was not received, the Unit tripped on QSD	The MOV was adjusted & checked in both Manual & Auto mode.
5	5	12.11.2025	12.11.2025	Pumping	09:15	09:46	0:31:00	Operating Mechanism Faulty Labyrinth cooling water MOV did not close	The labyrinth cooling MOV got stuck and as closing feedback was not received, the Unit tripped on QSD	The MOV was adjusted & checked in both Manual & Auto mode. It was decided to replace the valve during Unit shut down to avoid the frequent outage.

Cooling Water System (6)

1	5	15.07.2025	15.07.2025	Pumping	12:32	12:55	00:23	QSD occurred because of Shaft seal cooling water flow TOO LOW	QSD occurred because the shaft seal cooling water flow signal momentarily became zero leading to Too Low flow. This occurred because of malfunctioning of analog signal data from the field transmitter.	The cabling, modules checked for any suspected loose and after cleaning & tightening of same, Unit was restored.
2	5	21.10.2025	21.10.2025	Generation	05:30	05:57	00:27	Leakage from flange observed in closed loop water cooling line before starting of unit.	Closed loop cooling water pipeline coupling flange bolts were loose	Closed loop cooling water pipeline coupling flange bolts were tightened
3	6	02.08.2025	02.08.2025	Pumping	09:19	10:27	01:08	Fluctuation in shaft seal cooling water flow.	The machine got stopped due to heavy vibration observed in the shaft seal pipe line due to the operation of Pressure Relief Valve (PRV). PRV getting open and close due to increase pressure owing to increase in head at U/S	The settings of PRV was readjusted and operation was normalised.
4	6	27.09.2025	27.09.2025	Pumping	11:00	11:33	00:33	QSD occurred due to UGB cooling water flow Very Low	Due to very low flow rate in UGB cooling	Adjustment of Cooling water valves to maintain adequate flow rate in UGB
5	6	21.10.2025	21.10.2025	Pumping	12:33	12:57	00:24	Coupling malfunction of Closed loop Cooling Water Pump#02	Malfunction of coupling of Unit Cooling Water System pump No.2	Coupling replaced and cooling pump was restored after alignment.
6	6	15.12.2025	15.12.2025	Pumping	12:45	20:30	07:45	Closed cooling water (CCW) line flow water meter clogged.	The unit tripped on QSD due to a pressure drop in the closed cooling water (CCW) line when start-up of the CCW main system was required. It was observed that the indicated flow to the UGB was approximately 2.9 m ³ /hr, which was significantly lower than the minimum required flow of 3.9 m ³ /hr. Initially, all CWS valves supplying various systems were adjusted; however, the indicated flow to the UGB could not be increased. Subsequently, the Unit Cooling Closed Loop water line was topped up in an attempt to increase pressure and flow, but this had no effect on the indicated flow. Thereafter, a portable ultrasonic flow meter was installed adjacent to the existing line flow meter, which indicated an actual flow of approximately 8 m ³ /hr. Accordingly, the CWS line was drained to the minimum level, and the installed flow meter was dismantled, cleaned, and reassembled. Post-rectification, the flow meter indicated the correct flow of approximately 8 m ³ /hr, following which the unit was restored to service.	The cleaning of Flow meter line after a fixed time period will be done as Preventive maintenance

Others (3)

1	5	01.07.2025	01.07.2025	Generation	18:30	18:39	00:09	Non equalization of pressure in Main Inlet Valve (MIV)	During unit start sequence transition in TU mode after MIV spiral case pressure normal signal was not detected. It seems that the pressure transmitter had an error transmitting the pressure of upstream and downstream pressure of MIV which was more than the pressure difference set value.	Tightening of the pressure transmitter terminal in local panel was carried out. After checking, pressure difference required value was obtained
2	6	10.07.2025	10.07.2025	Pumping	10:02	10:23	00:21	Too High Pressure in Oil station circuit of Butterfly valve.	It was observed that during running of unit in PU mode there was spike in pressure during loading of BFV OPU pump which exceeded the too High (2nd stage) pressure limit of 67 Bar. As there was no time delay in control system for too high pressure detection therefore the machine tripped in ESD.	The Pressure spike was more than the Too high pressure for a short period and now we implemented time delay to not to trip machine in such transient behaviours
3	6	13.10.2025	13.10.2025	Pumping	02:00	15:10	13:10	Turbine Bearing Temperature High LCB (Lower Combined Bearing) pad temperature High	Operation of Rtd which initiated the alarm had been checked and it was found that the temperature measurement by the Rtd were fluctuating so due to malfunction of the Rtd sensor ,too high alarm was generated which initiates the qsd.	Second core of the Rtd was used in the temperature monitoring panel and Rtd operation was checked and no abnormality in the operation found. Due to malfunctioning of the PRV station of dewatering and rewatering system in Unit#6, it was replaced by the spare one

VSI System (29)

Sr.no	Unit	Date		Operation Mode	Outage Time		Duration of Outage	Description of fault	Reason/Root cause analysis (RCA)	Rectification/Remarks
		From	To		From	To				
Grid Fault (10)										
1	5	09.06.2025	09.06.2025	Pumping	12:36	12:59	00:23	420 KV Tehri - Koteswar Circuit-1 and Circuit-2 was made tripped by PGCIL, on request of NRLDC due to which Tehri PSP Unit#5 was tripped while running in pumping mode.	Grid Fault	Grid Fault
2	5	13.06.2025	13.06.2025	Pumping	15:30	16:15	00:45	Due to Rotor Over Frequency.	After analysis of all events, it is found that machine was tripped due to Voltage dip in the Grid side.	Trip was due to Grid Voltage Fluctuation
3	5	16.07.2025	16.07.2025	Pumping	09:29	10:01	00:32	ESD because of Grid voltage asymmetrical dip detected by VSI.	A grid voltage dip was detected by AC excitation system (VSI). The same was detected by Line Protection relays and units of KHEP were also tripped during the same instant	Grid fault.

4	6	16.07.2025	16.07.2025	Pumping	09:29	10:10	00:41	ESD because of Grid voltage asymmetrical dip detected by VSI.	A grid voltage dip was detected by AC excitation system (VSI). The same was detected by Line Protection relays and units of KHEP were also tripped during the same instant.	Grid fault.
5	5	22.07.2025	23.07.2025	Generation	19:46	13:00	17:14	Due to non availability of power evacuation path as 765 KV KPS-MEERUT CKT 2 tripped	Grid Fault	Grid Fault
6	5	24.08.2025	24.08.2025	Generation	17:42	19:43	02:01	Transient fault AC excitation system (VSI) detected voltage dip in the 400KV grid voltage which led to unit trip.	400KV Grid side voltage dip was observed by VSI .	Matter has been taken up with GE . They are taking up the matter with VSI R&D team Germany. Further, Corrective action will be taken up after analysis of event by VSI R&D team Germany.
7	6	24.08.2025	26.08.2025	Generation	17:42	20:00	50:18:00	Transient fault AC excitation system (VSI) detected voltage dip in the 400KV grid voltage which led to unit trip.	400KV Grid side voltage dip was observed by VSI .	Matter has been taken up with GE. They are taking up the matter with VSI R&D team Germany. Further, Corrective action will be taken up after analysis of event by VSI R&D team Germany.
8	6	12.09.2025	12.09.2025	Generation	21:47	22:22	00:35	Grid fault was detected by VSI system	Grid fault	Issue referred to IVC German experts and under analysis.
9	6	12.09.2025	12.09.2025	Generation	22:50	23:36	00:46	Grid fault was detected by VSI system	Grid fault	Issue referred to IVC German experts and under analysis.
10	5	03.11.2025	03.11.2025	Pumping	12:04	13:26	01:22	Asymmetrical dip detected in 400kV Voltage feedback by VSI Controller	Assymetrical dip detected by vsi controller in 400 KV feedback.In second attempt,due to MOV 803 closing condition missing QSD occurred.	All the parameters in VSI Controller checked and unit was cleared for operation. Mov operation was checked.
VSI Fault (18)										
1	5	04.07.2025	04.07.2025	Pumping	08:24	09:21	00:57	Voltage Source Inverter (VSI) Fault	Tripping initiated due to improper AC Voltage feedback to VSI.	Cleaning & tightening of the PT feedback terminal at VSI Controller was done
2	5	26.07.2025	30.07.2025	Generation	20:15	11:30	11:15:00	In VSI system, DM water conductivity not achieved. Cleaning of carbon dust accumulated on the slip ring insulator	The DM water conductivity increased beyond the minimum limit as the DM water got contaminated.	The ion exchanger, DM water and filter elements changed and fixed the problem. Cleaning work of carbon accumulated on the slip rings also carried out along with this duration.
3	5	17.08.2025	17.08.2025	Pumping	09:31	11:14	01:43	Fault in relay of VSI cooling skid.	Mechanical solid state life timer relay was not updating the signal within the stipulated milli second. The relay changed and found ok.	Relay replaced with the new one
4	5	03.09.2025	15.09.2025	Generation	04:41	18:50	12.88125	LC Stack Failure	IVC LC side stack failure	This case is under discussion and German experts are analysing the problem
5	5	24.09.2025	24.09.2025	Pumping	10:33	10:58	00:25	VSI Internal communication failure	After inspecting the PIB, it was observed that cable terminations were loose which causes delay in feedback to the LC Controller due to which communication failure occurred between LC PIB's and LC controller.	All the cable tightness of PIB had been checked and communication of all the signals had been verified
6	5	20.11.2025	20.11.2025	Generation	17:00	18:22	01:22	ESD occurred due to low pressure in DM water line of VSI cooling skid.	Due to low pressure of DM water in VSI cooling skid, tripping occurred.	Topup of DM water done in cooling skid pipeline.
7	5	18.12.2025	18.12.2025	Pumping	10:45	11:12	00:27	Water leakage from VSI Converter	Water leakage from airconditioner installed in VSI converter room.	Water was cleaned inside converter room.
8	6	16.07.2025	16.07.2025	Generation	21:03	22:45	01:42	VSI Fault	During checking, speed encoder communication failure was found due to loose connection of FO cable jack in Controller Panel	Jack of FO communication cable terminals of Speed feedback in local JB & VSI Controller panel was tightened.
9	6	27.07.2025	27.07.2025	Generation	13:30	15:11	01:41	VSI Chopper temperature increased leading to tripping of unit	This was happened in the oscillations in DC link as the tuning was not done in higher MW. Tuning of DC link completed and fixed.	Tuning has now been done by VSI global expert
10	6	30.08.2025	30.08.2025	Pumping	11:20	11:53	00:33	Relay maloperation voltage measurement card in VSI detected wrong measurement due to this ESD occurred.	The IVC measurement card for grid voltage malfunctioned and caused trip	The wiring checked, earthing checked, and put back the card in service and under observation
11	6	04.09.2025	04.09.2025	Generation	17:41	18:38	00:57	Relay maloperation voltage measurement card in VSI detected wrong measurement due to this ESD occurred.	The IVC measurement card for grid voltage malfunctioned and caused trip	The card replaced and the measurement error eliminated
12	6	06.09.2025	06.09.2025	Generation	18:22	21:22	03:00	VSI communication failure	VSI internal communication failure	Communication modules replaced
13	6	28.09.2025	28.09.2025	Pumping	04:34	07:00	02:26	VSI communication failure	Cable termination in Pibe were found loose.	Cable tightness done in Pibe and LC Controller.
14	6	09.10.2025	09.10.2025	Generation	20:06	21:35	01:29	Generator Fault. Asymmetrical dip detected in 400kV voltage feedback by VSI controller	Assymetrical dip detected in 400 KV feedback by VSI Controller.	Cable tightness of 400 kv feedback done.
15	6	30.10.2025	05.11.2025	Pumping	02:01	01:15	143:14:00	IVC MC side stack failure.	MC side stack failure in b phase of converter-04 due to overcurrent at LC and MC side.	MC stack,RSD and chopper stack were replaced.
16	6	05.11.2025	17.11.2025	Pumping	10:00	20:23	298:23:00	Water leakage in VSI Cooling system	Water leakage found in cooling pipe inside converter panel at IEGT stack.root cause -Due to blockage in heat sink of IEGT Stack,	Flushing of individual stacks and dm water pipeline.
17	6	29.11.2025	29.11.2025	Generation	08:34	09:45	01:11	Unit tripped due to communication failure between MC side Pibe and controller	After inspecting the PIB, it was observed that cable terminations were loose which causes delay in feedback to the MC Controller due to which communication failure occurred between MC PIB's and MC controller.	All the cable tightness of PIB had been checked and communication of all the signals had been verified.
18	7	15.12.25	17.12.25	Generation	20:16	18:24	46:08:00	Tripping initiated due to issue in VSI converter	Y Phase stack failure in MC side of converter-5 causing tripping. Root cause analysis by OEM M/s GE is in progress.	Stack was replaced. Machine parameters were checked .
Tuning of FRT (2)										
1	5	19.11.2025	19.11.2025	Generation	07:08	10:30	03:22	ESD occurred due to ongoing process of tuning of FRT in VSI controller by GE Global experts.	FRT (Fault Ride Through) tuning was in progress in the VSI controller by M/s GE Vernova global experts. Due to ongoing tuning activity, was the reason for Emergency Shutdown.	FRT-related parameters in the VSI controller were tuned by M/s GE Global experts
2	6	19.11.2025	19.11.2025	Generation	07:08	11:00	03:52	ESD occurred due to ongoing process of tuning of FRT in VSI controller by GE Global experts.	FRT (Fault Ride Through) tuning was in progress in the VSI controller by M/s GE Vernova global experts. Due to ongoing tuning activity, was the reason for Emergency Shutdown.	FRT-related parameters in the VSI controller were tuned by M/s GE Global experts

Generator & Auxiliaries (12)

Slip Ring (4)
 HP Oil Injection System (4)
 Condition Monitoring System (1)
 Air guide (1)
 Low Oil level in lower bearing (1)
 Air Guide Vibration Measurement Test (1)

Sr.no	Unit	Date		Operation Mode	Outage Time		Duration of Outage	Description of fault	Reason/Root cause analysis (RCA)	Rectification/Remarks
		From	To		From	To				
Slip Ring (4)										
1	6	20.07.2025	25.07.2025	Generation	18:45	19:30	120:45:00	VSI Crowbar Fault	Rotor Insulation resistance was very low due to ingress of Carbon dust in slip ring area resulted in VSI Crowbar activation.	Cleaning of slip ring area with installation of additional filter was done in the return line of Slip-Ring Air Handling Unit as per the recommendations of OEM
2	6	21.08.2025	21.08.2025	Pumping	09:15	10:45	01:30	During routine inspection before unit operation, copper strips of flexible link to slip ring (Y phase) were found loose	During the inspection of slip ring its observed that the fer copper strips of flexible link of slip rings were found loose. It seems that it got loosened due to vibration.	The loose links got tightened and machine restored. Same has been kept under observation.
3	6	27.09.2025	27.09.2025	Generation	18:30	18:39	00:09	QSD occurred in starting sequence because of TLTE in slip ring cooling system.	Due to delay in starting of slip ring AHU Fan.	Pump operation was checked locally .
4	6	28.09.2025	28.09.2025	Generation	07:01	07:31	00:30	Slip Ring cooling fault	Cable termination in starter panel found loose.	Cable tightness done in starter panel.
HP Oil Injection System (4)										
1	5	05.07.2025	05.07.2025	Generation	18:30	18:37	00:07	HP oil injection system combined fault occur	The DC Pump (AP037) starter healthy condition were not ready. Due to this combined fault occurred in AP037 DC pump which leads to QSD of machine.	The DC pump during test starting tripped due to loose connection in the contactor terminals. After tightened and rechecked and found ok
2	5	09.07.2025	09.07.2025	Pumping	09:15	09:31	00:16	HP oil injection system combined fault occur	Start feedback of HP oil injection pump detecting module found faulty.	Start feedback of pump detecting module replaced with new one
3	5	05.10.2025	05.10.2025	Generation	18:30	20:30	02:00	Maloperation of Relay, DC HP injection main supply contactor coil was burnt and IPR stop relay also burnt.	The Remote stop contact of the DC pump was defective, preventing the pump from stopping during the changeover sequence. This caused the contactor coil to damage, leading to unit tripping.	Both the damaged coils had been replaced. HP oil injection pump local and remote operation had been checked after that unit was cleared for operation.
4	6	05.11.2025	05.11.2025	Pumping	03:00	04:12	01:12	Partial Outage QSD occurred due to fault in HP Oil Injection System	The remote stop contact of the DC pump was defective, preventing the pump from stopping during the changeover sequence, leading to unit tripping.	The damaged remote stop coil had been replaced in starter panel.
Others (3)										
1	6	08.08.2025	08.08.2025	Pumping	10:46	11:06	00:20	Due to partial discharge in Condition monitoring system.	This information from Partial discharge system should be configured in SCADA only as alarm and not for trip. So its changed to Alarm condition in SCADA and the settings of alarm were also not tuned .	Partial Discharge Signal has been configured to Alarm and the setting of alarm has been modified as per the advised of GE Design .
2	6	13.09.2025	19.09.2025	Generation	19:30	18:00	142:30:00	Generator Fault. Due to two instances of ESD during a grid fault on 12.09.25, the OEM (GE) has recommended a thorough physical inspection of the generator.	During inspection air guide assembly valve was found loose	As per OEM recommendations additional pocket covers have been added in all the air guide assembly joining area.
3	6	12.10.2025	12.10.2025	Pumping	02:00	03:15	01:15	Low Oil level in Lower Combined Bearing Oil bath detected.	Due to low oil level in LGB, initial conditions were absent to run the machine.	Topup of oil done in LGB.
Air guide vibration measurement test (1)										
1	5	23.11.2025	23.11.2025	Pumping	14:30	14:55	00:25	As a part of air guide vibration measurement tests by Global Generator expert of M/S GE.	ESD was given to measure the vibration in air guide cover during pumping operation.	No corrective action was required.

SPMAX System (7)

SPMAX fault (5)
 Deadband fault (2)

Sr.no	Unit	Date		Operation Mode	Outage Time		Duration of Outage	Description of fault	Reason/Root cause analysis (RCA)	Rectification/Remarks
		From	To		From	To				
1	5	07.06.2025	07.06.2025	Pumping	09:00	09:50	00:50	While running the sequence machine tripped because of Too Late Too Execute (TLTE) Fault	Quick Shutdwon (QSD) was initiated due to Too Late Too Execute (TLTE)	Law changes in SPMAX was carried out after consultation with SPMAX global expert.
2	5	11.06.2025	11.06.2025	Generation	01:19	01:47	00:28	Unit tripped From SPMAX major fault	Due to Communication failure in SPMAX System. Both the channel (Main & standby) of SPMAX became inactive leading to TSLG fault due to which QSD initiated. After acknowledging the faults and resetting the SPMAX system Unit was restored.	The delay time which declares the communication break increased in both SPMAX and UCS side as per the recommendation by GE Engineering Team
3	5	28.06.2025	28.06.2025	Pumping	08:00	08:41	00:41	Communication of SPMAX with Unit Control System (UCS)	Communication of SPMAX with UCS(Unit Controller): TRIP Due to absence of communication of SPMAX CSSF gateway (for IEC-104 communication with UCS), SPMAX major fault.	The delay time which declares the communication break increased in both SPMAX and UCS side as per the GE Engineering team recommendations
4	5	12.10.2025	12.10.2025	Generation	20:19	22:44	02:25	Emergency shutdown occurred as machine entered into Dead band region.	Due to the sudden increase in Active power as per the PFR, a sudden rise in speed caused the unit to enter the deadband region. In this mode, the VSI switched to speed control but failed to exit the deadband within the permissible time as VSI didn't receive the deadband exit signal from SPMAX within the required timeframe, resulting in deadband timeout. As a result, the VSI simultaneously issued an ESD to both the Unit controller & the Generator main protection 86-E leading to ESD trip of the machine.	Issue is under investigation and observation of the experts.

5	6	10.07.2025	10.07.2025	Pumping	09:00	09:55	00:55	Stator under power protection fault occurred	It was observed that during the start of machine, the pump stable state was reached but the power achieved was limited -153.03MW (at the time of the tripping) due to low setting of power ramp rate i.e. 1MW/Sec. As per the setting the minimum power limit for Stator Power Protection Stage-2 (under power is -170 MW). As the power could not cross the minimum power threshold as per the protection setting therefore the machine tripped on ESD	Required changes was carried out in SPMAX as per the GE Engineering team
6	6	06.09.2025	06.09.2025	Generation	17:30	18:15	00:45	For analysis and rectification of non-working Spmax-S channel	Stand by Spmax was not communicating with the internal remote IO rack	Reloading done and communication established with IO rack
7	6	27.09.2025	27.09.2025	Generation	18:41	20:25	01:44	Emergency shut down occurred as machine entered into dead band region.	Due to the sudden increase in Active power setpoint, a sudden rise in speed caused the unit to enter the deadband region. In this mode, the VSI switched to speed control but failed to exit the deadband within the permissible time as VSI didn't receive the deadband exit signal from SPMAX within the required timeframe, resulting in deadband timeout. As a result, the VSI simultaneously issued an ESD to both the Unit controller & the Generator main protection 86-E leading to ESD trip of the machine.	Issue is under investigation and observation.

Due to non tuning of Dead band test & pending high head test (7)

Due to non tuning of deadband (3)
During High head test (4)

Sr.no	Unit	Date		Operation Mode	Outage Time		Duration of Outage	Description of fault	Reason/Root cause analysis (RCA)	Rectification/Remarks
		From	To		From	To				
Due to non tuning of deadband (3)										
1	5	17.07.2025	17.07.2025	Generation	19:40	00:00	04:20	Unit was manually tripped because of the sudden rise in unit speed above deadband.	Work of tuning of SPMAX and VSI was required at higher heads	Tuning of VSI and SPMAX is scheduled from 06.08.2025 by M/s GE Global experts
2	5	25.07.2025	25.07.2025	Pumping	08:05	11:30	03:25	Non tuning of machine at higher head	The unit operations was restricted below Dead band speed as the tests was not completed with dead band operation	Tuning of VSI and SPMAX has now been done by GE global experts
3	6	01.08.2025	01.08.2025	Pumping	09:15	12:00	02:45	Unit speed was in dead band	The unit operations was restricted below Dead band speed as the tests was not completed with dead band operation	Tuning has now been done by VSI global expert
During High head test (4)										
1	5	07.08.2025	07.08.2025	Generation	22:18	22:48	00:30	Due to machine operation in dead band range.	As a part of fine tuning of dead band parameters by VSI global expert.	Tuning of VSI and SPMAX has now been done by GE global experts
2	5	08.08.2025	08.08.2025	Generation	19:11	19:25	00:14	Due to stopping sequence test as a part of tests at higher head.	As a part of fine tuning of dead band parameters by VSI global expert.	Tuning of VSI and SPMAX has now been done by GE global experts
3	5	08.08.2025	08.08.2025	Generation	21:07	21:22	00:15	Due to stopping sequence test as a part of tests at higher head.	As a part of fine tuning of dead band parameters by VSI global expert.	Tuning of VSI and SPMAX has now been done by GE global experts
4	5	11.08.2025	11.08.2025	Generation	21:11	21:27	00:16	Due to Dead Band test as part of tests at higher head	As a part of fine tuning of dead band parameters by VSI global expert.	Tuning of VSI and SPMAX has now been done by GE global experts

Control System (5)

IHR Controller (5)

Sr.no	Unit	Date		Operation Mode	Outage Time		Duration of Outage	Description of fault	Reason/Root cause analysis (RCA)	Rectification/Remarks
		From	To		From	To				
1	5	14.06.2025	15.06.2025	Generation	23:10	00:45	01:35	Tripping due to disturbance in the Unit Controller System	Trip triggered by a transient disturbance in the Unit Controller system—specifically involving the IHR Controller-2 (field controller for the VSI, GSU transformer and the SPMAX system).	Checking, tightening, reloading of all controller components done
2	5	26.06.2025	26.06.2025	Pumping	10:12	14:30	04:18	Trip from Unit Control System (UCS), Major fault due to failure of Generator Remote I/O field controller.	An emergency shutdown of the machine occurred due to a major fault in the Unit Controller, resulting from the Generator Remote I/O IHR-21 controller absent status.	Checking, tightening, reloading of all controller components done. Further, media converter DIP switch settings changed
3	6	14.07.2025	14.07.2025	Pumping	14:36	15:15	00:39	Turbine RTU IHR Controller failure.	ESD initiated because of Unit major fault. This fault occurred because of absence of U#06 Turbine RTU IHR controller-11 and IHR Controller-12. As per the preliminary investigation dip in the DC power supply for IHR-controller 11 & 12 modules have led to the absence of both IHR 11 & 12 controllers and caused Unit major fault in Unit#06.	The DC supply to Remote RTU is getting feeded from unit control board and it was observed a drop in 24V to 18V DC. This is increased to higher side
4	6	04.09.2025	04.09.2025	Generation	08:49	10:12	01:23	IHR Controller Failure	The momentarily communication failure of E8000 node caused the trip	All communication channels with redundancy checked and slightly increased the detection of failure delay
5	6	16.10.2025	16.10.2025	Pumping	15:37	16:30	00:53	Unit major fault due to generator RTU IHR Controller absence status.	Absence of Generator RTU IHR controller-21 can happen if either the controllers itself get failed or both the field network gets failed or some disturbance in the DC power supply. Post fault analysis , RTU IHR controller found	Same is under observation and no recurrence
				Generation	17:00	17:28	00:28			

Miscellaneous electrical & common system related problems (16)

Relay faulty (2)
Unit Controller Logic/Relay faulty (2)
VSI (400 kV feedback from GIS) (1)
Pump mode- Readiness (Head Available) (1)
Fire fighting (3)
Loose Wiring (2)
DC Supply (4)

Sr.no	Unit	Date		Operation Mode	Outage Time		Duration of Outage	Description of fault	Reason/Root cause analysis (RCA)	Rectification/Remarks
		From	To		From	To				
1	5	17.06.2025	17.06.2025	Pumping	09:00	10:27	01:27	Machine couldnot be started due to non availability of ready to start condition	During machine shutdown Short Circuit Breaker was not opened. After the analysis/investigation of event it was observed that SCB didnot open because of unavailability of Zero speed feedback due to time relay coil.	The timer relay coil damaged and replaced
2	5	28.06.2025	28.06.2025	Generation	18:00	20:18	02:18	DC fail at GIS DCDB & GIS controller	During checking, diode bridge in DCDB at GIS was found burnt.	Diode Bridge was replaced with available spare
3	5	14.07.2025	14.07.2025	Pumping	14:36	15:00	00:24	Stator differential protection 87G operated.	CT Connection of Y-phase stator current in TB of marshaling Box was found slightly loose terminal.	Machine got restored after tightening of all CT conenction in Marshalling box and relay terminal
4	5	16.10.2025	16.10.2025	Generation	18:00	18:30	00:30	QSD occurred because of RDS Closing TLTE fault.	During the starting sequence it is observed that RDS could not be closed in Generation mode. On investigation it is found that relay contacts extending the power supply for RDS control circuit got stucked. Due to this RDS did not get close and machine got tripped on QSD due to TLTE (too late too execute) or delay in RDS closing feedback.	The concerned relay was de-energised by switching of the the power supply and contacts got normalised. The unit sequence was started again & RDS got closed timely in next scheduled operation. Same is under observation and so far the relay is functioning satisfactorily
5	6	31.07.2025	31.07.2025	Pumping	09:00	09:28	00:28	Absence of pump operation readiness condition (internal logic for gross head conditions).	The operation of unit in Pump mode was restricted (upto head limit 185mtr) to avoid the dead band operation of machine. Ready to start condition did not appear as head limit reached greater than the preset value.	The logic for the same was changed by GE commissioning team after discussion with their Design and global expert.
6	5	11.08.2025	11.08.2025	Pumping	11:48	13:15	01:27	Leakage from main fire fighting Header common for THPP & PSP GSU Transformers	A failure has occurred at the weld joint of the main header pipeline of fire Fighting system	Failed welding joint has been repaired after draining of water.
7	6	11.08.2025	11.08.2025	Pumping	11:46	13:20	01:34	Leakage from main fire fighting Header common for THPP & PSP GSU Transformers	A failure has occurred at the weld joint of the main header pipeline of fire Fighting system	Failed welding joint has been repaired after draining of water
8	6	08.09.2025	08.09.2025	Generation	18:30	19:37	01:07	Interruption in UPS supply due to disturbance in External AC & DC supply	The inverter system shutdown abruptly	During multiple AC supply switching the inverter detected low DC voltage and S/off its ouput voltage. The system rechecked and put back in service.
9	6	26.09.2025	26.09.2025	Pumping	09:33	09:47	00:14	QSD due to TLTE in transition from PC to PU mode	Due to delay in availability of SPMAX stage 720 (load consumption control). Time allocated to achieve stage 720 was set to 60 seconds after opening of MIV. During this operation it took 1 see more than 60 seconds. Later changed to 65 seconds.	This was happened during the pump start optimisation. As some parameters changed which caused the stage discrepancy.
10	6	03.10.2025	03.10.2025	Generation	18:30	18:59	00:29	Relay maloperation GCBs 3 phase AC supply monitoring relay got stuck and failed to provide signal	During the starting sequence, it is observed that GCB could not be closed in Generation mode. On investigation it is found that relay contacts extending the power supply for GCB control circuit got stucked. Due to this GCB did not get close and machine got tripped on QSD due to TLTE (too late too execute) or delay in GCB closing feedback.	The concerned relay was de-energised by switching of the the power supply and contacts got normalised. The unit sequence was started again & GCB got closed timely in next scheduled operation. Same is under observation and so far the relay is functioning satisfactorily
12	6	09.10.2025	09.10.2025	Pumping	15:38	16:15	00:37	As the fire fighting system commissioning for U7 and U8 is going on , the signal of IVC TRF fire was generated due to common loop which caused the Unit-6 trip	The signal of IVC TRF fire was generated due to common loop which led the tripping of Unit-6.	All the connections were checked and were found satisfactory and the fault was reset from Main Fire Annunciator Panel (MFAP) in Control Building. Break was given between loop of U#5,6 and U#7,8 as U#5,6 is given 24V DC through signalling line circuit 1, while U#7,8 is given 24V DC through signaling line circuit 2.
13	6	10.10.2025	11.10.2025	Pumping	02:00	23:19	45:19:00	400kV voltage feedback not available in VSI system from GIS.	400 KV feedback not available to VSI System from GIS ,initial conditions not available to run the machine	Coil replaced in GIS used for 400 KV feedback.Parallely oil filtration of PRV station was done.
14	5	22.10.2025	22.10.2025	Pumping	11:00	15:20	04:20	DC Supply Fail. BVC got closed due to fault	All connections checked. Suspected some loose connection.	All connections of BVC DCDB are again tightened.
15	6	22.10.2025	22.10.2025	Pumping	11:00	14:42	03:42	DC Supply Fail. BVC got closed due to fault	All connections checked. Suspected some loose connection.	All connections of BVC DCDB are again tightened.
16	5	19.11.2025	19.11.2025	Pumping	00:40	03:00	2:20:00	GSU main transformer protection operated.	During the electrical startup of the unit in Pump Mode, unit got tripped due to the B-Phase CT saturation on the generator neutral side. This saturation condition led to the unwanted operation of the Master Trip Relay associated with the GSU Transformer Main-2 protection, resulting in tripping of the unit. Further investigation revealed that within the Protection Scheme Logic (PSL), the CT saturation signal was configured to initiate a direct trip command to the Master Trip Relay of the GSU Transformer Main-2 protection. Therefore, the protection system responded to the CT saturation event and led to tripping of unit. As per GE experts, during pump mode starting, very low-frequency currents flow in both the rotor and stator circuits and these low-frequency and high-magnetizing current components can occasionally cause CT saturation.	The PSL has been modified to eliminate direct tripping of the unit due to CT saturation signals. Since CT saturation is already accounted for within the GSU Transformer differential protection scheme—where it is appropriately used for blocking during external fault conditions, therefore the additional direct trip logic was found to be unnecessary and removed. Following implementation of the revised PSL logic, the system has been operating satisfactorily so far.

Status of Mock Test of SPS in NR during 2025-26

Sr. No.	Scheme Name	Owner / Agency	Commission Year	Last Review	Mock testing conducted before 2025-26	Tentative Schedule of SPS Mock testing to be conducted during 2025-26	Date of SPS Mock testing conducted during 2025-26	Remarks
1	SPS for WR-NR corridor - 765kV Agra-Gwalior D/C	POWERGRID			27-03-2025	conducted	10.10.2025	Communication issue at Bhiwadi(PG), Bamnauli(DTL), Kota, Debari, Chittorgarh, Ratangarh, Nunamajra, Safidon, Ajitwal, Dandhari-II, Ablawal.
2	SPS for contingency due to tripping of HVDC Mundra-Mahendergarh	ADANI				Schedule awaited		As reported by ADANI, scheme has been made ready to be taken into service.
3	SPS for high capacity 400 kV Muzaffarpur-Gorakhpur D/C Inter-regional tie-line related contingency	POWERGRID				SPS Under Review		Not conducted in 2024-25 also.
4	SPS for 1500 MW HVDC Rihand-Dadri Bipole related contingency	POWERGRID			19-03-2025 and 20-03-2025	conducted	19.11.2025	SPS command didn't receive at 220kV Muradnagar(UP), 220kV Merta(RS), 220kV Kota Sakatpura(RS), 220kV Dhanonda(HR) and Singrauli TPS(NTPC)
5	System Protection Scheme (SPS) for HVDC Balia-Bhiwadi Bipole	POWERGRID				SPS Under Review		Not conducted in 2024-25 also
6	SPS for reliable evacuation of power from NJPS, Rampur, Sawra Kuddu, Baspa Sorang and Karcham Wangtoo HEP	SJVN/HPPTCL/JSW/POWERGRID/SORANG			19-12-2024	Dec-25	04-09-2025 (Partial: Case-1, 3 & 5 conducted)	Case-6(i) & (ii) has been implemented (as confirmed by Karcham(JSW) via mail dated 08.12.2025). Communication card issue at Wangtoo(HP)
7	SPS for Reliable Evacuation of Ropar Generation	PSTCL				SPS Under Review		As per NRLDC study, evacuation network at Ropta TPS meets N-1-1 reliability criteria, the need for an SPS at Ropar appears redundant under the current network configuration.
8	SPS for Reliable Evacuation of Rosa Generation	UPPTCL			20-04-2024	conducted	12-04-2025	Mock test report received (Review to be done in view of commissioning of 400kV Rosa-Badaun D/C in April 2021.)
9	SPS for contingency due to tripping of evacuating lines from Narora Atomic Power Station	NAPS / UPPTCL				SPS Under Review		Not conducted in 2024-25 also. As reported by UPPTCL, no SPS system is in service at Narora S/s.
10	SPS for evacuation of Kawai TPS, Kalisindh TPS generation complex	RVPNL			14-03-2025 (Partial)	conducted	26-04-2025	As informed by RVPNL, automatic load shedding part of the SPS has been implemented and mock tested. Mock test report is yet to be received.
11	SPS for evacuation of Anpara Generation Complex	UPPTCL			08-10-2024 (unit-7) and 19-10-2024 (unit-6)	conducted	21-07-2025	
12	SPS for evacuation of Lalitpur TPS Generation	UPPTCL			21-05-2024	conducted	09-04-2025	Mock test report received
13	SPS for Reliable Evacuation of Bara TPS Generation	UPPTCL			20-11-2024	conducted	23-05-2025	Mock test report received
14	SPS for Lahal Generation	HPPTCL			08-07-2020	SPS Under Review		As reported by HPPTCL, SPS at Lahal not required now.
15	SPS for Transformers at Ballabgarh (PG) substation	POWERGRID				Schedule awaited		N-1 compliant (To be removed)
16	SPS for Transformers at Maharaniabagh (PG) substation	POWERGRID				conducted	Apr-25	Mock test report received
17	SPS for Transformers at Mandola (PG) substation	POWERGRID				conducted	Apr-25	Mock test report received
18	SPS for Transformers at Bamnauli (DTL) Substation	DTL				Dec-25		N-1 compliant (To be removed). As reported by SLDC Delhi, scheme may be kept in service until 315 MVA ICT is revived which currently is not in service
19	SPS for Transformers at Moradabad (UPPTCL) Substation	UPPTCL			20-04-2024	conducted	02-04-2025	Mock test report received
20	SPS for Transformers at Muradnagar (UPPTCL) Substation	UPPTCL			27-03-2025	Mar-26		
21	SPS for Transformers at Muzaffarnagar(UPPTCL) Substation	UPPTCL			27-03-2025	Mar-26		N-1 compliant (To be removed)
22	SPS for Transformers at Greater Noida(UPPTCL) Substation	UPPTCL				SPS Unhealthy		N-1 compliant (To be removed)
23	SPS for Transformers at Agra (UPPTCL) Substation	UPPTCL			21-03-2025	Mar-26		
24	SPS for Transformers at 400kV Sarojininagar (UPPTCL) Substation	UPPTCL			15-05-2024	conducted	23-07-2025	Mock test report received
25	SPS for Transformers at 220kV Sarojininagar (UPPTCL) Substation	UPPTCL			06-06-2024	conducted	23-07-2025	Mock test report received

26	SPS for Transformers at 400kV Unnao (UPPTCL) Substation	UPPTCL			19-05-2023	SPS made healthy on 27.05.2025	27.05.2025	Mock test report received
27	SPS for Transformers at 400kV Sultanpur (UPPTCL) Substation	UPPTCL				SPS made healthy on 05.05.2025		As reported by SLDC UP, scheme is required as loading exceeded (N-1) limit during summer of 2025
28	SPS for Transformers at 400kV Bareilly (UPPTCL) Substation	UPPTCL				Revised SPS approved in 234 OCC		SPS yet to be implemented
29	SPS for Transformers at 400kV Azamgarh (UPPTCL) Substation	UPPTCL			06-05-2024	conducted	19-04-2025	Mock test report received
30	SPS for Transformers at 400kV Mau (UPPTCL) Substation	UPPTCL			27-04-2024	conducted	21-04-2025	Mock test report received
31	SPS for Transformers at 400kV Gorakhpur (UPPTCL) Substation	UPPTCL			27-04-2024	conducted	21-04-2025	As reported by SLDC UP, scheme is required as loading exceeded (N-1) limit during summer of 2025
32	SPS for Transformers at 400kV Sarnath (UPPTCL) Substation	UPPTCL			23-05-2024	conducted	01-04-2025	Mock test report received
33	SPS for Transformer at 400kV Rajpura (PSTCL) Substation	PSTCL			31-01-2025	Jan-26		
34	SPS for Transformers at 400kV Mundka (DTL) Substation	DTL			03-02-2025	Dec-25		
35	SPS for Transformers at 400kV Deepalpur (JKTPL) Substation	HVPNL				conducted	08-05-2025	Mock test report pending
36	SPS for Transformers at 400kV Ajmer (RVPN) Substation	RVPNL			10-09-2024	conducted	20-08-2025	Mock test report received.
37	SPS for Transformers at 400kV Merta (RVPN) Substation	RVPNL			12-09-2024	conducted	09-09-2025	Mock test report received.
38	SPS for Transformers at 400kV Chittorgarh (RVPN) Substation	RVPNL			31-08-2024 and 05-09-2024	conducted	11-09-2025 & 12-09-2025	Mock test report received.
39	SPS for Transformers at 400kV Jodhpur (RVPN) Substation	RVPNL			24-09-2024	Dec-25		
40	SPS for Transformers at 400kV Bhadla (RVPN) Substation	RVPNL			27-09-2024	conducted	27-09-2025	
41	SPS for Transformers at 400kV Ratangarh (RVPN) Substation	RVPNL			20-09-2024	conducted	25-09-2025	
42	SPS for Transformers at 400kV Nehtaur(WUPPTCL) Substation	UPPTCL			11-01-2025	Dec-25		
43	SPS for Transformers at Obra TPS	UPPTCL			20-05-2024	Schedule awaited		ICTs failed during fire incident
44	SPS for Transformers at 400KV Kashipur (PTCUL) substation	PTCUL			Septemeber 2024	conducted	05-10-2025	
45	SPS for Transformers at 400KV Fatehgarh Solar Park (AREPRL)	ADANI				conducted	19-04-2025	Mock test report received.
46	SPS to relive transmission congestion in RE complex (Bhadla2)	POWERGRID				conducted	26-08-2025	Mock test report pending
47	SPS for Transformers at 400kV Bikaner (RVPN) Substation	RVPNL			26-09-2024	conducted	13-09-2025 & 17-09-2025	
48	SPS for Transformers at 400kV Bawana (DTL) Substation	DTL			04-01-2025	Dec-25		
49	SPS for Transformers at 400kV Bhilwara (RVPN) Substation	RVPNL			09-07-2024 and 10-07-2024	conducted	19-09-2025 & 23-09-2025	Mock test report received.
50	SPS for Transformers at 400kV Hindaun (RVPN) Substation	RVPNL			26-09-2024	conducted	11-09-2025	Mock test report received.
51	SPS for Transformers at 400kV Suratgarh (RVPN) Substation	RVPNL			20-10-2024	Dec-25		
52	SPS for Transformers at 400kV Babai(RS) Substation	RVPNL			20-10-2024	conducted	07-08-2025	Mock test report received.
53	SPS for Transformers at 400kV Allahabad(PG) Substation	UPPTCL			25.07.2024	Jan-26		
54	SPS for Transformers at 400kV Jaunpur(UP) Substation	UPPTCL				Schedule awaited		Implemented on 08.10.2025
55	SPS for Transformers at 765kV Jhatikara(PG) Substation (Bamnauli section)	POWERGRID				conducted	Jun-25	Mock test report received.
	SPS for Transformers at 765kV Jhatikara(PG) Substation (Mundka section)					conducted	Jun-25	
56	SPS for Transformers at 765kV Bhiwani(PG) Substation	POWERGRID				SPS implemented		Mock test report received.
57	SPS for Transformers at 400kV Panki (UPPTCL) Substation	UPPTCL				Approved in 234 OCC		Expected to be implemented by Dec-25
58	SPS for Transformers at 400kV Agra(PG) Substation	POWERGRID/UP PTCL				Approved in 234 OCC		Expected to be implemented by Dec-25
59	SPS for Transformers at 400kV Jaipur South(PG) Substation	POWERGRID/RVPNL				Approved in 237 OCC		Yet to be implemented
60	SPS for Transformers at 400kV Bassi(PG) Substation	POWERGRID/RVPNL				Approved in 237 OCC		Yet to be implemented
61	SPS for Transformers at 400kV Kankroli(PG) Substation	POWERGRID/RVPNL				Approved in 237 OCC		Yet to be implemented
62	SPS for Transformers at 400kV Kotputli(PG) Substation	POWERGRID/RVPNL				Approved in 237 OCC		Yet to be implemented
63	SPS for Transformers at 400kV Neemrana(PG) Substation	POWERGRID/RVPNL				Approved in 237 OCC		Yet to be implemented
64	SPS for Transformers at 400kV Bhiwadi(PG) Substation	POWERGRID/RVPNL				Approved in 237 OCC		Yet to be implemented
65	SPS for Transformers at 400kV Sikar(PG) Substation	POWERGRID/RVPNL				Approved in 237 OCC		Yet to be implemented

Fw: Mundra-Mohindergarh HVDC , SPS-NR defect resolutions

Deepak Kumar

Tue 04-Feb-25 17:04

To: Sugata Bhattacharya (सुगता भट्टाचार्या) <sugata@grid-india.in>;

📎 1 attachments (23 KB)

Revised Schedule for Site Visit.xlsx;

From: Sumeet Sharma <Sumeet.Sharma@adani.com>

Sent: Monday, February 3, 2025 6:58 PM

To: aen.com; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpn@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Cc: NRLDC SO 2; Somara Lakra (सोमारा लाकरा); Mahavir Prasad Singh (महावीर प्रसाद सिंह); Deepak Kumar; Sunil Kumar Raval; Namandeep Matta; Kali Charan Sahu; RAVINDRA ATALE; Nihar Raj; Milan Popat; Abhishek Kukreja; Naman Vyas; Abhishek Kumar Singh

Subject: Mundra-Mohindergarh HVDC , SPS-NR defect resolutions

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Dear Sirs,

This refers to the matter discussed during recent Protection subcommittee (PSC) meetings with regards to the requirement of rectifications of SPS-NR implemented for Mundra-Mohindergarh HVDC transmission. We have awarded the service to M/s commtel for survey and restoration of possible elements installed at the locations.

Please note that Engineers from M/s Commtel shall be visiting your stations as per the attached schedule and necessary coordination shall be done by Mr. Abhishek Singh (Station -in charge) of Mohindergarh HVDC station (AESL-GD). He can be contacted at Mobile: 9671306831.

We request your kind permission and necessary support in carrying out the observations/possible restorations of the installations at your respective stations.

Thank you.

Regards,

Sumeet Sharma

Head- Automation, Communications , OT-Cyber & Technology

Adani Energy Solutions Limited.(Grid Division)

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Project : To check Sytem healthiness anc configuration of system installed Under M/s Adani

S. No	Site name	Region	Site visit
1	Ialtokalan	Punjab	03.02.2025
2	Gobidngarh		04.02.2025
3	Malerkotla		05.02.2025
4	Mandula	UP	06.02.2025
5	Bamnauli	DTL	07.02.2025
6	Ratangarh	Rajasthan	06.02.2025
7	Bhilwara		07.02.2025
8	Merta		07.02.2025
9	Alwar		08.02.2025
10	PG Bhiwani	Haryana	10.02.2025
11	BBMB bhiwani		10.02.2025
12	Hissar		11.02.2025
13	Dadri		11.02.2025
14	Bahadurgah		12.02.2025
15	Dhanoda		12.02.2025
16	Shamli	UP	12.02.2025

RE: Mock testing of SPS of 500kV HVDC Mundra-Mahindergarh link

Thu 8/29/2024 7:29 PM

To:NRLDC SO 2 <nrlcdso2@grid-india.in>; CPCC1 <rtamc.nr1@powergrid.in>;

Cc:seo-nrpc <seo-nrpc@nic.in>; Somara Lakra (सोमारा लाकरा) <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Arunkumar P <Arunkumar.P@adani.com>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; Deepak Kumar <deepak.kr@grid-india.in>; AMIT SHARMA <amsharma@grid-india.in>; Bikas Kumar Jha (बिकास कुमार झा) <bikaskjha@grid-india.in>; Manas Ranjan Chand (मानस रंजन चंद) <manas@grid-india.in>; Aman Gautam (अमन गौतम) <amangautam@grid-india.in>; Gnanaguru . <Gnanaguru.1@adani.com>; Sumeet Sharma <Sumeet.Sharma@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Milan Popat <Milan.Popat@adani.com>; Nihar Raj <nihar.raj@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>;

5 attachments (9 MB)

Counter (2).jpg; Counter.jpg; TPS (2).jpg; TPS.jpg; 220KV Alwar ss.jpg;

****Warning****

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Dear Sir,

Please find the attached Photos. on 28-08-2024, a representative from M/s. Commtel Networks visited the Mahendragarh site and confirmed the healthiness of the SDH and TPS, along with their associated cards.

All SPS System equipment are functioning properly. The 15 TPS installed in the remote substation.

The details and status of TPS and Counter at Mahendragarh End.

S.No	TPS	TPS Status	Counter	Counter Status
1	PG Hissar	ON	17	OKAY
2	Bhiwani	ON	17	OKAY
3	Dadari	ON	17	OKAY
4	Alwar	ON	-	OFF
5	Bhilwara	ON	12	OKAY
6	Merta	ON	14	OKAY
7	Ratangarh	ON	-	OFF
8	Gobinugarg	ON	-	OFF
9	Malerkotla	ON	-	OFF
10	Laton Kalan	ON	6	OKAY
11	Mandula	ON	12	OKAY
12	Bamnauli	ON	-	OFF
13	Shamli	ON	-	OFF
14	Bahadurgarh	ON	10	OKAY

15	Dhanonda	ON	-	OFF
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There alarms on the system are due to the following reasons.

1. Equipment Failure/ card failure/ power failure at Remote Sites.
2. Cable connectivity break between the remote System and cable coming from Field.
3. E1 connectivity outage at remote Sites.

Our team, with support from Commtel Networks, visited the nearest TPS installed at the 220/132 kV Alwar Substation to check its healthiness. However, during the inspection, the panel was found to be de-energized, necessitating an end-to-end test. (Photo Attached) Similarly, each substation needs to be ensured the healthiness of the TPS by respective Substation owner.

We request you to please confirm the healthiness of the Sr no 1 and 2 .

Thanks and Regards,

Kalicharan Sahu

(O&M) HVDC & EHV Substations,

Adani Energy Solutions Limited

| ±500kV HVDC Mahendragarh Terminal Sub Station I

Village-Kheri- Aghiyar, Taluka- Kanina, Mahendragarh 123 029, Haryana, India

Mob +91 9764006167| Off +91 1285 277326

adani

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with
Goodness

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f t i+ /AdaniOnline

From: NRLDC SO 2 <nrlcdcso2@grid-india.in>

Sent: Tuesday, August 27, 2024 10:07 AM

To: SLDC Punjab <se-sldcprojects@pstcl.org>; PC PSTCL SLDC PUNJAB <pcpstcl@gmail.com>; Haryana <sldcharyanacr@gmail.com>; Delhi <sldcmintoroad@gmail.com>; UP <sera@upslcd.org>; Rajasthan <SE.LDRVPNL@RVPN.CO.IN>; ce.ld@rvpn.co.in; CPCC1 <rtamc.nr1@powergrid.in>; neerajk@powergrid.in; setncmrt@upptcl.org; bharatlalgujar@gmail.com; akashdeep3433786@gmail.com; xenemtcbhpp2@bbmb.nic.in; PC Control Room <pccont@bbmb.nic.in>; se.prot.engg@rvpn.co.in; Arunkumar P <Arunkumar.P@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; rajbir-walia79@yahoo.com; ase-sldcop@pstcl.org; sesldcop@hvpn.org.in; cepso@upslcd.org; se-sldcop <se-sldcop@pstcl.org>; SICHVDC Controlroom <SICHVDC.Controlroom@adani.com>

Cc: seo-nrpc <seo-nrpc@nic.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; AMIT SHARMA <amsharma@grid-india.in>; bikaskjha <bikaskjha@grid-india.in>; Manas Ranjan Chand (मानस रंजन चंद) <manas@grid-india.in>; Aman Gautam (अमन गौतम) <amangautam@grid-india.in>

Subject: Re: Mock testing of SPS of 500kV HVDC Mundra-Mahindergarh link

***CAUTION:** This mail has originated from outside Adani. Please exercise caution with links and attachments.*

Sir,

उत्तर प्रदेश राज्य भार प्रेषण केन्द्र लि०
यू०पी०एस०एल०डी०सी०परिसर, विभूति
खण्ड 11, गोमती नगर, लखनऊ-226010
ई मेल : sera@upslde.org



U.P. State Load Despatch Centre Ltd.
UPSLDC Complex, Vibhuti Khand - II
Gomti Nagar, Lucknow- 226010
E-mail: sera@upslde.org

No: - 2661 /SE(R&A)/EE-II/SPS

Dated: - 07/08/2024

General Manager, NRLDC18-A,
SJSS Marg, Katwaria Sarai,
New Delhi - 110016

Subject- Regarding SPS of HVDC Mundra-Mahendargarh line

Kindly refer to SE (ETC) Muzaffarnagar letter no/062/E.T.C./MZN/400 kV S/S Shamli dated 05.05.2024. (copy enclosed) regarding feeder wise load of Shamli area. As per the letter, at present complete load relief (i.e. 300MW) may not be provided by 220 kV Shamli, so that alternatively feeder and load details of 400 kV Shamli has also been provided. Also it is informed that at present SPS system at 220 kV Shamli is not healthy which is being maintained by PGCI.

It is therefore requested to kindly instruct the concerned to incorporate 132 kV feeders of 220 kV Shamli & 400 kV Shamli in SPS of HVDC Mundra-Mahendargarh line so that appropriated load relief may be provided from UP Control area and take necessary action regarding healthiness of SPS system

Sangeeta

(Sangeeta)

Superintending Engineer (R&A)

No: - /SE(R&A)/EE-II/SPS

Dated: - 2024

Copy forwarded to following via e-mail for kind information and necessary action:-

1. Director, UPSLDC, Vibhuti Khand - II, Gomti Nagar, Lucknow.
2. Director (Operation), UPPTCL, 11th Floor, Shakti Bhawan Extn., Lucknow.
3. Chief Engineer (PSO), Vibhuti Khand - II, Gomti Nagar, Lucknow.
4. Chief Engineer (Trans. West), Pareshan Bhawan, 130D, Hydrel Colony, Victoria Park, Meerut 250001.
5. SE (Operations), 18 - A SJSS Marg, Katwaria Sarai, New Delhi, 110016.

(Sangeeta)

Superintending Engineer (R&A)



कार्यालय
अधीक्षण अभियन्ता
विद्युत पारेषण मण्डल
उ०प्र०पावर ट्रांसमिशन कारपोरेशन लि०
132 के०वी० भोपारोड उपकेन्द्र
मुजफ्फरनगर-251001

OFFICE OF THE
SUPERINTENDING ENGINEER
Electricity Transmission Circle
U.P. Power Transmission Corporation Ltd.
132 KV Bhopa Road Sub-station
Muzaffarnagar-251001

दूरभाष : 0131-2608038

Ph. 0131-2608038

E-mail : seetcmzn@upptcl.org, seetcmzn@gmail.com

संख्या / No. 1062 /E.T.C./MZN/400 KV S/S Shamli

दिनांक / DATED 05/08/24

Subject: - Regarding SPS of HVDC Mundra-Mahendargarh.

Superintending Engineer (R & A)
U.P State Load Despatch Centre Ltd.
UPSLDC Complex, Vibhuti Khand-II
Gomti Nagar, Lucknow.
Email. sera@upslde.org

Please refer to your office letter no. 2187 dt. 01.07.2024, forwarded to this office by SE (T&C), Meerut vide endorsement no. 2237/CE(TW)/MT/SPS dt. 23.07.2024 vide which it has been requested to provide details of 132 KV feeders for planned relief to HVDC Mundra-Mahendargarh SPS.

In this reference, it is to apprise that following is the details of 132 KV feeders being fed from 220 KV Sub-Station Shamli.

S.No.	Name of feeder	Connected Load (MVA)	Maximum Load (MW)	Average Load (MW)
1	132 KV Lalukheri	63+63	72	47
2	132 KV Jhinhana	63+40+40	80	52
3	132 KV Kairana-I/II	63+63	41	27
4	132 KV Jasala	63+40	58	38
Total			251	164

1. Following Case wise Trippings of 132 KV Feeders at 220 KV Sub-Station, Shamli for tripping of HVDC Mundra-Mahendargarh Line may be used.

(A) In Maximum Load Condition:-

S. No.	State.L.S quantum	Name of feeding substation	Feeder/line/ equipment	MW	Case-1 50 MW	Case-2 100 MW	Case-3 200MW	Case-4 300 MW
1	Uttar Pradesh Case-1 =50 MW Case-2 =100 MW Case-3 =200 MW Case-4 =300 MW	220 KV Substation, Shamli	132 KV Jasala	58	1	1	1	1
2			132 KV Kairana-I	20.5		1		1
3			132 KV Kairana-II	20.5	-	1		1
4			132 KV Lalukheri	72	-	-	1	1
5			132 KV Jinhana	80	-	-	1	1
Total Relief				251	58	99	210	251

(B) In Average Load Condition :-

S. No.	State.L.S quantum	Name of feeding substation	Feeder/line/ equipment	MW	Case-1 50 MW	Case-2 100 MW	Case-3 200MW	Case-4 300 MW
1	Uttar Pradesh Case-1 =50 MW Case-2 =100 MW Case-3 =200 MW Case-4 =300 MW	220 KV Substation, Shamli	132 KV Jasala	38	1		1	1
2			132 KV Kairana-I	13.5	1		1	1
3			132 KV Kairana-II	13.5	-		1	1
4			132 KV Lalukheri	47	-	1	1	1
5			132 KV Jinhana	52	-	1	1	1
Total Relief				164	51.5	99	164	164

Alternatively HVDC Mundra-Mahendargarh SPS may be shifted to 400 KV Sub-Station Shamli, details of 132 KV feeders from 400 KV Sub-Station Shamli with its Maximum and Average load is as follows :

S.No.	Name of feeder	Connected Load (MVA)	Maximum Load (MW)	Average Load (MW)
1	132 KV Budhana	63+40	82	53
2	132 KV Kharad	63+40	78	51
3	132 KV Jalalpur	40+40	41	27
4	132 KV Thanabhawan	63+63+40	74	48
5	132 KV Kaniyan	40+40	35	23
Total			310	202

2. Following Case wise Trippings of 132 KV Feeders at 400 KV Sub-Station, Shamli for tripping of HVDC Mundra-Mahendargarh Line is hereby recommended

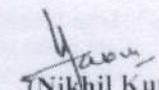
(A). In Maximum Load Condition :-

S. No.	State.L.S quantum	Name of feeding substation	Feeder/line/ equipment	MW	Case-1 50 MW	Case-2 100 MW	Case-3 200MW	Case-4 300 MW
1	Uttar Pradesh Case-1 - 50 MW Case-2 - 100 MW Case-3 - 200 MW Case-4 - 300 MW	400 KV Subsatation, Shamli	132 KV Budhana	82	-	-	1	1
2			132 KV Kharad	78	-	-	1	1
3			132 KV Jalalpur	41	1	-	1	1
4			132 KV Thanabhawan	74	-	1	-	1
5			132 KV Kaniyan	35	1	1	-	1
Total Relief				310	76	109	201	310

(B). In Average Load Condition :-

S. No.	State.L.S quantum	Name of feeding substation	Feeder/line/ equipment	MW	Case-1 50 MW	Case-2 100 MW	Case-3 200MW	Case-4 300 MW
1	Uttar Pradesh Case-1 - 50 MW Case-2 - 100 MW Case-3 - 200 MW Case-4 - 300 MW	400 KV Subsatation, Shamli	132 KV Budhana	53	-	1	1	1
2			132 KV Kharad	51	1	1	1	1
3			132 KV Jalalpur	27	-	-	1	1
4			132 KV Thanabhawan	48	-	-	1	1
5			132 KV Kaniyan	23	-	-	1	1
Total Relief				202	51	104	202	202

Submitted for information and necessary action


(Nikhil Kumar)
Superintending Engineer

संख्या / No.

/E.T.C./MZN/

दिनांक / DATED

Copy forwarded to the following for information and necessary action :

1. Chief Engineer (TW) UPPTCL Meerut.
2. Superintending Engineer, Electricity (T&C) Circle, UPPTCL Meerut.
3. Executive Engineer Electricity Transmission Division, Shamli

(Nikhil Kumar)
Superintending Engineer

कार्यालय
अधीक्षण अभियन्ता
विद्युत परीक्षण एवं परिचालन मण्डल
उ०प्र० पावर ट्रांसमिशन कारपोरेशन लि०
प्रथम तल पारेषण भवन, 130-डी, विक्टोरिया पार्क
मेरठ- 250 003
मोबाइल: 9412749817



OFFICE OF THE
SUPERINTENDING ENGINEER
Electricity Test & Commissioning Circle
U.P. POWER TRANSMISSION CORPORATION LTD.
1st Floor Paresan Bhawan, 130-D, Victoria Park,
Meerut 250 003
Mobile: 9412749817

No. 82... / ETCC-MT /

Dated- 30/05/24

Sub :- SPS related to HVDC Mundra-Mahendargarh.

Superintending Engineer (R&A)
UPSLDC Vibhuti Khand,
Gomti Nagar,
Lucknow.

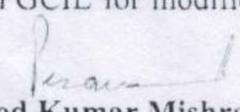
(By e-mail)

In reference to the above cited subject, UPSLDC via email on 22.05.2024 informed that on 17.05.2024 at 16:20 hrs, Case-3 of SPS related to HVDC Mundra - Mahendargarh operated. As per action in case-3 operation of this line SPS, 200MW load relief at 220kV Shamli (UP) is desired. However, no load relief at 220kV Shamli was observed at given date and time. It is to bring in your notice that due to commissioning of 400kV Shamli S/s entire power flow scenario has been changed. Current situation is summarized as below.

At 220kV Shamli S/s feeders shown in the list	Planned load relief (MW)	Current situation
Thana Bhawan -1	25	The only line cateting Thana Bhawan has been made LILO at 132kV Jalalpur. Now Jalalpur is fed from 220kV Shamli S/s while load of Thana Bhawan is fed from 400kV Shamli S/s.
Thana Bhawan -2	25	
Jasala-1	25	Only one line exists.
Jasala-2	25	
Kharad-1	50	Only one line exists which is normally kept open at Kharad and load of Kharad is normally fed from 400kV Shamli S/s.
Kharad-2	50	
Baraut-1	150 (case-4)	No such line exist at 220kV Shamli S/s.
Baraut-2	150 (case-4)	

In view of the above facts, entire load relief strategy needs to be reviewed and redesigned for SPS. On 17.05.2024 at 16:20 hrs, no tripping observed at 220kV S/S Shamli as SPS system is unhealthy, which is being maintained by M/s PGCIL.

Hence it is requested to you to kindly coordinate with M/s PGCIL for modification of the scheme and rectification of the fault in SPS.

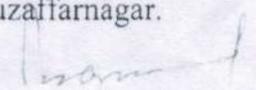

(Pramod Kumar Mishra)
Superintending Engineer

No. 82... / ETCC-MT /

Dated/- 30/05/24

Copy forwarded to the following for information & necessary action:-

1. Chief Engineer (TW), UPPTCL Victoria Park, Meerut.
2. Executive Engineer, Electricity Test & Commissioning Div., Muzaffarnagar.


(Pramod Kumar Mishra)
Superintending Engineer

Rajasthan Details

Revised updated feeder details (radial) along with expected average Load Relief

S.No.	Name of Sub- Station	Feeder name as per existing detail	Revised name of Existing Feeder /Line/Equipment	Average Load relief (MW)	Remark
1	220 kV GSS Alwar	132 kV GSS Mundawar	132 kV GSS Pinan	25	
		132 kv GSS Bansoor	132 kV GSS Telco	45	
		132 kV GSS Ramgarh	132 kV GSS Ramgarh	65	
		132 kV GSS Malakhera	132 kV GSS Malakhera	50	
		132 kV Alwar (LOCAL)	132 kV GSS Alwar (LOCAL)	120	
2	220 kV GSS Ratangarh	132 kV Sardar Sher			Generally Feed from 220 kV Halasar
3	220 kV GSSV Bhilwara	132 kV GSS Gangapur	132 kv GSS Karoi	15	
		132 kV GSS Danta	132 kV GSS Danta	30	
		132 kV GSS Devgarh	132 kV GSS Bankali	18	
		132 kV GSS Kareda			
4	400 kV GSS Merta	132 kV GSS Kuchera	132 kV GSS Dhawa	25	
		132 kV GSS Lamba	132 kV GSS Lamba jatan	55	
		132 kV GSS Gotan			

Email**Control Room CONTROL ROOM SLDC****Re: Review of SPS installed for 500kV HVDC Mundra - Mahindergarh.****From :** Executive Engineer TS Rewari
<xentsrwr@hvpn.org.in>

Thu, Aug 29, 2024 01:20 PM

Subject : Re: Review of SPS installed for 500kV HVDC Mundra - Mahindergarh.**To :** Control Room CONTROL ROOM SLDC
<controlroomslcdc@hvpn.org.in>**Cc :** SE TS GGN <setsggn@hvpn.org.in>, Executive Engineer Executive Engineer
<xen400kvdhanoda@hvpn.org.in>, Substation Engineer <sse220kvlulaahir@hvpn.org.in>

In continuation of trailing email and discussion held today telephonically, it is gathered that desired load relief shall not get as load of 220 kV Lula Ahir shall be fed through 220 kV Dadri-Lula Ahir line being synchronized. Therefore, it is proposed that in the existing scheme SPS, the tripping of 220 kV D/C Lula Ahir line at 400 kV Dhanonda end may be removed and tripping of all incomers (2 no. 132 kV Incomers of 100 MVA 220/132 kV TFs and one no. 33 kV incomer of 100 MVA 220/33 kV TF) at 220 kV Lula Ahir substation may be added.

The maximum load (for FY 2023-24) on three no. 100 MVA TFs installed at 220 kV Lula Ahir is 53.46 MVA, 86.26 MVA and 87.02 MVA

The average load on three no. 100 MVA TFs installed at 220 kV Lula Ahir is 50 MVA, 70 MVA and 70 MVA

From: "Executive Engineer TS Rewari" <xentsrwr@hvpn.org.in>
To: "Control Room CONTROL ROOM SLDC" <controlroomslcdc@hvpn.org.in>
Cc: "SE TS GGN" <setsggn@hvpn.org.in>, "Executive Engineer Executive Engineer" <xen400kvdhanoda@hvpn.org.in>, "Substation Engineer" <sse220kvnarnaul@hvpn.org.in>
Sent: Wednesday, August 28, 2024 12:46:13 PM
Subject: Re: Review of SPS installed for 500kV HVDC Mundra - Mahindergarh.

In reference of trailing email it is submitted that 220 kV Lula Ahir is connected with 400 kV Dhanonda through 220kV D/C line and with 220 kV Dadri through 220kV S/C line and with 220 kV Rewari with 220kV S/C line.

In general circuits of 400 kV Dhanonda and 220 kV Dadri runs in synchronization. The maximum load (for FY 2023-24) on three no. 100 MVA TFs installed at 220 kV Lula Ahir is 53.46 MVA, 86.26 MVA and 87.02 MVA. It is further added that in general 220 kV Dadri takes load from 220 kV Lula Ahir substation and thus act as sink.

In case of operation of SPS at 400 kV Dhanonda, the desired load relief as mentioned in trailing email (90+95 MW) can be achieved through existing scheme (by outage of three no. 100 MVA TFs and 220 kV Dadri (acting as sink)).

Regards
XEN/TS Division
HVPNL Rewari.

From: "Control Room CONTROL ROOM SLDC" <controlroomsldc@hvpn.org.in>
To: "Executive Engineer TS Rewari" <xentsrwr@hvpn.org.in>, "Executive Engineer TS Rohtak" <xentsrtk@hvpn.org.in>, "Executive Engineer Ts Bhiwani" <xentsbhw@hvpn.org.in>, "Executive Engineer Executive Engineer" <xen400kvdhanoda@hvpn.org.in>, xendhanonda@gmail.com
Cc: "Chief Engineer SO Commercial" <cesocomml@hvpn.org.in>, "Chief Engineer TS Panchkula" <cetspkl@hvpn.org.in>, "Chief Engineer TS Hisar" <cetshsr@hvpn.org.in>, "Superintending Engineer SLDC OP" <sesldcop@hvpn.org.in>, "SE TS Rohtak" <setsrtk@hvpn.org.in>, "SE TS GGN" <setsggn@hvpn.org.in>, "Superintending Engineer TS Hisar" <setshsr@hvpn.org.in>, "Superintending Engineer MP CC Dhulkote" <sempccdk@hvpn.org.in>, "Superintending Engineer MP CC Delhi" <sempccdelhi@hvpn.org.in>, "Executive Engineer MP Rohtak" <xenmpccrtk@hvpn.org.in>, "XEN MP Hisar" <xenmpcchsr@hvpn.org.in>, "XEN MP CC" <xenmpccggn@hvpn.org.in>
Sent: Wednesday, August 21, 2024 11:57:59 AM
Subject: Review of SPS installed for 500kV HVDC Mundra - Mahindergarh.

Sir,

Please see the attachments.

--

Regards,
SCE (पाली प्रभारी अभियंता)/SLDC Control room,
HVPNL Panipat
Contact No- 9053090722,9053090721,0180-2664095

**Every 8333.3 sheets of paper costs us a tree.
Please don't print this e-mail unless you really need to. Save Paper Save Trees**

Fwd: Review of SPS installed for 500kV HVDC Mundra - Mahindergarh.

[Control Room CONTROL ROOM SLDC <controlroomsldc@hvpn.org.in>](mailto:controlroomsldc@hvpn.org.in)

Fri 8/30/2024 12:44 PM

To: NRLDC SO 2 <nrldcso2@grid-india.in>; NRLDC SO-II <nrldcso2@gmail.com>; Deepak Kumar <deepak.kr@grid-india.in>;

Cc: Superintending Engineer SLDC OP <sesldcop@hvpn.org.in>;

 2 attachments (209 KB)

Email SPS Rewari.pdf; Regarding SPS Bhiwani.pdf;

******Warning******

This email has not originated from Grid-India. Do not click on attachment or links unless sender is reliable. Malware/ Viruses can be easily transmitted via email.

Sir,

In reference to the SPS installed for 500kV HVDC Munda - Mahindergarh link the information received from TS wing (copy attached) is as under:

1. At 400kV Dhanonda through Lula Ahir substation:- It is proposed that in the existing scheme SPS, the tripping of 220 kV D/C Lula Ahir line at 400 kV Dhanonda end may be removed and tripping of all incomers (2 no. 132 kV Incomers of 100 MVA 220/132 kV TFs and one no. 33 kV incomer of 100 MVA 220/33 kV TF) at 220 kV Lula Ahir substation may be added. The maximum load (for FY 2023-24) on three no. 100 MVA TFs installed at 220 kV Lula Ahir is 53.46 MVA, 86.26 MVA and 87.02 MVA. The average load on three no. 100 MVA TFs installed at 220 kV Lula Ahir is 50 MVA, 70 MVA and 70 MVA.

2. At 400/220kV Bhiwani BBMB: It is proposed that in the existing scheme SPS, the tripping of 220 kV Bapora (Bhiwani HVPNL) D/C line at Bhiwani BBMB end may be removed and tripping of all incomers (2 no. 132 kV Incomers of 100 MVA 220/132 kV T-1 & T-2 TFs) at 220 kV Bapora (Bhiwani HVPNL) substation may be added. The maximum load on two no. 100 MVA TFs installed at 220kV Bhiwani HVPNL is 80 MW and 85 MW respectively. The average load on two no. 100 MVA TFs installed at 220kV Bhiwani HVPNL is 70 MW and 70 MW respectively.

3. At 132kV Charkhi Dadri: It is proposed that in the existing scheme SPS, the tripping of 132kV Kalanaur line at Dadri BBMB end may be removed and tripping of 132kV Haluwas & 132kV Dadri old at Dadri BBMB may be added. The maximum load on 132kV Haluwas & 132kV Dadri old line is 45 MW and 50 MW respectively. The average load on 132kV Haluwas & 132kV Dadri old line is 40 MW and 40 MW respectively.

Rest information kept unchanged. It is also added here that the fiber connectivity is also available on all the above substations.

It is also pertinent to mention here that 700 MW load relief is expected from Haryana. Rest of the states have been allotted with a relative less amount of relief as compared to Haryana for 500kV HVDC Mundra - Mahendargarh link. The Haryana share from APL Mundra has also been reduced now. In view of the above, the expected load relief from the NR states is required to be reviewed accordingly. The same was also pointed out by this office during the online meeting held on dated 20.08.2024.

This is for information & further necessary action please.

From: "Executive Engineer TS Rewari" <xentsrwr@hvpn.org.in>

To: "Control Room CONTROL ROOM SLDC" <controlroomsldc@hvpn.org.in>

Cc: "SE TS GGN" <setsggn@hvpn.org.in>, "Executive Engineer Executive Engineer" <xen400kvdhanoda@hvpn.org.in>, "Substation Engineer" <sse220kvlulaahir@hvpn.org.in>

Sent: Thursday, August 29, 2024 1:20:08 PM

Subject: Re: Review of SPS installed for 500kV HVDC Mundra - Mahindergarh.

In continuation of trailing email and discussion held today telephonically, it is gathered that desired load relief shall not get as load of 220 kV Lula Ahir shall be fed through 220 kV Dadri-Lula Ahir line being synchronized. Therefore, it is proposed that in the existing scheme SPS, the tripping of 220 kV D/C Lula Ahir line at 400 kV Dhanonda end may be removed and tripping of all incomers (2 no. 132 kV Incomers of 100 MVA 220/132 kV TFs and one no. 33 kV incomer of 100 MVA 220/33 kV TF) at 220 kV Lula Ahir substation may be added.

The maximum load (for FY 2023-24) on three no. 100 MVA TFs installed at 220 kV Lula Ahir is 53.46 MVA, 86.26 MVA and 87.02 MVA

The average load on three no. 100 MVA TFs installed at 220 kV Lula Ahir is 50 MVA, 70 MVA and 70 MVA

From: "Executive Engineer TS Rewari" <xentsrwr@hvpn.org.in>
To: "Control Room CONTROL ROOM SLDC" <controlroomsldc@hvpn.org.in>
Cc: "SE TS GGN" <setsggn@hvpn.org.in>, "Executive Engineer Executive Engineer" <xen400kvdhanoda@hvpn.org.in>, "Substation Engineer" <sse220kvnarnaul@hvpn.org.in>
Sent: Wednesday, August 28, 2024 12:46:13 PM
Subject: Re: Review of SPS installed for 500kV HVDC Mundra - Mahindergarh.

In reference of trailing email it is submitted that 220 kV Lula Ahir is connected with 400 kV Dhanonda through 220kV D/C line and with 220 kV Dadri through 220kV S/C line and with 220 kV Rewari with 220kV S/C line.

In general circuits of 400 kV Dhanonda and 220 kV Dadri runs in synchronization. The maximum load (for FY 2023-24) on three no. 100 MVA TFs installed at 220 kV Lula Ahir is 53.46 MVA, 86.26 MVA and 87.02 MVA. It is further added that in general 220 kV Dadri takes load from 220 kV Lula Ahir substation and thus act as sink.

In case of operation of SPS at 400 kV Dhanonda, the desired load relief as mentioned in trailing email (90+95 MW) can be achieved through existing scheme (by outage of three no. 100 MVA TFs and 220 kV Dadri (acting as sink)).

Regards
XEN/TS Division
HVPNL Rewari.

From: "Control Room CONTROL ROOM SLDC" <controlroomsldc@hvpn.org.in>
To: "Executive Engineer TS Rewari" <xentsrwr@hvpn.org.in>, "Executive Engineer TS Rohtak" <xentsrtk@hvpn.org.in>, "Executive Engineer Ts Bhiwani" <xentsbhw@hvpn.org.in>, "Executive Engineer Executive Engineer" <xen400kvdhanoda@hvpn.org.in>, xendhanonda@gmail.com <cetsshsr@hvpn.org.in>, "Superintending Engineer SLDC OP" <sesldcop@hvpn.org.in>, "SE TS Rohtak" <setsrtk@hvpn.org.in>, "SE TS GGN" <setsggn@hvpn.org.in>, "Superintending Engineer TS Hisar" <setshsr@hvpn.org.in>, "Superintending Engineer MP CC Dhulkote" <sempccdt@hvpn.org.in>, "Superintending Engineer MP CC Delhi" <sempccdelhi@hvpn.org.in>, "Executive Engineer MP Rohtak" <xenmpccrtk@hvpn.org.in>, "XEN MP Hisar" <xenmpccshr@hvpn.org.in>, "XEN MP CC" <xenmpccggn@hvpn.org.in>
Sent: Wednesday, August 21, 2024 11:57:59 AM
Subject: Review of SPS installed for 500kV HVDC Mundra - Mahindergarh.

Sir,

Please see the attachments.

--
Regards,
SCE (पाली प्रभारी अभियंता)/SLDC Control room,
HVPNL Panipat
Contact No- 9053090722,9053090721,0180-2664095

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Regards,
SCE (पाली प्रभारी अभियंता)/SLDC Control room,
HVPNL Panipat
Contact No- 9053090722,9053090721,0180-2664095

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HARYANA VIDYUT PRASARAN NIGAM LIMITED

Regd. Office: Shakti Bhawan, Plot No. C-4, Sector-6, Panchkula, 134109.

Corporate Identity Number: U40101HR1997SGC033683

Website: www.hvprn.org.in, E-mail - xentsbhw@hvprn.org.in

Phone No: 01664-242797(O)

To

The Executive Engineer,
LDPC, HVPNL,
Panipat.

Memo No.Ch-116/OMBE-7

Dated: 29.08.2024

Subject: SPS scheme at HVPNL substations for getting load relief due to tripping of 500Kv HVDC Mundra – Mahendargarh

Please refer to this O/Memo No. 108/OMBE-7 dated 27.08.2024 and O/Email dated 09.08.2024 on the subject cited matter.

In this continuation to above, the details of SPS under TS division, HVPNL, Bhiwani is as under:

S No.	Name of feeding S/Stn	Feeder/Line/Equipment	SPS Installed	Max. Load	Load Relief (Avg Load)	Remarks
1	220KV S/Stn Bhiwani	132KV IA Bhiwani Line	UFR	50MW	40 MW	SPS (UFR) Installed and healthy
2	220KV S/Stn Bhiwani	132KV Bhiwani Ckt 2	UFR	50MW	40 MW	SPS (UFR) Installed and healthy
3	220KV S/Stn Bhiwani	132KV Tosham	UFR	-	-	SPS (UFR) Installed and healthy but line is running on No load as 2 nd source to 132KV Tosham
4	220KV S/Stn Bhiwani	132KV Incomer of Transformer 100MVA Transformer T2	-	85MW	70 MW	SPS may be provided for load relief as mentioned on subject above.
5	220KV S/Stn Bhiwani	132KV Incomer of 100MVA Transformer T1	-	80MW	70 MW	SPS may be provided for load relief as mentioned on subject above.
6	132kv substation Dadri-2	132kv Dadri-kalanaur ckt	Yes		Nil	SPS Installed and healthy but line is running on No load as 2 nd source to 132KV Kalanaur
7	132kv substation Dadri-2	132kv Dadri-Makrani ckt	Yes		Nil	SPS Installed and healthy but line is running on No load as 2 nd source to 132KV Makrani
8	132kv substation Dadri-2	132kv Dadri-Haluwas ckt	-	45MW	40MW	SPS may be provided for load relief as mentioned on subject above.
9	132kv substation Dadri-2	132kv Dadri-Dadri old	-	50MW	40MW	SPS may be provided for load relief as mentioned on subject above.

This is for kind information and necessary action please.


Executive Engineer,
Transmission System Division,
HVPNL, Bhiwani

CC to:

1. SE/TS Circle, HVPNL, Hisar for kind information, please.

Re: Mock testing of SPS of 500kV HVDC Mundra-Mahindergarh link

SLDC, DELHI <sldcmintoroad@gmail.com>

Wed 8/28/2024 3:48 PM

To:NRLDC SO 2 <nrlcdso2@grid-india.in>;

Cc:sinha.surendra <sinha.surendra@yahoo.com>; dgmsodelhisldc@gmail.com <dgmsodelhisldc@gmail.com>; Manager (T) SO <managersogd@gmail.com>;

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In reference to trailing mail, the maximum load on 220kV feeders covered under SPS of 500kV HVDC Mundra-Mahindergarh link are as under:

S. No.	Name of the Element	MW
1	220 KV BAMNAULI-PAPANKALAN-I CKT.-I	120
2	220 KV BAMNAULI-PAPANKALAN-I CKT.-II	120
3	220 KV MANDAULA- GOPALPUR CKT.-I	212
4	220 KV MANDAULA- GOPALPUR CKT.-II	214

Regards,
SLDC Delhi

On Tue, Aug 27, 2024 at 10:07 AM NRLDC SO 2 <nrlcdso2@grid-india.in> wrote:

Sir,

In reference of the trailing mail, it is to be mentioned that inputs have received from Rajasthan only. Members agreed to shared the details by 22nd August 2024, however no further details received from Haryana, Punjab, Delhi, UP & ADANI.

Kindly share the details as discussed during the meeting held on 20th August 2024, so that further remedial actions can be initiated on the basis of those details.

सादर धन्यवाद/ Thanks & Regards
प्रणाली संचालन-II/ System Operation-II
उ०क्षे०भा०प्रे०के०/ NRLDC
ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited
Formerly known as
पोसोको / POSOCO

Punjab Details

Punjab Control Area	Name of S/S	66kV Feeders	Average Demand(Amp.)	Maximum Demand(Amp.)
	220/66kV Gobindgarh	66kV Talwara-19(ADANI SPS)	375	430
		66kV Talwara-2(ADANI SPS)	375	430
	220/66kV Lalton kalan	66kV Gill road-1(DADRI SPS)	543	610
		66kV Gill Road-2(DADRI SPS)	518	692
		66kV Dugri(DADRI SPS)	325	450
	220/66kV Malerkotia	66kV Malerkotia(ADANI SPS)	213	403
		66kV Amargarh(ADANI SPS)	238	405
		66kV Malaud ckt 1(DTPC SPS)	257	356

Note: 66kV Malaud at 220kV S/S Malerkotia was bifurcated into two circuits in the month of July 2024.

Nodal officers details

Control Area	Station Name	Nodal Person (SPS, communication system)	Contact details	Email Id
Rajasthan	220/132kV Alwar	Sh. Vijaypal Yadav XEN (Prot.) Ms. Pooja Verma AEN (Comm)	9413361407 9413375366	xen.prot.alwar@rvpn.co.in aen.comm.alwar@rvpn.co.in
	220/132kV Ratangarh	Sh. Mukesh Somra AEN (MPT&S) , Sh. Dharmender Singh (Comm.)	9414061442 9413383246	aen.mpt&s.rtg@rvpn.co.in aen.comm.ratangarh@rvpn.co.in
	220/132kV Bhiwara	Sh. Madhusudan Sharma, AEN (SLDC-comm) Sh. Suresh Garg, XEN (MPT&S)	9413383176 9414061424	aen.subsldc.bhl@rvpn.co.in xen.mpts.bhl@rvpn.co.in
	220/132kV Merta	Mukesh Kumar (AEN Prot.) Mahip Singh (Aen) Comm)	7734806466 9413362995	aen.prot.mertacity@RVPN.CO.IN aen.comm.merta@RVPN.CO.IN
BBMB	400/220kV Bhiwani(BBMB)			
POWERGRID	400/220kV Hissar(PG)			
	Bhiwani(PG)			
	400/220kV Bahadurgarh(PG)			
Haryana	400/220kV Dhanonda	Gautam / SSE, 400kV Dhanonda	9313472669	dhanonda400kv@gmail.com
	220kV Lulahir	Er. Subhash Chander	9416373135	sse220kvlulaahir@hvpn.org.in
	220kV Rewari	Er. Kavinder Yadav	9315315649	sse220kvrwr@hvpn.org.in
	132kV Charkhi Dadri	Vivek Sangwan	9034459489	sse132kvdadri@hvpn.org.in
Punjab	220/66kV Gobindgarh	Er. Harwinder Singh	96461-18184	ae-220kvg1-mgg@pstcl.org
	220/66kV Lattokalan	Er. Supinder Singh	96461-24495	sse-pm-lalton@pstcl.org
	220/66kV Materkotta	Er. Sanju Bala	96461-64007	sse-pm-mlrk@pstcl.org
UP	Shamli	Er. Krishna Nand	9412756631	eeetdshamli@upptcl.org
	400kV Muradnagar	Er. D.S. Sengar	9412748666	ee400mrd2@upptcl.org
Delhi	400/220kV Bamnauli			
	400/220kV Mandola			

ULDC network for SPS Mundra-Mohindergarh 500kV HVDC

Sumeet Sharma <Sumeet.Sharma@adani.com>

Thu 4/10/2025 5:42 PM

To: nkmeena@powergrid.in <nkmeena@powergrid.in>;

Cc: Deepak Kumar <deepak.kr@grid-india.in>; seo-nrpc <seo-nrpc@nic.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Somara Lakra (सोमारा लोकरा) <somara.lakra@grid-india.in>; Afak Pothiwala <afak.pothiwala@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>;

1 attachments (323 KB)

20250408 ULDC discussion..pdf;

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Dear Meena ji,

Kindly accept my sincere thanks for the courtesy extended during our meeting on 08-Apr-25 with regards to the subject requirements.

I also express my thanks on the confirmation from your end with regards to availability of the 'E1' links between Mohindergarh and respective locations where the SPS commands are being extended. Kindly find attached the list discussed and agreed, for our reference.

Looking forward to your continued support and cooperation during the execution of this activity.

Regards,

Sumeet Sharma

Head- Automation, Communications & OT-Cyber Technology

Adani Energy Solutions Limited.(Grid Division)

Mob +91 90990 05648 | sumeet.sharma@adani.com | www.adani.com

KP Epitome|10th Floor South Wing | SG Highway |Ahmedabad-382421| Gujarat

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SPS Protection scheme for Mohindergarh-Mundra HVDC Transmisison System

Sr. No.	Load Station	Equipment Make	Tripping command Station	Equipment Make	Remarks	Comments
1	Mohindergarh	Tejas	Bhiwani BBMB	Tejas		
2	Mohindergarh	Tejas	Hissar PG	Tejas		
3	Mohindergarh	Tejas	Bahadurgarh- PG	Tejas		
4	Mohindergarh	Tejas	HVPNL Charki Dadri	Fibrehome	HVPNL Network	Inter-Patching at nearest Tejas Site
5	Mohindergarh	Tejas	Gobindgarh PSTCL	Fibrehome	PSTCL Network	Inter-Patching at nearest Tejas Site
6	Mohindergarh	Tejas	Lalokalan PSTCL	Fibrehome	PSTCL Network	Inter-Patching at nearest Tejas Site
7	Mohindergarh	Tejas	Malerkotta PSTCL	Fibrehome	PSTCL Network	Inter-Patching at nearest Tejas Site
8	Mohindergarh	Tejas	Alwar	Tejas		
9	Mohindergarh	Tejas	Ratangarh	Fibrehome	New Tejas equipment is being installed within 3 months	
10	Mohindergarh	Tejas	Bhilwada	Tejas		
11	Mohindergarh	Tejas	Merta City	Fibrehome	New Tejas equipment is being installed within 3 months	
12	Mohindergarh	Tejas	Samli - UPPTCL	Fibrehome	UPPTCL Network	Inter-Patching at nearest Tejas Site
13	Mohindergarh	Tejas	Bamnauli	Tejas		
14	Mohindergarh	Tejas	Mondola PG	Tejas		



Energy Solutions

Ref No. : ATIL_NRPC_SPS-NR_20250410_1

10-Apr-25

To,
The Deputy General Manager (Grid-Operations)
Northern Region Load Dispatch Center
18-A, Shaheed Jeet Singh Marg
Katwaria Sarai
New Delhi, 110016

Ref: Your letter # NRLDC/TS-15, dated 02-Apr-25

Subject: Corrective action for healthiness of +/- 500kV HVDC Mundra-Mohindergarh SPS

Sir,

We acknowledge the receipt of your letter mentioned in the reference above with regards to ensuring the healthiness of the SPS scheme implemented in 2012 during commissioning of the subject HVDC link.

It is to be noted that the systems and components installed at the commissioning time have lived their life and are now declared obsolete by the partner who has commissioned this system. Also the ULDC network which had been used to provide the E1 communication for the DTPCs to execute the commands and provide the required relief, has also undergone changes impacting the communication between the DTPCs. We are in discussion with ULDC for allocation of necessary links between the locations.

In order to make the scheme operational again in full, we had ordered a survey of the scheme by the original systems provider who have reverted with their observations and recommendations for upgrading the systems by the latest one. This upgrade requires activities from basics i.e. Designing, Manufacturing, Testing, transporting, installation, configuration and final field testing. We have initiated the internal approval for placing necessary orders to the partner for execution under RTM. We expect that complete execution of this activity in totality shall take 4-5 months in collaboration with all the stake holders from respective utilities and ULDC team.

We assure you of our best efforts towards comprehensive and timely completion of this scheme at the earliest and seek your guidance and support for necessary coordination between the respective stake holders during this process.

Regards

Sumeet Sharma
Head Automation, Communication and OT-Cyber
Adani Transmission (India) Ltd.

Adani Transmission (India) Ltd
Adani Corporate House
Adani Shantigram, S.G Highway
Ahmedabad 382421
CIN: U40101GJ2013PLC077700

Tel +91 79 2555 6900
Fax +91 79 2555 7155
info@adani.com
www.adani.com

RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Sumeet Sharma <Sumeet.Sharma@adani.com>

Wed 7/30/2025 6:54 PM

To:NRLDC SO 2 <nrldcso2@grid-india.in>;

Cc:NARESH BHANDARI <ms-nrpc@nic.in>; seo-nrpc <seo-nrpc@nic.in>; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल) <mkagarwal@grid-india.in>; S Usha (एस उषा) <susha@grid-india.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiawala <afak.pothiawala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; Somara Lakra (सोमारा लाकरा) <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; Deepak Kumar <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in <m.alwar@rvpn.co.in>; aen.mpt&s.rtg@rvpn.co.in <aen.mpt&s.rtg@rvpn.co.in>; aen.comm.ratangarh@rvpn.co.in <aen.comm.ratangarh@rvpn.co.in>; aen.subsldc.bhl@rvpn.co.in <aen.subsldc.bhl@rvpn.co.in>; xen.mpts.bhl@rvpn.co.in <xen.mpts.bhl@rvpn.co.in>; aen.prot.mertacity@RVPN.CO.IN <aen.prot.mertacity@RVPN.CO.IN>; aen.comm.merta@RVPN.CO.IN <aen.comm.merta@RVPN.CO.IN>; nainwal@powergrid.in <nainwal@powergrid.in>; vinaykumargupta@powergrid.in <vinaykumargupta@powergrid.in>; ravindra_kumar@powergrid.in <ravindra_kumar@powergrid.in>; smahajan1999@powergrid.in <smahajan1999@powergrid.in>; rkagrawal83@powergrid.in <rkagrawal83@powergrid.in>; dharmendrameena@powergrid.in <dharmendrameena@powergrid.in>; vineet@powergrid.in <vineet@powergrid.in>; bhakalramjash@powergrid.in <bhakalramjash@powergrid.in>; dhanonda400kv@gmail.com <dhanonda400kv@gmail.com>; sse220kvlulaahir@hvpn.org.in <sse220kvlulaahir@hvpn.org.in>; sse220kvrwr@hvpn.org.in <sse220kvrwr@hvpn.org.in>; sse132kvdadri@hvpn.org.in <sse132kvdadri@hvpn.org.in>; ae-220kvg1-mgg@pstcl.org <ae-220kvg1-mgg@pstcl.org>; sse-pm-lalton@pstcl.org <sse-pm-lalton@pstcl.org>; sse-pm-mlrk@pstcl.org <sse-pm-mlrk@pstcl.org>; eeetdshamli@upptcl.org <eeetdshamli@upptcl.org>; ee400mrd2@upptcl.org <ee400mrd2@upptcl.org>; aeProtection@upslcd.org <aeProtection@upslcd.org>; ase-sldcop@pstcl.org <ase-sldcop@pstcl.org>; bl.gujar@dtl.gov.in <bl.gujar@dtl.gov.in>; ce.ld@rvpn.co.in <ce.ld@rvpn.co.in>; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in <dtldata@yahoo.co.in>; dtlscheduling@gmail.com <dtlscheduling@gmail.com>; eesldcontrol@upslcd.org <eesldcontrol@upslcd.org>; ldrvpnl@rvpn.co.in <ldrvpnl@rvpn.co.in>; ldshutdown@gmail.com <ldshutdown@gmail.com>; ldshutdown@rvpn.co.in <ldshutdown@rvpn.co.in>; paritosh.joshi@dtl.gov.in <paritosh.joshi@dtl.gov.in>; pccont@bbmb.nic.in <pccont@bbmb.nic.in>; pc-sldcop@pstcl.org <pc-sldcop@pstcl.org>; rajbir-walia79@yahoo.com <rajbir-walia79@yahoo.com>; rtamc.nr1@powergrid.in <rtamc.nr1@powergrid.in>; pankaj.jha@powergrid.in <pankaj.jha@powergrid.in>; neerajk@powergrid.in <neerajk@powergrid.in>; se.mpts.udr@rvpn.co.in <se.mpts.udr@rvpn.co.in>; se.prot.engg@rvpn.co.in <se.prot.engg@rvpn.co.in>; se.sold@rvpn.co.in <se.sold@rvpn.co.in>; sera@upslcd.org <sera@upslcd.org>; sesc@upslcd.org <sesc@upslcd.org>; sesldcop@hvpn.org <sesldcop@hvpn.org>; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org <setncmrt@upptcl.org>; sldcdata@gmail.com <sldcdata@gmail.com>; sldcharyanacr@gmail.com <sldcharyanacr@gmail.com>; sldcmintoroad@gmail.com <sldcmintoroad@gmail.com>; system.uppcl@gmail.com <system.uppcl@gmail.com>; xenemtcbhpp2@bbmb.nic.in <xenemtcbhpp2@bbmb.nic.in>; xenmpccggn@hvpn.org <xenmpccggn@hvpn.org>; xenplgss@hvpn.org <xenplgss@hvpn.org>; nrlcd_hods_tech <nrlcd_hods_tech@grid-india.in>; Rahul Shukla (राहुल शुक्ला) <rahulshukla@grid-india.in>;

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Dear Sir,

I hope this message finds you well. I'm writing to provide you with an update on the actions for the healthiness of the 500kV Mundra-Mahindergarh SPS.

We are pleased to inform you that the order has been placed with our partner for the procurement and development of the scheme on new devices. Here is the timeline for the upcoming broader steps which has evolved based on discussions held with them-

a) The system is expected to be ready by the partner and complete the Factory Acceptance Test (FAT) by 15th September 2025.

- b) Following the FAT, the material will be shipped to various sites and installed by 30th October 2025. We seek your support for necessary directions to concerned constituents to ensure the material is kept in a safe and secure area till commissioning at original location.
- c) Implementation of the communication channel with the assistance of ULDC is also scheduled for completion parallelly by 30th October 2025.
- d) Testing of the installation and wiring will be carried out by 15th November 2025. The same shall require support from respective site representatives.
- e) Testing of the communication link between Mahindergarh and other locations is planned for completion by 30th November 2025.
- f) Finally, the testing of the SPS scheme is expected to be completed by 31st December 2025.

We understand the importance of this project and will do our utmost to expedite the process to the maximum extent possible and shall seek your guidance and support for necessary alignment of efforts required with respective stake holders and facilitators.

Thank you for your attention and understanding.

Regards,

Sumeet Sharma

Head- Automation, Communications & OT-Cyber Technology

Adani Energy Solutions Limited.(Grid Division)

Mob +91 90990 05648 | sumeet.sharma@adani.com | www.adani.com

KP Epitome | 10th Floor South Wing | SG Highway | Ahmedabad-382421 | Gujarat

From: NRLDC SO 2 <nrlcdcso2@grid-india.in>

Sent: Thursday, July 24, 2025 11:16 AM

To: Sumeet Sharma <Sumeet.Sharma@adani.com>

Cc: NARESH BHANDARI <ms-nrpc@nic.in>; seo-nrpc <seo-nrpc@nic.in>; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल) <mkagarwal@grid-india.in>; susha <susha@grid-india.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Papat <Milan.Papat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subslcd.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kv1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeoprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldcontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlcd_hods_tech <nrlcd_hods_tech@grid-india.in>; Rahul Shukla (राहुल शुक्ला) <rahulshukla@grid-india.in>

Subject: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

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Sir,

The agenda regarding corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS was discussed in 61st PSC meeting held on 26.06.2025. During the meeting, ADANI representative informed that work order will be released by 1st week of July 2025 to the vendor / OEM and expected timeline for completion of work is by the end of October 2025.

In view of above, it is requested to confirm whether work order to OEM has been placed or not. Further, as discussed in PSC meeting, it is also requested to share the status of actions taken and planned to be taken along with the timeline to NRPC & NRLDC weekly or fortnight basis.

सादर धन्यवाद/ Thanks & Regards

दीपक कुमार / Deepak Kumar

प्रणाली संचालन-II/ System Operation-II

उ०क्षे०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited

Formerly known as

पोसोको / POSOCO



From: Sumeet Sharma <Sumeet.Sharma@adani.com>

Sent: Tuesday, June 24, 2025 3:39 PM

To: NRLDC SO 2

Cc: NARESH BHANDARI; seo-nrpc; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल); S Usha (एस उषा); Sunil Kumar Raval; Namandeep Matta; Kali Charan Sahu; RAVINDRA ATALE; Nihar Raj; Milan Popat; Abhishek Kukreja; Naman Vyas; Abhishek Kumar Singh; Nikhil Singh; Narendra Kumar Ojha; Afak Pothiwala; Mahesh M. Mehendale (महेश एम. मेहंदले); Somara Lakra (सोमारा लाकरा); Mahavir Prasad Singh (महावीर प्रसाद सिंह); Sudipto Sarkar (सुदिप्तो सरकार); Sugata Bhattacharya (सुगाता भट्टाचार्या); Deepak Kumar; aen.com; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratargarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kv1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upsldc.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldcontrol@upsldc.org; ldrvpn1@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upsldc.org; sesc@upsldc.org; sesldcop@hvpn.org; se-sldcop; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org;

xenplgss@hvpn.org; nrlcdc_hods_tech

Subject: RE: NRLDC Letter regarding Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS

****Warning****

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Dear Sir,

With reference to the trailing email we would like to inform you that the negotiations and the scope discussions have been completed with the partner and the necessary formalities for processing the order is in progress. We expect the order to be released by 30th-Jun-25. Further in parallel we have also put-up the issue in the 232nd OCC meeting for approval of the scheme on add-cap basis.

We regret the time taken in this process, however will expedite the further process to meet the expectation of putting the scheme back in service.

Regards,

Sumeet Sharma

Head- Automation, Communications & OT-Cyber Technology

Adani Energy Solutions Limited.(Grid Division)

Mob +91 90990 05648 | sumeet.sharma@adani.com | www.adani.com

KP Epitome|10th Floor South Wing | SG Highway |Ahmedabad-382421| Gujarat

From: NRLDC SO 2 <nrlcdcso2@grid-india.in>

Sent: Wednesday, June 18, 2025 11:43 AM

To: Sumeet Sharma <Sumeet.Sharma@adani.com>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiawala <afak.pothiawala@adani.com>

Cc: NARESH BHANDARI <ms-nrpc@nic.in>; seo-nrpc <seo-nrpc@nic.in>; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल) <mkagarwal@grid-india.in>; susha <susha@grid-india.in>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sudipto Sarkar (सुदिप्तो सरकार) <ssarkar@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpnl@rvpn.co.in;

ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upsldc.org; sesc@upsldc.org; sesldcop@hvpn.org; se-sldcop@pstcl.org; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlhc_hods_tech@grid-india.in

Subject: Re: NRLDC Letter regarding Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS

***CAUTION:** This mail has originated from outside Adani. Please exercise caution with links and attachments.*

Sir,

In reference of the NRLDC communication dated 02.04.2025 it is requested to provide the present status regarding corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS.

The agenda in this regard is under discussion since 51st PSC meeting held in July 2024. During last PSC meeting (60th PSC meeting held on 26.05.2025), ADANI representative informed that internal approval has been taken for placing the order for corrective actions and order will be released to vendor by end of May 2025. It was also informed that actions have been expedited and SPS of HVDC Mundra-Mahindergarh will be restored by the end of August 2025.

In view of above, it is requested to share the present status of corrective action. As discussed during 60th PSC meeting, weekly update on the corrective actions and action planned may be shared to NRLDC / NRPC so that necessary coordination with state counterpart may also be done for smooth coordination and actions.

सादर धन्यवाद/ Thanks & Regards

दीपक कुमार / Deepak Kumar

प्रणाली संचालन-II/ System Operation-II

उ०क्षे०भा०प्रे०के०/ NRLDC

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From: NRLDC SO 2

Sent: Wednesday, April 2, 2025 3:11:51 PM

To: Sumeet.Sharma@adani.com; Sunil Kumar Raval; Namandeep Matta; Kali Charan Sahu; RAVINDRA ATALE; Nihar Raj; Milan Popat; Abhishek Kukreja; Naman Vyas; Abhishek Kumar Singh; Nikhil Singh; Narendra Kumar Ojha; afak.pothiawala@adani.com

Cc: NARESH BHANDARI; seo-nrpc; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल); S Usha (एस उषा); Mahesh M. Mehendale (महेश एम. मेहंदले); Somara Lakra (सोमारा लाकरा); Mahavir Prasad Singh (महावीर प्रसाद सिंह); Sudipto Sarkar (सुदिप्तो सरकार); Sugata Bhattacharya (सुगाता भट्टाचार्या); Deepak Kumar; aen.com; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrwal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kv1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlcd_hods_tech

Subject: NRLDC Letter regarding Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS

Sir,

Please find the attached NRLDC Letter dt 02-04-2025 regarding Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS.

सादर धन्यवाद/ Thanks & Regards

प्रणाली संचालन-II/ System Operation-II

उ०क्ष०भा०प्रे०के०/ NRLDC

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RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Mon 9/15/2025 8:16 PM

Inbox

To:NRLDC SO 2 <nrlcso2@grid-india.in>;

Cc:NARESH BHANDARI <ms-nrpc@nic.in>; seo-nrpc <seo-nrpc@nic.in>; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल) <mkagarwal@grid-india.in>; S Usha (एस उषा) <susha@grid-india.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiawala <afak.pothiawala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; Somara Lakra (सोमारा लाकरा) <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; Deepak Kumar <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in <m.alwar@rvpn.co.in>; aen.mpt&s.rtg@rvpn.co.in <aen.mpt&s.rtg@rvpn.co.in>; aen.comm.ratangarh@rvpn.co.in <aen.comm.ratangarh@rvpn.co.in>; aen.subsldc.bhl@rvpn.co.in <aen.subsldc.bhl@rvpn.co.in>; xen.mpts.bhl@rvpn.co.in <xen.mpts.bhl@rvpn.co.in>; aen.prot.mertacity@RVPN.CO.IN <aen.prot.mertacity@RVPN.CO.IN>; aen.comm.merta@RVPN.CO.IN <aen.comm.merta@RVPN.CO.IN>; nainwal@powergrid.in <nainwal@powergrid.in>; vinaykumargupta@powergrid.in <vinaykumargupta@powergrid.in>; ravindra_kumar@powergrid.in <ravindra_kumar@powergrid.in>; smahajan1999@powergrid.in <smahajan1999@powergrid.in>; rkagrawal83@powergrid.in <rkagrawal83@powergrid.in>; dharmendrameena@powergrid.in <dharmendrameena@powergrid.in>; vineet@powergrid.in <vineet@powergrid.in>; bhakalramjash@powergrid.in <bhakalramjash@powergrid.in>; dhanonda400kv@gmail.com <dhanonda400kv@gmail.com>; sse220kvlulaahir@hvpn.org.in <sse220kvlulaahir@hvpn.org.in>; sse220kvrwr@hvpn.org.in <sse220kvrwr@hvpn.org.in>; sse132kvdadri@hvpn.org.in <sse132kvdadri@hvpn.org.in>; ae-220kvg1-mgg@pstcl.org <ae-220kvg1-mgg@pstcl.org>; sse-pm-lalton@pstcl.org <sse-pm-lalton@pstcl.org>; sse-pm-mlrk@pstcl.org <sse-pm-mlrk@pstcl.org>; eeetdshamli@upptcl.org <eeetdshamli@upptcl.org>; ee400mrd2@upptcl.org <ee400mrd2@upptcl.org>; aeProtection@upslcd.org <aeProtection@upslcd.org>; ase-sldcop@pstcl.org <ase-sldcop@pstcl.org>; bl.gujar@dtl.gov.in <bl.gujar@dtl.gov.in>; ce.ld@rvpn.co.in <ce.ld@rvpn.co.in>; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in <dtldata@yahoo.co.in>; dtlscheduling@gmail.com <dtlscheduling@gmail.com>; eesldcontrol@upslcd.org <eesldcontrol@upslcd.org>; ldrvpnl@rvpn.co.in <ldrvpnl@rvpn.co.in>; ldshutdown@gmail.com <ldshutdown@gmail.com>; ldshutdown@rvpn.co.in <ldshutdown@rvpn.co.in>; paritosh.joshi@dtl.gov.in <paritosh.joshi@dtl.gov.in>; pccont@bbmb.nic.in <pccont@bbmb.nic.in>; pc-sldcop@pstcl.org <pc-sldcop@pstcl.org>; rajbir-walia79@yahoo.com <rajbir-walia79@yahoo.com>; rtamc.nr1@powergrid.in <rtamc.nr1@powergrid.in>; pankaj.jha@powergrid.in <pankaj.jha@powergrid.in>; neerajk@powergrid.in <neerajk@powergrid.in>; se.mpts.udr@rvpn.co.in <se.mpts.udr@rvpn.co.in>; se.prot.engg@rvpn.co.in <se.prot.engg@rvpn.co.in>; se.sold@rvpn.co.in <se.sold@rvpn.co.in>; sera@upslcd.org <sera@upslcd.org>; sesc@upslcd.org <sesc@upslcd.org>; sesldcop@hvpn.org <sesldcop@hvpn.org>; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org <setncmrt@upptcl.org>; sldcdata@gmail.com <sldcdata@gmail.com>; sldcharyanacr@gmail.com <sldcharyanacr@gmail.com>; sldcmintoroad@gmail.com <sldcmintoroad@gmail.com>; system.uppcl@gmail.com <system.uppcl@gmail.com>; xenemtcbhpp2@bbmb.nic.in <xenemtcbhpp2@bbmb.nic.in>; xenmpccggn@hvpn.org <xenmpccggn@hvpn.org>; xenplgss@hvpn.org <xenplgss@hvpn.org>; nrlc_hods_tech <nrlc_hods_tech@grid-india.in>; Rahul Shukla (राहुल शुक्ला) <rahulshukla@grid-india.in>;

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Dear Sir,

Please find the present status as on 15-Sep-25 as below-

- a. Hardware expected to be received by the partner by this week.(20-Sep-25)
- b. FAT expected to be carried out within this month.(31-Sep-25)

The Dispatch and site activities shall be planned based on FAT punch point closures.

Regards

Sumeet Sharma

From: NRLDC SO 2 <nrlcdso2@grid-india.in>**Sent:** Wednesday, September 10, 2025 5:00 PM**To:** Sumeet Sharma <Sumeet.Sharma@adani.com>**Cc:** NARESH BHANDARI <ms-nrpc@nic.in>; seo-nrpc <seo-nrpc@nic.in>; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल) <mkagarwal@grid-india.in>; susha <susha@grid-india.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiawala <afak.pothiawala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subslcd.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeProtection@upsldc.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldcontrol@upsldc.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upsldc.org; sesc@upsldc.org; sesldcop@hvpn.org; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlcd_hods_tech <nrlcd_hods_tech@grid-india.in>; Rahul Shukla (राहुल शुक्ला) <rahulshukla@grid-india.in>**Subject:** Re: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS***CAUTION:** This mail has originated from outside Adani. Please exercise caution with links and attachments.*

Sir,

During discussion on agenda "Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS" in 62nd PSC meeting, PSC forum requested ADANI to share the weekly update on status of remedial actions.

Kindly share the update in this regard.

सादर धन्यवाद/ Thanks & Regards

प्रणाली संचालन-II/ System Operation-II

उ०क्ष०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited

Formerly known as

पोसोको / POSOCO



From: Sumeet Sharma <Sumeet.Sharma@adani.com>

Sent: Wednesday, July 30, 2025 6:54 PM

To: NRLDC SO 2

Cc: NARESH BHANDARI; seo-nrpc; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल); S Usha (एस उषा); Sunil Kumar Raval; Namandeep Matta; Kali Charan Sahu; RAVINDRA ATALE; Nihar Raj; Milan Popat; Abhishek Kukreja; Naman Vyas; Abhishek Kumar Singh; Nikhil Singh; Narendra Kumar Ojha; Afak Pothiawala; Mahesh M. Mehendale (महेश एम. मेहंदले); Somara Lakra (सोमारा लाकरा); Mahavir Prasad Singh (महावीर प्रसाद सिंह); Sugata Bhattacharya (सुगाता भट्टाचार्या); Deepak Kumar; aen.com; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kv1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpn@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlcdc_hods_tech; Rahul Shukla (राहुल शुक्ला)

Subject: RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

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Dear Sir,

I hope this message finds you well. I'm writing to provide you with an update on the actions for the healthiness of the 500kV Mundra-Mahindergarh SPS.

We are pleased to inform you that the order has been placed with our partner for the procurement and development of the scheme on new devices. Here is the timeline for the upcoming broader steps which has evolved based on discussions held with them-

- a) The system is expected to be ready by the partner and complete the Factory Acceptance Test (FAT) by 15th September 2025.
- b) Following the FAT, the material will be shipped to various sites and installed by 30th October 2025. We seek your support for necessary directions to concerned constituents to ensure the material is kept in a safe and secure area till commissioning at original location.
- c) Implementation of the communication channel with the assistance of ULDC is also scheduled for completion parallelly by 30th October 2025.
- d) Testing of the installation and wiring will be carried out by 15th November 2025. The same shall require support from respective site representatives.
- e) Testing of the communication link between Mahindergarh and other locations is planned for completion by 30th November 2025.
- f) Finally, the testing of the SPS scheme is expected to be completed by 31st December 2025.

We understand the importance of this project and will do our utmost to expedite the process to the maximum extent possible and shall seek your guidance and support for necessary alignment of efforts required with respective stake holders and facilitators.

Thank you for your attention and understanding.

Regards,

Sumeet Sharma

Head- Automation, Communications & OT-Cyber Technology

Adani Energy Solutions Limited.(Grid Division)

Mob +91 90990 05648 | sumeet.sharma@adani.com | www.adani.com

KP Epitome|10th Floor South Wing | SG Highway |Ahmedabad-382421| Gujarat

From: NRLDC SO 2 <nrlcso2@grid-india.in>

Sent: Thursday, July 24, 2025 11:16 AM

To: Sumeet Sharma <Sumeet.Sharma@adani.com>

Cc: NARESH BHANDARI <ms-nrpc@nic.in>; seo-nrpc <seo-nrpc@nic.in>; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल) <mkagarwal@grid-india.in>; susha <susha@grid-india.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiawala <afak.pothiawala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subslcd.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in;

aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in;
vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in;
rkagrwal83@powergrid.in; dharmendrmeena@powergrid.in; vineet@powergrid.in; bhokalramjash@powergrid.in;
dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in;
ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org;
ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc<ce-sldc@pstcl.org>;
dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpnl@rvpn.co.in;
ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org;
rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in;
se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org;
sesldcop@hvpn.org; se-sldcop<se-sldcop@pstcl.org>; setncmrt@upptcl.org; sldcdata@gmail.com;
sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in;
xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlc_hods_tech<nrlc_hods_tech@grid-india.in>; Rahul Shukla (राहुल शुक्ला) <rahulshukla@grid-india.in>

Subject: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

***CAUTION:** This mail has originated from outside Adani. Please exercise caution with links and attachments.*

Sir,

The agenda regarding corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS was discussed in 61st PSC meeting held on 26.06.2025. During the meeting, ADANI representative informed that work order will be released by 1st week of July 2025 to the vendor / OEM and expected timeline for completion of work is by the end of October 2025.

In view of above, it is requested to confirm whether work order to OEM has been placed or not. Further, as discussed in PSC meeting, it is also requested to share the status of actions taken and planned to be taken along with the timeline to NRPC & NRLDC weekly or fortnight basis.

सादर धन्यवाद/ Thanks & Regards

दीपक कुमार / Deepak Kumar

प्रणाली संचालन-II/ System Operation-II

उ०क्षे०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited
Formerly known as

पोसोको / POSOCO





From: Sumeet Sharma <Sumeet.Sharma@adani.com>

Sent: Tuesday, June 24, 2025 3:39 PM

To: NRLDC SO 2

Cc: NARESH BHANDARI; seo-nrpc; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल); S Usha (एस उषा); Sunil Kumar Raval; Namandeep Matta; Kali Charan Sahu; RAVINDRA ATALE; Nihar Raj; Milan Popat; Abhishek Kukreja; Naman Vyas; Abhishek Kumar Singh; Nikhil Singh; Narendra Kumar Ojha; Afak Pothiwala; Mahesh M. Mehendale (महेश एम. मेहंदले); Somara Lakra (सोमारा लाकरा); Mahavir Prasad Singh (महावीर प्रसाद सिंह); Sudipto Sarkar (सुदिप्तो सरकार); Sugata Bhattacharya (सुगाता भट्टाचार्या); Deepak Kumar; aen.com; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subslcd.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakarajash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldcontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.upplcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlcd_hods_tech

Subject: RE: NRLDC Letter regarding Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS

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Dear Sir,

With reference to the trailing email we would like to inform you that the negotiations and the scope discussions have been completed with the partner and the necessary formalities for processing the order is in progress. We expect the order to be released by 30th-Jun-25. Further in parallel we have also put-up the issue in the 232nd OCC meeting for approval of the scheme on add-cap basis.

We regret the time taken in this process, however will expedite the further process to meet the expectation of putting the scheme back in service.

Regards,

Sumeet Sharma

Head- Automation, Communications & OT-Cyber Technology

Adani Energy Solutions Limited.(Grid Division)

Mob +91 90990 05648 | sumeet.sharma@adani.com | www.adani.com

KP Epitome|10th Floor South Wing | SG Highway |Ahmedabad-382421| Gujarat

From: NRLDC SO 2 <nrlcso2@grid-india.in>

Sent: Wednesday, June 18, 2025 11:43 AM

To: Sumeet Sharma <Sumeet.Sharma@adani.com>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiawala <afak.pothiawala@adani.com>

Cc: NARESH BHANDARI <ms-nrpc@nic.in>; seo-nrpc <seo-nrpc@nic.in>; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल) <mkagarwal@grid-india.in>; susha <susha@grid-india.in>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sudipto Sarkar (सुदिप्तो सरकार) <ssarkar@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subslcd.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhokalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc@pstcl.org; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldcontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop@pstcl.org; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlc_hods_tech <nrlc_hods_tech@grid-india.in>

Subject: Re: NRLDC Letter regarding Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS

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Sir,

In reference of the NRLDC communication dated 02.04.2025 it is requested to provide the present status regarding corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS.

The agenda in this regard is under discussion since 51st PSC meeting held in July 2024. During last PSC meeting (60th PSC meeting held on 26.05.2025), ADANI representative informed that internal approval has been taken for placing the order for corrective actions and order will be released to vendor by end of May 2025. It was also informed that actions have been expedited and SPS of HVDC Mundra-Mahindergarh will be restored by the end of August 2025.

In view of above, it is requested to share the present status of corrective action. As discussed during 60th PSC meeting, weekly update on the corrective actions and action planned may be shared to NRLDC / NRPC so that necessary coordination with state counterpart may also be done for smooth coordination and actions.

सादर धन्यवाद/ Thanks & Regards

दीपक कुमार / Deepak Kumar

प्रणाली संचालन-II/ System Operation-II

उ०क्षे०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited
Formerly known as

पोसोको / POSOCO



From: NRLDC SO 2

Sent: Wednesday, April 2, 2025 3:11:51 PM

To: Sumeet.Sharma@adani.com; Sunil Kumar Raval; Namandeep Matta; Kali Charan Sahu; RAVINDRA ATALE; Nihar Raj; Milan Popat; Abhishek Kukreja; Naman Vyas; Abhishek Kumar Singh; Nikhil Singh; Narendra Kumar Ojha; afak.pothiawala@adani.com

Cc: NARESH BHANDARI; seo-nrpc; Manoj Kumar Agarwal (मनोज कुमार अग्रवाल); S Usha (एस उषा); Mahesh M. Mehendale (महेश एम. मेहंदले); Somara Lakra (सोमारा लाकरा); Mahavir Prasad Singh (महावीर प्रसाद सिंह); Sudipto Sarkar (सुदिप्तो सरकार); Sugata Bhattacharya (सुगाता भट्टाचार्या); Deepak Kumar; aen.com; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in;

ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; [**Subject:** NRLDC Letter regarding Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS](mailto:ce-sldc; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldvrpn@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org; nrlc_hods_tech</p>
</div>
<div data-bbox=)

Sir,

Please find the attached NRLDC Letter dt 02-04-2025 regarding Corrective action for healthiness of 500kV Mundra-Mahindergarh SPS.

सादर धन्यवाद/ Thanks & Regards

प्रणाली संचालन-II/ System Operation-II

उ०क्ष०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited
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RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Sumeet Sharma <Sumeet.Sharma@adani.com>

Wed 11/5/2025 11:57 AM

Inbox

To: NRLDC SO 2 <nrlcdcso2@grid-india.in>;

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; Somara Lakra (सोमारा लाकरा) <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; Deepak Kumar <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in <m.alwar@rvpn.co.in>; aen.mpt&s.rtg@rvpn.co.in <aen.mpt&s.rtg@rvpn.co.in>; aen.comm.ratangarh@rvpn.co.in <aen.comm.ratangarh@rvpn.co.in>; aen.subslcd.bhl@rvpn.co.in <aen.subslcd.bhl@rvpn.co.in>; xen.mpts.bhl@rvpn.co.in <xen.mpts.bhl@rvpn.co.in>; aen.prot.mertacity@RVPN.CO.IN <aen.prot.mertacity@RVPN.CO.IN>; aen.comm.merta@RVPN.CO.IN <aen.comm.merta@RVPN.CO.IN>; nainwal@powergrid.in <nainwal@powergrid.in>; vinaykumargupta@powergrid.in <vinaykumargupta@powergrid.in>; ravindra_kumar@powergrid.in <ravindra_kumar@powergrid.in>; smahajan1999@powergrid.in <smahajan1999@powergrid.in>; rkagrawal83@powergrid.in <rkagrawal83@powergrid.in>; dharmendrameena@powergrid.in <dharmendrameena@powergrid.in>; vineet@powergrid.in <vineet@powergrid.in>; bhakalramjash@powergrid.in <bhakalramjash@powergrid.in>; dhanonda400kv@gmail.com <dhanonda400kv@gmail.com>; sse220kvlulaahir@hvpn.org.in <sse220kvlulaahir@hvpn.org.in>; sse220kvrwr@hvpn.org.in <sse220kvrwr@hvpn.org.in>; sse132kvdadri@hvpn.org.in <sse132kvdadri@hvpn.org.in>; ae-220kvg1-mgg@pstcl.org <ae-220kvg1-mgg@pstcl.org>; sse-pm-lalton@pstcl.org <sse-pm-lalton@pstcl.org>; sse-pm-mlrk@pstcl.org <sse-pm-mlrk@pstcl.org>; eeetdshamli@upptcl.org <eeetdshamli@upptcl.org>; ee400mrd2@upptcl.org <ee400mrd2@upptcl.org>; ae-protection@upslcd.org <ae-protection@upslcd.org>; ase-sldcop@pstcl.org <ase-sldcop@pstcl.org>; bl.gujar@dtl.gov.in <bl.gujar@dtl.gov.in>; ce.ld@rvpn.co.in <ce.ld@rvpn.co.in>; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in <dtldata@yahoo.co.in>; dtlscheduling@gmail.com <dtlscheduling@gmail.com>; eesldccontrol@upslcd.org <eesldccontrol@upslcd.org>; ldrvpnl@rvpn.co.in <ldrvpnl@rvpn.co.in>; ldshutdown@gmail.com <ldshutdown@gmail.com>; ldshutdown@rvpn.co.in <ldshutdown@rvpn.co.in>; paritosh.joshi@dtl.gov.in <paritosh.joshi@dtl.gov.in>; pccont@bbmb.nic.in <pccont@bbmb.nic.in>; pc-sldcop@pstcl.org <pc-sldcop@pstcl.org>; rajbir-walia79@yahoo.com <rajbir-walia79@yahoo.com>; rtamc.nr1@powergrid.in <rtamc.nr1@powergrid.in>; pankaj.jha@powergrid.in <pankaj.jha@powergrid.in>; neerajk@powergrid.in <neerajk@powergrid.in>; se.mpts.udr@rvpn.co.in <se.mpts.udr@rvpn.co.in>; se.prot.engg@rvpn.co.in <se.prot.engg@rvpn.co.in>; se.sold@rvpn.co.in <se.sold@rvpn.co.in>; sera@upslcd.org <sera@upslcd.org>; sesc@upslcd.org <sesc@upslcd.org>; sesldcop@hvpn.org <sesldcop@hvpn.org>; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org <setncmrt@upptcl.org>; sldcdata@gmail.com <sldcdata@gmail.com>; sldcharyanacr@gmail.com <sldcharyanacr@gmail.com>; sldcmintoroad@gmail.com <sldcmintoroad@gmail.com>; system.uppcl@gmail.com <system.uppcl@gmail.com>; xenemtcbhpp2@bbmb.nic.in <xenemtcbhpp2@bbmb.nic.in>; xenmpccggn@hvpn.org <xenmpccggn@hvpn.org>; xenplgss@hvpn.org <xenplgss@hvpn.org>;

2 attachments (47 KB)

E1 details.xls; Tentative Schedule.xls;

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Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status and plan of the activities related to the 500kV Mundra-Mohindergarh SPS.

Firstly, I'm pleased to inform you that the FAT was completed and the material has arrived at the Mohindergarh station. Please find attached the tentative activity schedule at the respective locations(subject o site constraints -if any) as submitted by our partner. The coordination of these activities will be handled by our Mohindergarh Station Head, Mr. Abhishek Singh, in collaboration with M/s Commtel. Mr. Singh can be reached at Mobile # 9671306831 for any immediate coordination.

We seek the support of each utility and your esteemed office to facilitate the activities to be carried out by M/s Commtel at the respective locations. As this involves the replacement of existing hardware with new ones, we require the return of the existing material for necessary commercial formalities. We kindly request your support in clearing the same for M/s Commtel to carry back.

Additionally, we will need the configuration of E1 channels identified along with M/s PGCIL between Mohindergarh and the respective locations and allocation of two Optical ports at the Tejas SDH (TJ 1400) installed at the Mohendragarh Control Room for the communication setup and to execute commands and feedbacks.

Sincere Thanks for your cooperation and support.

Regards,
Sumeet Sharma

From: NRLDC SO 2 <nrlcdcso2@grid-india.in>

Sent: Thursday, October 30, 2025 5:45 PM

To: Sumeet Sharma <Sumeet.Sharma@adani.com>

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiawala <afak.pothiawala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeedshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pcont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Subject: Re: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

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महोदय / महोदया,

In reference of the trailing mail, it is requested to kindly share the update regarding FAT which was supposed to be completed by 30.09.2025 and further following the FAT, the material are to be shipped to various sites and installed by 30th October 2025.

In view of above, it is requested to kindly update the present status and future action plan.

सादर धन्यवाद/ Thanks & Regards

प्रणाली संचालन-II/ System Operation-II

उ०क्षे०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited

Formerly known as

पोसोको / POSOCO



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आज़ादी का
अमृत महोत्सव

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RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Wed 19-Nov-25 18:31

To:NRLDC SO 2 <nrlcso2@grid-india.in>;

Cc:seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; Somara Lakra (सोमारा लाकरा) <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; Deepak Kumar <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in <m.alwar@rvpn.co.in>; aen.mpt&s.rtg@rvpn.co.in <aen.mpt&s.rtg@rvpn.co.in>; aen.comm.ratargarh@rvpn.co.in <aen.comm.ratargarh@rvpn.co.in>; aen.subslcd.bhl@rvpn.co.in <aen.subslcd.bhl@rvpn.co.in>; xen.mpts.bhl@rvpn.co.in <xen.mpts.bhl@rvpn.co.in>; aen.prot.mertacity@RVPN.CO.IN <aen.prot.mertacity@RVPN.CO.IN>; aen.comm.merta@RVPN.CO.IN <aen.comm.merta@RVPN.CO.IN>; nainwal@powergrid.in <nainwal@powergrid.in>; vinaykumargupta@powergrid.in <vinaykumargupta@powergrid.in>; ravindra_kumar@powergrid.in <ravindra_kumar@powergrid.in>; smahajan1999@powergrid.in <smahajan1999@powergrid.in>; rkagrawal83@powergrid.in <rkagrawal83@powergrid.in>; dharmendrameena@powergrid.in <dharmendrameena@powergrid.in>; vineet@powergrid.in <vineet@powergrid.in>; bhakalramjash@powergrid.in <bhakalramjash@powergrid.in>; dhanonda400kv@gmail.com <dhanonda400kv@gmail.com>; sse220kvlulaahir@hvpn.org.in <sse220kvlulaahir@hvpn.org.in>; sse220kvrwr@hvpn.org.in <sse220kvrwr@hvpn.org.in>; sse132kvdadri@hvpn.org.in <sse132kvdadri@hvpn.org.in>; ae-220kvg1-mgg@pstcl.org <ae-220kvg1-mgg@pstcl.org>; sse-pm-lalton@pstcl.org <sse-pm-lalton@pstcl.org>; sse-pm-mlrk@pstcl.org <sse-pm-mlrk@pstcl.org>; eeetdshamli@upptcl.org <eeetdshamli@upptcl.org>; ee400mrd2@upptcl.org <ee400mrd2@upptcl.org>; ae-protection@upslcd.org <ae-protection@upslcd.org>; ase-sldcop@pstcl.org <ase-sldcop@pstcl.org>; bl.gujar@dtl.gov.in <bl.gujar@dtl.gov.in>; ce.ld@rvpn.co.in <ce.ld@rvpn.co.in>; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in <dtldata@yahoo.co.in>; dtlscheduling@gmail.com <dtlscheduling@gmail.com>; eesldcontrol@upslcd.org <eesldcontrol@upslcd.org>; ldrvpn@rvpn.co.in <ldrvpn@rvpn.co.in>; ldshutdown@gmail.com <ldshutdown@gmail.com>; ldshutdown@rvpn.co.in <ldshutdown@rvpn.co.in>; paritosh.joshi@dtl.gov.in <paritosh.joshi@dtl.gov.in>; pccont@bbmb.nic.in <pccont@bbmb.nic.in>; pc-sldcop@pstcl.org <pc-sldcop@pstcl.org>; rajbir-walia79@yahoo.com <rajbir-walia79@yahoo.com>; rtamc.nr1@powergrid.in <rtamc.nr1@powergrid.in>; pankaj.jha@powergrid.in <pankaj.jha@powergrid.in>; neerajk@powergrid.in <neerajk@powergrid.in>; se.mpts.udr@rvpn.co.in <se.mpts.udr@rvpn.co.in>; se.prot.engg@rvpn.co.in <se.prot.engg@rvpn.co.in>; se.sold@rvpn.co.in <se.sold@rvpn.co.in>; sera@upslcd.org <sera@upslcd.org>; sesc@upslcd.org <sesc@upslcd.org>; sesldcop@hvpn.org <sesldcop@hvpn.org>; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org <setncmrt@upptcl.org>; sldcdata@gmail.com <sldcdata@gmail.com>; sldcharyanacr@gmail.com <sldcharyanacr@gmail.com>; sldcmintoroad@gmail.com <sldcmintoroad@gmail.com>; system.uppl@gmail.com <system.uppl@gmail.com>; xenemtcbhpp2@bbmb.nic.in <xenemtcbhpp2@bbmb.nic.in>; xenmpccggn@hvpn.org <xenmpccggn@hvpn.org>; xenplgss@hvpn.org <xenplgss@hvpn.org>;

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Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status of the activities related to the 500kV Mundra-Mohindergarh SPS.

Firstly, I would like to express my gratitude and appreciation to all the members on this email for their incredible support to the team implementing the scheme at their respective locations. We are also receiving excellent support from Powergrid in configuring the communication path between Mohindergarh and the SPS locations.

As of today, the team has installed and tested the commands up to the DTPC panels from Mohindergarh for the following locations:
- BBMB

- Charkhi Dadri
- Ratangarh
- Hisar-PG
- Alwar
- Merta
- Nuna Majra
- Shamli

The support from respective utility representatives, especially with regards to ensuring the termination of cables to the correct feeders and terminals, is crucial in ensuring the actual relief during the operation of the SPS.

We shall continue our efforts to complete the remaining locations with your support to bring the scheme into full operation.

Regards,
Sumeet Sharma

From: Sumeet Sharma

Sent: Wednesday, November 5, 2025 11:57 AM

To: 'NRLDC SO 2' <nrldcso2@grid-india.in>

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kv1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeoprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Subject: RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status and plan of the activities related to the 500kV Mundra-Mohindergarh SPS.

Firstly, I'm pleased to inform you that the FAT was completed and the material has arrived at the Mohindergarh station . Please find attached the tentative activity schedule at the respective locations(subject o site constraints -if any) as submitted by our partner. The coordination of these activities will be handled by our Mohindergarh Station Head, Mr. Abhishek Singh, in collaboration with M/s Commtel. Mr. Singh can be reached at Mobile # 9671306831 for any immediate coordination.

We seek the support of each utility and your esteemed office to facilitate the activities to be carried out by M/s Commtel at the respective locations. As this involves the replacement of existing hardware with new ones, we require the return of the existing material for necessary commercial formalities. We kindly request your support in clearing the same for M/s Commtel to carry back.

Additionally, we will need the configuration of E1 channels identified along with M/s PGCIL between Mohindergarh and the respective locations and allocation of two Optical ports at the Tejas SDH (TJ 1400) installed at the Mohendragarh Control Room for the communication setup and to execute commands and feedbacks.

Sincere Thanks for your cooperation and support.

Regards,
Sumeet Sharma

From: NRLDC SO 2 <nrldcso2@grid-india.in>

Sent: Thursday, October 30, 2025 5:45 PM

To: Sumeet Sharma <Sumeet.Sharma@adani.com>

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratargarh@rvpn.co.in; aen.subslcd.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kv1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc@pstcl.org; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop@pstcl.org; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Subject: Re: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

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महोदय / महोदया,

In reference of the trailing mail, it is requested to kindly share the update regarding FAT which was supposed to be completed by 30.09.2025 and further following the FAT, the material are to be shipped to various sites and installed by 30th October 2025.

In view of above, it is requested to kindly update the present status and future action plan.

सादर धन्यवाद/ Thanks & Regards
प्रणाली संचालन-II/ System Operation-II
उ०क्ष०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited

Formerly known as

पोसोको / POSOCO



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RE: Status of Corrective actions for healthiness of 500kV Mundra-Mohindergarh SPS

Sumeet Sharma <Sumeet.Sharma@adani.com>

Mon 15-Dec-25 19:08

To:NRLDC SO 2 <nrlcdcso2@grid-india.in>;

Cc:seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Papat <Milan.Papat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; Prashant Kumar <Prashant.Kumar1@adani.com>; Saurabh Sharma <Saurabh.Sharma@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; Somara Lakra (सोमारा लाकरा) <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगता भट्टाचार्या) <sugata@grid-india.in>; Deepak Kumar <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in <m.alwar@rvpn.co.in>; aen.mpt&s.rtg@rvpn.co.in <aen.mpt&s.rtg@rvpn.co.in>; aen.comm.ratangarh@rvpn.co.in <aen.comm.ratangarh@rvpn.co.in>; aen.subslcd.bhl@rvpn.co.in <aen.subslcd.bhl@rvpn.co.in>; xen.mpts.bhl@rvpn.co.in <xen.mpts.bhl@rvpn.co.in>; aen.prot.mertacity@RVPN.CO.IN <aen.prot.mertacity@RVPN.CO.IN>; aen.comm.merta@RVPN.CO.IN <aen.comm.merta@RVPN.CO.IN>; nainwal@powergrid.in <nainwal@powergrid.in>; vinaykumargupta@powergrid.in <vinaykumargupta@powergrid.in>; ravindra_kumar@powergrid.in <ravindra_kumar@powergrid.in>; smahajan1999@powergrid.in <smahajan1999@powergrid.in>; rkagrawal83@powergrid.in <rkagrawal83@powergrid.in>; dharmendrameena@powergrid.in <dharmendrameena@powergrid.in>; vineet@powergrid.in <vineet@powergrid.in>; bhakalramjash@powergrid.in <bhakalramjash@powergrid.in>; dhanonda400kv@gmail.com <dhanonda400kv@gmail.com>; sse220kvlulaahir@hvpn.org.in <sse220kvlulaahir@hvpn.org.in>; sse220kvrwr@hvpn.org.in <sse220kvrwr@hvpn.org.in>; sse132kvdadri@hvpn.org.in <sse132kvdadri@hvpn.org.in>; ae-220kvg1-mgg@pstcl.org <ae-220kvg1-mgg@pstcl.org>; sse-pm-lalton@pstcl.org <sse-pm-lalton@pstcl.org>; sse-pm-mlrk@pstcl.org <sse-pm-mlrk@pstcl.org>; eeetdshamli@upptcl.org <eeetdshamli@upptcl.org>; ee400mrd2@upptcl.org <ee400mrd2@upptcl.org>; aeProtection@upslcd.org <aeProtection@upslcd.org>; ase-sldcop@pstcl.org <ase-sldcop@pstcl.org>; bl.gujar@dtl.gov.in <bl.gujar@dtl.gov.in>; ce.ld@rvpn.co.in <ce.ld@rvpn.co.in>; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in <dtldata@yahoo.co.in>; dtlscheduling@gmail.com <dtlscheduling@gmail.com>; eesldccontrol@upslcd.org <eesldccontrol@upslcd.org>; ldrvpn1@rvpn.co.in <ldrvpn1@rvpn.co.in>; ldshutdown@gmail.com <ldshutdown@gmail.com>; ldshutdown@rvpn.co.in <ldshutdown@rvpn.co.in>; paritosh.joshi@dtl.gov.in <paritosh.joshi@dtl.gov.in>; pccont@bbmb.nic.in <pccont@bbmb.nic.in>; pc-sldcop@pstcl.org <pc-sldcop@pstcl.org>; rajbir-walia79@yahoo.com <rajbir-walia79@yahoo.com>; rtamc.nr1@powergrid.in <rtamc.nr1@powergrid.in>; pankaj.jha@powergrid.in <pankaj.jha@powergrid.in>; neerajk@powergrid.in <neerajk@powergrid.in>; se.mpts.udr@rvpn.co.in <se.mpts.udr@rvpn.co.in>; se.prot.engg@rvpn.co.in <se.prot.engg@rvpn.co.in>; se.sold@rvpn.co.in <se.sold@rvpn.co.in>; sera@upslcd.org <sera@upslcd.org>; sesc@upslcd.org <sesc@upslcd.org>; sesldcop@hvpn.org <sesldcop@hvpn.org>; se-sldcop <se-sldcop@pstcl.org>; setnrmrt@upptcl.org <setnrmrt@upptcl.org>; sldcdata@gmail.com <sldcdata@gmail.com>; sldcharyanacr@gmail.com <sldcharyanacr@gmail.com>; sldcmintoroad@gmail.com <sldcmintoroad@gmail.com>; system.uppcl@gmail.com <system.uppcl@gmail.com>; xenemtcbhpp2@bbmb.nic.in <xenemtcbhpp2@bbmb.nic.in>; xenmpccggn@hvpn.org <xenmpccggn@hvpn.org>; xenplgss@hvpn.org <xenplgss@hvpn.org>;

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Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status of the activities related to the 500kV Mundra-Mohindergarh SPS. Following is the status of the scheme as on 15-Dec-25.

- a. FOTE installation and commissioning : Completed
- b. E1 link establishment between Mohindergarh and respective sites : Completed
- c. DTPC installation and link establishment between Mohindergarh and respective locations : Completed
- d. Command Testing from DTPC to DTPC for all Location : Completed

- e. Cable laying and Termination between DTPC and Trip Circuits: Completed except two locations (Gobindgarh and Malerkotla)

The scheme has been made ready and the commands have been tested between Mohindergarh and locations between DTPCs . All the commands have been terminated to respective trip circuits of the identified feeders **except Gobindgarh and Malerkotla** where the same is in progress.. **We seek the support from respective in-charges** to provide terminal details to the executing team for proper terminations.

With support from respective in-charges, we expect the completion of these two location within this week and system can then be declared operational. We seek your guidance for further course of action.

Regards,
Sumeet Sharma

From: Sumeet Sharma

Sent: Wednesday, November 19, 2025 6:31 PM

To: 'NRLDC SO 2' <nrlcso2@grid-india.in>

Cc: 'seo-nrpc' <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Papat <Milan.Papat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; 'Afak Pothiawala' <afak.pothiawala@adani.com>; 'Mahesh M. Mehendale (महेश एम. मेहंदले)' <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; 'Mahavir Prasad Singh (महावीर प्रसाद सिंह)' <mahavir@grid-india.in>; 'Sugata Bhattacharya (सुगाता भट्टाचार्या)' <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; 'aen.com' <xen.prot.alwar@rvpn.co.in>; 'm.alwar@rvpn.co.in' <m.alwar@rvpn.co.in>; 'aen.mpt&s.rtg@rvpn.co.in' <aen.mpt&s.rtg@rvpn.co.in>; 'aen.comm.ratargarh@rvpn.co.in' <aen.comm.ratargarh@rvpn.co.in>; 'aen.subsldc.bhl@rvpn.co.in' <aen.subsldc.bhl@rvpn.co.in>; 'xen.mpts.bhl@rvpn.co.in' <xen.mpts.bhl@rvpn.co.in>; 'aen.prot.mertacity@RVPN.CO.IN' <aen.prot.mertacity@RVPN.CO.IN>; 'aen.comm.merta@RVPN.CO.IN' <aen.comm.merta@RVPN.CO.IN>; 'nainwal@powergrid.in' <nainwal@powergrid.in>; 'vinaykumargupta@powergrid.in' <vinaykumargupta@powergrid.in>; 'ravindra_kumar@powergrid.in' <ravindra_kumar@powergrid.in>; 'smahajan1999@powergrid.in' <smahajan1999@powergrid.in>; 'rkagrawal83@powergrid.in' <rkagrawal83@powergrid.in>; 'dharmendrameena@powergrid.in' <dharmendrameena@powergrid.in>; 'vineet@powergrid.in' <vineet@powergrid.in>; 'bhakalramjash@powergrid.in' <bhakalramjash@powergrid.in>; 'dhanonda400kv@gmail.com' <dhanonda400kv@gmail.com>; 'sse220kvlulaahir@hvpn.org.in' <sse220kvlulaahir@hvpn.org.in>; 'sse220kvrwr@hvpn.org.in' <sse220kvrwr@hvpn.org.in>; 'sse132kvdadri@hvpn.org.in' <sse132kvdadri@hvpn.org.in>; 'ae-220kvg1-mgg@pstcl.org' <ae-220kvg1-mgg@pstcl.org>; 'sse-pm-lalton@pstcl.org' <sse-pm-lalton@pstcl.org>; 'sse-pm-mlrk@pstcl.org' <sse-pm-mlrk@pstcl.org>; 'eeetdshamli@upptcl.org' <eeetdshamli@upptcl.org>; 'ee400mrd2@upptcl.org' <ee400mrd2@upptcl.org>; 'aeProtection@upslcd.org' <aeProtection@upslcd.org>; 'ase-sldcop@pstcl.org' <ase-sldcop@pstcl.org>; 'bl.gujar@dtl.gov.in' <bl.gujar@dtl.gov.in>; 'ce.ld@rvpn.co.in' <ce.ld@rvpn.co.in>; 'ce-sldc' <ce-sldc@pstcl.org>; 'dtldata@yahoo.co.in' <dtldata@yahoo.co.in>; 'dtlscheduling@gmail.com' <dtlscheduling@gmail.com>; 'eesldccontrol@upslcd.org' <eesldccontrol@upslcd.org>; 'ldrvpnl@rvpn.co.in' <ldrvpnl@rvpn.co.in>; 'ldshutdown@gmail.com' <ldshutdown@gmail.com>; 'ldshutdown@rvpn.co.in' <ldshutdown@rvpn.co.in>; 'paritosh.joshi@dtl.gov.in' <paritosh.joshi@dtl.gov.in>; 'pccont@bbmb.nic.in' <pccont@bbmb.nic.in>; 'pc-sldcop@pstcl.org' <pc-sldcop@pstcl.org>; 'rajbir-walia79@yahoo.com' <rajbir-walia79@yahoo.com>; 'rtamc.nr1@powergrid.in' <rtamc.nr1@powergrid.in>; 'pankaj.jha@powergrid.in' <pankaj.jha@powergrid.in>; 'neerajk@powergrid.in' <neerajk@powergrid.in>; 'se.mpts.udr@rvpn.co.in' <se.mpts.udr@rvpn.co.in>; 'se.prot.engg@rvpn.co.in' <se.prot.engg@rvpn.co.in>; 'se.sold@rvpn.co.in' <se.sold@rvpn.co.in>; 'sera@upslcd.org' <sera@upslcd.org>; 'sesc@upslcd.org' <sesc@upslcd.org>; 'sesldcop@hvpn.org' <sesldcop@hvpn.org>; 'se-sldcop' <se-sldcop@pstcl.org>; 'setncmrt@upptcl.org' <setncmrt@upptcl.org>; 'sldcdata@gmail.com' <sldcdata@gmail.com>; 'sldcharyanacr@gmail.com' <sldcharyanacr@gmail.com>; 'sldcmintoroad@gmail.com' <sldcmintoroad@gmail.com>; 'system.uppcl@gmail.com' <system.uppcl@gmail.com>; 'xenemtcbhpp2@bbmb.nic.in' <xenemtcbhpp2@bbmb.nic.in>; 'xenmpccggn@hvpn.org' <xenmpccggn@hvpn.org>; 'xenplgss@hvpn.org' <xenplgss@hvpn.org>

Subject: RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status of the activities related to the 500kV Mundra-Mohindergarh SPS.

Firstly, I would like to express my gratitude and appreciation to all the members on this email for their incredible support to the team implementing the scheme at their respective locations. We are also receiving excellent support from Powergrid in configuring the communication path between Mohindergarh and the SPS locations.

As of today, the team has installed and tested the commands up to the DTTC panels from Mohindergarh for the following locations:

- BBMB
- Charkhi Dadri
- Ratangarh
- Hisar-PG
- Alwar
- Merta
- Nuna Majra
- Shamli

The support from respective utility representatives, especially with regards to ensuring the termination of cables to the correct feeders and terminals, is crucial in ensuring the actual relief during the operation of the SPS.

We shall continue our efforts to complete the remaining locations with your support to bring the scheme into full operation.

Regards,
Sumeet Sharma

From: Sumeet Sharma

Sent: Wednesday, November 5, 2025 11:57 AM

To: 'NRLDC SO 2' <nrlcso2@grid-india.in>

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhokalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kv1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upsldc.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc@pstcl.org; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upsldc.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upsldc.org; sesc@upsldc.org; sesldcop@hvpn.org; se-sldcop@pstcl.org; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Subject: RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status and plan of the activities related to the 500kV Mundra-Mohindergarh SPS.

Firstly, I'm pleased to inform you that the FAT was completed and the material has arrived at the Mohindergarh station. Please find attached the tentative activity schedule at the respective locations (subject to site constraints -if any) as submitted by our partner. The coordination of these activities will be handled by our Mohindergarh Station Head, Mr. Abhishek Singh, in collaboration with M/s Commtel. Mr. Singh can be reached at Mobile # 9671306831 for any immediate coordination.

We seek the support of each utility and your esteemed office to facilitate the activities to be carried out by M/s Commtel at the respective locations. As this involves the replacement of existing hardware with new ones, we require the return of the existing material for necessary commercial formalities. We kindly request your support in clearing the same for M/s Commtel to carry back.

Additionally, we will need the configuration of E1 channels identified along with M/s PGCIL between Mohindergarh and the respective locations and allocation of two Optical ports at the Tejas SDH (TJ 1400) installed at the Mohendragarh Control Room for the communication setup and to execute commands and feedbacks.

Sincere Thanks for your cooperation and support.

Regards,
Sumeet Sharma

From: NRLDC SO 2 <nrldcso2@grid-india.in>

Sent: Thursday, October 30, 2025 5:45 PM

To: Sumeet Sharma <Sumeet.Sharma@adani.com>

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subslcd.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhokalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvllulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Subject: Re: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

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महोदय / महोदया,

In reference of the trailing mail, it is requested to kindly share the update regarding FAT which was supposed to be completed by 30.09.2025 and further following the FAT, the material are to be shipped to various sites and installed by 30th October 2025.

In view of above, it is requested to kindly update the present status and future action plan.

सादर धन्यवाद/ Thanks & Regards

प्रणाली संचालन-II/ System Operation-II

उ०क्षे०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited

Formerly known as

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RE: Status of Corrective actions for healthiness of 500kV Mundra-Mohindergarh SPS

Wed 07-Jan-26 18:07

To:NRLDC SO 2 <nrlcdso2@grid-india.in>;

Cc:seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; Prashant Kumar <Prashant.Kumar1@adani.com>; Saurabh Sharma <Saurabh.Sharma@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; Somara Lakra (सोमारा लाकरा) <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; Deepak Kumar <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in <m.alwar@rvpn.co.in>; aen.mpt&s.rtg@rvpn.co.in <aen.mpt&s.rtg@rvpn.co.in>; aen.comm.ratargarh@rvpn.co.in <aen.comm.ratargarh@rvpn.co.in>; aen.subsldc.bhl@rvpn.co.in <aen.subsldc.bhl@rvpn.co.in>; xen.mpts.bhl@rvpn.co.in <xen.mpts.bhl@rvpn.co.in>; aen.prot.mertacity@RVPN.CO.IN <aen.prot.mertacity@RVPN.CO.IN>; aen.comm.merta@RVPN.CO.IN <aen.comm.merta@RVPN.CO.IN>; nainwal@powergrid.in <nainwal@powergrid.in>; vinaykumargupta@powergrid.in <vinaykumargupta@powergrid.in>; ravindra_kumar@powergrid.in <ravindra_kumar@powergrid.in>; smahajan1999@powergrid.in <smahajan1999@powergrid.in>; rkagrawal83@powergrid.in <rkagrawal83@powergrid.in>; dharmendrameena@powergrid.in <dharmendrameena@powergrid.in>; vineet@powergrid.in <vineet@powergrid.in>; bhakalramjash@powergrid.in <bhakalramjash@powergrid.in>; dhanonda400kv@gmail.com <dhanonda400kv@gmail.com>; sse220kvlulaahir@hvpn.org.in <sse220kvlulaahir@hvpn.org.in>; sse220kvrwr@hvpn.org.in <sse220kvrwr@hvpn.org.in>; sse132kvdadri@hvpn.org.in <sse132kvdadri@hvpn.org.in>; ae-220kvg1-mgg@pstcl.org <ae-220kvg1-mgg@pstcl.org>; sse-pm-lalton@pstcl.org <sse-pm-lalton@pstcl.org>; sse-pm-mlrk@pstcl.org <sse-pm-mlrk@pstcl.org>; eeetdshamli@upptcl.org <eeetdshamli@upptcl.org>; ee400mrd2@upptcl.org <ee400mrd2@upptcl.org>; aeptdshamli@upptcl.org <aeptdshamli@upptcl.org>; ase-sldcop@pstcl.org <ase-sldcop@pstcl.org>; bl.gujar@dtl.gov.in <bl.gujar@dtl.gov.in>; ce.ld@rvpn.co.in <ce.ld@rvpn.co.in>; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in <dtldata@yahoo.co.in>; dtlscheduling@gmail.com <dtlscheduling@gmail.com>; eesldcontrol@upslcd.org <eesldcontrol@upslcd.org>; ldrvpnl@rvpn.co.in <ldrvpnl@rvpn.co.in>; ldshutdown@gmail.com <ldshutdown@gmail.com>; ldshutdown@rvpn.co.in <ldshutdown@rvpn.co.in>; paritosh.joshi@dtl.gov.in <paritosh.joshi@dtl.gov.in>; pccont@bbmb.nic.in <pccont@bbmb.nic.in>; pc-sldcop@pstcl.org <pc-sldcop@pstcl.org>; rajbir-walia79@yahoo.com <rajbir-walia79@yahoo.com>; rtamc.nr1@powergrid.in <rtamc.nr1@powergrid.in>; pankaj.jha@powergrid.in <pankaj.jha@powergrid.in>; neerajk@powergrid.in <neerajk@powergrid.in>; se.mpts.udr@rvpn.co.in <se.mpts.udr@rvpn.co.in>; se.prot.engg@rvpn.co.in <se.prot.engg@rvpn.co.in>; se.sold@rvpn.co.in <se.sold@rvpn.co.in>; sera@upslcd.org <sera@upslcd.org>; sesc@upslcd.org <sesc@upslcd.org>; sesldcop@hvpn.org <sesldcop@hvpn.org>; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org <setncmrt@upptcl.org>; sldcdata@gmail.com <sldcdata@gmail.com>; sldcharyanacr@gmail.com <sldcharyanacr@gmail.com>; sldcmintoroad@gmail.com <sldcmintoroad@gmail.com>; system.uppcl@gmail.com <system.uppcl@gmail.com>; xenemtcbhpp2@bbmb.nic.in <xenemtcbhpp2@bbmb.nic.in>; xenmpccggn@hvpn.org <xenmpccggn@hvpn.org>; xenplgss@hvpn.org <xenplgss@hvpn.org>;

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Dear sir,

I hope this message finds you well. I am writing to provide an update on the status of the activities related to the 500kV Mundra-Mohindergarh SPS. Following is the status of the scheme as on 25-Dec-25-

- a. FOTE installation and commissioning : Completed
- b. E1 link establishment between Mohindergarh and respective sites : Completed
- c. DTPC installation and link establishment between Mohindergarh and respective locations : Completed
- d. Command Testing from DTPC to DTPC for all Location : Completed
- e. Cable laying and Termination between DTPC and Trip Circuits: Completed

The scheme has been made ready and the commands have been tested between Mohindergarh and locations between DTPCs . All the commands have been terminated to respective trip circuits of the identified feeders

We declare our readiness for the scheme to be taken into service and once again express our sincere Thanks to all the stake holder for extending their support during execution of this scheme.

We seek your guidance for further course of action in this regards.

Regards,
Sumeet Sharma

From: Sumeet Sharma

Sent: Monday, December 15, 2025 7:08 PM

To: NRLDC SO 2 <nrlcdcso2@grid-india.in>

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; Prashant Kumar <Prashant.Kumar1@adani.com>; Saurabh Sharma <Saurabh.Sharma@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; dhanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Subject: RE: Status of Corrective actions for healthiness of 500kV Mundra-Mohindergarh SPS

Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status of the activities related to the 500kV Mundra-Mohindergarh SPS. Following is the status of the scheme as on 15-Dec-25.

- a. FOTE installation and commissioning : Completed
- b. E1 link establishment between Mohindergarh and respective sites : Completed
- c. DTPC installation and link establishment between Mohindergarh and respective locations : Completed
- d. Command Testing from DTPC to DTPC for all Location : Completed
- e. Cable laying and Termination between DTPC and Trip Circuits: Completed except two locations (Gobindgarh and Malerkotla)

The scheme has been made ready and the commands have been tested between Mohindergarh and locations between DTPCs . All the commands have been terminated to respective trip circuits of the identified feeders **except Gobindgarh and Malerkotla** where the same is in progress.. **We seek the support from respective in-charges** to provide terminal details to the executing team for proper terminations.

With support from respective in-charges, we expect the completion of these two location within this week and system can then be declared operational. We seek your guidance for further course of action.

Regards,
Sumeet Sharma

From: Sumeet Sharma

Sent: Wednesday, November 19, 2025 6:31 PM

To: 'NRLDC SO 2' <nrlcso2@grid-india.in>

Cc: 'seo-nrpc' <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; 'Afak Pothiawala' <afak.pothiawala@adani.com>; 'Mahesh M. Mehendale (महेश एम. मेहंदले)' <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; 'Mahavir Prasad Singh (महावीर प्रसाद सिंह)' <mahavir@grid-india.in>; 'Sugata Bhattacharya (सुगाता भट्टाचार्य)' <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; 'aen.com' <xen.prot.alwar@rvpn.co.in>; 'm.alwar@rvpn.co.in' <m.alwar@rvpn.co.in>; 'aen.mpt&s.rtg@rvpn.co.in' <aen.mpt&s.rtg@rvpn.co.in>; 'aen.comm.ratangarh@rvpn.co.in' <aen.comm.ratangarh@rvpn.co.in>; 'aen.subsldc.bhl@rvpn.co.in' <aen.subsldc.bhl@rvpn.co.in>; 'xen.mpts.bhl@rvpn.co.in' <xen.mpts.bhl@rvpn.co.in>; 'aen.prot.mertacity@RVPN.CO.IN' <aen.prot.mertacity@RVPN.CO.IN>; 'aen.comm.merta@RVPN.CO.IN' <aen.comm.merta@RVPN.CO.IN>; 'nainwal@powergrid.in' <nainwal@powergrid.in>; 'vinaykumargupta@powergrid.in' <vinaykumargupta@powergrid.in>; 'ravindra_kumar@powergrid.in' <ravindra_kumar@powergrid.in>; 'smahajan1999@powergrid.in' <smahajan1999@powergrid.in>; 'rkagrawal83@powergrid.in' <rkagrawal83@powergrid.in>; 'dharmendrameena@powergrid.in' <dharmendrameena@powergrid.in>; 'vineet@powergrid.in' <vineet@powergrid.in>; 'bhakalramjash@powergrid.in' <bhakalramjash@powergrid.in>; 'dhanonda400kv@gmail.com' <dhanonda400kv@gmail.com>; 'sse220kvlulaahir@hvpn.org.in' <sse220kvlulaahir@hvpn.org.in>; 'sse220kvrwr@hvpn.org.in' <sse220kvrwr@hvpn.org.in>; 'sse132kvdadri@hvpn.org.in' <sse132kvdadri@hvpn.org.in>; 'ae-220kvg1-mgg@pstcl.org' <ae-220kvg1-mgg@pstcl.org>; 'sse-pm-lalton@pstcl.org' <sse-pm-lalton@pstcl.org>; 'sse-pm-mlrk@pstcl.org' <sse-pm-mlrk@pstcl.org>; 'eeetdshamli@upptcl.org' <eeetdshamli@upptcl.org>; 'ee400mrd2@upptcl.org' <ee400mrd2@upptcl.org>; 'ae-protection@upslcd.org' <ae-protection@upslcd.org>; 'ase-sldcop@pstcl.org' <ase-sldcop@pstcl.org>; 'bl.gujar@dtl.gov.in' <bl.gujar@dtl.gov.in>; 'ce.ld@rvpn.co.in' <ce.ld@rvpn.co.in>; 'ce-sldc' <ce-sldc@pstcl.org>; 'dtldata@yahoo.co.in' <dtldata@yahoo.co.in>; 'dtlscheduling@gmail.com' <dtlscheduling@gmail.com>; 'eesldccontrol@upslcd.org' <eesldccontrol@upslcd.org>; 'ldrvpnl@rvpn.co.in' <ldrvpnl@rvpn.co.in>; 'ldshutdown@gmail.com' <ldshutdown@gmail.com>; 'ldshutdown@rvpn.co.in' <ldshutdown@rvpn.co.in>; 'paritosh.joshi@dtl.gov.in' <paritosh.joshi@dtl.gov.in>; 'pccont@bbmb.nic.in' <pccont@bbmb.nic.in>; 'pc-sldcop@pstcl.org' <pc-sldcop@pstcl.org>; 'rajbir-walia79@yahoo.com' <rajbir-walia79@yahoo.com>; 'rtamc.nr1@powergrid.in' <rtamc.nr1@powergrid.in>; 'pankaj.jha@powergrid.in' <pankaj.jha@powergrid.in>; 'neerajk@powergrid.in' <neerajk@powergrid.in>; 'se.mpts.udr@rvpn.co.in' <se.mpts.udr@rvpn.co.in>; 'se.prot.engg@rvpn.co.in' <se.prot.engg@rvpn.co.in>; 'se.sold@rvpn.co.in' <se.sold@rvpn.co.in>; 'sera@upslcd.org' <sera@upslcd.org>; 'sesc@upslcd.org' <sesc@upslcd.org>; 'sesldcop@hvpn.org' <sesldcop@hvpn.org>; 'se-sldcop' <se-sldcop@pstcl.org>; 'setncmrt@upptcl.org' <setncmrt@upptcl.org>; 'sldcdata@gmail.com' <sldcdata@gmail.com>; 'sldcharyanacr@gmail.com' <sldcharyanacr@gmail.com>; 'sldcmintoroad@gmail.com' <sldcmintoroad@gmail.com>; 'system.uppcl@gmail.com' <system.uppcl@gmail.com>; 'xenemtcbhpp2@bbmb.nic.in' <xenemtcbhpp2@bbmb.nic.in>; 'xenmpccggn@hvpn.org' <xenmpccggn@hvpn.org>; 'xenplgss@hvpn.org' <xenplgss@hvpn.org>

Subject: RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status of the activities related to the 500kV Mundra-Mohindergarh SPS.

Firstly, I would like to express my gratitude and appreciation to all the members on this email for their incredible support to the team implementing the scheme at their respective locations. We are also receiving excellent support from Powergrid in configuring the communication path between Mohindergarh and the SPS locations.

As of today, the team has installed and tested the commands up to the DTPC panels from Mohindergarh for the following locations:

- BBMB
- Charkhi Dadri
- Ratangarh
- Hisar-PG
- Alwar
- Merta
- Nuna Majra
- Shamli

The support from respective utility representatives, especially with regards to ensuring the termination of cables to the correct feeders and terminals, is crucial in ensuring the actual relief during the operation of the SPS.

We shall continue our efforts to complete the remaining locations with your support to bring the scheme into full operation.

Regards,
Sumeet Sharma

From: Sumeet Sharma

Sent: Wednesday, November 5, 2025 11:57 AM

To: 'NRLDC SO 2' <nrldcso2@grid-india.in>

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Hunny Garg <Hunnya.Garg@adani.com>; Bhavin Parmar <Bhavin.Parmar@adani.com>; Bhoopesh H <Bhoopesh.H@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratangarh@rvpn.co.in; aen.subslcd.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrawal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upslcd.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc <ce-sldc@pstcl.org>; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upslcd.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upslcd.org; sesc@upslcd.org; sesldcop@hvpn.org; se-sldcop <se-sldcop@pstcl.org>; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Subject: RE: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

Dear Sir,

I hope this message finds you well. I am writing to provide an update on the status and plan of the activities related to the 500kV Mundra-Mohindergarh SPS.

Firstly, I'm pleased to inform you that the FAT was completed and the material has arrived at the Mohindergarh station. Please find attached the tentative activity schedule at the respective locations (subject to site constraints -if any) as submitted by our partner. The coordination of these activities will be handled by our Mohindergarh Station Head, Mr. Abhishek Singh, in collaboration with M/s CommTel. Mr. Singh can be reached at Mobile # 9671306831 for any immediate coordination.

We seek the support of each utility and your esteemed office to facilitate the activities to be carried out by M/s CommTel at the respective locations. As this involves the replacement of existing hardware with new ones, we require the return of the existing

material for necessary commercial formalities. We kindly request your support in clearing the same for M/s CommTel to carry back.

Additionally, we will need the configuration of E1 channels identified along with M/s PGCIL between Mohindergarh and the respective locations and allocation of two Optical ports at the Tejas SDH (TJ 1400) installed at the Mohendragarh Control Room for the communication setup and to execute commands and feedbacks.

Sincere Thanks for your cooperation and support.

Regards,
Sumeet Sharma

From: NRLDC SO 2 <nrldcso2@grid-india.in>

Sent: Thursday, October 30, 2025 5:45 PM

To: Sumeet Sharma <Sumeet.Sharma@adani.com>

Cc: seo-nrpc <seo-nrpc@nic.in>; Sunil Kumar Raval <Sunil.Raval@adani.com>; Namandeep Matta <Namandeep.Matta@adani.com>; Kali Charan Sahu <Kalicharan.Sahu@adani.com>; RAVINDRA ATALE <Ravindra.Atale@adani.com>; Nihar Raj <nihar.raj@adani.com>; Milan Popat <Milan.Popat@adani.com>; Abhishek Kukreja <Abhishek.Kukreja@adani.com>; Naman Vyas <Namany.Vyas@adani.com>; Abhishek Kumar Singh <Abhishekk.Singh@adani.com>; Nikhil Singh <Nikhil.Singh1@adani.com>; Narendra Kumar Ojha <Narendran.Ojha@adani.com>; Afak Pothiwala <afak.pothiwala@adani.com>; Mahesh M. Mehendale (महेश एम. मेहंदले) <mehendale@grid-india.in>; somara.lakra <somara.lakra@grid-india.in>; Mahavir Prasad Singh (महावीर प्रसाद सिंह) <mahavir@grid-india.in>; Sugata Bhattacharya (सुगाता भट्टाचार्या) <sugata@grid-india.in>; deepak.kr <deepak.kr@grid-india.in>; aen.com <xen.prot.alwar@rvpn.co.in>; m.alwar@rvpn.co.in; aen.mpt&s.rtg@rvpn.co.in; aen.comm.ratargarh@rvpn.co.in; aen.subsldc.bhl@rvpn.co.in; xen.mpts.bhl@rvpn.co.in; aen.prot.mertacity@RVPN.CO.IN; aen.comm.merta@RVPN.CO.IN; nainwal@powergrid.in; vinaykumargupta@powergrid.in; ravindra_kumar@powergrid.in; smahajan1999@powergrid.in; rkagrwal83@powergrid.in; dharmendrameena@powergrid.in; vineet@powergrid.in; bhakalramjash@powergrid.in; ghanonda400kv@gmail.com; sse220kvlulaahir@hvpn.org.in; sse220kvrwr@hvpn.org.in; sse132kvdadri@hvpn.org.in; ae-220kvg1-mgg@pstcl.org; sse-pm-lalton@pstcl.org; sse-pm-mlrk@pstcl.org; eeetdshamli@upptcl.org; ee400mrd2@upptcl.org; aeprotection@upsldc.org; ase-sldcop@pstcl.org; bl.gujar@dtl.gov.in; ce.ld@rvpn.co.in; ce-sldc@pstcl.org; dtldata@yahoo.co.in; dtlscheduling@gmail.com; eesldccontrol@upsldc.org; ldrvpnl@rvpn.co.in; ldshutdown@gmail.com; ldshutdown@rvpn.co.in; paritosh.joshi@dtl.gov.in; pccont@bbmb.nic.in; pc-sldcop@pstcl.org; rajbir-walia79@yahoo.com; rtamc.nr1@powergrid.in; pankaj.jha@powergrid.in; neerajk@powergrid.in; se.mpts.udr@rvpn.co.in; se.prot.engg@rvpn.co.in; se.sold@rvpn.co.in; sera@upsldc.org; sesc@upsldc.org; sesldcop@hvpn.org; se-sldcop@pstcl.org; setncmrt@upptcl.org; sldcdata@gmail.com; sldcharyanacr@gmail.com; sldcmintoroad@gmail.com; system.uppcl@gmail.com; xenemtcbhpp2@bbmb.nic.in; xenmpccggn@hvpn.org; xenplgss@hvpn.org

Subject: Re: Status of Corrective actions for healthiness of 500kV Mundra-Mahindergarh SPS

***CAUTION:** This mail has originated from outside Adani. Please exercise caution with links and attachments.*

महोदय / महोदया,

In reference of the trailing mail, it is requested to kindly share the update regarding FAT which was supposed to be completed by 30.09.2025 and further following the FAT, the material are to be shipped to various sites and installed by 30th October 2025.

In view of above, it is requested to kindly update the present status and future action plan.

सादर धन्यवाद/ Thanks & Regards
प्रणाली संचालन-II/ System Operation-II
उ०क्ष०भा०प्रे०के०/ NRLDC

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड/ Grid Controller of India Limited

Formerly known as

पोसोको / POSOCO



ग्रिड-इंडिया
GRID-INDIA



भारत 2023 इंडिया

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S.No	Name of the Line	Circuit ID	Proposed Over Voltage protection setting by Committee								Status of Implementation (Yes / NO)
			End I				End II				
			stage I pick up(%)	time (s)	stage II pick up(%)	time (s)	stage I pick up(%)	time (s)	stage II pick up(%)	time (s)	
HVPNL (Haryana)											
1	CLP Jhajjar (MGSTPS) -Dhanonda	1	110	5	150	0.1	110	5	140	0.1	NO
2	CLP Jhajjar (MGSTPS) -Dhanonda	2	112	6	150	0.1	112	6	140	0.1	NO
3	CLP Jhajjar(MGSTPS)- Kabulpur	1	110	5	150	0.1	110	5	150	0.1	NO
4	CLP Jhajjar(MGSTPS)- Kabulpur	2	112	6	150	0.1	112	6	150	0.1	NO
PDD (J&K)											
1	Baglihar-Kishenpur	1	110	5	150	0.1	110	5	150	0.1	NO
2	Baglihar-Kishenpur	2	111	6	150	0.1	111	6	150	0.1	NO
3	Baglihar-Kishenpur	3	112	7	150	0.1	112	7	150	0.1	NO
4	New Wanpoh-Baglihar(JK)	1	111	6	150	0.1	111	6	150	0.1	NO
PSTCL (Punjab)											
1	Talwandi Sabo-Dhuri	2	112	6	140	0.1	112	6	150	0.1	NO
2	Talwandi Sabo-Nakodar	1	112	6	140	0.1	112	6	150	0.1	NO
3	Talwandi Sabo-Mukatsar	2	112	6	140	0.1	112	6	150	0.1	NO
INDIGRID											
1	Amargarh-Samba	1	110	5	150	0.1	110	5	150	0.1	NO
2	Amargarh-Samba	2	111	6	150	0.1	111	6	150	0.1	NO
3	Jalandhar-Samba	1	110	5	150	0.1	110	5	150	0.1	NO
4	Jalandhar-Samba	2	112	6	150	0.1	112	6	150	0.1	NO
5	Koldam-Parbati Pooling Banala	2	112	6	150	0.1	112	6	150	0.1	NO
6	Ludhiana-Koldam	1	110	5	150	0.1	110	5	150	0.1	NO
7	Koldam-Ropar	1	112	6	140	0.1	112	6	140	0.1	NO
8	Parbati Pool Banala-Nallagarh	1	110	5	150	0.1	110	5	150	0.1	NO
9	Parbati-II- Parbati Pooling Banala	2	112	5	150	0.1	112	6	150	0.1	NO
10	Parbati-III- Parbati Pooling Banala	2	112	6	150	0.1	112	6	150	0.1	NO
11	Prithala(GPTL)-Kadarpur	1	110	5	150	0.1	110	5	140	0.1	NO
12	Prithala(GPTL)-Kadarpur	2	112	6	150	0.1	112	6	140	0.1	NO
13	Prithala(GPTL)-Aligarh(PG)	1	110	5	150	0.1	110	5	150	0.1	NO
14	Prithala(GPTL)-Aligarh(PG)	2	112	6	150	0.1	112	6	150	0.1	NO
15	RAPPC-Shujalpur IR	1	110	5	150	0.1	110	5	140	0.1	NO
16	RAPPC-Shujalpur IR	2	112	6	150	0.1	112	6	140	0.1	NO
17	Ropar(PS)-Ludhiana(PG)	1	112	6	150	0.1	112	6	150	0.1	NO
18	Sainj(HP)-Parbati II	1	110	5	140	0.1	110	5	140	0.1	NO
19	Sainj(HP)-Parbati III	1	110	5	140	0.1	110	5	140	0.1	NO
20	Sohna Road(GPTL)-Kadarpur	1	110	5	150	0.1	110	5	140	0.1	NO
21	Sohna Road(GPTL)-Kadarpur	2	112	6	150	0.1	112	6	140	0.1	NO
NTPC											
1	Dadri(NT)-Loni Road/ Harsh Vihar	1	110	5	140	0.1	110	5	140	0.1	NO
2	Dadri(NT)-Loni Road/ Harsh Vihar	2	112	6	140	0.1	112	6	140	0.1	NO
NRSSXXI(B) (Sekura Energy)											
1	Amritsar-Malerkotla	1	110	5	150	0.1	110	5	150	0.1	NO
2	Amritsar-Malerkotla	2	112	6	150	0.1	112	6	150	0.1	NO
3	Kurukshetra-Malerkotla	1	110	5	150	0.1	110	5	150	0.1	NO
4	Kurukshetra-Malerkotla	2	112	6	150	0.1	112	6	150	0.1	NO

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level (in kV)	Bay No	Bay Type	Substation	State
1	1119603	Sep - 2025	400kV Main Bay 405 of HV side of 500 MVA ICT-1 at METRO DEPOT_GIS(TPJKPTL)	TPJKPTL_UP	400kV	405	Main Bay	METRO DEPOT_GIS(TPJKPTL)	UTTAR PRADESH
2	1119603	Sep - 2025	400kV Main Bay 403 of HV side of 500 MVA ICT-2 at METRO DEPOT_GIS(TPJKPTL)	TPJKPTL_UP	400kV	403	Main Bay	METRO DEPOT_GIS(TPJKPTL)	UTTAR PRADESH
3	1119603	Sep - 2025	400kV Main Bay 402 of 125 MVAR Bus Reactor 1 at METRO DEPOT_GIS(TPJKPTL)	TPJKPTL_UP	400kV	402	Main Bay	METRO DEPOT_GIS(TPJKPTL)	UTTAR PRADESH
4	1119572	Aug - 2025	400kV Main Bay 401 of 400kV METRO DEPOT_GIS(TPJKPTL)-Gr.Noida(UPC)-1 line at METRO DEPOT_GIS(TPJKPTL)	TPJKPTL_UP,UPPTCL	400kV	401	Main Bay	METRO DEPOT_GIS(TPJKPTL)	UTTAR PRADESH
5	1119663	Oct - 2025	400kV Main Bay 416 of 400 KV MAHARANIBAGH-NARELA CKT-1 at Narela(PNTL)	POWERGRID	400kV	416	Main Bay	Narela(PNTL)	DELHI
6	1119663	Oct - 2025	400kV Tie Bay 417 of 400 KV MAHARANIBAGH-NARELA CKT-1 and 400 KV MAHARANIBAGH-NARELA CKT-2 at Narela(PNTL)	POWERGRID	400kV	417	Tie Bay	Narela(PNTL)	DELHI
7	1119663	Oct - 2025	400kV Main Bay 418 of 400 KV MAHARANIBAGH-NARELA CKT-2 at Narela(PNTL)	POWERGRID	400kV	418	Main Bay	Narela(PNTL)	DELHI
8	1119663	Oct - 2025	400kV Main Bay 419 of 400 KV MAHARANIBAGH-NARELA CKT-3 at Narela(PNTL)	POWERGRID	400kV	419	Main Bay	Narela(PNTL)	DELHI
9	1119663	Oct - 2025	400kV Tie Bay 420 of 400 KV MAHARANIBAGH-NARELA CKT-3 and 400 KV MAHARANIBAGH-NARELA CKT-4 at Narela(PNTL)	POWERGRID	400kV	420	Tie Bay	Narela(PNTL)	DELHI
10	1119663	Oct - 2025	400kV Main Bay 421 of 400 KV MAHARANIBAGH-NARELA CKT-4 at Narela(PNTL)	POWERGRID	400kV	421	Main Bay	Narela(PNTL)	DELHI
11	1119631	Sep - 2025	765kV Main Bay 716 of 765kV D/C Bhadla-III Sikar-II TL Ckt-1 at Sikar_2(PSTL)	PB3TL	765kV	716	Main Bay	Sikar_2(PSTL)	RAJASTHAN
12	1119280	Oct - 2024	765kV Tie Bay 720 of 765kV, 330 MVAR Bus Reactor 2 and Future Line (CB) at Narela(PNTL)	PNTL	765kV	720	Tie Bay	Narela(PNTL)	DELHI
13	1119280	Oct - 2024	765kV Main Bay 721 of Future Line (CB) at Narela(PNTL)	PNTL	765kV	721	Main Bay	Narela(PNTL)	DELHI
14	1119612	Sep - 2025	220kV Main Bay 233 of 220 KV ABC Renewable Energy Pvt Ltd at Fatehgarh_III(PG)	PRTL	220kV	233	Main Bay	Fatehgarh_III(PG)	RAJASTHAN
15	1119646	Oct - 2025	220kV Main Bay A1 of 220kV Dandhari Kalan(PS)-Ludhiana(PG) Circuit no.1 at DandhariKalan(PS)	PSTCL	220kV	A1	Main Bay	DandhariKalan(PS)	PUNJAB
16	1119666	Oct - 2025	765kV Main Bay 709 of 765 KV Khetri-Narela Ckt-1 at Narela(PNTL)	PNTL	765kV	709	Main Bay	Narela(PNTL)	DELHI
17	1119666	Oct - 2025	765kV Tie Bay 708 of 765 KV Khetri-Narela Ckt-1 and 765/400 KV ICT-1 at Narela(PNTL)	PNTL	765kV	708	Tie Bay	Narela(PNTL)	DELHI
18	1119666	Oct - 2025	765kV Main Bay 709R of 330 MVAR Switchable Line Reactor-1 of 765 KV Khetri-Narela Ckt-1 at Narela(PNTL)	PNTL	765kV	709R	Main Bay	Narela(PNTL)	DELHI
19	1119667	Oct - 2025	765kV Tie Bay 711 of 765 KV Khetri-Narela Ckt-2 and 765/400 KV ICT-2 at Narela(PNTL)	PNTL	765kV	711	Tie Bay	Narela(PNTL)	DELHI
20	1119667	Oct - 2025	765kV Main Bay 712 of 765 KV Khetri-Narela Ckt-2 at Narela(PNTL)	PNTL	765kV	712	Main Bay	Narela(PNTL)	DELHI

21	1119667	Oct - 2025	765kV Main Bay 712R of 330 MVAR Switchable Line Reactor-2 of 765 KV Khetri-Narela Ckt-2 at Narela(PNTL)	PNTL	765kV	712R	Main Bay	Narela(PNTL)	DELHI
22	1119637	Sep - 2025	220kV Main Bay 202 of 220kV Main Bay 202 of 220kV ARERJ02_SL_Ftg3 - Fatehgarh III (PG) - ckt 1 at ARERJ02PL_SL_Ftg3	ARERJ02PL	220kV	202	Main Bay	ARERJ02PL_SL_Ftg3	RAJASTHAN
23	1119637	Sep - 2025	220kV Main Bay 201 of 220kV Main Bay 201 of 220/33 kV, Power Transformer 1 at ARERJ02PL_SL_Ftg3	ARERJ02PL	220kV	201	Main Bay	ARERJ02PL_SL_Ftg3	RAJASTHAN
24	1119637	Sep - 2025	220kV Main Bay 203 of 220kV Main Bay 203 of 220/33kV, Power Transformer 2 at ARERJ02PL_SL_Ftg3	ARERJ02PL	220kV	203	Main Bay	ARERJ02PL_SL_Ftg3	RAJASTHAN
25	1119637	Sep - 2025	220kV Main Bay 205 of 220kV Main Bay 205 of 220 / 33kV Power Transformer 3 at ARERJ02PL_SL_Ftg3	ARERJ02PL	220kV	205	Main Bay	ARERJ02PL_SL_Ftg3	RAJASTHAN
26	1119619	Sep - 2025	400kV Main Bay 403 of 400kV 125 MVAR Bus Reactor and 400 kV Main Bus-02 at Kishtwar(GIS)	KwTL	400kV	403	Main Bay	Kishtwar(GIS)	JAMMU & KASHMIR
27	1119605	Sep - 2025	400kV Tie Bay 402 of 400kV Kishtwar(GIS)-Dulhasti(NHPC) Line and 400kV 125 MVAR Bus Reactor at Kishtwar(GIS)	KwTL	400kV	402	Tie Bay	Kishtwar(GIS)	JAMMU & KASHMIR
28	1119605	Sep - 2025	400kV Main Bay 401 of 400kV Kishtwar(GIS)-Dulhasti(NHPC) Line and 400kV Main Bus-01 at Kishtwar(GIS)	KwTL	400kV	401	Main Bay	Kishtwar(GIS)	JAMMU & KASHMIR
29	1119602	Sep - 2025	400kV Main Bay 406 of 400kV KISHTWAR(GIS)-KISHENPUR Line-2 at Kishtwar(GIS)	KwTL	400kV	406	Main Bay	Kishtwar(GIS)	JAMMU & KASHMIR
30	1119602	Sep - 2025	400kV Tie Bay 405 of 400kV KISHTWAR(GIS)-KISHENPUR Line-2 and 200 MVA ICT-1 at Kishtwar(GIS)	KwTL	400kV	405	Tie Bay	Kishtwar(GIS)	JAMMU & KASHMIR
31	1119604	Sep - 2025	400kV Tie Bay 408 of 400kV Kishtwar(GIS)-Kishenpur(PG) Line-1 and 200 MVA ICT-2 at Kishtwar(GIS)	KwTL	400kV	408	Tie Bay	Kishtwar(GIS)	JAMMU & KASHMIR
32	1119634	Sep - 2025	220kV Main Bay 207 of 220kV Bus Reactor-1 at Drass(PG)	POWERGRID	220kV	207	Main Bay	Drass(PG)	JAMMU & KASHMIR
33	1119634	Sep - 2025	220kV Main Bay 208 of 220kV Bus Reactor-2 at Drass(PG)	POWERGRID	220kV	208	Main Bay	Drass(PG)	JAMMU & KASHMIR
34	1119381	Mar - 2025	765kV Main Bay 728R of 765kV 3x80 MVAR Line Reactor of 765kV D/C Bhadla-II Sikar-II Ckt-4 at Bhadla_II. at Bhadla_2 (PG)	PBSTL	765kV	728R	Main Bay	Bhadla_2 (PG)	RAJASTHAN
35	1119379	Mar - 2025	765kV Main Bay 725R of 765kV 3x80 MVAR Line Reactor of 765kV D/C Bhadla-II Sikar-II Ckt-3 at Bhadla_II. at Bhadla_2 (PG)	PBSTL	765kV	725R	Main Bay	Bhadla_2 (PG)	RAJASTHAN
36	1119347	Jan - 2025	220kV Main Bay 207 of 25 MVAR Bus Reactor at RSDCL(PSS2)_SL_BHD2_PG	RSDCL	220kV	207	Main Bay	RSDCL(PSS2)_SL_BHD2_PG	RAJASTHAN
37	1119327	Dec - 2024	400kV Main Bay 418 of 400 KV MAHARANIBAGH-NARELA CKT-2 at Narela(PNTL)	POWERGRID	400kV	418	Main Bay	Narela(PNTL)	DELHI
38	1119318	Dec - 2024	400kV Main Bay 416 of 400 KV MAHARANIBAGH-NARELA CKT-1 at Narela(PNTL)	POWERGRID	400kV	416	Main Bay	Narela(PNTL)	DELHI
39	1119318	Dec - 2024	400kV Tie Bay 417 of 400 KV MAHARANIBAGH-NARELA CKT-1 and 400 KV MAHARANIBAGH-NARELA CKT-2 at Narela(PNTL)	POWERGRID	400kV	417	Tie Bay	Narela(PNTL)	DELHI
40	1119328	Dec - 2024	400kV Main Bay 419 of 400 KV MAHARANIBAGH-NARELA CKT-3 at Narela(PNTL)	POWERGRID	400kV	419	Main Bay	Narela(PNTL)	DELHI

41	1119329	Dec - 2024	400kV Main Bay 421 of 400 KV MAHARANIBAGH-NARELA CKT-4 at Narela(PNTL)	POWERGRID	400kV		421	Main Bay	Narela(PNTL)	DELHI
42	1119328	Dec - 2024	400kV Tie Bay 420 of 400 KV MAHARANIBAGH-NARELA CKT-3 and 400 KV MAHARANIBAGH-NARELA CKT-4 at Narela(PNTL)	POWERGRID	400kV		420	Tie Bay	Narela(PNTL)	DELHI
43	1119378	Mar - 2025	400kV Tie Bay 20ACA50 of 400kV Kishenpur(PG)-Baglihar(JK) (JKSPDCL) Ckt-3 and 400 kV New Wanpoh(PG)-Baglihar(JK) (JKSPDCL) Ckt-1 at Baglihar(JK)	JKSPDCL	400kV	20ACA50		Tie Bay	Baglihar(JK)	JAMMU & KASHMIR
44	1119606	Sep - 2025	400kV Main Bay 456 of 400kV Fatehgarh_III(PG) - Fatehgarh_IV(FIVTL) ckt-1 at Fatehgarh_III(PG)	F4TL	400kV		456	Main Bay	Fatehgarh_III(PG)	RAJASTHAN
45	1119606	Sep - 2025	400kV Main Bay 401 of Fatehgarh_III (PG) - Fatehgarh_IV (FIVTL) ckt-1 at Fatehgarh_IV(F4TL)	F4TL	400kV		401	Main Bay	Fatehgarh_IV(F4TL)	RAJASTHAN
46	1119606	Sep - 2025	400kV Tie Bay 402 of Fatehgarh III (PG) Line-1 Bay (401) and 500MVA ICT-1 Bay (403) at Fatehgarh_IV(F4TL)	F4TL	400kV		402	Tie Bay	Fatehgarh_IV(F4TL)	RAJASTHAN
47	1119627	Sep - 2025	400kV Main Bay 403 of 500MVA ICT - 1 Bay at Fatehgarh_IV(F4TL)	F4TL	400kV		403	Main Bay	Fatehgarh_IV(F4TL)	RAJASTHAN
48	1119627	Sep - 2025	400kV Main Bay 406 of 500MVA ICT- 2 Bay at Fatehgarh_IV(F4TL)	F4TL	400kV		406	Main Bay	Fatehgarh_IV(F4TL)	RAJASTHAN
49	1119628	Sep - 2025	400kV Main Bay 409 of 500MVA ICT- 3 at Fatehgarh_IV(F4TL)	F4TL	400kV		409	Main Bay	Fatehgarh_IV(F4TL)	RAJASTHAN
50	1119629	Sep - 2025	400kV Main Bay 404 of Fatehgarh_III (PG) - Fatehgarh_IV (FIVTL) ckt-2 at Fatehgarh_IV(F4TL)	F4TL	400kV		404	Main Bay	Fatehgarh_IV(F4TL)	RAJASTHAN
51	1119629	Sep - 2025	400kV Tie Bay 405 of Fatehgarh III (PG) Line-2 Bay (404) and 500MVA ICT-2 Bay (406) at Fatehgarh_IV(F4TL)	F4TL	400kV		405	Tie Bay	Fatehgarh_IV(F4TL)	RAJASTHAN
52	1119428	Mar - 2025	765kV Main Bay 706 of 1500 MVA 765/400/33kV ICT-1 at Fatehgarh_III(PG)	PRTL	765kV		706	Main Bay	Fatehgarh_III(PG)	RAJASTHAN

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level (in kV)	Associated Transmission Element1	Associated Transmission Element2	Substation	State
1	1119637	Sep - 2025	220kV Bus Coupler Bay 204 of 220kV Main Bus 1 and 220kV Main Bus 2 at ARERJ02PL_SL_Ftg3	ARERJ02PL	220kV	220kV Main Bus 2	220kV Main Bus 1	ARERJ02PL_SL_Ftg3	RAJASTHAN
2	1119249	Sep - 2024	220kV Bus Coupler Bay 219 of 220KV Transfer Bus and 220 KV Bus-III & IV at Bikaner_2 (PBTSL)	PBTSL	220kV	220 KV Bus-III & IV	220KV Transfer Bus	Bikaner_2 (PBTSL)	RAJASTHAN

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level	MVAR Capacity	Substation	Make	Configuration	Serial No	State
1	1119603	Sep - 2025	400kV, 125 MVAR Bus Reactor 1 at METRO DEPOT_GIS(TPJKPTL)	TPJKPTL_UP	400kV	125 MVAR	METRO DEPOT_GIS(TPJKPTL)	CGPISL	3-Phase	BHR11451-01	UTTAR PRADESH
2	1119619	Sep - 2025	400kV, 125 MVAR Bus Reactor 1 at Kishtwar(GIS)	KwTL	400kV	125 MVAR	Kishtwar(GIS)	GE	3x1-Phase	L-0838/L-0839/L-0840 respect to RYB-Phase	JAMMU & KASHMIR
3	1119634	Sep - 2025	220kV, 25(3 * 8.33) Bus Reactor 220KV Bus Reactor-1 at Drass(PG)	POWERGRID	220kV	25(3 * 8.33)	Drass(PG)	Transformers & Rectifiers(India) Ltd	1-Phase	PC0301021,PC0301015,PC0301016	JAMMU & KASHMIR
4	1119634	Sep - 2025	220kV, 25(3*8.33) Bus Reactor 220KV Bus Reactor-2 at Drass(PG)	POWERGRID	220kV	25(3*8.33)	Drass(PG)	Transformer & Rectifiers (India) Ltd	1-Phase	PC0301020,PC0301019,PC0301018,PC0301017	JAMMU & KASHMIR
5	1119694	Nov - 2025	220kV, 25 Bus Reactor 1 at RSDCL(PSS2) SL_BHD2_PG	RSDCL	220kV	25	RSDCL(PSS2)_SL_BHD2_PG	CGPISL	3-Phase	BHR11477/01	RAJASTHAN

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level (in kV)	Associated Transmission Element1	Associated Transmission Element2	Substation	State
1	1119703	Nov - 2025	400kV Bus Sectionalizer Bay 433 of 400kV Bus-4 and 400kV Bus-6 at Fatehgarh_III(PG)	PRTL	400kV	400kV Bus-6	400kV Bus-4	Fatehgarh_III(PG)	RAJASTHAN

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level (in kV)	MVAR Capacity	Line Name	Substation	Make	Configuration	Serial No	State
1	1119666	Oct - 2025	330 MVAR Switchable Convertible LINE_REACTOR of 765 KV Khetri-Narela Ckt-1 at Narela(PNTL)	PNTL	765kV	330 MVAR	765 KV Khetri-Narela Ckt-1	Narela(PNTL)	GE	3x1-Phase	R-L0814, Y-L0812, B-L0810	DELHI
2	1119667	Oct - 2025	330 MVR Switchable Convertible LINE_REACTOR of 765 KV Khetri-Narela Ckt-2 at Narela(PNTL)	PNTL	765kV	330 MVR	765 KV Khetri-Narela Ckt-2	Narela(PNTL)	GE	3x1-Phase	R-L0818, Y-L0817, B-L0815	DELHI
3	1119381	Mar - 2025	240 MVAR Switchable Convertible LINE_REACTOR of 765kV D/C Bhadla-II Sikar-II Ckt-4 at Bhadla_II, at Bhadla_2 (PG)	PBSTL	765kV	240 MVAR	765kV D/C Bhadla-II Sikar-II Ckt-4 at Bhadla_II,	Bhadla_2 (PG)	GE	3x1-Phase	R-Ph = GOP0204-60/L-0861 Y-Ph= GOP0204-50/L-0860 B-Ph = GOP0204-40/L-0859	RAJASTHAN
4	1119379	Mar - 2025	240 MVAR Switchable Convertible LINE_REACTOR of 765kV D/C Bhadla-II Sikar-II Ckt-3 at Bhadla_II, at Bhadla_2 (PG)	PBSTL	765kV	240 MVAR	765kV D/C Bhadla-II Sikar-II Ckt-3 at Bhadla_II,	Bhadla_2 (PG)	GE	3x1-Phase	R-Ph = GOP0204-30/L-0858 Y-Ph= GOP0204-20/L-0857 B-Ph = GOP0204-10/L-0856	RAJASTHAN

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level (in kV)	Circuit No	Line Length	Conductor Type	Tower Configuration	State
1	1119647	Oct - 2025	400kV Babai(RS)-Suratgarh SCTPS(RVUN)-1	RRVPNL	400kV	1	245.303	Quad Moose	Double	RAJASTHAN to RAJASTHAN
2	1119647	Oct - 2025	400kV Babai(RS)-Suratgarh SCTPS(RVUN)-2	RRVPNL	400kV	2	245.303	Quad Moose	Double	RAJASTHAN to RAJASTHAN
3	1119637	Sep - 2025	220kV ARERJ02PL_SL_Ftg3-Fatehgarh_III(PG)-1	ARERJ02PL	220kV	1	13.306	HTLS	Double, Multiple	RAJASTHAN to RAJASTHAN
4	1119327	Dec - 2024	400kV Maharaniabagh(PG)-Narela(PNTL)-2	POWERGRID	400kV	2	58.37KM (existing LILO from Maharaniabagh is 28.4KM + 29.97KM New Line from LILO portion to Narela	Twin HTLS	Multiple	DELHI to DELHI
5	1119318	Dec - 2024	400kV Maharaniabagh(PG)-Narela(PNTL)-1	POWERGRID	400kV	1	58.37KM (existing LILO from Maharaniabagh is 28.4KM + 29.97KM New Line from LILO portion to Narela	Twin HTLS	Multiple	DELHI to DELHI
6	1119328	Dec - 2024	400kV Maharaniabagh(PG)-Narela(PNTL)-3	POWERGRID	400kV	3	58.37KM (existing LILO from Maharaniabagh is 28.4KM + 29.97KM New Line from LILO portion to Narela	Twin HTLS	Multiple	DELHI to DELHI
7	1119329	Dec - 2024	400kV Maharaniabagh(PG)-Narela(PNTL)-4	POWERGRID	400kV	4	58.37KM (existing LILO from Maharaniabagh is 28.4KM + 29.97KM New Line from LILO portion to Narela	Twin HTLS	Multiple	DELHI to DELHI
8	1119606	Sep - 2025	400kV Fatehgarh_III(PG)-Fatehgarh_IV(F4TL)-1	F4TL	400kV	1	21	Twin HTLS	Double	RAJASTHAN to RAJASTHAN
9	1119629	Sep - 2025	400kV Fatehgarh_III(PG)-Fatehgarh_IV(F4TL)-2	F4TL	400kV	2	21	Twin HTLS	Double	RAJASTHAN to RAJASTHAN

S.No	CASE ID	Applicatio n Month	Plant Name	Capacity to be charged	Voltage Level	Total Installed Capacity of Plant	Type of RE	Feeder No	Solar KCR/Block No	IDT No	IDT Make	IDT MVA Rating	IDT Voltage Rating(V/LV)	Inverter Type	Inverter Make	Total No of Inverters	Inverter AC Rating	Agency/ Owner
1	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.45		27	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
2	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.48		28	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
3	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.51		30	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
4	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.53		31	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
5	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.8		13	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
6	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.9		15	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
7	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.7		12	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
8	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.29		17	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
9	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.28		16	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
10	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.49		26	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
11	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.50		29	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
12	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.6		11	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
13	1119698	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		14	120	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
14	1119698	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		11	111	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
15	1119698	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		14	118	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
16	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.26		8	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
17	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.5		9	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
18	1119698	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		10	108	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
19	1119698	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		10	106	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
20	1119698	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		4	100	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
21	1119698	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		10	107	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
22	1119700	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		4	102	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
23	1119700	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		14	119	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
24	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.52		32	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
25	1119700	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		3	103	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
26	1119700	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		4	101	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
27	1119700	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		11	110	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
28	1119700	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		3	104	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
29	1119700	Nov- 2025	SVN Green Energy Ltd	50.28MW	33kV	1000MW	Solar		11	109	Danish	8.33MVA	33kV/0.66kV	Central Inverter	Sungrow	2	4.4MVA	SIVNGEL BBN2
30	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.4		10	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL
31	1119574	Aug- 2025	ABC RENEWABLE ENERGY (RUD) PRIVATE LIMITED(ARERJ02PL)	400 MW	33kV	400 MW	Solar	F.44		21	Danish	13.2 MVA	33 kV/0.660 kV	Central Inverter	Sungrow	4	3.3 MVA	ABERJ02PL

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level (HV/LV/Tertiary)	MVA Capacity	Type of Transformer	Make	Configuration
1	1119603	Sep - 2025	400/220/33kV, 500 MVA, 3-Phase, CGPISL, ICT - 1 at METRO DEPOT_GIS(TPIJKPTL)	TPJKPTL_UP	400/220/33kV	500	ICT	CGPISL	3-Phase
2	1119603	Sep - 2025	400/220/33kV, 500 MVA, 3-Phase, CGPISL, ICT - 2 at METRO DEPOT_GIS(TPIJKPTL)	TPJKPTL_UP	400/220/33kV	500	ICT	CGPISL	3-Phase
3	1119637	Sep - 2025	220/33kV, 150 MVA, 3-Phase, Meiden, Power Transformer - 1 at ARERJ02PL_SL_Ftg3	ARERJ02PL	220/33/na	150	Power Transformer	Meiden	3-Phase
4	1119637	Sep - 2025	220/33kV, 150 MVA, 3-Phase, Meiden, Power Transformer - 2 at ARERJ02PL_SL_Ftg3	ARERJ02PL	220/33/na	150	Power Transformer	Meiden	3-Phase
5	1119637	Sep - 2025	220/33kV, 150 MVA, 3-Phase, Meiden, Power Transformer - 3 at ARERJ02PL_SL_Ftg3	ARERJ02PL	220/33/na	150	Power Transformer	Meiden	3-Phase
6	1119672	Nov - 2025	400/220/33kV, 500 MVA, 3-Phase, KANO HAR, ICT - 1 at Unnao(UP)	UPPTCL	400/220/33kV	500	ICT	KANO HAR	3-Phase
7	1119627	Sep - 2025	400/220/33kV, 500 MVA, 3-Phase, CG POWER AND INDUSTRIAL SOLUTIONS LTD, ICT - 1 at Fatehgarh_IV(F4TL)	F4TL	400/220/33kV	500	ICT	CG POWER AND INDUSTRIAL SOLUTIONS LTD	3-Phase
8	1119627	Sep - 2025	400/220/33kV, 500 MVA, 3-Phase, CG POWER AND INDUSTRIAL SOLUTIONS LTD, ICT - 2 at Fatehgarh_IV(F4TL)	F4TL	400/220/33kV	500	ICT	CG POWER AND INDUSTRIAL SOLUTIONS LTD	3-Phase
9	1119628	Sep - 2025	400/220/33kV, 500 MVA, 3-Phase, CG POWER AND INDUSTRIAL SOLUTIONS LTD, ICT - 3 at Fatehgarh_IV(F4TL)	F4TL	400/220/33kV	500	ICT	CG POWER AND INDUSTRIAL SOLUTIONS LTD	3-Phase

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level (in kV)	Circuit No	Line Length	Conductor Type	Tower Configuration	State
1	1119635	Sep - 2025	220kV Drass(PG)-Alusteng(PG)-1	POWERGRID	220kV	1	11.767	Dummy	Single	JAMMU & KASHMIR to JAMMU & KASHMIR
2	1119705	Nov - 2025	400kV Bawana(DV)-Mandola(PG)-1	DTL	400kV	1	23.8	Quad Bersimis	Double	DELHI to DELHI
3	1119705	Nov - 2025	400kV Bawana(DV)-Mandola(PG)-2	DTL	400kV	2	23.8	Quad Bersimis	Double	DELHI to DELHI

S.No	CASE ID	Application Month	Name of element	Owner	Voltage Level (in kV)	Type of Capacitor	Capacitor Bank No	Sub Capacitor Bank MVAR Rating	Capacitor MVAR Rating
1	1119594	Sep - 2025	33kV, Filter Bank, 3 MVA MVAR(1MVAR per Phase with Quality factor of 3 and Tuned Frequency 345Hz) Capacitor bank no-1 at Energizent_PPL_FTG3	Energizent_PPL	33kV	Filter Bank		1MVAR per Phase with Quality factor of 3 and Tuned Frequency 345Hz	3 MVA
2	1119656	Oct - 2025	33kV, 18 MVAR sets of Capacitors, 6MVAR MVAR(4.5 MVAR and 1.5 MVAR Units (4.5 MVAR for arresting 5th Harmonics and 1.5 MVAR for arresting 11th Harmonics)) Capacitor bank no-3 (Bay No 319 of PSS 2) at RSDCL(PSS2)_SL_BHD2_PG	Nokh_SPP_NL	33kV	18 MVAR sets of Capacitors	3 (Bay No 319 of PSS 2)	4.5 MVAR and 1.5 MVAR Units (4.5 MVAR for arresting 5th Harmonics and 1.5 MVAR for arresting 11th Harmonics)	6MVAR
3	1119656	Oct - 2025	33kV, 18 MVAR sets of Capacitors, 6MVAR MVAR(4.5 MVAR and 1.5 MVAR Units (4.5 MVAR for arresting 5th Harmonics and 1.5 MVAR for arresting 11th Harmonics)) Capacitor bank no-2(Bay No 312 of PSS 2) at RSDCL(PSS2)_SL_BHD2_PG	Nokh_SPP_NL	33kV	18 MVAR sets of Capacitors	2(Bay No 312 of PSS 2)	4.5 MVAR and 1.5 MVAR Units (4.5 MVAR for arresting 5th Harmonics and 1.5 MVAR for arresting 11th Harmonics)	6MVAR
4	1119656	Oct - 2025	33kV, 18 MVAR sets of capacitors, 6MVAR MVAR(4.5 MVAR and 1.5 MVAR Units (4.5 MVAR for arresting 5th Harmonics and 1.5 MVAR for arresting 11th Harmonics)) Capacitor bank no-1(Bay No 301 of PSS 2) at RSDCL(PSS2)_SL_BHD2_PG	Nokh_SPP_NL	33kV	18 MVAR sets of capacitors	1(Bay No 301 of PSS 2)	4.5 MVAR and 1.5 MVAR Units (4.5 MVAR for arresting 5th Harmonics and 1.5 MVAR for arresting 11th Harmonics)	6MVAR
5	1119469	Apr - 2025	33kV, High Pass Harmonic Filter , 4.060 MVAR(4.060) Capacitor bank no-1 at KHIDRAT_REPL_SL_BKN2	KHIDRAT_REPL	33kV	High Pass Harmonic Filter	1	4.06	4.06
6	1119654	Oct - 2025	33kV, Filter Bank, 7 MVAR(7 MVAR, 5th order High pass filter with Quality factor of 2 and Cutoff Frequency 240 Hz) Capacitor bank no-3 (Feeder no - 57) at ARERJ02PL_SL_Ftg3	ARERJ02PL	33kV	Filter Bank	3 (Feeder no - 57)	7 MVAR, 5th order High pass filter with Quality factor of 2 and Cutoff Frequency 240 Hz	7
7	1119654	Oct - 2025	33kV, Filter Bank, 7 MVAR(7 MVAR, 5th order High pass filter with Quality factor of 2 and Cutoff Frequency 240 Hz) Capacitor bank no-2 (Feeder no -23) at ARERJ02PL_SL_Ftg3	ARERJ02PL	33kV	Filter Bank	2 (Feeder no -23)	7 MVAR, 5th order High pass filter with Quality factor of 2 and Cutoff Frequency 240 Hz	7
8	1119654	Oct - 2025	33kV, Filter Bank, 7 MVAR(7 MVAR, 5th order High pass filter with Quality factor of 2 and Cutoff Frequency 240 Hz) Capacitor bank no-1 (Feeder no -01) at ARERJ02PL_SL_Ftg3	ARERJ02PL	33kV	Filter Bank	1 (Feeder no -01)	7 MVAR, 5th order High pass filter with Quality factor of 2 and Cutoff Frequency 240 Hz	7