



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

75  
Azadi Ka  
Amrit Mahotsav



**Eastern Regional Power Committee**

14, गोल्फ क्लब रोड, टालीगंज, कोलकाता-700033

Tel. No.: 033-24239651, 24239658 FAX No.:033-24239652, 24239653 Web: [www.erpc.gov.in](http://www.erpc.gov.in)

NO. ERPC/TCC & ERPCCOMMITTEE/2022/726

DATE: 05.09.2022

To

As per list enclosed.


**Sub: Minutes of 46<sup>th</sup> ERPC Meeting held on 06.08.2022 (Saturday) at Mayfair Tea Resort, Siliguri, West Bengal- reg.**

Sir,

The Minutes of the 46<sup>th</sup> ERPC Meeting held on 06.08.2022 (Saturday) at Mayfair Tea Resort, Siliguri, West Bengal has been issued and uploaded on [www.erpc.gov.in](http://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.

Yours faithfully,

Encl: As Above

  
05.9.2022  
(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. Managing Director, Jharkhand Urja Sancharan Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
3. Managing Director, Jharkhand Bijli Vitaran Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi- 834004.
4. Managing Director, Tenughat Vidyut Nigam Ltd., Hinoo, Doranda, Ranchi – 834002
5. Chairman-cum- Managing Director, Bihar State Power Holding Company Ltd., Vidyut Bhavan, Bailey Road, Patna-800001.
6. Managing Director, Bihar State Power Transmission Company Limited, Vidyut Bhavan, Bailey Road, Patna- 800001.
7. Managing Director, North Bihar Power Distribution Company Limited, Vidyut Bhavan, Bailey Road, Patna- 800001.
8. Chairman & Managing Director, West Bengal State Electricity Distribution Company Ltd., Vidyut Bhavan, 7<sup>th</sup> Floor, Block-DJ, Sector-II, Bidhannagar, Kolkata-700091.
9. Managing Director, West Bengal State Electricity Transmission Company Ltd., Vidyut Bhavan, 8<sup>th</sup> Floor, Block- DJ, Sector-II, Bidhannagar, Kolkata-700091.
10. Chairman & Managing Director, West Bengal Power Development Corporation Ltd., Bidyut Unnayan Bhavan, 3/C, Block LA, Sector-III, Bidhannagar, Kolkata-700098.
11. Managing Director, Durgapur Projects Ltd., Administrative Building, Durgapur-713201, West Bengal.
12. Principal Chief Engineer-cum-Secretary, Energy & Power Department, Govt. of Sikkim, Kazi Road, Gangtok – 737101, Sikkim.
13. Chairman-cum-Managing Director, Odisha Power Transmission Corporation Ltd., Janpath, Bhubaneswar- 751022.
14. Chairman, GRIDCO Ltd., Janpath, Bhubaneswar-751022.
15. Chairman-cum-Managing Director, OHPC Ltd., Orissa State Police Housing & Welfare Corporation Bldg. Vanivihar, Janpath, Bhubaneswar- 751022.
16. Managing Director, OPGC Ltd., Zone-A, 7<sup>th</sup> Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar-751023.
17. Chairman, Damodar Valley Corporation, DVC Towers, VIP Road, Kolkata -700054.
18. Member (GO&D), Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
19. Director (Commercial), NTPC Ltd., Core-7, SCOPE Complex, Lodhi Road, New Delhi -110003.
20. Director (Technical), NHPC Ltd., NHPC Office Complex, Sector-33, Faridabad, Haryana-121003.
21. Director (Operations), Power Grid Corporation of India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon-122001.
22. COO, CTUIL, Saudamini, 1st Floor, Plot-1, Sector-29, Gurgaon-122001
23. Executive Director, ERLDC, POSOCO, 14 Golf Club Road, Tollygunge, Kolkata – 700033.
24. Chairman-cum- Managing Director, POSOCO, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016
25. Director (C&O), PTC India Ltd., 2nd floor, NBCC Tower, 15 Bhikaji Cama Place, New Delhi- 110066.
26. Chief Executive Officer, NTPC Vidyut Vyapar Nigam Limited, SCOPE Complex, Core-3, 7th Floor, Lodhi Road, New Delhi-110003.
27. Managing Director, Tata Power Trading Company Limited, B12/13, 2nd Floor, Shatabdi Bhavan, Sector-4, Noida-201301, Uttar Pradesh.
28. Managing Director (Generation), CESC Ltd., CESC House, 1 Chowringhee Square, Kolkata- 700001.
29. Chief Executive Officer, Maithon Power Ltd., Village-Dambhui, P.O. Barbindia, Dist.-Dhanbad, Jharkhand- 828205.
30. Managing Director, Adhunik Power & Natural Resources Ltd., Lansdowne Towers, 5th Floor, 2/1A Sarat Bose Road, Kolkata-700020.
31. Chief Operating Officer, 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. CEO, Nabinagar Power Generating Company Limited (NPGCL), Aurangabad, Bihar-824303

## **Distribution: TCC Members**

1. Chairperson, TCC & Managing Director, Jharkhand Urja Sancharan Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
2. Director (Project), Jharkhand Urja Sancharan Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi- 834004.
3. Chief Engineer (S&D-JBVNL), Jharkhand Urja Vikas Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
4. Chief Engineer (S&D), Jharkhand Bijli Vitaran Nigam Limited, Engineering Building, HEC, Dhurwa, Ranchi-834004.
5. General Manager, Tenughat TPS, Lalpania, Dist- Bokaro, Jharkhand-829149.
6. Director (Tech.), Bihar State Power Generation Company Limited, Vidyut Bhavan, Bailey Road, Patna-800001.
7. Chief Engineer (Commercial), Bihar State Power Holding Company Ltd., Vidyut Bhavan, Bailey Road, Patna-800001.
8. Director (Project), South Bihar Power Distribution Company Limited, Vidyut Bhavan, Bailey Road, Patna-800001.
9. Director (Operations), West Bengal State Electricity Transmission Company Ltd., Vidyut Bhavan, 8th Floor, Block-DJ, Sector-II, Bidhannagar, Kolkata-700091.
10. Director (R&T), West Bengal State Electricity Distribution Company Ltd., Vidyut Bhavan, 7th Floor, Block- DJ, Sector-II, Bidhannagar, Kolkata-700091.
11. 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. Dy 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 -700 033.
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. Director, Adhunik Power & Natural Resources Ltd., Lansdowne Towers, 5th Floor, 2/1A Sarat Bose Road, Kolkata-700020.
35. VP & Head (O&M), 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

## **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. Shri Nitin Bansal, CFTM, Eastern Railway, Kolkata
11. Director General, Department of Hydropower & Power Systems, Ministry of Economic Affairs, Post Box No.106, Thimpu, Bhutan
12. Managing Director, DGPC, Thimpu, Bhutan
13. CEO, Sneha Kinetic Power Project, Greenko Group.
14. Managing Director, DANS Energy Pvt Ltd, DLF Cyber City, Phase-II, GURGAON – 122 002
15. Director, Shiga Energy Pvt. Ltd., 5th Floor, DLF Building No. 8, Tower-C, DLF Cyber City, Phase-II, Gurgaon – 122002
16. CEO, Sneha Kinetic Power Projects Pvt.Ltd. #31 -A, National Highway, Behind SNOD building, Deorali, Gangtok, Sikkim-737102
17. CEO, Rongnichu HEP, MBPCL, Sikkim-737102
18. CEO, DMTCL, Sekura Energy Limited, Mumbai-400098
19. Senior Vice President, Teesta Valley Power Transmission Limited, New Delhi-110066
20. CEO, IndiGrid Limited, Mumbai-400079
21. CEO, Cross Boarder Power Transmission Limited, Ambience Mall Complex, Gurgaon, Haryana-122001
22. CEO, Powerlinks Transmission Limited
23. CEO, Kanti Bijli Utpadan Nigam Limited, Muzafarpur, Bihar-843130



Minutes

of

**46<sup>th</sup> ERPC Meeting**

of

**EASTERN REGIONAL POWER COMMITTEE**

**Date: 06th August'2022**

**Time: 14:00 Hrs**

**Mayfair Tea Resort, Siliguri**

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## **EASTERN REGIONAL POWER COMMITTEE**

### **MINUTES OF THE 46<sup>TH</sup> MEETING OF EASTERN REGIONAL POWER COMMITTEE**

**Date: 06.08.2022**

**Place: Mayfair Tea Resort, Siliguri**

**In Chair:** Shri Shantanu Basu, IAS, CMD, WBSEDCL (Due to pre-occupation Shri A. Kumar, IAS Chairperson, ERPC & CMD, JUVNL could not be present in the meeting)

**Guest of Honour:** Shri S. Suresh Kumar, IAS, Additional Chief Secretary, Department of Power, West Bengal

**Host:** West Bengal.

Meeting was convened physically with an option to attend through MS Teams online platform.

List of participants is attached at **Annexure-A**.

Member Secretary, ERPC in his welcome address expressed his gratitude to Shri Suresh Kumar, IAS, Additional Chief Secretary, Department of Power, West Bengal for sparing his valuable time for being present in the meeting despite his busy schedule. He also thanked other ERPC Members, TCC members and other participants present physically and those who participated through virtual mode.

Shri S. Suresh Kumar, IAS, Additional Chief Secretary, Department of Power, West Bengal in his keynote address highlighted the importance of ERPC forum wherein critical techno-commercial issues pertaining to Power Sector are discussed and resolved amicably.

He also emphasized on the diverse nature of ER regional grid mentioning the key issues which need to be addressed. He stated that detailed deliberations on a number of key issues had already been taken place in the TCC meeting held on 05.08.2022 and expected that issues taken for decision in the ERPC meeting is going to be discussed in a fruitful manner.

### **PART-A: CONFIRMATION OF MINUTES**

#### **ITEM NO. A: Confirmation of the Minutes of 45<sup>th</sup> ERPC Meeting**

The minutes of the 45<sup>th</sup> ERPC meeting held on 26.03.2022 at Rajgir, Bihar were issued and uploaded on ERPC website ([www.erpc.gov.in](http://www.erpc.gov.in)) vide ref. no.



ERPC/TCC\_ERPC\_Committee/2022/71 dated 11.04.2022. Subsequently a corrigendum vide letter dated 08.06.2022 was issued.

Members may confirm the minutes of 45<sup>th</sup> ERPC Meeting.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*Members confirmed the minutes of 45<sup>th</sup> ERPC Meeting.*

**PART-B: ITEMS FOR DISCUSSION**

**ITEM NO B. 1: Issues referred to ERPC by TCC in its 46<sup>th</sup> meeting held on 05.08.2022**

The issues referred to ERPC by the TCC are placed below:

**B1.1. Extension of SCADA/EMS AMC Contract from 2023 to 2025 as per same rate and same terms & conditions.**

Existing AMC contract for SCADA/EMS System of ERLDC and Eastern Region Constituents is going to end on 31st March 2023. Upgradation package of existing SCADA/EMS System is in Pre-NIT Stage & it is expected to take another 2-3 years to complete the Upgradation process. Therefore, extension of existing AMC contract with M/s Chemtrols is required for continuation of the existing contract. It is proposed to extend the present contract till March 2025 with the same rate & terms as per the Clause No .X of the LOA so that Grid Operation doesn't get affected.

In the special meeting held on 14.06.2022 at ERPC, Kolkata M/s Chemtrols was advised to provide cost estimation for the following:

- a) Cost estimate for maintenance of RTUs.
- b) Cost estimate for extension of contract to be done at a revised incremented cost for all control centres including RTU maintenance.

M/s Chemtrols vide letter UEX130005/SBU5/ERPC/001/2022 dated July 6, 2022 had submitted two offers. In this regard another Special Meeting was convened at ERPC, Kolkata on 14.07.2022.

M/S Chemtrols representative gave a brief presentation on the proposed offers. He informed that as per deliberation in last special meeting, according to first offer, the extension of contract may be done at same rate and conditions and as RTU maintenance was not included in the scope of work of original contract, separate contract for maintenance RTUs would be signed. If constituents agree with the cost details provided (**Annexure-B1.1**, option 1), separate contract will be signed with constituents for RTU maintenance and old contract would be extended at same rate and conditions. He further added that according to second offer, extension of contract may be done at

a revised incremented cost for all control centres including RTU maintenance (**Annexure-B1.1**, option 2). If constituents agree with the proposal, contract will be signed.

Bihar representative submitted that as per the existing contract it is clearly mentioned that constituents may extend contract for additional 2 years with same rate and conditions. Besides, the RTU maintenance is a part and parcel of the contract and nowhere in the contract it is mentioned that RTU maintenance will not be covered in scope of the contract. So, the 1st offer is not acceptable by them.

Further the utilities were of the view that cost estimate of the 2nd offer, provided by M/S Chemtrols, is very high. So, the offer is not acceptable by them.

SE, ERPC submitted that as per deliberation in last special meeting, for the 2nd offer, it was advised to provide incremented cost for all control centres including RTU maintenance. However, as per the details provided by M/S Chemtrols, cost for control centres and RTU maintenance are given separately, so it is not possible for constituents to go with second offer. He further requested M/S Chemtrols to provide an offer that gives overall incremented cost for all control centres including RTU maintenance.

Keeping in mind about the actual materials & maintenance cost due to Covid, high demand of electronic components, decreased production rate and recent global geo-political situations, M/S Chemtrols provided a fresh proposal with an incremented cost for maintenance of all control centres including RTU maintenance. Constituent wise yearly AMC Price Breakup for the extended period as submitted by M/S Chemtrols is as follows:

Sl. No.	Constituents	Yearly Existing AMC basic Price (INR)	Proposed Increment @ 35%(INR)	Final Proposed Yearly Extended AMC basic Price (INR)
1	POSO CO (MCC)	8,09,608	2,83,363	10,92,971
2	POSO CO (BCC)	8,09,608	2,83,363	10,92,971
3	WBSETCL(MCC)	9,10,112	3,18,539	12,28,651
4	WBSETCL(BCC)	9,10,112	3,18,539	12,28,651
5	DVC (MCC)	9,33,852	3,26,848	12,60,700
6	DVC (BCC)	9,33,852	3,26,848	12,60,700
7	BSPTCL (MCC)	9,33,852	3,26,848	12,60,700
8	JUSNL (MCC)	9,33,852	3,26,848	12,60,700
9	Sikkim (MCC)	9,33,852	3,26,848	12,60,700

The above AMC price is exclusive of GST and Labour Index. Calculation of labour index shall be considered as per the existing Contract Agreement. In case there is any revision in the calculation of the labor index then the 35% increase shall be calculated on the value of the last quarter contract value including the labor index before the extension is issued.

M/S Chemtrols requested the constituents to reduce the bank guarantee to 3% value (as per Govt. norms) against AMC cost only for the extended contract at the time of extension of the Contract. M/s Chemtrols was advised to take up this matter separately with concerned utilities.

M/S Chemtrols representative requested the concerned constituents to release the 10% amount of total cost that was withheld by the constituents at time of commencement of the contract. It was further deliberated that concerned utilities may release 5 % amount of total cost withheld by them against bank guarantee of same cost to be provided by M/S Chemtrols. M/s Chemtrols was advised to take up this matter separately with concerned utilities.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC concurred and referred it to ERPC for final approval.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC accorded the extension of AMC Contract from 2023 to 2025 in line with the decision of TCC.*

**B1.2. Augmentation of Transformation Capacity at Subhasgram (Powergrid) Odisha.**

1. Presently, there are 4x315MVA + 1x500MVA ICTs at Subhasgram S/s. 2x315MVA + 1x500MVA are under ISTS and 2x315MVA have been installed by CESC.
2. With growth in demand in and around Kolkata area necessity of augmentation of transformation capacity at Subhasgram (POWERGRID) is required on urgent basis.
3. The matter was deliberated in the 7<sup>th</sup> & 8<sup>th</sup> CMETS-ER held on 31-05-2022 & 30-06-2022 respectively, wherein it was decided that augmentation of transformation capacity at Subhasgram S/s will be finalized after assessing the power drawl by CESC and WBSETCL in last one year.
4. ERLDC vide email dated 12-07-2022 has shared the ICTs loading details at Subhasgram S/s. Major highlights of the details shared by ELRDC is given below:
  - In the present summer season (Apr-June 2022), N-1 reliability rating has been violated in 400/220kV Subhasgram (POWERGRID) ICTs on many occasions.
  - The highest loading of about 1540MW was observed on 28<sup>th</sup> April 2022 to meet the demand of both by CESC and WBSEDCL.
    - CESC maximum drawl was 803.17 MW on 28-04-2022 3:42 PM
    - WBSEDCL maximum drawl was 804.76 MW on 28-04-2022 11:25 PM

- The N-1 of CESC ICTs have been violated for about 74% of the time to meet its load.
  - The N-1 of ISTS ICTs have been violated for about 11% of the time to meet WBSEDCL load.
5. The matter was discussed in the 9<sup>th</sup> CMETS-ER held on 29-07-2022 wherein it emerged that keeping in view the loading on existing ICTs not meeting the reliability criteria as detailed at para 4 above, there is an urgent requirement for installation of 6<sup>th</sup> 400/220kV, 500MVA ICT at Subhasgram (POWERGRID) S/s. All the stakeholders including CESC and WBSETCL agreed for installation of new ICT (6<sup>th</sup>) on technical grounds. Accordingly, the following scope of works was proposed under ISTS under the Eastern Region Expansion Scheme-XXXII (ERES-XXXII) within 18 months from date of allocation:
- Installation of 400/220kV, 500MVA ICT (6<sup>th</sup>) along with associated ICT bays at both levels at Subhasgram (POWERGRID) S/s.
6. ERLDC also emphasised regarding the urgent need for augmentation of transformation capacity at Subhasgram S/s. It was mentioned that major power demand of capital city of Kolkata is met from Subhasgram S/s, and any major overloading could result into cascaded tripping of ICTs, leading to major blackout in the area.
7. WBSETCL mentioned that since major over drawl at Subhasgram is by CESC, the 6<sup>th</sup> ICT may be installed at cost of CESC. CESC mentioned that as both CESC (74% of the time) and WBSEDCL/WBSETCL (11% of the time) drawl are not N-1 compliant, the cost of ICT in ISTS may be shared by both utilities. Accordingly, on commercial grounds the ERES-XXXII scheme could not be finalised in the 9<sup>th</sup> CMETS-NER.
8. To resolve the commercial issues, it was suggested the matter may be discussed in the forthcoming 46<sup>th</sup> meeting of ERPC. Thus, following is suggested for deliberation:
- **ICT to be installed in ISTS:** WBSETCL to bear the ISTS transmission charges (CESC is not a DIC) of the new 6<sup>th</sup> 400/220kV, 500MVA ICT at Subhasgram (POWERGRID) substation as per the prevailing CERC Sharing Regulation 2020, on similar lines as the tariff of existing 2x315MVA + 1x500MVA ICTs are being recovered. Further, WBSETCL and CESC may enter into a separate agreement for sharing of ISTS transmission charges among them on mutually agreed proportion, as 6<sup>th</sup> ICT is required for both CESC and WBSEDCL/WBSETCL.

In view of the above, it is proposed that the commercial arrangement as mentioned above may be deliberated and finalised in the ERPC.

### **Deliberation in the 45<sup>th</sup> TCC meeting:**

ED, ERLDC gave a brief presentation on the issue. It was deliberated that there is an urgent requirement for installation of 6<sup>th</sup> 400/220kV, 500 MVA ICT at Subhasgram (Powergrid) S/s.

On request of West Bengal, CESC agreed to bear the cost associated with the installation of the said ICT and its future maintenance. Further, CESC requested Powergrid to execute the project on deposit work basis.

On query, Powergrid representative submitted that the timeline for completion of the aforesaid work would be confirmed in the 46<sup>th</sup> ERPC Meeting.

TCC appreciated the proposal of CESC and referred it to ERPC for concurrence.

### **Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC concurred the proposal in line with the decision of TCC.*

### **B1.3. Technical overview of AMR data center hardware and software application refreshment program.**

In continuation with agenda point no - B15 of 190th OCC, POWERGRID after detail deliberation, taken fresh offer from M/S. TCS. As per latest offer, total cost of upgradation will be Rs. 1,39,49,793/- (Excluding GST). Further meeting with ERLDC and TCS also conducted on TS of H/W & S/W upgradation on 12.05.2022.

ERLDC may provide go ahead technically for the program.

In view of above, it is proposed to provide in-principal approval to POWERGRID such that LOA can be issued for above work to TCS on Single Tender (ST) basis.

In the 191st OCC Meeting, West Bengal representative expressed that they would inform their views to ERPC within 5 days after consulting with their higher authority.

OCC agreed with the proposal of Powergrid and gave an in-principle approval for the program and referred it to the next Commercial Committee Meeting.

In 192nd OCC meeting, Powergrid representative submitted that as per the provisions laid in the contract, 54 nos. of additional SEM's could be integrated in the 4th Phase AMR as per the existing terms and conditions of LOA.

OCC referred to the upcoming Commercial Sub Committee meeting of ERPC.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC concurred and referred it to ERPC for final approval.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC approved the proposal along with its cost in line with the decision of TCC.*

**B1.4. LAN integration of DCU's installed at various S/s at ER for SEM data transmission to ERLDC – cost proposal.**

In continuation with agenda B14 of 190th OCC meeting regarding cost approval for further LAN integration of various DCU's installed across various SS of Eastern Region, followings may be noted: -

As per original LOA- 40 Locations integrated.

As per amendment of LOA- 69 Locations integrated.

TCS has successfully completed all the 109 LAN integration work under scope vide LOA (Ref: ER-II/KOL/CS/I-2446/P-2420/AMEND-II/4374) dated- 05/07/2021. Now, the following 63 locations where LAN setup is present and AMR LAN integration is possible using that channel. Among these 41 locations can be integrated as regular connection through Normal CAT-6 cabling and TCS has agreed to carry out the work on prevailing rate of existing LOA and further 22 locations require additional financial implication in regard to converter and Optical cables. Further 08 locations are yet to provide any information about connectivity but included in totality. Total location count comes to 71. Location details attached separately.

Total Cost Calculation as below, based on TCS's proposal submitted.

Item	Type	Qty	Unit Price	Total Price (INR)
LAN Integration Service at Sub Station**	Services	71	15564	11,05,044.00
Additional Charges for LAN Integration at Kiosk Sites	Services	22	17830	3,92,260.00
Fiber Optical Cable with Converters and other accessories.	HW Supply	18000	94.50	17,01,000.00

Total Price: 31,98,304/- INR (without GST).

\*\* Unit price for LAN Integration Service is same as per the existing LOA of AMR Phase-4.

In view of above, it is proposed to provide in-principal approval to POWERGRID such that LOA can be issued for LAN integration to TCS on Single Tender (ST) basis on urgent basis.

In the 191st OCC Meeting, Powergrid representative submitted that few locations in Jharkhand and Sikkim do not have fiber connectivity.

Sikkim representative submitted that fiber connectivity is available at Sagbari.

Jharkhand representative submitted that OPGW installation work is in progress in Chandil and Daltonganj S/s.

GMR representative agreed to provide the port opening details within 5 days.

West Bengal representative submitted that a separate meeting may be convened between the communication departments of WBSETCL, Powergrid, ERLDC and ERPC for further deliberation in this regard.

OCC advised all the states to provide the port opening details to Powergrid at the earliest.

OCC further advised Powergrid to give the status update of LAN integration to ERPC on weekly basis.

OCC gave in-principle approval for the cost proposal of Rs. 31,98,304/- INR (without GST) and referred it to the next Commercial Committee Meeting.

In 46th CCM, Powergrid representative submitted that as of 3rd July 2022, out of total 180 locations, LAN integration had been completed for 142 locations. Subsequently, LAN integration is being planned for next 19 locations in coming 3 weeks. In the remaining 19 locations work is pending due to non-receipt of port opening details and other issues.

Powergrid further informed that OCC gave in principle approval for LAN integration DCU installed at various locations of ER for data transmissions to ERLDC. The negotiated cost of LAN integration work is Rs 31,03,452/- (without GST)

Commercial Sub-Committee approved the cost of Rs 31,03,452/- (without GST) towards LAN integration DCU installed at various locations of ER for data transmissions to ERLDC and referred the same to the upcoming TCC/ERPC meeting for further approval.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC concurred and referred it to ERPC for final approval.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC accorded approval for cost of Rs 31,03,452/- (without GST) towards LAN integration DCU installed at various locations of ER for data transmissions to ERLDC.*

### **B1.5. Amendment of 4<sup>th</sup> Phase AMR of Eastern Region - Powergrid.**

The existing scope of 4th Phase AMR project scope is completed and since then many new locations have been came up and presently data taken from those locations/SEM manually. As per condition of contract, there is a scope for deviation and maximum 54 No's new SEM can be integrated afresh.

Rate & other Terms/Conditions shall be remained same, and confirmation received from M/S. TCS. Final amendment value comes to **Rs. 2, 08, 00,706/- (Rs. Two crore eight lacs seven hundred six only) against initial LOA of Rs. 1,60,00,559/- (Rs. One crore sixty lacs five hundred fifty-nine only).**

By this amendment fresh 54 SEM can be integrated in 4th phase AMR, including AMC and this will be final amendment as no quantity remains in the LOA.

In 192<sup>nd</sup> OCC meeting, Powergrid representative submitted that as per the provisions laid in the contract, 54 nos. of additional SEM's could be integrated in the 4th Phase AMR as per the existing terms and conditions of LOA.

OCC referred to the upcoming Commercial Sub Committee meeting of ERPC.

In 46th CCM POWERGRID representative submitted that as per provision laid out in the contract of existing LOA, further 54 No's SEM can only be integrated further to existing AMR system with same Terms/Conditions of LOA.

Commercial sub-committee approved the additional amount of Rs. 37,26,232/- for integration of 54 No's SEM in ER along with required AMC components also for 54 No's SEM. In total the composite value of LOA finally stands at Rs. 2,08, 00,706/- (Excluding GST) after incorporating all amendment with same Terms/Conditions as per Original LOA. For integration of additional 54 SEMs with existing term and conditions of 4th Phase AMR and referred the same to the upcoming TCC/ERPC meeting for further approval.

#### **Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC concurred and referred it to ERPC for final approval.

#### **Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC accorded approval of additional amount of Rs. 37,26,232/- for integration of 54 No's SEM in ER along with required AMC components also for 54 No's SEM.*



**B1.6. Proposal for upgradation of 220 KV side bays pertaining to Durgapur (PG) – Parulia (DVC) D/C at Powergrid end under ADDCAP 2019-24 tariff block – Powergrid.**

In reference to the 1st ERPCTP vide agenda no-03 (Sub-point-3.5), competent authority has approved reconductoring of 200 KV Durgapur (PG) – Parulia (DVC)-D/C reconductoring activity along with bay upgradation work at both ends. As per minutes the entire work to be carried out by POWERGRID at the cost of DVC. Under subject package, apart from line upgradation (From Conventional conductor to HTLS) both side bay equipment also to be upgraded to 1600 A.

Further, on dated 28.04.2022 220kV Main Bus-I tripped due to failure of R-phase BPI which is installed in 220kV Parulia (PGCIL) - Parulia (DVC) Line-II side between CT and Line Isolator. The cause of failure of BPI was due to ageing effect. There was no sign of damage on BPI prior to tripping, but due to extreme heat wave persisting in and around subject station, the BPI may have developed snag for ageing. This event i.e., the failure of BPI due to ageing effect further stressed the requirement of complete replacement of the age-old equipment's/systems are in service at Durgapur SS. Further upgradation of line capacity without replacement of all concerned equipment's may reduce reliability.

Being asset of POWERGRID, upgradation of associated bay equipment along with hardware fittings, connectors etc. and Control & Protection Panels at POWERGRID end cannot be carried out on cost deposit basis from DVC but can be done on ADDCAP basis (under Tariff block 2019-24). The bays are commissioned back in 1987-92 period under FSTPP and as the upgradation required for enhancing capacity, it can be included in ongoing ADDCAP of FSTPP under 2019-24 block.

Therefore, to carry out the upgradation work, it is proposed to carry out the strengthening work of 220kV D/C Parulia (PGCIL) - Parulia (DVC) under ACE 2019-24 (for FSTTPS). Under subject upgradation work, following major works are proposed to be carried out at POWERGRID end: -

1. Replacement of old Isolator (05 set)
2. Replacement of CB (01 set)
3. Replacement of CT (07 set)
4. Upgradation of protection system including numerical line differential protection system.
5. Associated civil construction activity.

Tentative cost for entire upgradation work at Durgapur end will be around 2.2 Crores excluding GST.

In the 191st OCC meeting, DVC representative submitted that the cost of line and bay upgradation work at their end would be borne by them. Powergrid representative submitted that they would carry out the upgradation work of the asset situated at Powergrid end and file the petition with CERC (under Tariff block 2019-24).

OCC approved the proposal and referred it to the next Commercial Committee Meeting.

In 46th CCM, Powergrid representative submitted that they would carry out the upgradation work of 220 KV side bay pertaining to Durgapur (PG)-Parulia (DVC)-D/C at Powergrid end and file the petition with CERC (under Tariff block 2019-24) for recovery of cost.

The Commercial sub-committee approved the cost of Rs 2.2 Cr for upgradation work of 220 KV side bay pertaining to Durgapur (PG)-Parulia (DVC)-D/C at POWERGRID end under ADDCAP 2019-24 tariff block.

It was decided to place this agenda in the upcoming TCC/ERPC meeting.

Powergrid may explain. TCC may approve.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC concurred and referred it to ERPC for final approval.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC concurred the above proposal along with its estimated cost in line with the decision of TCC.*

**ITEM NO B. 2:     **Generating Companies to furnish Daily/Monthly Generation and outages data online at National Power Portal (NPP)****

As per the relevant provisions of The Electricity Act, 2003, CEA is entrusted with the responsibility to collect, compile & record the data concerning the generation of power and publish various reports like Daily Generation Report, Monthly Generation Report, PLF report, etc. All these reports need to be prepared based on the information furnished by various generating stations/utilities on daily, monthly and yearly basis in a time bound manner.

To enable various Generating companies to submit the aforesaid generation data online, Login IDs and Passwords for the NPP Portal have already issued to the Nodal Officers nominated by the respective Generating companies. Most of the generating Companies have been submitting the generation data online, however, many of the Generating companies have still not switched over to online mode of submission of generation data leading to delay in preparation/issuance of related reports.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC advised all the generating companies to furnish the daily/monthly generation and outages data online at National Power Portal (NPP).*

**ITEM NO B. 3: Draft ERPC (Conduct of Business Rules) 2022.**

As discussed in the 45<sup>th</sup> ERPC Meeting, the draft ERPC (Conduct of Business Rules) 2022 has been prepared as per Ministry of Power, Government of India resolution dated 3<sup>rd</sup> December' 2021 and subsequent corrigendum dated 17<sup>th</sup> December 2022. The same was circulated to member organizations vide email dated 29<sup>th</sup> July 2022 for their comments or suggestions. Till now, no comment has been received by ERPC secretariat. **(Draft ERPC CBR 2022 attached Annexure-B3)**

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*Member Secretary, ERPC apprised the forum that the draft ERPC (Conduct of Business Rules) 2022 has been prepared in line with Ministry of Power, Government of India resolution dated 03.12.2021 and subsequent corrigendum dated 17.12.2021. The same was circulated among the member organizations vide email dated 29<sup>th</sup> July 2022 for comments or suggestions, if any. However, no comments have been received so far. He further requested all the member organizations to submit comments/suggestions, if any. After incorporating the comments/suggestions from the member organizations, the Draft ERPC (Conduct of Business Rules) 2022 would be placed in the next ERPC meeting for approval.*

**ITEM NO B. 4: Strengthening of State Load Despatch Centers (SLDC).**

The report “CAPACITY BUILDING OF INDIAN LOAD DESPATCH CENTRES-(CABIL)” was endorsed by Forum of regulators (FOR) standing technical committee in its 21<sup>st</sup> Meeting at New Delhi on 08th October 2018 and subsequently adopted by the FOR in its 65th meeting on 13th December 2018.

The sub-group attempted to group the different LDCs based on different parameters viz. generation capacity (MW) handled, average energy catered by the control area under the LDC, length of EHV Transmission network handled by the LDC and the installed renewable generation capacity (MW). Accordingly, a weighted average score (WAS) was worked out. This exercise revealed that there are 13 large LDCs (with WAS > 9000), 10 medium LDCs (3000<WAS<9000) and 19 small/emerging LDC (WAS< 3000).

The key recommendation of the committee was that the number of executives (including supervisors but excluding non-executives) for an emerging LDC would be in the range of 30 to 50; for a medium LDC it would be in the range of 70 to 100; while in a large LDC it would be in the range of 100 to 150.

The present strength of eastern region SLDCs as gathered is tabulated below:

SLDC -wise Employee Strength
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Sl. No.	State Name	CABIL Recommendation	Number of executives (including supervisors but excluding non-executives)	Non-Technical	Total
1	WBSLDC (medium)	70- 100	27	16	43
2	Odisha SLDC (medium)	70- 100	38	9	47
3	Bihar SLDC (medium)	70- 100	37	5	42
4	Jharkhand SLDC (emerging)	30-50	19	10	29
5	DVC SLDC (emerging)	30-50	17	10	27
6	Sikkim SLDC (emerging)	30-50	21	9	30

It is seen that the number of existing personnel is much less than the recommended numbers in case of medium SLDCs. There is a need of appropriate personnel other than real time grid operation also for activities like IT - cyber security, post-despatch analysis, outage coordination-analysis, forecasting, operational feedback, Market operation, Big Data Analytics, etc.

Therefore, as per CABIL recommendation SLDCs need to be strengthened in the interest of reliable, secure and economic operation of respective systems. In this connection, it is gathered that Govt. of UP has decided to corporatize UP-SLDC as a public limited company which will be separated from UP Transmission Corporation.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ED, ERLDC emphasized on the necessity of strengthening State Load despatch Centres (SLDC) and explained that implementation of SAMAST and CABIL in true spirit was need of the hour. He mentioned that the mechanism of Scheduling, Accounting, Metering and Settlement system would be in place with SAMAST implementation which Bihar has already done and West Bengal, Odisha were in various phases of execution. ERLDC has extended cooperation to Jharkhand and Sikkim by preparing draft SAMAST DPR for submission in connection with PSDF grant and next in line was SLDC, DVC. He further stated that appropriate manpower would have to be in place at SLDCs in line with CABIL (CAPACITY BUILDING OF INDIAN LOAD DESPATCH CENTRES) recommendations to enable them to discharge their activities effectively. Recent visits to various SLDCs by ERLDC personnel have also enabled them to assess the human resource constraints at SLDCs to combat the present as well as future challenges. He requested the State authorities to look into the aspect and place requisite manpower at SLDCs.*

*Odisha SLDC seconded the proposal and felt that ERPC recommendation on manpower requirement would facilitate necessary approval at State level. Odisha also sought incentivizing SLDC personnel on acquiring various levels of certification.*

*Bihar SLDC expressed that they had requisite manpower for the time being including contractual staff but felt the need for appropriate incentive schemes for shift personnel.*

*Sikkim SLDC informed that ring-fencing of SLDC was being discussed at their higher level.*

*Jharkhand SLDC informed that they have got necessary State Govt approval for placement of manpower at SLDC in line with CABIL. Jharkhand further stated that upgradation of their SLDC with new SCADA would be executed by POSOCO.*

*Director(O), WBSETCL intimated that manpower strength in WB SLDC is higher than that mentioned in agenda but more manpower would be put in place.*

*ERPC members acknowledged the need for manpower strengthening in SLDCs. Shri S. Suresh Kumar, Additional Chief Secretary, Department of Power, West Bengal asserted the need of leveraging latest technology along with deployment of additional manpower. He also advocated for recruitment of executive cadre only for SLDC with IT proficiency and other skillset to be inducted from both fresh graduates and experienced personnel. He also expressed the need for training of existing manpower.*

*Shri Shantanu Basu, CMD, WBSEDCL enquired whether any template for manpower at SLDCs was available. ED, ERLDC informed that the standards for manpower of large, medium and small LDCs are mentioned in the CABIL report.*

*On enquiry of Additional Chief Secretary, Department of Power, West Bengal on the efficacy of ring fencing, ED, ERLDC clarified that ring fencing was very much required to ensure independent status of SLDC, currently operated under state transmission companies. On query, he further explained that fees and charges of RLDCs are being paid by ISGS/sellers, Distribution Licensees/buyers and Inter State transmission licensees. In the similar fashion, for States, SLDC charges would be borne by intra-State GENCOs, TRANSCO and DISCOMs as determined by respective SERCs. On enquiry regarding typical annual charges for one RLDC, it was mentioned that same is in the range of Rs. 30-40 Crores.*

*The need for strengthening SLDCs was appreciated by MS, ERPC and it was agreed that all States would do the needful in this direction to ensure proper functioning of respective State Power System.*

#### **ITEM NO B. 5: Capacity Building Program of Eastern Region funded through PSDF**

Ministry of Power, GOI had granted a sanction from PSDF fund for the following capacity building programs for the Eastern Region:

- 1) Training for Power System Engineers
- 2) Training on Power Market Trading at NORD POOL Academy for Power System Engineers of Eastern Regional Constituents

Subsequently, Agreement with Nodal Agency (i.e. NLDC have been signed for both the projects in September, 2018 and both the projects are being executed by ERPC Secretariat.

#### **A. Training for Power System Engineers of various constituents of Eastern Region.**

This program is basically meant for young entry level engineers working in State Load Despatch centres, State Transmission Utilities, State Gencos, ISGS, DISCOMS & others in Eastern Region, ERLDC, ERPC, CEA, MoP. A sanction of Rs. 61 lacs has been granted from PSDF for this project.

Total 8 nos. of programs each consisting of five days are to be conducted during the duration of two years. Each batch will comprise of 30-40 nos. of participants

The program is to be executed by Eastern Regional Power Committee (ERPC) in consultation with Asia Institute of Power Management (AIPM), CESC Ltd.

The following training program has been conducted under this project:

<b>Training program No.</b>	<b>Training module name</b>	<b>Schedule</b>	<b>Venue</b>	<b>No. of participants</b>
Batch-1	Power System protection	22nd to 26th July, 2019	AIPM, CESC	41
Batch-2	Latest Developments in Commercial Aspects of Power Management	18th to 22nd November, 2019	AIPM, CESC	36
Batch-3	Challenges and improvement areas in Transmission & Distribution Sector	13th to 17th January, 2020	AIPM, CESC	29
Batch-4	Ensuring Safe and Secure Power System Operation	2nd to 6th March, 2020	AIPM, CESC	31

In 45<sup>th</sup> ERPC Meeting, ERPC Secretariat was advised to coordinate with AIPM for conducting the remaining training program.

*Subsequently, 5<sup>th</sup> batch of training programme has been organised from 04<sup>th</sup> to 08<sup>th</sup> July 2022 on the subject "Resource Optimization & Efficiency Improvement in Power System Operation" at AIPM, Kolkata.*

*The 6<sup>th</sup> batch of training programme is expected to be scheduled in 2<sup>nd</sup> week of September-22 on Distribution Sector.*

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC noted.*

**B. Training on power market trading at NORD POOL Academy for Power System Engineers of Eastern Regional Constituents**

This capacity building program was meant to contribute towards capacity building and assist the development of a commercially viable and vibrant power market in India. It will also give an unique opportunity to the Indian participants to learn from the best industry practices and most enriching experiences of Nordic countries in running one of the most successful power exchanges in the world. It would benefit the participants from the State Transmission Utilities (STUs), Distribution Companies, State Load Despatch Centres (SLDCs), Generators (including ISGS), ISTS Licensees in Eastern Region, Power System Operation Corporation (POSOCO) and Eastern Regional Power Committee (ERPC) Secretariat. Participation from Central Electricity Authority (CEA), Ministry of Power, Gol has also been envisaged. A sanction of Rs. 5.46 Crore has been granted from PSDF for this project.

The program is to be executed by Eastern Regional Power Committee (ERPC) in consultation with partner M/s PTC and Nord Pool Consulting.

The detailed list of constituent-wise participants was approved in 39<sup>th</sup> ERPC. As per the decision of various ERPC meetings, ERPC Secretariat has completed the followings:

- i) The 1<sup>st</sup> training program was conducted for senior executives from 17<sup>th</sup> to 21<sup>st</sup> June, 2019 at Nord Pool, Norway.
- ii) The 2<sup>nd</sup> training program was conducted for mid-level executives from 19<sup>th</sup> to 23<sup>rd</sup> August, 2019 at Nord Pool, Norway.
- iii) The training for 3<sup>rd</sup> batch for mid-level executives was scheduled from 16<sup>th</sup> March, 2020 to 20<sup>th</sup> March, 2020 (excluding journey periods) at Nord Pool, Norway and a payment of ₹ 92,13,440/- (Rupees Ninety-Two Lakh Thirteen Thousand Four Hundred and Forty only) was released to PTC India Ltd. against reimbursement of 80% of advance payment.
- iv) Subsequently in view of Covid-19 pandemic and consolidated travel advisory dated 06.03.2020 issued by Gol to avoid travelling to the countries affected by Covid-19, the study program of 3<sup>rd</sup> batch was postponed with the approval of chairperson, ERPC.
- v) The training program for 3<sup>rd</sup> & 4<sup>th</sup> batch would be continued after the normalization of current situation and removal of international travel restrictions by Govt. of India.

45<sup>th</sup> ERPC advised ERPC secretariat to coordinate with PTC in finalizing the schedule and thereafter complete necessary formalities for completion of the training programme.

The 3<sup>rd</sup> batch of training programme has now been scheduled from 12<sup>th</sup> Sep to 16<sup>th</sup> Seep 2022.

Nomination of total 18 participants from ER utilities including MoP & CEA has been finalized for the 3<sup>rd</sup> batch of training programme. In this regard, an office order no.43 dated 29.07.2022 has been issued as per the concurrence of Chairperson, ERPC for list of participants of the 3<sup>rd</sup> batch of training programme.

#### **Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC noted.*

**ITEM NO B. 6: Requirement of additional MiP-PSCT License key with Laptop**

In 44<sup>th</sup> ERPC meeting, all the utilities were advised to submit their requirement of additional PSCT licenses, if any, by 15<sup>th</sup> October'2021. ERPC further advised ERPC Secretariat to prepare and submit a DPR for additional MiP-PSCT licenses required for ER utilities for PSDF funding.

In 45<sup>th</sup> 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 sub group(TESG) of PSDF discussed the DPR in its 63<sup>rd</sup> meeting held on 10.06.2022. Subsequently, the nodal agency of PSDF vide letter dated 29.06.2022 has sought written replies for the observations by TESSG on the proposed DPR at the earliest.*

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC noted.*

**ITEM NO B. 7: Extension of support period 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. Presently 4th year support period is in progress. As per the contract of the project, the support service will be provided for 5 yrs after declaration of the Go-Live of the project which is 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.

It is proposed to extend the AMC/support service of the project for further period of 5 yrs starting from 31.10.2022. For funding of the above requirement, a proposal may be submitted to PSDF secretariat for consideration of the same and approval.

44<sup>th</sup> ERPC authorized ERPC Secretariat to prepare a DPR for support service for future updation of the Protection Database for another 5 years and share the cost estimate details with all the concerned utilities. Subsequently, the DPR shall be submitted for PSDF funding.

In 45<sup>th</sup> 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 63<sup>rd</sup> meeting held on 10.06.2022. Subsequently, the nodal agency of PSDF vide letter dated 29.06.2022 has sought written replies for the observations by TESSG on the proposed DPR at the earliest.



**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC noted.*

**ITEM NO B. 8: Appointment of Audit/Tax Consultant for preparation of Books of Accounts of ERPC Establishment Fund and ERPC Fund.**

In view of the approval of 45<sup>th</sup> ERPC meeting under Item no.8.2.4 for “Consultation related to TAX, preparation of Income & Expenditure Accounts” it is to inform that work order has been placed to M/s M Saha & Co. (L-1 bidder) after inviting limited quotations at an annual consolidated fees amounting to Rs.75,000/- (Rupees Seventy-Five Thousand Only) plus taxes as applicable.

The scope of work involved are as mentioned below:

- Preparation of accounts for FY-2021-22
- Preparation of Fixed Asset schedule after considering back records as per dead stock register
- Consultancy in regard to Income Tax matters
- Consultancy in regard to GST (TDS) matters
- Explaining matters to Statutory Auditors

The matter is placed before ERPC for information.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC noted.*

**ITEM NO B. 9: Expenditure from ERPC Establishment Fund due to insufficient fund allocation from Govt. of India in the F.Y. 2022-23.**

Central Electricity Authority (CEA) vide Letter No. 1/1/2022-Bud. (CEA)/151-197 dated 21<sup>st</sup> March, 2022 has sanctioned Budget Estimate (BE) 2022-23 of ERPC under Demand No. 79 of Ministry of Power. The proposed BE viz-a-viz Sanctioned BE for the year 2022-23 in respect to ERPC, Kolkata is given under:

Sl.	Head	Proposed BE 2022-23 (Rs. in Lakh)	Sanctioned BE 2022-23 (Rs. in Lakh)	Deficit (Rs. in Lakh)
1.	Office Expenditure (OE)	45.00	25.24	19.76
2.	Minor Works (MW)	6.00	3.00	3.00
3.	Other Charges (OC)	5.00	4.00	1.00
4.	Rent, Rates & Taxes (RRT)	1.50	1.50	0.00
5.	Domestic TE (DTE)	15.00	8.00	7.00

	<b>Total</b>	<b>72.50</b>	<b>41.74</b>	<b>30.76</b>
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The actual expenditure of ERPC Secretariat is being reimbursed to Govt of India Quarterly by ERPC Constituents Members. Till date, ERPC has reimbursed an amount of Rs. 81.27 lakh towards Quarter-1 expenditure of ERPC secretariat for F.Y. 2022-23.

From the above, it may be observed that the aggregate sanctioned Budget Estimate under the mentioned Heads is Rs. 41.74 Lakh only, against the proposed Budget estimate of Rs. 72.50 Lakh. Therefore, ERPC secretariat is unable to make the payment towards committed expenditure required for smooth running of this office viz. monthly electricity bill, Quarterly lift maintenance, Computer AMC, Internet lease line, Firefighting AMC & other annual maintenance contract, etc. due to insufficient budget under "OE Head".

**In the view of above, approval for Rs. 30.76 lakh (Rupees thirty lakh seventy-six thousand only) may be accorded for expenditure from ERPC Establishment Fund in the F.Y. 2022-23.**

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*ERPC approved the budget of Rs. 30.76 lakh (Rupees thirty lakh seventy-six thousand only) for the above heads of expenditure from ERPC Establishment Fund in the F.Y. 2022-23.*

**ITEM NO B. 10: Finalisation of dates and venue for the next ERPC & TCC meetings.**

The roster for hosting of ERPC meetings is given below:

Sl. No	Host Organization
1	APNRL - hosted 23 <sup>rd</sup> ERPC Mtg. on 22.12.2012
2	WEST BENGAL -hosted 26 <sup>th</sup> ERPC Mtg. on 18.01.2014
3	SIKKIM - hosted 29 <sup>th</sup> ERPC Mtg. on 14.02.2015
4	ODISHA - hosted 31 <sup>st</sup> ERPC Mtg. on 14.11.2015
5	JHARKHAND - hosted 32 <sup>nd</sup> ERPC Mtg. on 20.02.2016
6	BIHAR - hosted 33 <sup>rd</sup> ERPC Mtg. on 25.06.2016

7	CESC - hosted 34 <sup>th</sup> ERPC Mtg. on 19.11.2016
8	TPTCL - hosted 35 <sup>th</sup> ERPC Mtg. jointly on 25.02.2017
9	MPL - hosted 35 <sup>th</sup> ERPC Mtg. jointly on 25.02.2017
10	GMRKEL -hosted 36 <sup>th</sup> ERPC Mtg. on 26.08.2017
11	POWERGRID - hosted 37 <sup>th</sup> ERPC Mtg. on 17.06.2018
12	DVC -hosted 38 <sup>th</sup> ERPC Mtg. on 30.06.2018
13	NVVN - hosted 39 <sup>th</sup> ERPC Mtg. On 17.11.2018
14	NHPC - hosted 40 <sup>th</sup> ERPC Mtg. on 16.03.2019
15	NTPC - hosted 41 <sup>st</sup> ERPC Mtg. on 27.03.2019
16	PTC - hosting 42 <sup>nd</sup> ERPC Mtg. on 13.12.2019
17	JITPL - yet to host ERPC Mtg.
18	Teesta Urja Ltd. - yet to host ERPC Mtg.

Members may discuss and finalize.

**Deliberation in the 46<sup>th</sup> ERPC meeting:**

*It was deliberated that host, date, and venue of the 47<sup>th</sup> TCC & ERPC Meeting would be decided later on.*

**PART-C: ITEMS FOR INFORMATION**

The following agenda items are placed before ERPC for information:

<b>ITEM NO C. 1:</b>	<b>Safeguarding interests of non-surrendering beneficiaries during RSD (Reserve shutdown).</b>
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With the onset of monsoon, nor-wester and heavy torrential downpour often visits Eastern Region. This leads to sudden fall in demand necessitating running units to go under RSD (Reserve Shutdown). However, such fall in demand is rarely of long duration. With revival of demand especially during peak hours such outage of generators often led to resource inadequacy issues affecting load generation balance & system frequency.

Recently on 23rd May 2022, it was observed that demand of various states in ER was on a much lower side due to the prevailing storm & rainy weather conditions. Therefore, FSTPP Unit 2 had been taken into reserve shutdown in Real Time at 12:22 Hrs. of 23.05.2022. West Bengal, Bihar, Gujarat & Jharkhand owns around 90% share in FSTPP I & II Plant and their requisition is mentioned in table below for date 23 May 2022.

1. Requisition of state before RSD are given below

State	Share allocation (%)	% Requisition from their entitlement before RSD
West Bengal	31.93%	55 % of their Ent.
Bihar	31.40%	57 % of their Ent.
Gujarat	15.95%	0 % of their Ent.
Jharkhand	8.50%	0 % of their Ent.

2. Requisition of state at 16:00 hrs. of 24.05.2022 onward

State	Share allocation (%)	% Requisition from their on bar entitlement	% Requisition from their off bar entitlement
West Bengal	31.93%	100% of their On bar Ent.	100 % of their Off-bar Ent.
Bihar	31.40%	100% of their On bar Ent.	0 % of their Off-bar Ent.
Gujarat	15.95%	100% of their On bar Ent.	100 % of their Off-bar Ent.
Jharkhand	8.50%	100% of their On bar Ent.	0 % of their Off-bar Ent.

Based on the above details it is evident that due to full surrender of shares by some of the large states from ISGS, there may be situations where generator getting schedule well below technical minimum & unit(s) may go into RSD in Real Time. However, as demands picks up, the surrendering beneficiaries may seek full share from the remaining running units. This may affect the beneficiaries, who otherwise had maintained schedule at or above technical minimum during low demand period.

From the perspective of system reliability and generation adequacy, it may not be prudent to give full surrender of share of power by large shareholding states during lean or low demand period & resort to full requisition during peak periods. As such incidents affect the non-surrendering beneficiaries disproportionately and will also lead to outage of running units and put them under RSD. As in the above case, it was witnessed that Gujarat was taking above mentioned course of action, same may kindly be taken up with WRPC for future mitigation any such situations.

Further, West Bengal has expressed strong reservation on this and has requested to take up the matter with erring beneficiaries. In view of this, it is felt prudent that the matter may be taken up by ERPC through other RPCs.

It may be noted that beneficiaries of other regions are still not under purview of the URJA scheme (URS RESCHEDULING & JACKING-UP ASSISTANT). It is requested to extend URJA scheme to beneficiaries of other region, who have share allocation in ER ISGS's for providing technical minimum support at a discounted rate, while helping units to remain on bar.

In 46th CCM, ERLDC representative gave an overview and submitted that due to full surrender of shares by some of the major beneficiaries from a generating station during off-peak hours and full requisition from other units during high demand hours, beneficiaries, who otherwise had maintained schedule at or above technical minimum during low demand period are adversely affected.

West Bengal representative submitted that the above-mentioned instances were very frequent in case of some generators and requested ERPC to take up the matter with the respective regional RPCs for further deliberation.

ERPC secretariat representative informed that Hon'ble CERC during review meeting with Chairpersons and Member secretaries of RPCs assured for taking care of Reserve Shutdown of ISGS due to scheduling below Technical Minimum in the upcoming Draft IEGC regulation. However, no such provisions have been made regarding the above issue in the draft IEGC regulation'2022 which was circulated by CERC. Further, Technical Minimum issue has already been discussed in 11th NPC meeting for inclusion of other region beneficiaries in schemes approved in Eastern Region. ERPC secretariat while submitting comments to Ministry of Power on GRIDCO's concern on Technical minimum schedule support to ISGS stations, highlighted for bringing policy in the matter of reserve shutdown due to non-scheduling during lean period.

The Commercial Sub-Committee requested ERPC secretariat for convening a workshop on Draft IEGC Regulation'2022 for better understating of the regulation and also above issue may be deliberated further for sending comments to Hon'ble CERC on behalf of Eastern Region.

Further CCM advised ERPC secretariat to write letter to other region beneficiaries having share in ISGS stations of ER for inclusion in the URJA scheme implemented in ER or maintain schedule in ISGS stations of ER for keeping units on bar. (Scheme attached **Annexure-B1**)

It was decided to place this agenda in the upcoming TCC/ERPC meeting.

TCC may discuss.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*ERLDC representative gave brief presentation on the issue faced by the ISGS stations of Eastern Region in the ongoing monsoon period. Further he informed that ISGS plants of ER having variable cost of more than three rupees are getting schedule below Technical Minimum during lean period.*

*Gujarat SLDC representative appreciated the effort made by ERPC forum for resolving Technical Minimum issue. He further assured to extend full support by giving schedule up to technical minimum.*

*UP SLDC representative informed that they are following merit order dispatch while scheduling and same is intimated to UPERC, if there is any deviation. He further informed that they are not in a position to participate in the URJA scheme of ER in the absence of any regulatory guideline.*

*WBSEDCL representative informed that during off-peak period, beneficiaries of ER like Bihar, Jharkhand, West Bengal, etc. are giving schedule of up to 55% whereas beneficiaries of other regions (for example Gujrat) is giving zero schedule. However, during peak period, the same beneficiaries give full schedule. Due to this, the generation schedule of some ISGS fall below technical minimum and the units opt to go under RSD. This results in the needy beneficiaries are not able to avail power during the peak period. He also informed that as per draft IEGC regulation 2022, it is the generators obligation to meet the supply of electricity of the beneficiaries.*

*After detailed deliberation, TCC advised all the stakeholders of Eastern Region to give their suggestions in the relevant provisions of draft IEGC regulation 2022 for long term solution of the ongoing RSD issue.*

<b>ITEM NO C. 2:</b>	<b>Ensuring Reliability of Barauni Generating Station (2X250 MW).</b>
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Barauni TPS (2 X 250 MW) is connected with grid via 220 kV Barauni-Begusarai D/C, 220 kV Barauni-Mokama-Biharshariff D/C and 220 kV Barauni-Hajipur D/C. Out of these 220 kV Barauni-Hajipur one circuit is at present out on tower collapse and expected by 22-25 July 2022 as per Bihar SLDC. The availability of Barauni power plant is equally important from the Pan-India resource adequacy point of view. However, Barauni power plant experienced a total blackout due to loss of evacuation path on three occasions in last three months. One meeting was convened by ERLDC on 12 July 2022 to discuss these events. Members from Bihar SLDC, BSPTCL CRITL, BGCL, NTPC Barauni, NTPC Patna RHQ and ERPC participated in the discussion.

Following major issues emerged during the discussion of events:

1. Non-availability of bus bar protection at 220 kV as well as 132 kV levels at 220/132 kV Begusarai, 220/132 kV Hajipur and 220/132 kV Bihar Sharif substations of BSPTCL
2. Lack of protection coordination causing unwanted tripping during 132 kV faults at the 220/132 kV Begusarai substation. (Non-direction backup protection time setting is lower compared to IDMT characteristics of 220/132 kV ICTs)
3. Equipment failure (Jumper snapping, CT failure) at 220/132 kV Begusarai substation.
4. Concern by NTPC on Load carrying capacity of 220 kV ACSR Zebra conductor for 220 kV Barauni-Begusarai D/C (Limit provided is 175 MW/Ckt) while conductors are rated for 210-220 MW/ckt.
5. Keeping 220 kV Bihar Sharif-Mokama D/C open for loading control on 220 kV Barauni-Begusarai D/C
6. Restoration of 220 kV Barauni-Hajipur one circuit which is out on tower collapse.

**Following are the major outcome of the meeting discussion for short-term and long-term measures:**

**Short term measures:**

1. Restoration of 220 kV Barauni-Hajipur circuit which is out on tower collapse by **23-25 July 2022 (As per SLDC Bihar)**
2. SLDC to carry out following study
  - a. Condition-1 all 6 outgoing line from BTPS is available
    - i. Check N-1
    - ii. Suggest network reconfiguration required or not
    - iii. Design SPS if required
  - b. Condition-2 220 kV Barauni-Hajipur S/C is out
    - i. Check N-1
    - ii. Suggest network reconfiguration required or not
    - iii. Design SPS if required
3. SLDC to check the possibility of load segregation at 220 kV Begusarai substation to reduce loading on 220 kV Barauni- Begusarai D/C.
4. For any generation reduction requirement for SPS designed by SLDC, NTPC Barauni to check HP-LP bypass scheme and its feasibility.
5. To avoid a total blackout of Barauni NTPC to check and share the feasibility of house load operation.
6. Protection reviews and audit of Begusarai and O&M rectification

**Long term measures**

1. SLDC to intimate target date for commissioning of 220 kV Saharsha Begusarai D/C.
2. SLDC to carry out study to decide the operating network configuration considering commissioning of 220 kV Saharsha Begusarai D/C.



In 193<sup>rd</sup> OCC meeting, SLDC Bihar representative submitted that the load study in PSSE software had been carried out and some minor changes were observed. Based on the study report of load flow, the decision regarding keeping the 220 KV Biharshariff-Mokama D/C line open or close would be taken. The detailed study report would be shared with ERPC and ERLDC by 21st July 2022.

Feasibility study of bus segregation at 220 KV Begusarai substation to reduce loading on 220 KV Barauni-Begusarai D/C line is under progress and the detailed report would be shared with ERPC and ERLDC shortly. Further, designing of SPS and load trimming scheme is also under consideration by O&M department.

Regarding conversion of 220 KV Barauni-Begusarai D/C line to HTLS, it was informed that the project team had already been intimated and decision regarding the same is awaited.

Regarding commissioning of 220 KV Saharsha-Begusarai D/C line, it was informed that, SLDC Bihar would apply for code by 21st July 2022 for charging of the circuit.

Upon enquiring about the left-out job of restoration of Barauni-Hajipur circuit, NTPC Barauni representative submitted that, 7 nos. of foundations have been made for strengthening of 2 nos. of towers which had collapsed in 2019. Upon physical inspection it was found that the materials had been mobilized to the site and the work is under progress. Work permit has been applied from 21st to 25th July regarding restoration of towers.

OCC advised NTPC Barauni to monitor the progress of work and extend any possible help to restore the Barauni-Hajipur circuit at the earliest.

OCC further raised serious concern over non-availability of bus bar protection at 220 kV as well as 132 kV levels at 220/132 kV Begusarai, 220/132 kV Hajipur and 220/132 kV Bihar Sharif substations of BSPTCL and directed to submit the implementation plans regarding the same latest by 25th July 2022 to ERPC and ERLDC for further discussion in PCC meeting.

TCC may discuss.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*ED, ERLDC gave a brief presentation highlighting the major issues regarding reliability of evacuation path of Barauni Generating Station (2\*250 MW).*

*Bihar representative submitted the following:*

- 1. 220kV Begusarai-Saharsa D/C line has already been commissioned.*
- 2. 220 kV Bihar Sharif-Mokama D/C line is in close condition.*
- 3. One circuit of 220 kV Barauni-Hajipur, which is out on tower collapse, is expected to be restored by 15<sup>th</sup> August'2022.*

4. *Strengthening work of 220 kV Barauni-Begusarai D/C has been planned and it would take one month for completing the same. After strengthening work, load carrying capacity will be 200 MW/circuit.*
5. *Process for reconductoring work (to HTLS) of 220 KV Barauni-Begusarai D/C line has already been initiated and it would take around 1 year to complete the reconductoring work.*

<b>ITEM NO C. 3:</b>	<b>Status of Implementation of Bus Bar protection at 220 KV Substations.</b>
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During discussion and analysis of various grid disturbances in PCC meeting, it was observed that in many of the events where bus fault had occurred, the fault clearing time exceeded the allowed time due to non-availability of busbar protection at the concerned substations. Further non-availability of busbar protection leads to total power failure at the substation causing huge load loss to the nearby serving areas. Thus, affecting the reliability & security of the grid.

As per the CEA grid connectivity standard, busbar protection shall be provided at and above 220 kV levels for all substations.

The issue was raised in 45th TCC Meeting wherein concerned utilities replied that the implementation of busbar protection would be done at the earliest.

The status of availability of busbar protection at 220 kV substations of ER utilities is attached at **Annexure-B3**.

Concerned utilities may update the present status. Members may discuss.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*BSPTCL representative updated that out of twelve substations where busbar protection is not available, proposal for ten no of substations has been sent for funding through PSDF.*

*Busbar protection of Fatuha S/s will be commissioned in August'22. For Biharsharif S/s, there is space constraint and the busbar protection can be implemented after construction of new control room building.*

*OPTCL representative informed that some of the substations where busbar is not-operational are under SAS project and the commissioning of busbar is covered under the SAS project. For these substations, the tentative timeline for implementation would be one year.*

*For many of the substations, the busbar protection is not functional due to faulty bay units for which procurement of new bay units have already been initiated and they are in constant touch with the manufacturer for early supply & installation of the defective bay units.*

*TCC opined that the requirement of having busbar protection in 220 kV substations is mandatory as per CEA grid connectivity standard and advised concerned transmission utilities to take necessary action for operationalizing busbar protection in all the 220 kV substations in their respective jurisdiction.*

**ITEM NO C. 4:**

**Implementation of Islanding Schemes in Eastern Region.**

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.

In 45th TCC Meeting, it was decided to constitute technical committees for finalizing the Islanding Schemes of Patna & Ranchi.

Subsequently, the committees were formed & discussed the matter in detail. The report submitted by the committee is attached at **Annexure-B4**.

The summary of the recommendation of the committee is as follows:

#### **Ranchi Islanding Scheme:**

In 191<sup>st</sup> OCC meeting of ERPC held on 20.05.2022, a proposal was approved to charge the existing 220 kV Tenughat-PTPS S/C line at 400 kV level & terminate the line at 400 kV PVUNL S/s for supplying start up power to PVUNL. The new line will be 400 kV Tenughat-PVUNL S/C line. It emerged that after implementation of the above proposal, there will not be any connectivity between the participating generator (Tenughat) and Load centre of Ranchi.

In the 3rd meeting of the committee, Jharkhand representative informed that the above arrangement is an interim one & 400 kV Tenughat-PVUNL line will be later on shifted from PVUNL to 400 kV PTPS S/s after commissioning of PVUNL units (tentatively in 2023). However, they did not communicate any firm timeline for this interim arrangement.

As the timeline of interim arrangement as well as the final network configuration is not clearly spelt out, members opined that the discussion related to Ranchi Islanding Scheme may be kept in abeyance.

Accordingly, it was decided that the Ranchi Islanding Scheme would only be discussed after finalization of the network configuration.

#### **Patna Islanding Scheme:**

The islanding scheme would be designed considering one unit of NPGCL (660 MW) as participating generator & corresponding load Patna city (approx. 560 MW).

### **Islanding Logic:**

Based on the preliminary study result of Patna Islanding scheme, the scheme is found to be stable for all the extreme scenarios.

The islanding logic is proposed as follows:

- I. As the islanding should commence before picking up of any of the under-frequency protection stage of units and that's why island formation will start at 48.4 Hz with a delay of 200 msec.
- II. In scenario where Generation is minimum, Loads are becoming High in the island in both the cases of Minimum & Maximum load, so to tackle this situation and avoid fast frequency dip as well as to limit the rate of frequency down following should be done at the instant of island formation,

Whenever Load >80 MW of Generation, Trip 50 MW between (48.5- 48.7 Hz).

Whenever Load >150 MW of Generation, Trip 150 MW between (48.5- 48.7 Hz).

- III. Even after that island will be load rich for the case when generation is minimum, in this case, under frequency Load Shedding (UFLS) inside the island is proposed to trigger at 48.2 Hz so as to balance the load generation within the island.

The details are as follows:

- 48.2 HZ 100 ms 20 % of island load.
- 48.0 Hz 100 ms 10% of Island load.
- 47.8 Hz 100 ms 10 % of Island load.

Action to be taken at Generator side:

- NPGCL to decide about the scheme regarding unit selection during islanding as it will require tripping of breakers to create the island. This requires flexibility based on selection of units with one and half scheme bus arrangement. It should be noted that islanding should not be unit specific and should work even with one unit in service during actual conditions.
- NPGC must ensure that during islanding, islanded unit auxiliary or any AC connection between existing units and islanded units should not be there as it will create a loop with the grid.
- NPGC to check regarding capability and feasibility of its units for islanded mode of operation with OEM.

Load Generation balance within island:

- In addition to centralised monitoring unit, Provision for monitoring of load generation balance of the system shall be done at NPGCL end as well as SLDC Bihar end.
- Based on the load generation imbalance, corrective action such as necessary pre-identified block load shedding is to be done via centralized unit between 48.8 Hz i.e., last grid side UFR stage setting & 48.4 Hz which is frequency for island formation. This way Island survival and stability can be assured.
- For the above, block of loads /feeders needs to be pre-identified which will be tripped by centralized unit command in between the frequency (48.7-48.5 Hz), in case of large load generation imbalance as per the logic obtained from the study.
- Whenever frequency is below 48.8 Hz (Last STAGE of grid side UFLS) and above islanding frequency (48.4 Hz) and hovering around the same even after some block load shedding by the centralized island monitoring and control system, load generation imbalance can be minimized also manually to stabilize the frequency by SLDC on regular basis. This can be done using alarm system integration for SLDC operators.
- Identified maximum load within the island is to be reviewed periodically. In case of load within the island if exceeding the maximum load considered for the study it needs to be revised and limited accordingly for successful island and its survival.

Finally, study for the islanding study should be done in detail considering all plant dynamics, and various control loops of the plant considering influences from speed and pressure control loop needs to be studied in consultation with OEM. Scheme detailed engineering design for actual installation and implementation should be done considering reliability, security, selectivity, robustness and redundancy.

TCC may discuss.

#### **Deliberation in the 46<sup>th</sup> TCC meeting:**

*ERPC Secretariat representative stated that as per the direction of 45<sup>th</sup> ERPC, technical committees were constituted and the matter was discussed in several meetings of the committee. The deliberation of the committee in brief is as follows:*

#### ***Ranchi Islanding Scheme:***

*Due to proposed upgradation of 220 kV Tenughat-PTPS line at 400 kV level and terminating the line at 400 kV PVUNL S/s for supplying start up power to PVUNL, there will not be connectivity between the participating generator (Tenughat) and Load center of Ranchi.*

*As the timeline of interim arrangement as well as the final network configuration is not clearly spelt out, members opined that the discussion related to Ranchi Islanding Scheme may be kept in abeyance.*

JUSNL representative updated that upgradation & termination work of Tenughat-PTPS is under progress and it is expected that work will be completed by October 2022. He further informed that this interim arrangement has been made in order to provide start up power as well as evacuation path for PUVNL unit which is expected to be commissioned by Feb-24.

**Patna Islanding Scheme:**

Based on the steady state as well as dynamic study result of Patna Islanding scheme, the scheme is found to be stable for all the extreme scenarios.

The islanding system will be formed with one unit of NPGCL and corresponding loads of Patna city as enumerated in the study report.

Committee recommends for a centralized monitoring unit which would monitor & initiate action to balance load generation of the islanding system.

Also, an islanding study shall be done in detail considering the actual models of the governor & excitor of the unit, various control loops of the plant considering influences from speed and pressure control loop in consultation with OEM.

Preparation of detailed project report may be initiated by Bihar based on the preliminary study report of the committee & the DPR shall include provision of detailed study in it.

After deliberation, TCC opined that for detailed study by OEM, NTPC has to take initiatives & advised NTPC to take up the matter with OEM for carrying out detailed study of the proposed islanding scheme in a time bound manner. NTPC agreed to it.

TCC advised Bihar to initiate the process of DPR preparation & advised all the concerned stakeholders to coordinate for providing relevant inputs for preparation of DPR.

<b>ITEM NO C. 5:</b>	<b>Taking FSC of 400 KV Jeypore – Gajuwaka # 1 &amp; 2 into service at higher power levels only.</b>
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- A. A meeting was held on 05.07.2022 to discuss the ferro resonance issue being observed at HVDC Vizag. HVDC Vizag team presented the brief details of ferro resonance phenomenon and the recommendation of OEM (M/s ABB) for mitigating the issues.
- B. As per the study carried out by M/s ABB (**Annexure-C5**), the following is proposed to be adopted for FSC operation and control:-
  - 1. FSC to be kept out of service during charging of Line.
  - 2. FSC to be kept out of service during startup of HVDC System
  - 3. FSC shall be put in service if total power flow from East to South in 400kV Jeypore-Gajuwaka#1 & 2 is more than 500MW i.e. Each line Power Flow is more than 250 MW.
  - 4. FSC shall be kept out of Service if power flow is from South to East direction for both circuits of 400kV Jeypore-Gajuwaka lines.

5. FSC is to be kept out of service if only Pole-1 is in service at Gajuwaka end, since there is no detection of Ferro Resonance in Pole-1.

6. Bypassing of series compensation on detection of ferro resonance.

From the past records of detection of ferro resonance during transient disturbances in the AC system in the vicinity like the recent incidence of single phase to ground fault in Jeypore-Gajuwaka line and subsequent bypassing of FSC at Jeypore end. The combined power flow in both the circuits of 400kV Jeypore-Gajuwaka Circuit was around 350 MW and 450 MW in two events at the time of ferro resonance detection i.e., the power flow was less than 500 MW with power flow direction from East to South.

Total 10 no. of transient disturbances in AC System were observed in last Six years, when the Power flow was high (> 500 MW) and ferro resonance was not occurred.

Accordingly, it is proposed to take the FSC into service at higher power levels only i.e. power flow in both circuits totalling more than 500MW (East to South). This will minimize the occurrence of ferro resonance as the phenomenon is more predominant at lower power levels.

Powergrid may explain. TCC may discuss.

#### **Deliberation in the 46<sup>th</sup> TCC meeting:**

*Powergrid Odisha representative explained the issue in brief. He submitted that FSC may be taken into service when the power flow in both circuits totalling more than 500MW and the direction of power flow is from East to South. This will in turn minimize the occurrence of ferro resonance which is more predominant at lower power levels.*

*ERLDC representative submitted that as such there is no issue in implementing the said proposal. However, the same can be implemented in consultation with NLDC, SRPC and SRLDC.*

*TCC advised ERPC secretariat to convene a meeting among Powergrid Odisha, NLDC, SRLDC, SRPC, ERLDC for implementation of the said proposal.*

<b>ITEM NO C. 6:</b>	<b>Repeated Right of Way (ROW) issues encountered during the OPGW Stringing work in 400 KV Angul-JITPL D/C Transmission Line.</b>
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- A. Under Package-I: Communication System for Central Sector under North Eastern Region (Additional) & Eastern Region (Reliable Scheme), POWERGRID has been entrusted for the establishment of OPGW Link in Angul-GMR, Angul-JITPL & Angul-Srikakulam (up to Location No.- 319) as a part of ULDC Project requirement.
- B. In this regard, POWERGRID has awarded the contract to M/s Shenzhen SDG Information Company Limited (SDGI) for the establishment of OPGW link in Angul-GMR (Link Length- 29.855 KM), Angul-JITPL ((Link Length- 75.186 KM) and Angul-Srikakulam (up to Location No.- 319) (Link Length- 121.19 KM).

- C. The Commissioning of the PMUs at GMR and JITPL end are also linked with the commissioning of Angul-GMR link and Angul-JITPL Link respectively.
- D. Due to active support and co-operation from GMR, the OPGW stringing work of Angul-GMR link (Link Length- 29.855 KM) has been successfully completed. The final commissioning of this Angul-GMR OPGW link and PMUs at GMR end have been planned for completion during this month.
- E. However, repeated ROW issues have been encountered during the OPGW stringing work of Angul-JITPL Link. Till date only 23.923 KM OPGW stringing work has been completed out of total link length of 75.186 KM.
- F. These ROW issues are mostly related to the construction period of the line. Since the line belongs to JITPL, therefore it is not becoming feasible for POWERGRID to carry out the balance OPGW stringing work (around 51.263 KM) of Angul—JITPL link without active participation from JITPL to resolve these inherent issues linked with the construction of 400kV Angul-JITPL Line.
- G. The executing agency (M/s SDGI) de-mobilized its gang on 11.03.2022 due to repeated ROW issues in Angul-JITPL Line, since their gang were compelled to sit idle for a long period of time without any work.
- H. In view of the above facts, full support from JITPL end with their active participation is highly essential for the completion of the balance OPGW stringing work in Angul-JITPL link to ensure an early and successful commissioning of Angul-JITPL link along with PMUs at JITPL end.
- I. In this regard, a joint co-ordination meeting was conducted between M/s POWERGRID, Odisha and M/s JITPL on 26.02.2022 to take firm action to resolve the deadlock condition, but so far M/s JITPL has been non-committal in resolving the issues severely affecting further progress of the work.
- J. It is therefore requested to issue necessary instructions to M/s JITPL to co-operate and participate directly in resolving the construction related ROW issues for completion of the balance OPGW stringing work in Angul-JITPL link.

Powergrid may explain. TCC may discuss.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*Powergrid Odisha representative briefed the issue in brief and further submitted that they need JITPL's cooperation in resolving the RoW issues of Angul-JITPL Line.*

*JITPL representative submitted that many RoW issues have been resolved and regular meeting between JITPL and Powergrid Odisha may be convened to resolve any pending RoW issue, if arises.*

*TCC advised JITPL to give written communication to Powergrid so that the same can be submitted before local authorities by Powergrid while carrying out the OPGW stringing work.*



**A. Outage of 132 KV Sagbari-Melli**

Sikkim vide mail dated 09.06.2021 updated the following status:

- 1) In loc 82,83 & 84 we have low ground clearance which need hill cutting but if needed TL can be charged after putting temporarily barbed wire fencing.
- 2) In loc 98-99 a house had been constructed just below the line and warning had been issued to the owner for not to do vertical extension of the house till any such arrangement is made.
- 3) In loc 116 & 117 land owner demanding for intermediate tower and not allowing for us to clear the jungles.
- 4) Loc 128 is in dilapidated condition due to sinking effect posing threat to lives and properties. Local public are asking to shift the tower in safe place before restoration of supply in the TL.
- 5) 80% of jungle clearance has been completed and remaining 20% is in Forest area most of it is under west district and waiting for permission from Forest department.
- 6) The delay in obtaining permission for following trees in forest land is that it cannot be ascertained whether FCA clearance during construction of TL was obtained as the record is not available either in power department or in DFO Office. Regarding this it had been told by ERPC that once obtaining environment clearance at the time of construction there need not to take permission for further clearance of ROW from Forest dept and this matter is been conveyed to the Forest department but they informed us as per Forest Act of Sikkim state permission has to be obtained for fresh felling with payment of compensation. File for approval is being send to conservator of Forest from DFO on 10/6/2021.

Sikkim may update.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*Sikkim representative updated the following:*

1. Tower foundation work is going on in loc 128.
2. Other issues have been resolved.
3. The line is expected to get restored by October-22.

**B. Restoration of 220 KV Farakka-Lalmatia S/C line**

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 S/S through 220 kV Maithon-Dumka D/C and 220 kV Dumka-Godda D/C.

In 181st OCC Meeting, JUSNL representative submitted that they had got a letter from NTPC on 19th July '21 regarding anti-theft charging of the 220kV Farraka-Lalmatia S/C line at 33kV level. Earlier the anti-theft charging of the line was done at 11kV level but incidents of thefts have been reported in some portion of the conductor.

Further, Jharkhand representative requested NTPC to submit the details of the 33kV lines passing below 220kV Farakka-Lalmatia T/L. He added that as per information obtained from their JUSNL Discom part, the 33kV lines are mostly connected with 11kV feeders and due to this it would be difficult to charge the Farakka-Lalmatia line at 33kV level in Pakur area.

NTPC representative informed that they had charged the line up to loc no.241 but in between loc no.76-82 only the top conductor was in charged condition and the bottom rest were not; because of this theft might have happened in that portion. He further added that they had already isolated the section from loc no.76-82, whereas up to loc no.76 the line is in charged Condition and from loc no.82-241 the line needs to be charged.

ERPC advised NTPC and Jharkhand to explore the possibility of anti-theft charging at 33kV level first and if that is not feasible then charging at 11kV can be assessed.

In the meeting held on 10th August 2021 by the Hon'ble Secretary, Ministry of Power, Government of India, ECL was directed to handover the FLTS assets on "as is where is basis" to JUSNL, the Operation and Maintenance whereof as was with the NTPC is also to be transferred to the JUSNL without any further delay and latest by 20th August 2021. Further JUSNL was directed to comply with all other directions of the CERC's order dated 21.07.2020, after the transfer of the FLTS from ECL.

In the 192nd OCC meeting, JUSNL representative submitted that the price part was opened on 17.06.2022 and the price was found to be higher than the estimated cost. Decision is being taken in this regard and the order would be placed within 20 days.

In 193<sup>rd</sup> OCC meeting, JUSNL representative submitted that they have requested their Energy Dept. for necessary approval regarding additional budget and any decision regarding the same is still awaited.

OCC referred the above agenda to the upcoming TCC/ERPC meetings.  
TCC may discuss.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*Jharkhand representative submitted that the tendering work for the rectification of the said line has been completed. They are in process of sanction of fund for placing the order.*

**ITEM NO C. 8:**

**Monthly Bilateral REA for IPPs of Eastern Region (i.e., APNRL).**

Adhunik Power & Natural Resources Limited supplying power under following PPAs:

- (1) Long-term Power Purchase Agreement (PPA) dated 25.03.2011 signed between Adhunik Power & Natural Resources Ltd. (APNRL) and PTC for supply of 100 MW to WBSEDCL.
- (2) Long-term Power Purchase Agreement (PPA) signed between PTC and APNRL dated 19.12.2013 for supply of 100 MW to TANGEDCO.
- (3) Long-term Power Purchase Agreement (PPA) dated 28.09.2012 & 06.11.2017 signed between JBVNL & APNRL for supply of 122.85 MW & 66 MW respectively.

Declared Capacity for the power supply under above PPA's is being submitted to ERLDC and concerned SLDC on regular basis, whereas currently APNRL's Declared Capacity statement is not getting reflected in REA/portal of ERPC website. Further, for other IPPs, DC statement is being uploaded in REA portal of ERPC website.

Accordingly, we request ERPC secretariat to upload the APNRL's monthly Declared Capacity certificate for supply of power under all 3 long term PPAs for current Financial Year (FY 2022-23) in ERPC Website.

APNRL may explain.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*ERPC Secretariat representative informed that in line with the DC certification of other IPPs of Eastern Region such as GMR, JITPL etc., DC certification of APNRL would be done. Further, he informed that APNRL will submit PPA wise DC and Agreed Schedule in the first week of every month to ERLDC for onward submission of the same to ERPC for certification of the same by ERPC secretariat.*

*After detailed deliberation TCC advised ERPC Secretariat to issue DC certification of APNRL from April-2022 onwards in line with that of other IPPs of ER.*

**ITEM NO C. 9:**

**Revised RTA for the period from 15.11.2014 to 07.03.2016 issued vide ERPC letter No. ERPC/COM-I/REA/3780-3798 dated 12.01.2018.**

The instant matter is related with the Revised RTA issued vide ERPC letter no. ERPC/COM-I/REA/2018/3682-3700 dated 11/12.01.2018 for the period from 15.11.2014 to 07.03.2016 in view of the Hon'ble CERC order dated 20.09.2016 in Pet. No. 130/MP/2015 along with I.A. No. 67/2017.

From the said revised RTA, it has been observed that the amount pertaining to transmission charges to be refunded to Bihar DISCOMs for the respective months/period as mentioned in the revised RTA is not correct as it does not matches/ not in line with the transmission charges already billed to the Bihar DISCOMs as per the subsequently revised applicable PoC charges/rates. Due to this, a differential amount for the transmission charges is also to be refunded to Bihar Discoms.

Bihar DISCOMs has observed that this incorrectness/mismatch of the amount pertaining to transmission charges to be refunded to Bihar DISCOMs is due to the following reasons:

1. For the period of November-14 to April-15, it has been observed that only Injection charge has been considered to arrive at the refundable Transmission charges to Bihar DISCOMs whereas the applicable Withdrawal charge has not been considered for the same.
2. For the month of May-15, June-15, Jan-16, Feb-16 and March-16, the latest revised RTA issued by the ERPC on the basis of revision of PoC rate has not been considered while calculating the refundable Transmission charges to Bihar DISCOMs. (copy of the already revised RTA is enclosed).

In this connection, Bihar Discoms vide letter 161 dated 21.09.2021 by providing the detailed calculation has already requested ERPC to kindly look into the matter and accordingly revise the RTA for the period from 15.11.2014 to 07.03.2016.

Earlier, this matter was discussed in the 44<sup>th</sup> & 45<sup>th</sup> TCC meeting of ERPC whereas following was deliberated:

**44<sup>th</sup> TCC meeting as item no: C16.:**

“ERPC secretariat representative informed that the necessary RTA accounts would be checked and revised accordingly within 15 days.”

**45<sup>th</sup> TCC meeting as item no: B20:**

“ERPC secretariat explained that the RTA revision for the period 15.11.2014 to 07.03.2016 will be done based on revised PoC rates. The issue has already been taken up with NLDC vide letter dated 23.03.2022 for early revision of PoC rates, the reply is still awaited.”

ERLDC representative informed they will coordinate with NLDC for PoC rate revision for above period.

After detailed deliberation, TCC advised ERLDC to take up with NLDC for revision of PoC rates for above period at the earliest.”

Bihar Discoms by reiterating its earlier submissions, further submit that in order to consider request of Bihar DISCOMs for further revision of the revised RTA there is no requirement of any revision of PoC rates by NLDC rather it may be done by considering the subsequently revised RTA already issued by the ERPC as well as other submissions made by the Bihar DISCOMs.

In view of the above, the said agenda item may be considered and necessary revision in RTA may be done.

TCC may discuss.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*Bihar representative raised some discrepancies in the RTA issued for the period from November 2014 to March 2016 with respect to the PoC rates considered during that period.*

*ERPC Secretariat assured to go through the relevant CERC orders and revise the accounts for the said period, if required.*

<b>ITEM NO C. 10:</b>	<b>Revision of schedule by ERLDC from retrospective effect – Agenda by Bihar.</b>
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Bihar DISCOMs have brought into the knowledge of ERLDC that several times revision in schedule from generator is done from retrospective effect. In this connection, it is to submit that, the power drawl of Bihar DISCOMs is monitored and controlled, to match the Schedule provided by the various generators for each time block on continuous basis. However, any change in schedule with retrospective effect makes such monitoring and control of drawl by Bihar Discoms a futile exercise.

Further, due to such retrospective revision of schedule of generator, on various occasions, Bihar DISCOMs has to pay charges for electricity not provided to it/availed by it.

Bihar Discoms, vide various letters have already placed this issue before ERLDC for their kind consideration and necessary action. Copy of the some of the such letter are enclosed as **Annexure-B12**

Bihar may explain. ERLDC may respond.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*Bihar representative informed that the power drawl by Bihar DISCOMS is monitored and controlled to match with the schedule but frequent changes in schedule from retrospective effect makes the monitoring very difficult.*

*ED, ERLDC informed that the present integration of RTM, GDAM schedule into WBES scheduling software create glitches in the software sometimes. Further, he informed that they will look into the*

issue and will try to resolve the same. He assured that these types of changes in schedule from retrospective effect will not happen in future.

<b>ITEM NO C. 11:</b>	<b>Implementation of CERC (DSM &amp; Related matters) Regulations'2022 – Agenda by NHPC.</b>
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CERC vide notification dated 14th March'2022 had issued Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022. The regulation shall come into force on such date as may be notified by the Commission separately.

NHPC vide letter 03.06.2022 to Member Secretary, ERPC highlighted the implications of various provisions of DSM Regulation' 2022. (Letter attached at **Annexure-B13**)

In 46th CCM, NHPC representative gave an overview of the agenda item and raised their concern over the new DSM regulations. Upon enquiry, he intimated those comments were submitted against the aforesaid regulations (as mentioned in Annexure) to CERC.

Commercial Sub-Committee observed that the Hon'ble Commission has already issued the final DSM regulations after considering the comments of all the stakeholders.

Commercial Sub-Committee referred the issue to the upcoming TCC meeting for further deliberation.

TCC may discuss.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*TCC observed that CERC (DSM & Related matters) Regulation 2022 is already notified. Further TCC advised NHPC & other generators to raise their concern in the draft IEGC regulation 2022 for consideration in the final regulation.*

<b>ITEM NO C. 12:</b>	<b>Payment/receipt status from various pool accounts in ER.</b>
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**A. Payment of Deviation Charge & Reactive Charges – Present Status.**

Deviation Pool Account Fund of ER is being maintained & operated by ERLDC, in accordance with the CERC Regulations. As per Regulations 10 (1) of "Deviation Settlement Mechanism and related matters" the payment of charges for Deviation shall have a high priority and the concerned constituents shall pay the indicated amounts within 10 days of issue of statement of Charges for

Deviation including Additional Charges for Deviation by the Secretariat of the respective Regional Power Committee in to the “Regional Deviation Pool Account Fund” of the concern region.

The status of Deviation Charge payment as on 20.07.2022 is enclosed at **Annexure –B18.1**. The current principal outstanding Deviation Charge of BSPHCL, JUVNL and SIKKIM is ₹ 48.38 Cr, ₹ 131.57 Cr, & ₹ 13.75 Cr respectively considering bill up to 05.06.2022. ERLDC is regularly giving reminders to BSPHCL, JUVNL & SIKKIM and others defaulting entity to liquidate the outstanding Deviation charges.

In 46<sup>th</sup> CCM held, Bihar representative informed that the current outstanding of Rs 40.79 Cr on account of Deviation charges will be cleared by July’2022. Commercial sub-committee requested JUVNL and Sikkim to clear some part of their outstanding Deviation charges dues by July’2022. However, after the 46<sup>th</sup> CCM Bihar, Jharkhand and Sikkim have paid Rs. 4 Cr, 2 Cr and 5 Cr. respectively (until 20.07.2022).

BSPHCL, JUVNL, & SIKKIM may confirm the program for payment of outstanding dues.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*TCC advised all the concerned constituents to clear their outstanding dues at the earliest.*

**B. Interest due to delayed payment of deviation charges/RRAS**

Due to delayed payment of deviation charges in DSM Pool interest was computed for all the DSM Pool Members. The statement of interest amount as on 20.07.22 is enclosed in **Annexure-B18.2**.

46<sup>th</sup> CCM advised all the constituents to liquidate the payment at the earliest. GMR is yet to clear the outstanding Interest of ₹1.74 Cr.

Constituents, who are in payable mode, may please confirm the program for payment of Interest.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*TCC advised all the concerned constituents to clear their outstanding dues at the earliest.*

**C. Reactive Energy Charges – Present Status.**

The status of Reactive Energy Charges in the pool as on 20.07.2022 considering bill up to 03.07.2022 is indicated in **Annexure –B18.3**. The total outstanding receivable on account of Reactive charges from JUVNL is ₹ 4.8 Cr. Bihar & Sikkim have cleared all the dues of reactive charges. WBSETCL and GRIDCO are regularly paying the reactive charges.

In 46th CCM/ERPC the Commercial sub-Committee advised all the constituents of Eastern Region to clear their payments in time.

JUVNL may confirm the program for payment of outstanding dues.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*TCC advised all the concerned constituents to clear their outstanding dues at the earliest.*

<b>ITEM NO C. 13:</b>	<b>Opening of LC by ER constituents for DSM payments.</b>
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Clause 10 (4) of CERC Deviation Settlement Mechanism and related matters Regulations, 2014 vide notification No. L-1/132/2013/CERC dated 6th January, 2014 to be implemented from 17.02.2014 is reproduced below:

Quote....

All regional entities which had at any time during the previous financial year failed to make payment of Charges for Deviation including Additional Deviation Charges for Deviation within the time specified in this regulations shall be required to open a Letter of Credit (LC) equal to 110% of its average payable weekly liability for Deviations in the previous financial year, in favour of the concerned RLDC within a fortnight from the date these Regulations come into force.....

.....Provided further that LC amount shall be increased to 110% of the payable weekly liability in any week during the year, if it exceeds the previous LC amount by more than 50%.

....Unquote

The details of LC amount required to be opened in 2021-22 by ER constituents is given in **Annexure – B19**. Letters to this effect was issued by ERLDC to the defaulting entities.

In 46th CCM, NTPC representative informed that the requisite LC amount on account DSM charge payment in respect of NTPC, NPGC will be opened as early as possible. The Commercial Sub-Committee requested defaulting constituents to open their requisite LC as per prevailing CERC DSM Regulation'2014. And subsequent amendments.

At present there is no valid LC i.r.o WEST BENGAL, SIKKIM, NTPC, MPL, APNRL, Gati HEP, GMR, JITPL, JLHEP, Dikchu, Tashiding, NPGC, Rongichu.

Opening of LC is the regulatory requirement as per provision of CERC DSM regulations for defaulting members. Defaulting members may please intimate the latest status of opening of LC.

Members may update.



**Deliberation in the 46<sup>th</sup> TCC meeting:**

*JITPL informed that they are unable to open LC due to restriction by bank. Further they informed that they are ready to deposit the cash amount in ER DSM Pool Account in place LC.*

*ERLDC representative informed that LC should be opened as per prevailing DSM regulation.*

*After detailed deliberation, TCC opined that till such time JITPL is allowed to open LC, cash deposit method may be accepted by ERLDC. Further TCC advised all other defaulting constituents to open their requisite LC as per prevailing CERC DSM Regulation.*

<b>ITEM NO C. 14:</b>	<b>Performance of ER grid during March-22 to June-22.</b>
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**A) Real time operation:**

During the period under review, power supply position in the region was as under:

	<b>Mar-21</b>	<b>Apr-21</b>	<b>May-21</b>	<b>Jun-21</b>	<b>Mar-22</b>	<b>Apr-22</b>	<b>May-22</b>	<b>Jun-22</b>
Avg Freq. (Hz)	50.00	50.00	50.00	50.01	49.98	49.93	50.00	49.98
Peak Demand (MW)	23647	24656	24347	23504	24951	25621	24669	26096
Energy Consumption (MU/day)	451	492	426	456	469	534	510	539
ISGS Gen (MU)	5576	5490	5705	6359	7377	7549	6817	8010
IPP Gen (MU)	2379	2471	2661	3088	2261	2512	2716	2866
State Sector Gen (MU)	11087	10400	9608	9497	11000	10233	10698	10146
Regional Gen including Bhutan Injection (MU)	19043	18361	17974	18944	20638	20294	20231	21023
% Increase in Regional Gen					8.38	10.53	12.56	10.97

Constituent	<b>Mar-22</b>	<b>Apr-22</b>	<b>May-22</b>	<b>Jun-22</b>
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	SCH	ACT	SCH	ACT	SCH	ACT	SCH	ACT
BIHAR	2853	2855	3252	3255	3176	3185	3315	3325
JHARKHAND	685	709	737	764	693	709	706	719
DVC	-1633	-1645	-1396	-1393	-1285	-1262	-1224	-1221
ODISHA	1374	1393	1513	1561	1634	1678	1898	1955
WEST BENGAL	701	708	1860	1909	1374	1405	1698	1733
SIKKIM	54	52	44	47	43	47	45	44

### B) System Operational Discipline during the period from MAR-22 to JUN-22:

The month-wise energy draws of ER constituents were as given here under:

SUB-STATION/ POWER STN.	Mar-22		Apr-22		May-22		Jun-22	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	(KV)	(KV)	(KV)	(KV)	(KV)	(KV)	(KV)	(KV)
NEW RANCHI-765 KV	792	764	796	763	796	759	795	764
ANGUL-765 KV	802	757	803	767	801	746	799	757
GAYA-765 KV	778	748	780	747	785	746	785	750
JHARSUGUDA-765 KV	799	768	792	775	791	778	793	776
SASARAM-765 KV	790	742	799	743	797	747	798	748
DARLIPALLI-765 KV	790	752	793	767	792	763	793	762
MIDNAPORE-765KV	785	746	798	745	802	755	790	755
NEW JEERAT-765KV	783	740	799	740	806	740	794	744
BERHAMPORE - 400KV	415	404	418	401	418	405	417	405
BIHARSARIFF - 400KV	419	397	420	397	420	400	419	401
BINAGURI - 400KV	422	399	419	399	420	400	417	400
DURGAPUR - 400KV	409	397	408	394	408	396	407	393
MUZAFFARPUR - 400KV	414	382	417	389	416	386	411	387
RANGPO - 400KV	426	399	422	399	421	399	415	399
JAMSHEDPUR - 400KV	415	401	415	396	414	387	416	398
JEERAT - 400KV	416	391	421	384	424	395	418	395
JEYPORE - 400KV	407	407	417	402	417	400	418	396
KODERMA - 400KV	418	404	417	401	418	404	419	404
MAITHON-A - 400KV	414	398	408	397	410	396	410	396
ROURKELA - 400KV	403	390	403	390	404	392	404	393
MERAMUNDALI - 400KV	413	389	415	396	416	396	416	396
SASARAM - 400KV	411	366	412	390	415	395	417	392

SUBHASHGRAM - 400KV	413	384	421	386	420	387	416	386
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### C) Frequency & Voltage:

Frequency profile for the period during **MAR-22 to JUN-22** is given hereunder. The frequency mostly remained within the allowable range for the entire period

Month	% of time for which frequency		
	<49.9	49.9-50.05 (IEGC Band)	> 50.05
Mar-22	14.50	73.41	12.09
Apr-22	31.98	59.24	8.78
May-22	9.83	72.22	17.95
Jun-22	12.45	73.37	14.18

**Maximum and minimum voltages recorded at some important 765 KV and 400 kV sub-stations were as follows:**

### D) Constituent-wise demand met is given below:

		Mar-21	Apr-21	May-21	Jun-21	Mar-22	Apr-22	May-22	Jun-22
BIHAR	AVG MAX DMD(MW)	5004	5611	5262	5786	5249	5827	5735	6116
	MU/DAY	93	109	95	107	99	116	112	121
DVC	AVG MAX DMD(MW)	3249	3187	2939	3128	3450	3587	3485	3502
	MU/DAY	68	69	62	66	74	78	76	75
JHARKHAND	AVG MAX DMD(MW)	1437	1564	1410	1483	1510	1603	1466	1502
	MU/DAY	27	29	25	27	30	33	31	32
ODISHA	AVG MAX DMD(MW)	4733	5056	4820	4774	5309	5510	5872	6060
	MU/DAY	97	105	98	100	111	117	123	129
SIKKIM	AVG MAX DMD(MW)	88	66	77	83	105	104	98	94
	MU/DAY	1.2	0.9	1.1	1.3	1.6	1.6	1.5	1.4
WEST BENGAL	AVG MAX DMD(MW)	8152	8814	7652	7784	7696	9179	8448	8976
	MU/DAY	164	179	145	155	154	189	167	180

**E) Inter-regional energy exchange during the review period were as follows: (Figures in MU)**

Region	Mar-22		Apr-22		May-22		Jun-22	
	SCH	ACT	SCH	ACT	SCH	ACT	SCH	ACT
NER	46.0	-37.9	-120	-375	-268	83	-392	104
SR	871.8	2308.3	1131	1808	250	1260	81	1273
WR	2454.1	283.6	689	-229	1126	-702	1437	-1114
NR	1266.3	2134.9	1344	1692	1945	2261	2702	3368
<b>TOTAL</b>	<b>4638.3</b>	<b>4688.9</b>	<b>3044</b>	<b>2896</b>	<b>3053</b>	<b>2903</b>	<b>3828</b>	<b>3631</b>

**F) Reservoir levels of important hydro stations in ER during MAR-22 to JUN-22 (as on last day of the month) is given below:**

STATION	MDDL/ FRL	Mar-22	Apr-22	May-22	Jun-22
BURLA	590/630 FT	619.02	610.47	602.62	599.73
BALIMELA	1440/ 1516 FT	1471.8	1458.6	1451.8	1444.3
RENGALI	109.7/ 123.5 MTR	119.35	115.45	111.01	110.04
U. KOLAB	844/ 858 MTR	848.01	846.09	845.46	845.47
MACHKUND	2685/ 2750 FT	2707.35	2701.3	2699	2688.4
INDRAVATI	625/ 642 MTR	630.6	629.68	629.59	629.69

**G) New Element Charging:**

**Mar-22**

NEW ELEMENTS COMMISSIONED DURING MARCH-2022						
ICTs/GTs/STs						
S.NO	Agency/Owner	SUB-STATION	ICT NO	Voltage Level (kV)	CAPACITY (MVA)	DATE
1	JUSNL	PATRATU	1	400/220	315	3-Mar-22
2	OPTCL	MEERAMUNDAL I-B	1	400/220	500	23-Mar-22
3	BIHAR/BGCL	NAUBATPUR	2	400/220	500	17-Mar-22
TRANSMISSION LINES						
S.NO	Agency/Owner	LINE NAME	Length (KM)	Conductor Type	DATE	

1	OPTCL	220KV-BOLANGIR (PG)-KESINGA-1	80.596	ACSR Zebra	9-Mar-22
2	BSPTCL	220KV-SAHARSA(PMTL)-KHAGARIA(NEW)-1	73	ACSR Zebra	9-Mar-22
<b>LILO/Re-Arrangement OF TRANSMISSION LINES</b>					
S.NO	Agency/Owner	LINE NAME/LILO at	Length (KM)	Conductor Type	DATE
1	BIHAR/BGCL	LILO of 400 KV PATNA-BALIA-3 AT NAUBATPUR(BGCL) (400KV-NAUBATPUR(BH)-BALIA-1)	155.818	QUAD Moose	17-Mar-22
2	BIHAR/BGCL	LILO of 400 KV PATNA-BALIA-3 AT NAUBATPUR(BGCL) (400KV-PATNA-NAUBATPUR(BH)-1)	25.452	QUAD Moose	17-Mar-22
3	BIHAR/BGCL	LILO of 400 KV PATNA-BALIA-4 AT NAUBATPUR(BGCL) (400KV-NAUBATPUR(BH)-BALIA-2)	155.818	QUAD Moose	17-Mar-22
4	BIHAR/BGCL	LILO of 400 KV PATNA-BALIA-4 AT NAUBATPUR(BGCL) (400KV-PATNA-NAUBATPUR(BH)-2)	25.452	QUAD Moose	17-Mar-22
5	Sikkim	220KV-NEW MELLI-TASHIDING-2	18.8	ACSR Zebra + ACSR Twin Moose	25-Mar-22
<b>Bays of Line/ICT/Reactor associated System</b>					
S.NO	Agency/Owner	Element Name	SUB-STATION	Voltage Level (kV)	DATE
1	PGCIL	220KV MAIN BAY OF 400KV/220KV 315 MVA ICT 1 AT PATRATU	PATRATU	220	3-Mar-22
2	BIHAR/BGCL	400KV MAIN BAY OF PATNA -1 AT NAUBATPUR(BH)	NAUBATPUR	400	17-Mar-22
3	BIHAR/BGCL	400KV MAIN BAY OF PATNA -2 AT NAUBATPUR(BH)	NAUBATPUR	400	17-Mar-22
4	BIHAR/BGCL	400KV MAIN BAY OF BALIA-1 AT	NAUBATPUR	400	17-Mar-22

5	BIHAR/BGCL	NAUBATPUR(BH) 400KV TIE BAY OF BALIA-1 AND PATNA-2 AT NAUBATPUR(BH)	NAUBATPUR	400	17-Mar-22
6	BIHAR/BGCL	400KV MAIN BAY OF BALIA-2 AT NAUBATPUR(BH)	NAUBATPUR	400	17-Mar-22
7	BIHAR/BGCL	400KV MAIN BAY OF 500 MVA ICT-2 AT NAUBATPUR(BH)	NAUBATPUR	400	17-Mar-22
8	BIHAR/BGCL	400KV TIE BAY OF BALIA -2 AND 500 MVA ICT-2 AT NAUBATPUR(BH)	NAUBATPUR	400	17-Mar-22
9	OPTCL	220KV MAIN BAY OF 400KV/220KV 500 MVA ICT 1 AT MERAMUNDALI B	MERAMUNDALI-B	220	23-Mar-22
10	OPTCL	400KV MAIN BAY OF 400KV/220KV 500 MVA ICT 1 AT MERAMUNDALI B	MERAMUNDALI-B	400	28-Mar-22
<b>BUS</b>					
S.NO	Agency/Owner	Element Name	SUB-STATION	Voltage Level (kV)	DATE
1	BIHAR/BGCL	400KV MAIN BUS - 2 AT NAUBATPUR(BH)	NAUBATPUR	400	17-Mar-22
2	BIHAR/BGCL	400KV MAIN BUS - 1 AT NAUBATPUR(BH)	NAUBATPUR	400	17-Mar-22

Apr-22

NEW ELEMENTS COMMISSIONED DURING APRIL-2022						
ICTs/ GTs / STs						
SL. NO.	Agency/Owner	SUB-STATION	ICT NO	Voltage Level (kV)	CAPACITY (MVA)	DATE
1	PGCIL	FARAKKA(NTPC)	2	400/220	315	21-Apr-22
2	PGCIL	MUZAFFARPUR	4	400/220	500	5-Apr-22
3	BGCL/PGCIL	JAKKANPUR	1	400/220	500	20-Apr-22
TRANSMISSION LINES						
SL. NO.	Agency/Owner	LINE NAME	Length (KM)	Conductor Type	DATE	
1	BSPTCL	220KV-SAHARSA(PMTL)- KHAGARIA(NEW)-2	73.000	ACSR Zebra	11-Apr-22	
2	BGCL/PGCIL	220KV-ARRAH (PG)- NAUBATPUR(BH)-2	43.085	ACSR Zebra	28-Apr-22	

<b>LILO/RE-ARRANGEMENT OF TRANSMISSION LINES</b>					
<b>SL. NO.</b>	<b>Agency/Owner</b>	<b>Line Name/LILO at</b>	<b>Length (KM)</b>	<b>Conductor Type</b>	<b>DATE</b>
1	BGCL/PGCIL	LILO of 400 KV PATNA-NABINAGAR(NPGC)-1 AT JAKKANPUR(BGCL) (400KV-JAKKANPUR(BH)-PATNA-1)	138.145	QUAD Moose	20-Apr-22
2	BGCL/PGCIL	LILO of 400 KV PATNA-NABINAGAR(NPGC)-1 AT JAKKANPUR(BGCL) (400KV-NABINAGAR(NPGC)-JAKKANPUR(BH)-1)	18.548	QUAD Moose	21-Apr-22
3	BGCL/PGCIL	LILO of 400 KV PATNA-NABINAGAR(NPGC)-2 AT JAKKANPUR(BGCL) (400KV-JAKKANPUR(BH)-PATNA-2)	138.145	QUAD Moose	21-Apr-22
4	BGCL/PGCIL	LILO of 400 KV PATNA-NABINAGAR(NPGC)-2 AT JAKKANPUR(BGCL) (400KV-NABINAGAR(NPGC)-JAKKANPUR(BH)-2)	18.548	QUAD Moose	21-Apr-22
5	ATL/PGCIL	LILO of 400 KV KISHANGANJ-DARBHANGA(DMTCL)-1 AT SAHARSA(PMTL) (400KV-SAHARSA-DARBHANGA (DMTCL)-1)	86.684	QUAD Moose	22-Apr-22
6	ATL/PGCIL	LILO of 400 KV KISHANGANJ-DARBHANGA(DMTCL)-1 AT SAHARSA(PMTL) (400KV-SAHARSA-KISHANGANJ-3)	158.677	QUAD Moose	26-Apr-22
7	ATL/PGCIL	LILO of 400 KV KISHANGANJ-DARBHANGA(DMTCL)-2 AT SAHARSA(PMTL) (400KV-SAHARSA-DARBHANGA (DMTCL)-2)	86.684	QUAD Moose	22-Apr-22

8	ATL/PGCIL	LILO of 400 KV KISHANGANJ- DARBHANGA(DMTCL)-1 AT SAHARSA(PMTL) (400KV-SAHARSA- KISHANGANJ-4)	158.677	QUAD Moose	26-Apr-22
9	PGCIL	220KV-RANGPO-NEW MELLI-2	25.800	HTLS	7-Apr-22

May-22

NEW ELEMENTS COMMISSIONED DURING JUNE-2022						
ICTs/ GTs / STs						
SL. NO.	Agency/Owner	SUB-STATION	ICT NO	Voltage Level (kV)	CAPACITY (MVA)	DATE
1	PMTL	MOTIHARI(DMTCL)	3	400/132	315	7-Jun-22
TRANSMISSION LINES						
SL. NO.	Agency/Owner	LINE NAME	Length (KM)	Conductor Type	DATE	
1	DVC	220KV-RANCHI-MTPS(DVC)-1	228.580	AAAC Zebra	22-Jun-22	
BAYS						
SL. NO.	Agency/Owner	Element Name	SUB-STATION	Voltage Level (kV)	DATE	
1	Odisha	400KV MAIN BAY OF MERAMUNDALI-A AT MERAMUNDALI B	MERAMUNDALI B	400	10-Jun-22	
2	Odisha	400KV MAIN BAY OF GMR-1 AT MERAMUNDALI B	MERAMUNDALI B	400	10-Jun-22	
3	Odisha	400KV MAIN BAY OF NEW DUBURI- 2 AT MERAMUNDALI B	MERAMUNDALI B	400	10-Jun-22	
4	Odisha	400KV MAIN BAY OF NEW DUBURI- 1 AT MERAMUNDALI B	MERAMUNDALI B	400	10-Jun-22	
5	Odisha	400KV MAIN BAY OF 400KV FUTURE LINE-7 AT MERAMUNDALI B	MERAMUNDALI B	400	10-Jun-22	

TCC noted.



Scheduling of Chuzachen HEP and Tashiding HEP is carried out by ERLDC, as per Indian Electricity Grid Code Clause 6.4.3. The clause 6.4.3 states

Quote...

“There may be exceptions with respect to above provisions, for reasons of operational expediency, subject to approval of CERC. Irrespective of the control area the jurisdiction, if a generating station is connected both to the ISTS and the STU, the load dispatch centre of the control area under whose jurisdiction the generating station falls, shall take into account grid security implication in the control area of the other load dispatch centre. ”

...Unquote

Presently for net injection of Chuzachen, Gangtok (PG) and Rangpo (PG) end meters are used and for Tashiding net injection, New Melli(PG) and Rangpo(PG) end meters are being used.

In 135th OCC it was decided that related issues of control area jurisdiction, scheduling, etc may be discussed in a separate meeting. A meeting was also held in this regard with ERPC and ERLDC on 04.09.2017.

In 45th CCM Meeting, Tashiding representative submitted that no hearing has taken place in the petition filed by them before CERC. ERLDC representative informed that Sikkim SLDC has given NoC for scheduling of Chuzachen by ERLDC up to 31st March 2022. From FY 2022-23, Sikkim SLDC will do the scheduling of Chuzachen HEP.

Further, Sikkim has intimated vide NOC letter no 02/GEN/SLDC/2015-16/466 dated 23.05.2022 that scheduling may be done by ERLDC and the power be evacuated further to the Interstate Transmission System till the time SAMAST Framework is set up at SLDC, Sikkim. The letter is attached as **Annexure-C2**.

In 46<sup>th</sup> CCM, Tashiding representative informed that no hearing has taken place. Letter has already been addressed to CERC for early listing of the petition.

Chuzachen representative informed that hearing has taken place and they have discussed with Sikkim Power Department for scheduling.

ERLDC representative informed that Sikkim has intimated vide NOC letter no 02/GEN/SLDC/2015-16/466 dated 23.05.2022 that scheduling may be done by ERLDC and the power be evacuated further to the Interstate Transmission System till the time SAMAST Framework is set up at SLDC, Sikkim.

The Commercial Sub-Committee advised Sikkim to implement the SAMAST framework at SLDC, Sikkim at the earliest.

TCC may note.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

*TCC noted.*

**ERPC may note.**

<b>ITEM NO C. 16:</b>	<b>Strengthening of Transmission and Distribution Network of DVC.</b>
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In 45th TCC meeting, DVC representative informed that the proposal for Renovation and Augmentation Schemes for transmission and Distribution Network of DVC was submitted to CEA and it was subsequently examined and found in order. They suggested following procedure for approval of the scheme:

A committee may be formed to study the scheme in detail and subsequently the same would be submitted to CTU for their observation. After receiving the CTU observation the same would be placed before TCC/ERPC for concurrence. After detailed deliberation in the 45th TCC meeting, it was decided that the proposal for Strengthening of Transmission and Distribution Network of DVC may be discussed in the planning sub-committee of ERPC.

Subsequently, the proposal of DVC was discussed in a special meeting held on 01.06.2022. The minutes of the meeting is enclosed at **Annexure-C3**.

The conclusion of the meeting is as follows:

“After detailed discussion, it was concluded that the proposal presented by DVC are generally in order with few observation/modification as given below:

1. Health assessment & necessary rectification of associated towers where the lines have exhausted their design life & reconductoring has been proposed.
2. LiLo of S/C of 132 kV CTPS-Gola B at Biada S/s instead of Lilo of D/c of 132 kV CTPS-Gola B line.
3. JUSNL may discuss with DVC regarding JBVNL load growth projection and completed/under execution transmission scheme in the common command area keeping in view optimal utilization of assets”

TCC may note.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC noted.

ERPC may note.

ITEM NO C. 17:	Payment/receipt status from various pool accounts in ER
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**A. RRAS Account ----Present Status.**

The updated position of Payments to the RRAS Provider(s) from the DSM pool and Payments by the RRAS Provider(s) to the DSM pool as of 20.07.2022(considering bill up to 03.07.2022) is indicated in **Annexure – C4.1**. Total receivable by the pool is **₹34.14 Cr** and the total payable by the pool is **₹ 29.76 Cr** as of 20.07.2022 (considering bill up to 03.07.2022).

This is for information to the members.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC noted.

**B. AGC Account ----Present Status.**

The updated position of Payments to the AGC Provider(s) from the DSM pool and Payments by the AGC Provider(s) to the DSM pool as on 20.07.2022(considering bill up to 03.07.2022) is indicated in **Annexure – C4.1**. Total receivable by the pool is **₹29.45 Cr** and the total payable by the pool is **₹ 0.43 Cr** as of 20.07.2022 (considering bill up to 03.07.2022) .

This is for information to the members.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC noted.

**C. Status of PSDF**

An amount of total **₹ 15.91 Cr** from Reactive account (**4.91 Cr.**) & DSM Account (**11 Cr.**) has been transferred to PSDF after 46<sup>th</sup> Commercial sub-committee meeting held on 06.07.2022. With this the total amount of **₹ 1873.6 Cr** has been transferred to PSDF so far. The breakup details of fund transferred to PSDF (till 20.07.22) is enclosed in **Annexure C4.2**.

This is for information to the members.

**Deliberation in the 46<sup>th</sup> TCC meeting:**

TCC noted.

**1. Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2022**

CERC vide notification dated 31.01.2022 had issued Ancillary Service regulation'2022 and directed the Nodal Agency (NLDC) for preparing detailed procedure after stakeholders' consultation within a period of 3 months of notification of these regulations and submit the same for information to the Commission.

NLDC vide dated 24.05.2022 formulated a draft Detailed Procedure for Estimation of the Requirement of Secondary Reserve Ancillary Service (SRAS) and Tertiary Reserve Ancillary Service (TRAS) at Regional Level. NLDC organized workshop on 19<sup>th</sup> July 2022 through online mode on draft detail procedure on methodology for detailed procedure for estimation of reserves for ER beneficiaries. PPT attached at **Annexure-C5.1**

**2. Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022**

CERC vide notification dated 14<sup>th</sup> March'2022 had issued Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 and These regulations shall come into force on such date as may be notified by the Commission separately.

**3. Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022**

CERC vide notification dated 07<sup>th</sup> June 2022 had issued the Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022.

These regulations shall come into force on such date as the Central Commission may notify. Provided that different dates may be appointed for commencement of different regulations.

ERPC secretariat organized workshop on GNA regulation' 2022 on 26<sup>th</sup> July'2022 for ER beneficiaries. PPT attached at **Annexure-C5.2**.

**4. Draft CERC (Indian Electricity Grid Code) Regulation'2022**

CERC vide notification dated 07.06.2022 had issued the Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2022 and requested to furnish the comments/ suggestions/objections from the stakeholders and interested persons on the above Draft Regulations on or before 31<sup>st</sup> August'2022.

ERPC secretariat organized workshop on draft IEGC regulation' 2022 on 25<sup>th</sup> July'2022 for ER beneficiaries, interested organization may send their valuation comments on draft regulation to ERPC secretariat for onward submission to CERC on behalf of Eastern Region beneficiaries. PPT attached at **Annexure-C5.3**.

#### **5. Draft CERC (Sharing of ISTS charges & losses) 1st Amendment Regulation'2022**

CERC vide notification dated 11.06.2022 had circulated the Draft Central Electricity Regulatory Commission (Sharing of ISTS charges & losses) First Amendment Regulations, 2022 and requested to furnish the comments/ suggestions/objections from the stakeholders and interested persons on the above Draft Regulations on or before 19<sup>th</sup> August'2022.

#### **6. Draft CEA (Flexible operation of thermal power plant) Regulation'2022**

CEA vide notification dated 07.07.2022 had circulated draft CEA (Flexible operation of thermal power plant) Regulation'2022 and requested to furnish comments by 26<sup>th</sup> August 2022.

#### **7. Draft CEA Manual on Transmission Planning Criteria, 2022**

CEA vide notification dated 16.06.2022 had circulated Draft CEA Manual on Transmission Planning Criteria, 2022 for optimal development of transmission system in the country and requested to furnish the comments/ suggestions/objections from the stakeholders (if any) on the draft Manual on Transmission Planning Criteria to CEA by 15<sup>th</sup> July 2022

#### **8. Draft Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2022**

CEA vide notification dated 10.06.2022 had circulated Draft Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2022 for public/stakeholders comments by 28<sup>th</sup> July, 2022.

#### **9. Technical Specifications for Bird Flight Diverter (BFD) issued by SC Committee in consultation with Central Electricity Authority**

**10. NPC Division of CEA vide email dated 6th July, 2022 had circulated the finalized "Technical Specification (TS) of the 5/15 min Interface Energy Meters with Automatic Meter Reading system and Meter Data Processing system on Pan India basis."**

Members may note for compliance.

#### **Deliberation in the 46<sup>th</sup> TCC meeting:**

*TCC noted.*

**ERPC may note.**

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