



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
पूर्वी क्षेत्रीय विद्युत समिति

Eastern Regional Power Committee

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No. ERPC/TCC& ERPC/2022/1153

Date: 07/12/2022

To:

As per List

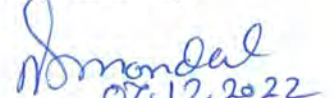
Sub: Minutes of 47th TCC Meeting held on 24.11.2022 at Kolkata-reg

Sir/Madam,

The minutes of 47th TCC Meeting held on 24.11.2022(Thursday) at Hotel Taj City Centre, Kolkata has been issued and uploaded on ERPC Website(www.erpc.gov.in). As per the decision of ERPC, distribution of the hard copies of the minutes of the meeting has been discontinued as Go-green initiative.

Encl:As above

Yours faithfully,


07.12.2022
(N.S. Mondal)

Member Secretary

Distribution: ERPC Members

1. Chairperson, ERPC & Chairman-cum-Managing Director, Jharkhand Urja Vikas Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
2. Chairman-cum-Managing Director, Jharkhand Urja Utpadan Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
3. Managing Director, Jharkhand Urja Sancharan Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
4. Managing Director, Jharkhand Bijli Vitaran Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi- 834004.
5. Managing Director, Tenughat Vidyut Nigam Ltd., Hinoo, Doranda, Ranchi – 834002
6. Chairman-cum- Managing Director, Bihar State Power Holding Company Ltd., Vidyut Bhavan, Bailey Road, Patna- 800001.
7. Managing Director, Bihar State Power Transmission Company Limited, Vidyut Bhavan, Bailey Road, Patna- 800001.
8. Managing Director, South Bihar Power Distribution Company Limited, Vidyut Bhavan, Bailey Road, Patna- 800001.
9. Chairman & Managing Director, West Bengal State Electricity Distribution Company Ltd., Vidyut Bhavan, 7th Floor, Block-DJ, Sector-II, Bidhannagar, Kolkata-700091.
10. Managing Director, West Bengal State Electricity Transmission Company Ltd., Vidyut Bhavan, 8th Floor, Block- DJ, Sector-II, Bidhannagar, Kolkata-700091.
11. Chairman & Managing Director, West Bengal Power Development Corporation Ltd., Bidyut Unnayan Bhavan, 3/C, Block LA, Sector-III, Bidhannagar, Kolkata-700098.
12. Managing Director, Durgapur Projects Ltd., Administrative Building, Durgapur-713201, West Bengal.
13. Principal Chief Engineer-cum-Secretary, Energy & Power Department, Govt. of Sikkim, Kazi Road, Gangtok – 737101, Sikkim.
14. Chairman-cum-Managing Director, Odisha Power Transmission Corporation Ltd., Janpath, Bhubaneswar- 751022.
15. Chairman, GRIDCO Ltd., Janpath, Bhubaneswar-751022.
16. Chairman-cum-Managing Director, OHPC Ltd., Orissa State Police Housing & Welfare Corporation Bldg. Vanivihar, Janpath, Bhubaneswar- 751022.
17. Managing Director, OPGC Ltd., Zone-A, 7th Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar-751023.
18. Chairman, Damodar Valley Corporation, DVC Towers, VIP Road, Kolkata -700054.
19. Member (GO&D), Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
20. Director (Commercial), NTPC Ltd., Core-7, SCOPE Complex, Lodhi Road, New Delhi -110003.
21. Director (Technical), NHPC Ltd., NHPC Office Complex, Sector-33, Faridabad, Haryana-121003.
22. Director (Operations), Power Grid Corporation of India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon-122001.
23. COO, CTUIL, Saudamini, 1st Floor, Plot-1, Sector-29, Gurgaon-122001
24. Executive Director, ERLDC, POSOCO, 14 Golf Club Road, Tollygunge, Kolkata – 700033.
25. Chairman-cum- Managing Director, POSOCO, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016
26. Director (C&O), PTC India Ltd., 2nd floor, NBCC Tower, 15 Bhikaji Cama Place, New Delhi- 110066.
27. Chief Executive Officer, NTPC Vidyut Vyapar Nigam Limited, SCOPE Complex, Core-3, 7th Floor, Lodhi Road, New Delhi-110003.
28. Managing Director, Tata Power Trading Company Limited, B12/13, 2nd Floor, Shatabdi Bhavan, Sector-4, Noida- 201301, Uttar Pradesh.
29. Managing Director (Generation), CESC Ltd., CESC House, 1 Chowringhee Square, Kolkata- 700001.
30. Chief Executive Officer, Maithon Power Ltd., Village-Dambhui, P.O. Barbindia, Dist.-Dhanbad, Jharkhand- 828205.
31. VP(Plant Head), GMR Kamalanga Energy Ltd., AT/PO-Kamalanga, PS-Kantabania, Via- Meramundali, Dist.- Dhenkanal, Odisha-759121.
32. Chief Executive Officer, Jindal India Thermal Power Limited, Plot No-12, Sector-B1, Local Shopping Complex, Vasant Kunj, New Delhi-110070.
33. Managing Director, Teesta Urja Limited, 2nd Floor, Vijaya Building, 17 Barakhamba Road, New Delhi- 110001.
34. CEO, Alipurdar Transmission Limited, 101, Part-III, G.I.D.C Estate, Gandhinagar, Gujrat-382028
35. CEO, BRBCL, Nabinagar, Dist- Aurangabad, Bihar-82430
36. Head (Procurement & Sale), IPCL, Salt Lake, Kolkata-700091
37. Managing Director (Generation), Haldia Energy Limited

Distribution: TCC Members

1. Chairperson, TCC & Managing Director, Jharkhand Urja Sancharan Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
2. Executive Director (Tech), Jharkhand Urja Utpadan Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
3. Director (Project), Jharkhand Urja Sancharan Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
4. Chief Engineer (S&D-JBVNL), Jharkhand Urja Vikas Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
5. Chief Engineer (S&D), Jharkhand Bijli Vitaran Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
6. General Manager, Tenughat TPS, Lalpania, Dist- Bokaro, Jharkhand-829149.
7. Director (Tech.), Bihar State Power Generation Company Limited, Vidyut Bhavan, Bailey Road, Patna-800001.
8. Chief Engineer (Commercial), Bihar State Power Holding Company Ltd., Vidyut Bhavan, Bailey Road, Patna-800001.
9. Director (Project), South Bihar Power Distribution Company Limited, Vidyut Bhavan, Bailey Road, Patna-800001.
10. Director (Operations), West Bengal State Electricity Transmission Company Ltd., Vidyut Bhavan, 8th Floor, Block-DJ, Sector-II, Bidhannagar, Kolkata-700091.
11. Director (R&T), West Bengal State Electricity Distribution Company Ltd., Vidyut Bhavan, 7th Floor, Block- DJ, Sector-II, Bidhannagar, Kolkata-700091.
12. Director (O&M), WBPDC, Bidyut Unnayan Bhavan, 3C, Block-LA, Sector-III, Bidhannagar, Kolkata-700098.
12. General Manager (Technical), Durgapur Projects Ltd., Administrative Building, Durgapur, West Bengal-713201.
13. Principal Chief Engineer-II, Energy & Power Dept., Govt. of Sikkim, Kazi Road, Gangtok-737101.
14. Director (Operation), Odisha Power Transmission Corporation Ltd., Janpath, Bhubaneswar -751022.
15. Managing Director, GRIDCO Ltd., Janpath, Bhubaneswar-751022.
16. Director (Operation), Orissa Power Generation Corporation Ltd, Zone-A, 7th floor, Fortune Towers, Chandrasekharpur, Bhubaneswar-751023.
17. Director (Operation), Orissa Hydro Power Corporation Ltd, Orissa State Police Housing & Welfare Corporation Building, Vanivihar Chowk, Janpath, Bhubaneswar-751022.
18. Executive Director (Commercial), Damodar Valley Corporation, DVC Tower, VIP Road, Kolkata-700054.
19. Chief Engineer (GM), CEA, Sewa Bhawan, R.K. Puram, New Delhi-110066.
20. Regional Executive Director (ER-I), NTPC Ltd., 2nd floor, Lok Nayak Jai Prakash Bhawan, Dak Bunglow Chowk, Patna-800001.
21. Regional Executive Director (ER-II), NTPC Ltd., 3rd Floor, OLIC Building, Plot No.N-17/2, Nayapalli, Bhubaneswar-751012.
22. COO, CTUIL, Saudamini, 1st Floor, Plot-1, Sector-29, Gurgaon-122001
23. Executive Director (O&M), NHPC Ltd., NHPC Office Complex, Sector-33, Faridabad-121003, Haryana.
24. Executive Director (ER-I), Power Grid Corporation of India Ltd, Board Colony, Shastri Nagar, Patna-800023.
25. Executive Director (ER-II), Power Grid Corporation of India Ltd, CF-17, Action Area-I, Newtown, Rajarhat, Near Axis Mall, Kolkata-700091.
26. Executive Director (Odisha Project), Power Grid Corporation of India Ltd, Plot No-4, Unit 41, Niladri Vihar, Chandrasekharpur, Bhubaneswar, Odisha-751021.
27. Executive Director, ERLDC, POSOCO, 14 Golf Club Road, Kolkata-700033.
28. Executive Director, National Load Dispatch Center, POSOCO, B-9 Qutab Institutional Area, Katwaria Sarai, New Delhi-110016.
29. Executive Director (Marketing), PTC India Ltd., NBCC Tower, 15 Bhikaji Cama Place, New Delhi-110066.
30. Chief General Manager, NTPC Vidyut Vyapar Nigam Limited, SCOPE Complex, Core-3, 7th Floor, Lodhi Road, New Delhi-110003.
31. Head (Marketing), Tata Power Trading Company Limited, B-12/13, 2nd Floor, Shatabdi Bhavan, Sector-4, Noida-201301, Uttar Pradesh.
32. Vice President (System Operation), CESC Ltd, CESC House, 1 Chowringhee Square, Kolkata-700001.
33. Station Head & General Manager (O&M), Maithon Power Ltd., Village-Dambhui, P.O. Barbindia, Dist.-Dhanbad, Jharkhand-828205.
34. GM (Head-Electrical
35.), GMR Kamalanga Energy Ltd., AT/PO-Kamalanga, PS-Kantabania, Via-Meramundali, Dist.-Dhenkanal, Odisha-759121.
36. Chief Operating Officer, Jindal India Thermal Power Limited, Plot No-12, Sector-B1, Local Shopping Complex, Vasant Kunj, New Delhi-110070.
37. Managing Director, Teesta Urja Limited, 2nd Floor, Vijaya Building, 17 Barakhamba Road, New Delhi-110001.
38. CEO, Alipurdar Transmission Limited, 101, Part-III, G.I.D.C Estate, Gandhinagar, Gujrat-382028
39. Head (Comm), IPCL, Salt Lake, Kolkata-700091
40. Managing Director (Generation), Haldia Energy Limited

Distribution: Others

1. Member Secretary, NRPC, New Delhi-110016.
2. Member Secretary, WRPC, Mumbai-400093
3. Member Secretary, SRPC, Bangalore-560009
4. Member Secretary, NERPC, Shillong-793006
5. Member Secretary, NPC, CEA, New Delhi- 110066.
6. Chief Engineer, TPRM Division, CEA, Sewa Bhawan, R.K. Puram, New Delhi-110066
7. Chief Engineer, IT Division, CEA, Sewa Bhawan, R.K. Puram, New Delhi-110066
8. Director, Ministry of Coal, Govt. of India, New Delhi
9. Director (Marketing), Coal India Limited, Coal Bhawan, Kolkata-700156
10. Director General, Department of Hydropower & Power Systems, Ministry of Economic Affairs, Post Box No.106, Thimpu, Bhutan
11. Managing Director, DGPC, Thimpu, Bhutan
12. Managing Director, DANS Energy Pvt Ltd, DLF Cyber City, Phase-II, GURGAON – 122 002
13. Director, Shiga Energy Pvt. Ltd., 5th Floor, DLF Building No. 8, Tower-C, DLF Cyber City, Phase-II, Gurgaon – 122002
14. CEO, Sneha Kinetic Power Projects Pvt.Ltd. #31 -A, National Highway, Behind SNOD building, Deorali, Gangtok, Sikkim-737102
15. CEO, Rongnichu HEP, MBPCL, Sikkim-737102
16. CEO, DMTCL, Sekura Energy Limited, Mumbai-400098
17. Senior Vice President, Teesta Valley Power Transmission Limited, New Delhi-110066
18. CEO, IndiGrid Limited, Mumbai-400079
19. CEO, Cross Boarder Power Transmission Limited, Ambience Mall Complex, Gurgaon, Haryana-122001
20. CEO, Powerlinks Transmission Limited
21. Managing Director, Adhunik Power & Natural Resources Ltd., Lansdowne Towers, 5th Floor, 2/1A Sarat Bose Road, Kolkata-700020.



Minutes
of
47th TCC Meeting
of
EASTERN REGIONAL POWER COMMITTEE

Date: 24th November, 2022

Time: 10:30 Hrs

Taj City Centre, New Town, Kolkata

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EASTERN REGIONAL POWER COMMITTEE, KOLKATA
MINUTES OF 47th TCC MEETING

Date: 24th Nov, 2022(Thursday), at 10:30 Hrs

Taj City Centre New Town, Kolkata

List of participants is enclosed at Annexure-I.

ITEM NO.A1:	CONFIRMATION OF THE MINUTES OF 46th TCC MEETING
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The minutes of the 46th TCC meeting held on 05th August, 2022 at Siliguri, West Bengal was circulated vide letter no. ERPC/TCC&COMMITTEE/2022/726 dated 05.09.2022.

Members may confirm the minutes of 46th TCC meeting.

Deliberation in the 47th TCC Meeting:

Members confirmed the minutes of 46th TCC Meeting.

PART B: ITEMS FOR DISCUSSION

ITEM NO. B1: Implementation of ULDC SCADA Phase-III by Powergrid

In the 45th ERPC meeting, implementation of Upgradation of ULDC SCADA System (Phase-III) by Powergrid for all the constituents in Eastern Region except Jharkhand (JUSNL) was approved. It was also decided that Powergrid will fund the project and the cost will be recovered through tariff as determined by CERC. The scheme shall become part of existing ULDC agreement.

Based on the meeting held between Powergrid & POSOCO dtd 08.09.2022(MoM Attached at **Annexure-B1**), it was decided that Powergrid will be the implementing the ULDC Phase-III SCADA/EMS upgradation project for entire Eastern Region including ERLDC.

Confirmation is required from Jharkhand SLDC (JUSNL) for:

- a) Inclusion of JUSNL in the ULDC Ph-III SCADA/EMS upgradation project by Powergrid.
- b) Confirmation regarding execution of the project on tariff mode as approved for other constituents.

TCC may discuss.

Deliberation in the 47th TCC Meeting:

Member from Jharkhand informed that consent had already been given for executing the said project on tariff mode by Powergrid as approved for other constituents.

TCC concurred and referred it to ERPC for further approval.

ITEM NO. B2: CERC (DSM & Related matters) Regulation'2022

CERC vide notification dated 14th March'2022 had issued Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 and vide order dated 31st October'2022, has notified that the same will be implemented w.e.f. 05.12.2022.

In 47th CCM Meeting, ERPC representative gave a brief presentation highlighting the important clauses of DSM Regulations 2022 and Ancillary Service Regulations 2022.

Director, SLDC, Odisha submitted that the statistical analysis of any weekly DSM account of the with existing DSM Reg'2022 may be presented in the upcoming TCC/ ERPC meeting for better understanding of the constituents.

CCM appraised ERPC Secretariat for enlightening the forum and advised for presenting a statistical analysis of DSM Regulation 2022 in the upcoming TCC/ERPC meeting.

ERPC secretariat will make a brief presentation.

Deliberation in the 47th TCC Meeting:

Representative of ERPC secretariat made a brief presentation on Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 highlighting the major differences between the upcoming regulation with the existing one.

ITEM NO. B3: Implementation of Automatic Meter Reading (AMR) in Eastern Region

1. Government of India (GoI) has set a Renewable Energy (RE) target of 500GW by 2030. The need for implementing 5-minute meters along with AMR system for regional energy accounting and settlement at the Inter State level has been recommended in FOR sub- group report ,2018 considering the variability of load due to large RE penetration in the coming years. Subsequently, need of AMR has also been discussed in RPC forums considering the high-volume & variable meter data and processing of the same in a very efficient manner.
2. A PAN India pilot project on 5-minute metering was implemented as per the directive from Hon'ble CERC. A report on the pilot project covering implementation aspects, challenges and suggested way forward has been submitted by POSOCO for perusal of the Hon'ble Commission and further directions.
3. Moreover, in view of the new DSM regulation 2014 and its amendments, which are more stringent, there is a need expressed by States to get streaming online instantaneous MW data at a user configurable rate (minimum 1 min) at SLDCs via AMR system.
4. In view of the above a meeting was held on 19.11.2020 chaired by Chairperson, CEA with the participation from PGCIL, CTU, POSOCO, RPCs etc. on the subject of Telemetry of real time Active Power (MW) data to SLDCs. After deliberation in the meeting, it was decided to constitute a committee for finalizing the Technical Specification (TS) of the Interface Energy Meters along with Automatic Meter Reading and Meter Data Processing system for ISTS metering points.

5. NPC Division, CEA vide letter dated 02.12.2020 had constituted a joint committee comprising the members from each RPC, CEA, CTU/PGCIL & POSOCO “to prepare the Technical Specifications (TS) of the 5/15 Minute Interface Energy Meters (IEMs) with Automatic Meter Reading (AMR) and Meter Data Processing (MDP) for interstate transmission system at PAN India basis”.
6. NPC Division, CEA vide letter dated 6th July 2022 had circulated the final copy of “Technical Specification (TS) of Interface Energy Meters, Automatic Meter Reading system and Meter Data Processing system” provisioning all the requirements mentioned above.
7. In reference to the above and also as per the draft IEGC 2022 for implementation of AMR project for all the five regions; the proposal from CTUIL for implementation of same in Eastern Region is attached herewith **(Annexure-B3)** for deliberation.
8. MDP system which is also part of the above TS mentioned in point (v) above shall be implemented by ERLDC/POSOCO by their own and would match the timeline schedule with AMR project.

TCC may deliberate.

Deliberation in the 47th TCC Meeting:

Representative of CTU made a brief presentation highlighting the need for implementing 5-minute meters along with AMR system in Eastern Region.

After detailed deliberation, TCC advised ERPC Secretariat to convene a Special Meeting to discuss the issue in detail.

ITEM NO. B4: Operational challenges in Jharkhand network due to multiple long outages/tripping

In Jharkhand network, 400/220 kV 2 X 315 MVA Ranchi ICTs and 400/220 kV 2 X 315 MVA Patraru ICTs and 220 kV Tenughat-PTPS S/C were meeting the demand of Ranchi capital city.

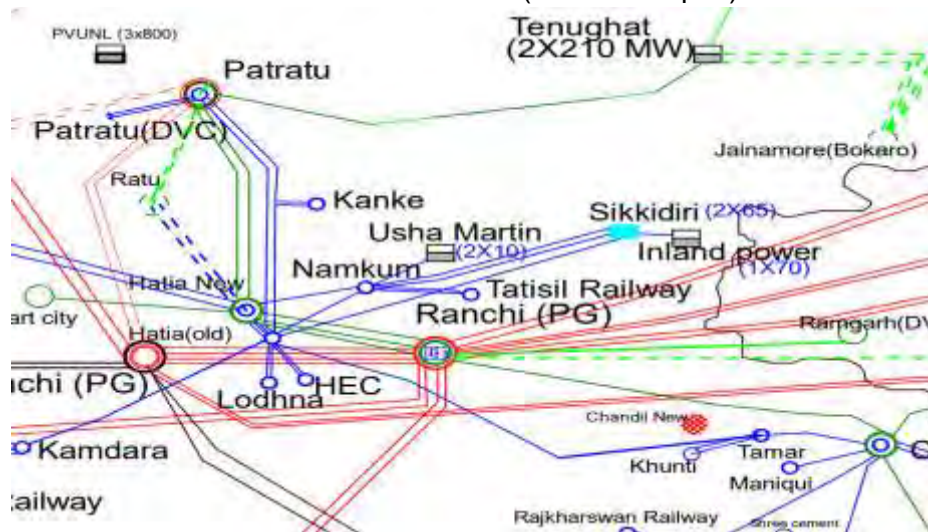
At present, 400/220 kV Patraru substation both ICTs are out of service. This led to shifting of loads being fed from this substation back to Ranchi substation's ICTs. In addition, due to the outage of 220 kV Patraru-Tenughat S/C, there is no support from Tenughat (TTPS) power plant. This is leading to the entire Ranchi City demand being fed by 2X315 MVA ICTs Ranchi (PG). Presently Ranchi ICTs loading is to the tune of 160-190 MW/ICT. In this network configuration, Ranchi S/s one 315 MVA 400/220 kV ICT outage sensitivity on other ICT is more than 90%.

Further degrading the overall situation is outage of 220 kV Ranchi-Hatia 2 on tower collapse. This is leading to n-1 loading violation for other two circuits i.e., 220 kV Ranchi-Hatia 1 and 3 which are loaded above more than 150 MW/ckt.

A list of major elements outages in JUSNL are provided below:

- 400 KV/220KV 315 MVA ICT 2 AT PATRATU: 27-09-2022 (DGA violation)
- 400 KV/220KV 315 MVA ICT 1 AT PATRATU: 01-08-2022 (Buchholz Relay)
- 220 KV/132KV 100 MVA ICT 2 AT LALMATIA: 22-01-2019 (FAILURE OF HV SIDE BREAKER)

- 220 KV/132KV 100 MVA ICT 3 AT CHANDIL: 30-04-2020 (ICT failed due to fire)
- 220 kV Tenughat-Patratu S/C: Under long shutdown for shifting work
- 220 KV-RANCHI-HATIA-2: 24-09-2022 (Tower collapse)
- 220 KV-FSTPP-LALMATIA-1: 21-04-2021 (Tower collapse)



Thus, overall current reliability issues of Capital city Ranchi are listed below:

- Any outage of 220 kV Ranchi-Hatia 1 & 3 will result in a power crisis at capital city
- Any tripping of one 400/220 kV Ranchi ICT will result in tripping of other ICT on overload and causing blackout at Capital city (SPS operation will not provide adequate relief).

In such a precarious situation of transmission network of JUSNL, system operation is non-reliable.

Jharkhand may update. TCC may discuss.

Deliberation in the 47th TCC Meeting:

Representative of ERPC explained the issue in brief stressing on the reliability issues with respect to the capital city Ranchi.

Member from JUSNL updated the following:

400 kV/220kV 315 MVA ICT2 AT PATRATU

All necessary test of ICT-2 was conducted in which some test result was found abnormal, and manufacturer has decided for internal inspection. All necessary arrangement has been completed and internal inspection is scheduled in the last week of Nov'22..

400kV/220kV 315MVA ICT-AT PATRATU

ICT-1 was dismantled for transportation to manufacturer site and transportation will commence by Nov'22.

220kV/132 100 MVA ICT-2 AT LALMATIA (FAILURE OF HV SIDE BREAKER)

In this regard estimate has been obtained from field, estimate is being scrutinized at Head Quarter level to get the work done with minimum cost. The expected date of completion is 31.03.2023.

220kV/132kV 100 MVA ICT-3 AT CHANDIL

In place of this ICT new ICT of 100 MVA will be procured soon. The tender is under technical evaluation stage and work order would be placed soon. The expected timeline of completion is July 2023.

220kV TENUGHAT PATRATU S/C UNDER LONG SHUTDOWN FOR SHIFTING WORK

To provide start-up power to PUVNL this line is being taken under shutdown on daily basis from 8:00 hrs to 17:00 hrs for strengthening of transmission line S/C. The work is likely to be completed by 17.12.2022.

220kV RANCHI-HATIA-2

Expected date of restoration by 30.11.2022.

220kV FSTPP-LALMATIA-1

Work order had already been placed to M/s ABN Tower on 08.09.2022. The delay in starting the work is due to very old transmission line and non-availability of drawing with BOM. Drawing has been made available by NTPC on 24.09.2022 without BOM. BOM is being prepared and breaking of foundation and stub strengthening work has been started.

Tower erection and stringing work is likely to start by 15.01.2022 and may be completed by 31.03.2023.

ITEM NO. B5: Smooth power evacuation of TTPS Lalpania

TVNL is the only power generating company of Govt. of Jharkhand. It has two units each having capacity of 210 MW, situated at Tenughat Thermal Power Station, Lalpania, District Bokaro. Presently, power evacuated from TTPS through the following transmission lines:

1. TTPS-PTPS 220 KV Single Circuit line.
2. TTPS-Govindpur Double Circuit 220 KV.
3. TTPS-Biharsharif 220 KV Single Circuit.

1. TTPS- PTPS 220 KV single circuit line – This line is being charged with 400 KV level at PVUNL for startup power and testing of various components for upcoming units (3 x 800MW) of PVUNL, Tentative date of charging of this line is 31st Dec.2022. TVNL requested to remain this line at 400 KV level, as per MOM among PVUNL, TVNL, JUSNL and JBVNL, for evacuation of power from TVNL also after commissioning of PVUNL units.

2. TTPS-Govindpur double Circuit Line – TTPS - Govindpur Ckt-I and Ckt-II synchronized on dated 23.11.2021 and 13.01.20022 respectively. Govindpur Ckt-I tripped 21 (Twenty one) times and Ckt-II tripped 9 (nine) times from the date of synchronization till 11.10.2022. Several works of these lines are pending at TTPS end as listed below:

- Successful operation of Auto Reclose.
- Software and Data cable of Siemens Distance protection relay.
- Replacement of deformed battery for PLCC.
- Defective digital meters (MW meter and MVAR meter) of line 2.

All above matters have to be resolve by JUSNL before charging of TTPS-PVUNL line with 400 KV level.

3. TTPS-Biharsharif 220 KV Single Circuit- Total Length of TTPS-Biharsharif line is 180 Km. out of which, 2.5 KM (Approx.) line at the Biharshariff end, connected with single Zebra

conductor, rest of the length of this line is Twin Moose Conductor. Load bearing capacity of this 220 KV line is only 200 MW due to Single Zebra Conductor. This line tripped many times due to backup over current, when flow exceeds 200 MW and TPF situation arises after tripping of rest lines. To enhance load bearing capacity it is essential to replace this portion of line (2.5 KM) with Twin Zebra/Twin Moose conductor. This matter has been raised in the 45th ERPC/TCC meeting vide agenda No.-B19. Further request letter regarding replacement of conductor has been sent to MD, BSPTCL after 45th meeting of ERPC/TCC.

TCC may discuss.

Deliberation in the 47th TCC Meeting:

Member from TVNL briefly explained the issue.

BSPTCL representative updated that proposal of replacement of conductor in 2.5 Km section of 220 kV TTPS-Biharsharif line is under active consideration and they are awaiting for requisite fund sanction from Govt of Bihar.

Regarding 220 kV TTPS-Govindpur D/C line, TVNL representative informed that the line had tripped in multiple occasions since its commissioning in Jan-2022 thereby affecting its reliability. He added that pending issues associated with the line such as autorecloser/communication related issue shall be resolved before charging of TTPS-PVUNL line at 400 kV level.

TCC advised JUSNL to take necessary action to resolve the issues associated with 220 kV TTPS-Govindpur D/C line so that reliability of the line as well as smooth evacuation of TTPS generation will be ensured.

ITEM NO. B6: Revised connectivity for Laxmikantpur 400/132 KV S/s and split bus arrangement at Laxmikantpur S/s.

In the 12th CMETS-ER held on 28.10.2022 the following deliberations took place:

1. HEL mentioned that they are yet to receive all the requisite inputs from WBSETCL to carry out necessary studies, and have discussion with their OEM on the subject matter. Accordingly, they mentioned that they may need some more time and would submit their observations before the next CMETS-ER.
2. On enquiry regarding outcome of joint meeting between HEL & WBSETCL and any alternate proposal for establishment of New Laxmikantpur S/s as agreed in the 11th CMETS-ER, HEL informed that no meeting has been convened with WBSETCL till date. Accordingly, no alternate proposals have been discussed in this regard.
3. ERLDC re-iterated that the transmission system for establishment of 400/132kV New Laxmikantpur substation through LILO of Subashgram (POWERGRID) –Haldia 400kV D/c line at New Laxmikantpur S/s, had already been discussed and agreed in the 2nd meeting of erstwhile ERSCT held on 05-07-2019 after detailed studies. As there is no major development in the transmission system in the nearby area of Subashgram / Haldia for the last 3 years, it might not require much time to do additional studies, if any. Further, the condition would become critical in future if the decision for implementation of New Laxmikantpur substation is further delayed. CTU & ERPC agreed to the same and requested HEL to resolve the matter at the earliest.

4. CTU informed that in the 2nd meeting of erstwhile ERSCT held on 05-07-2019, the scope of works for establishment of 400/132kV New Laxmikantpur substation through LILO of Subashgram (POWERGRID) – Haldia 400kV D/c line at New Laxmikantpur S/s under intra-state has already been approved on technical grounds by all the stakeholders including HEL and CESC (also recorded in the minutes of the meeting). HEL was requested to provide go ahead on the said scope before the next CEMTS-ER as further delays in implementation of New Laxmikantpur S/s may jeopardise reliability of power supply in Kolkata area.
5. WBSECTL was also requested to coordinate with HEL for early resolution of the matter as reliability of power supply to capital city of Kolkata is at stake.
6. After detailed deliberation, it was decided that WBSETCL and HEL would meet and jointly finalise requirement of the additional data and carry out necessary system studies at the earliest. It was also decided that a separate meeting may be convened at ERPC level of all concerned for deliberation and early resolution of the issue. WBSETCL also mentioned that if the matter is not resolved by the next CMETS-ER, they would come up with alternate proposal for establishment of New Laxmikantpur S/s.
7. In the 2nd meeting of ERSCT held on 05-07-2019, CTU informed that the scope of works for establishment of 400/132kV New Laxmikantpur substation through LILO of Subhashgram (POWERGRID) – Haldia 400kV D/c line at New Laxmikantpur S/s under intra-state has already been approved on technical grounds by all the stakeholders including HEL and CESC (also recorded in the minutes of the meeting). HEL was requested to provide go ahead on the said scope before the next CEMTS-ER as further delays in implementation of New Laxmikantpur S/s may jeopardise reliability of power supply in Kolkata area.
8. WBSECTL was also requested to coordinate with HEL for early resolution of the matter as reliability of power supply to capital city of Kolkata is at stake.
9. After detailed deliberation, it was decided that WBSETCL and HEL would meet and jointly finalise requirement of the additional data and carry out necessary system studies at the earliest. It was also decided that a separate meeting may be convened at ERPC level of all concerned for deliberation and early resolution of the issue. WBSETCL also mentioned that if the matter is not resolved by the next CMETS-ER, they would come up with alternate proposal for establishment of New Laxmikantpur S/s.

In 197th OCC Meeting held on 17.11.2022, the matter was discussed in detail. However, no fruitful decision could be arrived at, and OCC referred the issue to TCC for further deliberation/decision.

TCC may discuss.

Deliberation in the 47th TCC Meeting:

Member from HEL informed that the data/information required for carrying out detailed transient study has been received from WBSETCL. The study report by the consultant would be submitted by Dec'22 and thereafter the report would be shared with OEM of HEL Units for their feedback/consent. He further added that since the line is a dedicated evacuation path for HEL project and the same is owned by HEL, LILO of the line at state grid substation might raise some commercial and regulatory issues.

Representative of WBSETCL raised their concern for delay in implementing the scheme and suggested for an additional transmission connectivity arrangement to proposed Laxmikanthpur S/s by LILO of one circuit of 400 kV New Jeerat-Subhasgram line.

CTU also stated that S/s and LILO of ISTS line can be taken as an ISTS project for an early commissioning.

Representative of WBSEDCL apprised the forum that the proposed substation at Laxmikanthpur S/s is critical for meeting existing & growing demand in the district of South 24 Parganas district. Any delay in finalizing the connectivity arrangement would adversely affect the reliability of power supply in Laxmikanthpur & adjoining area.

TCC advised HEL to expedite the process in completing the study report and further consultation with the OEM for getting their feedback/consent. In the meantime, TCC suggested that the proposal of WBSETCL regarding an additional connectivity arrangement may be forwarded to CTU for their comment/consideration.

TCC also suggested that a committee may be formed under chairmanship of Director (Op) WBSETCL with members from the concerned wings of WBSETCL, HEL & ERLDC to fortnightly monitor & discuss the progress with regard to the above matter and submit to ERPC.

ITEM NO. B7: Endangering grid connectivity, security and stability of 400 KV Talcher-Meramundali ckt 1 & 2 at GMR Powerplant, Kamalanga, Dhenkanal.

1. 400KV Talcher-Meramundali D/C line of POWERGRID was commissioned on 01.12.2003.
2. The Power plant of M/s GKEL (GMR Kamalanga Energy Ltd.) was commissioned at Kamalanga village of Dhenkanal district in April'2013.
3. During installation of the Power plant by GMR, it was found that 6 (six) Nos. towers of 400KV Talcher-Meramundali D/C line (i.e., from Loc.121 to Loc.125) were coming inside the GMR plant premises. Out the six towers, 2 (Two) Nos. towers (Loc.124 & 125) were coming in the ash pond area. In this respect, an agreement Dated: 09.06.2010 was signed between M/s GMR Kamalanga Energy Limited (GMR) and POWERGRID, where it was agreed by GMR to divert these 6 Nos. towers inside GMR plant premises by constructing of 11 Nos. new towers(**Annexure-B7.1**). In this agreement, construction & resolving of ROW issues were in the scope of GMR and supervision was in the scope of POWERGRID.
4. These 11 Nos. towers have been constructed by GMR(**Annexure-B7.2**) but the final stringing work of the line could not be carried out till June 2022 due to some pending rectification work and missing tower members.
5. Now the missing tower members of new towers have been replaced by GMR. During the last shutdown of 400KV Talcher-Meramundali D/C line in June'2022, GMR tried to complete the stringing works and connection to the jointing point of jumper. But due to severe ROW issue, the work was stopped and hence charging of the line through newly constructed bypass line was not possible.
6. After June 2022 POWERGRID has pursued many times with GMR for early resolution of the ROW issue. But the ROW issue is yet to be resolved at GMR plant. Communication has been made to Electrical head and Plant head of GMR plant for early resolution of ROW and charging of the line (copies of letter, mail correspondences attached).

7. During the last one year since November 2021, there has been multiple Auto-reclosures / trippings of the 400KV Talcher-Meramundali D/C line, in which most of the faults originated from the towers inside the GMR plant. At location No.122 inside GMR plant, the CLR insulators were found to be severely damaged due to their close proximity to the Cooling towers. The reason of fault was analyzed and found that dust particles from Power plant chimney mixed with cooling tower water droplets are getting accumulated over the insulator surface and causing reduction in creepage distance of insulator, thereby causing flashover. In April 2022, the earth wires of both circuits got broken at location no. 122 which was identified by POWERGRID TL maintenance team during patrolling & subsequently rectified immediately by availing shutdown prior to breakdown of the line.
8. The towers at loc. No. 124 & 125 are situated completely inside the ash pond area. The soil of ash pond is filled with ash slurry. Due to which, the POWERGRID TL maintenance persons are not able to approach the towers through the ash slurry to carry out routine maintenance activities. During last shutdown in April'2022, the maintenance persons had to reach the towers by crossing the span through overhead conductors from nearby towers to carry out the maintenance activities.
9. Further, due to presence of ash slurry, it is becoming difficult to ascertain the exact condition of the stubs already buried inside the slurry.
10. In case of any eventuality or collapse of towers, it will be extremely difficult to carry out the quick restoration works.
11. Hence, the 400KV Talcher-Meramundali D/C line of POWERGRID is presently in very much danger and there is instability in the towers present inside ash pond area of GMR, which may affect security of the said Transmission line at any time.
12. It is therefore requested to issue necessary instructions to M/s GKEL to take up immediate action for an early resolution of the ROW issue so as to ensure charging of the line through the newly constructed bypass towers as soon as possible.

Powergrid/GMRKEL may update. TCC may discuss.

Deliberation in the 47th TCC Meeting:

Member from GMRKEL informed that they are in the process of resolving the RoW issues and the remaining stringing work would be completed by February'2023.

Representative of ERLDC stressed that allowing shutdown of the line would be difficult after December'2022 keeping in view high demand in Southern Region.

Member Secretary, ERPC insisted that the work should be completed as early as possible availing shutdown for a short period of two days.

Keeping in view that only two spans of stringing(663m) beyond boundary wall of GMRKEL is pending, TCC advised GMRKEL to complete the remaining work as early as possible.

ITEM NO. B8: Issues related to OPGW installation in Teesta III – Kishanganj Line

Powergrid is implementing OPGW on Teesta III-Kishanganj TL under Fiber Optic Expansion Package (Additional Requirement). Out of total 215 Km, 168 Km work has been completed however following issues are causing hindrance towards completion of the work.

A. Non-availability of A/R in non-auto mode: A/R permission were not provided due to high hydro season. Therefore, work is kept on hold since July 2022.

B. ROW issues / Old compensation issues: During erection of OPGW, work had been stopped at various locations due to ROW issues/Old compensation issues. In all locations, local villagers are demanding payment of old pending compensation or compensation for shifting of houses due to induction. ROW issues occurred till date is detailed as under:

Sl. No.	ROW Tower No.	ROW affected Drum No.	ROW creator details	ROW issue
1	Tower No. 144/1	20	Name of the landowner: Krishna Bahadur Manger (Mob: 7872607153) Village: Chisopani PW. PS: Jorethang PO: Jorethang Dist.: South Sikkim	Landowner claims that M/s TPTL had damaged land and cultivation during construction and a wall had been promised which hasn't been erected till date along with pending compensation issue. *Resolved by POWERGRID*
2	Tower No. 137/0 & 138/0	19	Name of the person: Didn't disclose. Village: Samsibung PS: Namchi PO: Namchi. Dist.: South Sikkim	Pending Compensation Issues
3	Tower No. 126/0 & 127/0	18	Name of the landowner: Shyam Kumar Rai (Mob: 9609875663) Village: Kamrang PS: Namchi PO: Namchi Dist.: South Sikkim	Landowner claims house falling under corridor. Demands compensation from for shifting of same.
4	Tower No. 133/0 to 136/0	18	Name of the landowner: K B Rai (+5 Brothers) (Mob: 9083071127) Village: Denchung PS: Namchi PO: Namchi Dist.: South Sikkim	Landowner along with his 5 brothers are claiming compensation for houses falling under corridor.
5	Tower No. 115/0	17	Name of the landowner: Gajendra Chettri (Mob: 8436105960). Village: Mamley PS: Namchi	Boulders kept near wall of landowner which hadn't been removed.

			PO: Namchi Dist.: South Sikkim	Induction related problems faced by landowner
6	Tower No. 119 to 122	16A	1) Mani Kumar Rai (Mob: 6294716006) Village: Lower Jaubari (Chiyadara) PS: Namchi PO: Namchi Dist.: South Sikkim	Landslides due to damage to trees and crops during construction have caused loss to villagers and locals for which compensation demand has been made for which bills prepared but payment pending till date as per landowners
7			2) Suk Dhan Rai Village: Lower Jaubari (Chiyadara) PS: Namchi PO: Namchi Dist.: South Sikkim	
8			3) Aita Raj Rai Village: Lower Jaubari (Chiyadara) PS: Namchi PO: Namchi Dist.: South Sikkim	
9			4) Ratan Bdr. Thapa Village: Lower Jaubari (Chiyadara) PS: Namchi PO: Namchi Dist.: South Sikkim	
10			5) L. B Thapa Village: Lower Jaubari (Chiyadara) PS: Namchi PO: Namchi Dist.: South Sikkim	
11			6) San Chay Rai (Mob: 7076885910) Village: Lower Jaubari (Chiyadara) PS: Namchi PO: Namchi Dist.: South Sikkim	
12	Tower No. 122 to 126	16B	7) Purna Bahadur Rai (Mob: 9593739944) Village: Lower Tingrithang PW PS: Namchi PO: Namchi Dist.: South Sikkim Pin: 737126	Induction related issues. Land owner claims wires too close to house and therefore claims compensation for housing property.

13	Tower No 55 to 60	9	8) Phal Bahadur (Mob: 8001630095/9647872113) Village: Tumin & Kokaley P.S: Singtam P.O: Tumin Dist: East Sikkim	Previous Compensation related issues during Construction
14	Tower No 68 to 74	11	9) Person didn't disclose name Village: Singbel P.S: Singtam P.O: Makha Dist.: East Sikkim	
15	Tower No. 74 to 81	12	10) Person didn't disclose name Village: Ralap P.S: Singtam P.O: Makha Dist.: East Sikkim	
16	Tower No. 195-197/1	27B	11) Satish Pokhrun (Mob.: 7872446069) Village: Relling P.S: Relling Dist.: Darjeeling	Previous Compensation related issues during Construction
17	Tower No. 197/1 -201/1	28		
18	Tower No. 201/1 -209/1	29		

Several Meetings has been done with district administration for resolving the above issues. However, it is requested that, M/s TPTL (being owner of the line) may provide necessary support for resolving the ROW issue.

Powergrid may explain. TPTL may update.

Deliberation in the 47th TCC Meeting:

Representative of TUL on behalf of TPTL informed that even after several efforts from their end, ROW issue is persisting.

He further suggested that TPTL and Powergrid may coordinate with local District Administration for resolution of the issue.

TCC requested Sikkim to extend their cooperation in getting the above issue resolved. Sikkim agreed for the same.

TCC referred the issue to ERPC for resolution.

ITEM NO. B9: Issues related to OPGW installation in 132 kV Rangpo - Chuzachen Line

Power Grid had been entrusted with establishing Fiber Optic network (OPGW) over 132 kV Rangpo - Chuzachen TL of EPDS, Sikkim under Eastern Region Fibre Optic Expansion Project (Additional Requirement) for smooth communication of Chuzachen HEP power generating station to Regional Load Dispatch Centre (ERLDC) at Kolkata. 132 kV Rangpo - Chuzachen TL belongs to Energy & Power Dept., Govt of Sikkim. Out of **20.727 km** of scope of work, Fiber Optic Installation of **17.912 km** had been completed as on date. However, while executing the work in village Kamarey Bhasmey, Pendam, East Sikkim stiff resistance and threatening by local villagers is faced by our site engineers.

Multiple meeting with District Authorities were held however local villagers are demanding payment of old pending compensation. The ROW issue till date is tabulated below.

S.No	Name & Contact of Landowner	Location No. details
1	Name: Ashok chettri S/o L.t. shiva lall chettri Contact.No: 9593223955	Village kamarey PW PO & PS - Rangpo, Pendam East Sikkim-737132
2	Name: Nandu kumarpradhan Contact.No: 9635686942	
3	Name: kumar chetari Contact.no: 9635664370	
4	Name: Mani Kr. Pradhan	
5	Name: Mangal Singh S/o Singh Bir Tamang	
6	Name: Tularam Sharma S/o Gauri Shankar	
7	Name: Dili Ram S/o Lt. Pushpa Lall Khatiwara	
8	Name: Dhan Maya W/o Chandra Bahadur Tamang	
9	Name: Bharat Laxuman	
10	Name: Dhiraj Sharma S/o Tika Ram Sharma	

In this regard, it is requested that, Energy & Power Dept., Govt of Sikkim (being owner of the line) may provide necessary support for resolving the ROW issue.

Powergrid may explain. Sikkim may update.

Deliberation in the 47th TCC Meeting:

It was deliberated that the onus of resolving the RoW issue lies upon the owner of the transmission line.

Hence, TCC advised Energy & Power Dept., Govt of Sikkim to resolve the issue at the earliest.

ITEM NO. B10: OPGW connectivity of radial nodes to redundant path in Eastern Region

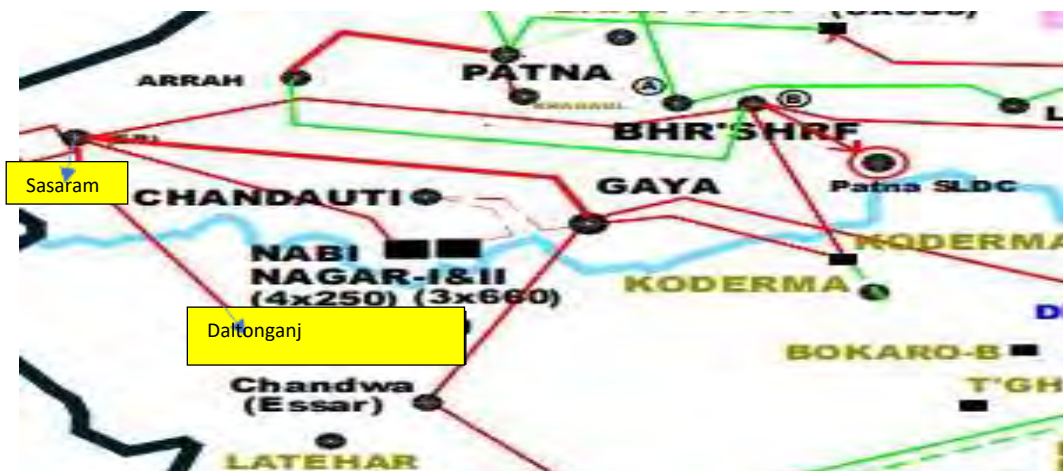
A) Daltonganj (PG)

Daltonganj is connected with single fiber path through Daltonganj-Sasaram link at present.

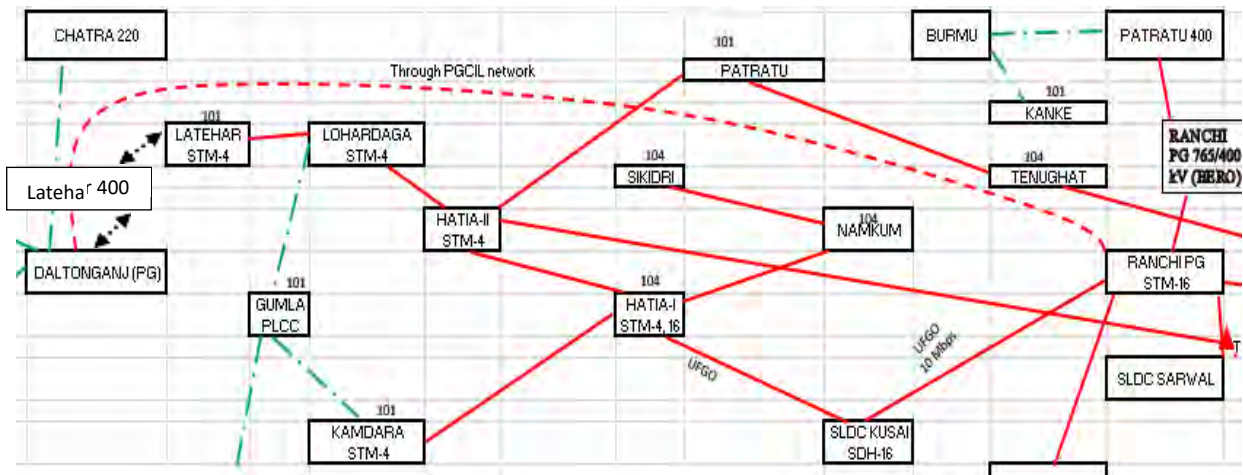
Second path connectivity is to be planned by utilizing the state network of Daltonganj to Latehar line.

Powergrid/ERLDC stated that OPGW laying from Daltonganj (PG) to Latehar (PG) (400kV) is under implementation. However, OPGW connectivity from Latehar (PG) (400kV) to Latehar(132kV) need to be confirmed from JUSNL. Further, OPGW connectivity from Latehar (132kV) to Ranchi via state links Hatia-II – Hatia-I – SLDC – Ranchi PG already exists and may be utilized for redundant path for Daltonganj (PG).

Connectivity of Daltonganj in FO map



Proposed FO connectivity of Daltonganj through JUSNL network



TCC may discuss.

Deliberation in the 47th TCC Meeting:

Member from JUSNL informed that the OPGW connectivity from Latehar(PG)400kV to Latehar(132kV) would be completed by December'2022.

After commissioning of Latehar PG to Latehar 132kV JUSNL link, it shall also be utilized for redundant path for Daltonganj(PG). Redundant path would be Daltonganj(PG)- Latehar 400kV via Latehar132kV to Ranchi via state links Hatia II -Hatia I-SLDC-Ranchi PG.

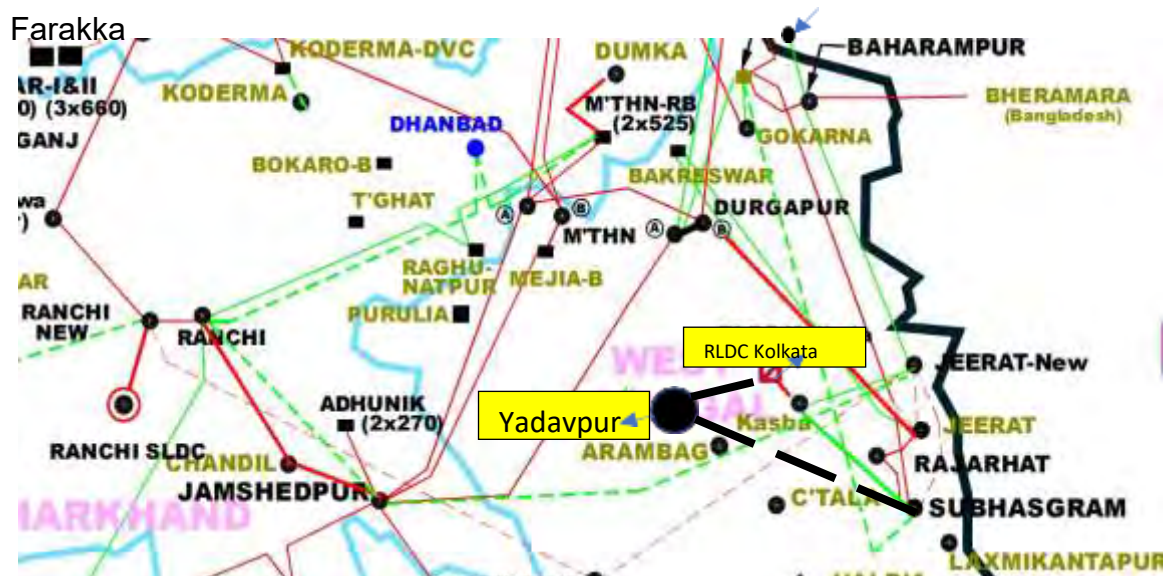
B) ERLDC Kolkata

ERLDC Kolkata is connected to Kasba through telecom fiber link and ULDC fiber link. There are two different links however Kasba is a single point of connectivity. In case Kasba node is down, data to ERLDC will be lost. So, alternative connectivity to ERLDC independent of Kasba node needs to be explored.

For this alternative connectivity, below mentioned points may be considered:

Presently, there is one backbone connectivity path for ERLDC Kolkata which is as follows: Farakka to Jeerat(old) to Kasba to ERLDC Kolkata.

FO connectivity of RLDC Kolkata



Proposed FO connectivity of RLDC Kolkata

ERLDC informed CTUIL that CESC has agreed to spare one pair of fiber from Subhashgram(PG) to Yadavpur(CESC) S/s. However, as per practice, for ULDC purpose atleast 3 pair of fibers are required. This path from Subhashgram(PG) to Yadavpur S/s is a combination of overhead and underground fiber. For further connectivity, underground fiber cable may be laid between Yadavpur S/s to ERLDC Kolkata (dist approx. 200 mtrs).

Connectivity and equipment/ports/direction availability may be checked at ERLDC and Subhashgram(PG) ends by Powergrid for this suggested redundant path by ERLDC.

For resource disjoint purpose, an additional FOTE with additional DCPS may be also installed at Kasba node. For this space availability may be ascertained by Powergrid at Kasba end.

TCC may discuss.

Deliberation in the 47th TCC Meeting:

Representative of Powergrid intimated that connectivity from Subhashgram(PG) to Jadavpur S/s has been established on 24.11.2022. He further assured that connectivity from Jadavpur S/s to ERLDC Kolkata shall be established shortly.

C) Teesta-III Node

Presently, Teesta III is connected through Teesta III - Rangpo PLCC link. First Fiber path is under implementation through Teesta III- Rangpo circuit#1. Teests-III-Rangpo#2 is LILOed at Dikchu. The Redundant Fiber path for Teesta-III may be planned through LILO of Teesta III- Rangpo #2. For redundant fiber path, OPGW may be laid on Teesta III- Dikchu portion (approx. 26 kms line length) of Teesta III - Rangpo#2.

OPGW is already planned on Dikchu -Rangpo portion of Teesta III - Rangpo#2 .

The detailed scheme is attached at **Annexure-10C**.

12th TeST Committee accorded the scheme and referred it to TCC for further approval.

TCC may approve.

Deliberation in the 47th TCC Meeting:

TCC concurred and referred it to ERPC for approval.

ITEM NO. B11: Upgradation of OPGW network in DVC for strengthening and redundancy of communication network in DVC sector.

DVC intends for strengthening of communication network of DVC through laying of OPGW based communication system for following major purposes:

- In the present communication network of DVC, there are some nodes having single connectivity. For redundant connectivity, OPGW connectivity for the stations is to be established in redundant paths.
- Strengthening of the existing communication network will enable reliable real-time data transfer for smooth grid operations.
- OPGW connectivity is required for establishment of DTPC in some lines.
-

Following is the list of links where OPGW laying along with terminal equipment is proposed:

S/n	Name of Link	Voltage Level	Approx. Length (Km)
1	BokaroA-Koderma	400kV	105
2	Dhanbad-Patherdih	132kV	22
3	CTPS-Kalyaneswari LILO at RTPS	220kV	125
4	Parulia-Bardhaman	220kV	90
5	DTPS-Parulia (LILO at DSPTS) LILO part (48F)	220kV	8
6	BokaroA-Jamshedpur (DVC)	220kV	155
7	Joda-Jamshedpur (DVC)	220kV	140
8	MejiaA-Ramgarh220	220kV	155
9	BTPSA-BTPS B (UGFO)	UG	5
Total			805

Further details are attached at **Annexure-B11**

DVC intends to execute the implementation of OPGW laying in the above-mentioned links of total 805 Km through Powergrid.

Powergrid is agree to execute the OPGW laying in the above-mentioned links of total 805 Km on tariff route (RTM Mechanism). Estimated cost for this work will be approx. 32 Crs. Powergrid

will fund the project and the cost will be recovered through tariff as decided by CERC as per earlier ULDC schemes.

12th TeST Committee agreed to the proposal of Powergrid and referred it to CCM for further concurrence.

In 47th CCM meeting, Powergrid representative submitted that they would execute the OPGW laying work and the tariff would be recovered as decided by CERC as per earlier ULDC schemes. Upon deliberation, it emerged that only one line i.e., Joda-Jamshedpur (DVC), is natural ISTS line and the rest of the lines are part of DVC system. Further, Powergrid informed that the approximate cost of OPGW laying work would be Rs. 4 Lakhs/Km.

CCM approved the cost of Joda-Jamshedpur (DVC) line (140 Km) at Rs. 4 Lakhs/Km and the referred the same to upcoming TCC/ERPC for further concurrence.

Powergrid was advised to make separate bilateral agreement with DVC regarding cost recovery of other intra state lines.

TCC may discuss.

Deliberation in the 47th TCC Meeting:

CTU stated that BokaroA-Kodarma line is an ISTS link owned by Powergrid. Hence for implementation of OPGW on this line, the view of ERPC needs to be submitted to CTU.

CTU also stated that, the OPGW installation on the remaining links (Sl. No 2-9) shall be implemented by their owner/s. However, the owner/s can get the implementation work done by any other agency/utility by their consent.

ERPC secretariat representative informed that Joda-Jamshedpur (DVC) line is a tie line between DVC & Odisha and ownership of line lies with DVC and Odisha. The approximate cost of OPGW laying work in this line would be Rs 5.6 crores.

After detail deliberation, TCC opined that for Joda – Jamshedpur line, the cost of OPGW laying work may be recovered from DVC and Odisha proportionately. For BokaroA-Koderma line, Powergrid would execute the OPGW laying project on tariff mode, whereas for the remaining lines TCC advised Powergrid to make a separate agreement with DVC.

TCC referred to ERPC for its approval.

ITEM NO. B12: Follow up Agenda

Sl. No	Issue/Agenda	Discussion in previous meetings	Update/Status
1.	<u>Islanding Schemes in Eastern Region</u> 1.1. <u>Patna Islanding Scheme:</u>	In the 196 th OCC meeting, NTPC representative submitted that GE vide letter dated	<i>In 47th TCC meeting, representative of NTPC informed that they are in process of</i>

	<p>In the meeting held on 28th December 2020 and chaired by the Hon'ble Minister of State (IC) it was directed that islanding schemes should be implemented for all major cities of the country considering all the strategic and essential loads. Subsequently, in line with the direction given in the meeting, the subject matter was discussed in PCC meeting of ERPC, and it was finalized that new islanding scheme would be implemented for capital city of Patna & Ranchi.</p>	<p>03.10.2022 informed that they would not be able to carry out the study because of tool limitations.</p> <p>Possibility for conducting the study through other OEMs is being explored and update regarding the same would be given in the next OCC meeting</p>	<p><i>appointing an agency to carry out the study. He further informed that appointment of the agency shall be done by January'23.</i></p>
	<p>1.2. <u>IB-TPS Islanding Scheme:</u></p> <p>The scheme was finalized in the special Meeting on Islanding Scheme of IB-TPS held at ERPC, Kolkata on 12th December 2018.</p> <p>In special meeting held on 06.08.2021, OPGC representative informed that work order had been placed on OEM (M/s BHEL) for implementation of the Islanding scheme at IB TPS units.</p> <p>OPGC was also advised to take up the issue with their highest authority as well as with the OEM for expediting the implementation of islanding scheme.</p>	<p>In the 196th OCC meeting, OCC advised OPTCL to take up the matter with OPGC and submit the timeline to ERPC and ERLDC at the earliest.</p>	<p><i>Representative of OPGC informed that during AOH in the month of March'2023 if the turbine vibration issue gets resolved then they would go ahead with the testing.</i></p>
2.	<p><u>Reliable Power Supply to Lalmatia/Godda/Dumka areas of JUSNL</u></p> <p>2.1. <u>Restoration of 220kV Farraka-Lalmatia S/C line</u></p> <p>The 220 kV Farakka-Lalmatia S/C was out of service since April 2021 due to tower collapse. The 220/132/33 kV Lalmatia substation is relying on only 132 kV lines. At present the local load at 220 kV Dumka and Godda S/S were being radially fed from 400/220 kV Maithon</p>	<p>In the 195th OCC meeting, Jharkhand representative submitted that the work order was issued on 8th September 2022 with an estimated cost of Rs. 12 Crores. The work is expected to be completed within 3 months.</p> <p>In 196th OCC Meeting,</p>	<p><i>Member from JUSNL informed that the work order had already been placed to M/s ABN Tower on 08.09.2022. The delay in starting the work is due to very old transmission line and non-availability of drawing with BOM. Drawing has been made available by NTPC on 24.09.2022 without BOM. BOM is</i></p>

	S/S through 220 kV Maithon-Dumka D/C and 220 kV Dumka-Godda D/C.	<p>Representative of Jharkhand informed that joint survey has been completed. The expected timeline for completion of the work is December 2022.</p> <p>MS ERPC advised Jharkhand to submit the activity wise bar chart to ERPC at the earliest.</p> <p>OCC expressed serious concern about delaying of the project and also advised Jharkhand to keep proper protection system e.g. patrolling team in place in order to avoid theft of the towers/conductors.</p>	<p><i>being prepared and breaking of foundation and stub strengthening work has been started.</i></p> <p><i>Tower erection and stringing work is likely to start by 15.01.2022 and may be completed by 31.03.2023.</i></p>
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ITEM NO. B13: Support Service for the project “Creation & Maintaining a web based Protection database and desktop based Protection setting calculation tool for Eastern Regional Grid”

The PSDF funded project of ERPC “Creation & Maintaining a web-based Protection database and Desktop based Protection Setting calculation tool for Eastern Regional Grid” was implemented and declared Go-line on 31.10.2017. As per the contract of the project, the support service would be provided for 5 yrs after declaration of the Go-Live of the project which was till 31.10.2022.

The online database(PDMS) as well as the offline PSCT tool are being utilized by all utilities of ER for analysing the grid disturbances, carrying out various studies i.e. load flow, short circuit, relay coordination, DR analysis etc., sharing the disturbance report/DR/EL through online portal for compliance etc.

44th ERPC authorized ERPC Secretariat to prepare a DPR for support service for future updation of the Protection Database for another 5 years and place it for PSDF funding. In 45th ERPC meeting, it was noted that the DPR for additional MiP-PSCT licenses was submitted to nodal agency on 22.03.2022 for PSDF funding. The techno-economic subgroup (TESG) of PSDF discussed the DPR in its 63rd meeting held on 10.06.2022 & 67th meeting held on 12.10.2022. The minutes of the 67th TESG meeting is yet to be issued by Nodal agency, PSDF.

As the existing support service period was completed on 31.10.2022 & presently the system is being operated without any AMC, it is proposed that support service with existing vendor may

be continued for an interim period of one year or till the time a final decision may be made on the funding mechanism of support service for the Protection database system, whichever is earlier.

In this regard, the vendor M/s PRDC has been approached and they have submitted an estimate amount of Rs. 50 lakh(including GST) as charges for one year support service(**Annexure-B13**).

Sl. No.	Activities	Description	Cost(INR) per year
1	Software resource support at Bangalore	Software upgrades, trouble-shooting, Bug fixing within specified time frame(for PSCT & PDMS)	18,00,000
2	Hardware AMC Support	Hardware AMC renewal and Support	4,50,000
3	Onsite Support	One dedicated Resource deputation at ERPC premises for Protection suite data updation and other protection related activities of ERPC(Including PCC support)	24,00,000
Grand Total without tax			42,00,000
GST @ 18%			7,56,000
Grand Total with tax			49,56,000

TCC may discuss and approve.

Deliberation in the 47th TCC Meeting:

Member Secretary ERPC briefed the issue and stated that as the decision of TESC committee of PSDF with regard to funding of the support service of Protection Database Project is yet to come; support service for an interim period is necessitated to maintain and update the protection database till the time the decision on PSDF funding gets finalized. He further highlighted the importance of the protection database system in analysing the grid disturbances and carrying relay coordination studies in order to maintain proper protection coordination in the ER grid.

TCC recommended for the support service of the Protection Database with the original vendor for an interim period till the time the decision on PSDF funding gets finalized. The support service is to be executed with the estimated cost of Rs. 50 lakh (including GST) for one year support service charges. The expenditure would be met from ERPC Establishment Fund.

TCC referred the matter to ERPC for consideration and approval.

ITEM NO. B14: Proposal for Renewal of AMR Phase-3 AMC of 249 nos. of SEM in ER.

The original LOA for AMR phase-3 was awarded to M/S TCS in Oct-2016. Scope was Supply, Installation, Commissioning of AMR system with one year warranty and 4 years comprehensive AMC. The total Qty. of SEM considered in this scope was: 249.

Supply, Installation and One year warranty was completed in Aug-2018, and from 01-Sep-2018 AMC was started. 04 years comprehensive AMC has been completed on 31-Aug-2022. From 01-Sep-2022 onwards, all these 249 SEM Meters are out of AMC support.

Renewal of AMC support is required to continue the AMR operation and ensure SEM data availability to ERLDC for weekly billing. Under proposed AMC period, it is envisaged up to the period of March-2026, such that AMC of Phase-3 could be concurrent with Phase-1/2.

The AMC renewal will be from 01-Sep-2022 till 31-Mar-2026 (43 months). Being OEM the AMC support required to be placed to M/S. TCS only on ST basis. As per budgetary offer the AMC value comes to around Rs. 1.24 Cr (Excluding GST) for 249 SEM for 43 Month time period.

M/S TCS is continuing the AMC support now, and we requested them to continue the AMC support also till finalization of the proposed AMC. Members may please discuss.

In the 195th OCC Meeting, Powergrid representative submitted that M/s TCS has submitted a cost estimate of Rs. 1.24 Crores for the renewal of AMC of Phase-3 AMR of 249 nos. of SEMs. The AMC period will be from 01-Sep-2022 till 31-Mar-2026 i.e., for 43 months such that AMC of Phase-3 could be concurrent with Phase-1 & 2. They are in the process of negotiation with M/s TCS for further reduction of AMC cost of phase-3.

Also, the AMC of 254 meters (Phase-4) which is valid up to June 2026 would be preponed to March 2026 so that AMC of all the phases could be started afresh concurrently.

OCC agreed to the above proposal and referred it to the CCM meeting for further approval.

In 47th CCM meeting, Powergrid representative submitted that M/s TCS has submitted a cost estimate of Rs. 1.24 Crores for the renewal of AMC of Phase-3 AMR of 249 nos. of SEMs. They are in the process of negotiation with M/s TCS for cost reduction for Phase-3 AMR. The AMC would be valid from 01-Sep-2022 till 31-Mar-2026. Further, the AMC of 254 meters of Phase-4 would be preponed to March 2026 such that the AMC for all the meters could be started afresh.

CCM approved the above proposal and advised Powergrid to submit the negotiated price of AMC of phase-3 AMR to ERPC Secretariat and referred it to the upcoming TCC/ERPC meeting.

Powergrid may explain. TCC may approve.

Deliberation in the 47th TCC Meeting:

Powergrid representative submitted that the negotiated price of AMC of phase-3 AMR of 249 nos of SEM is Rs 11946647/-. The AMC would be valid from 01-Sep-2022 till 31-Mar-2026.

After detailed deliberation, TCC approved the cost of Rs 11946647/- excluding GST for AMC of phase-3 AMR and referred to ERPC for further approval.

ITEM NO. B15: Procurement of New Energy Meter

In Eastern Region, no of spare meters as informed by PGCIL is around 410 nos. Keeping in view of the upcoming requirement of meters in new projects and replacement of heavily time drifted (L&T make) meters, members may discuss the requirement of new energy meters.

In 47th CCM meeting, ERLDC representative submitted that out of total 587 L&T meters, 271 meters are heavily time drifted (>10minutes). Further, on a yearly basis 50 nos. of meters are coming in the category of heavily time drifted.

It was submitted that 410 meters are currently available with Powergrid as spare meters. Further, situation of unexpected requirement of meters may also arise.

The Committee observed that the heavily time drifted SEMs may have huge financial implications on all the utilities under the existing as well as new DSM regime. Since all the L&T make meters (587 nos.) are integrated with AMR, time drift correction using DCD is not possible. It was also discussed that calibration of these meters is due and the cost of calibration is equivalent to that of a new meter which is unjustifiable. Hence, after detailed deliberation, CCM recommended for procurement of additional 325 nos. of SEMs and advised Powergrid to initiate the replacement of heavily time drifted meters by utilizing the existing stock of 410 nos. of meters in co-ordination with ERLDC and concerned utilities.

Powergrid representative submitted that the meters would be provided by them and the concerned utilities shall be responsible for replacement of meters at their respective end. If any utility desires to get the meters replaced by Powergrid then it would be on chargeable basis. Further, Powergrid was also advised to submit a proposal for the procurement of additional 325 nos. of meters.

The issue is referred to upcoming TCC/ERPC.

TCC may discuss.

Deliberation in the 47th TCC Meeting:

After detailed deliberation, TCC agreed to the proposal for procurement of additional 325 nos. of SEMs and advised CTU to go ahead with the procurement. CTU representative submitted that they would authorise Powergrid to procure the additional 325 nos. of SEMs. Powergrid agreed.

TCC observed that in view of stringent provisions in new DSM regulations, the heavily time drifted L&T make SEMs need to be replaced on priority basis. Accordingly, Powergrid was advised to replace the heavily time drifted meters on priority basis in co-ordination with ERLDC and concerned utilities by utilizing its existing stock of 410 meters and the details of replaced meters may be shared by Powergrid in the monthly OCC Meetings.

TCC referred the issue to ERPC for approval.

ITEM NO. B16: Strengthening of State Load Despatch Centers (SLDC)

In the 46th ERPC meeting, the necessity of strengthening of State Load despatch Centres (SLDC) was emphasised through induction of appropriate manpower in line with CABIL recommendations. The need for strengthening SLDCs was appreciated by most members, and it was agreed that all States including DVC would do the needful in this direction.

It was also mentioned that the mechanism of Scheduling, Accounting, Metering and Settlement system would be in place with SAMAST implementation. Bihar has already completed while West Bengal / Odisha are in various phases of execution. Recently DVC has shown intent in implementing SAMAST while Jharkhand/Sikkim are yet to submit DPR for PSDF funding.

All the states are requested to update the status of manpower strengthening in the respective LDCs (format given below) and SAMAST implementation.

Recourse Area	Activity	Manpower in place	Manpower as per CABIL recommendation (Large/Medium/ Emerging LDC)
Head LDC			1/1/1
System Operation	Real Time Operation, GridManagement Forecasting		24/17/11
Market Operation	Metering, Accounting Settlement, Open Access		16/11/6
Information Technology	IT Hardware/Software, Website, Communication		15/10/4
Law and Regulatory Affairs	Policy & Regulatory Affairs, Petitions etc		7/5/3
HR & Administration	HR, HRD, Administration, Recruitment etc		15/10/3
Finance &Accounts			17/12/3
Infrastructure Services			10/6/3
Decision Support	SCADA/EMS, WAMS		14/10/5
Contracts	C&M activities		6/4/2
Total			125/86/41

Large LDC: West Bengal

Medium LDC: Bihar, Odisha, Jharkhand, DVC

Emerging LDC: Sikkim

TCC may discuss.

Deliberation in the 47th TCC Meeting:

TCC referred the agenda to ERPC.

ITEM NO. B17: Disbursement of encashed CBG amount to DICs pending settlement of legal disputes on relinquishment charges

In line with CERC Order dated 8.3.2019 passed in Petition No.92/MP/2015, CTU calculated relinquishment charges for LTAs relinquished by various generators and uploaded the same on its website from time to time. However, the relinquishment charges computed and notified by CTU in line with above CERC Order 08.03.2019 in Petition No. 92/MP/2015 was disputed by more than 20 relinquishing IPPs, who had filed appeals in APTEL which are pending adjudication. In view of pending disputes and GST issues concerning the raising of invoices, CTU issued demand letters to concerned relinquishing LTA customers pending disposal of appeals in APTEL.

During the proceedings in the matter, APTEL vide its order dated 08.10.2020 in Appeal no 251 of 2019, had restrained CTU from raising invoices with respect to the relinquishment charges during pendency of similar Appeals except where insolvency proceedings are faced by the generators. All the appeals on relinquishment charges are yet to be decided as on date and matter is being pursued by CTU. Further, where the IPPs are undergoing insolvency proceedings, CTU had filed claims before RPs/Liquidators for recovery of relinquishment charges.

Meanwhile, CTU encashed the CBGs of some of the IPPs who have abandoned their projects or undergoing insolvency proceedings and the encashed BG amount of approx. Rs 400 Crores was kept in FDs since the legal proceedings on relinquishment charges are still to be concluded and the BG amount may have to be refunded to IPPs along with interest in case of judgements in their favour in future.

The status of relinquishment charges and treatment of encashed BG amount has been reviewed in recent 42nd SRPC meeting held in Jun'22 and it was desired by the state utilities of SRPC that the BG amount be disbursed to all the DICs pending settlement of disputes on relinquishment charges. CTU informed that it is common money of all the five regions and cannot be given state-wise or region-wise and hence it needs to be taken up with all the RPCs for their consent. CTU further informed that, in case the BG amount is disbursed to the DICs in the pool and the disputes are settled in favour of the relinquishing IPPs later, the amount so disbursed in the pool shall be collected from respective DICs alongwith interest to refund to the IPPs. Copy of relevant extract of MOM of 42nd SRPC meeting is enclosed at **Annexure-B17**.

The NRPC / WRPC / ERPC / NERPC members may deliberate on the above and provide their consent on disbursing the encashed BG amount to the DICs in the pool with the conditions mentioned above, pending settlement of legal disputes on relinquishment charges.

CTU may explain. TCC may discuss.

Deliberation in the 47th TCC Meeting:

Representative of CTU explained the issue briefly and requested for the consent of members of ER utilities for disbursement of encashed BG amount of approx. Rs 400Cr to the DICs with a condition that in case the APTEL judgement goes in favour of relinquishing IPPs, the amount so disbursed shall be collected from the DICs along with applicable interest.

Director (R & T), WBSEDCL raised concern about the difference in interest accrued on the FDs in which the encashed BG amount is kept and the applicable interest rate that may have to be paid to the relinquishing IPPs in case APTEL judgement goes in their favour.

After detailed deliberation, TCC observed that the issue needs to be first discussed threadbare in the lower forum of ERPC and referred to CCM.

ITEM NO. B18: DMTCL's unrecovered Transmission Charges of INR 2,65,75,819/- from Bihar Power Utilities for the Period 31.03.2017 to 15.04.2017

“DMTCL unrecovered Transmission Charges of INR 2,65,75,819/- from Bihar Power Utilities for the Period 31.03.2017 to 15.04.2017 billed by CTU bill dated 17th June 2020 as per ERPC RTA dated 05th June 2020 along with applicable Late Payment Surcharge (LPS).”

Background:

This is in reference to the till date outstanding transmission charges Bill dated 17th June 2020 issued by CTU as per ERPC RTA dated 05th June 2020 for the recovery of DMTCL unrecovered transmission charges of ₹ 2,65,75,819/- for the period from 31.03.2017 to 15.04.2017. The said claim of DMTCL unrecovered transmission charges was also reviewed by NLDC in discharging its function of Implementing Agency and subsequently approved & issued by ERPC through RTA of June-20 month as part of standard procedure.

The matter was deliberated in 43rd TCC meeting dated 26th March 2021 and TCC opined that the said payment is to be paid by Bihar. The conclusion arrived by 43rd ERPC TCC Meeting held at Kolkata, dated 26th March 2021, under the Agenda Item no. B28.3, is in the following manner:

“B28.3:- RTA(Rev-1) dated 05-06-2020 for the month of May-20 issued by ERPC

Deliberation in the TCC meeting:

.....

After deliberation TCC opined that the said payment has to be liquidated by Bihar in line with CERC order dated 04.01.2017 in petition no. 155/MP/2016. However, as this is an internal matter of Bihar State, TCC advised ERPC Secretariat to convene a separate meeting among BSPHCL, BSPTCL, Discoms of Bihar, NLDC, CTU and DMTCL to resolve the issue.”

In line with TCC advise in 43rd ERPC TCC meeting, a joint discussion was held on 21st June 2021 in the presence of ERPC Secretariat, representatives of BSPHCL, BSPTCL, Discoms of Bihar, NLDC, CTU and DMTCL through MS Teams online meeting platform. The said meeting however remained inconclusive since the stakeholders of Bihar Power Companies (BSPHCL, NBPDC & SBPDCL) were still having difference in opinion regarding the applicability of CERC

order dated 04.01.2017 in petition no. 155/MP/ on Bihar Discoms. Hence, despite of deliberation at 43rd TCC level and validation of this matter by TCC forum, the DMTCL transmission charges claim remained unpaid.

Subsequently, the matter was again raised at ERPC level vide our letter dated 25.06.2021 and it was communicated to DMTCL that this matter shall be clarified by taking guidance from CERC in the upcoming meeting with CERC.

During the 45th ERPC TCC held on 26th March 2022 under the Agenda Item no. C. 23, the ERPC Secretariat conveyed about 03rd interaction of Hon'ble Central Electricity Regulatory Commission (CERC) with Chairpersons and Member Secretaries of RPCs, which was also Minuted vide dated 04th Jan 2022

Under the Formal **Agenda point no. 29** of the interaction minutes dated 04th Jan 2022, the Member Secretary (ERPC) requested to Hon'ble CERC **"For the Interpretation of CERC Order dated 04.01.2017 and 06.03.2017 in Petition No. 155/MP/2016"**, which is being referred as a precedence/ base case in the existing DMTCL RTA claim matter. In response, **the Hon'ble CERC affirmed that the party which is causing delay in commissioning of transmission system, would be liable to pay the transmission charges to Transmission Licensee, till the commissioning of downstream system of the State.** The relevant extract of the deliberation recorded as part of Minutes dated 04th Jan 2022 is provided as below:

"29. Interpretation of order dated 04.01.2017 and 06.03.2017 in Petition No. 155/MP/2016

a) Member Secretary (ERPC) stated that for delay (beyond control) in commissioning of transmission lines by transmission licensees, they are being compensated. However, when the downstream network of State is delayed, owing to law and order situation, they are not being compensated and rather they are made liable to pay the transmission charges for transmission licensees, till the commissioning of downstream system of the State.

***b) Member (ISJ), CERC observed that the liability for the payment in the event of delay in commissioning the transmission system does not go away.** For example, if the generating station has been commissioned and the transmission system has not come, the transmission licensee may get extension in COD, but it remains liable to pay compensation to such generating station.*

c) Chairperson, CERC stated that CERC has taken a fair and consistent approach in its orders. The party which is causing delay is liable to pay the compensation.

As per above, it was suitably made clear by the Hon'ble Member CERC that if the transmission licensee (DMTCL) was ready for commissioning, however, could not initiated flow of power owing to non-readiness of Bihar downstream transmission system, then in such case the DMTCL transmission element was deemed available from the day it declared its readiness and accordingly is qualified to collect the revenue for the said dates. Hence, this understanding and

the above claim has been validated, approved by ERPC and further has been affirmed by Hon'ble Commission through the Interaction Minutes dated 04th Jan 2022.

The said recovery of DMTCL transmission charges is still pending for a prolonged period of more than 2 years despite multitude of discussions at various forum, ample clarifications already provided and clear guidance from various authorities.

Because of such prolonged delay in receiving this legitimate compensation at no fault of DMTCL has adverse financial implications on DMTCL and therefore requested to disburse this payment at the earliest along with the necessary applicable Late Payment Surcharge (LPS) as per below :

The particular of the pending outstanding amount as on 15th Nov 2022:

Sr.	Particulars	UOM	Quantum
1	DMTCL Total claim as per RTA dt. 05 th June 2020	INR	2,65,75,819
2	*Total LPS (17-08-2020 to 15-11-2022)	INR	1,07,16,699
	Grand Total outstanding as on 15-11-2022	INR	3,72,92,519

***The LPS computations has been done as per applicable CERC Sharing Regulations time to time.**

Bihar may update.

Deliberation in the 47th TCC Meeting:

DMTCL representative informed that DMTCL is yet to recover the Transmission Charges of INR 2,65,75,819/- from Bihar Power Utilities along with applicable Late Payment Surcharge (LPS) of DMTCL for the period from 31.03.2017 to 15.04.2017 due to delay in commissioning of downstream network by Bihar. Further he informed that, the issue has already been discussed in the several ERPC meetings and in the 3rd meeting of the Member Secretaries with Hon'ble CERC dated 17.11.2021 under the agenda "For the Interpretation of CERC Order dated 04.01.2017 and 06.03.2017 in Petition No. 155/MP/2016" it was recorded that "Chairperson, CERC stated that CERC has taken a fair and consistent approach in its orders. The party which is causing delay is liable to pay the compensation."

Bihar representative informed that the defaulted party due to which the so-called delay has been claimed is not identified or adjudicated by CERC in petition no. 238/MP/2017. Therefore, the direction of CERC in its order dated 04.01.2017 in petition no. 155/MP/2017 cannot be applied in the instant matter.

After detailed deliberation, TCC opined that since no consensus could be arrived at, the affected party may file a petition before Hon'ble CERC.

This is for information to ERPC.

ITEM NO. B19: MHEP's Balance Payment from PTC India against the Energy Bill for the period from June 2019 – August 2019

The PPA for sale/purchase of power of Mangdechhu Hydro Electric Project (MHEP) was signed between DGPC & PTC India Ltd. on August 15, 2019. The commissioning and commercial operation date (COD) of the generating Units are as below:

Unit No.	Commissioning Date	Commercial Operation Date (COD)
I	June 16, 2019 at 06:54 Hrs.	June 28, 2019 at 12:30 Hrs.
II	June 30, 2019 at 01:55 Hrs.	July 08, 2019 at 12:30 Hrs.
III	August 15, 2019 at 20:16 Hrs.	August 16, 2019 at 23:30 Hrs.
IV	August 08, 2019 at 01:13 Hrs.	August 14, 2019 at 12:30 Hrs.

As per the Power Purchase Agreement (PPA) for the sale/purchase of power from the Mangdechhu hydroelectric project signed between DGPC and PTC India on August 15, 2019, the first bill for the energy exported from the Mangdechhu Hydropower Plant for the period from June – August 2019 was sent to PTC India on September 06, 2019. The bill was based on the Commercial Operation Date (COD) of each generating Unit. However, PTC India informed that the COD of Unit No. III, which was the last Unit to be commissioned on August 15, 2019 and COD declared on August 16, 2019 should be considered as the COD for application of the export tariff of INR. 4.12/kWh. Therefore, any energy injected from June 16, 2019 (day on which the first unit was commissioned) to August 15, 2019 (day on which the last unit was commissioned) should be considered as energy consumed internally in Bhutan and upward adjustments for this quantum of energy would be considered in the energy exported by Tala, Chhukha and Kurichhu in the ratio as per the Regional Energy Accounting (REA) of June, July and August 2019.

However, DGPC informed PTC, India that COD of individual generating unit must be considered for the application of export tariff of INR. 4.12/kWh and the upward adjustment of the infirm power (energy generated prior to the declaration of COD of individual generating unit) as per the REA was acceptable. The 42nd Commercial Sub-Committee Meeting (CCM) of Eastern Regional Power Committee (ERPC) held on February 25, 2020 directed the PTC India to seek clarification from the Ministry of Power (MoP), GoI concerning the consideration of individual unit's COD of Mangdechhu hydropower plant.

In the meantime, PTC India agreed to release advance payments as per the provisional REA released by ERPC, GoI. Accordingly, DGPC sent a revised bill to PTC India as per the provisional REA of ERPC on March 02, 2020 amounting to INR. 1,394,631,712.36. This amount of INR. 1,394,631,712.36 was received in 24 installments with the last installment paid on November 18, 2020.

On the COD issue and as a follow-up to the 42nd CCM of ERPC, during the 43rd Commercial Sub-Committee Meeting (CCM) of ERPC held on September 21, 2020, PTC India informed that the matter was already taken up with the MoP, GoI and the MoP had advised CEA to convene a meeting. However, due to COVID-19 lockdown, the meeting could not take place. PTC India further informed that CEA had planned to convene the meeting with PTC and the stakeholders

of MHEP in the 1st week of October 2020 to resolve the issue. However, in spite of repeated follow-ups, PTC India did not confirm the above matter till date. It was also not updated in the 44th, 45th & 46th CCM of ERPC by PTC India.

Based on the DGPC/Royal Government of Bhutan (RGoB) position that the COD of individual generating unit should be considered for energy accounting and billing purposes, the actual bill for the energy exported during the period from June 2019 – August 2019 is INR. 1,994,149,425.00. Therefore, the difference on account of this actual claim vis-à-vis the bill raised as per the provisional REA is INR. 599,517,712.64. Hence, the overall balance amount for the period of June-August 2019 to be paid by PTC India to DGPC/MHEP is INR. 599,517,712.64

DGPC would like to request the TCC to kindly advise PTC India to release the balance payment of INR. 599,517,712.64 to DGPC/MHEP without further delay.

TCC may discuss.

Deliberation in the 47th TCC Meeting:

DGPC representative requested for the early release of the balance amount of Rs 60Cr (approx..) on account of energy exported to India from Mangdecchu HEP during the period from June 2019 to August 2019.

PTC representative submitted that based on the direction of 42nd CCM and subsequent discussion in 43rd CCM, they have been following up with CEA & MoP.

TCC advised PTC to resolve the issue expeditiously so that further necessary action can be taken. PTC representative assured to expedite the issue and revert.

ITEM NO. B20: Non-Payment of Outstanding dues in respect of Chukha HEP & Tala HEP Transactions

Chukha HEP: Agreement dated 31.08.2002 between PTC and Department of Energy, Royal Government of Bhutan under which PTC is required to make payment to DGPC within 30 days of the receipt of the bills. Since it is a Cross Border transaction involving Royal Government of Bhutan and Government of India, PTC makes timely payment to Bhutan irrespective of receipt of payment from the beneficiaries in India. Power Purchase Agreement (PPA) dated 21.08.2002 between PTC and beneficiaries in India for CHUKHA Power under which in line with the Clause No. 8.2 of the agreement, beneficiaries are required to make payment within three (3) working days of presentation of bill by PTC.

Tala HEP: Agreement dated 27.09.2006 between PTC and Department of Energy, Royal Government of Bhutan under which PTC is required to make payment to DGPC within 30 days of the receipt of the bills. Since it is a Cross Border transaction involving Royal Government of Bhutan and Government of India, PTC makes timely payment to Bhutan irrespective of receipt of payment from the beneficiaries in India. Power Sale Agreement (PSA) dated 27.09.2006 between PTC and beneficiaries in India for TALA Power under which in line with the Clause No.

6.2 and 6.3 of the agreement, beneficiaries are required to make payment within seven (7) working days of presentation of bill by PTC.

It is to bring to kind notice that South Bihar Power Distribution Company Limited (SBPDCL) and North Bihar Power Distribution Company Limited (NBPDC) are defaulting in making timely payment to PTC despite regular follow up by PTC at every level in SBPDCL & NBPDC for clearing the outstanding dues in respect of Chukha HEP & Tala HEP transactions. It may kindly be appreciated that an amount of Rs. 94.35 Crores & Rs. 122.83 Crores are overdue (more than 30 days) towards energy charges of Chukha HEP & Tala HEP respectively as per the details given below:

Outstanding dues in respect of Chukha HEP

Amount (In Rs. Crores)

Sl. No.	DISCOM	30-60 days	60-90 days	90-120 days	More than 120 days	Total
1.	SBPDCL	10.15	8.90	9.30	40.80	69.15
2.	NBPDC	8.65	7.58	7.92	1.06	25.21
TOTAL						94.35

Outstanding dues in respect of Tala HEP

Amount (In Rs. Crores)

Sl. No.	DISCOM	30-60 days	60-90 days	90-120 days	More than 120 days	Total
1.	SBPDCL	17.19	16.48	15.90	24.21	73.78
2.	NBPDC	14.65	14.04	13.55	6.81	49.04
TOTAL						122.83

PTC has exhausted all the options available to get the above outstandings cleared by SBPDCL and NBPDC and is left with no other option but to approach Member, Secretary ERPC to advise SBPDCL & NBPDC to clear the outstanding dues

1. **Chukha HEP:** As per the Clause no. 8.7 of the PPA between PTC and beneficiaries in India which stipulates that "If any bill remains unpaid for a period exceeding 7 (seven) days from the date of presentation of bill, Member Secretary, EREB may reallocate the share of power of such Bulk Power Customer(s) if so advised by PTC".
2. **Tala HEP:** As per the Clause no. 7.2 of the PSA between PTC and beneficiaries in India which stipulates that "If any bill remains unpaid for a period exceeding 7 (seven) days from the date of presentation of bill, Member Secretary, ERPC may reallocate the share of power of such Bulk Power Customer(s) if so advised by PTC".

NBPDC & SBPDCL may update their action plan to liquidate the outstanding dues.

Deliberation in the 47th TCC Meeting:

PTC representative informed that after a meeting of PTC with NBPDC/SBPDCL officials, the issue has been resolved.

ITEM NO. B21: Additional Agenda

1. Adjustment/ Refund of Transmission Charges on account of CoD revision of Unit 4 of Barh STPS Stage II from 15.11.2014 to 08.03.2016 by CERC vide order dated 20.09.2017 passed in Case no 130/MP/2015 to Bihar Discoms.

In compliance of CERC order dated 20.09.2017 passed in case no. 130/MP/2015 by which the COD date i.e. 15.11.2014 of unit no. 4 of Barh Supar Thermal Power Project Stage II was set aside and revised to 08.03.2016, ERPC revised the REA, RTA and DSM statements for the period 15.11.2014 to 07.03.2016 vide its letter dated 11/12.01.2018. This was mainly due to the fact that the power injected from 15.11.2014 to 07.03.2016 was treated as infirm power by the Hon'ble CERC.

The excerpt of the CERC order dated 20.09.2017 passed in case no. 130/MP/2015 is reproduced

below:-

"Power injected by Respondent No. 1 in respect of the Unit before 8.3.2016 shall be treated as

infirm power even though power was scheduled by the beneficiaries during the period. The revenue earned over and above fuel cost from sale of infirm power from 15.11.2014 to 7.3.2016 shall be adjusted in the capital cost."

As the power injected by the said unit before 08.03.2016 is to be treated as infirm power, the bills earlier raised to the beneficiaries including Bihar Discom's by PGCIL for transmission charges, RLDC charges etc. pertaining to period 15.11.2014 to 07.03.2016 became null and void as the same were against the above order, Agreement signed with NTPC Ltd & PGCIL and also against the applicable Regulations namely CERC Tariff Regulations, 2014, CERC Inter State Transmission charges Sharing Regulations 2010, CERC DSM Regulations, CERC fee and charges for RLDC Regulations, etc. Thus, the Transmission charges billed by PGCIL for the period from 15.11.2014 to 07.03.2016 is to be refunded the Discoms of Bihar.

As the Inter State Transmission Charges Bill raised by PGCIL through various bills such as POC Bill-1, POC Bill-3 etc. for the said period, total amount to be refunded to Bihar Discoms comes out to be Rs. 195.47 Crs (approx) along with the interest.

It is relevant to mention that Bihar DISCOMs vide letter no.160 dated 21.09.2021 & 75 dated 04.04.2022 requested PGCIL to refund the said amount but this has neither been refunded nor adjusted against any transmission bills till date. This is causing great financial hardship. Memo of the said letter were sent to ERPC also.

Here it will also be relevant to mention that with the implementation of LPSC Rules 2022, DISCOMs have to face severe consequences on account of any outstanding dues of Genco/TRANSCO and/or Traders. In this condition pending payment of about Rs 195 Cr (and interest thereupon), is proving very crucial.

In view of facts mentioned above, ERPC was requested to take immediate steps for revision of the earlier issued revised RTA dated 11/12.01.2018 vide 161 dated 21.09.2021 and the same was also discussed in the 46th TCC & ERPC meeting held on 05/06.08.2022. However, the necessary revision of the said RTA dated 11/12.01.2018 is still awaited. Therefore, it is requested to instruct PGCIL to refund the billed amount of Rs 195.47 Crs (approx) to Bihar DISCOMs with interest thereupon, within a time frame as decided by the ERPC.

In view of the above, the said agenda item may be considered for discussion before TCC.

Deliberation in the 47th TCC Meeting:

"Bihar representative informed that on account of revised RTA due to change of COD of Barh-II Unit-4 from 15.11.2014 to 07.03.2016, they are yet to be refunded the transmission charges by CTU. He also requested that regulation of power may not be imposed on Bihar due to any outstanding transmission charges.

CTU representative submitted that RTDA for the period from 15.11.2014 to 07.03.2016 also needs to be revised.

ERPC Secretariat representative assured to issue the revised RTDA in respect of ER State utilities for the relevant period within a week. He also intimated that once revised RTDA is issued, the claim of Bihar for refund of transmission charges due to revised RTA will be effectively nullified.

TCC concluded that the issue of payment, collection and disbursement of transmission charges including regulation of power should be dealt with according to relevant CERC regulations."

PART C: ITEMS FOR INFORMATION

The following items are placed before TCC for noting and compliance:

ITEM NO. C1 : Outage planning & ATC-TTC declaration

Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022, T-GNA can be applied for any period from 1 (one) time block and up to 11 (eleven) months. Accordingly Total Transfer Capability (TTC), Available Transfer Capability (ATC) and Transmission Reliability Margin (TRM) of the individual control/bid areas need to be declared on rolling basis for at least 11 months in advance incorporating the LGBR.

Thus, following inputs are required for calculation:

- Transmission outage planning for 12 months in advance by transmission utilities
- Generation outage planning for 12 months in advance by GENCO's
- State ATC/TTC from SLDC for 12 months in advance incorporating state embedded transmission and generation outage and LGBR

One month margin is kept for calculations.

Presently, outage planning is done on month ahead basis in RPC forum for both generation and transmission elements. Further, considering the last six-month data, roughly the average approved shutdown of transmission elements was around 700 numbers in ER, out of which only 1/3rd i.e 33% shutdown was availed despite the flexibility of choosing a date. This shows absence of proper planning on the part of utilities which with the implementation of upcoming T-GNA regulation may have commercial well as operational consequences. Hence all the utilities are advised to properly plan their outage schedule well in advance and stick to the schedule.

TCC may note.

Deliberation in the 47th TCC Meeting:

TCC noted.

ITEM NO. C2 : Upcoming regulations/concept papers of CEA/CERC/MoP

- Central Electricity Regulatory Commission (**Deviation Settlement Mechanism and Related Matters**) Regulations, 2022 shall come into force with effect from 05.12.2022.
- Central Electricity Regulatory Commission (**Ancillary Services**) Regulations, 2022 except the parts of Regulation pertaining to TRAS shall come into force with effect from 05.12.2022.
- Central Electricity Regulatory Commission (**Connectivity and General Network Access to the inter-State Transmission System**) Regulations, 2022 has come into effect from 15.10.2022 except the provisions of Regulations 23 to 24, 26 to 36, 37.9, 38,40, and 43, whose date of commencement shall be notified separately.

- Draft Central Electricity Regulatory Commission (**Indian Electricity Grid Code**) Regulations, 2022 has been issued on 07th June,2022. The tentative date of notification of Grid code is 30.11.2022 and the tentative date of coming into effect is 01.02.2023.
- Central Electricity Authority published 20th Electric Power Survey of India(vol-1) in fulfilment of CEA's obligation under section 73A of the Electricity Act 2003.
- MoP vide letter dated 15.11.2022 published concept note on pooling of tariff of 25 years plus Thermal/Gas Generating Stations for public comments by 6th December'2022.

Members may take note and prepare accordingly.

Deliberation in the 47th TCC Meeting:

TCC noted.

ITEM NO. C3 : Final quantity of OPGW links executed under the project – “Package- I: Fiber optic expansion project (Additional requirement)”

Please find below final executed quantity of links executed under project mentioned.

S/n	Name of link	Voltage level	Approved in ERPC	Link length as per ERPC approval	Actual link length executed
1	Ranchi-Maithon Right Bank	400KV	32 nd ERPC	188 Km	188 Km
2	Barh-Gorakhpur	400KV	33 rd ERPC	354 Km	370.768 Km
3	Patna-Kishanganj	400KV	36 th ERPC	347 Km	364.018 Km

This is information to all and record in TCC/ERPC meeting.

TCC may note.

Deliberation in the 47th TCC Meeting:

TCC noted.

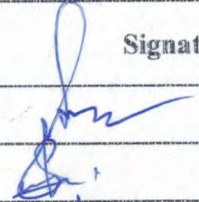


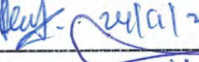
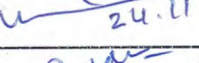
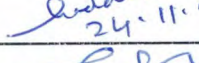
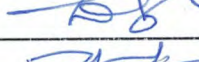
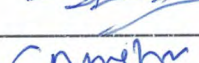
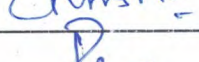

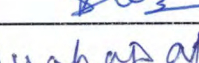









Participants in 47th TCC Meeting

Annexure-I

Venue: Taj City Centre, New Town , Kolkata

Time: 10:30 Hrs.

Date: 24.11.2022 (Thursday)

Sl. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
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Participants in 47th TCC Meeting

Venue: Taj City Centre, New Town, Kolkata

Time: 10:30 Hrs.

Date: 24.11.2022 (Thursday)

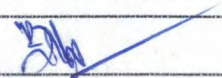

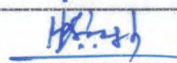

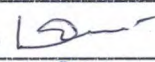
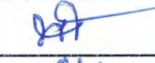

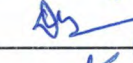


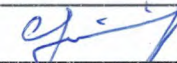
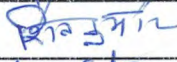
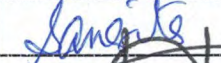

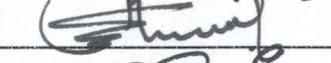
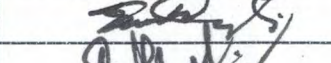

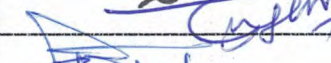
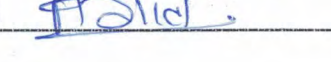
Sl. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
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Participants in 47th TCC Meeting

Venue: Taj City Centre, New Town , Kolkata

Time: 10:30 Hrs.

Date: 24.11.2022 (Thursday)

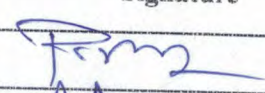
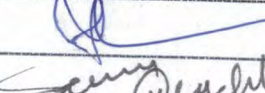
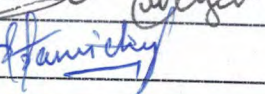


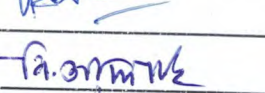
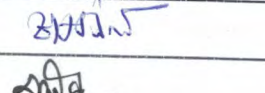
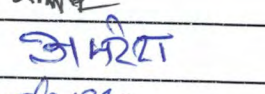
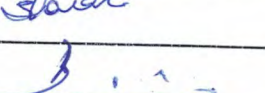
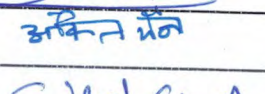
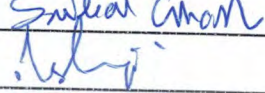

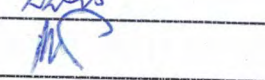


Sl. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
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44	Mr. Shayam Mahali	GM(C& RA)	JUSNL	9431181539	smahali74@gmail.com	
45	Mr. Uttam Kumar	Director (Op)	BSPTCL	9264477220	dir.op.bsptcl@gmail.com	
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48	Mr. D. K. Jha	CE (Planning and Engineering)	BSPTCL	7763817730	ceplanning@gmail.com	
49	Mr. Kumar Manish	Dy Mgr.	ATL/NKTL	9334689726	Kumar.manish@adani.com	
50	Mr. Nimish Sheth	COO	DMTCL	7042879619	nimish.sheth@seclara.in	
51	Mr. Avinash Rao	CEO	DMTCL	7400054387		
52	Mr. V Srinivas	CGM(Commercial)	CTUIL	8130990575	vsrinivas@powergrid.in	
53	Mr. Shiv Kumar Gupta	DGM	CTUIL	7007496879	shivkumar@powergrid.in	
54	Ms. Sangita Sarkar	CM	CTUIL	9560850202	sangita.sarkar@powergrid.in	
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56	Mr. Ugyen Tshering	Senior Manager	Bhutan Power System Operator	-17612064	ugyentshering@bpso.bt	
57	Mr. Sonam Wangdi	Chief Engineer	Mangdechhu Hydro Power Authority	-17624843	swangdice.mhpa@gmail.com	
58	Mr. Chophel	Chief Engineer	Bhutan Power Corporation	-17622317	chophel@bpc.bt	
59	Mr. A P GANGADHARAN	ED(AM)	POWERGRID	9910378122	APGANGA@Powergrid.in	
60	Mr. Vishal Singh	GM(GA&C)	POWERGRID	9650080965		

Participants in 47th TCC Meeting

Venue: Taj City Centre, New Town, Kolkata

Time: 10:30 Hrs.

Date: 24.11.2022 (Thursday)

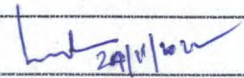

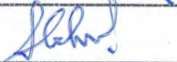

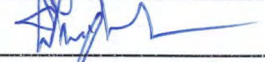




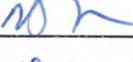
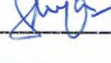



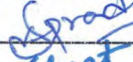
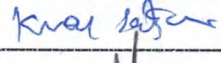

Sl. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
61	Mr. Partha Ghosh	Chief Manager	POWERGRID	9434748263		
62	Mr. Namgyal Tashi	Executive Engineer (SLDC)	Sikkim	7797672743	namgyaltashi26@gmail	
63	Sonam Ongchuk Lepcha	Assistant Engineer (EHV)	Sikkim	7548917326	sonam.ongchuk@pm.me	
64	Mr. Ashish Lamichaney	Assistant Engineer (EHV)	Sikkim	9615878284	alamichaney@gmail.com	
65	Mr. Sudipta Mukherjee	ED	HEL			
66	Mr. Chiranjib Bhowmick	GM	HEL	9163321587	Chiranjib.Bhowmick@npssg.in	
67	Mr. Goutam Biswas	MD	DPL	9434706553		
68	Mr. Partha Pratim Roy	GM(Comml)	DPL	9434706349	P.roy@dpl.nel.in	
69	Shri Bilash Achari	DGM, SO	ERLDC	7003472016		
70	Shri Saugato Mondal	DGM, SO	ERLDC	9433041885		
71	Shri Rajib Sutradhar	ED	ERLDC	9436302714		
72	Shri Amaresh Mallick	CGM, MO	ERLDC	9123648898	amaresh.mallick@posoco.in	
73	Shri Shyamal Konar	GM, SO	ERLDC	9436335370	konar.s@posoco.in	
74	Shri Debabrata Biswas	DGM, SCADA	ERLDC	9434740041	dbbiswas@posoco.in	
75	Shri Ankit Jain	CM, MO	ERLDC	7005631857	ankit.jain@posoco.in	
76	Shri Saibal Ghosh	Manager, SO	ERLDC	8584072079	Saibal@posoco.in	
77	Mr. Rajdeep Bhattacharjee	Resident Engineer	BSPHCL	9477345084	rekolbosphcl@gmail.com	
78	Sri Sabyasachi Roy	Director(Operations)	WBSETCL	9432316727	Sabya_60@yahoo.com	
79	Sri Dilip Das	C.E., CTD	WBSETCL	9434910028	cectdwbsetcl@gmail.com	
80	Sri Debashis Chaki	C.E., CPD	WBSETCL	9434910019	cpd.wbsetcl@gmail.com	

Participants in 47th TCC Meeting

Venue: Taj City Centre, New Town, Kolkata

Time: 10:30 Hrs.

Date: 24.11.2022 (Thursday)

Sl. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
81	Sri Goutam Nayak	C.E., SLDC	WBSETCL	9434910030	ce.wbslde@gmail.com	
82	Mr. Arup Sarkar	Member (Finance)	DVC			
83	Mr. Asim Nandy	Executive Director(Commercial)	DVC	9432465236	asim.nandy@dvc.gov.in	
84	Mr. Subrata Ghosal	PCE(Commercial)	DVC	9432677003	subrata.ghosal@dvc.gov.in	
85	Mr. Sandip Pal	Chief Engineer(System)	DVC	9332901432	sandip.pal@dvc.gov.in	
86	Mr. Debi Prasad Puitandi	Chief Engineer(SLDC)	DVC	9434745905	debi.prasad.puitandi@dvc.gov.in	
87	Mr. Sandip Pal	Vice President (SO)	CESC Limited	9831054651	sandip.pal@rpsg.in	
88	Mr. Arunava Sen Gupta	General Manager (SO)	CESC Limited	9831802682	arunava.gupta@rpsg.in	
89	Mr. Indu Bhusan Chakraborty	Head(PM&C)	India Power	9836384567	indu.chakraborty@indiapower.com	
90	Mr. Amit Prakash	Head(Comml)	India Power	9350582606	amit.prakash@india-power.com	
91	Mr. NS Mondal	Member Secretary	ERPC			
92	Mr. S Kejriwal	Superintending Engineer	ERPC			
93	Mr. S Roy	Superintending Engineer	ERPC			
94	Mr. A De	Executive Engineer	ERPC			
95	Mr. P P Jena	Executive Engineer	ERPC			
96	Mr. S Sarvesh	Assistant Executive Engineer	ERPC	9599219628		
97	Mr. S K Pradhan	Assistant Executive Engineer	ERPC			
98	Mr. S R Swain	Assistant Engineer	ERPC			
99	Mr. K Satyam	Assistant Engineer	ERPC	735520032	satyam.2310@erpc.in	
100	Irshad Akhlaq	EEE(Commercial)	SBPCL	7763814050	irshad35@gmail.com	

Participants in 47th TCC Meeting

Venue: Taj City Centre, New Town, Kolkata

Time: 10:30 Hrs.

Date: 24.11.2022 (Thursday)

Sl. No.	Name	Designation	Organisation	Contact No.	E-mail Id	Signature
101	Jayant Kr. Dubey	ESE (EA)	NBPCL	7320920591	dubey.jayant@gmail.com	Jy
102	Hemant K. Ghosh	L.O. GRIDCO	GRIDCO	8917347112	hemanta62@gmail.com	Hr
103	Santosh Kumar Das	DGM	OPTCL	9438907316	ele.santoshdas@optcl.co.in	dr
104	SANTANU ROY	SE/PTP	WBSEDCL	9733256232	santanu.roy@wbsecl.co.in	srroy
105	ANJAN KR. DAS	GM	POWERGRID	9634740029	anjandas@powergrid.in	ANJAN
106	A. K. Maithi	ED, ERH	POWERGRID	9434740036	akmaithi@powergrid.in	Rail
107	Deharat Banerjee	BD PRDC	PRDC	9503010709	deharatbanerjee@prdc.co.in	Deharat Banerjee
108	D.K. Javeri	CGM-AM GR2	Powerfod	9425409535	javeri@powergrid.in	DK
109	RAJESH WADHWA	CGM-AM-ER1	POWERGRID	9873549054	r.wadhwa@powergrid.in	Rajesh Wadhwa
110	P. K. GHOSH	Advisor (T&E)	IPCL	98363-76548	p.k.ghosh@india-petroleum.com	P.K. Ghosh
111	Sudipta Mitra	DEB, SPM, System	DVC	8910222861	sudipta.mitra@dvc.gov.in	Sudipta Mitra
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'Upcoming Replacement/Upgradation of SCADA/EMS System' – Minutes of Meeting between POWERGRID and POSOCO

Venue: Corporate Center (Gurgaon). POWERGRID

Date : 08 Sep 2022

Time : 03:00 PM

A meeting was held between CMD, POWERGRID and CMD, POSOCO along with the team members to discuss upcoming replacement/upgradation of SCADA/EMS.


The list of participants is attached at **Annex – I**.

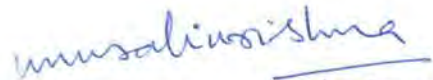
1. **Upgradation/replacement of SCADA/EMS system at various RLDCs:** Considering the expiry of existing AMC of SCADA/EMS system by 2025, the awarding process for the upgradation of all LDCs need to be expedited. During the meeting, different type of implementation models like TOTEX, ownership of projects, segregation of implementation and coordination of tendering process etc. were discussed and following are the broad points agreed upon:
 - a. **Support Service:** Considering the present support service problems faced at the control centres, cyber security concerns, replacement/upgraded items handling, suitable provisions should be incorporated in TS/Contract documents.
 - b. **One Region – One Tender:** There will be one tender for all states in a Region. As discussed, NR & ER will be taken up by POWERGRID while SR & WR will be taken up by POSOCO. NER is yet to decide and will be decided subsequently.
 - c. **Mode of Implementation:** POWERGRID shall be implementing NR & ER through tariff mode and POSOCO shall be implementing SR & WR through funding by the respective utilities. For, NRLDC and ERLDC, the implementation will be done by POWERGRID on consultancy basis. It was discussed and decided that 10% consultancy fee shall be charged for the same.
 - i. In case the tendering process for Jharkhand and Himachal Pradesh (HP) will be taken up by POWERGRID, the utilities to agree for implementation through tariff mode. POSOCO shall pursue with both utilities for the same. If HP and/or Jharkhand arrange self-funding, POWERGRID shall execute their works on consultancy basis with 10% consultancy charges.
 - d. **Uniformity of Tender Document and other documents:** To ensure uniformity and ease of implementation, technical specification and QR shall be jointly finalized and adopted by both the organization. The commercial clauses, GCC & SCC etc. shall be as per respective organization who is doing procurement i.e POWERGRID/POSOCO. Post finalization of these documents, the tendering and other post award activities including signing of MoU with the respective states, shall be handled by POWERGRID and POSOCO respectively for their respective Regions.
 - e. **Staggered tendering approach:** It was agreed to have around 4 weeks between floating of tenders for respective region. The indicative staggered tendering will be NR (POWERGRID) → SR (POSOCO) → ER (POWERGRID) → WR (POSOCO) → NER (to be decided).

- f. **Make in India:** Both POWERGRID and POSOCO shall approach MoP/DoT individually for the exemption from Make in India (MII) clause related to exemption of procurement of EMS/SCADA and cyber security equipment.

The meeting ended with thanks to all the participants.

Signed by:


14/9/22
(POWERGRID)
(Y. K. Dixit)
ED (IR, BDD, S&CC)


14/9/22
(POSOCO)
C K Musalikrishna)
ED (Corp. Engineering)

Annex – I:

List of Participants

POWERGRID

- Sh K Sreekant, CMD, POWERGRID
- Sh R K Tyagi, Director, Operations
- Sh Sunil Agrawal, ED, CP
- Sh Y K Dixit, ED, GA&C
- Sh B Anantha Sarma, ED, CS
- Sh K K Gupta, CGM, CS
- Dr. Sunita Chohan, CGM, LD&C
- Smt. Sruti Mishra, Sr GM, CMD Coord Cell
- Sh A K Singh, Sr GM, LD&C
- Sh Vikas Kumar, CM, CMD Coord Cell
- Sh B B Singh, CM, D(O) Cell

POSOCO

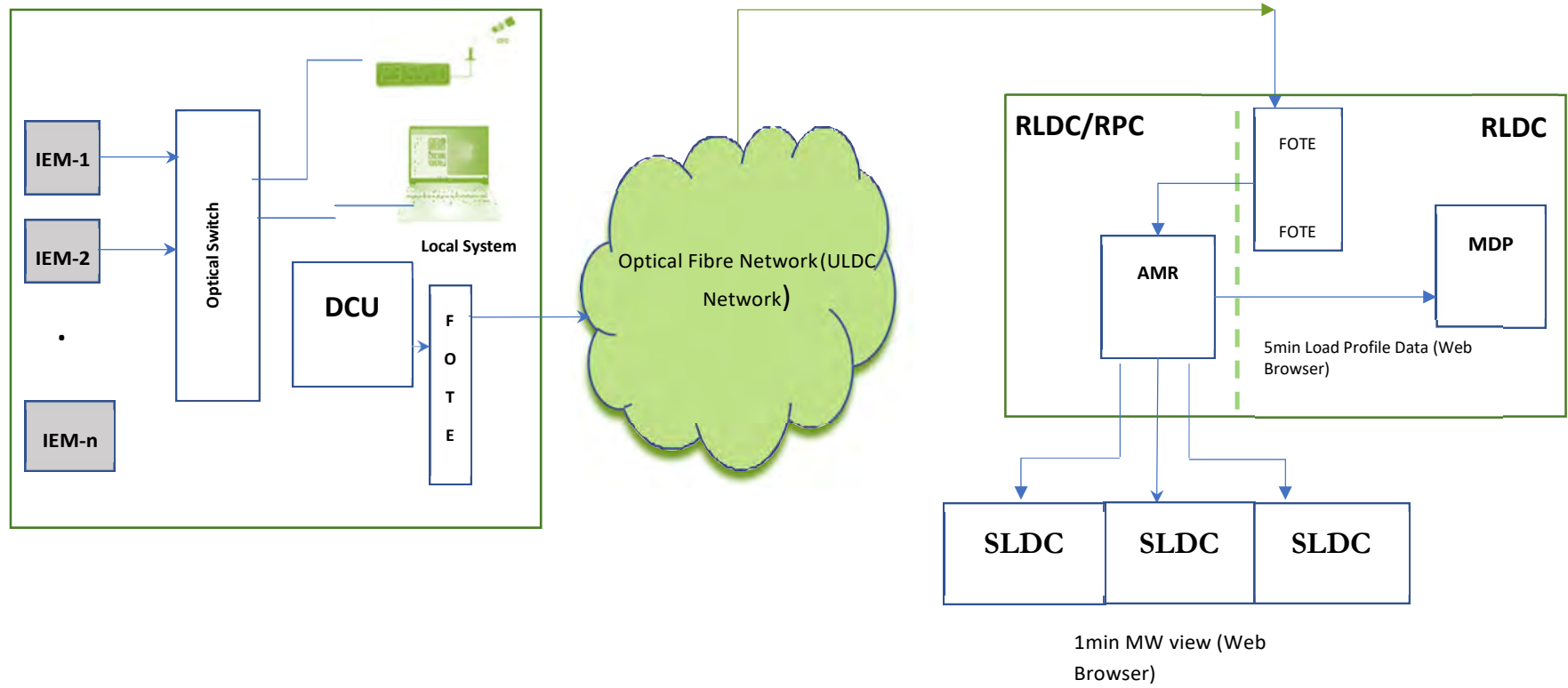
- Sh S R Narasimhan, CMD, POSOCO
- Sh Debasis De, ED, NLD
- Sh K Murali Krishna ED, Engineering
- Sh Manoj Kumar Agrawal, CGM
- Sh Sajan George, Sr GM
- Sh Harish Kumar Rathour, GM
- Sh Rakesh Kumar, CM, CMD Cell

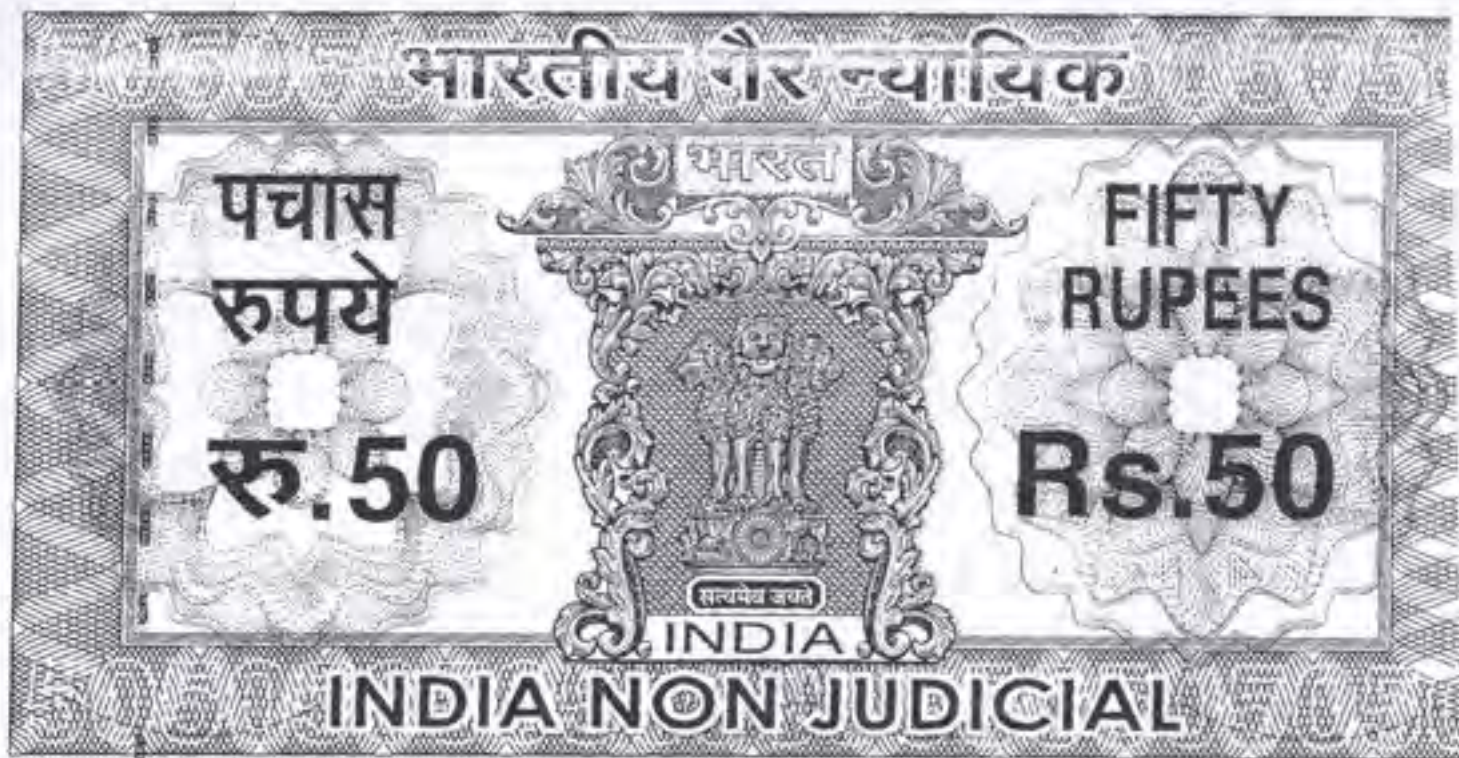
Installation of new Interface Energy meters, AMR system under the scheme “5 min Interface Energy Meter along with AMR system-Eastern Region”

S. No.	Items	Details
1.	Name of Scheme	Supply and installation of 5 min Interface Energy Meter along with AMR system- Eastern Region
2.	Scope of the scheme	<ol style="list-style-type: none"> 1. Supply and installation of 5 min Interface Energy Meters for all ISTS metering points of Eastern region. 2. Supply and installation of AMR system along with DCU, Ethernet Switch and other accessories at substation end and AMR software along with servers, database, printer, firewall etc. at RLDC/RPC end to receive 5 min load profile data in auto mode. 3. Provision of streaming online instantaneous MW data at a user configurable rate (minimum 1 min) at SLDCs via AMR system. 4. AMC for complete AMR system for 10 years <p>The complete scope of AMR scheme shall be as per the Technical Specification (TS) circulated by NPC Division, CEA vide letter dtd. 6th July 2022.</p>
3.	Conceptual Architecture of AMR connectivity of ISTS Meters	Annexure-II
4.	Objective / Justification	<p>For Indian Power system, commercial settlements of energy generation and consumption are being computed through Availability Based Tariff (ABT) and Deviation Settlement Mechanism (DSM) which are in vogue for energy accounting. Availability Based Tariff was implemented in India in 2002/2003 considering the settlement period as 15-min.</p> <p>Government of India (GoI) has set a Renewable Energy (RE) target of 500GW by 2030. The need for implementing a 5-minute scheduling, accounting and settlement at the Inter State level has been recommended by FOR Sub-Group report, 2018 considering the variability of load due to large RE penetration in the coming years. A PAN India pilot project on 5-minute metering was implemented as per the directive from Hon’ble CERC. A report on the pilot project covering implementation aspects, challenges and suggested way forward has been submitted by POSOCO for perusal of the Hon’ble Commission and further directions. This issue was discussed in OCC/TCC/RPC meetings at regional level and it was discussed to replace the entire fleet of existing SEMs (15-min Block) with Interface Energy Meters (5-min Block) and implementation of Automated Meter Reading (AMR) and Meter Data Processing (MDP) system for efficient and faster accounting.</p>

		Moreover, in view of the new DSM regulation and its amendments, which are more stringent, there is a need expressed by States to get streaming online instantaneous MW data at a user configurable rate (minimum 1 min) at SLDCs via AMR system. This instantaneous MW data is only for the purpose of taking actions/decisions in real time for grid monitoring & discipline.
5.	Estimated Cost	Rs. 100 Crore (approx.)
6.	Implementation timeframe	Approx. 30 months from gazette Notification.
7.	Implementation Mode	Through POWERGRID-RTM

Substation





हरियाणा HARYANA

C 522198

AGREEMENT

THIS AGREEMENT is made on this 9th day of June 2010 between GMK Kamalanga Energy Limited, a company registered under the Companies Act of 1956, having its Regd Office at Skip House, 25/1, Museum Road, Bangalore - 560 025 (hereinafter referred to as "GKEL" or "Owner" which expression shall unless repugnant to the context or meaning thereof include its Administrators, Successors, Executors and Permitted assigns) of the **First part**

and

Power Grid Corporation of India Limited., a Company incorporated under the Companies Act, 1956, having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 (hereinafter referred to as "POWERGRID" which expression shall unless repugnant to the context or meaning thereof include its Administrators, Successors, Executors and Permitted assigns) of the **Second part**.

(POWERGRID and GKEL are hereinafter individually referred to as the 'Party' and collectively as 'Parties'.)

WHEREAS, vide letter dated 21st Aug'09 & 21st Nov'09, GKEL has requested POWERGRID for turnkey execution of diversion of existing 400 kV D/C Tatcher - Meramundli transmission line to facilitate the construction of their Thermal Power Station at Dhenkanal, Orissa.

And whereas POWERGRID has consented for turnkey execution of above mentioned works on cost plus basis on the terms and conditions stipulated herein,

NOW, THEREFORE, THIS AGREEMENT WITNESSETH AS UNDER:

Signature of GKEL

Signature of POWERGRID

Page (of 10)



हरियाणा HARYANA

C 522199

For the purpose of this Agreement, the terms used herein shall, unless repugnant to the context thereof, have the meaning assigned to them as under:

1.0 DEFINITIONS :

- 1.1 "Agreement" shall mean the agreement herein containing the Terms & Conditions set forth & agreed therein, including all other documents expressly annexed thereto or incorporated therein.
- 1.2 "Project" shall mean and comprise following:
 - 1.2.1 Diversion of existing 400 kV D/C Talcher – Meramundli transmission line.
- 1.3 "Bid Documents" shall mean the tender documents prepared by POWERGRID consisting of technical specifications, notice inviting tenders and other terms & conditions of contract pursuant.
- 1.4 "Contractor" shall mean the Bidder whose bid is accepted by Owner for award of contract for the total work or any part of the work of the Project resulting in a contract and shall include such contractor's legal representatives, successors and permitted assigns.
- 1.5 "Sub-Contractor" shall mean any person (other than the contractor) named in the contract for execution of any part of the works or any person to whom any part of the contract has been entrusted with the consent of Owner and include such sub-contractor and the Sub-contractor's legal successors in title but not any assignee of the contractor.

[Signature]

[Signature]

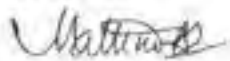
- 1.6 "Nodal officer/Engineer" shall mean the officer nominated by the GKEL in writing to act as co-ordinator for the purpose of this work.
- 1.7 "Project Manager" shall mean the official nominated by POWERGRID in writing who shall be responsible for co-ordination with the GKEL and for all activities concerning the execution of the Project.
- 1.8 "Equipment/Material" shall mean the equipment/materials procured by GKEL for this Project.
- 1.9 "Site" shall mean and include the land & other places free from all encumbrances & disputes at which the Project and related facilities are to be constructed and any adjacent land, path etc., which may be allocated or used by the GKEL/POWERGRID/Contractor in performance of work under this Agreement.
- 1.10 "Cost Plus" shall mean actual executed cost of the Project plus Consultancy Fee payable to POWERGRID @ 15 % of the actual executed cost of the Project and applicable Taxes & Duties.
- 1.11 Words singular shall include the plural and vice versa, where the contexts so desire.

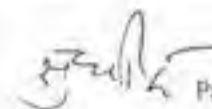
2.0 SCOPE OF SERVICES:

2.1 SCOPE OF SERVICES TO BE PERFORMED BY POWERGRID

The scope of services to be rendered by POWERGRID for execution of the Project on behalf of GKEL under the Agreement will be as under subject to specific exclusions as brought out in clause 2.2 hereinafter:

- i) The scope of work shall include consultancy services for Design, Engineering, Erection, Project Management, Testing & Commissioning and other works incidental thereto for turnkey execution (except Tendering and placement of award) of the following:
 - (a) Transmission Line: Diversion of existing 400 kV D/C Talcher – Meramundli transmission line
- ii) Preparation of Tender documents including technical specifications and tender drawings.
- iii) All post contract co-ordination, inspection of materials at the manufacture's work/or at site and witnessing of testing of equipment/materials etc. and implementation of the agreed quality assurance programme of the various manufacturer/contractors.
- iv) Project management including expediting to ensure supply of all materials and equipment in line with the agreed contract programme and supervision of all





activities such as storage, handling of materials/equipment at site, erection, testing & commissioning by the concerned contractors.

2.2 SCOPE OF SERVICES TO BE PERFORMED BY THE OWNER :
(Exclusion from POWERGRID's scope of services)

- i) Tender floating, evaluation of Bid, Pre-award discussions with the approved vendors of POWERGRID, finalization of awards on turnkey contract basis and Placement of orders/finalization of contract.
- ii) Being the owner of the project, the responsibility for obtaining the Project clearance, statutory clearance (if any), etc. shall be that of GKEL. However, POWERGRID shall assist for obtaining these clearances by way of documentation.
- v) All other statutory clearances from CEA and other agencies as per requirement including issue of necessary Notifications shall be the responsibility of GKEL.
- vi) Liaison and follow up with Government bodies shall lie with GKEL.
- vii) Settlement of any disputes with public / statutory bodies / local authorities / state authorities etc. shall rest with GKEL.
- viii) All progressive payments payable to the contractors shall be made by GKEL after obtaining certification from POWERGRID on the bills/invoices raised by contractors within a fortnight.

3.0 WORKING PROCEDURE:

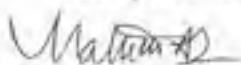
3.1 POWERGRID shall execute the work as defined in clause 2.1 above. To enable POWERGRID to discharge its obligations in a smooth and efficient manner, GKEL shall ensure release of payments to Contractors to enable unhindered progress of work. It is clearly understood by the parties that POWERGRID shall not finance any portion of the work from its own funds at any time during the execution of the Project.

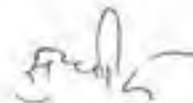
3.2 To ensure proper co-ordination between POWERGRID and GKEL for carrying out the works under the scope of this Agreement, both GKEL and POWERGRID shall nominate their respective Nodal Officer/Project Manager who shall be the focal point for all matters relating to this Agreement

4.0 RELEASE OF PAYMENT:

4.1 To facilitate smooth execution of work and to complete the work within the stipulated time schedule, GKEL shall ensure that the required payment is released as per clause No. 10.0 of this agreement. GKEL shall be responsible for any liability arising out of delay in release of payment required for execution of the project.

4.2 POWERGRID shall commence the work under this Agreement after the receipt of first installment payment as indicated in Clause 10.0(a) below.





- 4.3 It is clearly understood by the parties that funding of the Project cost and Consultancy Fee is the responsibility of GKEL and POWERGRID shall not finance any portion of the work from its own funds at any time during the execution of the Project.

5.0 AWARD OF CONTRACT (METHODOLOGY):

- 5.1 The contracts shall be awarded by GKEL for timely execution of the project.

6.0 PROJECT COST:

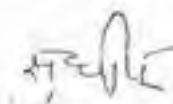
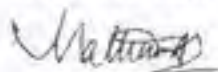
- 6.1 The work shall be executed by POWERGRID on cost plus basis.
- 6.2 The Project cost shall include:
- a) The cost of all equipment and services as paid to the contractor(s) or any other agency as required under the various contracts for executing the Project.
 - b) Cost towards Survey & Soil investigation, Right of Way, Crop compensation, Tree compensation, PTCC clearance, Railway crossing and any other statutory clearance.
- 6.3 The estimated cost of the project is **Rs. 6.10 Crores (as of 4th Qtr. 2009 price level)** excluding POWERGRID's Consultancy Fee & Loss for availability based incentive and O&M charges.
- 6.4 The above estimated cost is for estimation purpose only. However, depending upon site conditions or for any other reason, the cost of the project may undergo change during the implementation of the project. As such the final executed cost of the project will be certified by POWERGRID based on the actual works executed. The actual project cost, consultancy fee, loss for availability based incentive and O&M charges thereof to be paid by GKEL shall be arrived at by POWERGRID only after the completion of the project.

7.0 CONSULTANCY FEE:

The Consultancy Fee payable to POWERGRID for the services as brought out in clause No.2.1 above shall be **15%** of the final actual executed cost of the Project. Based on presently estimated cost of the project as mentioned at clause No.6.3 above, the Consultancy Fee payable to POWERGRID works out to **Rs. 0.915 Crores**.

8.0 LOSS FOR AVAILABILITY BASED INCENTIVE AND O&M CHARGES:

Over and above Consultancy charges, the amount payable to POWERGRID towards compensation for loss for availability based incentive due to shutdown of transmission lines to be diverted and O&M charges for balance period of life of the transmission line due to increase in line length shall be **2 %** of the final actual executed cost of the Project. Based on presently estimated cost of the project as

 Page 5 of 10

mentioned at clause No.6.3 above, the loss of availability based incentive and O&M charges payable to POWERGRID work out to **Rs. 0.122 Crores**.

9.0 TAXES AND DUTIES:

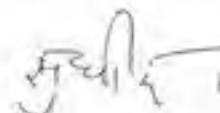
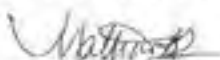
The estimated project cost indicated above is inclusive of excise duty, sales tax and service tax at prevailing rates. All present and future statutory taxes / levies, duties, cess, entry tax or any kind of imposition(s) whatsoever imposed / charged by any Government (Central / State) and / or any other local bodies/ authorities on POWERGRID and / or its contractors in respect of execution of project which are not presently included in the estimated cost of the Project (including any variation thereof) shall form the integral part of the project cost.

The Consultancy Fee and loss for availability based incentive and O&M charges indicated above do not include any taxes & duties. All present and future applicable statutory taxes, duties and levies (including any variation thereof) as applicable by any Act/Notification of Government (Central/State) or any other local bodies/authorities shall also be paid by GKEL. At present Service Tax @ 10.30 % (including Education Cess @ 3%) is applicable on Consultancy Fee and loss for availability based incentive and O&M charges shall be paid by GKEL to POWERGRID.

10.0 TERMS OF PAYMENT:

GKEL shall arrange to release payments for this project directly to contractor. The terms of payment for consultancy fee shall be as follows:

- a) 10 % of the estimated Consultancy Fee and applicable Service Tax on Consultancy Fee shall be paid within 15 days of signing of the Agreement.
- b) 10 % of the estimated Consultancy Fee and applicable Service Tax on Consultancy Fee shall be paid on placement of award by GKEL on contractor.
- c) Balance payment alongwith corresponding Consultancy Fee and applicable Service Tax shall be payable in 2 quarterly installments in advance. The consultancy fee shall be paid by GKEL to POWERGRID within 15 days of submission of invoice.
- d) Loss for availability based incentive & O&M charges and applicable service tax shall be paid after completion of work.
- e) Payment of consultancy fee arising due to adjustment on account of variation between the presently estimated cost and the cost on award shall be made known to POWERGRID by GKEL when the later is determined. GKEL shall regulate the quarterly advance payments to POWERGRID accordingly.
- f) Payment of consultancy fee arising due to adjustment on account of variation between the cost on award and final executed cost of the project and applicable Service Tax shall be made immediately as per invoice raised by POWERGRID.



- g) At no stage POWERGRID shall use its own funds for execution of the project.
- h) Any delay in implementation of project on account of non-releasing payments of project cost to contractors & consultancy fee to POWERGRID and services to be provided by GKEL shall not be attributable to POWERGRID and the period of implementation shall be deemed to have been extended to such delays.
- i) The dismantled materials of existing transmission line will be returned to GKEL. In case GKEL is not willing to take over these dismantled materials, salvage / scrap values of dismantled materials as may be determined by POWERGRID shall be credited to GKEL and adjusted in the final bill.

11.0 TIME SCHEDULE:

11.1 POWERGRID will submit tender documents within 2 months from date of release of advance payment or acceptance of the offer, whichever is later. The schedule for post award activities will be as per project requirement on mutually agreed terms & conditions.

This is however, subject to GKEL fulfilling all its obligations in time as under:

- i) Timely release of payments by GKEL as mentioned at clause no. 10.0 above.
- ii) GKEL shall also obtain all other clearances from concerned authorities including issue of necessary Notifications in time.

11.2 Any delay on account of above will affect the completion schedule and therefore, the period of implementation of this Agreement shall be deemed to have been extended to cover such delay as may occur.

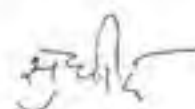
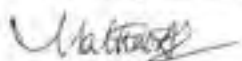
11.3 If by reason of extra or additional work or any industrial dispute or any cause or causes outside of and beyond the reasonable control of POWERGRID and its contractor(s) including delay in release of payments by GKEL, the work is delayed or impeded, the delayed period shall be construed as automatic time extension.

11.4 The completion period is indicated in good faith and is subject to fulfillment of obligation on part of GKEL and POWERGRID.

12.0 FACILITIES/INFORMATION TO BE PROVIDED BY GKEL:

12.1 All necessary information/data and facilities as may be required by POWERGRID in connection with services shall be promptly rendered by GKEL under this Agreement.

12.2 GKEL shall give their views on all matters pertaining to this Project as may be referred to by POWERGRID from time to time within a reasonable time which would normally not exceed 15 (fifteen) days and shall discharge faithfully all its obligations.



13.0 FORCE MAJEURE:

13.1 Force Majeure is hereby defined as any cause, which is beyond the control of POWERGRID or its Contractor(s) or GKEL as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the said work including, but not limited to the followings:

- a) Natural phenomena including but not limited to floods, droughts, earthquakes, epidemics etc.,
- b) Acts of any Government, domestic or foreign, including but not limited to war, declared or undeclared, quarantines, embargoes etc.,
- c) Hostilities, revolutions, riots, civil commotions, strike, terrorism including in the premises of the Contractors.

13.2 During the period of inability to perform the services as a result of any event of Force Majeure, POWERGRID shall be entitled to continue to be paid under the terms of this contract as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the services and in reactivating the services after the end of such period, provided that such cases are notified in writing within 30(thirty) days from the occurrence of such cause.

13.3 POWERGRID or GKEL shall not be liable for any delays in performing its obligation resulting from Force Majeure causes as referred to and/or defined herein above. The date of completion will be extended by corresponding period equal to the period of Force Majeure if the situation so warrants and by such period to be mutually agreed to by POWERGRID and GKEL. Should one or both Parties be prevented from fulfilling their obligations by state of Force Majeure lasting for a period of two months, the two (2) Parties shall consult each other and decide for further course of action.

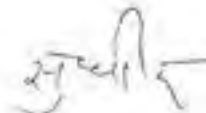
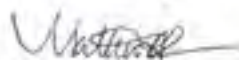
14.0 TERMINATION OF AGREEMENT:

14.1 In the event when both the parties mutually agree to terminate the Agreement, on account of force majeure or any other reason, termination shall take effect from the date and time to be agreed upon mutually.

14.2 In the event of termination of this Agreement, POWERGRID shall be paid proportionately for such of those items of work, which have been completed / partially completed & mutually agreed upto the date of termination and also a reasonable amount of compensation for the holding out or premature termination as may be decided amicably.

15.0 SETTLEMENT OF DISPUTE & ARBITRATION:

15.1 This agreement shall be governed by and construed in accordance with the laws of India. Any dispute or difference arising out of this agreement shall be amicably settled between the Parties.



15.2 In case of non-settlement of dispute or difference, relating to the interpretation and application of the provisions of the Agreement, such disputes or differences shall be settled by arbitration in accordance with the Arbitration & Conciliation Act, 1996. Each party shall appoint one Arbitrator and the two appointed Arbitrators shall appoint the third Arbitrator, who shall act as presiding Arbitrator. If either of the Parties fails to appoint its Arbitrator within 60 days after receipt of a notice from the other party invoking the Arbitration Clause, the Arbitrator appointed by the party invoking the arbitration clause shall become the sole arbitrator to conduct arbitration. The Parties to the dispute will share equally the cost of arbitration as intimated by the arbitrator.

15.3 The venue of Arbitration shall be at New Delhi.

15.4 This Agreement shall be subject to the jurisdiction of the court at New Delhi.

16.0 THIRD PARTY DISPUTE:

If any litigation/arbitration cases crop up during the process of placement of various contract orders or thereafter by POWERGRID, POWERGRID shall resolve the same. GKEL shall provide necessary details, if required. The cost of such litigation/arbitration and liability arising out of the award thereof, if any, shall be borne by GKEL.

17.0 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION:

POWERGRID shall suitably incorporate the provisions towards levy of Liquidated Damages in their Agreements with Contractor(s) for delay in completion of the work.

18.0 PERFORMANCE GUARANTEE:

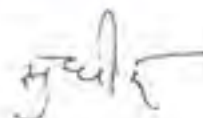

POWERGRID shall suitably incorporate the provision of Guarantee Clause in their Contract Agreements with Contractor(s) valid for a period of 12 calendar months commencing immediately after commissioning of the Project, which will be enforceable by the Owner.

19.0 AMENDMENT:

This Agreement may be amended or modified if necessary by a written instrument signed by the Parties and the same shall be considered as an integral part of this Agreement.

20.0 EFFECTIVE DATE:

This Agreement shall be deemed to have come into force with effect from the date of signing of Agreement or receipt of first initial advance payment whichever is later. All rights, obligations and responsibilities of GKEL and POWERGRID shall be deemed to have commenced and accrued from the above date.



21.0 NOTICE OF DEFAULT:

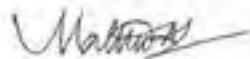
Notice of default given by either Party to the other Party under this Agreement shall be in writing and shall be deemed to have been duly and properly served upon the Parties hereto if delivered by Registered mail against acknowledgement due and addressed to the signatories to this Agreement.

22.0 CORRESPONDENCE:

22.1 All communications from GKEL to POWERGRID shall be addressed to the Project Manager nominated by POWERGRID in writing for the purpose of this work.

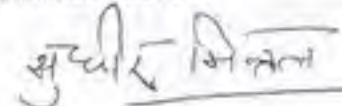
22.2 All communication from POWERGRID to GKEL shall be addressed to the Nodal Officer nominated by GKEL in writing for the purpose of this work.

IN WITNESS WHEREOF the Parties hereto have fully executed these present through their duly authorized representatives on the Day, Month and Year mentioned above.



Signed by AJAYA KUMAR NATHANI
Vice President - Transmission,
For and on behalf of

GMR Kamalanga Energy Limited




Signed by.....

For and on behalf of

**Power Grid Corporation of
India Limited**

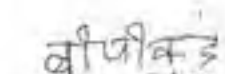
सुधीर मिश्रा / SUDHIR MITAL
व्यवस्थापक (आंतर विभाग) General Manager (BOD)
पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
Power Grid Corporation of India Ltd.
प्लॉट नं०-2, सेक्टर-29, गुरुगँव-122 001 (हरियाणा)
Plot No. 29, Gurgaon-122 001 (HARYANA)

WITNESS:

1. 
Anurag Dwarakdas
Advisor GMR Energy
New Delhi

2.

WITNESS :

1. 
B. P. KUNDU
DGM (B&E)

2.

Annexure-B7.2

ROUTE SKETCH

400KV D/C (Twin Tower) TALCHER - MERAMUNDALI DIVERSION LINE

EXISTING 400KV D/C TALCHER - MERAMUNDALI T/LINE

PROPOSED 400KV D/C TALCHER - MERAMUNDALI DIVERSION T/LINE

Stringing work
balance inside of
GMR Plant area

Stringing work balance
outside of GMR Plant area

GMR BOUNDARY WALL




Line Length - 1.577 Km

Total No. of Tower - 11

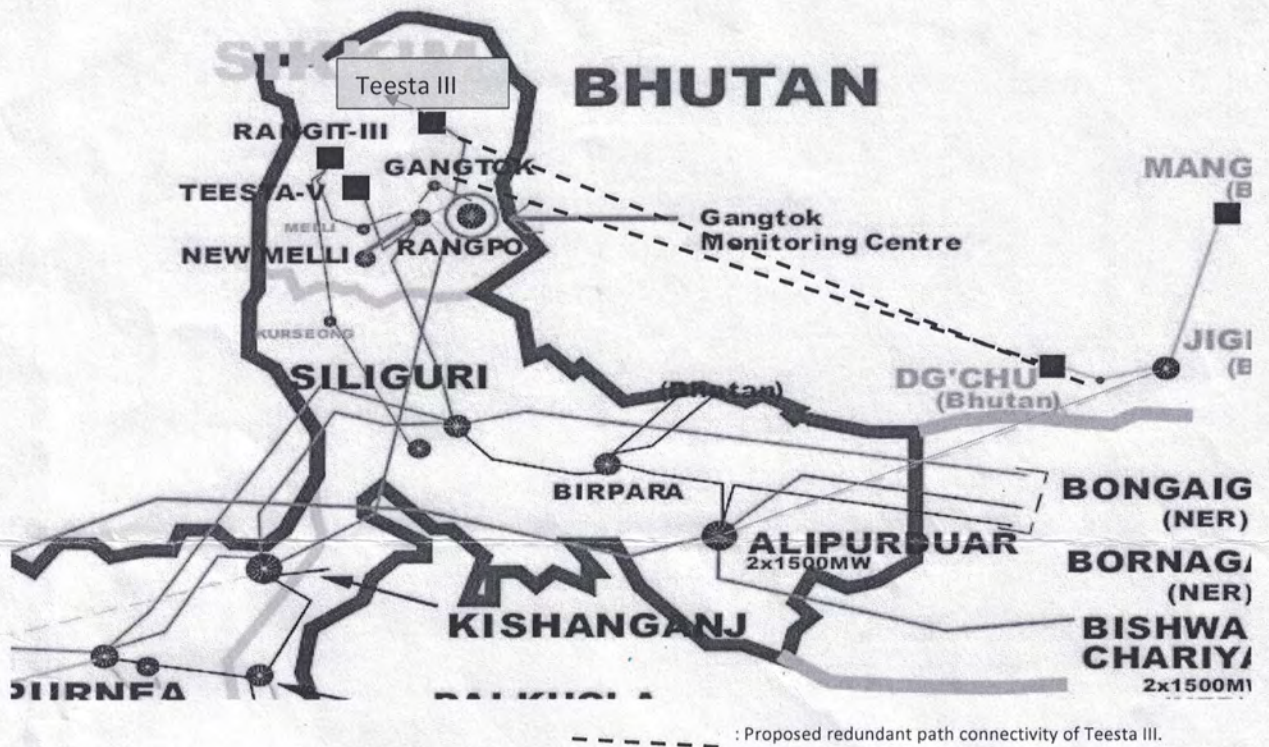
Foundation completed - 11 Nos

Connectivity of Teesta III to ISTS Fibre communication network

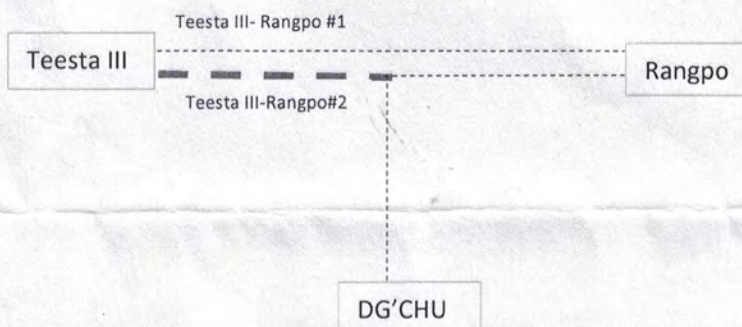
S. No.	Items	Details
1.	Name of Scheme	Connectivity of Teesta III(Teesta Urja Ltd.) to ISTS communication network
2.	Scope of the scheme	The OPGW installation on Teesta III- Dg'chu portion (approx. 26 kms line length) of 400kV Teesta III – Rangpo#2(TPTL line).
3.	Depiction of the scheme on FO Map	Exhibit-I
4.	Objective / Justification	<p>Presently, Teesta III is connected through Teesta III - Rangpo PLCC link.</p> <p>First Fiber path is under implementation through Teesta III- Rangpo circuit#1.</p> <p>Teests-III-Rangpo#2 is LILOed at Dg'chu. The Redundant Fiber path for Teesta-III may be planned through LILO of Teesta III-Rangpo #2. For redundant fiber path, OPGW may be laid on Teesta III- Dg'chu portion (approx. 26 kms line length) of Teesta III – Rangpo#2.</p> <p>OPGW is already planned on Dg'chu -Rangpo portion of Teesta III – Rangpo#2.</p>
5.	Estimated Cost	Rs. 1.167 Crore (approx.)
6.	Implementation time frame	21 months from Gazette notification.


24.8.2022
Kaushal Suman
Manager, CTUEL

FO connectivity of Teesta III in Map



Schematic diagram of FO connectivity of Teesta III



Legend:

— : Present scope

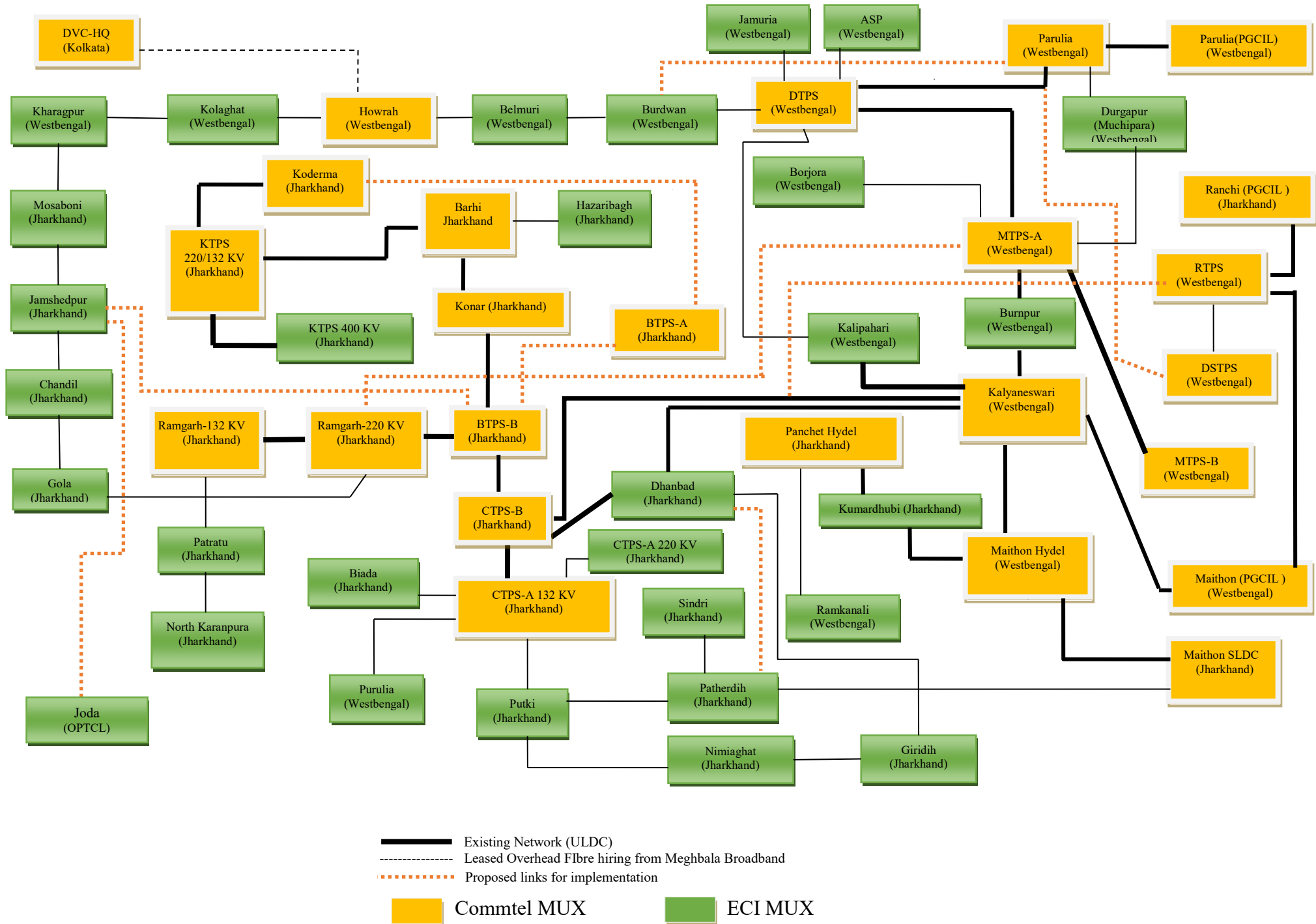
- - - :Planned

Suman
24.08.2022
Kaushal Suman
Mgs., CTUEL

**Proposed List of links for OPGW laying in DVC Sector for redundancy
& strengthening of communication network of DVC**


S/n	Name of Link	Voltage Level	Approx. Length (Km)	Remarks
1	BokaroA-Koderma	400KV	105	Redundant connectivity for both BokaroA & Koderma
2	Dhanbad-Patherdih	132KV	22	For better redundancy of Dhanbad with SLDC, implementation of DTPC & strengthening of communication network.
3	CTPS-Kalyaneshwary LILO at RTPS	220KV	125	For redundant connectivity of RTPS & implementation of DTPC
4	Parulia-Bardhaman	220KV	90	For redundant connectivity of Parulia
5	DTPS-Parulia (LILO at DSPTS) LILO part (48F)	220KV	8	For redundant connectivity of DSTPS
6	BokaroB-Jamshedpur (DVC)	220KV	155	For better redundancy of Jamshedpur & strengthening of communication network. DVC-OPTCL connectivity.
7	Joda-Jamshedpur(DVC)	400KV	140	DVC-OPTCL connectivity, implementation of DTPC & strengthening of communication network.
8	MejiaA-Ramgarh220	220KV	155	For redundant connectivity of Ramgarh, implementation of DTPC & Strengthening of communication network.
9	BTPSA-BTPSB (UGFO)	UG	5	For redundant connectivity of BTPS-A
Total			805	

Proposed List of links for OPGW laying in DVC Sector for redundancy & strengthening of communication network of DVC



Cost Estimate as received from M/s PRDC for support service of Protection Database system of ERPC

Sl. No.	Activities	Description	Cost(INR) per year
1	Software resource support at Bangalore	Software upgrades , trouble shooting , Bug fixing within specified time frame(for PSCT & PDMS)	18,00,000
2	Hardware AMC Support	Hardware AMC renewal and Support	4,50,000
3	Onsite Support	One deidicated Resource deputation at ERPC premises for Protection suite data updation and other protection related activities of ERPC(Including PCC support)	24,00,000
Grand Total without tax			42,00,000
GST @ 18%			7,56,000
Grand Total with tax			49,56,000

<p>भारत सरकार केंद्रीय विद्युत प्राधिकरण दक्षिण क्षेत्रीय विद्युत समिति 29, रेसकोर्स क्रॉस रोड बेंगलूर- 560 009</p>	 <p>सत्यमेव जयते</p>	<p>Government of India Central Electricity Authority Southern Regional Power Committee 29, Race Course Cross Road Bengaluru-560 009</p>	
<p>Email:mssrpc-ka@nic.in</p>		<p>Phone: 080-22287205</p>	
<p>सं/No.</p>	<p>SRPC/42(SRPC)/2022/ 1668-1716</p>	<p>दिनांक/ Date</p>	<p>30th June 2022</p>

सेवा में / To:

(वितरण सूची के अनुसार / As per the distribution list)

विषय : एस आर पी सी की 42 वी / टी सी सी की 40 वी बैठकों के संबंध में ।

Subject: Minutes of the 42nd Meeting SRPC/ 40th Meeting of TCC-reg.

महोदय /महोदया

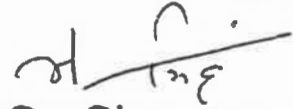
Sir/Madam,

दिनांक 4 जून 2022 को एस आर पी सी की 42 वीं बैठक एवं 3 जून 2022 को टीसीसी की 40 वीं बैठक बेंगलुरु में आयोजित के कार्यवृत्त संगलग्न हैं । द क्षे वि स के वेबसाईट (<https://www.srpc.kar.nic.in>) में कार्यवृत्त अपलोड किए गए हैं । अनुसंगलक वेबसाईट से डाउनलोड किए जा सकते हैं।

Please find enclosed Minutes of 42nd Meeting of SRPC held on 4th June 2022 and 40th Meeting of TCC on 3rd June 2022 at Bengaluru. The MoM is uploaded on SRPC website (<https://www.srpc.kar.nic.in>). The Annexure may please be downloaded from the SRPC website.

धन्यवाद / Thanking you,

भवदीय/Yours faithfully,



(असित सिंह /Asit Singh)

सदस्य सचिव/Member Secretary

At the same time states are forced to absorb RE and Nuclear (Must Run). NOC may be given to NPCIL units to sell the power in market.

- (viii) MS, SRPC noted that all these issues had been apprised to MoP and MoP had taken a Meeting wherein it was concluded that in the existing units flexibility cannot be enforced, however it was suggested that in future the design of nuclear plants should be such that there is flexibility to absorb RE power. He opined that after further deliberations in the SRPC Meeting, Chairperson SRPC may be requested to take up with MoP to ensure no planned outages of NPCIL during the months of February to April every year.

(ix) TCC Recommendation

Chairperson, SRPC may be requested to take up with MoP to ensure that no planned outages units are planned by NPCIL in SR during the months of February to April every year.

g) SRPC Deliberation

The Committee reiterated the requirement of availability of units at NPCIL stations during February, March and April and requested NPCIL to reschedule refueling/shutdowns accordingly.

9. Recovery of relinquishment charges as per the order of CERC dated 08.03.2019 in Petition No. 92/MP/2015

9.1 TANGEDCO vide letter dated 16.05.2022 (refer Annexure-7) has furnished the following:

- a) Hon'ble Commission vide its Order dt: 08.03.19 in Petition No: 92/MP/2015 directed to recover relinquishment charges to be paid by entities relinquishing part / full LTA quantum. As per the direction of Hon'ble CERC, the relinquishment charges have been computed by CTU and put on its website on **20.05.2019**, according to which, the total relinquishment charges payable by the generators/ LTA customers is Rs.7299.07 crore to the PoC pool.
- b) The issue of recovery of relinquishment charges was taken up by TANGEDCO in the 41st, 44th, 45th and 46th meetings of Commercial Sub Committee and subsequently the same was deliberated in the 36th and 38th SRPC meetings also.
- c) In the meantime, many generators have filed appeal before APTEL against the order of CERC and interim injunction was awarded by APTEL.
- d) SRPC directed CTU to furnish the action taken in this regard. In response, CTU stated that since majority of the generators have filed appeal, action will be taken based on the outcome of the appeals.
- e) TANGEDCO insisted to take necessary action to vacate the stay and recover the charges without waiting for disposal of the appeals. PGCIL stated that difficulties are being faced in recovery of relinquishment charges since some of the generators were under NCLT proceedings etc.

- f) Under these circumstances, CTU/PGCIL may be requested to furnish the following details:
- (i) Details of recovery of relinquishment charges collected as on date and remitted to pool.
 - (ii) Details of bank guarantee invoked in this regard and whether the same has been brought into the pool account. In this regard, in appeal no. 352 of 2019, M/s. Aryan MP Power Generation (P) Ltd have stated that BG for an amount of Rs. 56.10 Cr has been encashed by PGCIL.
 - (iii) List of generators gone to NCLT.
 - (iv) Any tangible action taken for recovery of the relinquishment charges from generators.
 - (v) Whether invoice has been raised on all relinquishing entities.
 - (vi) Action taken by CTU for vacating the stay granted by APTEL.
 - (vii) PGCIL may be requested to exclude the cost of such redundant assets from the pool.

9.2 TCC Deliberation

- (a) TANGEDCO informed that they had taken up the issue of recovery of relinquishment charges in various meetings of the Commercial Sub Committee and TCC/SRPC Meetings. As per the CERC Order dated 08.03.2019 in Petition No. 92/MP/2015, the relinquishment charges had been computed by CTU and put on its website. The total relinquishment charges payable by the generators/ LTA customers is Rs.7299.07 Crore to the PoC pool. Before the CERC Order, many IPPs/generators had relinquished the LTA and the charges were being recovered from the beneficiaries. They have been asking the CTU the details of recovery made from the generators and the status of Bank Guarantees (BG) invoked from various IPPs/generators, list of generators that were gone to NCLT, tangible action taken to vacate the stay as APTEL had granted stay against the CERC Order.

TANGEDCO requested to exclude the cost of such redundant assets from the PoC pool since this is over burden on the beneficiaries. The relinquishment capacity is around 35,000 MW against the LTA granted capacity of 48,383 MW. More than 10,000 MW is the stranded capacity and the entire investment cost is being recovered from the beneficiaries. CTU to take action on the recovery of relinquishment charges payable by the generators as calculated by them i.e Rs. 7299.07 Crores.

- (b) CTUIL informed that as per the CERC Order, they had computed the relinquishment charges payable by the generators/ LTA customers to the PoC pool as Rs.7299.07 Crore and published on website. However, more than 20 IPPs had disputed the charges computed and filed appeals in APTEL. These appeals are yet to be disposed by APTEL. In view of these disputes and GST issues concerning the raising of invoices, CTU has not raised any invoices as on date. However,

demand letters had been issued to the generators for payment of relinquishment charges.

- (c) CTUIL informed regarding the details that were sought by TANGEDCO in the agenda as below:
- (i) Against the demand letters, two parties had made the payment of around Rs. 3 Crores and the Bank Guarantee (BG) of 18 IPPs was encashed for around Rs. 400 Crores. The same has been kept in Bank Fixed Deposit (FD) and awaiting the disposal of APTEL appeals disputing the relinquishment charges for taking further necessary action to disburse the amount through PoC pool.
 - (ii) Out of 18 IPPs, 15 IPPs were undergoing NCLT proceedings. Five more new IPPs have been added under NCLT proceedings, whose CBG is not encashed, in view of court proceedings are under NCLT. There are 20 IPPs which are undergoing insolvency procedure under NCLT. CTUIL has filed claims with IRP in all NCLT-IPPs.
 - (iii) As on date, 2 IPPs have completed the insolvency proceedings, However, CTU being operational creditor, nothing has been recovered from these parties in NCLT process.
 - (iv) CTUIL has filed the reply in APTEL and hearings are to be take place in the matter. The matter is listed in Court 1 of APTEL and the bench is vacant for the past two years. CTUIL is taking the steps for transfer the case from Court 1 to Court 2.
 - (v) The invoice towards the payment of relinquishment charges have not been raised due to APTEL's stay and GST issues. However demand notices were issued to IPPs and claims have also have been filed before IRP.
 - (vi) None of the assets are redundant and the assets are being utilised as per system requirement. All the assets have been developed as per due approved process and the Tariff of which is being recovered as per CERC Order.
- (d) On a query from TANGEDCO that why invoices were not raised by CTU, CTU informed that earlier, when CTU raised invoices for recovery of MTOA relinquishment charges, tax authorities had sent the show cause notices to CTU mentioning that why GST is not being paid in respect of relinquishing customer. CTU had replied to them stating that these relinquishment charges are the transmission charges which are to be put back into pool. However, Tax Commissioner did not accept the reply and issued an Order stating that GST is applicable on relinquishment charges considering this as compensation. Against this Order, CTU had filed an appeal in Appellate Tax Tribunal and the matter is being pursued.
- (e) Director (T, SO, P & S), KSEBL opined that instead of CTU going into the appeals, CTU may have raised invoices to the parties along with the taxes since the defaulting entity has to bear the taxes. This action would protect the interest of

the common people instead of protecting the defaulting entity.

- (f) CTU informed that the parties disputed the charges and filed appeals. Hence the payments will not be made by these parties. Once the invoice is raised, upfront tax has to be made to the Tax Authorities.

CTU, on keeping the BG amount in FDs, clarified that in the cases of refund of BG amounts to IPPs, APTEL/CERC recently in their Orders have directed to pay along with the interest to IPPs, when the order by APTEL/CERC is in their favour. In case if this BG amount is put back into the pool, the same shall be recollected from DICs along with interest to refund to IPPs.

TANGEDCO stated that there is no justification to hold the amount recovered from the IPPs/Generators. All the assets are included in the PoC pool and the complete charges are being recovered from the DICs.

- (g) Director (Grid & Tr. Mngmnt.), APTRANSCO stated that AP is the most suffering state on account of these lines developed. Hence CTUIL has to take special interest in recovering the relinquishment charges from the generators who relinquished/abandoned the LTA. The transmission system was developed but the generation project did not come up. But the transmission charges are being recovered from the beneficiaries/DICs for the developed transmission system which is a burden to the states. End consumers bear the brunt of these charges.

- (h) CTUIL informed that only two generation projects had been abandoned in Southern Region and it was more in other Regions. As per the CERC Regulations, the generators have the right to relinquish LTA but with relinquishment charges.

TANGEDCO stated that these schemes were evolved based on the BPTA not based on the LTA. Hence as per the agreement, generators are liable to pay the transmission charges. After implementation of the projects, Regulations had been changed and the transmission charges have been put on beneficiaries.

- (i) Regarding the exclusion of the cost of redundant assets from the pool, CTUIL reiterated that no asset is redundant. As per the Operator's feedback, no transmission system or line is kept unutilized / redundant. Transmission systems/lines may be utilized less in one season and peak season, it may be utilized for more transfer of power. Much of the transmission system has been planned as per planning process and all the inter-regional links power is imported by SR. Presently, SR has 7500 MW firm LTA & MTOA which is to be transferred from NEW grid to SR Grid. Against 7500 MW, SR has imported more than 16000 MW in this peak season including through Power Exchanges, STOA etc. These transmission systems are only facilitating to meet the demand by SR beneficiaries. It may be observed that during peak season, SR is importing from NEW grid and during the off-peak season, SR is exporting to NEW grid to the extent of 5000-8000 MW.

TANGEDCO pointed out that as the CTU computations, stranded capacity is 10,000 MW. In the affidavit filed with CERC, CTU had stated that 56% of the

transmission capacity has become redundant due to the relinquishment of LTA by IPPs/generators.

CTUIL stated that there was a methodology that was prescribed for determining the stranded capacity and corresponding transmission charges. CTU had submitted affidavit in CERC saying that relinquishment charges cannot be determined through system studies. However, Commission had come up with specific Order and as per that Order relinquishment charges had been computed by CTU. CTU reiterated that no asset is redundant and the transmission systems are utilized at different point of times during the grid operation.

- (j) MS, SRPC stated that the issue would be further deliberated in the SRPC meeting and the decision in respect of disbursement of Rs. 400 crores in FDs from the relinquished entities to the DICs may be taken.

9.3 SRPC Deliberation

- a) Chairperson, SRPC enquired about the status of the case in APTEL.
- b) COO, CTUIL informed that they were in the process of shifting from Court-1 to Court-2 of APTEL so that hearing takes place. He also informed that in respect of GST issues, they were rigorously following up and were hopeful for positive results and after that they would raise the invoices. Around Rs 400 cores are with CTU in the form of FD and the same will be put in the pool once the Order comes. They were not putting into the pool because in case Order from APTEL is in favour of generators, the amount shall be taken back from the pool (taken back from DICs) for reimbursement to those IPPs/Generators.
- c) Chairperson, SRPC suggested CTUIL to refund the Bank Guarantee (BG) encashed by CTUIL from the relinquished generators for around Rs. 400 Crores to the DICs.
- d) COO, CTUIL stated that it is common money of all the five regions and cannot be given state-wise or region wise. Hence it needs to be taken up in other four RPCs and gets recorded. Subsequently, they would go ahead with the reimbursement to the DICs.
- e) SRPC recommended that CTUIL to place the agenda item in other RPCs conveying the decision of SRPC. Subsequently, the Bank Guarantee (BG) encashed by CTUIL shall be refunded to all the DICs.

10. Enhancement of PSDF grant for 125 MVar Bus Reactor at Dr NTTPS switchyard

- (i) APGENCO vide letter dated 10.05.2022 (**Annexure-10**) has submitted the following:
 - ✓ MoP vide order dated 17.12.2020 has sanctioned Rs.12.41 Crores (against estimated cost of Rs.12.95 Crores) from PSDF to APGENCO for installation of one number 125 MVar Bus reactor at the existing 400 kV switchyard of Dr NTTPS.

SUMMARY OF DEVIATION CHARGE RECEIPT AND PAYMENT STATUS

BILL UPTO 16-10-2022 (W-29 of 2022-2023)
Last Payment Disbursement Date - 01-11-2022

Figures in Rs. Lakhs

CONSTITUENTS	Net outstanding for 2021-22	Receivable	Received	Payable	Paid	Outstanding for 2022-23	Total Outstanding
BSPTCL	0.00000	16,226.50793	546.03092	5,188.65179	0.00000	10,491.82522	10,491.82522
JUVNL	0.00000	11,766.11809	420.78070	633.41684	0.00000	10,711.92055	10,711.92055
DVC	0.00000	7,211.84605	7,417.40721	906.89269	1,309.63872	197.18487	197.18487
GRIDCO	6.42843	27,199.05695	25,417.09092	3,448.21868	3,540.69735	1,874.44470	1,880.87313
WBSETCL	82.45475	20,237.93909	20,168.86138	2,325.47492	2,348.34341	91.94620	174.40095
Sikkim	456.99860	844.03770	0.00000	746.40107	0.00000	97.63663	554.63523
NTPC	0.00000	11,437.73732	11,054.84399	24.44012	24.48653	382.93974	382.93974
NHPC	0.00000	0.00000	0.00000	1,549.31800	1,549.31800	0.00000	0.00000
MPL	0.00000	104.83023	104.83023	591.20505	591.20505	0.00000	0.00000
APNRL	0.00000	799.82517	511.06072	95.72776	95.72776	288.76445	288.76445
CHUZACHEN	0.00000	55.58589	55.58589	151.74629	151.74629	0.00000	0.00000
NVVN-BD	0.00000	23.36139	23.36139	531.14566	531.14566	0.00000	0.00000
GMR	0.00000	517.65715	322.74292	216.53049	216.95089	195.33463	195.33463
JITPL	0.00000	1,046.47024	1,035.80834	119.87725	119.87725	10.66190	10.66190
TPTCL (Dagachu)	0.00000	3,312.37867	3,266.08433	0.00000	0.00000	46.29434	46.29434
JLHEP	0.00000	1,172.32873	1,128.45854	0.00000	0.00000	43.87019	43.87019
NVVN-NEPAL	0.00000	6,018.80423	6,018.80423	1,019.10229	1,019.10229	0.00000	0.00000
IBEUL	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRBCL	0.00000	674.14065	637.09702	92.97842	92.97842	37.04363	37.04363
PGCIL SASARAM	0.00000	22.44037	22.43064	38.16229	38.16229	0.00973	0.00973
TUL (Teesta-III)	-0.02372	923.01837	922.99465	90.00523	90.00523	0.02372	0.00000
NERLDC	-411.85650	1,18,588.51844	1,17,079.72788	21,452.14110	21,452.14110	1,508.79056	1,096.93406
WRLDC	-42.74324	0.00000	0.00000	6,09,666.37508	6,09,666.39986	0.02478	-42.71846
NRLDC	-4,591.25039	1,47,310.76685	1,73,848.87507	9,028.70567	9,028.70567	-26,538.10822	-31,129.35861
SRLDC	-335.82650	3,24,076.52945	3,05,193.84999	0.00000	0.00000	18,882.67946	18,546.85296
VAE	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Dikchu	0.00000	70.76512	70.76512	204.19152	204.48244	0.29092	0.29092
PGCIL-Alipurduar	0.00000	13.37830	9.33411	5.70548	5.70548	4.04419	4.04419
Tashiding (THEP)	0.00000	391.31736	388.92466	103.14677	103.14677	2.39270	2.39270
OPGC	0.00000	8.21880	0.00000	0.00000	0.00000	8.21880	8.21880
KBUNL	0.00000	322.85495	322.85531	35.85888	35.85888	-0.00036	-0.00036
NPGC	0.00000	741.08458	741.08458	181.29066	181.29066	0.00000	0.00000
NPGC-Infirm	0.00000	298.01341	298.01341	1,006.41355	1,006.41355	0.00000	0.00000
RONGNICHU	0.00000	20.68357	20.68357	337.64995	337.64995	0.00000	0.00000
BRBCL U4 Infirm	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
PTC Bhutan	0.00000	0.00000	0.00000	141.54024	141.54024	0.00000	0.00000
Total	-4,835.81857	7,01,436.21505	6,77,048.38772	6,59,932.31374	6,53,882.71974	18,338.23333	13,502.41476

Receivable: Receivable by ER Payable: Payable by ER POOL
Received: Received by ER P Paid: Paid by ER POOL
'- ve' Payable by ER pool '+ ve' Receivable by ER pool

STATUS OF REACTIVE CHARGES					
AS ON 01.11.22					
Name of Parties	Receivable Amount by pool	Received Amount by pool	Payable Amount by pool	Paid Amount by pool	Outstanding Amount Receivable(+Ve) / Payable by pool(-Ve)
BSPHCL	4,61,21,706	3,32,50,493	1,79,63,568	97,12,179	46,19,824
JUVNL	8,90,10,509	4,86,20,925	0	0	4,03,89,584
DVC	3,46,78,692	3,39,12,260	18,38,832	18,38,832	7,66,432
GRIDCO	2,68,96,394	2,40,94,858	18,07,808	18,07,808	28,01,536
SIKKIM	51,50,571	48,00,000	6,07,920	2,57,349	0
WBSETCL	3,79,74,057	3,48,19,857	71,09,216	40,41,768	86,752

Receivable: Receivable by ER Payable: Payable by ER POOL
Received: Received by ER P Paid: Paid by ER POOL
'- ve' Payable by ER pool '+ ve' Receivable by ER pool