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भारत सरकार केंद्रीयविद्युत प्राधिकरण दक्षिण क्षेत्रीय विद्युत समिति 29, रेसकोर्स क्रॉस रोड बेंगलूर- 560 009	 सत्यमेव जयते	Government of India Central Electricity Authority Southern Regional Power Committee 29, Race Course Cross Road Bengaluru-560 009
Email:mssrpc-ka@nic.in	Web site: www.srpc.kar.nic.in	Fax: 080-22259343
सं/No. SRPC/SE(O)/177 th OCC/2020-21	दिनांक/ Date	31st March 2021

सेवा में / To

संलग्न सूची के अनुसार/ As per the list enclosed

विषय: द क्षे वि स की प्रचालन समन्वय उप समिति की 177 वी बैठक के कार्यसूची के संबंध में।

Subject: Agenda for the 177th meeting of Operation Coordination Sub- Committee -reg.

महोदय/महोदया/ Sir/ Madam,

दिनांक **09 अप्रैल (शुक्रवार)** को वीडियो कॉन्फ्रेंसिंग के माध्यम से होने वाली दक्षिण क्षेत्रीय विद्युत समिति की प्रचालन समन्वाय समिति की **177 वी** बैठक की कार्यसूची दक्षेविस के वेबसाईट (www.srpc.kar.nic.in) में उपलब्ध है।

समीक्षा तैयार करने हेतु आपकी प्रणाली से संबंधित आंकड़े को कृपया दिनांक **05 अप्रैल 2021** तक भेजने की कृपा करें।

The Agenda for the **177th Meeting** of the Operation Coordination Sub-Committee of SRPC to be held on **09th April 2021 (Friday) at 1000 Hrs** through Video Conferencing is available at SRPC website (www.srpc.kar.nic.in).

Kindly arrange to send the data in respect of the system latest by **05th April 2021** to enable this office to prepare review sheet etc.

Kindly make it convenient to join the meeting.

भवदीय /Yours faithfully,



(के पी मधु / K P Madhu)

अधीक्षक अभियंता/Superintending Engineer

प्रेषिती सूची / Mailing List (Operation Coordination Sub-Committee SRPC)

1. Chief Engineer (GO),APTRANSCO, Vijayawada
2. Chief Engineer (Generation), APGENCO, Vijayawada
3. Director (O), APEPDCL, Vishakhapatnam
4. Chief Engineer (E), SLDC, KPTCL, Bengaluru
5. Chief Engineer (ED), KPCL, Bengaluru
6. Chief Engineer (SO), KSEBL, Kalamaserry
7. Chief Engineer (Opn.), TANTRANSCO, Chennai
8. Chief Engineer (Mech), TANGEDCO, Chennai
9. Chief Engineer (GO),TSTRANSCO, Hyderabad
10. Chief Engineer (Generation), TSGENCO, Hyderabad
11. Director (O), TSSPDCL, Hyderabad
12. Superintending Engineer - I, Electricity Department, Puducherry
13. General Manager (OS), SRHQ, NTPC,Secunderabad
14. General Manager, RSTPS, Jyothinagar, Ramagundam
15. General Manager, STPP Stg - II, NTPC, Talcher
16. Chief General Manager, Simhadri STPS, Simhadri
17. General Manager (O&M), NTECL, Vallur, Chennai
18. Chief General Manager, Neyveli TPS-II, Neyveli
19. General Manager, NNTPS, Neyveli
20. General Manager, TPS-I Expansion, Neyveli
21. General Manager, TPS-II Expansion, Neyveli
22. Chief General Manager (Ele), NLC Tamil Nadu Power Limited(NTPL), Tuticorin
23. Operation Superintendent, MAPS, Kalpakkam
24. STE (E&I), Kaiga G.S. Stage - I, Kaiga
25. STE (E&I), Kaiga G.S. Stage - II, Kaiga
26. Operation Superintendent, KKNPP, Kudankulam
27. General Manager (O&M), SRTS-I, PGCIL, Secunderabad.
28. General Manager (O&M), SRTS- II, PGCIL, Bengaluru.
29. AGM, JSWEL Vijayanagar Plant, Torangallu, Bellary
30. V.P., Udupi Power Corporation Limited, (UPCL), Bengaluru
31. Electrical Advisor, Coastal Energen Pvt Ltd, (CEPL), Tuticorin
32. Head (O),SEIL Phase-I, Hyderabad
33. Head (O),SEIL Phase-II, Hyderabad
34. IL& FS Tamil Nadu Power Company Limited, Cuddalore
35. Sr.Vice President (O&M),HNPCL, Hyderabad
36. Director, GM Division, CEA, New Delhi.
37. Director, NPC Division, CEA, New Delhi
38. Executive Director, SRLDC, Bengaluru

Southern Regional Power Committee (SRPC)

Agenda for 177th Meeting of Operational Coordination Sub-Committee (to be held on 09.04.2021 through VC)

1. Introduction

The 177th Meeting of Operation Coordination Sub-Committee (OCC) is scheduled on **Friday, 09th April 2021** through Video Conferencing (VC).

2. Confirmation of the Minutes

176th Meeting of OCC was held on 16.03.2021 through VC and the MoM was issued on 22.03.2021. The same may please be confirmed.

3. Agenda Items

3.1. Monthly Review of Maintenance schedules of ISGS

3.1.1. The list of maintenance schedules of ISGS and MPPs proposed to avail during the current month and next month and postponed from these periods are mailed to OCC Google Group every month on 4th normally.

3.1.2. All Generators are requested not to revise their AMP frequently unless otherwise, if required, depending on that time Grid condition. All the maintenance schedules of ISGS/MPP Generating Units, pertaining to the above said period (**April / May, 2021**), will be discussed in the meeting.

3.1.3. The outage schedules for the maintenance of various Generating Units are regularly monitored in all OCC meetings and the Generators are requested to avoid frequent changes in the outage planning. The maintenance schedules of the Generating Units of ISGS / MPPs to be reviewed for the period of **April / May, 2021** is at **Annexure-3.1**.

3.2. Processing of monthly outage proposals of Transmission Lines and Elements in the Outage Coordination Meeting

3.2.1 The outages proposed for the month of **May, 2021** in respect of Transmission Lines and Elements proposed by other regions, State Transmission Utilities, PGCIL and other transmission Entities will be processed and discussed in the Outage Coordination Meeting to be held on **08.04.2021 through WebEx**. The list of outages of Transmission Lines and Elements, proposed for **May, 2021**, will be mailed to OCC Google Group after closing the outage submission window on **03.04.2021, 24:00 hr** in the PWC Portal.

3.3. Annual LGBR for the year 2021-22 for off peak scenario

3.3.1. All the States / Generators / Transmission Entities were requested vide letter dated 10.09.2020 and in the OCC meetings to send data to SRPC by 31st

October, 2020 in the prescribed excel format to enable timely finalization of LGBR for the year 2021-22 for off peak scenario, in line with IEGC Clause 5.7.4.(a) & (b).

3.3.2. KSEBL & TANTRANSCO have submitted the data for the off peak scenario in respect of the year 2021-22.

Action Required:

APTRANSCO, KPTCL, TSTRANSCO to furnish off peak LGBR data for the year 2021-22.

3.4. Monthly Review of LGBR for the next five months (Availability & Requirement)

3.4.1 The Availability & Requirement in respect of the State System are reviewed every month for the next five months. Constituents are requested to submit this data by 3rd of the month. Constituents are also requested to furnish the detailed Availability & Requirement for the period from **April, 2021 to August, 2021.**

3.4.2 The Constituents are requested to submit the data on regular basis.

3.5. Shifting of maintenance schedule of RSTPS Unit 7 (500 MW) by NTPC to Peak demand period of Southern Region

3.5.1 The original maintenance plan for 2021-22 scheduled by NTPC in respect of RSTPS Unit 7 was to avail during 11.04.2021 – 20.05.2021. It was noted that this Unit was availed during the year 2020-21 from 01.04.2020 - 08.08.2020 earlier for attending the Boiler, LPT, Generator and DE NOX issue.

3.5.2 NTPC vide their mail dated 05.03.2021 informed that they had postponed the schedule further and would avail the next maintenance schedule for a period of 38 days from 03.01.2022 to 09.02.2022, which would be the peak demand period of 2022.

3.5.3 In the 176th Meeting of OCC (16.03.2021) NTPC was requested to advance the maintenance schedule of NTPC Unit 7 and to complete the by Pongal / Shankranti (2022). NTPC was also requested to furnish boiler license (valid till **28.05.2021**) renewal schedule. NTPC had informed that the boiler license renewal schedule would be furnished by March, 2021

Action required:

- (i) NTPC to submit the revised maintenance schedule of RSTPS Unit 7 and to complete the same by Pongal / Shankranti (2022).
- (ii) NTPC to submit RSTPS Unit 7 Boiler License renewal schedule.

3.6. Annual Communication & Cyber Security Audit

- a) As per the requirement of clause 10 of Central Electricity Regulatory Commission (Communication System for inter-State transmission of electricity) Regulations, 2017, RPC Secretariat shall issue necessary instructions to all stakeholders to comply with the audit requirements within the time stipulated by the RPC Secretariat and an Annual Report on the audit carried out by respective RPCs shall be submitted to the Commission within one month of closing of the financial year.
- b) SRPC had requested the Stakeholders to submit the annual communication & Cyber Security Audit reports for the year 2020-21 by first week of April 2021, so that SRPC can submit the reports to CERC within the stipulated time. It was also requested to carry out the Cyber Security Audit (VAT & VAPT) at the earliest and furnish the information to SRPC.
- c) In the meeting of COM SR-Outages April 2021 (25.03.2021), the following had been noted:
 - (i) NTECL had submitted the Cyber Security Audit Report.
 - (ii) APTRANSCO had furnished Phase II Cyber Security Audit report for SLDC Vijayawada.
 - (iii) NLC TS II had submitted the Communication and Cyber Security Audit Report.
 - (iv) Puducherry had submitted the Cyber Security Audit Report
 - (v) KPTCL, KSEBL, TANTRANSCO, TSTRANSCO and PGCIL would submit the audit reports by the middle of April, 2021

Stakeholders to submit the annual communication & Cyber Security Audit reports for the year 2020-21 by middle of April 2021 to enable SRPC to submit the report to CERC within the stipulated time.

3.7. SRLDC agenda Items

A. SRLDC has proposed the following new items for discussion:

- a) Endangering grid security due to heavy over drawl and violation of ATC limits – Action requested for maintaining LGBR during peak demand scenario
- b) Mock test of KK-2 SPS signal
- c) Non – Furnishing of Details for Grid Events by Constituents

- d) Follow up of special meeting held with RE developers on 25.02.2021
- e) Testing of primary frequency response as per IEGC

B. SRLDC has proposed the following follow up items:

- a) Frequent 220kV Station Outages in Karnataka System
- b) Calculation & Declaration State wise TTC by States:
- c) Preparation for meeting expected peak demand of Southern Region
- d) Renewable energy (RE) curtailment
- e) Review of SPS schemes of Southern Region.
- f) Violation of N-1 security on inter-connecting transformers (ICTs) in SR:
- g) Submission of feeder details identified for ADMS schemes
- h) Non availability of proper SCADA data affecting system studies and state estimation.
- i) MVAR absorption capability of SDSTPS units
- j) Making provision for condenser operation of Srisaïlam Left bank units at low reservoir levels:
- k) Grid operations during pandemic situation
- l) Data availability issues
- m) Procedure for declaration hours of “Peak” and “Off-Peak” periods during a day
- n) **Status review of the following:**
 - (i) Commissioning of Bus reactors & STATCOMS as approved in various meetings & Standing Committee.
 - (ii) Review of operational performance of Condenser mode of operation of N’Sagar & Srisaïlam LB.
 - (iii) Status review of AUFR, df/dt & Automatic disconnection of Radial feeders
 - (iv) Review of forecast vs Actual demand of SR constituents
 - (v) Status review of ATC / TTC calculation by SLDCs and LGBR submission
 - (vi) Condenser mode of operation in other Hydro stations:

The details of the above items furnished by SRLDC are at Annexure-3.7.

4. Follow up issues

4.1.NTPL Proposal to spare the LP Rotor to UPRVNUL on replacement basis

4.1.1.The proposal was discussed in the 176th OCC Meeting (16.03.2021) and the following had been noted:

- i) The beneficiaries may approach NTPL for further clarification. NTPL to furnish the clarifications immediately in order to facilitate the beneficiaries to communicate decision on the proposal of NTPL.
- ii) NTPL to circulate a detailed note on the commercial settlement mechanism (with UPRVNL/ beneficiaries) on the proposal to spare the LP rotor to UPRVL on replacement basis.

NTPL/beneficiaries may kindly update the status.

4.2.Status update of Primary Frequency Response testing at ISGS & IPPs

4.2.1. The following had been noted in the 176th OCC Meeting:

- i. NLCIL TPS I Expansion: Order placed.
- ii. NLCIL TPS II Expansion: Order would be placed within this week.
- iii. NTPL: Work Order placed on 15.02.2021. Work would be taken up in May 2021.
- iv. CEPL: The testing was postponed (was scheduled from 22.02.2021) since Seimens was to bring some materials. The testing date to be informed by CEPL.
- v. SEL: Phase I and II had given the PO. Works would be taken up in next month.
- vi. SRLDC requested all the generators to furnish the testing schedule well in advance to OCC forum.

4.2.2. NLDC vide communication dated 23.03.2021(**Annexure-4.2.2**) had communicated to NLCIL requesting to carry out the PFT as mandated by IEGC 5th Amendment and had sought for the status and action taken to carry out the tests.

NLCIL/ISGS/MPPs may update the Status.

4.3. MVAR absorption capability of SDSTPS units

4.3.1. The less absorption of MVAR by SDSTPS unit compared to their capability curve since a limiter has set at this MVAR level was being addressed in Special Meeting (HV meeting) and subsequent OCC Meetings. APGENCO /

APTRANSCO to take up the issue of less absorption of MVAR by Krishnapattanam units with OEM and ensure maximum absorption within the capability curve.

- 4.3.2. In the 175th/176th OCC Meetings, APGENCO had informed that the issue had been taken up with OEM (Mitsubishi). OEM had indicated involvement of cost in this work. Requested OEM to furnish the budget requirement and accordingly further actions would be decided. Since OEM is from Japan, some more time is required and further development

APTRANSCO may kindly update the status

4.4. Shifting of PMUs

- 4.4.1. In the 36th meeting of SRPC held on 12.07.2019, it was agreed that some PMUs installed as part of URTDSM project in SR may be optimized by shifting them to critical substations, lift irrigation substations and substations with FACTS devices etc. Accordingly SRLDC had suggested for shifting of PMUs at Vemagiri to KTS VII (PST) & Vemagiri to Ramadagu (LI).
- 4.4.2. In the 175th meeting of OCC (12.02.2021), PGCIL SR-I had informed that M/s GE had supplied all the materials. PGCIL SR- I had clarified that the responsibility of PGCIL ends with the material is supplied at site.
- 4.4.3. In the 176th meeting OCC held on 16.03.2021, wherein APTRANSCO & TSTRANSCO had requested PGCIL to furnish the contact details of M/s GE official. The contacts details furnished by *PGCIL SRTS-I Mr. Arun Kumar, Mob: 99520 99448 E-mail: arunkumar.perumal@ge.com*
- 4.4.4. SRLDC had emphasized on the requirement of shifting the PMUs in view of LI season after the monsoon. It was requested to AP & TS to complete the shifting and installation works in coordination with GE by **15.04.2021**.
- 4.4.5. Subsequently, SRPC vide letter dated 25.03.2021 had requested APTRANSCO & TSTRANSCO to complete the shifting and installation works in coordination with GE by **15.04.2021 as decided in the 176th OCC meeting**.

Status Update by APTRANSCO /TSTRANSCO

5. Frequency related Issues

High /Low Frequency:

SRLDC may present the following:

- (a) the underdrawal of SR constituents when frequency was above 50.05

(b) Overdrawal by SR constituents at frequency less than 49.90 Hz

(c) Any specific issues need attention.

6. Voltage Related Issues

6.1 Low Voltage

Details of capacitors installed during March 2021 in the prescribed format to be submitted by all the states.

6.2 RE Generators for Reactive Compensation & High Voltage

All the states were again requested to kindly examine and ensure voltage based MVAR interchange for RE generators.

6.3 Status review of Bus/Line Reactors, Line Reactors and STATCOM

Status of implementation of Bus / Line Reactors approved in the Standing Committee/SRPC pending for commissioning by the SR constituents is at **Annexure- 6.3.**

All the Constituents/Entities are requested to update the status.

6.4 Reactor status

a. Hoody reactor: FTC code was expected from SRLDC.

b. **KKNPP reactor:** In R-Phase some issues are observed. Contract had been awarded to repair the R-Phase of reactor. Reactor would be commissioned by September 2021. KKNPP was requested to keep the units at maximum MVAR absorption level. SRLDC observed that since element is being charged after 6 months all the formalities of FTC may be taken care off.

c. **KGS reactor:** Tender would be floated within one month. Contract is split into two (one for installation & erection and the other for supply). PGCIL is requested to participate in the tender.

7. Network Protection/Security issues

7.1 U/F & df/dt Relays Schemes

The status may please be updated.

7.2 Implementation of SRPC recommended quantum

(i) It was noted that all States had implemented AUFR and df/dt schemes fully.

(ii) SRLDC to present the load relief realized as a percentage of AUFR quantum declared in the identified feeders during the month of **March 2021.**

S.NO	State	SCADA mapped %	Status
1	AP	98	All the stages vetting completed.
2	TS	88	TSTRANSCO*
			*Informed that additional RTUs at 132 kV level are required to achieve 100 %. Project is taken under PSDF funding. Tenders are floated.
3	KAR	100	
4	KER	100	
5	TN	88	Some of the RTUs are faulty. After rectification the percentage will increase.
6	Pudu	92	
7	SR	94	

8. RGMO/FGMO

- a. As per 5th Amendment to IEGC, gas stations above 50 MW Installed Capacity were also to come under RGMO/FGMO Operation w.e.f. 1st October 2017.
- b. Inadequate response was needed to be taken up by SLDCs with respective SERC's in line with Hon'ble CERC Orders in respect of Petition No. 84/MP/2015 and 302/MP/2013. The non-performance of the generators under SRLDC control would be taken up by SRLDC with the respective generators.
- c. **SRLDC** vide E-mail dated 03.03.2021 had furnished the final response which is at **Annexure-8** (at 15:27 hrs (19th February 2021) multiple 220kV solar generation evacuating lines tripped. As per SCADA data the total generation loss in the event was 1300MW. Frequency dropped from 49.97 to 49.85Hz.)

9. LVRT Implementation / Status review of Pending points as discussed in 4th RE/LVRT meeting

- a. Quarterly reports of the SR constituents jointly validated by SRLDC/SRPC Secretariat are being communicated to Hon'ble CERC in this regard to monitor the installation and performance of LVRT installed on existing WTGs as per the directives of Hon'ble CERC.
- b. SRPC had again requested all the SLDCs to furnish the LVRT status (33 kV & above) for the WTGs being commissioned w.e.f. 06.08.2019.

- c. In the 176th OCC meeting, TN was again requested to furnish the WTG details as per the standard format (WTGs which was installed before April 2014 and after April 2014 and status of LVRT implemented).
- d. Subsequently, SRPC vide letter dated 26.03.2021(**Annexure-9d**) had requested TANTRANSCO to arrange the data in the prescribed format at the earliest.

10. Automatic Generation Control (AGC) implementation in India

- (a) As per CERC Order dated 28.08.2019 all ISG stations whose Tariff is determined or adopted by CERC should be AGC-enabled before 28th February 2020.
- (b) In the 9th Meeting of NPC, RPCs were requested to furnish the status update of the implementation status on monthly basis.
- (c) The following were noted in the 176th OCC Meeting:
 - NTECL had informed that NLDC had carried out testing. AGC would be put in service after getting clearance from NLDC.
 - NTPC, Simhadri had informed that Stage I, both units had been tested. Units are ready to put under AGC.
- (d) Status update as on 15.03.2021 is at **Annexure-10**

The status update on implementation of AGC needed to be furnished regularly.

11. AGC at state Level- Pilot Project identification & Implementation

Status update as on 15.03.2021 is at **Annexure- 11**

The following were noted in the 176th OCC Meeting :

APTRANSCO: Same status

TSTRANSCO: Placed the PO. Material delivery expected by 06.05.2021.

KPTCL: AGC implementation at Varahi also had been completed.

KSEBL: same status.

TANTRANSCO: Tendering under progress.

All the states were requested to update the status in the Excel sheet shared by SRPC.

12. Status of Implementation of the revised FGD Installation / ESP Up-gradation Plan

- 12.1 CEA/MoP is seeking updated information in respect of implementation of revised FGD installation/ESP Up-gradation Plan and the regular updated may kindly be

furnished.

12.2 In the 176th OCC Meeting TSGENCO had requested SRPC to take up with CEA to change the categorization of KTPS Unit 9 & 10 from Phasing out plan to phasing plan. Subsequently as suggested by SRPC in the meeting, TSGENCO vide letter dated 22.03.2021 had furnished the details.

12.3 SRPC vide letter dated 29.03.2021(**Annexure-12.3**) had taken up the issue with Thermal Project Renovation & Modernization (TPR&M) Division, CEA.

All the concerned to comply with norms, as per CPCB timelines and changes thereof since the activity is monitored by Hon'ble Supreme Court / Government.

13. PSP- daily Demand and Consumption pattern

CEA had sought daily Demand and Consumption pattern and the reasons for significant variations w.r.t last year and past few days. The format in this regard has been communicated to States and SRLDC by mail dated 21.04.2020 by SRPC.

All the states are requested to furnish the information on regular basis.

14. Category-wise Consumption Pattern

CEA vide E-mail dated 17.03.2020 had sought category-wise consumption of electricity in the States/UTs. RPCs had been requested to discuss/collect the data in OCC meetings on a regular basis in the prescribed format.

All the states are requested to furnish the information on regular basis

15. Emergency Restoration System (ERS)

The following was noted in earlier meetings:

APTRANSCO	Procurement of 3 rd ERS is under progress.
KSEBL	Retendering is under progress.
TANTRANSCO	Contract awarded on 05.01.2021 for Rs. 32 Crores
TSTRANSCO	Retendered on 05.02.2021.

All the states are requested to furnish the updates on monthly basis

16. REMC Project under SR SLDCs

The following were noted in the 176th OCC Meeting:

- a) **TSTRANSCO had** informed that works are moving on w.r.t REMC at TSTRANSCO.FAT was carried out on 11.03.2021 & 13.03.2021. 100 hours test also carried out. Material would be dispatched shortly.

- b) APTRANSCO had informed that higher level discussions (CMD level) are going on regarding the NOC issue. Outcome would be intimated accordingly.
- c) SRPC once again reiterated that NOC issue needed to be mutually resolved between PGCIL & APTRANSCO. MS SRPC suggested that TOC needed to be referred to see if any dispute resolution clause is available and accordingly actions may be taken.

Status may please be updated.

17. Compliance of CEA Regulations for Grid connectivity of RE Sources

The updated status on RE SCADA availability as noted in the 176th Meeting of OCC is at **Annexure-17**

All the states are requested to update the status to SRPC on monthly basis.

18. Black Start Procedure

- a. Point to point mock exercise for black start to be carried out by all constituents.
- b. Mock drills conducted in March 2021 are to be furnished.
- c. Mock drills scheduled for April 2021 & July 2021 to December 2021 were to be furnished.

19. 178th Meeting of OCC (Date).
