E-mail/Website

भारतसरकार
केंद्रीय विद्युत प्राधिकरण
दक्षिण क्षेत्रीय विद्युत समिति
29, रेस कोर्स क्रास रोड
बेंगलुरु-560 009

Government of India
Central Electricity Authority
Southern Regional Power Committee
29, Race Course Cross Road
Bengaluru - 560 009

Web site: www.srpc.kar.nic.in Email: seprotnsrpc-ka@nic.in Phone: 080-22287205

सं/No.SRPC/SE (PC&SS)/142PCSC/2026/ 2123-69 **दिनांक /Date 22nd May 2026**

To,
संलग्न सूची के अनुसार
As per attached List

विषय: संरक्षण समन्वय उप-समिति (PCSC-142) की 142वीं बैठक का कार्यवृत्त, जो 6 मई, 2026 को आयोजित हुई थी।

Sub: Minutes of the 142nd Meeting of Protection Coordination Sub-Committee (PCSC-142) held on 06th May, 2026.

महोदय/महोदया/ Sir/ Madam,

यह सूचित किया जाता है कि 6 मई, 2026 को आयोजित पीसीएससी की 142वीं बैठक का कार्यवृत्त एसआरपीसी वेबसाइट (http://www.srpc.kar.nic.in) पर अपलोड कर दिया गया है। सभी घटकों से अनुरोध है कि वे पीसीएससी-142 की सिफारिशों के संबंध में अपने-अपने क्षेत्रों में लागू उचित कार्रवाई करें।

It is informed that **Minutes of the 142nd Meeting of PCSC** held on **06th May, 2026** have been uploaded on the SRPC Website (http://www.srpc.kar.nic.in). All Constituents are requested to kindly take suitable action w.r.t. **PCSC-142** recommendations as applicable to them.

भवदीय/Yours faithfully,

धन्यवाद / Thanking You,

(लन. जे. बी / Len. J. B)
अधीक्षक अभियंता (पीसी&एसएस)/ Superintending Engineer (PC&SS)

डाक-सूची/ Mailing List

1. मुख्यअभियंता (एचपीसीवजलपरियोजना) एपीजेनको, 4 वी मंजिल, गुणदल, विजयवाडाआंप्र 520004/ Chief Engineer (Generation), APGENCO, 4th Floor, Vidyut Soudha, Eluru Road, Gunadala, Vijayawada, AP – 520004
2. मुख्यअभियंता (परियोजना), एपीजेनको, 4वीमंजिल, गुणदल, विजयवाडाआंप्र 520004 / Chief Engineer (Projects), APGENCO, 4th Floor, Vidyut Soudha, Eluru Road, Gunadala, Vijayawada, AP – 520004
3. मुख्यअभियंता(आईपीसीवविद्युतप्रणाली), एपीट्रान्स्को, 3रीमंजिल, गुणदल, विजयवाडाआंप्र 520004 / Chief Engineer (IPC & Power Systems), APTRANSCO, 3rd Floor, Vidyut Soudha, Eluru Road, Gunadala, Vijayawada,AP-520 004
4. श्री के लिंगमूर्ती, महा प्रबंधक (QC & Planning), एपीसीपीडीसीएल, विजयवाडा / Sh. K Linga Murthy, General Manager (QC & Planning), APCPDCL, Vijayawada
5. मुख्यअभियंता (इले. डिज़ाईन), केपीसीएल, बेंगलूर/ Chief Engineer (Ele. Designs), KPCL, Bangalore
6. मुख्य अभियंता (आरटी और आर &डी), केपीटीसीएल, बेंगलूर/ Chief Engineer (RT and R&D), KPTCL, Bangalore
7. मुख्यअभियंता (एम.टी.एस), टैनजोडको पैन्नै/ Chief Engineer (MTS), TANGEDCO, Chennai (Fax No: 044-28585804)
8. मुख्य अभियंता (जलविद्युत) टैनजोडको चैन्नै/ Chief Engineer (Hydro), TANGEDCO, Chennai (Fax No: 044-28553356)
9. मुख्यअभियंता (संरक्षणएवंसंचार), टीएनईबी, चेन्नै/ Chief Engineer (Protection & Communication), TANTRANSCO, Chennai
10. मुख्यअभियंता (पारेषण) प्रणालीप्रचालन, एचएमटीकालोनी, केएसईबी, कलमस्सेरी-683503/ Chief Engineer (Transmission) System Operation, HMT Colony, KSEB, Kalamassery-683503
11. मुख्य अभियंता (उत्पादन), टीएसजेनको, हैदराबाद/ Chief Engineer (Generation), TGGENCO Hyderabad
12. मुख्य अभियंता (परियोजना), टीएसजेनको, हैदराबाद / Chief Engineer (Projects), TGGENCO Hyderabad
13. मुख्य अभियंता (विद्युतप्रणाली), टीएसट्रान्स्को, हैदराबाद / Chief Engineer (Power System), TGTRANSCO, Hyderabad
14. श्री पी आनंद, मुख्य महा प्रबंधक, आर आर जोन, टीएसएसपीडीसीएल, हैदराबाद / Shri. P. Anand, Chief General Manager, RR Zone, TGSPDCL, Hyderabad.
15. अधीक्षक अभियंता-1, विद्युतविभाग 137, एनएससीबोससाले, पुदुचेरी- 605001 / Superintending Engineer 1, Electricity Department, 137, NSC Bose Salai, Puducherry-605001
16. महाप्रबंधक (ओएस), एनटीपीसी, दक्षिणक्षेत्रीयमुख्यालय, सिकंदराबाद / General Manager (OS), NTPC SRHQ, Secunderabad
17. मुख्यमहाप्रबंधक टीपीएस- विस्तार, एनएलसीआईएल जैवेली / 607807 - Chief General Manager, TPS 1 Expn. NLCIL, Neyveli-607807 (Fax No: 04142-265303)
18. मुख्यअभियंता (पारेषण) एनपीसीआईएल, मुंबई Chief Engineer (Transmission), NPCIL, Mumbai.
19. केंद्रनिदेशक, केजीएस, कैगा, कर्नाटक/ Station Director, KGS, Kaiga, Karnataka
20. केंद्रनिदेशक, एमएपीएस, कल्पक्कम / Station Director, MAPS, Kalpakkam
21. केंद्रनिदेशक, केकेएनपीपी, तिरुनल्वेली जिला, तमिलनाडु - 627106/ Station Director, KKNPP, Tirunelveli Dist,TamilNadu-627106
22. श्रीअनिलकुमार, एजीएम (ईएमडी), एनटीईसीएल, चेन्नै- 103/ Sh. Anil Kumar, AGM (EM), NTECL, Vallur, Tamil Nadu.
23. श्रीएमप्रभाकर, महाप्रबंधक (प्रवअ), एनटीपीएल, हार्बरएस्टेट, तूतुकुडी 628004 / Sh. M. Prabhakar, GM (O&M), NTPL, Harbour Estate, Tuticorin – 628004
24. जीएम (प्रचावअनु) दक्षे, पावरग्रिड सिकंदराबाद / GM (O&M), SR-I, PGCIL, Secunderabad
25. जीएम (प्रचावअनु) दक्षे-II, पावरग्रिड, बेंगलूर GM (O&M), SR-II, PGCIL, Bengaluru
26. Sh.Sourov Chakraborty, Sr. GM, CTU, Plot No. 2, Sector-29, Gurugram, Haryana-122 001.
27. श्री चंद्रशेखर रेड्डी, डीजीएम, इलेक्ट्रिकल मेंटेनेंस, मेसर्स जेएसडब्ल्यू एनर्जी लिमिटेड, तोरणगल्लु, बल्लारी- 583275/ Sh. Chandrashekar Reddy, DGM, Electrical Maintenance, M/s JSW Energy Ltd, Toranagallu, Bellary-583275
28. श्री आशीष वाविस्कर, सह महाप्रबंधकयूपीसीएल, बेंगलूर Sh. Ashish Baviskar, Associate General Manager, UPCL, Bangalore

29. प्रधानविदयुतएवंसीआईअनुरक्षण, एसईआईएल, प्यानपुरम / नेलत्तूरुग्राम, मुतुकूरमंडल, एसपीएस आरनेल्लूर- 524344/ Head Electrical and C&I Maintenance, SEIL, Pyanampuram / Nelaturu Village Muthukur Mandal, SPSR Nellore 524344
30. श्री. के बालमुरुगन, रखरखाव प्रमुख, आईएलवएफएस, टीपीसीएल, सीपदुपेटैडाक, परनगीपेट्टे, भुवनगिरिताल्लूक, कुडलूरजिला, तमिलनाडु 608502/ Sh. K Balamurugan, Maintenance Head, IL&FS Tamilnadu Power Company Ltd., C.Pudhupettai (post), Parnagipettai, BhuvanagiriTaluk, Cuddalore Dist, Tamilnadu- 608502
31. श्री सी रामकृष्ण, एजीएम (ऑपरेशन), हिंदुजाएनपीसीएल, पेटगंट्यडमंडल, विशाखपट्नम, आप 530031 / Sh. C Ramakrishna, AGM (Operations), Hinduja NPCL, Pedagantyada Mandal, Visakhapatnam, AP – 530031.
32. श्री विवेक कार्तिकेयन सहायक महाप्रबंधक, महेश्वरम ट्रांसमिशन लिमिटेड (एमटीएल), 101, विंडसर, सीएसटी रोड, सांताक्रूज़ ईस्ट, मुंबई400098/ Sh. Vivek Karthikeyan Assistant General Manager, Maheshwaram Transmission Limited (MTL), 101, Windsor, CST Road, Santacruz East, Mumbai 400098
33. निदेशक (जीएम), केविप्रा, नईदिल्ली / Director (GM Division), CEA, New Delhi
34. निदेशक (एनपीसीप्रभाग), केविप्रा, नईदिल्ली / Director (NPC Division), CEA, New Delhi
35. कार्यकारीनिदेशक, पोसोको, एसआरएलडीसी, बेंगलूर Executive Director, SRLDC, Grid-India, Bengaluru
36. Manager, Electrical-HOD, SEPC Power Plant, Harbour Estate, VOC Road, Thoothukudi, Tamil Nadu– 628 004
37. Technical Services Superintendent, Prototype Fast Breeder Reactor Project, BHAVINI, Kalpakkam 603 102
38. सहायक महाप्रबधक, महेश्वरम ट्रासषमशि कर्पि षलषमटेड, मबई/ Head Regulatory, Adhani Energy Solutions Ltd.,Ahmedabad
39. वररष्ठिषदेशक ,एएमपीआईएिएिजीमाकटसइषडयाप्राइवेटषलषमटेड/ Senior Director , AMPIN Energy Markets India Pvt. Ltd.
40. मुख्य महाप्रबन्धक, संचालन एवं अनुरक्षण, ए.पी.एस.पी.डी.सी.एल., तिरुपति / Chief General Manager, O&M, APSPDCL, Tirupati
41. निदेशक) तकनीकी(, टी.एन.जी.ई.बी.एल., चेन्नई / Director (Technical), TNGECL, Chennai
42. श्री केराजू चौल्हान ., मुख्य अभियंता -संचालन)II), टीजीएनपीडीसीएल /Sri K. Raju Chowhan, Chief Engineer (Operation-II), TGPNDCL
43. श्री एल. पांड्या, मुख्य अभियंता / आरआर ज़ोन / टीजीएसपीडीसीएल, मीसेवा बिल्डिंग, मंजीरा मॉल के पीछे, केपीएचबी कॉलोनी, फेज-II, हैदराबाद – 500072 / Sri. L. Pandya, CE/RR Zone/TGSPDCL, MeeSeva Building, Backside of Manjeera Mall, KPHB Colony, Phase-II, Hyderabad – 500072
44. श्री रवीन्द्र वल्लूरु, मुख्य महाप्रबंधक, ग्रीनको ग्रुप, हाईटेक सिटी लेआउट, माधापुर, हैदराबाद - 500081, तेलंगाना / Raveendra Valluru, Chief General Manager, Greenko Group, Hitech City Layout, Madhapur, Hyderabad – 500081, Telangana.
45. श्री रविन्द्र नारायण टी., मुख्य महाप्रबंधक, ग्रीनको ग्रुप, हाईटेक सिटी लेआउट, माधापुर, हैदराबाद – 500081, तेलंगाना / Ravindra Narayana T., Chief General Manager, Greenko Group, Hitech City Layout, Madhapur, Hyderabad – 500081, Telangana.
46. महाप्रबंधक (स्टेट लीड-एसेट मैनेजमेंट), रिन्यू पावर प्राइवेट लिमिटेड, गुरुग्राम / GM (State Lead–Asset Management), Renew Power Private Limited, Gurugram (manjunatha.h@renew.com, padmanava.swain@renew.com)
47. मेसर्स सुजलॉन एनर्जी लिमिटेड, नई दिल्ली / M/s Suzlon Energy Limited, New Delhi

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INDEX

SOUTHERN REGIONAL POWER COMMITTEE
BENGALURU

Minutes of the 142nd Meeting of Protection Coordination Sub- Committee of SRPC held on 06 .05.2026 through VC.

1. Introduction

The 142st Meeting of the Protection Coordination Sub-Committee of SRPC was held on 06th May 2026 through VC. List of participants is at **Annexure-LoP.**

Shri Asit Singh, Member Secretary (MS), SRPC welcomed all the participants to the 142nd Protection Coordination Sub-Committee (PCSC) Meeting and shared updates on recent activities of SRPC and key developments in the power sector

He highlighted that the power demand during the current year had been significantly high and most of the Southern Regional States had already recorded their all-time high demand. It was further stated that the demand forecast for the coming period also remained on the higher side and cooperation from all entities was sought to successfully manage the high-demand period. It was observed that with the onset of monsoon, some relief in demand may be expected.

On the protection aspects, he emphasised the need for proactive measures to ensure reliable grid operation during the ensuing monsoon period. It was noted that existing protection-related issues also need to be addressed properly, as additional protection challenges may arise during the monsoon season.

The forum was informed regarding recent developments in the HVDC sector, wherein the Government of India was stipulating minimum local content requirements for LCC-type HVDC systems under the “Make in India” initiative. It was stated that the target envisages 30% local content from the year 2028 onwards, with gradual increase every year to achieve a minimum of 60% local content.

He further informed that a Committee Report on Insulator Failures had been issued during May 2026, covering various aspects related to insulator usage, failure analysis, salient features of technical specifications, methods for improving technical specifications, quality assurance plans, grading rings, arcing horns, storage and handling procedures. The report also includes best practices and recommendations for improving insulator performance. All concerned transmission entities were requested to take note of the report and disseminate the same appropriately, as the recommendations would help improve transmission line availability and related practices.

It was further informed that the Ministry of Power had extended the timeline for compliance of Renewable Consumption Obligation (RCO) for FY 2024-25 up to 31.05.2026.

The forum was apprised that the Minutes of the 40th NCT Meeting held on 15th April 2026 were issued on 27th April 2026. Minutes of the 57th SRPC Meeting and 54th TCC Meeting held during March 2026 were issued on 20th April 2026.

Regarding developments from CERC, it was informed that Draft Regulations on Market Coupling had been issued, wherein Grid-India has been proposed to act as the Market Coupler for ensuring uniform market clearing price across power exchanges. Stakeholders were requested to furnish comments by 16.05.2026.

It was also informed that the Draft Procedure for levy of compensation charges under GNA Regulations, 2022 had been issued and the last date for submission of comments was 30th April 2026.

The forum was further informed that CEA, in association with NTPC, had organised a workshop on "SHANTI ACT 2025" on 17th April 2026 in New Delhi, focusing on achieving 100 GW of nuclear power capacity through Public-Private Partnership (PPP) models.

He further informed that a meeting chaired by Secretary (Power) regarding PTCC was held on 01st April 2026, wherein it was informed that PTCC approvals would not be mandatory for charging of new or modified elements with effect from 01st July 2026. However, CEA may issue technical guidelines, wherever required.

Another important development highlighted was regarding the introduction of Insurance Surety Bonds in place of Bank Guarantees (BGs), as permitted under GFR provisions. All entities were advised to ensure compliance with the revised provisions.

It was also informed that directions under Section 11 had been issued for certain import-based coal generating stations to inject power considering the prevailing power deficit conditions in the sector. The directions would remain valid up to 30th June 2026.

The forum was apprised that CEA had also organised a National Workshop in Mumbai on Renewable Energy Grid Integration through Energy Storage Systems, which witnessed participation from more than 200 online participants in addition to offline participation.

He further informed regarding the report on usage of green gases in GIS substations as an alternative to SF_6 gas, considering the high global warming potential associated with SF_6. It was stated that the report discusses alternative gases, manufacturers and their technical capabilities. Though the present cost of green GIS technologies remains high, it was observed that gradual transition towards environmentally sustainable green GIS substations may become necessary in future, without compromising system safety and reliability.

The forum was also informed that the Long-Term National Resource Adequacy Plan for 2026-27 up to 2035-36 had been prepared by CEA and uploaded on the CEA website. The report projects large-scale renewable energy capacity addition with only marginal increase in conventional thermal generation capacity. It was further highlighted that substantial requirement of Battery Energy Storage Systems (BESS) and Pumped Storage Plants (PSPs)

had been envisaged to support renewable energy integration targets planned up to 2030-35. All entities were requested to go through the report in detail.

MS, SRPC placed on record the valuable services and significant contributions rendered by Shri Len J B (SE, SRPC) to the power sector across various assignments and locations over his long and distinguished career. He conveyed that Shri Len J B's composed approach, balanced deliberations and leadership in the PCSC forum had been highly appreciated by all stakeholders. He also noted that the 142nd PCSC meeting may be his last PCSC meeting prior to his superannuation and wished him a happy, healthy and peaceful retired life.

Shri V Govindraj, Chief General Manager, SRLDC extended a warm welcome to all the participants to the 142nd Protection Coordination Sub-Committee (PCSC) Meeting.

At the outset, he expressed appreciation to all the constituents for their support and coordination during the all-India peak demand achieved on 25th April 2026. It was informed that the all-India demand had reached around 256.117 GW at 15:30 hrs on the said day and the system was successfully managed without any major constraints or operational issues. He thanked all constituents, generators and stakeholders for their coordinated efforts and support in maintaining secure grid operation during the peak demand period.

He further highlighted the serious concern regarding the severe weather conditions experienced recently. It was observed that, for the first time, multiple trippings of 400 kV transmission lines had occurred during inclement weather and rainfall conditions. In view of the approaching monsoon season, all utilities were requested to take necessary preventive measures and complete preparedness activities well in advance. It was stated that many of the issues were related to ingress, PRV and associated problems and all concerned entities were advised to take appropriate precautions to avoid recurrence of such incidents.

Another major concern highlighted was regarding repeated tripping of breakers at JSW due to Ground Potential Rise (GPR). It was informed that multiple such incidents had occurred during April and May 2026. A letter had already been issued on the matter and it was proposed to take up the issue separately for detailed deliberations during the meeting.

Further, considering the prevailing global political situation, he highlighted that cyber security concerns were continuously increasing and were being monitored on a daily basis. All transmission licensees, stakeholders and participants were requested to whitelist their IP addresses and strengthen cyber security practices to ensure secure and reliable system operation.

It was also emphasised that all protection systems and associated defensive cyber security mechanisms should be regularly checked to ensure their healthiness and proper functioning.

CGM, SRLDC appreciated Shri Len J B for his kind, polite and approachable nature, constructive handling of discussions and his valuable role in strengthening protection coordination and implementation of important defence mechanisms in the Southern Region

All SR Constituents expressed their heartfelt appreciation for the immense contributions of Shri Len J.B. to the PCSC forum and the power sector. The members fondly acknowledged his calm and composed demeanour, balanced moderation, openness to discussions, approachable nature, and ability to guide deliberations towards amicable and practical solutions. The forum also appreciated his supportive leadership, professional conduct and valuable guidance extended to all constituents during his tenure. All the participants conveyed their best wishes to Shri Len J B for a happy, healthy, peaceful and fulfilling retired life and placed on record that his presence and contributions to the forum would be greatly missed.

Shri Len. J. B, Superintending Engineer (P, C&SS), SRPC extended a warm welcome to all the participants to the 142nd Protection Coordination Sub-Committee (PCSC) Meeting.

At the outset, he expressed his sincere gratitude to all the participants and utilities for the kind cooperation and valuable support extended over the years. It was noted that with the cooperation, participation and collective efforts of all utilities and stakeholders, several important activities and initiatives could be successfully taken forward in a positive direction. He appreciated the valuable discussions, exchange of information and coordinated efforts of all entities and expressed confidence that continued coordination among the constituents would further improve the quality, reliability and security of the power system and grid operation.

He further informed the forum that the over-voltage grading exercise had been finalised and shared with all the entities concerned. Utilities were requested to update the implementation status, as it was expected that the implementation activities had already been carried out by the respective entities.

It was also informed that the committee constituted for recommending suitable methods for pre-islanding load reduction had completed its final meeting on the previous day and the report would be issued shortly.

While drawing attention to the agenda items, he highlighted that during the ongoing peak demand period, the number of grid disturbances and occurrences had increased considerably. A major concern highlighted was the substantial loss of generation during the peak season, which could seriously impact grid reliability and secure system operation. It was observed that auto-reclosure-related issues were among the primary contributing factors for such disturbances. In view of the above, all utilities were requested to exercise greater care, vigilance and preparedness during the continuing peak demand period to ensure reliable and secure grid operation

- ✓ **Subsequently, the agenda items were taken up for deliberations**

2. Confirmation of Minutes of last PCSC meeting

Minutes of 141st Protection Coordination Sub-Committee meeting held on 06th April 2026 was issued vide letter No: SRPC/SE (P, C & SS)/141 PCSC/2026/ 1798-1840 dated 28th April 2026.

Minutes of the 142nd Meeting of Protection Coordination Sub-Committee were confirmed.

3. Grid Occurrences

Grid Occurrences which took place during the period **March 2026 – April 2026,** given at **Annexure-3a**, would be discussed in the meeting.

I. The Grid Disturbances (GDs) [Draft Analysis Reports furnished by SRLDC are at Annexure-3b]:

Name of the Utility who would present the GD in all its details	SN of the GD as per Annexure-3a
ZENATARIS_PSS	I.1, I.5
TATA POWER	I.2, I.7
KPCL / KPTCL	I.3
Renew_Surya_Koppal / Indigrid	I.4, I.9
RSRPL_Renew	I.6, I.10
SAEL	I.8
TANTRANSCO	I.11
APTRANSCO	I.12
TGGENCO	I.13
KSEB	I.14
JSW	I.15

II. The Grid Incidences (GIs) [Draft Analysis Reports furnished by SRLDC are at Annexure-3b]:

Name of the Utility who would present the GI in all its details	SN of the GD as per Annexure-3a
TNPGCL	II.1
KPTCL	II.2, II.4
KSEB	II.3
TANTRANSCO	II.5
TGTRANSCO	II.6

III. Single/ Multiple Element tripping:

Name of the Utility who would present the Single/ Multiple Events in all its details	SN of the Single /Multiple tripping as per Annexure-3a
TGTRANSCO	III.1, III.2, III.13
JSW_THERMAL	III.3, III.12
TANTRANSCO	III.4, III.10, III.15, III.18, III.19
APGENCO	III.5, III.6

PGCIL SR-1	III.7, III.9
APTRANSCO / TGTRANSCO	III.8
KPTCL	III.11, III.17
TGGENCO	III.14
APTRANSCO	III.16

a) All the Utilities, as listed above, to give a presentation (for not more than 10 minutes per GD; for not more than 5 minutes per GI and Single/ Multiple Trippings) for the Events mentioned against them.

b) The presentation shall cover all pertinent aspects such as Antecedent conditions, Bus-configuration, Reasons of GD/ GI occurrence, Relevant Diagrams showing location of the fault, Bus bar arrangement/configuration of feeders and other connected equipment with proper CB positions (OPEN/ CLOSE) at the time of occurrence of the fault, Type of protections operated, Substantiation of the protections operated by relevant DRs & ELs, Reasons for protection systems mal-operation/non-operation, Remedial measures taken/ proposed, etc.

c) Constituents shall furnish the following details to SRPC by ***02.05.2026*** (in **WORD** format) in respect of all the above grid occurrences (GD, GI) to have fruitful discussions:

(i) Detailed analysis of the events

(ii) SLD or equivalent pictorial representation clearly showing:

a. Location of fault with distance
b. Fault details with type &relay indications
c. CT/PT/CVT rating details with location
d. Bus-bar arrangement/ Configuration of feeders
e. CB positions (OPEN/ CLOSE) at the time of fault
f. Isolator & Earth-switch positions (OPEN/CLOSE)
g. Voltage, frequency & power flows with direction at the time of fault

(iii) Output of Event logger & Disturbance recorder

(iv) Remedial Action(s) taken

(v) Relay setting details

IV. W.r.t. Failure or Non-operation of A/R events included at Item No. IV of Annexure-3a, PLCC mal-operation events included at Item No. V of Annexure-3a and DR Time Synchronization Issues related Events included at Item No. VI of Annexure-3a, the concerned Utilities, as listed below, shall furnish the reasons for the same, along with remedial action taken, to SRPC latest by *02.05.2026* so that the same may be closed. Else, the same shall be presented by respective Utilities in the meeting:

A/R related Events:

Name of the Utility who would present the A/R Event in all its details, if not furnished beforehand	SN as per Annexure-3a
APTRANSCO / PGCIL SR-1	IV.1
PGCIL SR-2	IV.2, IV.3
TGTRANSCO	IV.4, IV.6
APSPCL	IV.5, IV.7
KPTCL	IV.8

PLCC related Events:

Name of the Utility who would present the A/R Event in all its details, if not furnished beforehand	SN as per Annexure-3a
NIL	

DR Time Synchronization Issues related Events:

Name of the Utility who would present the DR Time synchronization Event in all its details, if not furnished beforehand	SN as per Annexure-3a
TATA POWER	VI.1, VI.8, VI.9
KPCL	VI.2, VI.3, VI.4, VI.19, VI.21, VI.29, VI.33, VI.34
TANTRANSCO	VI.5, VI.6, VI.12, VI.13, VI.26, VI.41, VI.44
HIRIYUR_ZREPL	VI.7
KPTCL	VI.10, VI.20, VI.27, VI.30, VI.48
APGENCO	VI.11, VI.14, VI.31, VI.42, VI.43
PGCIL SR-1	VI.15, VI.45, VI.46
APTRANSCO	VI.16, VI.28
SAEL	VI.17
PGCIL SR-2	VI.18
TGTRANSCO	VI.22, VI.23, VI.24, VI.25, VI.47
APSPCL	VI.32
KSEB	VI.35, VI.36, VI.37, VI.38, VI.39
TGGENCO	VI.40
NPCIL_KAIGA	VI.49

V. *SRLDC to furnish the PMU plots for all the above Grid Occurrences (GDs, GIs, Single/Multiple Element Trippings, A/R, PLCC Events) with delayed fault clearance to SRPC Secretariat by 02.05.2026.*

Deliberations:

1. Grid Disturbances (GDs) and Grid Incidents (GIs) occurred during March 2026 – April 2026 were discussed and analysed in detail by the PCSC forum. Respective

utilities presented the tripping details and analysis of the events. The final detailed report and recommendations of the above GDs & GIs is at **Annexure-3c**.

2. Single/ Multiple element trippings, Auto Recloser events, PLCC events and DR time synchronization issues were also deliberated/ analysed in the meeting. Respective utilities presented the tripping details and analysis of the events. The detailed analysis/report and recommendations of the above events is at **Annexure– 3d.**
3. All concerned were requested to take note of the analysis of the grid occurrences and recommendations of the PCSC forum and ensure needful action.
4. The forum resolved that the recommendations finalized by the PCSC (P-Rec) in the meetings shall be complied by the respective entities in time bound manner. The compliance/action plan with timelines shall be updated in the P-Rec module of PMS portal. The status of these recommendations would be reviewed in the ensuing PCSC meetings.
5. SRPC requested the entities concerned to furnish the draft report of the tripping/ event without fail. SRLDC to take up with the entities through e-mail, if the draft report is not received. Copy of the same to be marked to SRPC.
6. It was noted that SRLDC shall make changes, if any, or modify draft analysis report of the respective event based on the detailed report furnished by the user(s) and furnish the same to SRPC for incorporating in the final analysis report of Grid Occurrences, to issue along with the Minutes of the PCSC meetings.

4. Status of Implementation of Pending Recommendations of PCSC

a) The status of implementation of PCSC recommendations (**up to 141st PCSC meeting**), have been updated in P-REC Module in PMS suite. List of pending recommendations is at **Annexure-4a**.

b) The latest status on the same may please be sent by ***02.05.2026,*** to place the same before the sub-committee.

c) PCSC had earlier decided to review the status of implementation of the recommendations on the Grid occurrences that were finalized in the previous three PCSC meeting. Hence the recommendations finalized in the 139th to 141st PCSC meeting would be deliberated in the meeting. Details are at **Annexure -4b**.

Deliberations:

Forum noted that many entities were not furnishing the updates through P-REC Module. All entities were requested to furnish the status of PCSC recommendations through P-REC module in PMS suite. SRPC stressed the need to update the status of all recommendations in the Module. It was also informed that if any entity faces difficulties/issues in uploading the status in the module, the same should be intimated in order to take up the matter with M/s PRDC for appropriate resolution.

Recommendation:

- ***All the entities to implement the pending PCSC Recommendations at the earliest and furnish the compliance/ status of implementation & action plan/ timelines for implementation of the recommendations through "P-REC Module" in PMS.***

5. Outage Planning of Protection systems/relays

1. In the 114th PCSC Meeting held on 05.01.2024, the following were noted: The Regulation *32(2)(d)* of CERC (Indian Electricity Grid Code) Regulations 2023, regarding protection systems related outages, stipulates as below:

Quote

"Protection relay related outages, auto reclosure outages and SPS testing outages shall be planned on a monthly basis with the prior permission of the concerned RPC, which shall consult the concerned RLDC & NLDC"

Unquote

2. To comply with the above, it was decided that all entities shall furnish the planned/ annual relay & protection system outage proposals in advance to the forum for approval of the same.

3. The entities are requested to furnish the details in the following format for the scheduled/planned protection systems related outages during the period from 10.05.2026 to 09.06.2026 for approval of PCSC:

S. No	Name of Requesting Agency	Element Name	Voltage level	Relay details	Owner	Reason for the Outage	Outage proposed from	Outage proposed to	Remarks

4. KSEBL, vide mail dated 20.04.2026, informed that bus bar protection of 220 kV New Pallom switching station will be in disabled condition from 10:40 hrs to 16:00 hrs on 20.04.2026 in connection with relay testing.

5. APTRANSCO, vide mail dated 03.05.2026, communicated regarding emergency outage of Bus bar protection at 220kV Parawada SS

Deliberations:

1. SRPC enquired regarding the reason for the emergency outage proposal by KSEBL. KSEBL informed that during the grid disturbance at New Pallom Substation, mal-operation of the busbar protection system was observed and hence emergency outage had been availed to carry out rectification works.
2. APTRANSCO informed that the 220 kV busbar protection system at Parawada substation became faulty. It was further informed that the settings had been implemented as per the issued SOP for busbar protection outage and purchase order had already been placed for procurement of a new busbar protection system.

Recommendation:

- ***All entities to furnish the planned/ annual relay & protection system outage proposals, in the above format, in advance to the forum for approval of the same.***

6. Proposals of Protection Relay Settings

a) As per the Protection Protocol of Southern Region prepared in compliance with the IEGC Regulations 2023, for voltage levels 400kV & above and interstate lines, entities shall submit the protection settings in advance to SRPC/SRLDC for every new element to be commissioned. The Protection Co-ordination Sub-Committee (PCSC) of SRPC shall review the settings to ensure that they are properly coordinated with adjacent system and comply with the existing guidelines. Also, any change in the existing protection settings of the elements, for voltage levels 400kV and above & interstate lines, shall be carried out only after prior approval from the SRPC.

b) As decided in the 112th PCSC Meeting held on 06.11.2023, a Protection Setting Sub-Group (PSSG) was constituted with the members from APTRANSCO, KPTCL, KSEBL, TANTRANSCO, TGTRANSCO, PGCIL SR-I & SR-II, NTPC, SRLDC & SRPC Secretariat. PSSG shall analyse/review the proposed protection settings for new power system elements & revision of settings for existing elements proposed by the entities and shall suggest/recommend the finalized settings to the respective entity. The recommended settings shall be put up to PCSC, in monthly PCSC meetings, for ratification.

c) Following proposals have been received by the PSSG. Proposed relay settings have been circulated among PSSG members through e-mail. The same were reviewed/assessed by PSSG and recommended the protection settings with following observations/suggestions:

S No.	Proposal	Proposed Entity	PSSG Meeting / Group deliberation	Observations/Views Received
1	Approval for commissioning of New substation Gadag SS at Kudgi SS	PGCIL SR-2	26.03.2026	***PSSG in the meeting held on 26.03.2026 analysed the proposed settings furnished by PGCIL SR-II and concluded that the settings may be implemented in compliance with the SR Protection Protocol with following recommendations:*** **Observations on PGCIL SR-II-GADAG 400/230kV SS** ***PSSG had recommended the following:*** **1. 220 kV BUS BAR GADAG SS** ***PSSG had concluded that settings may implement in compliance with the SR Protection Protocol***

				2. <u>315MVA ICT-1 Gadag SS</u> ***PSSG had suggested:*** Ensure that proper Distance and overcurrent coordination studies are carried out for line zone settings and ICT backup impedance settings. Study results may be furnished to SRPC & SRLDC. **3. <u>315MVA ICT-2 Gadag SS</u>** ***PSSG had suggested:*** Ensure that proper Distance and overcurrent coordination studies are carried out for line zone settings and ICT backup impedance settings. Study results may be furnished to SRPC & SRLDC. **4. <u>400 kV BUS REACTOR-1 & 2</u>** ***PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol.*** **5. <u>400 kV GADAG-KOPPAL LINE at Gadag end:</u>** ***PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol.***
2	Approval for relay setting change at Trivandram-Kattakada KSEB Line and Arasur-Kalivelampatti TANTRANSCO Line	PGCIL SR-2	26.03.2026	***PSSG in the meeting held on 26.03.2026 analysed the proposed settings furnished by PGCIL SR-II and PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol.*** ***Observations on PGCIL - ARASUR 400/230 kV SS*** **1. <u>230 kV ARASUR-KALIVELAMPATTI LINE at Arasur end:</u>**

				PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol. ***<u>Observations on PGCIL - Trivandram-Kattakada KSEB Line</u>*** ***PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol with following recommendations and suggestions:*** **1. <u>230KV TRIVANDRAM-KATTAKADA LINE at Trivendrum end:</u>** ***PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol.***
3	TANTRANSCO-Guindy 400 kV SS setting for review and approval	TANTRANSCO	26.03.2026	***PSSG in the meeting held on 26.03.2026 has analysed the proposed settings furnished by TANTRANSCO and concluded that the settings may be implemented in compliance with the SR Protection Protocol.*** ***Observations on TANTRANSCO-GUINDY 400/230 kV SS*** **1. <u>315 MVA ICT-1 AND ICT-2</u>** ***PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol.*** **2. <u>125 MVAr BUS REACTOR GUINDY</u>** ***PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol.*** **3. <u>400 kV GUINDY BUSBAR</u>** ***PSSG concluded that the settings may be implemented in compliance with the SR Protection Protocol.***

4	TANTRANSCO-New Kalivelampatty 230 kV SS - 400 kV Arasur (PGCIL) substation Line Settings_ submitted for review and approval	TANTRANSCO	26.03.2026	***PSSG in the meeting held on 26.03.2026 has analysed the proposed settings furnished by TANTRANSCO and concluded that the settings may be implemented in compliance with the SR Protection Protocol with following recommendations:*** **<u>TANTRANSCO-KALIVELAMPATTY 230 kV SS</u>** **1. <u>230kV KALIVELAMPATTY – ARASUR LINE at Kalivelampatty End</u>** ***PSSG had recommended the following:*** 1. Revise the load encroachment settings in line with RK committee recommendations 2. Ensure that non-directional OC & EF operation is enabled during a VT fuse failure condition.
5	PSSG Request for approval of relay settings for new 400kV Kadandale SS in KPTCL	KPTCL	26.03.2026	***PSSG in the meeting held on 26.03.2026 has analysed the proposed settings furnished by KPTCL and concluded that the settings may be implemented in compliance with the SR Protection Protocol with following recommendations:*** ***Observations on Kadandale 400 kV SS*** **1. <u>400 kV BUS BAR</u>** ***PSSG had suggested:*** 1. The pickup settings and time delay for the end fault protection must be reviewed and finalized in consultation with the OEM. **2. <u>400kV BUS REACTOR</u>** ***PSSG had Recommended:*** 1. Enable 2nd and 5th harmonic blocking settings.

				2. For REF keep the Current pickup setting at 10% in consultation with OEM. **3. <u>500MVA ICT</u>** ***PSSG had recommended the following:*** 1. Over fluxing and differential protections shall be implemented in separate relays. 2. While calculating the TMS for DEF, consider Zone-3 operating time plus an additional 200 ms margin. 3. The REF protection time delay should be set to instantaneous operation. ***PSSG had suggested:*** 1. For high-set overcurrent (OC) calculations on the HV and IV sides, consider 120–130% of the through fault current with a time delay of 50 ms. **4. <u>400kV KADANDALAE-UPCL LINE at Kadandale End</u>** ***PSSG had recommended the following:*** 1. OVR grading shall be reviewed and updated accordingly as per SRPC approved OVR gradings. 2. TMS for DEF shall be calculated based on the prevailing fault levels in the substation. 3. Stub protection time delay setting shall be revised to 50 ms. 4. Load encroachment settings shall be configured in line with RK Committee recommendations: **5. <u>400kV KADANDALAE-HEBBANAHALLI LINE at Kadandale End</u>**

				PSSG had recommended the following: 1. OVR grading shall be reviewed and updated accordingly as per SRPC approved OVR gradings. 2. TMS for DEF shall be calculated based on the prevailing fault levels in the substation. 3. Stub protection time delay setting shall be revised to 50 ms. 4. Load encroachment settings shall be configured in line with RK Committee recommendations:
6	Proposed SEL-NPS Line relay settings as per 3000/1A CT - Reg	APTRANSCO	Group Chat held form 07.04.2026 to 09.04.2026	***PSSG in the Group Chat held form 07.04.2026 to 09.04.2026 has analysed the proposed settings furnished by SEL and concluded that the settings may be implemented in compliance with the SR Protection Protocol with following recommendations:*** **1. <u>400kV SEPL-NPS Lines at SEPL End (SEL-NPS Line relay settings as per 3000/1A CT)</u>** ***PSSG had recommended the following: (For both Main-1 &2)*** 1. Reactive and resistive reach, along with time settings, shall be configured in line with PGCIL philosophy (i.e. Remote end station). 2. Zone-4-time delay shall be graded with Zone-2 3. SOTF shall be enabled with a time delay following pole dead detection (typically 110 s). The current pickup shall be set at 2 p.u., limited within the Zone-2 impedance reach. 4. Overcurrent protection shall be kept disabled for 400 kV transmission lines.

				5. Auto-reclosure shall be enabled with a dead time of 1 s, reclaim time of 25 s. 6. Pole discrepancy (PD) time should be set at 2.5 s. 7. Broken conductor protection shall be configured for alarm only, with a time delay of 5 s. 8. Mutual compensation shall be enabled, ensuring accurate settings of magnitude and angle, along with proper verification of mutual coupling wiring. 9. Power Swing Blocking (PSB) shall be enabled such that Zone-1 tripping is permitted while higher zones are blocked, with a delayed unblocking time of 2 s. 10. During VT fuse failure, non-directional overcurrent and Earth Fault protection shall be enabled. 11. STUB protection to be enabled with 50ms time delay in consultation with OEM.
7	SRPC approval for commissioning of new bays at Kudgi & ICT-3 at Madurai SS	PGCIL	17.04.2026	***PSSG in the Group chat held on 17.04.2026 analysed the proposed settings furnished by PGCIL SR-II and concluded that the settings may be implemented in compliance with the SR Protection Protocol for 500 MVA, 400/220 kV ICT-3***
8	Approval for CT Ratio Change and Relay Settings – MEL–NPS 400 kV Line Bay 404 (2000A) to Bay 410 (3000A)	MEL	Group Chat held form 15.04.2026 to 20.04.2026	***PSSG in the Group Chat held form 15.04.2026 to 20.04.2026 analysed the proposed settings furnished by MEL and concluded that the settings may be implemented in compliance with the SR Protection Protocol with following recommendations:*** ***Approval for CT Ratio Change and Relay Settings – MEL–NPS 400 kV Line Bay 404 (2000A) to Bay 410 (3000A)***

				1. <u>MEL–NPS 400 kV Line at MEL End</u> ***PSSG recommended the following:*** ***<u>For M1 relay:</u>*** 1. Zone-4time delay shall be graded with Zone-2 2. SOTF shall be enabled with a time delay following pole dead detection (typically 110 s). 3. During VT Fuse fail condition Non-Directional Over current and Earth fault protection to be enabled with (2IB for Over current & 20% In for Earth fault). ***<u>For M2 relay:</u>*** 1. Zone-4 time delay shall be graded with Zone-2. 2. SOTF shall be enabled with a time delay following pole dead detection (typically 110 s). 3. Auto-reclosure shall be enabled with a dead time of 1 s, reclaim time of 25 s for M2 relay. 4. Broken conductor protection shall be enabled and configured for alarm only, with a time delay of 5 s. 5. Mutual compensation shall be disabled. 6. Load encroachment shall be enabled with appropriate load angle settings and proper load impedance calculation. 7. During VT Fuse fail condition Non Directional Over current and Earth fault protection to be enabled with (2IB for Over current & 20% In for Earth fault).
9	Approval request FTC 4013 for charging the CT-08, B phase (ICT-1 LV side) @ KAIGA 220 KV SWYD	NPCIL	Group chat held on 20.04.2026 to 22.04.2026	***PSSG in the Group chat held on 20.04.2026 to 22.04.2026 analysed the proposed settings furnished by NPCIL-KAIGA and concluded that the settings may be implemented in compliance with***

				the SR Protection Protocol for 500 MVA, 400/220 kV ICT-1 with following recommendations: ***<u>(ICT-1 LV side)</u>*** 1. The 2nd and 5th harmonic blocking settings in differential protection shall be set at 15% and 25%, respectively in consultation with OEM. 2. TMS for DEF to be calculated and set in accordance with Fault level at station. 3. Overflux Settings to be set as per Manufacturer Curve.

Note: For updation of PDMS, the following PRDC personnel may be contacted:

- Mr Varun S, varun.s@prdcinfotech.com
- Mr Bharath B, bharath.b@prdcinfotech.com

d) It was noted in the earlier meetings that several entities were not submitting the Relay settings as per the timeline mentioned in the Protection Protocol. It is reiterated that as per the SR Protection Protocol, the proposed settings shall be submitted by the entity two months in advance.

e) In 118th PCSC Meeting (08.05.2024), it was noted that validity of provisional approval is one month only. Hence the entities whose settings were provisionally approved shall get the final approval of those settings within a months' time, else it would be treated as unapproved settings. Responsibility lies with the entity, if any grid occurrence happens due to unapproved settings. Also, the provisional approval of the settings cannot be given henceforth by PSSG if the complete & relevant files/settings are not submitted for the scrutiny and deliberations of PSSG.

f) SRLDC is requested to ensure the protection settings recommended by PSSG are implemented by the entities during first time energization of the respective elements.

g) All entities are requested to furnish the relay setting parameters in excel format as per the set values in relay. On analysis, it was observed that the excel file data were not matching with the downloaded relay data. PSSG will scrutinize the parameters given in excel files only and it is the responsibility of the entity to kindly ensure the parameter to be set as per the relay data given in excel file and to consider the recommendations/ suggestions specified.

h) During first time energization (FTE) of the respective elements, SRLDC needs to verify the settings implemented by the entities and ensure that the proposed settings as per the excel sheets/computations & the recommendations of PSSG are implemented by the entities.

Deliberations:

1. SRPC informed that proposals for **Nine** relay settings had been analysed, reviewed by the PSSG and the proposals had been approved. Recommendations, including specific recommendations /suggestions were provided. Forum concurred to the above. SRPC emphasized the importance of implementing the recommended settings.
2. SRPC requested all entities to submit proposed relay settings, in the specified format, well in advance (two months before the planned commissioning date) to SRPC/PSSG. This allows sufficient time for PSSG to review the settings and provide observations or recommendations. PSSG members were also urged to submit their observations, comments and views within the given timelines to facilitate the timely analysis and recommendation of relay settings.
3. Regarding verification of the settings during FTE process, SRLDC was requested to verify the major/important settings before granting energization clearance.
4. It was noted that some vital protection settings need to be cross-verified by SRLDC with the downloaded relay settings furnished by the entities to confirm that the implemented settings are as recommended by the PSSG, which would ensure reliable and protected power system. SRLDC agreed to check the vital/major settings.
5. SRPC informed that the following protection details/ relay settings (along with computations to arrive at the setting parameters in the relay, in excel file) shall be furnished by all the entities to the PSSG for assessment:

Line Protection	**Line Differential Protection**	**Transformer/ Reactor**	**Bus Bar/ LBB**	**Generator Transformer connecting at 400 kV and above**	**Station Transformer connecting at 400kV and above**
Single Line Diagram (SLD)	Single Line Diagram (SLD)	Nameplate Details	Single Line Diagram (SLD) with full feeders connected along with CT ratio	Nameplate Details	Nameplate Details
Line sketch/Gradation Chart	Line sketch/Gradation Chart	Fault level contribution (three phase and single phase) and local feeder with highest time setting for Overcurrent and EF	Differential settings with slope characteristics	Whether Earthing of neutral of Generator transformer is solidly earthed and high voltage winding is in star point	Whether Earthing of neutral of Station transformer is solidly earthed and high voltage winding is in star point
Zone Protection along with all computations, mainly resistive & reactive reach and timings	Differential settings along with Zone settings (slope characteristics). Whether Zone 1 is enabled whenever communication fails	Differential	Whether LBB is a part of BBP or external LBB along with Re-trip and back trip timing details	Overall differential protection (87OA)	Whether segregation of group-A and B protections from DC-1 and DC-2 source has been ensured

SOTF	SOTF	REF	End Fault Protection	Generator transformer differential protection (87GT) for single phase bank	Differential current protection (87)
DEF-IDMT	DEF-IDMT	Over flux (LV & HV)	CT supervision	Restricted earth fault protection for generator transformer (87NGT)	Restricted earth fault protection for LV winding (87NLV)
OVR	OVR	Backup Distance Protection		Overhead line connection differential protection (87L) *[For 3 single phase banks, if 87L includes HV winding, separate 87NGT is not mandatory.]*	Restricted earth fault protection for HV winding (87NHV)
Load encroachment settings - Blinder	Load encroachment settings - Blinder	Backup directional overcurrent and EF Relay		Back- up earth fault protection on generator transformer HV Neutral (51NGT)	Back-up over-current protection on HV side (51)
A/R	A/R	Tertiary Winding Protection		Over-fluxing protection for generator transformer (99GT) *[To be duplicated for units of 500 MW and above]*	Back-up earth-fault protection (51N)
Broken Conductor	Broken Conductor			Back- up non-directional over-current protection in all phases on HV side of generator transformer (51GT)	Over-fluxing protection (99)
Communication Scheme adopted	Communication Scheme adopted			Generator transformer oil temperature indicator (OTI) trip (49Q) and winding temperature indicator (WTI) trip (49T)	Buchholz protection (63)
Mutual Compensation	Mutual Compensation			Generator transformer Buchholz (63), Pressure relief valve (PRV)/ other	Winding temperature high (49T)

				mechanical protections	
STUB	STUB			Pole discrepancy protection of generator transformer breaker (162) *[To be provided, if single pole breakers are used.]*	Oil temperature high (49Q)
PSB	PSB			Breaker failure protection of generator transformer breaker (50Z)	Pressure relief valve trip (PRV)
Zero sequence compensation	Zero sequence compensation			Start-up earth fault protection for LV and HV winding of generator transformer and UATs (64T) *[To be provided for GCB scheme only]*	Breaker failure protection (50Z)
VT Fuse failure	VT Fuse failure				
LBB- whether enabled in inbuilt relay, if yes settings	TEED Protection				
TEED Protection					
Any other protection functions enabled shall be shared, with the reason for setting the same and the computation.					

6. Along with the Excel data, the entities need to share the computation files, stating the clear-cut steps for arriving at the value of each parameter. It is the responsibility of the entity to ensure the implement the settings in the relay as arrived in the Excel computation files and approved by PSSG/forum.
7. The entities are required to furnish the details as suggested by the PSSG and only after the receipt of the relevant & complete details, it would be taken up for deliberation/assessment by the PSSG.
8. Regarding FTE verification, SRLDC confirmed that certain basic/major/important relay settings and DNMS ticket details were being validated and checked.
9. SRPC explained that for every new element to be commissioned/modified element or for reviewing the revised settings of any element, each Generating Company and Transmission Licensee (for voltage levels 400 kV and above and interstate lines) shall submit the protection settings as per the format prescribed, along with the calculation sheets, two months in advance, to SRPC/SRLDC. All entities were requested to

submit the relay settings as per the timeline mentioned above, rather than a day or two before commissioning, facilitating the PSSG with enough time to discuss the settings among the members. Forum noted the same.

10. PCSC approved the relay settings of nine elements, as listed above, recommended by the PSSG.

Recommendation:

- ***All entities to furnish the relay settings details as per the above finalized protection settings by the PSSG.***
- ***Entities to furnish the proposed relay settings in advance (two months before the planned commissioning date).***
- ***SRLDC to ensure the implementation of proposed protection settings along with the PSSG recommendations by the entity.***

7. Internal Protection Audit of Sub stations

The Clause (5) of Regulation 15 of IEGC Regulations, 2023 stipulates the following:

Quote

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

(2) 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.

.....

(5) 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."

7.1 Internal Protection Audit Reports 2025-26

In the 141st PCSC meeting SRPC requested all utilities to submit the pending internal audit reports by 15.04.2026.

The Summary of Reports Received for Internal audit for FY 2025-26 is as below:

Internal Audit reports of STUs & PGCIL:

Name of Utility	Total No. of Substations of 220kV & above	No. of Substations Internal Audit Reports Submitted
APTRANSCO	126	126
KPTCL	153	150

KSEBL	44	41
PED	4	4
PGCIL SR I	21	21
PGCIL SR II	37	37
TANTRANSCO	152	152
TGTRANSCO	135	119

Deliberations:

1. KPTCL stated that internal audit reports of two stations were pending for submission. It was further informed that the internal audits for the said stations had already been completed and the reports from the field were awaited for compilation and submission to SRPC.
2. KSEBL stated that the pending three stations belong to embedded entities and requests had already been communicated to the embedded entities concerned for submission of the internal audit reports.
3. TGTRANSCO stated that they had not conducted internal audit of LIS stations during the FY 2025-26.

Internal Audit reports of Gencos:

Name of Utility	Total No. of Substations of 220kV & above	No. of Substations Internal Audit Reports Submitted
APGENCO	9	9
BHAVINI	1	0
KPCL	11	11
NLCIL	5	4
NPCIL	3	3
NTECL	1	1
NTPC	5	5
NTPL	1	1
STPP-SCCL	1	1
TGGENCO	12	11
TNGECL	5	0
TNPGCL	10	0

Deliberations:

1. BHAVINI confirmed that internal audit had not been conducted during FY 2025-26. Non-compliance of IEGC Regulations by BHAVINI was noted by the forum.
2. TGGENCO stated that internal audit had not been carried out for Yadadri Thermal Power Station, as the station was yet to be fully handed over by OEM, M/s BHEL. SRPC highlighted that since the switchyard remained operational during FY 2025-26, conducting internal audit was mandatory. Accordingly, non-compliance was noted for TGGENCO.

3. There was no response from NLCIL, TNPGCL and TNGECL during the deliberation of the agenda item.

Internal Audit reports of Private Gencos, STU & RE-ISTS:

Name of Utility	Total No. of Substations of 220kV & above	No. of Substations Internal Audit Reports Submitted
ADANI Power Limited	3	1
Adani Transmission Limited	2	0
APSPCL	7	0
Arcelor Mittal Green Energy Pvt Ltd (AMGEPL)	2	0
AYANA Renewable	2	0
GREENINFRA	1	1
GREENKO	4	0
GRT Jewellers (India) Pvt Ltd	1	0
HNPCL	1	1
Indigrid	1	0
IL&FS	1	0
Jindal Power Limited (Simhapuri Unit)	1	0
JSW-RE	5	5
JSWEL	2	2
KLEIO SOLAR	2	0
KSPDCL	8	8
Meenakshi Energy Limited	1	0
MYTRAH	1	0
NTPC Green	1	0
RENEW	4	0
SAEL Solar	2	0
SEIL-P1	1	0
SEIL-P2	1	0
Sembcorp Green Infra Limited	1	0
Serentica Renewables India Pvt Ltd	4	0
SPRNG Renewable Energy	1	0
TATA POWER (TP Saurya / TP Vardhaman)	2	0
Vena Energy	1	1
Vivid Solaire Energy Pvt Ltd	1	1
Zenataris Renewable Energy	1	0

Deliberations:

1. TATA POWER, SAEL and Serentica stated that their switchyards were commissioned during FY 2025-26 and as one year of operation had not yet been completed, internal audit had not been carried out during FY 2025-26. They assured the forum that internal audit would be conducted and the reports would be furnished during FY 2026-27.
2. GREENKO and Kleio Solar confirmed that internal audit had not been conducted for FY 2025-26. Non-compliance of IEGC Regulations in this regard was noted by the forum.
3. GRT Solar, Renew, SEIL P1 & P2 and Ayana stated that the pending internal audit reports would be furnished within the week.
4. There was no response from MEL, SEL, INDIGRID and Adani Transmission Limited during the deliberation of the agenda item.

7.2 Internal Audit Plan 2026-27

1. In line with the Clause (5) of Regulation 15 of IEGC Regulations, all entities were requested to submit the annual audit plan for the substations 220 kV and above voltage level for FY 2026-27 to SRPC by 31.10.2025

2. **The following Entities are yet to submit the Internal Audit Plans**

Indigrid	**NLC TS-1 EXP**	**WKTL**	**MEL**

3. **All RE ISTS entities are requested to immediately update Internal Audit Plan for FY 2026-27 in the below Zoho form link**

https://forms.zohopublic.in/srpcprotectiondatagm1/form/InternalAuditPlanofREISTS/formperma/B7Vp_u0NmGM5CHclKNet7zhoNKkoZWSWlxtvATkR2Jg

The form can be accessed by the below QR code also for convenience

4. The following RE ISTS entities are yet to submit the Internal Audit report:

S. No	RE Entity	Total Stations (220kV & Above)	Internal Plan Audit Furnishing status
1	KSPDCL	8	Yes ✓
2	JSW	5	Yes ✓
3	GREENKO	4	Yes ✓
4	Serentica Renewables India Pvt Ltd	4	No ✗
5	RENEW	4	No ✗
6	APSPCL	5	Yes ✓
7	Arcelor Mittal Green Energy Pvt Ltd (AMGEPL)	2	No ✗
8	KLEIO SOLAR	2	Yes ✓
9	SAEL Solar	2	Yes ✓
11	AYANA Renewable	2	No ✗
12	Vena Energy	1	Yes ✓
13	Zenataris Renewable Energy	1	No ✗
14	Sembcorp Green Infra Limited	1	Yes ✓
15	Vivid Solaire Energy Pvt Ltd	1	Yes ✓
16	GRT Jewellers (India) Pvt Ltd	1	Yes ✓
17	GREENINFRA	1	Yes ✓
18	SPRNG Renewable Energy	1	Yes ✓
19	TATA POWER (TP Saurya / TP Vardhaman)	2	Yes ✓
20	MYTRAH	1	Yes ✓
21	NTPC Green	1	Yes ✓

Deliberations:

1. SRPC informed the forum that the Clause (5) of Regulation 15 of IEGC Regulations, 2023 stipulates that "*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".*

2. SRPC requested the entities, who were yet to submit the **Annual Internal and third-party audit** plans for **FY 2026-27, to fill in the details immediately in the circulated Google sheet links.**

3. SRPC requested SRLDC to coordinate with RE ISTS entities for ensuring submission of internal and third-party protection audit plans of substations at 220 kV and above voltage levels. SRLDC agreed to the same.

The entities concerned were requested to furnish the audit plans in the prescribed formats.

7.3 Internal Audit Report 2026-27

The Summary of Reports Received for Internal audit for FY 2026-27 is as below

Internal Audit reports of STUs & PGCIL:

Name of Utility	Total No. of Substations of 220kV & above	No. of Substations Internal Audit is proposed as per Plan for April-2026	No. of Substations Internal Audit Report Submitted for April-2026
APTRANSCO	126	12	0
KPTCL	171	14	0
KSEBL	42	4	0
PED	4	0	0
PGCIL SR I	21	2	0
PGCIL SR II	37	3	0
TANTRANSCO	152	16	14
TGTRANSCO	135	6	0

Name Internal Audit reports of Gencos:

of Utility	Total No. of Substations of 220kV & above	No. of Substations Internal Audit is proposed as per Plan for April-2026	No. of Substations Internal Audit Report Submitted for April-2026
APGENCO	9	1	0
APSPCL	7	0	0
BHAVINI	1	0	0
KPCL	11	0	0
KSPDCL	8	0	0
NLCIL	5	0	0
NPCIL	3	0	0
NTECL	1	0	0
NTPC	6	0	0
NTPL	1	0	0
STPP-SCCL	1	1	0
TGGENCO	12	0	0
TNGECL	5	0	0
TNPGCL	10	1	1

Internal Audit reports of Private Gencos, STU & RE-ISTS:

Name of Utility	Total No. of Substations of 220kV & above	No. of Substations Internal Audit is proposed as per Plan for April-2026	No. of Substations Internal Audit Report Submitted for April-2026
ADANI Power Limited	3	0	0
Adani Transmission Limited	2	0	0
APSPCL	5	0	0
Arcelor Mittal Green Energy Pvt Ltd (AMGEPL)	2	0	0
AYANA Renewable	2	0	0
GREENINFRA	1	0	0
GREENKO	4	0	0
GRT Jewellers (India) Pvt Ltd	1	0	0
HNPCL	1	0	0
Indigrid	1	0	0
Jindal Power Limited (Simhapuri Unit)	1	0	0
JSW	5	0	0
JSWEL	2	0	0
KLEIO SOLAR	2	0	0
KSPDCL	8	0	0
Meenakshi Energy Limited	1	0	0
MYTRAH	1	0	0
NTPC Green	1	0	0
RENEW	4	0	0
SAEL Solar	2	0	0
SEIL-P1	1	0	0
SEIL-P2	1	0	0
Sembcorp Green Infra Limited	1	0	0
Serentica Renewables India Pvt Ltd	4	0	0
SPRNG Renewable Energy	1	0	0
TATA POWER	2	0	0
Vena Energy	1	0	0
Vivid Solaire Energy Pvt Ltd	1	0	0

Zenataris Renewable Energy	1	0	0

Recommendations

- ***Entities to furnish the internal audit report along with recommendation and action plan for rectification of deficiencies detected, if any, to SRPC after completion of the audit. (only soft copy of Internal Audit report may be furnished, while hard and soft copy of the recommendations and action plan need to be furnished).***
- ***Entities to include the 'Verification of the relay setting coordination with the connected elements' in the internal protection audit checklist as well as in the audit report.***

SRLDC also to take up with RE ISTS Entities (220kV & above) ~~to and furnish the Internal audit plans.~~

8. Third-Party Protection Audit

The Clause (5) of Regulation 15 of IEGC Regulations, 2023 specifies the following:

Quote

(2) 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.

.....

(5) 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."

8.1 Third Party Protection Audit report 2025-26

1. In FY 2025–26 Third-Party Protection Audit (TPPA) of 125 substations/ switchyards, had been completed under SCTPPA**.**
2. In the 141st PCSC meeting NTPC informed the following:
   - **NTECL Vallur:** Third-party audit was carried out by CPRI during 22.09.2025 to 27.09.2025. Report would be furnished by April-26.
   - **NTPC Simhadri:** Third- party audit was conducted from 11th – 14th November 2025 and stated report would be furnished by April-26.
3. In 140th PCSC meeting M/s **Moxie Power** informed that the third-party audit was completed on 03rd January 2026 and would furnish the *report soon*.
4. PGCIL SR-II stated that Third party protection audit of three stations were completed in 2025-26 and would share the reports by April-26. Further, informed that audits of 04 more stations were ongoing
5. RE ISTS to furnish the Third-party audit plans for 2025-26.

Deliberations:

1. SRPC requested SRLDC to coordinate with RE ISTS entities through REMC to ensure submission of third-party protection audit reports & plans of substations at 220 kV and above voltage levels. SRLDC agreed to the same.
2. NTPC–Simhadri stated that the third-party audit was conducted from 11th – 14th November 2025 and that they would furnish the report by May 2026.
3. NTECL–Vallur informed that the Third-party audit was carried out by CPRI in 2025. Draft report was submitted by CPRI. Final report was awaited.
4. PGCIL SR-II stated that Third party protection audit of Five stations were completed in 2025-26 and would share the reports by May 2026. Further, informed that audits of 02 more stations were ongoing.
5. Moxie Power informed that they received draft report on 09th April 2026, would submit final report by May 2026 end.

- ***Entities (connected at 220 kV & above) to furnish the internal and Third-party audit plans to SRPC at the earliest.***
- ***SCTPPA entities to carryout Third party audit as per schedule.***
- ***SRLDC also to pursue with RE ISTS entities to furnish Third party audit plans.***

8.2 Third Party Protection Audit Plan for FY 2026-27

1. In line with the Clause (5) of Regulation 15 of IEGC Regulations, all entities were requested to submit the annual audit plan for the substations 220 kV and above voltage level for FY 2026-27 to SRPC by **31.10.2025**.
2. SRPC, vide letter dated 20.03.2026 **(Annexure-9a),** issued the schedule to carry out Third Party Protection Audit through SRPC Coordination for FY 2026-27 **(Annexure-9b). 121** number of Substations in the Region for the period April 2026 - March 2027 as mentioned in the Annexure-9b are to be audited under SCTPPA by the Audit teams constituted by SRPC.
3. **The scheduled audits have to be taken up strictly as per the SCTPPA schedule to enable proper monitoring. In the event of extreme exigencies, the audit may be rescheduled as soon as possible, in consultation with the respective auditors and intimate to SRPC**
4. The Google sheet link to update the **Third-Party Audit plan** for the year 2026-27 was shared earlier is given below:

   https://docs.google.com/spreadsheets/d/1tgdo8A8FcXew2-ZRxJpeupzYW6N_y4ppAgmsqmtk2JY/edit?usp=sharing
5. All RE –ISTS entities to submit the Third party Audit plans in the above Google sheet link

Recommendations:

- ***SCTPPA entities to carryout Third party audit as per schedule.***
- ***SRLDC also to pursue with RE ISTS entities to furnish Third party audit plans.***

9. Submission of Internal & Third Party Protection Audit Reports for FY 2026-27

All utilities/entities are requested to submit the Internal Protection Audit Reports and Third-Party Protection Audit Reports for FY 2026–27 onwards through the designated **Zoho Forms**.

The respective links for submission are provided below:

- **Internal Protection Audit Reports:**
  https://forms.zohopublic.in/srpcprotectiondatagm1/form/InternalProtectionAuditReport1/formperma/geuvqSY48aN9o1nRTZzGnt0MllDTO6LkvecMXIIrQh0

- **Third-Party Protection Audit Reports:**
  https://forms.zohopublic.in/srpcprotectiondatagm1/form/ThirdPartyProtectionAuditReport/formperma/cEiqTI1FRZQz9Kdwm7SpA2LHdxXxOm8tI4S2ucXF1CY

(Note: In case the links do not open directly from the PDF, entities are requested to copy the URL and paste it into a web browser.)

Further, all entities shall ensure that Audit Reports are sent to **srpc.protectiondata@gmail.com,** immediately after successful submission of the respective forms. All entities are requested to adhere strictly to the above procedure for timely and effective data compilation.

Deliberations:

1. SRPC informed all entities to submit the internal and third-party audit reports via Zoho forms for FY 2026-27 onwards for uniform data collection and tracking.

2. SRPC requested SRLDC to coordinate with RE ISTS entities for ensuring submission of internal and third-party protection audit plans for substations at 220 kV and above voltage levels via Zoho forms. SRLDC agreed to the same.

10. Protection Performance Indices

1. As per the Protection Protocol of SR prepared in compliance with the IEGC Regulations 2023, Users/Entities shall submit the protection performance indices of previous month, in respect of 220 kV and above voltage level stations, to SRPC and SRLDC on monthly basis, by 15th of the subsequent month and the same shall be reviewed in the ensuing PCSC meeting of SRPC.
2. Protection performance Indices for the months of **March 2026 are pending from the following entities:**

ADANI_ATL	BHAVINI	GRT	GTL
HIRIYUR_ZREPL	ILFS	INDIGRID	KLEIO_SOLAR
KPTCL	KSPDCL	LKPPL	MYTRAH
NLC	NTPC	NTPC_RSTPS	NTPC_TESTPP
ORANGE	OSTRO_KANNADA	RENEW POWER PVT LTD	SAEL
SCCL	SEPC	SEPL	SERENTICA_RI1PL
TNGECL	TNPGCL		

3. The consolidated details of protection performance indices received from the entities for the months of March 2026 are at **Annexure 10a.** The same would be reviewed in the meeting.
4. The non-compliance of IEGC Regulations/Protection Protocol of SR by the entities (who have not furnished the protection performance indices of March 2026) would be deliberated in the meeting.
5. In the 126th PCSC meeting, all STUs confirmed that the Protection Performance Indices (PIs) of their Embedded Entities/Independent Power Producers (IPPs) are included in their respective STU/TRANSCOs Monthly PPI reports.
6. In the 135th PCSC meeting SRLDC requested all entities to recheck the classification report before clicking the verify button and to contact SRLDC in case of any discrepancies or variations between the user and SRLDC data.
7. SRLDC to modify the Tripping Classification after discussion in the previous PCSC meetings and furnish the updated Tripping Classification report.
8. In the 140th PCSC meeting SRPC requested all entities to ensure that successful Auto Reclosure (A/R) operations are also entered in the PPI portal.
9. In the 140th PCSC meeting SRPC further highlighted that several variations were observed in the tripping classifications furnished by the utilities and SRLDC and requested all entities and SRLDC to coordinate closely and rectify the classification errors, as the errors lead to inaccurate PPI indices.
10. As decided in the 139th PCSC meeting, one of the SR utilities would make a detailed presentation, in each meeting, on the PPI performance of its system, including analysis carried out and corrective actions taken.
11. In the 141st meeting the forum requested KPTCL to present on their PPI report in the 142nd PCSC meeting.
12. **Decisions of the 119th PCSC Meeting:**

    The following actions were agreed upon:

    Submission of Protection Performance Indices:

- SLDCs/TRANSCOs shall ensure submission of Protection Performance Indices for all State-embedded entities.
- SRLDC shall coordinate with ISTS-connected entities (including RE generators) to ensure submission of Protection Performance Indices.

Verification of Submitted Data:

- SRLDC & SLDC shall verify the Protection Performance Indices submitted by entities/users. Any discrepancies observed shall be reported to PCSC forum during meetings.

13. **Submission and Verification of Tripping Data:**

In line with the recommendations of the 119th PCSC meeting, the summary of trippings, as furnished by various utilities, is provided below:

Name of the Utility	Total Trippings	Name of the Utility	Total Trippings
APGENCO	37	TGTRANSCO	87
APTRANSCO	201	TGGENCO	11
JSW_THERMAL	2	ADANI_APL	0
KPCL	17	AMGEPL	0
NPCIL_KAIGA	1	Ayana Renewable Power Six Pvt Ltd	0
NPCIL_KKNP	3	BETAMWIND	0
NPCIL_MAPS	4	GREENINFRA	0
NTECL	2	GREENKO	0
NTPC_KUDGI	4	IL&FS	0
NTPL	1	JSW_RE	0
PGCIL SR-1	21	MEPL	0
PGCIL SR-2	45	NTPC_SIMHADRI	0
SEIL	1	PONDICHERRY	0
Spring_Pugalur	1	PVG_IRCON_S	0
TANTRANSCO	260	Vena_Gadag PS	0
TATA	3	ADANI_APL	0

Deliberations:

1. SRPC expressed serious concern over the continued non-submission of Protection Performance Indices (PPIs) by several ISTS and RE entities. It was reiterated that, in accordance with the IEGC Regulations and the SR Protection Protocol, submission of PPIs on a monthly basis to SRPC and SRLDC is mandatory and the same shall be ensured by all entities without exception.
2. SRLDC was requested to follow up with ISTS and RE entities to ensure timely compliance, as decided in the earlier PCSC meetings. Further, SRLDC was

requested to verify the PPIs submitted by the entities for correctness and report any discrepancies observed during the PCSC meetings.

3. SRPC requested all entities to ensure that all successful Auto Reclosure (A/R) operations are also updated in the PPI portal.
4. SE, SRPC raised concern regarding the low PPI indices observed for several utilities and enquired about the corrective measures being taken by the entities concerned in this regard.
5. SE, SRPC requested all entities to consider PPI as a preliminary diagnostic tool and advised that detailed analysis be carried out internally by the respective entities, particularly in cases where low PPI indices are observed.
6. As deliberated during the 141st PCSC meeting, SRPC requested KPTCL to present their PPI analysis for the month of March 2026. KPTCL stated that submission of PPI for the month of March 2026 had been delayed and the same was yet to be submitted. Accordingly, KPTCL requested that the PPI analysis would be presented in the ensuing PCSC meeting.
7. SRPC enquired regarding SRLDC validation of ISTS line trippings. SRLDC informed that the SPOORTHI portal had been designed in such a manner that whenever an ISTS line trips, the event gets automatically incorporated in the PPI system.
8. SRPC further enquired whether successful Auto Reclosure operations of ISTS lines were being validated by SRLDC. SRLDC stated that validation of successful A/R operations through SCADA would be difficult and requested the entities concerned to furnish only validated reports.

9. SRPC further highlighted that several variations had been observed in the tripping classifications furnished by utilities and SRLDC. Accordingly, all entities and SRLDC were requested to closely coordinate and rectify classification errors to avoid inaccuracies in the PPI data.

Recommendations:

- ***Entities to furnish the Protection Performance Indices for the month of March 2026.***
- ***Users/ Entities to submit the monthly Protection Performance Indices of the month i.r.o 220 kV and above voltage level to SRPC/ SRLDC by 15th of the subsequent month to enable review in the ensuing PCSC meeting.***
- ***Along with the Protection Performance Indices details (including all the element tripping details), Users/ Entities to submit the inter-state lines tripping details, however, the entities shall not count those occurrences/incidences while computing Performance Indices.***
- ***All entities to furnish all tripping details, along with the Protection Performance Indices.***
- ***ISTS connected RE entities to submit the Protection Performance Indices.***

- ***SRLDC/REMC to take up with ISTS connected entities (including RE) and ensure the submission of Protection Performance Indices.***
- ***SRLDC to verify the Protection Performance Indices furnished by the ISTS entities/ Users and discrepancies, if any, may be reported to PCSC in the meetings.***
- ***SRLDC to update the tripping classification details after discussion in the PCSC meeting.***
- ***Utilities to give presentation on the PPI performance of its system, including analysis carried out and corrective actions taken.***

11. Status of Islanding Schemes Reviewed during 2023-24

1. Monitoring of Islanding Schemes by SLDCs/SRLDC

(i) In accordance with Standard Operating procedure (SOP) issued by MoP/CEA, SRLDC and SLDCs (Nodal LDCs of the islanding Schemes) need to monitor the Island generation and load on real-time basis. The SOP clauses are reproduced below:

"2. Monitoring of Vital Parameters

i. Since formation of Island can take place at any time, monitoring of the following vital parameters, which have a significant role in on successful Island formation, is of paramount interest:

a. Anticipated/ actual Generation within the electrical boundary of the Island.

b. Anticipated/ actual Load within the electrical boundary of the Island.

c. Voltage, Frequency & Power Flows along the peripheral lines which are required to be tripped to form the Island.

ii. Above parameters are to be monitored in real-time basis in the Control Room/Despatch Centre (i.e., Sub SLDCs/SLDC/RLDC/NLDC) of the area by creating a dedicated page specific to the Islanding Scheme in the SCADA display. To accomplish this, provision should also be made, if required, for installing adequate measuring instruments (like PMU) at suitable locations within the Island."

2. As per the earlier PCSC meeting deliberations, SRLDC to act as a Nodal agency for Neyveli & Kudankulam Islanding schemes, since the IS cover/spread across 2-3 states/UT, and monitor the critical parameters including the Load & Generation of the island in real time. Following are the nodal LDCs of the Islanding Schemes of SR:

Islanding Scheme	Nodal LDC
Vijayawada & Vishakhapatnam IS	AP SLDC
Bengaluru IS	KAR SLDC
Chennai IS	TN SLDC
Hyderabad IS	TG SLDC
Neyveli IS	TNSLDC, KERSLDC, PUDSLDC, SRLDC

Kudankulam IS	TNSLDC, KERSLDC, SRLDC

3. SCADA monitoring displays are made available in the respective SLDCs & SRLDC. Nodal LDCs need to furnish the Island LGB data for four scenarios for previous month along with their observations & SCADA data on monthly basis by 25th of the month in the following format to SRPC:

Peak Load scenario in the Island during the previous month		Off- Peak Load scenario in the Island during the previous month		Maximum Generation scenario in the Island during the previous month		Monthly Average data scenario	
Generation in MW	Load in MW	Generation in MW	Load in MW	Generation in MW	Load in MW	Generation in MW	Load in MW

Note:

Generation in MW*: Generation data of all generators participating in the Island scheme only.*

Net Load in MW: *Total surviving load after deducting the AUFR+df/dt+ (Island feeders, if any) in the Island.*

4. SRLDC, vide mail dated 26.04.2026, furnished the Monthly Islanding data which is illustrated below. The Islanding Plots furnished by SRLDC is at **Annexure-12:**

Island	Peak Load Generation	Peak Load	Peak Load Time	Off Peak Generation	Off Peak Load	Off Peak Load Time	Maximum Generation	Load at Maximum Generation	Maximum Generation Time	Maximum SR RE time	RE Max Gen	RE Max Load	Average Generation	Average Load	G/L
Bangalore	3732	4159	26-03-2026 16.01	3382	2160	20-03-2026 1.43	5122	3417	02-03-2026 7.42	10-03-2026 13.40	3269	3213	4049	3118	1.30
Chennai	3145	3197	27-03-2026 18.42	1658	1731	19-03-2026 2.43	3264	2859	31-03-2026 20.47	10-03-2026 13.40	2336	2497	2610	2498	1.04
Hyderabad	3140	5473	30-03-2026 16.03	3861	3172	20-03-2026 0.30	6008	4679	26-03-2026 21.27	10-03-2026 13.40	3150	4809	4235	4432	0.96
Kudankulam	4629	6036	26-03-2026 10.05	4179	2012	04-03-2026 13.11	7109	5280	25-03-2026 19.31	10-03-2026 13.40	4552	3006	5376	4428	1.21
Neyveli	4551	4731	28-03-2026 17.02	3434	2429	04-03-2026 13.18	5615	4063	30-03-2026 22.24	10-03-2026 13.40	3271	2789	4042	3619	1.12
Vijayawada	2185	2184	30-03-2026 22.39	1880	1373	20-03-2026 7.51	2743	1644	12-03-2026 5.51	10-03-2026 13.40	1388	1812	1996	1769	1.13
Visakhapatnam	2553	2901	06-03-2026 15.23	3034	1770	19-03-2026 17.31	3524	2379	07-03-2026 6.57	10-03-2026 13.40	1807	2634	2683	2426	1.11

Deliberations:

i. All SLDCs confirmed that respective SCADA data was matching with the snapshots presented by SRLDC.

ii. SRPC enquired regarding the significant difference observed between load and generation in Telangana Islanding Scheme during 05.05.2026 at 12:00 hrs.

TGTRANSCO stated that the generation was lower during the said instance due to backing down of NTPC-Ramagundam and NTPC-TSTPP generating stations.

iii. SRPC enquired regarding the reasons for lower generation observed in Bangalore Islanding Scheme during 05.05.2026 at 12:00 hrs. KPTCL informed that due to backing down of hydro generation during solar hours, the generation in the islanding scheme was comparatively lower.

iv. SRPC highlighted the erratic solar generation values observed in Kudankulam Islanding Scheme on 06.05.2026 at 09:00 hrs. SRLDC informed that there had been a data issue during the said instance in Kudankulam Islanding Scheme, which was subsequently rectified.

Recommendations:

- ***Nodal SLDCs of the Islanding Schemes to monitor new elements being added across the island boundaries of the respective islanding scheme and to ensure implementation of UFR at islanding frequency.***
- ***SRLDC to monitor the transmission elements getting added across interstate boundaries affecting the existing IS and intimate the same to respective SLDCs for UFR implementation.***

5. Substantial variations in the LGB, owing to flexing of conventional generating stations participating in the Islanding Schemes and participating load quantum during high RE injection, particularly during high solar generation period, have been observed. To analyse the IS LGB under various scenarios to enable appropriate review and remedial action, SRLDC was requested to present snapshot of SCADA display of the Islanding page during **solar peak hour** of the previous day.

6. Nodal LDCs were requested

- To furnish their observations regarding the LGB data.
- To provide reasons for Low / High LGB observed.
- Nodal LDCs should present the following for the Island for the month of **March** 2026 during the PCSC meeting:
  - Load Duration Curve
  - Generation Duration Curve
  - G/L Duration Curves

7. STU/TRANSCOs are requested to coordinate with SLDC and to present the data in the PCSC Meeting

8. In the earlier meetings, it was emphasized that SLDCs and SRLDC are responsible to monitor new elements being added inside or across the island boundaries of the respective islands of their control area (Nodal LDC for the Islanding scheme), and if any element gets added across the boundary of the Island (Island boundary as per the reviewed island document issued by SRPC), UFR at islanding frequency shall be implemented by respective SLDC/TRANSCO/TSP on those elements with intimation to SRPC and SRLDC. In addition, SRLDC shall also monitor the transmission elements getting added across interstate boundaries affecting the existing islands and intimate the same to respective SLDCs for UFR implementation.

9. SRLDC, vide mail dated 26-04-2026, furnished the list of new elements added (given below) in the grid, as per the PSSE case for April 2026. **Entitles are requested to verify and confirm any Island crossing feeders are present in the list.**

From_Bus	To_Bus	From_Name	To_Name	ID	From_Bus_Area_Name	To_Bus_Area_Name
411078	411546	RENIGUNTA 132.00	THUKIVAKAM 132.00	P1	ANDRAPRADESH	ANDRAPRADESH
411137	411369	YEMMIGANUR 132.00	MADHAVARAM 132.00	P2	ANDRAPRADESH	ANDRAPRADESH
411143	411546	CHANDRAGIRI 132.00	THUKIVAKAM 132.00	P1	ANDRAPRADESH	ANDRAPRADESH
412006	412212	BOMMUR2 220.00	VEPAKAYADBA 220.00	Z1	ANDRAPRADESH	ANDRAPRADESH
412147	412212	BAVOJIPETA 220.00	VEPAKAYADBA 220.00	Z1	ANDRAPRADESH	ANDRAPRADESH
414052	414067	CUDDAPA GIS 400.00	ANANTHAPUR 400.00	Q1	SR_ISTS_AP	SR_ISTS_AP
414052	414067	CUDDAPA GIS 400.00	ANANTHAPUR 400.00	Q2	SR_ISTS_AP	SR_ISTS_AP
417007	427002	KURNOOL-III 765.00	MAHESWARAM 765.00	H1	SR_ISTS_AP	SR_ISTS_TS
417007	427002	KURNOOL-III 765.00	MAHESWARAM 765.00	H2	SR_ISTS_AP	SR_ISTS_TS
424022	424051	MAHES-TS 400.00	UDDANDAPUR 400.00	Q1	TELANGANA	TELANGANA
424022	424051	MAHES-TS 400.00	UDDANDAPUR 400.00	Q2	TELANGANA	TELANGANA
432089	432389	VAJRAMATTI 220.00	SAVALAGI 220.00	D1	KARNATAKA	KARNATAKA
432089	432389	VAJRAMATTI 220.00	SAVALAGI 220.00	D2	KARNATAKA	KARNATAKA
432140	432389	KUDGI-PG 220.00	SAVALAGI 220.00	D1	KARNATAKA	KARNATAKA
432140	432389	KUDGI-PG 220.00	SAVALAGI 220.00	D2	KARNATAKA	KARNATAKA
442086	442246	TTN-AUTO 230.00	KRCENERGY 230.00	Z1	TAMILNADU	TAMILNADU
442175	442246	THENAMPATTY 230.00	KRCENERGY 230.00	Z1	TAMILNADU	TAMILNADU
446021	446213	THAPPAGUNDU 110.00	GREEN ENERGY110.00	1	TAMILNADU	TAMILNADU
451086	451345	KUTTIPURAM 110.00	KADAMPUZHA 110.00	W1	KERALA	KERALA
451108	451345	MALAPARAMBA 110.00	KADAMPUZHA 110.00	W1	KERALA	KERALA
451115	451289	MYLATTY 110.00	AMBALATH 110110.00	W1	KERALA	KERALA
451145	451234	PATHANAPURAM110.00	KOODAL 110.00	W1	KERALA	KERALA
451274	451343	ELANKUR 110 110.00	THIRUVALI 110.00	W1	KERALA	KERALA
452003	452055	SABARIGIRI 220.00	PATHANAMTHIT220.00	K1	KERALA	KERALA
452004	452055	EDAMON 220.00	PATHANAMTHIT220.00	K1	KERALA	KERALA
412230	414067	ANANTHAPUR 220.00	ANANTHAPUR 400.00	3	SR_ISTS_AP	SR_ISTS_AP
412230	414067	ANANTHAPUR 220.00	ANANTHAPUR 400.00	4	SR_ISTS_AP	SR_ISTS_AP
432360	434039	GADAG_PS 220.00	GADAG_PS 400.00	6	SR_ISTS_KA	SR_ISTS_KA

10. In the 134th PCSC Meeting SRPC suggested that SRLDC may consider developing a portal for STUs to enter details of monthly additions of new grid elements, which would enable effective monitoring and uniform data availability.

11. Subsequently in the 63rd & 64th COMSR meeting SRLDC informed that a provision in the Communication equipment outage portal, supports entry of any new elements added in the grid. It was informed that data for the substation and elements are being taken from SPOORTHI Portal.

12. In the 138th PCSC meeting forum requested SRLDC to give login credentials to the PCSC forum members for entry in the portal or they can replicate a similar dashboard under SPOORTHI portal. SRLDC stated that they would check and update in this regard.

13. In the 140th PCSC meeting SRPC requested SRLDC to take up issues with the respective SLDCs whenever erratic SCADA data is observed, so that the issues can be addressed in real time. SRLDC agreed to inform their SCADA department accordingly.

14. All entities were requested to enter the details in the portal regarding the new elements added in the grid on regular basis.

Deliberations:

i. All STUs confirmed that the feeders listed under the agenda item are not crossing any island boundary.

ii. SRPC informed all the entities, that a dedicated page had been created by SRLDC under the Communication Outage Portal for entering details of new grid elements added to the system. All entities were requested to update the details of new grid elements in the portal.

iii. SRPC requested SRLDC to provide login credentials to PCSC forum members for data entry in the portal or alternatively to replicate a similar dashboard under the SPHOORTI portal. SRLDC stated that the matter would be examined and update accordingly.

Recommendations:

- ***Nodal SLDCs of the Islanding Schemes to monitor new elements being added across the island boundaries of the respective islanding scheme and to ensure implementation of UFR at islanding frequency.***
- ***SRLDC to monitor the transmission elements getting added across interstate boundaries affecting the existing IS and intimate the same to respective SLDCs for UFR implementation.***

15. Furnishing of Monthly Certificate on Healthiness of Islanding Schemes by Generators/ Transmission Utilities / SLDCs/ DISCOMS

1. All Constituents as listed below were requested to submit certificate on Healthiness of Islanding Schemes on monthly basis –by the first week of every month (i.e. status for a month shall be sent before the 3rd day of the succeeding month) to SRPC as per the formats, circulated vide SRPC letter dated 09 August 2021:

Islanding Scheme	Constituents
Hyderabad (Ramagundam) IS	TGTRANSCO, SLDC-TGTRANSCO, TGGENCO, PGCIL (SR-I), NTPC-Ramagundam
Chennai IS	TANTRANSCO, SLDC-TANTRANSCO, PGCIL (SR- II)
Neyveli IS	TANTRANSCO, SLDC-TANTRANSCO, PGCIL (SR- II), PED, NLCIL, NNPTPS, KSEBL
Kudankulam IS	TANTRANSCO, SLDC-TANTRANSCO, PGCIL (SR- II), KSEBL
Visakhapatnam (Simhadri) IS	APTRANSCO, SLDC-APTRANSCO, APGENCO, PGCIL (SR-I), NTPC-Simhadri

Bengaluru IS	KPCL, KPTCL, PGCIL (SR-I), PGCIL (SR-II), UPCL, NTPC-Kudgi, NPCIL-Kaiga
Vijayawada IS	APTRANSCO, SLDC-APTRANSCO, APGENCO, PGCIL (SR-I)

2. As decided in 112th Meeting of PCSC held on 06th November 2023, all utilities concerned are requested to furnish the certificate in the prescribed format regularly (before 7th day of every month) for onward reporting to CEA/ MoP.

3. The Certificate of Healthiness of Islanding Schemes for the month of **March 2026** has been received from all the utilities.

Recommendations:

- ***All the entities concerned to submit the certificate of Healthiness of Islanding Schemes on monthly basis, by the first week of every month (i.e. status for a month shall be sent before the 7th day of the succeeding month), to SRPC as per the formats circulated, vide SRPC letter dated 09th August 2021.***

12. Ensuring Readiness of Islanding Schemes

1. In view of the prevailing security concerns across the country and as per the directions issued by the Ministry of Power, it is imperative to ensure the operational reliability and effectiveness of the existing Islanding Schemes. Accordingly, all Nodal Load Despatch Centres (SLDCs), State transmission utilities and ISTS transmission licensees are requested to ensure the following in respect of Southern Region Islanding Schemes (IS) under their jurisdiction:

Sl. No.	Activity	Entity Responsible
1	Testing and verification of all stages of Under Frequency Relays (UFR) and df/dt relays within the Islanding Scheme were requested to be ensured.	Nodal SLDC, STU & ISTS
2	Testing and verification of other relay set points, such as Under Frequency (U/f) and Over Frequency (O/f) settings of the participating generators, PILM feeders, etc., identified within the Islanding Scheme, were advised to be carried out.	Nodal SLDC, STU & ISGS Stations within the Island
3	Confirmation regarding the operational healthiness and readiness of the Islanding Schemes was requested to be provided.	Nodal LDC
4	Continuous monitoring of the Islanding Schemes through SCADA visibility in the LDCs was advised to be ensured.	Nodal LDC

2. Following are the nodal LDCs of the Islanding Schemes of SR:

Islanding Scheme	Nodal LDC
Vijayawada & Vishakhapatnam IS	AP SLDC
Bengaluru IS	KAR SLDC
Chennai IS	TN SLDC
Hyderabad IS	TS SLDC
Neyveli IS	TNSLDC, KERSLDC, PUDSLDC, SRLDC
Kudankulam IS	TNSLDC, KERSLDC, SRLDC

- **SRPC, vide email dated 14.05.2025, requested that a report of confirmation of the above may please be shared to SRPC at the earliest.**
- **APTRANSCO, vide mail dated 02.06.2025, informed that testing and verification of test points was done and found satisfactory.**
- **Subsequently, TGTRANSCO, TANTRANSCO, KPTCL & PED had confirmed the testing and verification of UFR relays under their purview.**
- **In the 133rd PCSC meeting PGCIL SR–I informed that they do not have standalone UFR relays and that actual UFR testing would be carried out during Line Clearance (LC). They further confirmed that the physical setting of test points in the relay display had been verified and that testing would be completed during LC.**
- **In the 134th PCSC meeting KSEBL confirmed that AUFR testing verification was completed.**

Deliberations:

1. SRPC requested all utilities to verify and furnish the Island Readiness Report. It was informed that UFR testing and verification confirmations had been received from APTRANSCO, TGTRANSCO, KSEBL, TANTRANSCO, PED and KPTCL.
2. PGCIL confirmed that as they do not have standalone relays, the UFR relays would be tested during the LC period. PGCIL SR–I informed that the set points in the relays had been verified.
3. SE, SRPC emphasized that the agenda item intends to ensure continuous monitoring and healthiness of the islanding schemes. SRPC further stated that it is essential to ensure that islanding schemes remain in a ready state and that the set points are maintained as per the intended values. The settings are to be verified and confirmed on a monthly basis for ensuring correctness/healthiness of the system.

- ***All SLDCs to ensure monthly verification of set points.***
- ***All Nodal Load Despatch Centres (SLDCs), State transmission utilities and ISTS transmission licensees to furnish confirmation report on Island Readiness to SRPC immediately.***

13. Review of SR-Islanding Schemes

1. Due to the variation in generation and load growth in the already implemented Islanding Schemes, the Annual Review of SR Islanding Schemes is being undertaken every year.
2. Accordingly, the review meetings of all SR Islanding Schemes were conducted as per the schedule given below:

Sl. No.	Islanding Scheme	Date of Review Meeting			Date of Issuance of Reviewed IS Document
Review meetings →		1st Review	2nd Review	3rd Review	
1	Hyderabad	11.06.2025	25.09.2025	17.02.2026	------
2	Bangalore	11.06.2025	09.12.2025	17.02.2026	*
3	Vijayawada	11.07.2025	25.09.2025	----	30.03.2026
4	Visakhapatnam	11.07.2025	25.09.2025	17.02.2026	10.04.2026
5	Chennai	15.07.2025	09.12.2025	17.02.2026	10.04.2026
6	Neyveli	15.07.2025	16.12.2025	-----	*
7	Kudankulam	15.07.2025	16.12.2025	-----	*

Note:

- ❖ In the case of Hyderabad IS, TGSLDC did not furnish the Modified Island data and is still pending even after 3rd review meeting.
- ❖ For Neyveli and Kudankulam IS the validated data is awaited from SRLDC for issuance of Reviewed IS document.
- ❖ For Bangalore IS the validated data is awaited from KPTCL for issuance of Reviewed IS document.

Deliberations:

i. SRPC enquired regarding the implementation status of Vijayawada and Visakhapatnam Islanding Schemes. APTRANSCO informed that SCADA mapping and implementation activities for Vijayawada Islanding Scheme had been completed. Further, it was informed that for Visakhapatnam Islanding Scheme, SCADA mapping had been completed and implementation activities were pending.

ii. SRLDC informed that validated data for Neyveli and Kudankulam Islanding Schemes had been received only from TANTRANSCO. SRLDC requested KSEBL and PED to furnish the validated data at the earliest.

iii. Regarding Chennai Islanding Scheme, TANTRANSCO stated that implementation activities and SCADA mapping were presently under progress.

iv. SRPC requested KPTCL to furnish the validated data for Bangalore Islanding Scheme so that the reviewed islanding scheme document could be issued.

3. With respect to the review of Islanding Schemes, All Transcos/SLDCs to identify some loads, preferably on a priority basis to shed, in order to achieve the load Generation balance of the island before its formation, if LGB is unfavourable at that point. Quantum of such loads may be identified at various LGB scenarios (to shed prior to the islanding),

say at frequency 48.4 Hz, and may be worked out depending upon the maximum Load Generation gap +/- some moderation point.

- The quantum of load reduction shall correspond to the actual Load–Generation gap at that frequency, with some moderation, up to the maximum recommended load quantum limit.

  - If the gap exceeds the maximum limit, only the maximum load quantum will be curtailed.
  - If the gap is less than the maximum limit, only that quantum will be curtailed.

4. SRPC highlighted that, considering the highly varying nature of generation, pre-Islanding load reduction is essential and needs to be implemented to improve the survivability of the Island.
5. It was decided to form a committee to analyze the feasibility of implementing pre-Islanding load reduction dynamically through SCADA.
6. In the 135th PCSC meeting SRPC informed the forum that the scope of the Committee would be to recommend feasible method(s) for implementing pre-Islanding load reduction in the Electrical Islands of SR (at 48.4/48.2 Hz - to be decided by the Committee) so as to maintain the Generation-Load ratio of the Islands at a desired level for sustenance, considering the wide variations observed in generation of the participating generators.
7. Further, it was informed that the Committee may consist of members from SLDCs, STUs, SRLDC, and SRPC and outlined the following Terms of Reference (ToR):

   - Evaluate and identify feasible method(s) to implement the load reduction of the island through the existing SCADA system.
   - If not feasible with the existing SCADA, identify feasible method(s) to implement after on-going up gradation of the SCADA system.
   - To recommend feasible alternate approaches.

8. All members were requested that one representative each from STU and SLDC and two representatives each from SRLDC and SRPC may be nominated to the said Committee and sought suggestions regarding the composition. Subsequently committee was formed on 31.10.2025 and the First meeting of the committee was held on **26th November 2025** to recommend feasible methods to implement pre-islanding load reduction in Electrical Islands of SR. The committee deliberated on the concerns raised by some of the SLDCs, with respect to the capability and limitations of the existing SCADA systems, considering the ADMS implemented through SCADA. One of the OEMs presented about the latest features available in the SCADA systems.
9. Second Committee meeting was held on 09.02.2026 and further deliberations of the committee are being planned to finalise the recommendations as per the ToR.
10. Further, to facilitate periodic review, all Transcos/SLDCs are requested to furnish the following:

    - Validated SCADA / Energy meter data pertaining to the Islanding Scheme (IS) for the April 2024 to March 2025 period.
    - Average of SCADA data for every 1- hour intervals (computed for the year 2024-25).

The data shall be provided in the following format (Excel file):

From 01-04-2024 to 31-03-2025 (Time Slot)	Average Island Generation without RE Generation (MW)	Average Island Generation with RE Generation (MW)	Average Island RE Generation (MW)	Average Island Load (MW)
00:00:00 to 01:00:00 Hrs				
01:00:00 to 02:00:00 Hrs				
...				
23:00:00 to 24:00:00 Hrs				

Status of receipt of the above data:

S.no	Name of Islanding Scheme	Latest Status
1	Hyderabad IS	✗
2	Chennai IS	✗
3	Kudankulam IS	✗
4	Bengaluru IS	✗
5	Neyveli IS	✗
6	Visakhapatnam IS	✗
7	Vijayawada IS	✗

✓ -- Furnished ✗ -- Not Furnished

Deliberations:

The forum noted the above.

14. Nodal Officer Details for Islanding Schemes — Role, Responsibility & Coordination Activities

As per the Standard Operating Procedure (SOP) (Annexure-13) for Islanding Schemes,

a) Roles and responsibilities of the organizations/officers involved in designing and operating the Islanding Schemes are defined in *Annexure-III* of the SOP.

b) A **Nodal Officer** is to be nominated by each utility participating in the Island (owners of generating stations, substations, transmission lines, distribution lines, etc.) along with a **Chief Nodal Officer** from the concerned Despatch/Control Centre.

c) The Chief Nodal Officer from the LDC and utility-specific Nodal Officers shall ensure free flow of information regarding operational status of the Islanding Scheme and prompt communication between SCADA Control Centres and stations.

d) Further, each RLDC shall designate a **Coordination Officer** for regional level monitoring.

Entity	Required Level of Nodal Officer	Key Role/Responsibility
RPCs (Regional Power Committee)	*Superintending Engineer* (nominated by Member Secretary, RPC)	Preparation, coordination, and periodic review of Islanding Schemes
RLDCs (Regional Load Despatch Centres)	*General Manager & above*	Coordinating Nodal Officer for region; monitor vital parameters of schemes at SCADA; recommend PMUs/ communication upgrades; certify healthiness of systems
LDCs (State Load Despatch Centres)	*Chief Engineer & above*	Chief Nodal Officer at state level; coordinate DISCOM/TRANSCO/ GENCO nodal officers; ensure proper data flow; monitor health of SCADA, relays, communication; certify components monthly; implement schemes at state level.
GENCOs (Generating Companies)	*General Manager / Chief Engineer & above*	Implement schemes at generation end; provide data for study/review; ensure healthiness of generating units, relays, communication; submit monthly certification
STUs / PGCIL (Transmission Utilities)	*General Manager / Chief Engineer & above*	Implement schemes at transmission end; ensure healthiness of substations, lines, relays, communication; provide data for review; monthly certification.
DISCOMs (Distribution Companies)	*General Manager / Chief Engineer & above*	Identify essential and defence loads; implement schemes at distribution end; ensure feeder/relay/communication health; monthly certification.

e) An updated list of contact details of all such Nodal Officers is to be maintained by the LDC.

f) SLDC, STU, SGS, ISGS, ISTS & RLDC were requested to furnish the details in the below format.

Utility Name & Location	Name	Designation	Organization	Email ID	Mobile No.

g) SLDCs to coordinate with respective DISCOMs w.r.t nomination of nodal officer and discharge of IS related responsibilities.

The latest status of nominations received is as below:

S.No	Name of Islanding Scheme	STU	SLDC	Gencos
1	Telangana	✓	✓	✓

2	Andhra Pradesh	✓	✓	✓
3	Tamil Nadu	✓	✓	✗
4	Karnataka	✓	✓	✓
5	Kerala	✓	✓	✓
6	Puducherry	✓	✓	NA
7	PGCIL (SR)	✓	NA	NA
8	NTPC (SR)	NA	NA	✓
9	NPCIL KGS 1&2	NA	NA	✓
10	NPCIL KGS 3&4	NA	NA	✓
11	NPCIL MAPS	NA	NA	✓
12	NPCIL KKNPP	NA	NA	✓
13	ADANI (APL/ATL)	✗	NA	✓
14	HNPCL	NA	NA	✓
15	NLCIL	NA	NA	✓
16	SRLDC	✓		

✓ -- Furnished **✗ -- Not Furnished** **NA- Not Applicable**

Utilities to furnish the details of Nodal Officer as per the SoP.

Deliberations:

1. SRPC informed the forum that the roles and responsibilities of the organizations/officers involved in designing and operating the Islanding Schemes are defined in Annexure–III of the Standard Operating Procedure (SOP).
2. SRPC stated that a Nodal Officer is to be nominated by each utility participating in the Island (owners of generating stations, substations, transmission lines, distribution lines, etc.), along with a Chief Nodal Officer from the Despatch/Control Centre concerned.
3. SRPC highlighted that Nomination from TNPGCL & ADANI (ATL) were pending.

Utilities concerned to furnish the details of Nodal Officer as per the SoP.

15. Periodic Inspection / Audit of Essential Components of Islanding Schemes

As per the Standard Operating Procedure (SOP) for Islanding Schemes, periodic inspection / audit of all essential components is required to ensure continued healthiness and operational reliability. The SOP specifies the following frequency and scope:

- **Under Frequency Relays (UFR)** on Island forming elements (Lines & ICTs) – *Quarterly*

- **Associated communication equipment** at all stations within the Island – *Bi-monthly*
- **Associated DC supply** for control panels and communication systems – *Bi-monthly*

The inspection / audit is to be carried out by a **third party** and the reports submitted to the respective RPC

- In the 138th PCSC meeting all STUs expressed concern regarding the practical feasibility of implementing the third-party audit frequency of essential components, as notified in the SOP.
- SRPC informed that the matter of periodic inspection/audit frequency of essential components in Islanding Schemes had been taken up with the NPC. It was further stated that till any revision of the SOP is notified by NPC, the existing frequency for third-party audit, as specified in the SOP, needs to be complied.

All Island Participating Utilities to ensure the same.

16. Monitoring of Vital Parameters for Islanding Schemes

As per the Standard Operating Procedure (SOP) for Islanding Schemes:

- Continuous monitoring of critical system parameters is essential since Island formation can occur at any time.
- The following parameters must be monitored on a real-time basis within the electrical boundary of each Island:
  - Anticipated / actual **generation**
  - Anticipated / actual **load**
  - **Voltage, frequency, and power flows** on peripheral lines that are to be tripped to form the Island
- A **dedicated SCADA page** for each Islanding Scheme is to be created in the control rooms / despatch centres (Sub-SLDCs / SLDC / RLDC / NLDC) to display these parameters. If required, **PMUs or other measuring instruments** should be installed at suitable locations.
- **RLDCs/SLDCs are to submit monthly data** in the prescribed format to RPCs certifying the healthiness of the communication system used for monitoring these parameters.

S. No.	Name of Islanding Scheme	Healthiness of Communication Channel

Deliberations:

1. SRPC informed that as per the Standard Operating Procedure (SOP) for Islanding Schemes, following parameters, within the electrical boundary of each Island, must be monitored on a real-time basis:
   - Anticipated / actual generation

- Anticipated / actual load
- Voltage, frequency and power flows on peripheral lines that are to be tripped to form the Island

2. RLDC/SLDCs were requested to furnish monthly data, in the prescribed format, to SRPC certifying the healthiness of the communication system used for monitoring these parameters.

SRLDC & SLDCs to furnish the healthiness certifying the Monitoring of Vital Parameters.

17. Certificate for Healthiness of Batteries

(i) As per the MoP direction, given in pursuant to recommendations of the Enquiry Committee (NEW grid disturbance on 30th & 31st July, 2012), *the monthly certificate for healthiness of batteries, installed at 220 KV and above voltage level Substations (for power supply to Relays, RTUs and PLCC equipment)* are required to be obtained by RPCs, from their respective Constituents and furnish the same to CEA/ MoP.

(ii) With reference to above, the Constituents have been requested to submit the certificate on healthiness of batteries on monthly basis (i.e. status for a month shall be sent by the 7th day of the following month) to SRPC Secretariat.

(iii) The Certificate of Healthiness of Batteries has been received from all the entities for the month of **March 2026**.

Deliberations:

1. The Certificate of Healthiness of Batteries had been received from all the entities for the month of **March 2026**.
2. SRPC requested all the entities to mention appropriate action plan, with respect to unhealthy batteries, in the monthly status of battery healthiness report.

18. Compliance by the Users of the Grid

a) Submission of Annual Audit Plans by the State embedded Users/IPPs

(i) Clause (5) of Regulation 15 of IEGC Regulations, 2023 envisages as below:
Quote

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

(2) 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

. .....

(5) 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."

Unquote

As per the above Regulations, Users (Entities/Embedded entities/IPPs connected at 220kV & above voltage level) shall furnish the annual audit plans (Internal & third party) for the next financial year to SRPC by 31st October of every year.

(ii) In the PCSC meetings, it was observed that some users especially State embedded entities/IPPs (including RE) connected at 220kV & above voltage level) have not submitted the Annual Audit Plans.

(iii) In various meetings, it was requested to SLDCs/TRANSCOs to take up with the Users (Entities/Embedded entities/IPPs connected at 220kV & above voltage level) to furnish the **Audit Plan, both Internal as well as Third party audit plan.**

(iv) Similarly, SRLDC was requested to take up with ISTS connected entities/Users (including RE) and ensure the submission of Protection Performance Indices and both audit plan.

(v) State SLDCs/TRANSCOs had been requested to take up with the respective entities to furnish the audit plan both Internal as well as Third Party audit plan for FY **2025-26**.

Recommendations:

- ***SLDCs/TRANSCOs to ensure submission of the internal & third-party audit plans by all Users (Entities/Embedded entities/IPPs connected at 220kV & above voltage level).***
- ***SRLDC to take up with ISTS connected entities/Users (including RE) and ensure submission of Protection Performance Indices as well as internal & third-party audit plans.***
- ***SLDCs/SRLDC to issue non-compliance letters to the Users (Entities/ Embedded entities/IPPs connected at 220kV & above voltage level), which are not complying with the Regulations.***

b) Submission of the Flash Report/ DR / EL / Detailed Report of the Grid Events

(i) Regulations 37(2) of IEGC 2023 envisages below:

37(2) System Security Aspects

Regulation 37(2) of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023, all the Regional Entities of Southern Region subsequent to the incident, including the intimation, flash report, data from Disturbance Recorder (DR), Station Event Logger (EL), Data Acquisition System (DAS) and Detailed Reports are to be submitted, allowing for comprehensive analysis within defined time frames.

Sr. No.	Grid Event^ (Classification)	Flash report submission deadline (users/ SLDC)	Disturbance record and station event log submission deadline (users/ SLDC)	Detailed report and data submission deadline (users/ SLDC)	Draft report submission deadline (RLDC/ NLDC)	Discussion in protection committee meeting and final report submission deadline (RPC)
1	GI-1/GI-2	8 hours	24 hours	+7 days	+7 days	+60 days
2	Near miss **event**	8 hours	24 hours	+7 days	+7 days	+60 days
3	GD-1	8 hours	24 hours	+7 days	+7 days	+60 days
4	GD-2/GD-3	8 hours	24 hours	+7 days	+21 days	+60 days
5	GD-4/GD-5	8 hours	24 hours	+7 days	+30 days	+60 days

^*The classification of Grid Disturbance (GD)/Grid Incident (GI) shall be as per the* CEA Grid Standards.

(ii) In the earlier PCSC Meetings, it was decided that SRLDC to issue non-compliance notices to entities that do not follow the timelines stipulated in the IEGC Regulations. SRLDC to sensitize the entities & SLDCs on the above Regulations and SRLDC to take up with the entities that have not furnished the required details/information in the specified formats and ensure that all the details of the grid event are available in the portal.

Recommendations:

- ***All the users shall adhere to the above Regulatory Provisions and the Timelines.***
- ***SRLDC to take up with the entities that had not furnished the required details/information in the specified formats and ensure that all the details of the grid event are available in the portal.***

19. Implementation of OVR gradings for 400 kV and 765 kV Transmission Lines of Southern Region (SR)

1. A comprehensive exercise for OVR grading of 400 kV and 765 kV transmission lines of the Southern Region (existing/known elements as on March 2026) has been carried out.
2. SRPC, vide mail dated 10.03.2026, circulated the draft OVR gradings for 400 kV and 765 kV Transmission Lines of Southern Region (SR).
3. After incorporating the received comments appropriately, the OVR, Stage-I gradings to be adopted for 400 kV and 765 kV lines in the Southern Region is finalized and circulated, vide SRPC letter dated 17.04.2026 enclosed at **Annexure-19,** for kind implementation.
4. The OVR gradings as applicable to the respective system shall be implemented by the Constituent/ Utility concerned **with immediate effect**. Utilities concerned are requested to confirm implementation of new OVR gradings by filling the below form, latest by **30.04.2026.**

https://nicforms.nic.in/enRhYmxlNjllMWVlZTUxODYzZjIwMjYwNDE3Mw==

The form can be accessed by the below QR code also for convenience

5. In this regard, it may be noted that the utility concerned shall update the implementation status in the above form only after successful implementation of OVR gradings for all lines under its jurisdiction.
6. **The Confirmation of Revised OVR gradings is received from <u>KSEBL only</u>, till date**.

<u>Recommendations:</u>

- ***All Constituents to confirm the implementation of revised OVR gradings.***
- ***SRLDC was also requested to take up with RE-ISTS entities for Implementation of OVR gradings.***

20. Submission of Static IPv4 Addresses for Whitelisting – Access to SRLDC Web Applications

In line with the deliberations held during the 138th PCSC Meeting held on 07-01-2026 and as communicated, vide the letter issued by the Chief Information Security Officer, SRLDC (CISO-SRLDC) **(Annexure-20)**, which was also circulated vide email dated 12-02-2026, all users/entities are requested to furnish their Static IPv4 address details at the earliest by submitting the information through the prescribed Google Form using the link provided below:

https://docs.google.com/forms/d/e/1FAIpQLSdhs5HW-CRfsyRcg-ZmsaARC8CbbAwkcpYbqBEC7DGzxrFumA/viewform?usp=preview

While submitting the details, a **letter of authorization for the IP addresses** may also be uploaded (file upload facility is available in the form). Users who have already submitted the required details need not submit them again; however, in case of any modification, the updated details may be submitted afresh. **Early submission** of the above details is requested to facilitate further necessary action related to **access control and cybersecurity compliance**.

For checking the IPv4 address, users may visit www.whatismyipaddress.com. In case of any difficulty in the whitelisting process or for any clarification, the matter may be taken up with **SRLDC** through email/official correspondence, or may be contact the officers concerned.

<u>Recommendations:</u>

- ***All the users shall furnish the static IP address to SRLDC.***

21. SRLDC Agenda Item

I. Frequent tripping of 400kV Gajwel-Chandalapur lines at Chandalapur end due to over current (I>3) protection operation

Deliberations:

1. SRLDC, vide letter dated 05.05.2026 (**Annexure-21.1**), highlighted the tripping of 400 kV Gajwel–Chandalapur lines at Chandalapur end due to operation of I>3 protection.
2. TGTRANSCO stated that revised settings had been issued during 2023 in line with the SR Protection Protocol with respect to I>3 protection operation. However, due to inadvertent omission by the field staff, the revised settings were not implemented in the relay and consequently the relay operated on I>3 protection during the grid occurrences. TGTRANSCO confirmed that the settings had been disabled.
3. SRPC requested TGTRANSCO to strictly adhere to the issued SOP and verify the SOTF I>3 settings for all lines at Gajwel and Chandalapur Substations. SRPC further highlighted that such mal-operations during the peak demand season would further stress the grid and requested TGTRANSCO to verify these settings during the annual internal protection audits, as well.

II. Frequent tripping of 400kV Jindal-BPS lines at Jindal end due to Ground Potential Rise

Deliberations:

1. SRLDC, vide letter dated 29.04.2026 (**Annexure-21.2**), highlighted the tripping of 400 kV Jindal–BPS lines at Jindal end during through-fault conditions on other lines connected at BPS.
2. JSWEL gave a detailed presentation regarding the tripping events and the remedial measures undertaken by them since 2022. The details of the presentation are placed at **Annexure-21.3**.
3. CGM, SRLDC highlighted that tripping due to Ground Potential Rise (GPR) without any relay indications in the substation is undesirable and requested JSWEL to ensure proper and effective earthing arrangements at the switchyard.
4. JSWEL stated that several remedial measures had already been implemented, as presented during the meeting, including installation of shielded control cables, strengthening of earth mat arrangements and carrying out earth integrity tests through M/s Manav.
5. SRPC suggested that JSWEL may explore the possibility of implementing low-pass filter options in the relays, considering that transient Ground Potential Rise is essentially

a high-frequency transient phenomenon. JSWEL informed that discussions were actively being held with OEM, M/s GE, regarding implementation of the same.

6. JSWEL requested the forum to provide further suggestions and also requested experts for field visit and guidance for resolving the issue permanently.
7. MS, SRPC recommended constitution of a committee comprising experts from PGCIL (GIS Substation expert), CPRI, Protection experts from Southern Region STUs and Grid-India for inspection of the JSWEL switchyard and for suggesting suitable remedial measures.
8. JSWEL further requested SRLDC to issue charging code immediately in case of trippings caused due to GPR, stating that delay in issuance of charging code was leading to generation loss.
9. SRLDC clarified that, as per the standard operating procedure, following any tripping event, the control room seeks the reasons for tripping and charging code is issued only after receipt and verification of the reasons. In the present case, initially the reasons for tripping due to GPR were not clearly established, hence, there had been delay in issuance of charging code.
10. Committee may be constituted to visit JSWEL switchyard.

22. Sending Agenda items for the PCSC meetings

The entities are requested to furnish the agenda, if any, to deliberate in the ensuing monthly PCSC meeting by 25th of the preceding month to SRPC.

23. Date & Venue of next PCSC meeting

Date & Venue of 143rd PCSC meeting would be informed in due course.

24. Conclusion

MS, SRPC thanked all the participants for their active participation in the meeting. It was noted that the deliberations held during the meeting were productive and informative.

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