

I/8441/2019



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केंद्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन प्रभाग-II

Power System Planning & Appraisal Division-II

सेवा.मे / To,

संलग्न सूची के अनुसार

As per list enclosed

विषय : दक्षिण क्षेत्र विद्युत् समिति (परेक्षण योजना) की पहली बैठक की अतिरिक्त कार्यसूची ।

Subject: 1st meeting of Southern Region Power Committee)Transmission Planning((SRPCTP)- Additional Agenda.

महोदय(Sir)/महोदया(Madam),

दक्षिण क्षेत्र विद्युत् समिति (परेक्षण योजना) की पहली बैठक 16 दिसम्बर, 2019 को हैदराबाद , में आयोजित की जाएगी । बैठक का अतिरिक्त कार्यसूची संलग्न है ।

The 1st meeting of Southern Region Power Committee)Transmission Planning((SRPCTP) is scheduled to be held on 16th December, 2019 at Hyderabad. Additional agenda of the meeting is enclosed herewith.

भवदीय/Yours faithfully,

Pardeep Jindal
12/12/2019

(प्रदीप जिंदल/ Pardeep Jindal)

मुख्य अभियंता/ Chief Engineer

Copy for kind information to:

- 1) PPS to Member PS, CEA

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List of addressee:

1. The Member Secretary, Southern Regional Power Committee, 29, Race Course Cross Road, Bangalore 560 009. FAX : 080-22259343	2. Chief Operating Officer (CTU-Plg), Central Transmission Utility, Power Grid Corporation of India “Saudamini” Plot No. 2, Sector-29, Gurugram-122001 Tel. No. 0124-2571816 Fax No.0124-2571932
3. Director (System Operations), POSOCO B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016 Tel. No. 26852843 Fax No. 2626524525, 26536901	4. Managing Director Karnataka Power Transmission Corp. Ltd., Cauvery Bhawan, Bengaluru - 560 009. FAX : 080 -22228367
5. Chairman and Managing Director Transmission Corp. of Andhra Pradesh Ltd., (APTRANSCO) Gunadala, Eluru Road, Vijayawada, Andhra Pradesh	6. Chairman-cum-Managing Director Transmission Corp. of Telangana Ltd., (TSTRANSCO) Vidyut Soudha, Khairatabad Hyderabad – 500 082.
7. Chairman-cum-Managing Director Kerala State Electricity Board, Vidyuthi Bhawanam, Pattom, Thiruvananthapuram - 695 004. FAX : 0471-2444738	8. Managing Director Tamil Nadu Transmission Corporation Ltd (TANTRANSCO), 6 th Floor, Eastern Wing, 800 Anna Salai, Chennai - 600002. FAX : 044-28516362
9. The Superintending Engineer –I, First Floor, Electricity Department, Gingy Salai, Puducherry – 605 001. Fax : 0413-2334277/2331556	10. Executive Engineer, Divisional Office, Lakshadweep Electricity Department, Kavaratti Island, UT of Lakshadweep
11. Chairman & Managing Director, NTPC Limited, NTPC Bhawan, SCOPE Complex, Institutional Area, Lodhi Road, New Delhi - 110003	12. Chairman & Managing Director, NHPC Limited, N.H.P.C. Office Complex, Sector-33, Faridabad - 121003 (Haryana)
13. Chairman, Solar Energy Corporation of India Limited, 1 st Floor, D-3, A Wing, Prius Platinum Building, District Centre, Saket, New Delhi - 110017	

Additional Agenda Items for the 1st SRPC(TP)

28.0 Short Circuit studies and Over/Under Voltage studies for Southern Region

- **Over/Under Voltages:** Operational Feedback provided by POSOCO has indicated a number of incidents pertaining to over/under voltages in different part(s) of the grid under certain scenarios. Detailed system studies for analysis of high voltage conditions in Southern Region were carried out for the off-peak conditions and the same was discussed in the 42nd SCPSPSR meeting held on 27.04.2018 and subsequently in the 1st SRSCT meeting held on 07.09.2018, wherein 29 nos. of bus reactors were finalized at different substations in Southern Region and the same are under different stages of implementation.
- **Short Circuit Level:** POSOCO has also mentioned about the rising fault levels at different substations in Southern Region. Transmission schemes for controlling the short circuit level at Nellore, Neyveli complex and Thiruvallam had already been discussed and agreed in 2nd SRSCT meeting on 10.06.2019.

Further, studies were carried out for the peak demand period in the year 2023-24, wherein high short circuit levels at the following substations have been observed to exceed the rated value.

Sl. No.	Substation	Voltage level (kv)	3-Ph SC (kA)	1-Ph SC (kA)	Ownership	Switchyard rating (kA)
1.	MAHESHWARAM-TS	400	63.7	45.5	Telangana	
2.	MAHESHWARAM	400	63.5	45.6	POWERGRID	63
3.	UDUMALPET	400	51.8	37.1	POWERGRID	40
4.	YADADRI	400	49.3	49.9	Telangana	
5.	CHITTOR	400	47.4	33.5	Andhra Pradesh	
6.	DINDI	400	46.9	33.2	Telangana	
7.	EDAYARPALAYAM	400	46.7	33.3	Tamil Nadu	
8.	TIRUNELVELI	400	45.7	35.0	POWERGRID	40
9.	HYDERABAD-TS	400	45.5	31.0	Telangana	
10.	KURNOOL	400	45.1	33.3	Andhra Pradesh	
11.	KURNOOL	765	40.5	27.5	POWERGRID	40

Members may please discuss.

29.0 Augmentation of Transformer capacity in Southern Region

Electricity Demand in Southern region is increasing. The peak demand of Southern region, which was 49,623 MW in 2018-19, is likely to increase to about 70,000 MW

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in the year 2023-24 (as per 19th EPS Report). To meet the projected electricity demand and to facilitate the constituents to draw power from the ISTS substations, adequate transformation capacity needs to be provided.

In the operational feedback, POSOCO has indicated that the requirement of transformer augmentation may be identified for 765 kV and 400 kV substations under ISTS as well as Intra-STS substations. Based on the inputs from constituents, loading profile and expected growth in electricity demand, augmentation of transformation capacity required at various substations is identified from time-to-time.

Accordingly, system studies were carried out for the year 2023-24 for peak demand time-frame, wherein ICT loadings at the following substations have been observed to exceed more than 80% of the transformer ratings.

Sl. No.	Substation	ICT voltage level	Ownership	ICT flow	ICT ratings	% loading
1.	KURNOOL	400/220	AP	284.1	315	90.2
2.	NELLORE	400/220	AP	273	315	86.7
3.	KAKTIA-G	400/220	Telangana	266.4	300	88.8
4.	DEVANHALLI	400/220	Karnataka	505.8	500	101.2
5.	KOTTAYAM	400/220	Kerala	262.7	315	83.4
6.	MADAKATHRA	400/220	Kerala	256.3	315	81.4
7.	KASARGODE	400/220	Kerala	258.2	315	82
8.	SPBUDR	400/110	TN	166.8	200	83.4
9.	THERVOI	400/110	TN	175.3	200	87.6
10.	EDAYARPALAYAM	400/110	TN	163.3	200	81.7
11.	OTTAPIDARAM	400/110	TN	88.5	100	88.5
12.	SALEM	400/230	TN	296.7	315	94.2
13.	MANALMEDU	400/230	TN	449.7	500	89.9
14.	HOSUR	400/220	POWERGRID	249	315	80

Members may please discuss.

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41.0 Connectivity Transmission system agreed in earlier Connectivity/LTA meetings of Southern Region

Following dedicated transmission system was agreed for grant of Stage-II connectivity in various Connectivity/LTA meetings of Southern Region, held after 2nd meeting of SRSC (held on 10.06.2019):

Sl. No	Application No.	Applicant	Location	Stage-II Connectivity (MW)	Start Date of Stage-II connectivity	Proposed location for Grant of Stage-II Connectivity	Dedicated Tr. System
35th Connectivity/LTA meeting held on 26.08.2019							
1	1200002220	Zenataris Renewable Energy Private Limited (ZREPL)	Bellary, Karnataka	125	01-Jan-21	Hiriyur	Sharing dedicated line of Ecoren i.e. Ecoren - Hiriyur 220kV S/c line
38th Connectivity/LTA meeting held on 26.11.2019 (MoM to be issued)							
2	1200002293	GRT Jewellers (India) Pvt. Ltd.	Thoothukku d, Tamil Nadu	150	31.05.2021	Tuticorin-II	GRT Jewellers (India) Private Limited - Tuticorin-II GIS 230kV S/c

Further, following Connectivity application of NTPC for proposed solar plants at Simhadri & Ramagundam, within premises of the existing generators, were agreed for grant in 38th Connctivity/LTA meeting held on 26.11.2019:

Sl. No	Application No.	Applicant	Location	Date of Application	Connectivity Sought (MW)	Nature of Applicant	Tr. System
1	1200002271	NTPC Ltd	Ramagundam, Telangana	21.10.2019	100	Solar Generator (At NTPC Ramagundam generation switchyard)	Through 5 feeders from Solar Plant to 33kV bus of NTPC switchyard
2	1200002272	NTPC Ltd	Simhadri, AP	21.10.2019	25	Solar Generator (At NTPC Simhadri generation switchyard)	Through 3 feeders from Solar Plant to 33kV bus of NTPC switchyard

Following LTA applications have been agreed for grant of LTA in various Connectivity/LTA meetings of Southern Region held after 2nd SRSC meeting (held on 10.06.2019):

Sl. No.	Applicant	Location	LTA quantum (MW)	Beneficiaries (MW)	Date of start of LTA
33rd Conn/LTA meeting held on 26.06.2019					
1	200002127	Shapoorji Pallonji Infrastructure Capital Company Pvt. Ltd.	250	(ER target)	25-Oct-20
34th Conn/LTA meeting held on 29.07.2020					
2	200002164	Karnataka Solar Power Development Corporation Ltd.	200	UP	30-Dec-19
37th Conn/LTA meeting held on 24.10.2019					
3	200002258	Sembcorp Energy India Limited	Nellore, Andhra Pradesh	Bahrapur (for supply to Bangladesh through Baharampur interconnection)	01-Apr-20

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42.0 Status of Implementation of downstream network by State utilities associated with ISTS substation of POWERGRID

Augmentation of transformation capacity in various existing substations as well as addition of new substations along with line bays for downstream network are under implementation at various locations in Southern Region. For utilization of these transformation capacities, implementation of downstream 220 kV system needs to be ensured/commissioned. The status of downstream network, as informed by respective states in the 2nd SRST meeting is as follows:

Sl. No.	Name of Substation	MVA Capacity	220kV Bays	Expected Schedule of Substation	Remarks	Deliberations in 2nd SRST
1.	Tumkur (Vasantnarsapur)	2x500 MVA	6	Commissioned	Construction of downstream T/L for 4 Nos 220 kV bays to be expedited by KPTCL.	220 kV DC line Tumkur- Antrasanahalli: commissioned 220kV DC line Tumkur-Madhugiri: - Jul'19 Status: 209 locations towers are erected. Stringing of 44.31 kms/44.481kms completed 220 kV KIADB industrial area has significant load and balance 2 Nos downstream T/L from 400 kV Tumkur is planned to be connected to KIADB
2.	Yelahanka	2x500 MVA	10	Commissioned	Construction of downstream T/L for 10 Nos (6 bays under ISTS) 220 kV bays to be expedited by KPTCL.	220 kV Yelahanka- DG Plant 2000 sq mm UG cable 2 runs: Commissioned Proposal for strengthening of Bengaluru transmission network to utilize the remaining bays at Yelahanka is under planning.
3.	Bidadi	2x500 MVA	6	Commissioned	Construction of downstream T/L for 4 Nos 220 kV bays to be expedited by KPTCL.	220 kV DC line between Bidadi (PG)- Bidadi (KPTCL) - Commissioned 220 kV DC line Bidadi- Magadi Status: Out of 127 locations stub concreted in 80 locations and towers erected in 70 locations. Stringing 10.8 / 64.38 ckms completed. Delay in stringing due to forest area. 220 kV Bidadi- Kumbalgor - 1200 sq mm UG cable SC line Status: Out of 54 section of cable, 27 sections of 1200 sq.mm cable laying completed.
4.	Hiriyur	2x315 MVA	6	Commissioned	Construction of downstream T/L for 2 Nos 220 kV bays to be expedited by KPTCL.	220 kV Hiriyur- Chitradurga via Thallak to Hiriyur - Commissioned . 220 kV DC Hiriyur- Gowribidnur- Commissioned . 220kV Hiriyur (PGCIL)-Hiriyur (KPTCL) 220kV Hiriyur (PGCIL)-Chitradurga. Status: Out of 149 locations stub concreted in 139 locns and towers erected in 101 locns. Stringing 27.79 / 78.267 ckms completed
5.	Hassan	2x315 MVA	6	Commissioned	Construction of downstream T/L for 2 Nos 220 kV bays to be expedited by KPTCL.	LOI for the re- tendered work of " Balance portion of construction of 220 kV DC Drake ACSR line from 400/220 kV PGCIL Shantigrama station to LIL0 the existing 220 kV B4 line" issued on 10-06.2019.
6.	Kolar	2x500 MVA	6	Commissioned	Construction of downstream T/L for 2 Nos 220 kV bays to be expedited by KPTCL.	220 kV DC line Kolar (PG)- Kolar (KPTCL) Commissioned . 220kV DC line Kolar- Chitamani- Commissioned .

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						2 Nos 220kV downstream T/L to Gollahalli Status: Out of 161 locations, stub concreted in 134 locns and towers erected in 69 locns. Stringing 2.24 /54.5 ckms completed.
7.	Hosur	2x315 MVA	6	Commissioned	Construction of downstream T/L for 1 Nos 230 kV bays to be expedited by TANTRANSCO.	1 Nos 230kV downstream T/L to Shoolagiri expected by Jul'19.
8.	Kozhikode	2x315 + 1x500 MVA	4	Commissioned	Construction of downstream T/L for 1 Nos 220 kV bay to be expedited by KSEB.	1 Nos 220kV downstream T/L to Kozhikode(KSEB) expected by Sept'19.

States may update the status.