

सेंट्रल ट्रांसमिशन यूटिलिटी ऑफ इंडिया लिमिटेड

(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड के स्वामित्व में)

(भारत सरकार का उदयम)

CENTRAL TRANSMISSION UTILITY OF INDIA LTD.

(A wholly owned subsidiary of Power Grid Corporation of India Limited)

(A Government of India Enterprise)

संदर्भ/Ref: CTU/E/00/7th/CMETS-ER

दिनांक/Date: 22-06-2022

वितरण सूची के अनुसार/ As per Distribution List

विषय/ Subject: पूर्वी क्षेत्र में पारेषण योजनाओं के विकास के लिए 7^{वीं} परामर्श बैठक के कार्यवृत्त (सीएमईटीएस-ईआर) / Minutes of 7th Consultation Meeting for Evolving Transmission Schemes in Eastern Region (CMETS-ER)

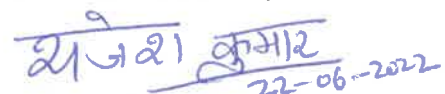
महोदय/महोदया/ Sir/ Ma'am,

पूर्वी क्षेत्र में पारेषण योजनाओं के विकास के लिए 7^{वीं} परामर्श बैठक 31st मई, 2022 को वीडियो कॉन्फ्रेंस के माध्यम से आयोजित की गई थी। इस संबंध में बैठक के कार्यवृत्त संलग्न है। यही CTUIL की वेबसाइट (www.ctuil.in >> [ISTS Planning and Coordination](#) >> [Consultation Meeting for ISTS](#) >> [Eastern Region](#)) पर भी उपलब्ध है।

The 7th Consultation Meeting for Evolving Transmission Schemes in Eastern Region (CMETS-ER) was held on 31st May, 2022 through video conferencing. In this regard, please find enclosed minutes of the meeting. The same is available on CTUIL website (www.ctuil.in >> [ISTS Planning and Coordination](#) >> [Consultation Meeting for ISTS](#) >> [Eastern Region](#))

धन्यवाद/ Thanking you,

भवदीय / Yours faithfully,



(राजेश कुमार) / (Rajesh Kumar)
महाप्रबंधक/ General Manager

A. वितरण सूची / Distribution List:

1.	Chief Engineer (PSP&A-II) Central Electricity Authority Sewa Bhawan, R.K.Puram New Delhi-110066	2.	Director (SO) Power System Operation Corporation Ltd. 9 th Floor, IFCI Towers, 61, Nehru Place, New Delhi-110 016
3.	Member Secretary Eastern Regional Power Committee 14, Golf Club Road, Tollygunge Kolkata-700033	4.	Executive Director Eastern Regional Load Despatch Centre 14, Golf Club Road, Jubilee Park, Golf Gardens, Tollygunge, Kolkata, West Bengal - 700095
5.	CMD Damodar Valley Corporation DVC Towers, VIP Road Kolkata-700054	6.	CMD Odisha Power Transmission Corporation Ltd. (OPTCL) Bhoinagar Post Office, Jan path Bhubaneswar-751022
7.	CMD Bihar State Power Transmission Company Ltd. (BSPTCL) Vidyut Bhavan, 4 th floor, Bailey Road Patna-800021	8.	CMD Jharkhand Urja Sancharan Nigam Limited (JUSNL) Engineering Building, HEC, Dhurwa Ranchi -834004
9.	Principal Chief Engineer cum Secretary Power Department Government of Sikkim Gangtok, Sikkim	10.	Managing Director West Bengal State Electricity Transmission Company Ltd. (WBSETCL) Vidyut Bhavan, 8 th Floor, A-Block Salt Lake City, Kolkata-700091

B. विशेष आमंत्रित / Special invitee:

1.	Director (Projects) Power Grid Corporation of India Ltd. "Saudamini", Plot No. 2, Sec-29, Gurugram Haryana-122001	2.	Managing Director West Bengal Power Development Corporation Limited (WBPDCCL) Bidyut Unnyan Bhaban, Plot- 3/C LA-Block, Sector-III, Salt Lake City Kolkata-700106
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C. आवेदक /Applicant(s)

1.	Sh. Alock Garg Deputy General Manager Jindal Power Limited Tower-B, 3 rd floor Jindal Centre, Plot no.2 Sector-32, Gurugram - 122001	2.	Sh. Anish Pasrija DGM – Business Development Greenko AP01 IREP Private Limited 15 th Floor, Hindustan Times House, 18-20 KG Marg New Delhi - 110001
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Minutes of 7th Consultation Meeting for Evolving Transmission Schemes in Eastern Region (CMETS-ER)

GM (CTU) welcomed the participants in the meeting. List of the participants is enclosed at **Annexure-I**.

Agenda wise deliberations and decisions are given below:

1. Confirmation of minutes of the previous meeting

CTU informed that the minutes of the 6th meeting of CMETS-ER held on 29-04-2022 were issued vide letter dated 25-05-2022. As no comments have been received, the minutes were confirmed as circulated.

2. Presentation by states on intra-state network for 2026-27 time-frame

As agreed in the previous meeting, JUSNL gave a presentation (copy enclosed at **Annexure-IV**) regarding the new under-construction and planned substations in Jharkhand grid. JUSNL was requested that further details such as power map, transmission lines emanating from new substations, load-generation balance of future time-frame (2026-27) etc. may also be provided. JUSNL agreed for the same.

All the stakeholders appreciated the initiative of sharing of future plan details of ISTS and intra-state schemes in CMETS as the same shall help in better transmission system planning due to availability of updated data and coordination among states, CTU, ERPC, ERLDC & other stakeholders. In this direction, it was felt necessary that ERLDC may also give a presentation on operational matters including details of elements leading to power transfer constraints in the grid, voltage management issues, non-fulfilment of N-1 or N-1-1 in operational grid etc. ERLDC confirmed that they will be giving a presentation on the matter. Further, it was decided that E&P Dept., Govt. of Sikkim may also present details regarding load-generation balance and upcoming intra-state schemes of Sikkim for 2026-27 time-frame in the next CMETS-ER, as all other STUs of ER viz. BSPTCL, JUSNL, WBSETCL, and OPTCL have already given a presentation regarding their respective grid. It was decided to take up the same with E&P Dept., Govt. of Sikkim.

A. Application related matters in Eastern Region (ER)

3. LTA applications with injection in another region and drawl in ER

3.1. CTU informed that following LTA application has been received from generation developer in SR with drawl in ER in the month of Apr 2022:

Sl. No.	Applic ation No.	Applicant Name	Applic ation Date	Quant um of LTA	Location of Generating Station	Type of Fuel	Start Date	End Date	Drawl Point
1	12000 03664	Greenko AP01 IREP	30-04-2022	900 MW (PSA)	Kurnool, Andhra Pradesh.	Hybrid	30-09-2023	30-09-2048	Rajasthan Urja Vikas Nigam

Sl. No.	Application No.	Applicant Name	Application Date	Quant um of LTA	Location of Generating Station	Type of Fuel	Start Date	End Date	Drawl Point
		Private Limited		without NoC)	Injection at 765/400 kV Kurnool New S/s, Andhra Pradesh				Ltd. (RUVNL), NR: 490MW DVC, ER: 200MW Target (ER): 210MW

Application has been submitted along with PPA, signed between SECI & M/s Greenko AP01 IREP Pvt. Ltd., and PSA, signed between SECI & DVC and SECI & RUVNL, but without NoC from respective STUs. Validity of PPAs is upto 01.08.2048 and validity of PSA, signed between SECI & DVC and SECI & RUVNL is upto 18.02.2048 & 23.07.2048 respectively.

Regarding availability of transmission system for evacuation of power from Kurnool New S/s, it is to mention that M/s Greenko AP01 IREP Pvt. Ltd. has already been granted Stage-II Connectivity for 900MW at Kurnool New S/s, Andhra Pradesh against its application no. 1200002672. For evacuation & supply of power from the generation in SR to its beneficiaries in NR, the transmission scheme of *“ISTS Network Expansion scheme between Western Region & Southern Region for export of surplus power during high RE scenario in Southern Region”*, which includes Narendra New – Pune 765kV D/c line, is required and the same is expected by June 2024 (tentative commissioning schedule). Further, for supply of power from the generation to beneficiaries in ER, existing / under implementation transmission system is expected to be adequate. The detailed system studies have been carried wherein it is observed that loadings are generally in order.

The above LTA is proposed to be granted with transmission system expansion in WR & SR for power transfer towards NR (tentatively expected by June 2024), and through existing / under implementation transmission system for power transfer towards ER.

It was further informed that request for NoC to DVC from CTU has already been sent on 04-05-2022. However, response of DVC is awaited. Accordingly, DVC was requested to intimate their views regarding the issuance of STU NoC for the above LTA.

3.2. CTU informed that the above application has been discussed in the 7th CMETS-SR held on 31-05-2022, wherein following emerged:

- M/s Greenko AP01 IREP Pvt. Ltd. (applicant) informed that it is not possible to implement the project with different implementation schedules and therefore the start date of LTA for beneficiaries in NR and ER should be same.
- CTU clarified that LTA for drawl of power by DISCOMs of RUVNL can't be granted without availability of transmission scheme *“ISTS Network Expansion scheme between Western Region & Southern Region for export of surplus power during high RE scenario in Southern Region”*,

which have tentative commissioning schedule of June 2024 (tentative). Therefore, LTA for total quantum of 900MW with single start date of LTA can be granted only from 30-07-2024. M/s Greenko AP01 IREP Pvt. Ltd. was requested to confirm the same. Therefore, LTA for 900MW can be granted with single start date of 01-07-2024.

- 3.3. Subsequently, vide letter dated 02-06-2022 M/s Greenko AP01 IREP Pvt. Ltd. clarified about validity of PPA/ PSA and allocation of power among DISCOMs of RUVNL.
- 3.4. Further, with regard to NoC it is to mention that if NoC of concerned STU is not available or the NoC is not effective as on Start Date of LTA, the billing for payment of transmission charges shall be undertaken on the LTA grantee as per CERC Regulations, till such time NoC is made available and becomes effective. The NoC with conditions would be considered effective only upon fulfillment of such conditions.
- 3.5. In view of the above, LTA of 900MW is being granted to M/s Greenko AP01 IREP Pvt. Ltd. with start date of LTA as 01-07-2024 (Tentative) through above mentioned transmission system for LTA.

4. MTOA applications with injection in another region and drawl in ER

- 4.1. CUT informed that following MTOA application has been received from generation developer in WR with drawl in ER in the month of Apr 2022:

Sl. No.	Application No.	Applicant Name	Application Date	Quant um of MTOA	Location of Generating Station	Fuel	Start Date	End Date	Drawl Point
1	12000 03855	Jindal Power Limited (JPL) (4x250 MW)	12-04-2022	72MW	JPL Stage-1, 400kV PGCIL S/s at Raipur (WR)	Thermal	01-10-2022	31-08-2025	South Eastern Railway, Jharkhand (ER)

- 4.2. It was further informed that quantum of PPA is 70MW, however, MTOA has been sought for 72MW. In this regard, applicant has clarified that they have applied MTOA considering transmission losses of 2.78% to deliver contracted capacity of 70MW at the delivery point.
- 4.3. CTU mentioned that presently, 75MW LTA and 297.3MW MTOA (total 372.3MW) is already granted from M/s JPL. The subject MTOA involves transfer of 72MW additional power from M/s JPL, WR to ER. From the system studies, it has been observed that power flows are generally in order, including on inter-regional lines.
- 4.4. After detailed deliberation, it was agreed to grant MTOA of 72MW to M/s JPL, WR for transfer of power to South Eastern Railway, Jharkhand, ER with the existing / under implementation transmission system w.e.f. 01-10-2022 till 31-08-2025.

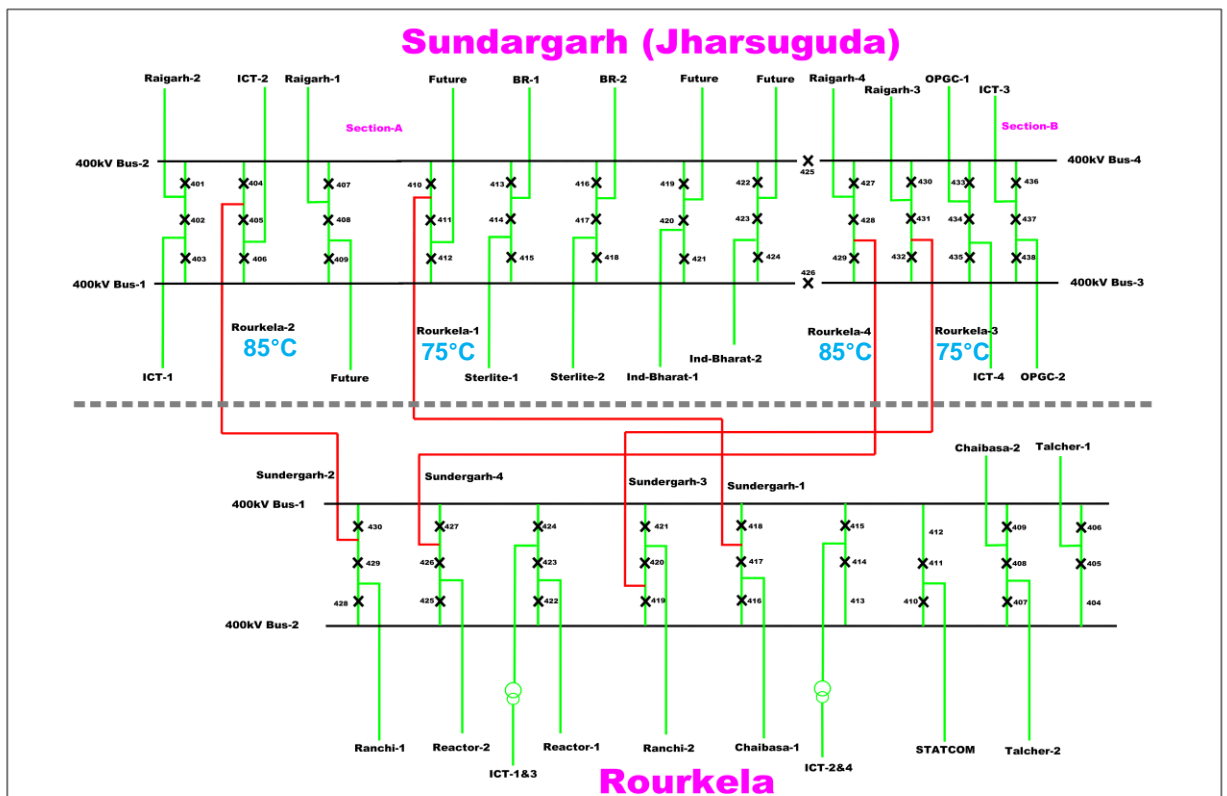
B. ISTS expansion schemes in Eastern Region

5. Reconductoring of Rourkela – Jharsuguda 400kV 2xD/c lines

5.1. CTU informed that in the 6th CMETS-ER held on 29-04-2022, reconductoring of Rourkela – Jharsuguda 400kV 2xD/c lines was in-principally agreed in view of establishment of new 400/220kV substation at Joda New by OPTCL. In the meeting it was also decided that exact scope of works with regard to proposed reconductoring would be finalised in the next meeting, after inputs from POWERGRID.

5.2. It was mentioned that, POWERGRID vide email dated 20-05-2022 has informed the following with regard to Rourkela-Jharsuguda 400kV 2xD/c lines:

- (i) Circuit I & III of Rourkela-Jharsuguda 400kV D/c line are designed for 75°C max. conductor temperature and Circuit II & IV are designed for and 85°C max. conductor temperature.
- (ii) For 400kV transmission lines designed for 75°C & 85°C max. conductor temperature, ampacity of 1228 Amperes & 1400 Amperes (per conductor) respectively may be possible for re-conductoring purpose considering techno-commercial solution.



5.3. Split bus arrangement has been implemented at Jharsuguda at 400kV level. As per inputs from POWERGRID, it is observed that one circuit (ckt-1) of Rourkela-Jharsuguda on Section-A is designed for 75°C max. conductor temperature and other circuit (ckt-2) is designed for 85°C max. conductor temperature. Similar is the case for Section-B i.e. ckt-3 is designed for 75°C max. conductor

temperature and ckt-4 is designed for 85°C max. conductor temperature. Accordingly, to have equitable rating for all circuits on Section-A and Section-B it was proposed in the meeting that all four circuits of Rourkela-Jharsuguda may be reconducted with HTLS of 1228A rating.

- 5.4. OPTCL mentioned that the expected commissioning time for Joda (New) 400kV S/s is 36 months. Accordingly, they requested that reconductoring of Rourkela – Jharsuguda/Sundargarh 400kV 2xD/c ISTS lines may also be taken up in similar time-frame.
- 5.5. After detailed deliberation, following scope of works was agreed to be implemented under ISTS scheme namely Eastern Region Expansion Scheme-XXIX (ERES-XXIX) with implementation time-frame of 36 months from date of allocation with following scope of works:
 - a) Reconductoring of Jharsuguda/Sundargarh (POWERGRID) – Rourkela (POWERGRID) 400kV 2xD/c Twin Moose line with Twin HTLS conductor (with ampacity Single HTLS as 1228A at nominal voltage)
 - b) Bay upgradation at Rourkela (POWERGRID) end for 3150A rating – 04 nos. diameters in one and half breaker scheme (*except 09 nos. existing circuit breakers which are of minimum 3150 A rating*).

Note: No upgradation in line bays is envisaged at Jharsuguda/Sundargarh (POWERGRID) S/s as the existing line bays are rated for 3150A.

6. Augmentation of power transfer capacity in Rourkela – Tarkera 220kV D/c line corridor – Agenda by OPTCL

- 6.1. CTU informed that in the 1st CMETS-ER, space for implementation of 2 nos. 220kV lines bays were provided at Rourkela (POWERGRID) 400/220kV ISTS S/s for termination of Rourkela (POWERGRID) – Tarkera 220kV D/c new intra-state line (2nd) to be constructed by OPTCL under intra-state scheme to augment the power transfer capacity in Rourkela – Tarkera 220kV D/c line corridor.
- 6.2. Now, OPTCL vide letter dated 27-04-2022 has informed that during survey for another two circuits, Right of Way (RoW) issues and corridor constraints like infringing the Rourkela Steel Plant (RSP) area, river crossings, power line crossings etc. will be encountered, which may delay the project. Accordingly, OPTCL has proposed for reconductoring of existing ACSR Zebra line with HTLS as an interim measure and they will proceed in resolving the RoW issues for another two circuits. Rating of HTLS has been informed as 1179A at 120°C.
- 6.3. CTU further informed that it has been observed that after reconductoring of Rourkela – Tarkera 220kV D/c (1st) ACSR Zebra line with Single HTLS of 1179A, N-1 shall be fulfilled. Once the line is reconducted it cannot be an interim arrangement, it shall be permanent. Further, in order to effectively utilize the capacity of HTLS line, it is necessary that 2nd D/c line is also built with conductor of similar rating and preferably HTLS so that both D/c lines are equitably loaded.

- Space for implementation of 2 nos. of 220kV lines bays at Rourkela (POWERGRID) 400/220kV ISTS S/s end as agreed in the 1st CMETS-ER can be utilized for termination of this 2nd 220kV D/c HTLS line.
- 6.4. POWERGRID vide email dated 27-05-2022 has informed the rating of 220kV line bay equipment at Rourkela end for Tarkera line as follows:
- CB: 2500A; Isolator: 1600A; CT: 1600A; and Wave Trap: 1250A
- 6.5. OPTCL informed the rating of 220kV line bay equipment at Tarkera end for Rourkela line as follows:
- CB: 3150A; Isolator: 1250A; CT: 1200A
- 6.6. OPTCL further informed that reconductoring of Rourkela – Tarkera 220kV D/c (1st) ACSR Zebra line with Single HTLS of 1179A is expected to be completed by Mar 2023.
- 6.7. On enquire, OPTCL mentioned that they would like to keep the plan of establishment of Rourkela – Tarkera 220kV D/c (2nd) HTLS line active and would continue to explore the feasibility for implementation of the same after reconductoring of the existing D/c line. Accordingly, they requested that space for 2 no. 220kV line bays at Rourkela (POWERGRID) S/s may continue to be allocated to OPTCL for termination of Rourkela – Tarkera 220kV D/c (2nd) HTLS line.
- 6.8. After detailed deliberation following was agreed to strengthen downstream system from Rourkela S/s:
- (a) Reconductoring of Rourkela (POWERGRID) – Tarkera (OPTCL) 220kV D/c (1st) ACSR Zebra line with Single HTLS of 1179A by OPTCL under intra-state scheme by Mar 2023. Line bay upgradation is not required, as the line bay equipment at both ends are commensurate with rating of the HTLS.
- (b) Space for implementation of 2 nos. 220kV lines bays would be provided at Rourkela (POWERGRID) 400/220kV ISTS S/s for termination of Rourkela (POWERGRID) – Tarkera (OPTCL) 220kV D/c (2nd) HTLS line to be constructed by OPTCL under intra-state scheme.
- 7. 2 no. of 220kV line bays at Maithon (POWERGRID) S/s for connecting Maithon (POWERGRID) – Asansol (WBSETCL) 220kV D/c line – Agenda by WBSETCL**
- 7.1. CTU informed that in the 5th CMETS-ER held on 30-03-2022, the proposal regarding implementation of new Maithon (POWERGRID) – Asansol (WBSETCL) 220kV D/c line was deliberated and following was agreed:
- (a) Within one-month WBSETCL will confirm regarding availability of space at Asansol for implementation of Maithon (POWERGRID) – Asansol 220kV D/c line.

- (b) If space is not available at Asansol, WBSETCL will provide the details such as line length of – new sections formed after LILO of Santaldih TPS – Asansol 220kV D/c line at Koylapur, Koylapur – Maithon etc. for carrying out revised system studies.
 - (c) The scheme would be again taken up for deliberation in CMETS-ER after receipt of inputs from WBSETCL and revised studies.
- 7.2. Now, WBSETCL has informed following vide emails dated 28-04-2022 and 20-05-2022:
- (a) Space is available at Asansol (WBSETCL) S/s for termination of new Maithon (POWERGRID) – Asansol (WBSETCL) 220kV D/c line
 - (b) The Maithon (POWERGRID) – Asansol (WBSETCL) 220kV D/c line will be implemented with Single HTLS (1200A Drake or equivalent) along with line bays at both ends.
 - (c) As proposed in the 5th CMETS-ER, Asansol – Mongalpur and Asansol – JK Nagar 220kV line sections shall be reconducted by WBSETCL with Single HTLS (1200A Drake or equivalent) along with necessary upgradation in line bay equipment at both ends.
- 7.3. On enquire, WBSETCL mentioned that the expected commissioning timeframe is 30 months for implementation of Maithon (POWERGRID) – Asansol (WBSETCL) 220kV D/c intra-state line with Single HTLS (1200A Drake or equivalent) along with associated line bays at both ends and reconductoring of Asansol – Mongalpur and Asansol – JK Nagar 220kV line sections with Single HTLS (1200A Drake or equivalent) along with necessary upgradation in line bay equipment at both ends.
- 7.4. After detailed deliberations, following was agreed in the meeting:
- (a) Space allocation at Maithon (POWERGRID) ISTS S/s to WBSETCL: Space for implementation of 2 no. 220kV line bays would be provided at Maithon (POWERGRID) ISTS S/s for termination of Maithon (POWERGRID) – Asansol (WBSETCL) 220kV D/c intra-state line with Single HTLS (1200A Drake or equivalent) of WBSETCL.
 - (b) Reconductoring of Asansol – Mongalpur and Asansol – JK Nagar 220kV line sections with Single HTLS (1200A Drake or equivalent) along with necessary upgradation in line bay equipment at both ends by WBSETCL under intra-state scheme.
- 8. Revised connectivity for establishment of New Laxmikantpur 400/132kV S/s by WBSETCL – Agenda by WBSETCL, and Augmentation of transformation capacity in and around Kolkata area**
- 8.1. CTU informed that establishment of New Laxmikantpur 400/132kV, 2x315MVA GIS substation through LILO of both circuits of Haldia (CESC) – Subhasgram (POWERGRID) 400kV D/c line at New Laxmikantpur was agreed for

implementation under intra-state scheme by WBSETCL in the 2nd meeting of erstwhile ERSCT held on 05-07-2019.

- 8.2. Now, WBSETCL vide letter dated 20-05-2022 has submitted that they are proposing establishment of New Laxmikantpur S/s through LILO of one circuit of under construction Jeerat New (POWERGRID) – Subhasgram (POWERGRID) 400kV D/c (Quad) line and LILO of one circuit of existing Haldia (CESC) – Subhasgram (POWERGRID) 400kV D/c line, in view of anticipated more reliability and stronger source at Jeerat New 765kV.
- 8.3. It was mentioned that the above proposal was deliberated in the joint study meeting of ER held on 24-05-2022 among CTU, ERPC, ERLDC, WBSETCL and CESC, wherein following was decided:
- WBSETCL and CESC will once again deliberate along with M/s Haldia Energy Limited (HEL) and workout modalities for implementation of LILO of Haldia – Subhasgram 400kV D/c line at New Laxmikantpur, as the same is most suitable technical and economical alternative for providing connection to New Laxmikantpur S/s.
 - With implementation of New Laxmikantpur 400/132kV, 2x315MVA substation, loading on Laxmikantpur 220/132kV ICTs reduces drastically as major power requirement in the area meets from New Laxmikantpur S/s. Accordingly, it is necessary to implement split bus arrangement at Laxmikantpur S/s at 132kV level, so that some loads are fed from Subhasgram through 220kV D/c line and balance from New Laxmikantpur. This shall enable effective utilisation of ICTs at Laxmikantpur, New Laxmikantpur, and Subhasgram. Accordingly, WBSETCL needs to plan and implement suitable bus split arrangement at Laxmikantpur S/s.
 - With growth in demand in and around Kolkata area necessity of augmentation of transformation capacity at Jeerat (WBSETCL), Jeerat-New (POWERGRID) and Subhasgram (POWERGRID) is observed. ICTs at Jeerat are found to be critically loaded in base case itself. Accordingly, it was decided that following new ICTs may be installed in ISTS:
 - (i) New 765/400kV, 1500MVA (3x500MVA single phase units) ICT at Jeerat New (POWERGRID) S/s along with associated ICT bays – **to be finalised based on loading details to be provide by ERDLC**
 - (ii) New 400/220kV, 500MVA ICT at Subhasgram (POWERGRID) S/s along with associated ICT bays
 - Further, ERLDC highlighted the issue of augmentation of transformation capacity at Sagardighi TPS and Gokarna. WBSETCL informed that they are planning to install 3rd 400/220kV ICT at Gokarna, whose capacity they will confirm in the CMETS-ER. WBSETCL was also requested that they may

discuss with WBPDCCL regarding augmentation of transformation capacity at Sagardighi TPS, as presently there is only one 400/220kV, 315MVA ICT.

- WBSETCL will review the loads modelled at substations in Kolkata area for 2026-27 time-frame PSSE file.
- 8.4. Subsequently, it was observed that N-1 of ICTs is not being fulfilled at Kolaghat, Chanditala, and Kharagpur substations also in 2026-27 time-frame. Accordingly, WBSETCL was requested to share plan for augmentation of transformation capacity at these substations.
- 8.5. In view of the above, WBSETCL was requested to provide update on the following:
- (a) Outcome of deliberation with CESC and HEL for implementation of New Laxmikantpur S/s through LILO of both circuits of Haldia (HEL) – Subhasgram (POWERGRID) 400kV D/c line.
 - (b) Split bus arrangement at Laxmikantpur with implementation of New Laxmikantpur S/s.
 - (c) Capacity of 3rd 400/220kV ICT at Gokarna.
 - (d) Feasibility for installation of new 400/220kV ICT at Sagardighi TPS (inputs may be arranged in consultation with WBPDCCL)
 - (e) Plan for augmentation of transformation capacity at Jeerat, Kolaghat, Chanditala, and Kharagpur substations.
- 8.6. WBSETCL informed following in the meeting:
- (a) Meeting is scheduled on 02-06-2022 among WBSETCL, CESC, and HEL to finalise the modalities for LILO of both circuits of Haldia (HEL) – Subhasgram (POWERGRID) 400kV D/c line for establishment of New Laxmikantpur S/s.
 - (b) Split bus arrangement at Laxmikantpur 220/132kV S/s shall be worked out for implementation along with New Laxmikantpur S/s. The details would be shared with ERPC, CTU, and ERLDC.
 - (c) The works with regard to installation of 3rd 400/220kV, 315MVA ICT at Gokarna has already been awarded. Civil work has already been completed.
 - (d) The matter is under discussion with WBPDCCL. WBSETCL would revert after feedback from WBPDCCL.
 - (e) Jeerat: It was informed that presently one 315MVA ICT at Jeerat is out of service as the same got damaged. WBSETCL is exploring to install new ICT at the earliest. It was suggested to WBSETCL that in view of requirement of transformation capacity augmentation the new ICT may be of 500MVA. Further, WBSETCL was also requested to take up installation of 5th 400/220kV ICT of 500MVA or replace all 315MVA ICTs with 500MVA in case of space constraints.

Kolaghat: Two unit of Bakreswar TPS at 220kV level have been decommissioned. Feasibility of shifting of units connected at 400kV bus to 220kV is being explored to avoid transformation capacity constraints.

Chanditala: Installation of 4th 400/220kV, 500MVA ICT is being planned.

Kharagpur: Further studies will be carried out to identify requirement of transformation capacity augmentation.

- 8.7. With regard to Jeerat (New) S/s, ERLDC mentioned that maximum power flow observed at this substation is about 600MW, till date. Accordingly, it was decided that augmentation of Jeerat (New) S/s may be reassessed after commissioning of Jeerat (New) – Subhasgram (POWERGRID) 400kV D/c (Quad) line.
- 8.8. For augmentation of transformation capacity at Subhasgram (POWERGRID) S/s, WBSETCL and WB-SLDC suggested that instead of installation of 6th 400/220kV, 1x500MVA ICT, feasibility of replacement of 315MVA ICTs of ISTS may be explored. CTU informed that the 400/220kV, 2x315MVA ICTs installed at Subhasgram were commissioned in 2007, and they are yet to complete their useful life. Moreover, with replacement of these 315MVA ICTs there will be issues such as, comparatively more commercial burden on stakeholder, identification of usage of ICTs released after replacement, relatively lesser increment (370MVA) in transformation capacity as compared to installation of new 500MVA ICT etc. It was further mentioned that, as space is available for installation of new ICT, augmentation of transformation capacity by installation of new 500MVA ICT would be a better techno-economical solution as compared to replacement of 2x315MVA ICTs with 2x500MVA ICTs.
- 8.9. ERPC mentioned that matter regarding replacement of 2x315MVA ICT at Subhasgram was deliberated at ERPC level too, wherein POWERGRID informed that replacement would be difficult in view of constraints is modification in foundation, fire wall, other civil structures etc.
- 8.10. WBSETCL stated that they feel more deliberation is needed with regard to augmentation of transformation capacity at Subhasgram (POWERGRID) S/s, whether to install new 6th 400/220kV, 500MVA ICT or replace the existing 2x315MVA ISTS ICTs with new 2x500MVA ICTs. They further mentioned that with commissioning of New Laxmikantpur S/s, requirement of augmentation of transformation capacity at Subhasgram may not arise.
- 8.11. Studies were carried out during the meeting and it was observed that even after considering New Laxmikantpur S/s in 2026-27 there is requirement of augmentation of transformation capacity at Subhasgram (POWERGRID) S/s due to increased power drawl requirement especially in southern part of West Bengal.
- 8.12. ERLDC mentioned that Subhasgram S/s feeds power to East Kolkata and Laxmikantpur area. With commissioning of New Laxmikantpur S/s some portion

of load in Laxmikantpur area shall be shared by this substation, however, with increasing demand in Kolkata area there will still be requirement of augmentation of transformation capacity at Subhasgram. ERLDC further mentioned that Subhasgram is very critical substation for meeting the power requirement of Kolkata area and installation of new ICT at Subhasgram is very essential for reliable power supply.

8.13. After detailed deliberation it was decided that WBSETCL will expeditiously carry out further deliberations and system studies, and would give their observations with regard to following matters after which the matters will be taken up for further deliberations in the next meeting of CMETS-ER.

(a) 400kV connectivity at New Laxmikantpur S/s and split bus arrangement at Laxmikantpur S/s

(b) Installation of 6th 400/220kV, 500MVA ICT at Subhasgram (POWERGRID) S/s.

9. Augmentation of 132/66kV transformation capacity at Gangtok (POWERGRID) S/s – Agenda by ERPC

9.1. CTU mentioned that this agenda has been forwarded by ERPC after deliberation in the 190th OCC meeting. It was informed that, presently 132/66kV Gangtok S/s is having 2x50MVA ICTs in service. Going by the loading profile in last winter (From Dec-21 to Feb-22) it is observed that due to huge load growth around Gangtok, both ICT's are loaded around 90% of the rated capacity. Further, in downstream 66kV feeders, most of the feeders are reconducted in recent past with enhanced power transfer capacity, but loading is mostly restricted due to limitation of ICT capacity. Synopsis of loading of both ICT's are given below:

Date	ICT-I Peak Load	ICT-II Peak Load	Remarks
27.01.2022	44 MW	45 MW	Almost 90 % Loading during peak load
28.01.2022	43 MW	44 MW	Almost 90 % Loading during peak load
29.01.2022	44 MW	45 MW	Almost 90 % Loading during peak load
30.01.2022	42 MW	43 MW	Almost 90 % Loading during peak load
31.01.2022	44 MW	45 MW	Almost 90 % Loading during peak load

9.2. From the above, it is evident that N-1 reliability is not met at Gangtok S/s during peak load condition. Outage of any ICT during peak load condition might lead to cascaded tripping leading to large scale power outage. To mitigate the issue, it is essential to expeditiously install 3rd 50MVA, 132/66kV ICT at Gangtok S/s.

9.3. ERPC informed that, 01 no. of spare 50MVA, 132/66kV ICT is available at Rangpo (POWERGRID) S/s. To install the same as 3rd 50MVA, 132/66kV ICT at Gangtok (POWERGRID) S/s, following is proposed as per inputs from POWERGRID:

- a) Against non-availability of space for new bays, existing Transfer Bus Coupler Bays at 132kV & 66kV switchyards shall be used for connection of new 50MVA, 132/66kV ICT, so as to commission the ICT on urgent basis.
 - b) Adjacent land may be acquired by POWERGRID with help of Sikkim Govt. for reconstruction of Transfer Bus Coupler Bays at 132kV & 66kV switchyards.
 - c) Till commissioning of b) above, Transfer Bus Coupler (TBC) Bays at 132kV & 66kV switchyards shall not be available.
 - d) New 132/66kV, 50MVA ICT shall be procured to replenish the spare ICT at Rangpo (POWERGRID) S/s
- 9.4. The above proposal at para 9.3 was agreed in the meeting including the condition that there shall not be TBC bays at 132kV & 66kV switchyards till commissioning of new TBC bays at 132kV & 66kV levels.
- 9.5. ERLDC mentioned that keeping in view the critical loading observed on the Gangtok ICTs during winter, it is essential that the 3rd ICT may be installed expeditiously. Accordingly, it was agreed to install the 3rd ICT at Gangtok after shifting spare ICT from Rangpo on best effort basis.
- 9.6. E&P Dept., Govt. of Sikkim agreed to the proposal and also mentioned that they have already taken up the matter with Govt. of Sikkim for providing requisite additional land, which is expected to be arranged in next 2-3 months.
- 9.7. Further, it was also deliberated that there shall be requirement of reconductoring of Rangpo – Gangtok 132kV D/c line keeping in view enhanced power drawl requirement at Gangtok and maintaining N-1 reliability. It was decided to deliberate on the matter in the next CMETS-ER.
- 9.8. The matter was subsequently discussed with POWERGRID and following emerged during deliberation:
- Installation of new (3rd) ICT using the existing TBCs would reduce the operational reliability of the substation.
 - Procurement of land just for construction of new TBCs could require substantial time as per past experiences of land procurement in and around Gangtok area.
 - In order to augment the transformation capacity at Gangtok S/s, the 3rd available 50MVA ICT (regional spare) may be paralleled with any of the 2x50MVA existing ICTs at present. After the supply of a new 100MVA ICT, the same may be installed in place of non-paralleled 50MVA ICT, thus the 50MVA ICT shall be released again as regional spare. This shall result in creation of 132/66kV, 2x100MVA transformation capacity at Gangtok S/s (2x50MVA in parallel + 100MVA).

- 9.9. In view of the above and subsequent discussion with POWERGRID, following scope of works is proposed to be implemented under ISTS scheme namely Eastern Region Expansion Scheme-XXX (ERES-XXX) with implementation time-frame of 18 months from date of allocation, with scope of work mentioned at (a) to be completed as early as possible on best effort basis:
- (a) Paralleling of 132/66kV, 50MVA regional spare ICT available at Rangpo (POWERGRID) S/s with any of the existing 132/66kV, 2x50MVA ICTs at Gangtok (POWERGRID) S/s as permanent arrangement along with suitable isolation arrangement, upgradation of bay equipment, and necessary ICT protection, if necessary.
 - (b) Installation of new 132/66kV, 100MVA ICT in place of single 50MVA ICT (not in parallel connection) along with upgradation of bay equipment, if necessary, and release of regional spare 50MVA ICT.
- 10. Status of downstream 220kV or 132kV network by STUs from the various commissioned and under-construction ISTS substations in ER**
- 10.1. CTU informed that numbers of ISTS sub-stations have been commissioned and some are under construction for which the downstream system is being implemented by the STUs.
 - 10.2. Based on the information provided by the states, updated information on planned/under-construction downstream system is given at **Annexure-II**.
- 11. Status of 400kV substations being implemented by STUs in ER under intra-state schemes to be connected through ISTS**
- 11.1. CTU informed that various 400kV substations have been approved in the intra-state strengthening schemes in ER having interconnection with ISTS grid involving LILO of ISTS lines or direct connection to ISTS substations.
 - 11.2. Status of intra-state substations and associated lines as updated by STUs in the meeting is given at **Annexure-III**.

Annexure-I

List of participants of 7th Consultation Meeting for Evolving Transmission Schemes in Eastern Region (CMETS-ER)

Sl. No.	Name	Designation	Organization	Email id
1.	Sh. V Thiagarajan	SGM	CTU	vthiagarajan@powergrid.in
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21.	Sri Upendra Kumar Pati	Director (Operation)	OPTCL	
22.	Sh. C. R. Mishra	CGM (Corporate Planning)	OPTCL	

Sl. No.	Name	Designation	Organization	Email id
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33.	Sh. S K Maharana	DGM		
34.	Sh. Pushpinder Hira			
35.	Sh. Anish Pasrija			
36.	Smt. Sweety Kumari			
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38.	Sh. Shalabh Tandon			

Annexure-II

Status of Downstream Transmission Network in ER

Sl. No.	ISTS S/s	State	Voltage ratio, Trans. Cap	Downstream Voltage level (kV)	Unutilised bays	Status of ISTS bay	STU lines for unutilised bays	Status of Lines	
								Date of Award	Completion schedule
1.	Chaibasa	Jharkhand	400/220kV, 2x315MVA	220	2	Existing bay	Chaibasa (POWERGRID) – Jadugoda (JUSNL) 220kV D/c		Will be taken up in future. No firm plan as of now.
2.	Daltonganj	Jharkhand	400/220/132kV, 2x315MVA+ 2x160MVA	132	2	Existing bay	Daltonganj (POWERGRID) – Chatarpur 132kV D/c	22-10-2019	Expected by 31-03-2023.
3.	Dhanbad	Jharkhand	400/220kV	220	4	Existing bay	LILO of 1 st circuit of 220kV Dumka – Govindpur D/c line at Dhanbad (23km)	Bid evaluation is in progress.	Expected by Dec 2023.
							LILO of 2 nd circuit of 220kV Dumka – Govindpur D/c line at Dhanbad	Survey and estimation are being taken up. Thereafter, funding will be tied up.	
4.	Keonjhar	Odisha	400/220kV, 2x315MVA	220	2	Existing bay	Keonjhar (POWERGRID) – Turumunga (OPTCL) 220kV D/c		Expected by Dec 2022.
5.	Pandiabil	Odisha	400/220kV, 2x500MVA	220	2	Existing bay	Pratapsasan (OPTCL) – Pandiabil (POWERGRID) 220kV D/c		Charged on 19-05-2022.
6.	Subashgram	West Bengal	400/220kV, 3x315MVA	220	2	Existing bay	Subashgram (POWERGRID) – Baraipur 220kV D/c line		Baraipur S/s test charged on 08-05-2022. Line is expected to be charged in June 2022.
7.	Rajarhat	West Bengal	400/220kV, 2x500MVA	220	4	Existing bay	Rajarhat (POWERGRID) – New Town AA2C 220kV D/c		Severe RoW (12km) in cable laying. Expected by Oct 2022.
							Rajarhat (POWERGRID) – Barasat/Jeerat 220kV D/c		Charged on 01-05-2022.
8.	Sitamarhi (New)	Bihar	400/220/132kV, 2x500MVA + 2x200MVA	132	2	Existing bay	LILO of Benipatti - Pupri 132kV S/c at Sitamarhi (New)		Expected by July 2022.

Sl. No.	ISTS S/s	State	Voltage ratio, Trans. Cap	Downstream Voltage level (kV)	Unutilised bays	Status of ISTS bay	STU lines for unutilised bays	Status of Lines	
								Date of Award	Completion schedule
9.	Saharsa (New)	Bihar	400/220/132kV, 2x500MVA + 2x200MVA	220	2	Existing bay	Saharsa (New) - Begusarai 220kV D/c line		Only two spans are remaining due to RoW constraints. Expected by June 2022 end.
				132	2-ISTS (addln.4 by state)		Saharsa (New) - Saharsa 132kV D/c line formed by LILO of Saharsa - Banmankhi and Saharsa - Uda Kishanganj 132kV S/c line		04 nos. of bays are under construction by BSPTCL at Saharsa (New). Two bays are expected in Aug 2022, and balance two in Sept 2022.
10.	Banka	Bihar	400/220/132kV, 2x500MVA + 2x200 & 1x315MVA	220	2	Under Bidding	Banka (POWERGRID) – Goradih (Sabour New) 220kV D/c line	Funds tied up. Tendering is expected shortly.	18 months from award.

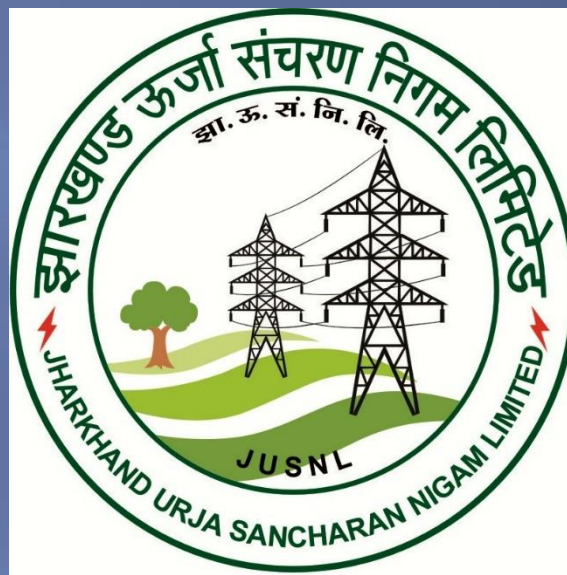
Annexure-III

**Status of 400kV substations being implemented by STUs in ER under
intra-state schemes to be connected to ISTS**

Sl. No.	Substation/Location	Transformation Capacity/ Element	Date of Award	Completion Schedule
A Bihar (to be implemented by BSPTCL/BGCL)				
I	Naubatpur GIS	400/220/132/33kV, 2x500MVA + 2x160MVA + 2x80MVA	26.04.2018	Charged on 17 th Mar 2022.
a)	LILO of circuits 3 & 4 of Patna (PG)-Balua 400 kV D/c (Quad) line at Naubatpur 400 kV 2x D/C	400kV 2x D/C	26.04.2018	Charged on 17 th Mar 2022.
b)	LILO of both circuits of Ara (PG) – Khagaul (BSPTCL) line at Naubatpur (New) 220 kV 2xD/C	220kV 2xD/C	26.04.2018	Charged in May'22.
II	Bakhtiyarpur GIS	400/220/132kV, 2x500MVA + 2x160MVA	26.11.2019	Progressively from Oct'22 to Dec'22.
a)	LILO of both circuits of Barh – Patna (PG) 400kV D/c (Quad) line-1 at Bakhtiyarpur 400 kV 2xD/C	400kV 2xD/c	26.11.2019	Line ready to be charged matching with Bakhtiyarpur S/s.
III	Jakkanpur GIS	400/220/132/33kV, 2x500MVA + 3x160MVA + 4x80MVA	26.04.2018	132/33kV is expected in May'22.
a)	LILO of both circuits of Nabinagar-II – Patna (PG) 400kV D/c at Jakkanpur	400kV 2xD/c	26.04.2018	Charged
IV	Chappra (New)	400/220/132kV, 2x500MVA + 2x200MVA	Funds not yet tied up	State Govt approval under process.
a)	LILO of 400 kV Barh (NTPC) - Motihari (DMTCL) D/C (Quad) transmission line at Chappra	400kV 2xD/c	Funds not yet tied up	State Govt approval under process.
B Odisha (to be implemented by OPTCL)				
I	Digapahandi	400/220kV, 2x500MVA	Survey in progress	2025-26
a)	Digapahandi – Therubali – Jeypore 400kV D/c line	400kV D/c	Survey in progress	2025-26
II	Therubali	400kV switching station along with 420kV, 1x125MVA r bus reactor	Survey in progress	2025-26
III	Bhadrak	400/220kV, 2x500MVA	Tendering in progress	2024-25
a)	LILO of Baripada – Duburi and Baripada – Pandiabili 400kV line sections at Bhadrak	400kV D/c	Tendering in progress	2024-25
IV	Paradeep*			

Sl. No.	Substation/Location	Transformation Capacity/ Element	Date of Award	Completion Schedule
a)	Paradeep	400kV	Line package awarded and substation awarded in May'22	24 months
b)	Paradeep	765kV		2025-26
c)	Angul (POWERGRID) – Paradeep (OPTCL) 765kV D/c line	765kV D/c	Survey in progress	2025-26
V	Begunia	765/400kV, 2x1500MVA	Kept in abeyance	Kept in abeyance
a)	Angul – Begunia 765kV D/c line	765kV D/c	Kept in abeyance	Kept in abeyance
b)	LILO of Pandiabil – Digapahandi 400kV D/c line at Begunia	400kV D/c	Kept in abeyance	Kept in abeyance
C	Jharkhand (to be implemented by JUSNL)			
I	Jasidih	400/220kV, 2x500MVA	-	No firm plan now. To be taken up in future.
II	Chandil (New)	400/220kV, 2x500MVA	NIT has been floated on 05-03-2022. Bid opening expected on 22-06-2022.	24 months
a)	Chandil – Chaibasa (POWERGRID) 400kV D/c line	400kV D/c		
III	Koderma	400/220/132/33kV, 2x500MVA + 2x200MVA + 2x80MVA		
IV	Mander	400/220kV, 2x500MVA	-	No firm plan now. To be taken up in future.
a)	LILO of Patratu – Ranchi (New) 400kV D/c line at Mander	400kV 2xD/c	-	No firm plan now. To be taken up in future.
V	Dumka (New)	400/220kV, 2x500MVA	-	No firm plan now. To be taken up in future.
a)	Dumka (New) – Dhanbad (ISTS) 400kV D/c line	400kV D/c	-	No firm plan now. To be taken up in future.
D	West Bengal (to be implemented by WBSETCL)			
I	Laxmikantpur GIS*	400/132kV, 2x315MVA	Land identified. In process of acquisition. Expected by Dec 2024	
a)	LILO of Haldia – Subhasgram 400kV D/c line at Laxmikantpur	400kV D/c	-	Expected by Dec 2024

* OPTCL informed that Paradeep 765/400kV is different that of already under-construction Paradeep 400/220kV S/s, accordingly, they are planning 400kV 2xD/c line between two substations.



Presentation for 7th Consultation Meeting for Evolving Transmission Schemes in Eastern Region (CMETS-ER)

**JHARKHAND URJA SANCHARAN NIGAM LTD.
(JUSNL)**

PROJECT BACKGROUND:

- Jharkhand Urja Sancharan Nigam Ltd (JUSNL), State Transmission Utility (STU) of Jharkhand, owns and operates intra-state transmission system of Jharkhand.
- Transmission Network of JUSNL (Existing, On-going & Proposed).

Description	Existing (A)	Additional Requirement (B)	Under Construction	Balance to be taken up	Total (A+B)
(A) TRANSMISSION PLANNING FOR GSS (No.)					
400/220 kV	1	6	1	5	7
220/132 kV	13	16	2	14	29
132/33 kV	39	40	40	0	79
Total No. of GSS	53	62	43	19	115
Total MVA	9885	17570	5630	11940	27455
(B) TRANSMISSION LINES PLANNING (CKM)					
400 kV	278	2117	301	1,816	2,395
220 kV	2,482	1,813	355	1,458	4,295
132 kV	3,661	4,734	4,348	386	8,395
Total Trans. Lines (CKM)	6,421	8,664	5,004	3,660	15,085

- Above Requirement of Transmission network has been identified based on Load flow & System study.

Ongoing transmission project

Sl. No.	District	Voltage Level (kV)	Name of GSS	Transformation Capacity	Target year
1	Latehar	400/220/132	Latehar	930 MVA	2022-23
2	Bokaro	220/132/33	Jainamore	400 MVA	2022-23
3	Lohardaga	220/132	Lohardaga	300 MVA	2022-23
4	Bokaro	132/33	Chandankiyari	100 MVA	2022-23
5	Chatra	132/33	Chatra	100 MVA	2022-23
6	Hazaribagh	132/33	Barkagaon	100 MVA	2023-24
7	Chatra	132/33	Simaria	100 MVA	2023-24
8	Giridih	132/33	Gawan	100 MVA	2022-23
9	Ramgarh	132/33	Ramgarh	100 MVA	2023-24
10	Hazaribagh	132/33	Barhi	100 MVA	2023-24
11	Hazaribagh	132/33	Bishnugarh	100 MVA	2023-24
12	Bokaro	132/33	Petatwar	100 MVA	2023-24

Ongoing transmission project

Sl. No.	District	Voltage Level (kV)	Name of GSS	Transformation Capacity	Target year
13	Chatra	132/33	Hunterganj	100 MVA	2022-23
14	Ramgarh	132/33	Gola	100 MVA	2022-23
15	Dhanbad	132/33	Dugda	100 MVA	2022-23
16	Dhanbad	132/33	Mahuda	100 MVA	2022-23
17	Dhanbad	132/33	Nirsa	100 MVA	2022-23
18	Dhanbad	132/33	Putki	100 MVA	2022-23
19	Ranchi	132/33	Irba	100 MVA	2023-24
20	Ranchi	132/33	Silli	100 MVA	2023-24
21	Ranchi	132/33	Angara	100 MVA	2023-24
22	Dumka	132/33	Shikaripara	100 MVA	2023-24
23	Dumka	132/33	Jarmundi	100 MVA	2023-24
24	Pakur	132/33	Amrapara	100 MVA	2023-24

Ongoing transmission project

Sl. No.	District	Voltage Level (kV)	Name of GSS	Transformation Capacity	Target year
25	Latehar	132/33	Mahudhar	100 MVA	2023-24
26	Palamu	132/33	Naudiha	100 MVA	2023-24
27	Garhwa	132/33	Nagaruntari	100 MVA	2023-24
28	Gumla	132/33	Chainpur	100 MVA	2023-24
29	Palamu	132/33	Ramkanda	100 MVA	2023-24
30	Palamu	132/33	Panki	100 MVA	2023-24
31	Saraikela-Kharsawan	132/33	Chouka	100 MVA	2023-24
32	Latehar	132/33	Chandwa	100 MVA	2023-24
33	E. Singhbhum	132/33	Chakulia	100 MVA	2023-24
34	Dumka	132/33	Hansdia	100 MVA	2023-24
35	Saraikela-Kharsawan	132/33	Kandra	100 MVA	2023-24

Ongoing transmission project

Sl. No.	District	Voltage Level (kV)	Name of GSS	Transformation Capacity	Target year
36	Simdega	132/33	Kolebira	100 MVA	2023-24
37	Simdega	132/33	Kurdeg	100 MVA	2023-24
38	E. Singhbhum	132/33	Surda	100 MVA	2023-24
39	Jamtara	132/33	Narayanpur	100 MVA	2023-24
40	Palamu	132/33	Chattarpur	100 MVA	2023-24
41	E. Singhbhum	132/33	Sundarnagar	100 MVA	2023-24
42	Deoghar	132/33	Sarath	100 MVA	2023-24
43	Sahebganj	132/33	Barhait	100 MVA	2023-24

Upcominig transmission project which is already approved in Standing Committee Meeting of CEA

Sl. No.	District	Voltage Level (kV)	Name of GSS	Transformation Capacity	Target year
1	Koderma	400/220/132/33	Koderma	1560MVA	2023-24
2	Chandil	400/220	Chandil	1000 MVA	2023-24
3	Ranchi	220/132/33	Bero	560 MVA	2024-25
4	Dhanbad	220/132/33	Baliyapur	500 MVA	2024-25
5	Hazaribagh	220/132/33	Hazaribagh	500 MVA	2024-25
6	Dumka	400/200	Dumka	1000 MVA	2025-26
7	Deoghar	220/132/33	Palojori	500 MVA	2025-26

Upcominig transmission project which is already approved in Standing Committee Meeting of CEA

Sl. No.	District	Voltage Level (kV)	Name of GSS	Transformation Capacity	Target year
8	Hazaribagh	220/132/33	Gomia	560 MVA	After 2026
9	Hazaribagh	220/33	Barkatta	220 MVA	After 2026
10	Dhanbad	220/132/33	Topchanchi	500 MVA	After 2026
11	E. Singhbhum	220/132	Noamundi	400 MVA	After 2026
12	Khunti	220/132	Khunti	400 MVA	After 2026
13	Ranchi	220/132/33	Sarwal	560 MVA	After 2026
14	E. Singhbhum	220/132	Jadugoda	400 MVA	After 2026
15	Ranchi	220/132	Tamar	400 MVA	After 2026
16	Ranchi	400/220	Mandar	1000 MVA	After 2026
17	Simdega	220/132	Simdega	400 MVA	After 2026
18	Deoghar	400/220	Jasidih	1000 MVA	After 2026

Evacuation of Power from Thermal Power Plant

Sl. No.	Power Evacuation	Name of Thermal Power Plant	Target Year
1	400 kV Quad Moose D/C PVUNL-Patratu Transmission Line	Patratu Super Tharman Power Station	2022-23
2	400 kV Quad Moose D/C PVUNL-Koderma Transmission Line		2023-24
3	400 kV Quad Moose D/C PVUNL-Chandil Transmission Line		2023-24
4	400 kV Quad Moose D/C Chandil-Dhanbad Transmission Line		2023-24
5	400 kV Quad Moose D/C Chandil-Chaibasa Transmission Line		2023-24

Thank You