



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 में /To

As per list of Addresses

विषय: ट्रांसमिशन पर राष्ट्रीय समिति (एनसीटी) की सत्ताईसवीं बैठक का कार्यव्रत ।**Subject: Minutes of the 27th Meeting of the National Committee on Transmission (NCT).**

महोदया (Madam) / महोदय (Sir),

The 27th meeting of the National Committee on Transmission (NCT) was held on 06th February, 2025 at New Delhi. The minutes of the meeting are attached herewith.

भवदीय / Yours faithfully,

(बी.एस. बैरवा / B.S. Bairwa)

मुख्य अभियन्ता (इंचार्ज) एवं सदस्य सचिव, एन.सी.टी.
/Chief Engineer (I/C) & Member Secretary (NCT)

प्रतिलिपि / Copy to:

Joint Secretary (Trans), Ministry of Power, New Delhi

Minutes of Meeting for the 27th meeting of National Committee on Transmission**List of Addressees:**

1.	Chairperson, Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.	2.	Member (Power Systems), Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.
3.	Member (Economic & Commercial), Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.	4.	Director (Trans), Ministry of Power Shram Shakti Bhawan, New Delhi-110001.
5.	Sh. Lalit Bohra, Joint Secretary Room no 602, Atal Akshay Urja Bhawan Opposite CGO Complex gate no 2, Lodhi Road, New Delhi – 110003	6.	Chief Operating Officer, CTUIL, Floors Nos. 5-10, Tower 1, Plot Nos. 16, IRCON International Tower, Institutional Area, Sector 32, Gurugram, Haryana - 122001.
7.	Sh. Rajnath Ram, Adviser (Energy), NITI Aayog, Parliament Street, New Delhi – 110 001.	8.	CMD, Grid Controller of India, B-9 (1 st Floor), Qutub Institutional Area, Katwaria Sarai, New Delhi – 110016
9.	Sh. Ravinder Gupta Ex. Chief Engineer CEA		

Special Invitee

1. Chief Engineer (PCD), CEA

Minutes of Meeting for the 27th meeting of National Committee on Transmission

Table of Minutes

1	Confirmation of the minutes of the 26 th meeting of National Committee on Transmission.....	1
2	Status of the transmission schemes noted/approved/recommended to MoP in the 26 th meeting of NCT:.....	1
3	New Transmission Schemes:.....	3
4	Status of the bids under process by BPCs.....	20
	Summary of the deliberations	20

Minutes of the 27th Meeting of the National Committee on Transmission (NCT)

1 Confirmation of the minutes of the 26th meeting of National Committee on Transmission.

1.1 The minutes of the 26th meeting of NCT held on 06.01.2025 were issued on 30.01.2025 vide CEA letter Nos. CEA-PS-12-13/3/2019-PSPA-II.

1.2 CTUIL proposed to add the following in the scope of communication schemes mentioned at S.No 4.10 and 4.11:

“Out of the 48 fibres, 24 fibers will be allocated for state use and 24 fibers for ISTS purposes subject to the CEA Committee guidelines of OPGW sharing.”

1.3 Members confirmed the minutes with the amendment as proposed above.

2 Status of the transmission schemes noted/approved/recommended to MoP in the 26th meeting of NCT

2.1 Members noted the status of transmission schemes approved/recommended in the 26th meeting of NCT as given below.

Sr. No	Name of the Transmission Scheme	Noted/ Recommended / Approved	Mode of Implementation	BPC	Award/ Gazette notification
1.	Transmission system for Evacuation of Power from RE Projects in Rajgarh (1500 MW) SEZ in Madhya Pradesh-Phase III and Evacuation of Power from RE Projects in Neemuch (1000 MW) SEZ in Madhya Pradesh-Phase II	Recommended	TBCB	RECPDC L	Communicated to MoP vide letter dated 31.01.2025 MoP to denotify the earlier schemes and notify the new.
2.	Augmentation of transformation capacity & Implementation of line bays at Mandsaur S/s for RE Interconnection	Approved	TBCB	PFFCL	Communicated to BPC vide letter dated 31.01.2025. Gazette notification under process.
3.	Paradeep – Andaman – Nicobar HVDC link	Recommended	RTM	Not applicable	Communicated to MoP vide letter dated 31.01.2025.

Minutes of Meeting for the 27th meeting of National Committee on Transmission

Sr. No	Name of the Transmission Scheme	Noted/ Recommended / Approved	Mode of Implementation	BPC	Award/ Gazette notification
4.	Redundant Communication System for Salal (NHPC) station	Approved	RTM	Not applicable	Communicated to CTUIL vide letter dated 31.01.2025. CTUIL allocated the scheme to the implementing agencies on 31.01.2025.
5.	Redundant Communication System for Tuticorin GIS (PG) Substation	Approved	RTM	Not applicable	
6.	Establishment of Communication System for New SRLDC Building (at CPRI, Bengaluru Campus)	Approved	RTM	Not applicable	
7.	Upgradation of existing STM-4 equipment to STM-16 equipment due to bandwidth congestion	Approved	RTM	Not applicable	
8.	OPGW replacement on 132 kV Kahilipara - Umiam Stg. III -Umiam Stg. I – NEHU link & OPGW laying on 132 kV Sarusujai to Umtru line and UGFO laying from NERLDC Guwahati to Gantry of Kahilipara S/s for back up NERLDC connectivity	Approved	RTM	Not applicable	
9.	Establishment of redundant fibre path between NERLDC, Shillong, Khelieriat and NEHU by OPGW replacement on 132 kV NEHU-Khliehriat ckt-1 line and laying of UGFO cable from Tower number 25 of 132 kV NEHU – Mawlyndep line to NERLDC, Shillong	Approved	RTM	Not applicable	

3 New Transmission Schemes:

3.1 Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line

3.1.1 Representative of CTUIL stated that flow on WR-NR corridor is very high and issues related to high loading of 765 kV Vindhyachal – Varanasi D/C line during high NR import are being observed in real-time at the time of high demand in Uttar Pradesh (UP). Due to this high loading of 765 kV Vindhyachal-Varanasi D/c line, violation of WR-NR Available Transfer Capability (ATC) and NR simultaneous import is also being observed in real-time. WR-NR ATC violations in real-time would lead to situation wherein NR states would not be able to draw further power from Western region and as a result, may need to resort to over drawl or load shedding in case internal generation in NR is not available. It was informed that under 'N-1' contingency of (one circuit of) 765 kV Vindhayachal-Varanasi D/c line may result in overloading of the other circuit during high NR import. Accordingly, comprehensive transmission scheme was evolved to resolve critical loading of 765 kV Vindhyachal-Varanasi D/c line in 'N-1' contingency condition as well as for transaction of power in respect of Pump Storage Projects (PSPs) located in Uttar Pradesh (UP).

3.1.2 Representative of Grid-India stated that the issue of high loading of Vindhyachal-Varanasi 765 kV D/C line, which is the limiting constraint for NR import during non-solar hours, would be addressed with the proposed scheme. However, the import capability of NR during solar hours is limited due to low voltages in Delhi-NCR pocket (load centers). To improve the voltage profile in the region, a comprehensive plan for reactive power compensation in the region may be undertaken.

3.1.3 Grid-India further informed that the report on 17th June 2024 load loss event also highlights the requirement of suitable reactive power compensation near major load centers. During the discussion on the event in the 24th NCT meeting, it was decided that the reactive power planning study in respect of all the major load centers shall be taken up on priority. The issue is mainly observed during solar hours of summer season and is expected to worsen over the time.

3.1.4 Grid-India also stated that a committee, chaired by the Member Secretary, NRPC, was constituted to assess the need for synchronous condensers in the Northern Region. The committee has submitted its final report to CEA, recommending phase-wise implementation of synchronous condensers at various stations of NR. The planning of the synchronous condensers may, therefore, be taken up as per the recommendations of the committee report.

Minutes of Meeting for the 27th meeting of National Committee on Transmission

3.1.5 Chairperson CEA informed that the report on synchronous condensers is already under examination.

3.1.6 Grid-India stated that 765 kV Fatehpur – Prayagraj section may get overcompensated with existing line reactor configuration (~90% compensated with 330 MVar L/R at Fatehpur end). In case of change in line length, the percentage compensation may further increase. After finalization of the location of Prayagraj S/s (final line length), the utilization of the L/R may be reviewed. The same may be utilized as bus reactor at Fatehpur end in case of over compensation.

3.1.7 CTUIL stated that the line length is tentative and will be reviewed upon finalisation of location of Prayagraj S/s. In the case of reduction of line length considerably, the possibility of converting fixed line reactor at Fatehpur S/s end of 765 kV Fatehpur – Prayagraj into Switchable line reactor shall be explored & shall be taken up as separate scheme.

3.1.8 Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line was already agreed in NRPC and WRPC meetings.

3.1.9 After deliberations, the scheme “Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line” was recommended for implementation under TBCB route as mentioned below:

3.1.10 Summary of the scheme is given below:

Sl. No.	Name of the scheme and tentative implementation timeframe	Estimated Cost (₹ Crore)	Remarks
1.	Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line Tentative implementation timeframe: 24 months from the date of allocation.	2368.26	Recommended under TBCB route with PFCCCL as BPC

3.1.11 Detailed scope of the scheme is given below:

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/no. of bays etc.)
1	Establishment of 765 kV Prayagraj S/s near Prayagraj(Uttar Pradesh) along with 2x330 MVar 765 kV Bus reactors <u>Future provisions</u>	Prayagraj S/s -AIS <ul style="list-style-type: none"> • 330 MVar Bus Reactor-2 Nos. (7x110 MVar, including one spare unit) • 765 kV Bus reactor bays-2 No.

Minutes of Meeting for the 27th meeting of National Committee on Transmission

	Space for <ul style="list-style-type: none"> ➤ 765/400 kV ICTs along with bays- 4 Nos. ➤ 765 kV line bays along with switchable line reactors – 8 Nos. ➤ 765 kV Bus Reactor along with bay: 1 Nos. ➤ 400 kV line bays along with switchable line reactor –4 Nos. ➤ 400 kV line bays : 2 Nos. ➤ 400 kV Bus Reactor along with bays: 2 No. ➤ 400 kV Sectionalization bay: 1 set 	<ul style="list-style-type: none"> • 765 kV line bays – 6 Nos. (for LILO of 765 kV Fatehpur-Varanasi S/c line, LILO of 765 kV Fatehpur-Sasaram S/c line and Vindhyachal Pool - Prayagraj D/c line)
2	LILO of 765 kV Fatehpur-Varanasi S/c line at Prayagraj	Line Length ~15 km (LILO length 15km)
3	LILO of 765 kV Fatehpur-Sasaram S/c line at Prayagraj	Line Length ~14 km (LILO length 14km)
4	765 kV Vindhyachal Pool - Prayagraj D/c line along with 330MVA line reactor (switchable) at Prayagraj end on each ckt of 765 kV Vindhyachal Pool - Prayagraj D/c line	Line Length – (~220 km) <ul style="list-style-type: none"> • 765 kV, 330 MVA switchable line reactors at Prayagraj end – 2 Nos. • Switching equipment for 765 kV 330 MVA switchable line reactors at Prayagraj S/s – 2 Nos.
5	Bypassing of both ckts of 765 kV Sasan – Vindhyachal Pool 2xS/c line at Vindhyachal Pool and connecting it with 765 kV Vindhyachal Pool - Prayagraj D/c line, thus forming 765 kV Sasan - Prayagraj D/c line	Line Length - 1km (~0.5x2 km)

3.2 Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District, Uttar Pradesh

3.2.1 Representative of CTUIL stated that connectivity applications of cumulative quantum of 3732 MW (drawl: 3732 MW, injection: 3250) from two developers i.e. M/s Greenko (3 Nos. of applications with cumulative quantum of 2016 MW (3x672MW)) and M/s Avaada WB (2 application of 1,716MW (1120MW+596MW)) were received for Robertganj area in Sonbhadra district. As per the schedule indicated in the applications, these PSP projects are expected to be commissioned progressively from Nov'26 upto Mar'28. Further M/s Avaada requested extension in start date of connectivity for their PSP projects with revised timeline of 31/12/2030.

3.2.2 It was discussed that considering present progress, the units of Greenko PSP are likely to be commissioned from June, 2028. In view of schedule of generation projects and for optimal utilization of transmission scheme, comprehensive

Minutes of Meeting for the 27th meeting of National Committee on Transmission

transmission scheme is planned considering M/s Greenko and M/s Avaada PSP's present evacuation & future requirement. Transmission system being lumped elements, the planned scheme can cater upto 4 GW PSP connectivity quantum.

3.2.3 CMD, Grid India stated that large machines like 672 MW, are not in operation in Indian power system.

3.2.4 Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District, Uttar Pradesh was agreed in NRPC meeting.

3.2.5 After deliberations, "Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District, Uttar Pradesh" was recommended for implementation under TBCB route as mentioned below:

3.2.6 Summary of the scheme is given below:

Sl. No.	Name of the scheme and tentative implementation timeframe	Estimated Cost (₹ Crore)	Remarks
1.	<p>Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District. Uttar Pradesh</p> <p>Tentative implementation timeframe: 34 months from the date of allocation *</p> <p><i>*except for 765/400 kV, 1x1500 MVA ICT(4th) at Robertsganj PS.</i></p> <p>Tentative implementation timeframe for 765/400 kV, 1x1500 MVA ICT(4th) at Robertsganj PS is Dec, 2030</p>	3625.97	Recommended under TBCB route with - RECPDCL as BPC

3.2.7 Detailed scope of the scheme is given below:

Sl. No.	Description of Transmission Element	Scope of work (Type of Substation/Conductor capacity/km/No. of bays etc.)
1	<p>Establishment of 4x1500 MVA 765/400 kV Robertsganj Pooling Station near Robertsganj area in Sonbhadra distt. (Uttar Pradesh) along with 2x240 MVA 765 kV & 2x125 MVA 400 kV bus reactors</p> <p>Future provisions:</p> <ul style="list-style-type: none"> ➤ 765/400 kV ICTs along with bays- 2 Nos. ➤ 765 kV line bays along with switchable line reactors – 6 Nos. 	<p>Robertsganj PS - AIS</p> <ul style="list-style-type: none"> • 765/400 kV 1500 MVA ICT- 4 Nos. (13x500 MVA including one spare unit) • 765 kV ICT bays-4 No. • 400 kV ICT bays- 4 No. • 240 MVA Bus Reactor-2 No. (7x80 MVA, including one spare unit) • 765 kV Bus reactor bays-2 No.

Minutes of Meeting for the 27th meeting of National Committee on Transmission

	<ul style="list-style-type: none"> ➤ 765 kV Bus Reactor along with bay: 1 No. ➤ 400 kV line bays along with switchable line reactor –6 Nos. ➤ 400 kV line bays: 6 Nos. ➤ 400 kV Bus Reactor along with bays: 1 No. ➤ 400 kV Sectionalization bay: 2 sets 	<ul style="list-style-type: none"> • 125 MVAR Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 No. • 765 kV line bays at Robertsganj PS – 6 Nos. (for Robertsganj PS – Prayagraj S/s D/c line & LILO of both circuits of Varanasi- Gaya 2xS/c line at Robertsganj PS) • 400 kV line bays– 2 Nos. (for PSP interconnection)
2	LILO of both circuits of 765 kV Varanasi-Gaya 2xS/c line at Robertsganj PS along with 240 MVAR switchable line reactor at each ckt of Robertsganj PS end of 765 kV Robertsganj PS - Gaya 2xS/c line (after LILO)	<ul style="list-style-type: none"> a. Line Length ckt1 ~ 65 km (LILO length) b. Line Length ckt2 ~ 75 km (LILO length) • 240 MVAR switchable line reactors at Robertsganj PS end – 2 Nos. • Switching equipment for 240 MVAR switchable line reactors at Robertsganj PS end – 2 Nos.
3	Robertsganj PS – Prayagraj S/s 765 kV D/c line along with 330 MVAR line reactor at each circuit of Robertsganj end of Robertsganj PS – Prayagraj S/s 765 kV D/c line	<p>Line Length – (~185 km)</p> <ul style="list-style-type: none"> • 765 kV line bays at Prayagraj S/s – 2 Nos. • 765 kV, 330 MVAR switchable line reactors at Robertsganj PS – 2 Nos. • Switching equipment for 765 kV 330 MVAR switchable line reactors at Robertsganj PS – 2 Nos. • 110 MVAR (765 kV) spare reactor single phase unit at Robertsganj PS end – 1 No.

Note: Developer of Prayagraj S/s shall provide space for 2 Nos. of 765 kV line bays at 765 kV Prayagraj S/s for termination of Robertsganj PS – Prayagraj S/s 765 kV D/c line.

3.3 Transmission system for Evacuation of Power from RE Projects in Morena SEZ in Madhya Pradesh-Phase I (2500MW)

3.3.1 Government of India has set a target for establishing 500 GW non fossil generation capacity by 2030, out of which 3.9GW REZ potential has been identified at Morena (MP) in following two phases: Phase-I (2.5GW) by Dec-27; Phase-II (1.4GW) by Dec-30.

3.3.2 Representative of CTUIL stated that for evacuation of upto 2500MW Power from RE Projects in Morena area in Madhya Pradesh under Phase-I as well as for feeding power to 400/220 kV Sabalgarh (New) S/s of MPPTCL, a transmission scheme for Evacuation of Power from RE Projects in Morena SEZ in Madhya Pradesh-Phase I

Minutes of Meeting for the 27th meeting of National Committee on Transmission

(2500MW) has been planned. In this scheme Karera – Morena PS 765 kV D/c line has also been envisaged, which may infringe Karera Wild Life Sanctuary or its buffer zone in the state of MP.

3.3.3 The scheme has been agreed in the 51st WRPC meeting held on 11.01.2025.

3.3.4 After detailed deliberations, “Transmission system for Evacuation of Power from RE Projects in Morena SEZ in Madhya Pradesh-Phase I (2500MW)” was recommended for implementation under TBCB route.

3.3.5 Summary of the scheme is given below:

Sl. No.	Name of the scheme and tentative implementation timeframe	Estimated Cost (₹ Crore)	Remarks
1.	Transmission system for Evacuation of Power from RE Projects in Morena SEZ in Madhya Pradesh-Phase I (2500MW) Implementation timeframe: 27 Months	₹ 1692 Cr	Approved under TBCB route with PFCCL as BPC

3.3.6 Detailed scope of the scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1	Establishment of 3x1500 MVA, 765/400 kV & 2x500MVA, 400/220 kV Morena PS (South of Sabalgarh) with 2x330 MVA 765 kV bus reactor and 2x125 MVA 420 kV bus reactor. Future provisions: Space for ➤ 765/400 kV, 1500 MVA ICT along with bays-3 Nos. (on Sec-II) ➤ 765 kV line bays along with switchable line reactors– 6 Nos. (2Nos. on Sec-I & 4 Nos. on Sec-II) ➤ 765 kV, 330MVA Bus Reactor along with bay: 2 Nos. (on Sec-II) ➤ 765 kV Sectionalizer: 1 set	➤ 765/400 kV, 1500 MVA ICT-3 Nos. ➤ 400/220 kV, 500MVA ICT – 2 Nos. ➤ 765 kV ICT bays- 3 Nos. ➤ 400 kV ICT bays- 5 Nos. ➤ 220 kV ICT bays – 2 Nos. ➤ 330 MVA 765 kV bus reactor-2 Nos. ➤ 125 MVA 420 kV bus reactor-2 Nos. ➤ 765 kV reactor bay- 2 Nos. ➤ 765 kV line bay- 2 Nos. (for termination of Morena PS (South of Sabalgarh) – Karera (near Datia) 765 kV D/c line) ➤ 400 kV line bays- 5 Nos. (2 No. for termination of Morena PS - Sabalgarh (New) (MPPTCL) 400 kV D/c line (Quad Moose / High Capacity) line; 2 Nos. for interconnection of Greenko PSP & 1 no for RE interconnection) ➤ 400 kV reactor bay- 2 Nos. ➤ 220 kV TBC – 1 No. ➤ 220 kV BC – 1 No. ➤ 220 kV line bays – 4 Nos. (for RE Interconnection) ➤ 500 MVA, 765/400 kV 1-Ph Spare ICT-1 No. ➤ 110 MVA, 765 kV, 1-ph reactor (spare unit

Minutes of Meeting for the 27th meeting of National Committee on Transmission

Sl. No.	Scope of the Transmission Scheme	Capacity /km
	<ul style="list-style-type: none"> ➤ 400 kV line bays along with switchable line reactors– 9 Nos. (3 on Sec-I & 6 on Sec-II) ➤ 400/220 kV, 500MVA ICT along with bays-8 Nos. (3 on Sec-I & 5 on Sec-II) ➤ 400 kV, 125MVA Bus Reactor along with bays: 2 Nos. (Sec-II) ➤ 400 kV Sectionalization bay: 1-set ➤ 220 kV line bays: 12 Nos. (4 Nos. on Sec-I & 8 Nos. on Sec-II) ➤ 220 kV Sectionalization bay: 1set ➤ 220 kV TBC: 1 No. ➤ 220 kV BC: 1 No. ➤ 2 Nos. STATCOM (± 400 MVA) along with 2x125 MVA MSC & 1x125 MVA MSR and associated bays- 2Nos. (1 on 400 kV Sec-I and 1 on 400 kV Sec-II) 	for bus reactor)-1 No.
2.	Morena PS (South of Sabalgarh) – Karera (near Datia) 765 kV D/c line	➤ 90 km (approx.)
3.	2 Nos. of 765 kV line bays at Karera (near Datia) for termination of Morena PS (South of Sabalgarh) – Karera (near Datia) 765 kV D/c line	➤ 765 kV line bays– 2 Nos.
4.	Augmentation of 400/220 kV transformation capacity at 765/400/220 kV Karera (near Datia) S/s (Sec-I) by 1x500MVA ICT (3 rd)	<ul style="list-style-type: none"> ➤ 400/220 kV, 500 MVA ICT-1 No. ➤ 400 kV ICT bay- 1 No. ➤ 220 kV ICT bay- 1 No.
	<p>Note:</p> <ul style="list-style-type: none"> a. M/s Apraava Energy Pvt. Ltd. (AEPL) shall provide space for above scope of work at Karera S/s. b. Location of the substation shall be finalised near South of Sabalgarh in consultation with CEA, RUMSL and other stakeholders. c. MPPTCL shall ensure development of 400/220 kV Sabalgarh (New) S/s and Morena PS - Sabalgarh (New) (MPPTCL) 400 kV D/c line (Quad Moose / High Capacity) line in matching time-frame of above scheme. 	

3.4 Transmission system for Evacuation of Power from RE Projects in Solapur SEZ in Maharashtra-Phase II (2000 MW) and Network Expansion scheme to enable drawal of power from Solapur PS

Minutes of Meeting for the 27th meeting of National Committee on Transmission

- 3.4.1 Government of India has set a target for establishing 500 GW non fossil generation capacity by 2030, out of which 3.5 GW REZ potential has been identified at Solapur (2 GW at Solapur (PG) and 1.5 GW at Solapur PS). Solapur PS is presently under implementation by M/s Solapur Transmission Limited (STL) (Subsidiary of Torrent Power Limited) with SCOD of Mar'26 for evacuation of 1.5 GW REZ.
- 3.4.2 Representative of CTUIL stated that connectivity applications for more than 3.5 GW RE capacity have now been received at Solapur PS till Dec-24 based on which transmission planning the Solapur PS for evacuation of full capacity of 3.5 GW (i.e. 2 GW in addition to 1.5 GW) was carried out in consultation with MSETCL. To enable Evacuation of 2000 MW Power from RE Projects in Solapur SEZ in Maharashtra-under Phase II, transmission scheme "Transmission system for Evacuation of Power from RE Projects in Solapur SEZ in Maharashtra-Phase II (2000 MW)" was proposed.
- 3.4.3 Chairperson, CEA enquired SECI / MNRE w.r.t. declaration of additional potential in Solapur area considering that applications for about 6.35GW till Dec-24 have been received in the area against potential of 3.5GW.
- 3.4.4 Representative of SECI stated that they are yet to assess additional potential in the area.
- 3.4.5 After further deliberations, it was decided that the subject scheme shall be taken up after feedback from MNRE/SECI w.r.t. additional potential in Solapur area. Further, CTU shall examine whether transmission system is planned by STU for same generation capacity in Solapur area.
- 3.5 Issues related to bidding process for augmentation of transformation capacity at Bhuj-II Pooling Station**
- 3.5.1 The transmission scheme "Augmentation of transformation capacity at Bhuj-II PS (GIS)" was agreed in the 16th meeting of National Committee on Transmission held on 30.11.2023 under TBCB route with estimated cost of Rs. 428 crores and implementation timeframe of 21 months. Gazette was notified on 23.01.2024 with PFCCL as BPC.
- 3.5.2 Further a transmission scheme "Provision of ICT Augmentation and Bus Reactor at Bhuj-II PS" was agreed in the 20th meeting of National Committee on Transmission held on 25.06.2024 under TBCB route with estimated cost of Rs. 587 crores and implementation timeframe of 21 months. Gazette was notified on 21.08.2024 with PFCCL as BPC.
- 3.5.3 Despite multiple bidding attempts by the Bid Process Coordinator (BPC), only single bid has been received for both the above projects.

Minutes of Meeting for the 27th meeting of National Committee on Transmission

3.5.4 In a meeting held under the chairmanship of Secretary (Power), it was recommended that NCT may consider the two schemes for augmenting transformation capacity at Bhuj-II Pooling Station, with estimated costs of ₹428 Cr and ₹587 Cr, for allotment under the RTM.

3.5.5 NCT, after deliberations:

- (i) Approved the implementation of “Augmentation of transformation capacity at Bhuj-II PS (GIS)” scheme under RTM Mode by POWERGRID Bhuj Transmission Limited, which is the original TSP of Bhuj-II PS and
- (ii) Recommended the implementation of “Provision of ICT Augmentation and Bus Reactor at Bhuj-II PS” under RTM mode by POWERGRID Bhuj Transmission Limited.

3.6 OPGW installation on existing 765 kV Fatehpur-Varanasi S/c & 765 kV Fatehpur-Sasaram S/c Lines which are proposed to be LILO at New Prayagraj (ISTS)

3.6.1 CTU stated that OPGW was not implemented on 765 kV Fatehpur-Varanasi S/c and 765 kV Fatehpur- Sasaram S/c Lines. As there lines are proposed to be made LILO at New Prayagraj (ISTS), OPGW on the existing lines would be required to establish communication.

3.6.2 After deliberations NCT approved the communication scheme “OPGW installation on existing 765 kV Fatehpur-Varanasi S/c and 765 kV Fatehpur-Sasaram S/c Lines which are proposed to be LILO at New Prayagraj (ISTS)” as mentioned below:

S. No	Name of the scheme and tentative implementation timeframe	Estimated Cost (₹ Cr)	Remarks
1.	OPGW installation on existing 765 kV Fatehpur-Varanasi S/c & 765 kV Fatehpur-Sasaram S/c Lines which are proposed to be LILO at New Prayagraj (ISTS) Tentative implementation timeframe: 24 months from the date of allocation or with matching timeframe of the transmission project “Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line” whichever is earlier.	₹ 33.24 Cr	Approved for implementation under RTM By POWERGRID

3.6.3 Detailed scope of the scheme is given below:

S. No	Scope of the transmission scheme
1.	Supply & Installation of OPGW (48F) on existing 765 kV Fatehpur-Varanasi S/c (223

Minutes of Meeting for the 27th meeting of National Committee on Transmission

	Km) and 765 kV Fatehpur-Sasaram S/c (356 Km) Lines which are proposed to be LILO at New Prayagraj S/s (ISTS) including 1 No. FOTE at Fatehpur, 1 No. of FOTE at repeater for Fatehpur-Sasaram line section & optical interfaces / amplifiers etc. at all the locations (Total OPGW: 579 Km. & Total FOTE:2 No.)
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3.7 **VOIP Communication system for Grid-Operation for all Five Regions NR, NER, SR, WR, ER as PAN India**

3.7.1 CTUIL stated that Transmission Scheme VOIP Communication system is of utmost importance for grid management and operation by grid operators and also time critical. Accordingly, “VOIP Communication system for Grid-Operation for all Five Regions NR, NER, SR, WR, ER as PAN India” has been planned with estimated cost of ₹ 156.52 Cr. The scope of the scheme includes supply and installation of VOIP Communication system including Phones, Voice Recorder etc. for all Five Regions NR, NER, SR, WR, ER as PAN India at NLDC, RLDCs, SLDCs. The scheme has already been agreed by all the RPCs and NPC.

3.7.2 The scheme was discussed in the 26th meeting of NCT, wherein it was directed that a meeting may be convened by CEA with CTUIL, POWERGRID, and Grid India to examine the complete scope of VOIP to be brought up for consideration and approval in the next NCT meeting.

3.7.3 Accordingly, the scope was examined and suggested that 33 kV and above RE Gencos of the STUs which are operational on the fibre optic network as desired in the regulations to be included in the scope. For the additional scope, only 42 Nos. of VoIP phones requirement was received, which is roughly 0.46 % of the quantity of VOIP phones proposed as 9100. The additional 42 number VoIP phones can be easily accommodated in the quantity variation of the contract by the implementing agency during implementation. Moreover, it is stated that Servers proposed in scheme are having high capacity (more than 200 %), which is sufficient to integrate additional VoIP phones during the future requirements upto 7-10 years.

3.7.4 CTU further stated that around 60 phones are required at UNMS centres of ISTS & STUs also in addition to above, which shall also be accommodated during project execution by the implementing agency.

3.7.5 Thus, in view of the above small incremental percentage of VOIP phones & high capacity of the proposed servers, the said VOIP scheme does not require any further change in BoQ/Cost for NCT approval. However, the same shall be considered by the implementing agency during the execution of the contract.

3.7.6 CTU clarified that the entire scheme both for ISTS and STUs shall be taken up together in a single package on PAN India basis by the implementing agency, however the billing will be done as per CERC regulations for central/state sector.

Minutes of Meeting for the 27th meeting of National Committee on Transmission

3.7.7 Grid-India stated that the current maintenance and support is expiring in June 2026. The implementation time-frame of the scheme may therefore be reduced from proposed 24 months to 12 months. Grid-India advised that core of optical fibres should be utilized based on priority. The cores requirement for each application shall be clearly specified by CTUIL.

3.7.8 After deliberations NCT approved the communication scheme “VOIP Communication system for Grid-Operation for all Five Regions NR, NER, SR, WR, ER as PAN India” to be implemented under RTM as mentioned below:

S. No	Name of the scheme and tentative implementation timeframe	Estimated Cost (₹ Cr)	Remarks
1.	VOIP Communication system for Grid-Operation for all Five Regions NR, NER, SR, WR, ER as PAN India Tentative implementation timeframe: 18 months from the date of allocation	₹ 156.52 Cr (approx.)*	Approved under RTM By POWERGRID

* Breakup of cost between central and state sector, including 6 year AMC after completion of 1 yr warranty period are as under:

Region	Central Sector (ISTS) (in Crs.)	State Sector (in Crs.)	Total (excluding taxes and duties) (in Crs.)	Total (including taxes & Duties) (in Crs.)
NR	₹18.54	₹15.92	₹ 34.46	₹ 40.66
SR	₹15.3	₹ 12.68	₹ 27.98	₹ 33.02
WR	₹14.61	₹ 11.74	₹ 26.35	₹ 31.10
ER	₹12.21	₹ 6.16	₹ 18.37	₹ 21.67
NER	₹13.21	₹5.72	₹ 18.93	₹ 22.34
NLDC, International exchange and Cyber audit	₹ 6.55	₹ 0	₹ 6.55	₹ 7.73
Total	₹ 80.42	₹ 52.22	₹ 132.64	₹ 156.52

3.7.9 Detailed scope of the scheme is given below:

S. No	Scope of the scheme
1.	Supply and installation of VOIP Communication system including Phones, Voice Recorder etc. for Grid-Operation for all Five Regions NR, NER, SR, WR, ER as PAN India at NLDC, RLDCs, SLDCs Broad specifications: i. Server based architecture: Multiple level (4 level) of redundancy as compared to no redundancy in existing system. ii. Server based architecture: Multiple level (4 level) of redundancy as compared to no redundancy in existing system.

Minutes of Meeting for the 27th meeting of National Committee on Transmission

	<ul style="list-style-type: none"> iii. SLDC & RLDC servers has Local (Control Centre phones) and Remote (Substation, Generators) Phone support. However, at NLDC only local phone support has been considered. iv. Power over ethernet (PoE) switches with dual DC supply ports has been considered for all VOIP phones at remote stations for redundancy and powering the phones. v. One set of three servers are proposed for Voice (VOIP), NMS & Call Recording at each control centre. vi. There is no duplication of licenses for backup servers. vii. Server size and software has been considered by taking future requirement of phones. viii. Support for integration of future exchange of other utilities considered (their control centres). ix. NMS for adding/ deleting users shall be provided at RLDC/ SLDC levels x. Operator console shall be provided to manage calls at RLDC/SLDC xi. Call recording features shall be provided at RLDC & SLDC level with backup. xii. VOIP, Analog & Four Wire E&M (at PLCC locations) phones are considered xiii. Video Phones at RLDC/ SLDC for Senior officials xiv. Sufficient numbers of licenses to cater future RE/ ISTS/ ISGS/ IPP and STU substations locations. The licenses for present and future requirement of the phones xv. are considered under the scope of project, however phones for present requirement only shall be procured. xvi. Firewall at control centres is considered xvii. Installation with 100m Cat-6 cable considered at remote locations. xviii. Integration with existing STU exchanges has been considered. xix. One Exchange for international communication for cross border links has been considered at NLDC main and Backup NLDC. xx. 6 year of AMC has been considered after 1 year warranty. xxi. Cyber Security Audit has been considered. xxii. VoIP phones, analog phones, POE switches, gateway etc. should be placed after site survey as per requirements. xxiii. TS shall be shared by an implementation agency with all stake holders & implemented as per feedback by stakeholder. xxiv. As per Meghalaya requirement POE switch with optical interface may also be considered. xxv. VOIP phones to be procured in future shall be suitably stated in the same contract agreement by the implementing agency to cover during the AMC phase in order to secure from cyber threats etc.
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Minutes of Meeting for the 27th meeting of National Committee on Transmission**3.8 Establishment of State-of-the-Art National Unified Network Management System (N-UNMS) in main & backup configuration integrating all the regional UNMSs.**

3.8.1 Representative from CTUIL stated that to facilitate centralized supervision and monitoring including reporting/collection of PAN India communication Network of ISTS as well as State level system including cross border links at National Level including Outage Management & Coordination System Communication Scheme “Establishment of State-of-the-Art National Unified Network Management System (N-UNMS) in main and backup configuration integrating all the regional UNMSs is required.

3.8.2 After deliberations NCT approved the communication scheme “Establishment of State-of-the-Art National Unified Network Management System (N-UNMS) in main & backup configuration integrating all the regional UNMSs” as mentioned below:

S. No	Name of the scheme and tentative implementation timeframe	Estimated Cost (₹ Cr)	Remarks
1.	Establishment of State-of-the-Art National Unified Network Management System (N-UNMS) in main & backup configuration integrating all the regional UNMSs Tentative implementation timeframe: 24 months from the date of allocation	₹ 128 Cr (approx. including AMC)	Approved under RTM By POWERGRID

3.8.3 Detailed scope of the scheme is given below:

S. No	Scope of the scheme
1.	<ul style="list-style-type: none"> Supply and Installation of Main & Backup National-UNMS system hardware and software along with associated items at respective national & regional UNMS Setup. The new system shall be deployed in such a way that the operation of the existing systems should not be disturbed. Workstations/ Remote consoles at CEA- PCD, RPCs, NLDC & RLDCs, CTUIL and States with associated computer system Hardware & Software. Supply and Installation of hardware & software for workstation, network switches, video wall, firewall & IDPS, Printer, Furniture etc. Integration of existing Regional UNMS (In Main & Backup config) with Main and Back up N-UNMS System. One channel of each Regional UNMS to Main and Back up UNMS centre shall be used for redundancy of respective UNMS Centres. Development of complete Database, displays and reports either from scratch or by extracting existing database, displays and reports, also for creating integrated national communication system overview and inter regional system details for the modules including Outage management & Ticketing modules for regional and national communication system. Supply of all FCAPS (Fault, Configuration Planning, Accounting,

Minutes of Meeting for the 27th meeting of National Committee on Transmission

	<p>Performance & Security) features with advance planning tool.</p> <ul style="list-style-type: none"> ● Import and Adaption of database & displays made for Regional UNMS system including import of historical data stored in existing servers for integration in new system also for creating national dashboard and inter regional system dashboards for the required system details. ● Development of Outage Management & Coordination module and Ticketing Module for National and Regional ISTS Communication Networks. Development of Cloud based communication outage management and ticketing portal for regional & national communication network, also accessible through public internet. These shall be aligned with the finalised Standard Operating Procedure (SOP) for Communication System Outage Planning. ● Auxiliary Power Supply System Comprising of UPS with Battery set along with all necessary distribution board. ● Integration & Testing with any new UNMS coming up during implementation and AMC period of this Project. ● Supply of Spares identified under AMC along with main items to meet the contingency during installation period and during AMC period. ● All cabling, wiring, and interconnections to the items being supplied and to be integrated including power supply. ● The project scope shall include customization of its database, such as configuration of database, scan period and all other database parameters required to integrate existing system successfully. ● Additional Hardware, software and services necessary to ensure compatibility with existing UNMS Systems. ● Auditing of Cyber Security implementation by CERT-In listed Auditors during AMC. ● Training of personnel and Users of the System. ● Comprehensive Maintenance of the supplied system for seven (7) years including one (1) year defect liability period as per specification, including integration with future UNMS (if any), Database configurations, Maintaining Spare inventory etc. ● Integration with third party Applications: The N-UNMS Systems being supplied shall have provision to exchange data with the existing and or to be purchased third party applications of in standard formats like ODBC, OPC & XML etc. <p>GI/Aluminium cable trays/trace ways with covers shall be supplied in the project for laying cables so that cable can be protected from rodents. These cable trays/trace ways shall be screwed/ fixed on the floor.</p>
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3.9 Utilization of OPGW laid by M/s BDTCL on 765 kV S/c Bhopal (BDTCL) – Indore (PG) & 765 kV S/c Vadodara (PG) - Dhule (BDTCL) – Aurangabad (PG) line by upgrading STM-1 FOTE to STM-16 FOTE at Bhopal (BDTCL), Indore

Minutes of Meeting for the 27th meeting of National Committee on Transmission

(PG), Dhule (BDTCL), Aurangabad (PG) and Vadodara (PG) S/s installed by M/s BDTCL and integration with ISTS network for ULDC data Communication in view of upcoming Dhule PS & LILO of Bhopal – Indore line.

- 3.9.1 Representative of CTUIL stated that there is a requirement of FOTE upgradation for the utilization of OPGW laid by M/s BDTCL on 765 kV S/c Bhopal (BDTCL) – Indore (PG) & 765 kV S/c Vadodara (PG) - Dhule (BDTCL) – Aurangabad (PG) line.
- 3.9.2 After deliberations NCT approved the communication scheme “Utilization of OPGW laid by M/s BDTCL on 765 kV S/c Bhopal (BDTCL) – Indore (PG) & 765 kV S/c Vadodara (PG) - Dhule (BDTCL) – Aurangabad (PG) line by upgrading STM-1 FOTE to STM-16 FOTE at Bhopal (BDTCL), Indore (PG), Dhule (BDTCL), Aurangabad (PG) and Vadodara (PG)” as mentioned below:

S. No	Name of the scheme and tentative implementation timeframe	Estimated Cost (₹ Cr)	Remarks
1.	Utilization of OPGW laid by M/s BDTCL on 765 kV S/c Bhopal (BDTCL) – Indore (PG) & 765 kV S/c Vadodara (PG) - Dhule (BDTCL) – Aurangabad (PG) line by upgrading STM-1 FOTE to STM-16 FOTE at Bhopal (BDTCL), Indore (PG), Dhule (BDTCL), Aurangabad (PG) and Vadodara (PG) S/s. Implementation Timeframe: 12 months from the date of allocation.	Rs. 2.6 Crore (approx.)	Approved for implementation by M/s Bhopal Dhule Transmission Company Ltd. (BDTCL).

- 3.9.3 Detailed scope of the scheme is given below:

S. No	Scope of the transmission scheme
1.	<ol style="list-style-type: none"> Supply and installation of 5 nos, STM-16 (FOTE) equipment supporting minimum five (5) directions with MSP (Multiplex Section Protection – 1+1) alongwith necessary interfaces and cards at following Locations (1 No. FOTE at each location) and integration with existing ISTS Communication network: <ol style="list-style-type: none"> Bhopal (BDTCL) Indore (PG) Dhule (BDTCL) Vadodara (PG) Aurangabad (PG) Supply and installation of approach cable, FODP and other accessories at Indore (PG) and Vadodara (PG) S/s.

- 3.10 **Supply and Installation of OPGW on existing 765 kV Gwalior – Satna S/c Line which is proposed to be LILOed at Karera (near Datiya) S/s under TBCB project namely “Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part B”.**

Minutes of Meeting for the 27th meeting of National Committee on Transmission

3.10.1 CTU stated that Gwalior (PG)-Satna (PG) s/c line has no OPGW & new substation Karera is planned to be established in ISTS in the TBCB transmission scheme “Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part B” by LILO.

3.10.2 CTU further stated that SCOD Karera S/s is Feb-2026. It is suggested that POWERGRID shall install OPGW from Gwalior S/s to LILO point of Karera S/s in the matching timeframe on priority, so that data communication of Karera S/s can be established.

3.10.3 After deliberations NCT approved the communication scheme “Supply and Installation of OPGW on existing 765 kV Gwalior – Satna S/c Line which is proposed to be LILO at Karera (near Datiya) S/s under TBCB project namely “Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part B” under RTM mode through POWERGRID as mentioned below:

S. No	Name of the scheme and tentative implementation timeframe	Estimated Cost (₹ Cr)	Remarks
1.	Supply and Installation of OPGW on existing 765 kV Gwalior – Satna S/c Line which is proposed to be LILO at Karera (near Datiya) S/s under TBCB project namely “Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part B” Implementation Timeframe: Matching time frame of upcoming LILO of the said line or 24 months from the date of allocation whichever is earlier.	Rs. 23.5 Crore (approx.)	Approved for implementation by M/s POWERGRID on RTM mode.

3.10.4 Detail scope of the scheme is given below:

S. No	Scope of the transmission scheme
1.	<ol style="list-style-type: none"> OPGW Supply and installation alongwith accessories on the following line by replacing the existing one No. earthwire by Live Line installation: <ul style="list-style-type: none"> 765 kV Gwalior – Satna S/c Line (341 km approx.) STM-16 FOTEs of 5 MSP at Satna, Gwalior for establishing the communication in between Gwalior-Karera-Satna. Repeater Station along with communication equipment, auxiliary power system & all the items associated with repeater shelter.

Minutes of Meeting for the 27th meeting of National Committee on Transmission**4 Status of the bids under process by BPCs**

4.1 The BPCs (RECPDCL and PFCCL) have made presentations on the status of under bidding schemes. Summary of the same is given below:

S.No.	Region(s)	RECPDCL	PFCCL
1	Bids Under Evaluation	03	08
2	RfP issued and bids to be submitted	04	06
3	RfP to be issued	01	02
4	RfP bid submission on hold	01	00
	TOTAL	09	16

4.2 Members noted the same.

Minutes of Meeting for the 27th meeting of National Committee on Transmission**Summary of the deliberations of the 27th meeting of NCT held on 6th February, 2025****I. ISTS Transmission schemes, costing greater than ₹ 500 Crore, recommended by NCT to MoP under TBCB:**

The ISTS transmission schemes recommended by NCT to MoP are given below:

Sl. No.	Name of Transmission Scheme	Implementation Mode	Tentative Implementation timeframe	BPC	Estimated Cost (₹ Crs.)
1.	Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line	TBCB	24 months from the date of allocation.	PFCCL	2368.26
2.	Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District. Uttar Pradesh	TBCB	34 months from the date of allocation * *except for 765/400 kV, 1x1500 MVA ICT(4th) at Robertsganj PS. Tentative implementation timeframe for 765/400 kV, 1x1500 MVA ICT(4th) at Robertsganj PS is Dec, 2030	RECPDCL	3625.97
3.	Transmission system for Evacuation of Power from RE Projects in Morena SEZ in Madhya Pradesh-Phase I (2500 MW)	TBCB	27 Months	PFCCL	1692

The broad scope of the above ISTS schemes to be notified in Gazette of India is as given below:

Sl.	Name of Scheme &	Broad Scope	Bid Process
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Minutes of Meeting for the 27th meeting of National Committee on Transmission

No.	Tentative implementation timeframe		Coordinator
1.	<p>Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line</p> <p>Implementation Timeframe: 24 Months</p>	<p>i. Establishment of 765 kV Prayagraj S/s near Prayagraj(Uttar Pradesh) along with 2x330 MVA 765 kV Bus reactors</p> <p>ii. LILO of 765 kV Fatehpur-Varanasi S/c line at Prayagraj</p> <p>iii. LILO of 765 kV Fatehpur-Sasaram S/c line at Prayagraj</p> <p>iv. 765 kV Vindhyachal Pool - Prayagraj D/c line along with 330MVA line reactor (switchable) at Prayagraj end on each ckt of 765 kV Vindhyachal Pool - Prayagraj D/c line</p> <p>v. Bypassing of both ckts of 765 kV Sasan – Vindhyachal Pool 2xS/c line at Vindhyachal Pool and connecting it with 765 kV Vindhyachal Pool - Prayagraj D/c line, thus forming 765 kV Sasan - Prayagraj D/c line</p> <p>(Detailed scope as approved by 27th NCT and subsequent amendments thereof)</p>	PFCCL
2.	<p>Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District. Uttar Pradesh</p> <p>Implementation Timeframe: 34 months from the date of allocation *</p> <p><i>*except for 765/400 kV, 1x1500 MVA ICT(4th) at Robertsganj PS.</i></p> <p>Tentative implementation timeframe for 765/400</p>	<p>i. Establishment of 4x1500 MVA 765/400 kV Robertsganj Pooling Station near Robertsganj area in Sonbhadra distt. (Uttar Pradesh) along with 2x240 MVA 765 kV & 2x125 MVA 400 kV bus reactors</p> <p>ii. LILO of both circuits of 765 kV Varanasi- Gaya 2xS/c line at Robertsganj PS along with 240 MVA switchable line reactor at each ckt of Robertsganj PS end of 765 kV Robertsganj PS - Gaya 2xS/c line (after LILO)</p> <p>iii. Robertsganj PS – Prayagraj S/s 765 kV D/c line along with 330 MVA line reactor at each circuit</p>	RECPDCL

Minutes of Meeting for the 27th meeting of National Committee on Transmission

	kV, 1x1500 MVA ICT(4 th) at Robertsganj PS is December, 2030	of Robertsganj end of Robertsganj PS – Prayagraj S/s 765 kV D/c line (Detailed scope as approved by 27th NCT and subsequent amendments thereof)	
3.	Transmission system for Evacuation of Power from RE Projects in Morena SEZ in Madhya Pradesh-Phase I (2500MW) Implementation Timeframe: 27 Months	i. Establishment of 3x1500 MVA, 765/400 kV & 2x500MVA, 400/220 kV Morena PS (South of Sabalgarh) with 2x330 MVA 765 kV bus reactor and 2x125 MVA 420 kV bus reactor. ii. Morena PS (South of Sabalgarh) – Karera (near Datia) 765 kV D/c line iii. 2 Nos. of 765 kV line bays at Karera (near Datia) for termination of Morena PS (South of Sabalgarh) – Karera (near Datia) 765 kV D/c line iv. Augmentation of 400/220 kV transformation capacity at 765/400/220 kV Karera (near Datia) S/s (Sec-I) by 1x500MVA ICT (3 rd) (Detailed scope as approved by 27th NCT and subsequent amendments thereof)	PFCCCL

II. ISTS Transmission schemes, costing greater than ₹ 500 Crore, recommended by NCT to MoP under RTM:

The ISTS transmission schemes recommended by NCT to MoP are given below:

Sl. No.	Name of Transmission Scheme	Implementation Mode	Tentative Implementation timeframe	Estimated Cost (₹ Crs.)

Minutes of Meeting for the 27th meeting of National Committee on Transmission

1.	Provision of ICT Augmentation and Bus Reactor at Bhuj-II PS	RTM through POWERGRID Bhuj Transmission Limited	21 months	587
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The broad scope of the above ISTS schemes is as given below:

Sl. No.	Name of Scheme & Tentative implementation timeframe	Broad Scope
1.	Provision of ICT Augmentation and Bus Reactor at Bhuj-II PS Implementation Timeframe: 21 Months	<ul style="list-style-type: none"> i. Augmentation of transformation capacity at Bhuj-II PS (GIS) by 3x500 MVA, 400/220 kV ICT (7th, 8th & 9th) ii. Augmentation of transformation capacity at Bhuj-II PS (GIS) by 1x1500 MVA, 765/400 kV ICT (4th) iii. Installation of 1x330 MVA 765 kV Bus Reactor (2nd) along-with associated bay iv. Implementation of 220 kV GIS line bay at Bhuj-II PS for Aditya Birla Renewables Subsidiary Limited (ABRSL) [Appln No: 2200000321(362MW)] v. Implementation of 220 kV GIS line bay at Bhuj-II PS for ACME Cleantech Solutions Private Limited (ACSPL) [Appln No: 2200000382(350 MW)] vi. Implementation of 220 kV GIS line bay at Bhuj-II PS for ACME Cleantech Solutions Private Limited (ACSPL) [Appln No: 2200000431(50 MW)] vii. Implementation of 220 kV GIS line bay at Bhuj-II PS for Avaada Energy Pvt Ltd. (AEPL) [Appl. No: 2200000444(100 MW)] viii. Implementation of 220 kV GIS line bays at Bhuj-II PS for Adani Green Energy Thirty-Two Ltd. (AGE32L) [Appl. No: 2200000514 (260.5MW)] ix. Implementation of 220 kV GIS line bays at Bhuj-II PS for Adani Renewable Energy Eight Ltd. (ARE8L) [Appl. No: 2200000545 (115MW)] <p>(Detailed scope as approved by 20th NCT and subsequent amendments thereof)</p>

III. ISTS Transmission schemes, approved by NCT:

1. The transmission schemes approved by NCT under RTM route is given below:

Minutes of Meeting for the 27th meeting of National Committee on Transmission

Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Estimated Cost (₹ Cr)
1.	Augmentation of transformation capacity at Bhuj-II PS (GIS)	RTM through POWERGRID Bhuj Transmission Limited	21 months	428

The broad scope of above schemes are given below

Sl. No.	Name of Scheme & Tentative implementation timeframe	Broad Scope
1.	Augmentation of transformation capacity at Bhuj-II PS (GIS) Implementation Timeframe: 21 Months	i) Augmentation of transformation capacity at Bhuj-II PS (GIS) by 2x500 MVA, 400/220 kV ICT (5 th & 6 th) and by 1x1500 MVA, 765/400 kV ICT (3 rd) ii) Implementation of 220 kV GIS line bay at Bhuj-II PS for ABREL (RJ) Projects Limited (Detailed scope as approved by 16th NCT and subsequent amendments thereof)

IV. Communication schemes approved by NCT

Sl. No.	Name of Transmission Scheme	Implementation Mode	Tentative Implementation timeframe	Implementing Agency	Estimated Cost (Rs. Crs)
1.	OPGW installation on existing 765 kV Fatehpur-Varanasi S/c & 765 kV Fatehpur-Sasaram S/c Lines which are proposed to be LILLOed at New Prayagraj (ISTS)	RTM	24 months from the date of allocation or with matching timeframe of the transmission project "Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c	POWERGRID	33.24

Minutes of Meeting for the 27th meeting of National Committee on Transmission

			line” whichever is lower		
2.	VOIP Communication system for Grid-Operation for all Five Regions NR, NER, SR, WR, ER as PAN India	RTM	18 months from the date of allocation	POWERGRID	156.52
3.	Establishment of State-of-the-Art National Unified Network Management System (N-UNMS) in main & backup configuration integrating all the regional UNMSs.	RTM	24 months from the date of allocation	POWERGRID	128 (including AMC)
4.	Utilization of OPGW laid by M/s BDTCL on 765 kV S/c Bhopal (BDTCL) – Indore (PG) & 765 kV S/c Vadodara (PG) - Dhule (BDTCL) – Aurangabad (PG) line by upgrading STM-1 FOTE to STM-16 FOTE at Bhopal (BDTCL), Indore (PG), Dhule (BDTCL), Aurangabad (PG) and Vadodara (PG) S/s. 5	RTM	12 months from the date of allocation.	Approved for implementation by M/s Bhopal Dhule Transmission Company Ltd. (BDTCL)	2.6
5.	Supply and Installation of OPGW on existing 765 kV Gwalior – Satna S/c Line which is proposed to be LILOed at Karera (near Datiya) S/s under TBCB project namely “Western Region	RTM	Matching time frame of upcoming LILO of the said line or 24 months from the date of allocation whichever is earlier.	POWERGRID	23.5

Minutes of Meeting for the 27th meeting of National Committee on Transmission

	Expansion Scheme XXXIII (WRES- XXXIII): Part B”.				
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Minutes of Meeting for the 27th meeting of National Committee on Transmission**Annexure-I****List of participants of the 25th meeting of NCT****CEA:**

1. Sh. Ghanshyam Prasad, Chairperson, CEA & Chairman, NCT
2. Sh. Ajay Talegaonkar, Member (E&C)
3. Sh. A. K. Rajput, Member (Power Systems)
4. Sh. S. K. Maharana, Chief Engineer (PCD)
5. Sh. B. S. Bairwa, Chief Engineer (I/C) (PSPA-II)
6. Sh. Farooque Iqbal, Director (PSPA-II)
7. Sh. Vikas Sachan, Deputy Director (PSPA-I)
8. Sh. Manish Maurya, Deputy Director (PSPA-II)

MoP:

1. Sh. Om Kant Shukla, Director (Trans.)

MNRE:

1. Sh. Himanshu Prabhakar, Under Secretary

SECI:

1. Sh. Vineet Kumar, DGM
2. Sh. R. K. Agarwal, Consultant

NITI Aayog:

1. Sh. Shravan Pushkar, Consultant

CTUIL:

1. Sh. Ashok Pal, COO
2. Ms. Manju Gupta, Deputy COO
3. Sh. Vikas Bagadia, CGM
4. Sh. P. S. Das, Sr GM
5. Ms. Nutan Mishra, Sr GM
6. Sh. H. S. Kaushal, Sr GM
7. Sh. Shiv Kumar Gupta, Senior DGM
8. Sh. Kunal Gaur, DGM
9. Sh. VMS Prakash Yerubandi, DGM
10. Sh. Pratyush Singh, Chief Manager
11. Sh. Yatin Sharma, Manager

GRID India:

1. Sh. S. R. Narasimhan, CMD
2. Sh. Rajiv Porwal, Director (SO)
3. Sh. Vivek Pandey, Sr. General Manager
4. Sh. Priyam Jain, Chief Manager

Minutes of Meeting for the 27th meeting of National Committee on Transmission

5. Sh. Rahul Shukla, Chief Manager
6. Sh. Raj Kishan, Deputy Manager

RECPDCL

1. Sh. Satyabhan Sahoo, GM (Tech)
2. Sh. Saroj Kumar Sharma, GM
3. Sh. Anil Kumar, Chief Manager
4. Sh. Dheeraj Kumar, Executive (Tech.)

PFCCL

1. Sh. Naveen Phougat, GM
2. Sh. Deepak Kumar, AM

Expert Member

1. Sh. Ravinder Gupta, Ex Chief Engineer, CEA