Agenda

for

45th TCC Meeting

of

EASTERN REGIONAL POWER COMMITTEE

Date: 25th March, 2022

Time: 10:00 Hrs

Indo Hokke Hotel, Rajgir

Index

EASTERN REGIONAL POWER COMMITTEE, KOLKATA
AGENDA FOR 45th TCC MEETING

Date: 25th March, 2022 (Friday), at 10:00 Hrs **Indo Hokke Hotel, Rajgir**

ITEM NO. A1:	**CONFIRMATION OF THE MINUTES OF 44th TCC MEETING**

The minutes of the 44th TCC meeting held on 29th September, 2021 at Vedic Village, Kolkata was circulated vide letter no. ERPC/TCC&COMMITTEE/2021/972 dated 21st October 2021.

Members may confirm the minutes of 44th TCC meeting.

PART B: ITEMS FOR DISCUSSION

ITEM NO. B1:	**Technical minimum schedule support to ISGS plants of Eastern Region by availing URS power of surrendered beneficiaries**

As per prevailing practice in Eastern Region, ISGS stations are provided with Technical Minimum schedule support. In the event where sum of requisition from all the beneficiaries falls below technical minimum, the beneficiary schedule is jacked up to provide technical minimum schedule to the generators.

However, in the light of CERC Order on Petition No: 60/MP/2019, the practice of jacking up surrendered schedule of beneficiaries shall be withdrawn, except in cases as mandated in Section 5.7 of detailed Reserve Shutdown Procedure (RSD) (CERC Order No. - L-1/219/2017-CERC), which states:

Quote

RLDC shall Suo-moto revise the schedule of any generating station as per clauses 6.5.14 and 6.5.20 of the Grid Code to operate at or above technical minimum in the ratio of under-requisitioned quantum (with respect to technical minimum) in the interest of smooth system operation under the following conditions:

- ✓ *Extreme variation in Weather Conditions*
- ✓ *High Load Forecast*
- ✓ *To maintain reserves on regional or all India basis*
- ✓ *Network Congestion*
- ✓ *Any other event which in the opinion of RLDC/NLDC shall affect the grid security.*

While doing so, it is possible that the requisition of some beneficiaries may go up to ensure technical minimum. In this case, SLDCs may surrender power from some other inter-State generating station(s) or intra-State generating station(s) based on merit order. The concerned RLDC shall issue R-1 schedule accordingly and this shall be intimated to the concerned generating station, through the scheduling process."

Unquote.

In the 184th OCC meeting, after detailed deliberation, OCC opined that:

- The existing practice would be continued until a decision is taken.

- In the meantime, Odisha would submit a detailed proposal along with the WRPC's decision before the next OCC for further deliberation on the matter.

In the 185th OCC meeting, ERPC representative briefly explained the issue stating that whenever the sum of the requisitions given by the beneficiaries fall below the technical minimum, to keep the generator on bar RLDC jacks up the schedule, because of which some of the beneficiaries are being scheduled against their zero requisition. It was also stated that as per the CERC order on Petition No: 60/MP/2019, the jacking up of the schedule is to be discontinued except on some special occasions. Further, as per the discussions in the CERC meeting with RPCs held on 17.11.2021 regarding the agenda "Issue related to Reserve Shutdown (RSD) of ISGS station", it was informed that necessary amendment in the IEGC Grid Code shall be incorporated by Hon'ble CERC to address this issue.

ERPC representative further submitted that until such amendment in the IEGC, the above issue may be addressed in 3 ways.

1. Generator may go on RSD and in that case, it may take considerable amount of time to revive the unit and in case beneficiaries need any power they would have to approach the market.
2. Continuation of the existing practice of jacking up of the schedule.
3. A mutual agreement may be worked out in which the beneficiary(s) who are ready to avail the URS power to keep the generator on bar, may be incentivised by waiving off the fixed charges up to the technical minimum schedule.

After detailed deliberation OCC opined that since the above issue involves some commercial implications, therefore it may be deliberated further in a separate forum to reach a final consensus. OCC advised all the Constituents to forward their views and comments to ERPC Secretariat within 10 days.

In the 186th OCC meeting, after detailed deliberation and also considering the seriousness of the issue OCC opined that a special meeting may be convened on 30th Dec 2021 to deliberate further on this matter and come to a collaborative solution.

In the special meeting dated 30.12.2021, after detailed deliberation the followings were decided:

1. A working Committee may be formed consisting of the representatives from West Bengal, Odisha, Bihar, NTPC, ERLDC and ERPC for detailed study of the methodology devised in Western Region and formulation of similar methodology pertaining to Eastern Region.
2. A mutual agreement may be worked out in which the beneficiary(s) who are ready to avail the URS power to keep the generator on bar, may be incentivised by waiving off the fixed charges up to the technical minimum schedule.
3. Beneficiaries to bear a certain percentage (e.g. 100%, 75%, 50%, 0% etc) of fixed charge(FC) of the URS availed by the availing beneficiary/beneficiaries up to the technical minimum. This FC waive off % to be finalized by the beneficiaries.
4. NTPC to continuously display the cost of the URS power available at the discounted rate. Beneficiaries participating in the scheme shall avail the URS power based on their MoD.
5. The devised methodology would be put up before the next TCC/ERPC Meeting for necessary approval.
6. ERLDC to continue the prevailing practice of jacking up of schedule till 31st January 2022.

In the Working Committee meeting dated 10.02.2022, Member Secretary informed that in line with the decision taken in the special meeting held on 30.12.2021, ERLDC has stopped jacking up the schedule of the beneficiaries for providing technical minimum schedule to the generators if the sum of requisition by beneficiaries falls short of Technical Minimum schedule w.e.f 1st February 2022 as per CERC Order in Petition No: 60/MP/2019. He apprised the committee that NTPC vide mail dated 04th February 2022 had informed that many of their stations were scheduled below the technical minimum of the units during the lean period in most of the days.

ERLDC representative gave a brief presentation highlighting the behaviour of concerned beneficiaries of ER Thermal Power Plants during the lean period of the day from 1st February'2022 onwards. It was observed that the beneficiaries of Northern region are giving zero schedule during off-peak hours and as a result the generators are getting schedule below Technical Minimum on most of the days.

After detailed deliberation, the following decisions were taken:

1. Beneficiaries would try their best to give the schedule up to technical minimum to keep the units on bar enabling the thermal power plants to avoid going for RSD. Further, beneficiaries would do the realistic assessment of their demand and submit their requisition accordingly so that sufficient time is available to Generators and other beneficiaries to explore other options (like selling in RTM etc).

2. Waiver of Fixed Cost for Scheduling up to technical minimum: West Bengal, Odisha, Bihar agreed for 100% FC waive off and DVC agreed for 50% FC waive off. Jharkhand representative was not present in the meeting. However, as per the comment received from Jharkhand, they would inform about FC waive off in the upcoming Commercial Committee Meeting (CCM). It was observed that for time being 0% FC waive off may be considered for Sikkim considering its insignificant share in NTPC Stations as compared to other beneficiaries of ER. It was also emphasised that for successful implementation of the mechanism a uniform % of FC waiver would need to be adopted. The same shall be further deliberated in forth coming CCM.

3. NTPC would develop the Software and a portal for displaying the cost of the URS power available at the discounted rate up to the Technical Minimum of their station wise generating units within 15 days. NTPC would further expedite the implementation of the software for adoption of the agreed methodology.

4. In case, no beneficiary comes forward to avail the power at discounted rate as reflected in NTPC portal, then NTPC would participate in Real-Time Market of Power Exchange for achieving Technical Minimum Schedule to keep the units on bar.

5. ERPC would place this issue as an agenda item for discussion in the upcoming NPC Meeting for including beneficiaries of other regions under this methodology.

In light of the above, for giving technical minimum schedule support to ISGS stations of Eastern Region, Jharkhand and Sikkim may give their consent for Fixed Cost waive off for better implementation of the scheme finalised in the working committee meeting.

In the 45th CCM, Jharkhand representative agreed for 100 % Fixed Cost waive off for other beneficiaries availing its share up to the technical minimum.

No response received from Sikkim during the agenda item discussion. CCM agreed with Working Committee's decision to consider 0% waive off for Sikkim in view of it insignificant share in NTPC Stations as compared to other beneficiaries of ER.

CCM forum advised all beneficiaries Eastern Region to waive off 100 % of their Fixed Cost of the URS power up to Technical Minimum schedule of ISGS stations to incentivize willing beneficiaries to participate in the scheme.

CCM further advised for placing this agenda in the upcoming TCC/ERPC meeting for approval of the scheme.

The scheme finalized after detailed deliberation in the Working Committee meeting and in the 45th Commercial Committee meeting is enclosed at **Annexure B1.**

TCC may approve the scheme.

ITEM NO. B2:	**Islanding Schemes in Eastern Region.**

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.

1. <u>Patna Islanding Scheme:</u>

In the special meeting held on 06.08.2021, it was decided that Patna islanding scheme would be designed considering two unit of Nabinagar STPP (2*660 MW) of NPGCL as participating generator and loads of in and around Patna city. The provision of island formation with one unit of NPGC with corresponding load is also to be included in the island logic.

The islanding frequency & logic will be finalized based on the result of dynamic study to be carried out by SLDC Bihar/ERLDC.

The following timelines were decided:
1. Submission of requisite information by SLDC, Bihar: 2nd week of Aug' 2021.
2. Completion of Islanding simulation study by ERLDC: 4th Week of Aug' 2021
3. Review of islanding study & designing of the logic: By September'2021
4. Implementation & Operationalization of the Islanding Schemes: By March'2022

In 106th PCC meeting held on 16.09.2021 it was informed that the requisite information had already been shared by SLDC Bihar and the study is under progress by ERLDC. Further SLDC Bihar was advised to prepare the DPR by September'2021 for PSDF funding, if required.

In the 44th TCC Meeting, BSPTCL updated that preparation of DPR for PSDF funding is under process and the same would be completed within 15 days.

TCC stressed on the fact that this issue is being regularly monitored by MoP and advised BSPTCL for timely implementation of the Islanding Scheme.

OCC advised BSPTCL to expedite the matter with Siemens and prepare the DPR as per the said schedule without any further delay.

In the 185th OCC meeting, BSPTCL representative mentioned that presently M/s Siemens is carrying out some tests for the preparation of DPR which is scheduled to be completed by last week of November'2021. As soon as the proposal from M/s Siemens is received, they would place the order.

OCC expressed serious concern over the issue and advised BSPTCL to expedite the matter with M/s Siemens at the earliest.

In the 186th OCC meeting, BSPTCL representative informed that approval from their higher Management is awaited and the work would be started on receipt of the approval.

In the 187th OCC meeting, BSPTCL representative informed that the tender has already been floated and the same would be opened on 16.02.2022.

In the 188th OCC meeting, BSPTCL representative informed that the tender opening date has been rescheduled to 26.02.2021.

BSPTCL may update.

2. <u>Ranchi Islanding Scheme:</u>

In the special meeting held on 06.08.2021, it was decided that Ranchi islanding scheme would be formed with one unit of Tenughat TPS (150-160 MW average generation) & Inland IPP (50-55 MW average generation) as participating generator & essential/critical loads of Ranchi to the tune of 180 MW. The islanding frequency & logic will be finalized based on the result of dynamic study to be carried out by SLDC Jharkhand/ERLDC.

The following timelines were decided:
1. Submission of requisite information by SLDC, Jharkhand: 2nd week of Aug' 2021.
2. Completion of Islanding simulation study by ERLDC: 4th Week of Aug' 2021
3. Review of islanding study & designing of the logic: By September'2021
4. Implementation & Operationalization of the Islanding Schemes: By February'2022

In 106th PCC meeting held on 16.09.2021 it was informed that the requisite information had already been shared by SLDC Jharkhand and the study is under progress by ERLDC. Further

SLDC Jharkhand was advised to prepare the DPR by September'2021 for PSDF funding, if required.

In the 44th TCC Meeting, JUSNL updated that preparation of DPR for PSDF funding is under process and the same would be completed within 15 days.

TCC stressed on the fact that this issue is being regularly monitored by MoP and advised JUSNL for timely implementation of the Islanding Scheme.

In the 184th OCC meeting, JUSNL representative submitted that they had requested for budgetary offer from GE, Siemens and ABB and after getting the same they would prepare the DPR.

OCC advised JUSNL to expedite the work and prepare the DPR within the stipulated time frame.

In the 185th OCC meeting, JUSNL informed that the tender for DPR would be opened on 25th Nov 2021.

In the 186th OCC meeting, JUSNL representative informed that the tender had been finalized and the DPR would be placed by 5th Jan 2022.
OCC advised JUSNL to inform ERPC once DPR gets submitted.

In the 187th OCC meeting, JUSNL representative informed that the work order would be placed by 10th February 2022.

In the 188th OCC meeting, JUSNL representative submitted that the technical part was opened and the financial part is yet to be opened. He further requested ERPC to discuss the matter with JUSNL's higher authority.

OCC advised JUSNL to submit the detailed report to ERPC Secretariat without any delay for further communication with CEA and MoP.

JUSNL may update.

ITEM NO. B3:	**Anticipated power supply position of Jharkhand during upcoming Summer.**

The abstract of peak demand (MW) vis-à-vis availability and energy requirement vis-à-vis availability (MU) for the month of March 2022 were prepared by ERPC Secretariat on the basis of LGBR for 2021-22 and feedback of constituents, keeping in view that the units are available for generation and expected load growth etc.

In the 188th OCC meeting, Jharkhand representative informed that their Peak demand for March'2022 is around 1700 MW, their generation target is around 1500 MW, and there will be a shortfall of around 200-300 MW in the peak demand for the month of March'2022. During deliberation, it has also emerged that Jharkhand is doing load shedding due to the inability to meet the peak demand of the state.

In 45th CCM, Jharkhand representative submitted that Sikidri HEP will be on bar on March'2022 and it can generate up to 100 MW. Hence, given their anticipated peak demand of 1700MW for March 2022, they are likely to face a peak shortfall of about 100MW. The committee expressed serious concern over the practice of meeting shortfall in peak demand by resorting to load shedding on a regular basis. It was observed that it is against the Government of India's motto of giving 24x7 uninterruptable power supply to consumers.

CCM forum advised Jharkhand to make alternate arrangements for meeting shortfall of peak demand either from power markets or from short-term power purchase agreements.

CCM further advised for placing this agenda in the upcoming TCC/ERPC meeting.

Jharkhand may update. Members may discuss.

ITEM NO. B4:	Restoration of 220kV Farraka-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 the220kV Farraka-Lalmatia S/C line at 33kV level. Earlier the antitheft 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-Lamatia 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 antitheft 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 182nd OCC meeting, JUSNL representative submitted that the tripartite agreement for taking over of FLTS as well as O&M of FLTS is in process and the same would be done after getting the consent from the competent authority by 4th week of August'2021.

In the 185th OCC meeting, JUSNL representative informed that fund requisition to their energy department has been requested on 8th Nov 2021 and the work would be started upon receipt of funds.

It was highlighted by OCC that restoration of the line to be taken on priority basis, since it serves commercial interest of Jharkhand by drawing power directly from Farakka STPS. Besides, restoration of the line would also improve reliability of power supply.

In the 188th OCC meeting, JUSNL representative informed that the BOQ has been revised due to the incident of conductor theft. The tender would be placed within 15 days and the restoration work is expected to be completed in 3 months.

This may be noted that this line is important not only for reliable supply to Lalmatia but also for the functioning of the Islanding scheme of FSTPP, thus JUSNL needs to expedite restoration of the same.

JUSNL may update.

ITEM NO. B5:	**Signing of O&M agreement for maintenance of JUSNL owned bays of 400 KV New Ranchi-Patratu D/C lines at New Ranchi S/s - POWERGRID.**

400 KV bays (owned by JUSNL) for Patratu 1 & 2 owned by Transmission line at New Ranchi S/S are being maintained by POWERGRID since commissioning. Above mentioned bays are in service since 03.08.20217 (line charged as anti-theft) however the O&M agreement for these bays have not been finalized. The matter had been already taken up with M/s JUSNL that the agreement would be signed upon power flow through the New Ranchi-Patratu Transmission lines.
400 KV New Ranchi-Patratu D/C lines have been already terminated at Patratu S/s on 29.12.2021 and power flow also started. In view of the above, JUSNL is requested for signing of the O&M agreement for smooth O&M activities of these bays at New Ranchi S/s.

POWERGRID may explain. Members may discuss.

ITEM NO. B6:	**Outage of Important Transmission System**

B6.1. 132kV 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.

In the 181st OCC meeting, Sikkim representative submitted that for the rest 20% work, they are yet to get clearance from the Forest Department. He further informed that there are also

some RoW issues in that portion of the line. Further, ERLDC representative stressed over the fact that being a very important line, the restoration of the 132kV Sagbari–Melli linemay be done at the earliest.

OCC advised Sikkim to take up the matter with Forest Department for obtaining necessary clearance and also to resolve the ROW issues without any further delay.

In the 187th OCC meeting, Sikkim representative informed that clearance from the Forest Department is yet to be received.

OCC expressed serious concern over the issue and advised Sikkim to be in regular touch with the Forest Department for obtaining the clearance.

In the 188th OCC meeting, Sikkim representative was not present during the discussion.

Sikkim may update.

B6.2. Outage of 400kV Main Bus-2 at Dikchu HEP.

400kV Main Bus-2 at Dikchu HEP has been out since 05.05.2021.

In the 185th OCC meeting, Dikchu representative was not available in the meeting.

Dikchu vide mail dated 27.11.2021 informed that, on 07.09.2021 a test had been conducted by them to pin point the fault location. Subsequently, the fault was found in the B phase Circuit Breaker Compartment of 400 KV Dikchu-Teesta 3-line bay 403.

So as suggested by the OEM, there was a need to replace the CB compartment.

In this regard, the offer for new CB compartment from OEM GE(T&D) had already been received on 15th Nov' 21. The procurement process is in progress & the works are being planned to be carried out in 3rd week of Jan' 22.

In the 186th OCC meeting, Dikchu representative informed that OEM M/s GE had given a lead time of 8 months for the supply of new CB compartment, but considering the seriousness of the issue, M/s GE has now agreed to provide the same in 3 months. The work is expected to be completed by the end of March 2022.

Considering the importance of Dikchu-Teesta-III line, OCC advised Dikchu to expedite the work at the earliest in consultation with their OEM.

In the 187th OCC meeting, Dikchu representative informed that the work would be completed by the end of June 2022.

OCC advised Dikchu to expedite the work before the arrival of peak hydro season.

In the 188th OCC meeting, Dikchu representative was not available during the discussion.

Dikchu HEP may update.

ITEM NO. B7:	Shutdown of FSTPP U#5- WBSEDCL

FSTPP U#5 was taken out of bus on 17.03.2022 due to 'Bottom Ash Problem', as reported from FSTPP end.

On 19.03.2022, at 2057 Hrs, all of a sudden, it was declared by the Farakka authority that the shutdown in respect of the said unit was going to be extended for a period of further 45 days to avail the capital overhauling. At 2132 Hrs on the same date, WBSEDCL raised a strong objection through ERLDC, on the unilateral decision (which was not OCC approved) going to be taken by Farakka. Thereafter, on the same date at 2155 Hrs, ERLDC issued a message to Farakka with a request to postpone their capital overhauling in compliance with the direction from the MoP and NLDC.

As no response from the Farakka end had yet been received by neither ERLDC nor WBSEDCL, again on 21.03.2022, at 1044 Hrs, WBSEDCL inquired regarding the status of the said unit and requested to synchronize the unit immediately to cater to the ongoing shortfall of the State. Subsequent to this message, ERLDC also followed up an e-mail to Farakka.

It may be noted that despite several communications from WBSEDCL as well as ERLDC, Farakka has been maintaining silence on this issue.

In view of the rising system demand due to summer and price surge in the Exchange Market, the immediate synchronization of FSTPP U#5 is required to mitigate the shortfall for the operational and commercial interest of the end consumers of the beneficiaries.

Members may discuss.

ITEM NO. B8:	Strengthening of Transmission and Distribution Network of DVC

In order to cater to the forecasted demand of DVC for 2025, DVC vide letter No: EDCON/SPE/CEA/316 dated 23.09.2021 had submitted a proposal to CEA for Renovation and Augmentation Schemes for transmission and the Distribution Network of DVC comprising of ISTS connectivity and Intra State augmentations and connectivity.
Accordingly, CEA has provided a letter mentioning that the schemes provided by DVC were examined at their end and found to be in order.
Reference Discussion with ERPC and ERLDC on the methodology for getting a go-ahead clearance towards implementation by DVC from RPC the following methodology is hereby proposed:
(1) A study committee at the RPC level comprising of a member from ERPC, ERLDC and DVC to study the details of the submitted scheme followed by a presentation.
(2) Discussion and concurrence of CTU on the ISTS connectivity.
(3) Placement of the comprehensive final scheme to TCC and ERPC for subsequent Go-Ahead clearances.
It is kindly requested to do the needful so that the Go - Ahead clearances could be obtained from ERPC & TCC and the schemes to strengthening the Transmission and Distribution Network of DVC can be implemented.

DVC may explain. Members may discuss.

ITEM NO. B9:	Proposal for constitution of Transmission Planning Sub-Committee of ERPC

MoP vide office order dated 21.10.2021 had dissolved the Regional Power Committee(Transmission Planning) for all the region and decided that regional level consultation of ISTS planning will be done in regional power committees.

As per the electricity act 2003, CTU and ER STUs have to prepare the plan in coordination with ERPC. Further RPC has to facilitate the planning of inter as well as intra state transmission plans with ER STUs and CTU. Some of the state regulations and grid code also reiterates the same and requires the feedback and suggestion of ERPC to be included during transmission plan submission by ER STUs to their respective regulators.

In view of above, it is hereby proposed to constitute a sub-committee on transmission planning to provide appropriate consultation on transmission planning, facilitating coordination between CTU and STU including consideration of operational feedback of SLDC and ERLDC during coordinated planning and coordination between different ER STUs.

Scope of work of Planning sub-committee will be as follows:

1. Coordination between CTU and STU for timely data exchange and power system network modelling for coordinated planning process.
2. Discussion on CTU and STU transmission plan and providing technical suggestion/comments/feedback on these plans
3. Technical Comments in interstate transmission system to RPC for final endorsement for onwards sending to CTU.
4. Monitoring of implementation discussed plan for operational planning of regional grid
5. Technical Comments and feedback on NCT referred projects for sending to RPC for endorsement, discussion and approval
6. Joint planning study requirement between CTU and STU
7. Any other activities assigned by ERPC related to transmission planning activity

Members may discuss.

ITEM NO. B10:	Replacement of ICT- POWERGRID Odisha.

A. Urgent requirement for replacement of 315MVA, 400/220/33kV ICT#2 at Rengali S/S:

I. The BHEL make 315MVA, 400/220/33kV ICT#2 of Rengali Substation was commissioned in 1990 under JTSS Project and the said ICT is of 32 years old (Year of Manufacturing: 1987). The said ICT has completed its useful life of 25 years.

II. Condition based monitoring/ maintenance of transformers/ reactors like DGA, Tan delta measurement of bushings & windings, oil parameters, Furan analysis, FDS, IR of core insulation etc are being carried out by POWERGRID to know the healthiness. During condition monitoring of the said ICT, violation has been observed in the test parameters and condition of the ICT found not good. M/s CPRI (Third party) was approached by POWERGRID to analyse the test results of said equipment and to know the condition of the equipment. The test results were analysed by CPRI and based on the test results, CPRI has recommended to replace the said unit. The letter of CPRI is enclosed herewith.

III. Said ICT has already completed more than 25 years of useful service life and due to ageing chances of its failure is always high. Failure of the transformer may result into constraint in meeting power demand of Odisha.

IV. Therefore, it was proposed to replace the 400kV 3ph BHEL make 315MVA ICT-II at Rengali under ADDCAP. Petition for approval of replacement of the ICT was filed in CERC under JTTS system. CERC has directed POWERGRID to seek approval of RPC.

V. Based on the 41st TCC recommendation in respect of the replacement of old 315 MVA ICTs, the subject 315MVA ICT of Rengali S/S may please be agreed to be replaced with a 500MVA ICT considering increased power requirement, availability and reliability of power supply to the state of Odisha.

B. Urgent Requirement for replacement of 3x105 MVA, 400/220/33KV ICT-1 at Jeypore S/s.

I. The BHEL make 3x105MVA, 400/220/33kV ICT#1 of Jeypore Substation was commissioned in 1990 under JTSS Project and the said ICT is of 32 years old (Year of Manufacturing: 1987). The said ICT has already successfully completed its useful life of 25 years.

II. Condition based monitoring/ maintenance of transformers/ reactors like DGA, Tan delta measurement of bushings & windings, oil parameters, Furan analysis, FDS, IR of core insulation etc are being carried out by POWERGRID to know the healthiness. During condition monitoring of the ICT-I Yph, violation has been observed in the test parameters and condition of the ICT found not good. M/s CPRI (Third party) was approached by POWERGRID to analyse the test results of said unit and to know the condition of the equipment. The test results were analysed by CPRI and based on the test results, CPRI has recommended to replace the said unit. The letter of CPRI is enclosed herewith.

III. Therefore, Petition for approval of replacement of the ICT was filed in CERC under JTTS system. CERC has directed POWERGRID to seek approval of RPC.

IV. This is also pertinent to mention here that, the balance 2 Nos. single phase units (R-Ph & B-Ph) of 315MVA ICT#1 had already completed more than 25 years of useful service life and due to ageing chances of its failure is always high. Failure of the transformer may result into constraint in meeting power demand of Odisha. Hence, it is prudent to go for replacement of all the 3 single Phase units with a 500 MVA 3-Ph Unit at Jeypore S/S. Hence, replacement of the subject 3x105MVA ICT with a new 3ph ICT under ADD CAP is proposed.

V. Based on the 41st TCC recommendation in regards to the replacement of old 315 MVA ICTs, the subject 3x105MVA ICT of Jeypore S/S may please be agreed to be replaced with a 500MVA ICT considering increased power requirement, availability and reliability of power supply to the state of Odisha.

In 187th OCC meeting, POWERGRID Odisha representative informed that as per the decision taken in the 41stTCC meeting, requirement analysis had to be done prior to replacement of old 315 MVA ICTs with 500MVA ICTs. Further, a petition had already been filed before CERC by POWERGRID and as per CERC directive approval has to be taken from ERPC in this regard. Considering the future requirement, POWERGRID proposed to replace the ICTs which would further increase the life to 25 years.
SLDC Odisha and GRIDCO gave their consent for the proposal.

OCC opined that the above proposals would be shared with CTU & further approval.

CTU vide mail dated 18.02.2022 updated the following:

- Presently, there are 400/220kV, 2x315MVA ICTs at Rengali (POWERGRID) and 400/220kV, 2x630MVA (two blocks, each of 2x315MVA in parallel) ICTs at Jeypore (POWERGRID) substations. ICT loading detail of last one year has been obtained from ERLDC, and it has been observed that the existing transformation capacity at both substations is adequate.
- In view of the above, it may be noted that technically existing transformation capacity is required at both the substations. Thus, existing ICTs as per requirement may be taken up for replacement. However, considering the future requirement, the new ICTs could be of 500MVA.

TCC may please approve.

ITEM NO. B11:	**Demolition and reconstruction of residential Quarters at Rourkela S/S under O&M ADD-CAP 2019-24 block under Kahalgaon Transmission System (KHTL)**

A. Under the Kahalgaon Transmission System (KHTL), Rourkela S/S in Odisha was constructed and is in operation since 1993. The station has already completed more than 28 years of service.
B. As part of this project, in addition to S/S equipment, Residential Buildings were also constructed at Rourkela S/S for the accommodation of employees to look after O&M of substation and were allotted to employees in these years. These residential buildings have already completed more than 28 years of life.
C. In spite of regular maintenance, due to ageing these residential buildings are in dilapidated condition i.e. cracks in roof, walls, and floors, seepage in roofs and walls, wear and tear of window/doors, cisterns etc. have developed. The structural condition assessment of the building has been carried out through NIT, Rourkela. As per the assessment report, these buildings have exceeded the desired strength and serviceability limit states under gravity loading. It does not have sufficient strength and stiffness against minimum lateral loading and it appears insufficient to consider the repair and rehabilitation of these buildings.

D. Further, as Rourkela S/S is a vital node in Eastern Grid, staff quarters are very much essential considering reliable operation of this vital Sub-station and Grid security aspects. In view of the facts mentioned above, it is proposed for reconstruction of staff quarters which are in uninhabitable and unsafe condition. Tentative estimated cost for the said work comes to ₹ 8 crores.
E. Petition for the above work was already filed with CERC for approval under O&M ADD-CAP 2019-24 under KHTL project. During the hearing, CERC has advised POWERGRID to obtain approval of RPC and consent of beneficiaries for additional capital expenditure against these buildings and submit the same at the time of truing up for consideration of the instant case.

In 45th CCM, POWERGRID representative gave a brief presentation highlighting the present conditions of the residential quarters at their Rourkela Sub-station. Committee members agreed that the buildings need repair and renovation works. The committee observed that since these buildings have already completed 28 years of life, the capital expenditure on account of these buildings have already been recovered in tariff through the depreciation component.

GRIDCO representative submitted that the cost of reconstruction should not be burdened on beneficiary.

Since no consensus could be evolved, CCM advised to place this agenda in the upcoming TCC/ERPC meeting.

Members may discuss.

ITEM NO. B12:	**Demolition and Reconstruction of Residential / Non-residential Buildings under O&M ADD-CAP 2019-24 block for Farakka Transmission System at Biharsharif & Jamshedpur S/S and Chukha project at Purnea S/s**

Under the Farakka Transmission System, Biharsharif & Jamshedpur S/S were constructed and are in operation since 1989. The stations have already completed more than 32 years of service.

Under the Chukha Transmission System, 220/132kV Purnea S/S was constructed and is in operation since 1985.The station has already completed more than 36 years of service. As part of above projects at Biharsharif, Jamshedpur and Purnea, in addition to S/S equipment, Residential Buildings were also constructed for accommodation of employees to look after O&M of Sub-station and were allotted to employees in these years. These residential buildings have already completed more than 32 years of life.

In spite of regular maintenance, due to ageing, these buildings are in dilapidated condition i.e. cracks in roof, walls and floors, seepage in roofs and walls, wear and tear of windows/doors, cisterns etc have developed. The existing buildings were constructed as per load bearing type structure (non-RCC framed structure). It is worth to mentioned here that some of the above location falls under high seismic zone (Purnea: Seismic zone-V, Biharsharif: Seismic zone-IV)

The structural condition assessment of the buildings at Jamshedpur, Biharsharif and Purnea has been carried out through NIT Patna. The reports submitted by NIT Patna. As per the assessment report, these buildings have exceeded the desired strength and serviceability limit states under gravity loading, does not have sufficient strength and stiffness against minimum lateral loading. Also these buildings are highly distressed and design of building is also deficient in resisting earthquake. The vertical load carrying structures are found with voids and degradation, badly damaged with visible cracks and there is no benefit to carry these structures with repair or retrofitting.

As per the techno economic feasibility, these existing buildings should be demolished and reconstruction with disaster resilient features as per NBC 2016 and relevant byelaws is suggested.

Further, as all 03 substations i.e. Jamshedpur , Biharsharif and Purnea are critical and very important substations of Eastern Grid. Staff quarters for round the clock manning and O&M is vital for reliability of these substations and Grid security.

In view of the above facts, it is proposed for reconstruction of these buildings which are in uninhabitable and unsafe condition. The tentative estimated cost for demolition & construction of new residential / Non-residential buildings at all 04 locations shall be approx. Rs 19.0 Crores.

Petition for the Farakka Transmission System work were already filed with CERC for approval under O&M ADD-CAP 2019-24 and order has been issued on 18.10.2021. As per the order,

CERC has advised POWERGRID to obtain approval of beneficiaries in RPC meeting for additional capital expenditure against these buildings and submit a separate petition for ADD-CAP towards "building and civil works" for consideration by the Commission.
Petition for the CHUKHA project was already filed with CERC for approval under O&M ADD-CAP 2019-24 and order received on 09.08.2021. In the tariff order, CERC directed POWERGRID to obtain approval of RPC and file a separate petition for the ACE towards "building and civil works" for consideration by the Commission.
Agenda is put up for kind consent of ER constituents for demolition of existing residential /non-residential buildings and construction of new building as per requirement of the system for smooth O&M activities.

In 45th CCM, POWERGRID representative gave a brief presentation highlighting the present conditions of the residential quarters at Jamshedpur, Biharsharif and Purnea S/s. The Committee members agreed that the buildings need repair and renovation works. The Committee observed that since these buildings have already completed 32 years of life, the capital expenditure on account of these buildings have already been recovered in tariff through the depreciation component.

GRIDCO representative submitted that the cost of reconstruction should not be burdened on beneficiary.

Since no consensus could be evolved, CCM advised to place this agenda in the upcoming TCC/ERPC meeting.

Members may Discuss.

ITEM NO. B13:	**Proportionate cost sharing by substation bays owners (M/s PMTL and ATL) for boundary wall work carried out by Darbhanga substation owner (DMTCL)**

As appraised by DMTCL to ERPC Secretariat in various monthly OCC meetings that the boundary wall work has been completed by DMTCL at Darbhanga Substation as directed by ERPC & other substation bay owners to avoid the situation experienced in the monsoon of 2020. Initially upon receipt of instructions from EPRC & other authorities, DMTCL already informed to all the authorities that there are 02 more no. of stake holders i.e. M/s ATL & M/s PMTL who are having their assets within the premises of Darbhanga substation from whom DMTCL requested for their co-operation in terms of taking up this work jointly. DMTCL tried their best to pursue and involve M/s ATL & M/s PMTL from design stage itself so that work could be completed with full co-ordination and consensus with all 03 parties. However, both-M/s ATL & M/s PMTL did not supported DMTCL by any means and indicated their inability for this.
As the cost of the above boundary wall is significantly high and it is difficult for any single stakeholder, who is operating transmission asset under TBCB- Tariff Based Competitive Bidding mode, to bear the entire cost. Hence, DMTCL request intervention at TCC level to coordinate among all the stakeholders of DMTCL Darbhanga Substation for bearing the proportionately cost of the substation boundary wall work. Committee to note that the construction of same has been completed in June 2021 by DMTCL at their own without waiting for the support from other bay owners.

In the 44th TCC meeting, DMTCL representative informed that the cost incurred for the construction of flood protection wall with a pumping arrangement is Rs 3.25 crore and

submitted that since ATL & PMTL have their assets within the premises of Darbhanga S/s, they are also liable to share the cost.

Both ATL & PMTL representatives submitted that there is no such clause in the TSA for cost sharing of this boundary wall construction.

TCC felt that the construction of boundary wall was very important as a flood prevention measure and all the licences are likely to be equally impacted in the event of Flood.

After detailed deliberation, TCC opined that all three concerned transmission licensees need to adopt a flexible approach to resolve such types of issues. Further, TCC recommended for formation of a committee comprising of members from STUs of Bihar, Jharkhand, West Bengal and Odisha to examine all the aspects of this issue.

DMTCL, ATL & PMTL were advised to cooperate with the Committee as required.

ERPC vide office order under file No. ERPC/COMM-I/2021/1155 dated 18.11.2021 constituted the committee for resolving cost sharing issue of boundary wall constructed at Darbhanga S/s of DMTCL.

The report of the Committee attached at **Annexure B-13** for further deliberation.

Members may discuss.

ITEM NO. B14:	**Segregation of Actual Generation of Barh Stage-I & II**

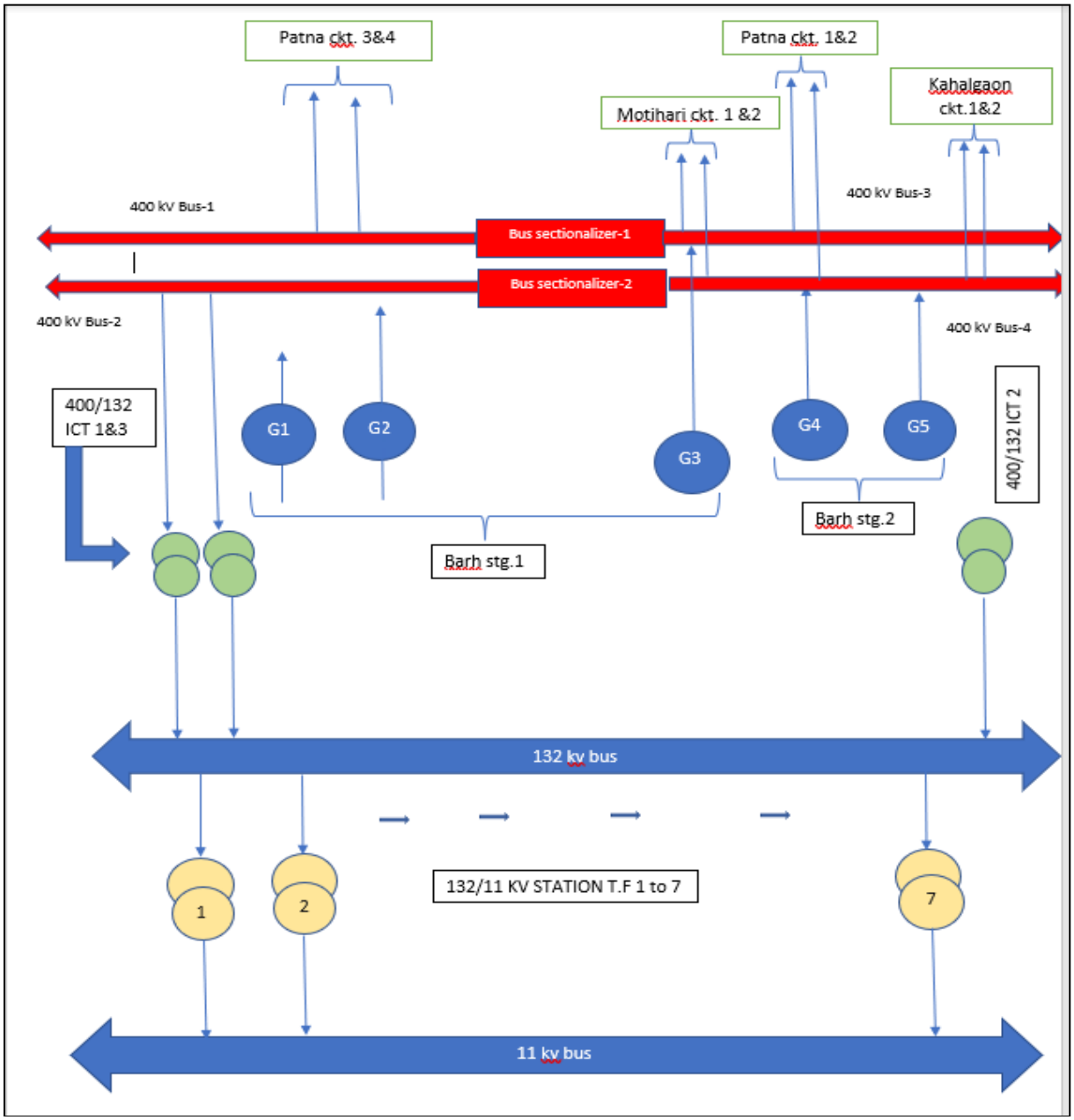
As per Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006; main meters and check meters are installed at outgoing feeders of generating stations. Net injection of a generating station is computed as summation of main meters at all outgoing feeders.

The Barh Stage-I comprises of three nos. of units as G-1, G-2 & G-3, but Unit G-3 is physically connected at Barh stage-II. Stage-II comprises of two nos. of Units i.e G-4 & G-5. Barh Stg-I and Barh stg-II are two different control areas bound by meters; both the stages have different % share of allocations and beneficiaries. Scheduling of the two stages are done separately. Accordingly actual injection of both the stages has to be computed separately and properly segregated. The SLD of Barh (both stages) with sectionalizer is shown as below:

The net generation of both the stages should be computed as below-

Stage-I Net Injection (with Units G-1, G-2 & G-3 at one side at stage-I) = Σ (Outgoing feeders connected to stg-I) + (Bus-sectionaliser-1) + (Bus-sectionaliser-2).
Stage-II Net Injection (with Units G-4 & G-5 at one side of stage-II) = Σ (Outgoing feeders connected to stg-II)-(Bus-sectionaliser-1)-(Bus-sectionaliser-2).

There are 03 Nos. of 400/132 kV ICTs commissioned at Barh. As the 200 MVA 400/132 kV ICT-1 & 3 are connected at stage-I and the auxiliary power is being drawn by both Stage-1&2 from the said ICTs through station transformers; the segregation of net injection of both the stages is not possible by using the bus-sectionaliser.
The matter was also informed to Barh NTPC and at present the following methodology has been adopted for calculating net injection of both stages of Barh.-



Stage-I Net Start up drawl (for Unit-2) = – ST2
Stage-I Net Firm generation = (GT#1 – ST#1) - ST#3 +ST#2
Stage- II Net Firm generation = (Summation of all outgoing feeders) – (Stage-I Net Firm Generation)

In 45th CCM, ERLDC representative explained the existing methodology of segregation of actual energy of Barh Stage-I & Stage-II. NTPC Barh representative submitted that the existing methodology may result in accounting errors in the event of shutdown of the Unit#1 of Stage-I. Further, he suggested an alternative methodology for the segregation of stage 1 and stage 2 generation.

CCM advised ERLDC & BARH to submit their methodology to ERPC secretariat for a review and further submit to the upcoming TCC Meeting for approval.

ERPC secretariat reviewed the methodology as submitted by ERLDC and NTPC BARH, found that the methodology proposed by NTPC, BARH is more accurate in segregating actual generation of BARH stage I & stage II.

The proposed methodology for calculating net injection of both stages of BARH:

1. Net Exbus NTPC Barh: Sum of (KH-1, KH-2, PAT-1, PAT-2, PAT-3, PAT-4, MOT-1, MOT-2)
2. Infirm Power Unit-2: Abs(GT#2) - ST#2
3. Commercial Exbus NTPC Barh: Sum of (S.N. 1 & S.N. 2)
4. Stage-I AG: [Abs(GT#1) - ST#1 -ST#3] + (GT#1/(GT#1+GT#4+GT#5))*ST#2
5. Stage-II AG: (S.N. 1 - Abs(GT#2)) - [Abs(GT#1) - ST#1 -ST#3] + ((GT#4 + GT#5)/(GT#1+GT#4+GT#5))*ST#2

TCC may approve the methodology.

ITEM NO. B15:	**PLCC issue in 400 KV Baripada-Kharagpur T/L**

In 400kV Baripada-Kharagpur T/L there are issues in PLCC. Among the two nos. channels, channel one has been rectified earlier but it has not been working properly and channel two is faulty. He further added that channel one is not stable and spare parts for the same are also not available. SLDC, WB urged for following the all over India trend to settle the issue of who will rectify / replace the PLCC panels in respect to the mentioned line. POWERGRID Orissa urged for following precedence for rectification / changing of PLCC panels at both ends by WBSETCL.

In the 185th OCC meeting, West Bengal representative pointed out that different practice of maintenance for different tie lines is not desirable and there is a need for streamlining the procedure for all the tie lines. He further submitted that irrespective of the ownership of the PLCC, the maintenance work may be carried out by the utilities at their respective ends.

In 186th OCC Meeting, WB representative submitted that on careful scrutiny for other tie lines, it was noticed that normally the maintenance, fault rectification, panel replacement types of jobs for PLCC panel etc. are done by the utilities at their respective ends. For example, in case of STPS-Chandil line, JSEB is maintaining their end PLCC portion and WB for STPS end part. Hence, continuing the same logic, different rules for different tie lines are not desired. So, the all-India trend should be maintained for the Kharagpur-Baripada line also. Hence for changing the panels at Baripada end, Power Grid may please take up the matter, and WB will take care of the Kharagpur end panel replacement work to make both channels available and reliable.

POWERGRID Odisha representative stressed upon the fact that the maintenance work of both ends may be carried out by the respective owners of the PLCCs.

OCC opined that a uniform methodology has to be implemented for the maintenance of all the tie lines. OCC advised POWERGRID representative to take up the matter with their higher management and share their views with ERPC for further deliberation on the issue. POWERGRID Odisha vide mail dated 25.11.2021 informed that the said PLCC panels at Baripada are WBSETCL's property. Further the following details mentioned below were also furnished by POWERGRID Odisha.

PART-I

1. 400 kV Rengali-Kolaghat line was pre-existing before LILO of the same at Baripada in 2005. During this LILO, PLCC panels at Rengali were diverted to Baripada Ss for PLCC link of Baripada-Kolaghat Line.
2. These panels were maintained by Gridco at Rengali S/s before diversion to Baripada Ss and were supposed to be maintained by GRIDCO at Baripada Ss after the said diversion.
3. These were old ABB make PLCC Panels.
4. IOM dtd 05.09.2009 by CM (O&M) Baripada to CM (OS), ER-II, Kolkata and Fax dtd 25.04.2005 from DGM Baripada to GM (Telecom), GRIDCO are relevant references for above mentioned details. Scan copy attached for reference.

PART-II

1. WBSETCL commissioned 400 kV Kharagpur Substation in 2012 by making LILO of the existing 400 kV S/C Baripada-Kolaghat line at Kharagpur.
2. During the above LILO, existing ABB PLCC panels meant for earlier Baripada-Kolaghat line was replaced by BPL Make PLCC Panels.
3. Fresh PLCC arrangement at Baripada Ss for above 400 kV Baripada-Kharagpur line was taken up by WBSETCL through their vendor M/s Alstom. Letter from M/s WBSETCL to POWERGRID vide letter no. TR. PROJ. /T-181/20 dtd 11.04.2012 is attached for reference.
4. The frequencies to be set for above PLCC link were communicated to Baripada Ss by M/s WBSETCL through Letter No. C/ED/PLCC/PGCIL/Kharagpur dtd 30.08.2010. Scan copy attached.

Further, it has also been learnt from previous employees posted at Baripada Ss that revenue bifurcation for maintenance of PLCC at Baripada Ss by POWERGRID has not been done and that the response from Kharagpur end for any rectification of PLCC panels for subject line was poor.

In 186th OCC Meeting, POWERGRID Odisha representative informed as the asset does not belong to them; the maintenance work shall not be carried out by POWERGRID.

West Bengal representative stressed upon the fact that different practices of maintenance for different tie lines are not desirable and there is a need for streamlining the procedure for all the tie lines. He added that irrespective of the ownership of the PLCC, the maintenance activities should be carried out by the utilities at their respective ends.

MS, ERPC was of the view that in case of interstate tie lines having two different owners, the selection of the equipment should be on the basis of mutual consensus and cost sharing between the involved parties. Thereafter, the erection, commissioning and maintenance of PLCC could be taken up individually at respective utilities' ends. The above methodology may be taken up and finalized in the upcoming TCC & ERPC meetings and would be used as a reference for all such future cases.

TCC may discuss and approve the methodology.

ITEM NO. B16:	Implementation of Differential protection for short transmission lines

As per the CEA standard, transmission line protection can have either distance or differential protection scheme as main protection scheme. It has been observed that for short lines distance protection scheme tends to over reach and pose protection coordination issues with other elements from the substation. Further many a times due to this short line distance protection, the longer lines from remote ends have to increase their zone-2-time delays to higher values (500-600 ms).
In 109th PCC Meeting, PCC enquired about the criteria adopted by utilities for implementing line differential protection in the lines at 220 kV and above level.

The views of utilities were given below:

- WBSETCL representative informed that as per their adopted practice criteria of line length < 10 km is considered for implementing line differential protection. For line length > 10 km, distance protection scheme gives satisfactory results as such they do not require implementing line differential protection for line length of 10-20 km.
- DVC representative informed that they had considered the criteria of line length < 10 km for implementing line differential protection scheme in their system.

ERPC secretariat opined that in general for very short lines having line length less than 10 km, limitations are imposed by R/X of the relay in accurate setting of zone-1 of distance protection so the criteria of implementing line differential protection for line length of less than 10 km may be adopted by the utilities for lines at 220 kV & above voltage level. However, in critical and important lines as recommended by PCC forum, utility shall provide line differential protection irrespective of length of line.

109th PCC agreed to the above proposal.

List of short transmission lines for ER utilities where implementation of fiber-based line differential protection has been suggested is given at **Annexure-B16**.

Further, it is proposed that the cost relating to implementation of fiber based differential protection scheme at either end of the transmission line will be borne by the bay owner of the respective end.

However, to maintain the relay and communication compatibility, the technical specification of the scheme shall be decided mutually by the utility(ies) owning the bay(s).

Members may discuss.

ITEM NO. B17:	Grid Disturbances at 220 kV Budhipadar S/s.

During last one year three nos. of grid disturbance had occurred at 220 kV Budhipadar S/s. In all the three events, there was total power failure at 220 kV level.
The substation is of vital importance as it has interregional connectivity, being connected to no of CPPs including the Vedanta CPP and having the evacuation lines for IB TPS generation.
The disturbances were analysed in the PCC/Special meetings and observations were communicated to OPTCL taking necessary actions.
The protection and other issues observed during discussion in PCC Meetings are as follows:

i. Restoration of busbar protection at 220 kV Budhipadar S/s

ii. Commissioning of PLCC/OPGW communication for all the feeders emanating from 220 kV Budhipadra S/s so that autorecloser and carried aided tripping scheme may be implemented in those lines.
iii. Ensuring healthiness of old -substation equipment/Replacement of ageing equipment

Further, the issue of high fault level at Budhipadar S/s was being discussed in the OCC meeting and OPTCL was advised to carry out the fresh system study and take appropriate action for reducing the fault level at Budhipadar in timely manner.

OPTCL may respond.

ITEM NO. B18:	**Status of Implementation of Bus Bar protection at 220 kV substations.**

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.
PCC raised serious concern over the issue of delay in implementation/restoration of busbar protection at various substation of state utilities and decided to highlight the issue at TCC forum.
Some of the substations where the discrepancy was noticed during discussion in PCC meetings are given below:
BSPTCL: 220 kV Biharsharif S/s
OPTCL: 220 kV Budhipadar S/s, 220 kV Tarkera S/s, 220 kV Jaynagar S/s, 220 kV Rengali S/s
JUSNL: 220 kV Ramchandrapur S/s, 220 kV Patratu S/s,
TVNL: 220 kV Tenughat S/s (electromechanical relay)

Subsequently PCC advised all the state utilities to submit the status of availability of busbar protection at 220 kV substations in their system. The list is enclosed at **Annexure-B18**.

Concerned utilities may respond. Members may discuss.

ITEM NO. B19:	**Replacement of conductor in 220kV TTPS-Biharsharif S/c line-TVNL**

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

I. TTPS-PTPS 220 KV Single Circuit line.
II. TTPS-Govindpur 220 kV Double Circuit line.
III. TTPS-Biharsharif 220 KV Single Circuit.

Total Length of TTPS-Biharsharif line is 180 Km. out of which, 2.5 KM (Approx.) line at the Biharshariff end, connected with Zebra conductor, rest of the length of this line is Twin Moose Conductor. Load bearing capacity of this 220 KV line is only 200 MW due to Single Zebra

Conductor. This line tripped many times due to backup over current, when flow exceeds 200 MW and total power failure situation arises after tripping of rest lines. To enhance load bearing capacity it is essential to replace this portion of line (2.5 KM) with Twin Zebra/Twin Moose conductor.

A request letter regarding replacement of conductor has already been given to MD, BSPTCL.

TVNL may explain. BSPTCL may respond.

ITEM NO. B20:	**Revised RTA for the period from 15.11.2014 to 07.03.2016 issued vide ERPC letter No. ERPC/COM-I/REA/2018/3780-3798 dated 11/12.01.2018**

Bihar Discoms vide Director (Operation), SBPDCL letter no 162 dated 23.09.2021 has sent the agenda item on the matter to Hon'ble ERPC to discuss the same in the 44rd TCC meeting. The said agenda was discussed in the 44th TCC meeting as item no: C16.1 and following was deliberated:

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

In the 45th CCM it was deliberated that POC rates for the period from 15.11.2014 to 08.03.2016 is yet to be revised by NLDC. It was further submitted that RTA & RTDA for the said period shall be again revised after the issuance of revised POC rates by CERC.

Members may discuss.

ITEM NO. B21:	**Issue in implementation of the provisions of the order no. L-1/250/2019 /CERC dated 14.02.2021 of Hon'ble CERC.**

Bihar Discoms vide Director (Operation), SBPDCL letter no 87 dated 17.03.2021has sent the agenda item on the matter to Hon'ble ERPC to discuss the same in the 43rd TCC meeting. The said agenda was discussed in the 43rd TCC meeting as item no: B28.1 and following was deliberated:
"...TCC advised ERPC Secretariat to intimate the said concerns to Hon'ble CERC for necessary clarifications. Further, the concerned state utilities are advised to take up with the Commission separately."

Further, the matter was also discussed in the 3rd meeting of the Commission with Chairperson and Member Secretary of RPCs held on 17.11.2021-Reg and the following was deliberated in the matter:
"20.(f) Chairperson, CERC acknowledge the concern of Bihar , directed staff of the commission to discuss the matter with CTU and resolve the issue in accordance with removal of difficulty order."

As per the above MoM dated 04.01.2022, the staff of the Hon'ble Commission have been directed to take up the issue with CTU.

Members may discuss.

ITEM NO. B22:	Monthly Bilateral REA being issued for IIPs i.e. GMR (260 MW) and JITPL(300 MW).

Bihar Discoms vide Director (Operation), SBPDCL letter no 87 dated 17.03.2021 has sent the agenda item on the matter to Hon'ble ERPC to discuss the same in the 43rd TCC meeting. The said agenda was discussed in the 43rd TCC meeting as item no: B28.2 and following was deliberated:

"...ERPC Secretariat agreed that the DC certification of the said stations would be done from April 2021 subject to submission of PPA wise DC and Agreed Schedule by the respective IPP to ERLDC for onward submission of the same to ERPC..."

DC certification for JITPL was started from the month of July-21 by ERPC but DC certification for GMR has not been started till date.

ERPC Secretariat took up the matter with GMRKEL several times vide mail dated 05.08.2021, 13.09.2021 and 19.03.2022. However, till date no response has been received.

Members may discuss.

ITEM NO. B23:	Non consideration of provision undersigned Transmission Service Agreement (TSA) by ERLDC while Issuing the successful Trial Operation certificate of Transmission elements/systems constructed by Transmission Service Provider (TSP) under TBCB.

Individual Transmission Service Provider has been selected through TBCB tenders to construct the respective Transmission elements/systems in view of the Tariff Based Competitive Bidding Guidelines for Transmission service and Guidelines for Encouraging Competition in Development of Transmission Projects issued by Government of India, MoP dated 13.04.2016.

Thereafter, Transmission Service Agreement (TSA) are being executed between Long term Transmission Service Customers (LTTCs) and TSP for the respective Project scope which consist different Transmission elements. In this regard various TSAs have also been signed by the State Discoms of Eastern Region including Bihar Discoms with TSPs for the different Transmission Project/Elements such as Alipurduar Transmission Limited, PMJTL, PMTL, DMTCL etc.
These TSAs consist of the provisions related with Connection and Commissioning of the Projects such as interconnection and commercial operation. For example the related provisions of commercial operation in the TSA dated 22.09.2015 (executed between ATL and LTTCs including Bihar Discoms) is given as below:

Article 6.2.1
"An Element of the Project shall be declared to have achieved COD seventy two (72) hours following the connection of the Element with the Interconnection Facilities or seven (7) days after the date on which it is declared by the TSP to be ready for charging but is not able to be charged for reasons not attributable to the TSP or seven (7) days after the date of deferment, if pursuant to Article 6.1.2…
Provided that an element shall be declared to have achieved COD only after all the element(s), if any, which are pre-required to achieved COD as defined in schedule-3 of this agreement, have been declared to have achieved their respective COD."

However, on perusal of the Trail- Operation certificates issued by ERLDC in case of ATL for various elements, it is observed that the said Trail- Operation certificates was issued after observing Trial-run of the individual Transmission element for 24 hrs only which is contradictory to the stipulated mandatory provision of 72 hrs under Articlle 6.2.1 of the TSAs.

In this regard, Bihar Discoms vide letter no.124 dated 24.08.2020 had raised the issue before ERLDC. In reply to which ERLDC vide its letter no. 0962 dated 25.08.2020 had stated that ERLDC only certifies the 24 hrs continuous power flow as trial run operation of any ISTS elements as per IEGC clause no 6.3.A.5.

In the similar nature, the issue was re-observed in case of trial operation certificate issued by ERLDC in case of PMTL for various elements. The provision of the TSA clearly provides for 72 hrs of successful trial operation of the individual elements whereas ERLDC has issued Trail operation certificate considering only 24 hrs of trail operation. Matter has been once again highlighted to the ERLDC by Bihar Discoms, vide Chief Engineer (Commercial), letter no. 30 dated 15.02.2022.
(Copy of communication exchange between ERLDC and Bihar Discoms is attached herewith as **Annexure-B23**)

It is pertinent to mention here that in case of TSA executed with ATL there are 9 no of LTTCs such as WBSEDCL, GRIDCO, JBVNL, EPDS, MSPDCL, DOPN, AEGCL, NBPDCL and SBPDCL is the Lead LTC. Further, in case of TSA executed with PMTL there are 7 no of LTTCs such as GRIDCO, DVC, JBVNL, NBPDCL, SBPDCL and WBSDECL is Lead LTC.

Bihar may explain. Members may discuss.

ITEM NO. B24:	**Non Supply of Power by JITPL (2 X 600 MW), Derang, Angul to GRIDCO as per PPA dated 05.01.2011**

As per the long term PPA signed by JITPL with GRIDCO dated 05.01.2011, the IPP is obliged to supply of 12% power sent out from the Thermal Power Plant at variable cost Energy Charge Rate (ECR).The COD of the generating station was attained on 19th April, 2015. JITPL was supplying power through CTU network, in absence of connectivity to STU network, by bearing POC charges and losses (as per the Supplementary PPA dated 23.07.2013 with GRIDCO) till 22.05.2019 at provisional ECR fixed by OERC from time to time in ARR orders of GRIDCO. GRIDCO availed power supply through inter-state STOA and scheduling was done by ERLDC.

However, under the garb of interim stay order dated 16.05.2019 of Hon'ble Orissa High Court in WP(C) No. 18150 of 2018 (challenging the MOU, State Thermal Policy and PPA), JITPL has unilaterally stopped supplying power to GRIDCO, though there is no specific direction for non-supply of power to the State. A copy of the Hon'ble OHC is enclosed as **Annexure-B24**.

At present the generation from both the Units is to the tune of 1042 MW and is supplying power to States like, Kerala, Bihar, Karnataka, Gujrat, Tamil Nadu etc whereas not supplying to the host State Odisha, even after availing concessional land, water and coal under the MOU with Govt. of Odisha.

GRIDCO has raised this issue through various correspondences with ERPC/ERLDC to take necessary action as per statute/law so that, JITPL shall supply power to the State.

In 189th OCC Meeting, GRIDCO explained the issue in brief. JITPL representative was not present in the meeting. After detailed deliberation OCC referred the issue to TCC for further deliberation.

GRIDCO may explain. Members may discuss.

ITEM NO. B25:	**Strengthening of OPGW Network within the ER-Grid and connectivity with other regions.**

In 42nd ERPC meeting, implementation of Strengthening of OPGW Network within the ER-Grid and connectivity with other regions was approved. Estimated cost of Rs. 83 Cr was indicated which was based on contracts awarded in 2018-19.

Contract for the above project has been placed on 15.11.2021, however the DPR cost is revised due to the following reasons-

1) Tender for OPGW based communication packages being carried out through Domestic Competitive Bidding for the first time in line with guidelines on public procurement.
2) Restriction of participation of OPGW manufacturers who have beneficial owners in countries land bordering with India in public procurements, in line with section 144 of GFR (General Financial Rules) guidelines issued by Department of Expenditure, GOI in July'20. Qualified bidders in these tenders were reduced to 3 from 5.
3) There is an increase in price of raw materials like Aluminium and steel over the last 5 years also.

Revised estimated DPR cost of the said project is approximately **Rs. 90 Cr**.

TCC may approve the revised cost.

ITEM NO. B26:	**Outstanding dues of Sikkim i.r.o. Chukha HEP Transaction**

PTC has been supplying power from Chukha HEP, Bhutan to Energy and Power Department of Sikkim. However, Energy and Power Department of Sikkim is irregular in making payment to PTC. The energy bills have not been paid since Nov, 2019. Sikkim has made payments for two recent energy bills of Nov,2021 and Dec, 2021 whereas the bills from Nov, 2019 to Oct, 2021 remain unpaid.

It is to mention that since it is a cross-border transaction involving Royal Government of Bhutan and Government of India, PTC is making regular payments to the generating company namely Druk Green Power Corporation Limited irrespective of receipt of payments from Sikkim. For this purpose, PTC has to mobilise additional resources for the working capital mismatch and continued delays are causing liquidity crunch to PTC.

Following payments are outstanding as on 31.01.2022

Sl. No.	Name of the State Utility/Discom	Energy Outstanding dues for power supply from Chukha HEP	Late Payment Surcharge	Total

1.	Energy and Power Department of Sikkim(Sikkim)	20.14 Cr.(outstanding since Nov 2019)	Rs. 4.86 Cr.	Rs. 24.82 Cr.
	Total	Rs. 20.14 Cr.	Rs. 4.86 Cr.	Rs. 24.82 Cr.

The above agenda was also discussed in the 44th Meeting of TCC and ERPC Meetings held on 29th & 30th September, 2021 wherein Energy and Power Department of Sikkim's response was as follows: (Excerpts from the MOM dated 21.10.2021)

"SIKKIM representative informed that they are already pursuing with Govt. of Sikkim for necessary budgetary support for liquidation of outstanding dues. Sikkim further informed that they will start liquidating the outstanding dues from next month onwards and the entire outstanding dues shall be cleared by December'2021."

Despite the assurance from Sikkim representatives, we have not received the outstanding amount except for payment of Rs 33.31 Lakhs against the total outstanding of Rs 24.82 Cr. We have also requested Member Secretary, ERPC to explore the reallocation of Energy and Power Department of Sikkim's share of power from Chukha HEP to other beneficiaries of Chukha HEP power as per the Agreement dated 21.08.2002 vide our letter dated 17.12.2021.

In view of above, it is requested ERPC may advice Energy and Power Department of Sikkim to liquidate the outstanding, make regular payments and open LCs as per the agreement or else PTC will be left with no other option but to request ERPC for reallocation of power as per the provisions of the agreement dated 21.08.2002.

In this regard, ERPC vide letter No.ERPC/Com-I/2021/1306-07 dated 29.12.2021 had sent letter to Sikkim, but no communication received from Sikkim, so far.

In 45th CCM, PTC representative submitted that despite repeated persuasion by PTC and assurance by SIKKIM representative in 44th TCC Meeting, they have not received the outstanding amount in respect of Chukha HEP. Sikkim representative submitted that they will make the payment as early as possible.

CCM observed that this is a cross border transaction and being governed by inter-governmental agreements. Hence, top priority should be accorded to fulfil all payment obligations. Sikkim representative was advised to take up the matter with the Energy & Power Dept, Govt. of Sikkim to liquidate the outstanding dues at the earliest.

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

Members may discuss. Sikkim may update.

ITEM NO. B27:	**Outstanding dues of JBVNL (Jharkhand Bijlee Vitran Nigam Limited) against power supplied by NVVN**

NVVN supplied 50 MW power each from NTPC Farakka III & Korba III from January 2017 to May 2017 to JBVNL. This power supplied against emergent requirement of Jharkhand, as it was facing power shortage during this period.

NVVN supplied power under short term bilateral trade and accordingly raised the bill for payment. However, NVVN has received an amount of Rs. 64.45 Crore in instalments against total billed amount of Rs. 115.21 Crores.

NVVN has been following up regarding the release of payment for the last four years.

The balance amount of Rs. 50.76 Crores is still pending for more than four years, to be paid by JBVNL.

Outstanding payment beyond 60 days from the due date of payment shall attract surcharge as per the CERC regulation which as on date is amounting to approximately Rs. 34 Cr.

In 45th CCM, NVVN representative submitted that the outstanding dues of JBVNL in respect of Power supplied from NTPC Farakka-III & Korba-III for the period from January 2017 to May 2017 is pending since more than 4 years. Jharkhand representative assured that they are pursuing the outstanding dues matter with Govt of jharkhand and it will be cleared as early as possible.

CCM advised Jharkhand to liquidate the outstanding dues at the earliest.

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

Jharkhand may update.

ITEM NO. B28:	**Payment Status-ERLDC**

A. Payment of Deviation Charge – 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 10.03.2022 is enclosed at **Annexure – I**. The current principal outstanding Deviation Charge of BSPHCL, JUVNL and SIKKIM is **₹ 33.23 Cr, ₹ 58.68 Cr, & ₹ 22.78 Cr** respectively considering bill up to 30.01.2022. ERLDC is regularly giving reminders to BSPHCL, JUVNL & SIKKIM and others defaulting entity to liquidate the outstanding Deviation charges.

In 44th TCC/ERPC held in Sep'2021, Bihar representative informed that they had liquidated Rs. 50 crore as on 29.09.2021 and the rest amount would be cleared by December'2021.
Jharkhand representative informed that payments have been delayed due to Covid-19 pandemic and outstanding dues will be liquidated within a month. Sikkim representative informed that outstanding dues will be liquidated from next month onwards and by December'2021 the entire outstanding dues shall be cleared.

BSPHCL, JUVNL, & SIKKIM may update.

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 31.03.21 is enclosed in **Annexure-II**.

44th CCM advised all the constituents to liquidate the payment at the earliest. DVC, Jorethang, GMR, NVVN-Bangladesh & OPGC (Gridco) are yet to clear outstanding Interest.

Concerned constituents may update.

C. Reactive Energy Charges – Present Status.

As per decision taken in 43rd TCC/ERPC the methodology of Reactive energy billing has been revised and is implemented w.e.f. 05.04.2021 and bills are being issued to recipient states as well. The status of Reactive Energy Charges in the pool as on 15.02.2022 considering bill up to 30.01.2022 is indicated in **Annexure – III**. The total outstanding receivable on account of Reactive charges from Bihar, JUVNL & Sikkim is **₹ 6.57 Cr, ₹ 1.46 Cr & 0.55 Cr** respectively. WBSETCL and GRIDCO are regularly paying the reactive charges.

Bihar, JUVNL & Sikkim may update.

D. Reconciliation of Pool accounts

i. Deviation Account

At the end of 3rd quarter of 2021-22, the reconciliation statement (Period: 01.10.21 to 31.12.21) has been issued by ERLDC on 11.01.22 and statements had been sent to the respective constituents and also uploaded the same at ERLDC website at https://erldc.in/market-operation/dsmreconcilation/ The constituents were requested to verify /check the same & comment (if any) to ERLDC at the earliest. The status of reconciliation is enclosed in **Annexure-VI**.

No constituents except MPL have reconciled the Deviation statement and it is pending for more than one quarter.

Concerned constituents may update.

ii. Reactive Account

At the end of 3rd quarter of 2021-22, the reconciliation statement (Period: 01.10.21 to 31.12.21) has been issued by ERLDC on 11.01.22 and statements had been sent to the respective constituents and also uploaded the same at ERLDC website at link https://erldc.in/market-operation/reactivereconcilation/. Constituents were requested to verify /check the same & comments if any to be reported to ERLDC. The status of reconciliation is enclosed in **Annexure-VII**.

BSPHCL, JUVNL, DVC, West Bengal & SIKKIM have not reconciled the reactive account for one or more quarters.

Concerned constituents may update.

iii. RRAS & AGC Account

At the end of 3rd quarter of 2021-22, the reconciliation statement (Period: 01.10.21 to 31.12.21) has been issued by ERLDC on 11.01.22 and statements had been sent to the respective constituents and also uploaded the same at ERLDC website at link https://erldc.in/market-operation/rrasreconcilation/.

NTPC, BRBCL, KBUNL, NPGC and MPL have not reconciled the RRAS account for one or more quarters. The status of reconciliation is enclosed in **Annexure-VII.**

Concerned constituents may update.

iv. Short Term Open Access

a. For STOA payments made to SLDC / STU:

The reconciliation statements of STOA payments for the period of Apr'18 to Dec'21 have been sent to the DVC, OPTCL, BSPTCL, Jharkhand and WBSETCL for checking at their end and confirmation from their side. WBSLDC has confirmed up to Q-2 of 2020-21. WBSETCL has confirmed up to Q-2 of 2019-20. BIHAR SLDC & STU have confirmed for the entire period except Q-1 of 2021-22. OPTCL has confirmed up to Sep'19. ODISHA SLDC has confirmed for the entire period except Q-1 of 2021-22. DVC SLDC & STU has confirmed up to Q-1 of 2020-21.

b. For payments made to STOA applicants:

The reconciliation statements of STOA payments for the period of Apr'18 to Dec'21 have been sent to the CESC, JITPL, JBVNL, BSPHCL, NHPC, GRIDCO and WBSEDCL for checking at their end and confirmation.

NHPC is yet to confirm for Q4 of 2018-19. BSPHCL is yet to confirm for Q-1 & Q-2 of 2020-21. JBVNL is yet to confirm for the period from Q-2 of 2020-21. WBSEDCL is yet to confirm for the period from Q-4 of 2020-21, Q-1, Q-2 of 2021-22.

As per clause 15.1 of CERC approved STOA bilateral procedure, since the confirmations have not been received within 2 weeks from the date of issuance of the letters, the statement issued by ERLDC have been deemed to be reconciled.

The details are attached in the **Annexure-VIII.**

Since there is a serious audit objection on non-signing of DSM, Congestion and STOA reconciliation statement it is once again requested that all regional pool members may check and sign the statement sent by ERLDC.

Members may take necessary action for signing the statements at the earliest.

E. Opening of LC by ER constituents for DSM payments

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 - IX.** Letters to this effect was issued by ERLDC to the defaulting entities.

In 43rd TCC, GRIDCO had informed that they would open the LC in due course. BSPHCL was also informed by ERLDC to open LC in favour of DSM Pool A/C in SBI instead of Axis Bank. However, LC is not opened till now. Further 44th Commercial Sub-Committee advised all the constituents to open the required LC in time. 43rd & 44th TCC advised all the concerned constituents to open requisite LC at the earliest.

At present there is no valid LC i.r.o BSPHCL, DVC, GRIDCO, WEST BENGAL SIKKIM, NPGC, JLHEP and TASHIDING.

Opening of LC is the regulatory requirement as per provision of CERC DSM regulations for defaulting members**.**

Concerned members may update.

F. Procurement of new SEMs and Status of DCDs/laptops used for meter data download:

In 42nd TCC/ERPC dtd. 13.12.2019, the procurement of first lot of 300 energy meters was concurred.
In 169th OCC, dtd. 27.07.2020 POWERGRID informed that they have already placed the order for 300 energy meters. ERLDC also informed that all the energy meters will be consumed in 2020-21 and there would be a requirement of additional 300 energy meters approximately to replace the old and time drifted SEMs.
In 177th OCC dtd. 17.03.2021 POWERGRID intimated that they have already awarded contract for procurement of additional 300 SEMs as per terms and conditions of existing contract in Jan'2021 and delivery for the same is expected by August'2021.
In 43rd ERPC/TCC dtd. 26.03.2021, ERPC accorded post-facto approval for procurement of additional 300 nos. of SEMs at an estimated cost of Rs. 36 Lakhs
In 44th CCM dtd. 07.07.2021, PGCIL informed that at present, there are total 475 meters in the stock of Eastern Region, out of which POWERGRID (ER-I) is having 250 meters and POWERGRID (ER-II) is having is 225 meters.

POWERGRID may update the status of procurement of meters, present stock of meters and also the status of total number of DCDs or laptops that are used for meter data downloading.

ITEM NO. B29:	**Default in payment of outstanding dues by beneficiaries**

The total outstanding dues of ER beneficiaries against Bills raised by CTU as on 04.03.2021 is detailed below. Please note that these figures includes both PoC as well as non-PoC outstanding amounts.

(Rs. in Crores)

Sl No.	DIC	Total dues	>45 Days dues
1	SOUTH BIHAR (SBPDCL)	283.44	115.71
2	NORTH BIHAR (NBPDCL)	245.51	102.94
3	JHARKHAND	57.19	1.99
4	BANGLADESH	0.00	0.00
5	SIKKIM	27.76	20.50
6	DVC	20.18	0.11
7	WEST BENGAL	203.07	23.02
8	DANS ENERGY	4.05	0.00
9	ECR	26.85	0.00
10	SER	2.14	0.00
11	SHIGA ENERGY	2.29	0.00

12	JUSNL *	11.96	11.96
13	OPTCL *	55.24	55.24
14	ODISHA	69.84	25.27
15	OPGC *	18.91	18.91
16	TEESTA URJA LIMITED *	8.50	8.50
17	TEESTA VALLEY *	5.75	5.75
18	ENICL*	0.53	0.53
	Total	1043.21	390.43

Note:- * Non PoC only
DICs may be advised to clear the dues in time.

Members may update.

ITEM NO. B30:	**Opening of Letter of Credit**

The following beneficiaries have to open/enhance LC as listed below:

(Rs in Crores)

DIC Name	**LC Required**	**LC Available**
East Central Railways-BRBCL	42.48	0.00
GRIDCO	59.29	50.35
South Eastern Railway_RGPPL	4.89	0.00
SOUTH BIHAR	72.91	15.27
NORTH BIHAR	62.11	9.73
JHARKHAND	26.99	11.52
SIKKIM	3.97	2.92

LC required values indicated above is as per CERC Sharing Regulation 2020 which came into effect w.e.f 01.11.2020. As per the Sharing Regulation 2020, generator billing shifted to DISCOMs for the tied up portion. Opening/Enhancement of LCs are being continuously pursued with the DICs. The beneficiaries may renew LC for the requisite amount in favour of CTUIL.

Members may update.

ITEM NO. B31:	**Additional agenda-if any**

PART C: ITEMS FOR INFORMATION

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

ITEM NO. C1 :	**3rd interaction of the Commission with Chairpersons and Member Secretaries of RPCs.**

The 3rd interaction meeting of the commission with Chairpersons and Member Secretaries of RPCs held on 17.11.2021 through Microsoft MS Team platform, wherein the agenda items of ERPC, as well as other RPCs, were discussed in detail. Hon'ble CERC vide letter dated 04.01.2022 issued the minutes of the meeting. The agenda items and minutes of the meeting are enclosed at **Annexure-C1** for your information and compliance.

TCC may note.

ITEM NO. C2 :	**New regulations/Orders of MoP/CEA/CERC**

Draft Central Electricity Regulatory Commission (Connectivity and General Network Access to the Inter State Transmission System) Regulations, 2021

CERC vide notification dated 16.12.2021 had issued the Draft Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2021 and requested to furnish the comments/ suggestions/objections from the stakeholders and interested persons on the above Draft Regulations on or before 25th February'2022. CERC had organized Workshops/Discussion on Draft Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2021 for Eastern Region beneficiaries on 14.02.2022.

TCC may note.

ITEM NO. C3 :	**Protection Audit in Eastern Region**

Protection audit is a primary activity to ensure power system protection implemented at substations and power plants are well coordinated and is as per CEA standards. Due to COVID-19, the activity could not be started since March 2020. Since then, various events have occurred where issues of protection coordination have been observed and several new substation and grid element has been connected with the grid.

In 109th PCC meeting held on 16.12.2021,

ERPC Secretariat representative briefed about the third-party protection audit activities which were carried out in Eastern Region in the past and its requirement vis-à-vis the benefits. He informed that protection audit for ER substations could not be carried out since the onset of Covid Pandemic. The last comprehensive audit for all 400 kV & 220 kV substations in ER were carried out long ago and in between a number of new 400 & 200 kV substations has been commissioned.

In view of above it was proposed to recommence the protection audit activity in ER. The audit would cover all 400 kV & 220 kV Substations in Eastern Region including the power plant substations.
The following activities have been decided to streamline the audit process:
PCC activities

- Formation of Three-Four core audit teams-All utilities to nominate their members
- Nodal officer from all utilities to co-ordinate with audit activities
- Identification of S/s to be audited
- Finalization of audit format

Pre-audit activities

- Utilities of S/s thus identified to check and update latest protection settings in PDMS database within next 7 days
- S/s to fill up pre-requisite data as per format attached before visit of audit team

Input to be obtained from protection database

- SLD of the S/s
- List of elements
- Updated settings from PDMS database (PDF/excel)
- Model setting for the elements of substation being audited

On the day of Audit at Substation/Plants

- Verification of protection setting as per details provided.
- All testing reports
- Equipment's healthiness status, DC healthiness, Aux system healthiness etc.

➢ It was informed that 3-4 audit team will be constituted consisting members from state utility, central utility, ERLDC & ERPC secretariat. The list substations where the audit is to be carried out would be finalized beforehand in PCC meeting and the concerned utility needs to check and update the relay/protection settings available in the protection database (PDMS) before the field visit. Further the nodal officer has to coordinate with the audit teams to facilitate their visit in carrying out the substation audit.

➢ The audit team would submit their report and observation to ERPC secretariat and the same would be placed in PCC meeting for information and compliance, if any, by the auditee utility.

Members agreed to the proposal of requirement of periodic protection audit for the substations and expressed their full cooperation in the audit activities.

TCC may note.

ITEM NO. C4 :	**Updation of Black Start and Restoration procedure of Eastern Region**

Based on comments received from the constituents Black start and restoration procedure for the Eastern region for the Year 2022 is updated and circulated to all on 31st Jan 2022.

TCC may note.

ITEM NO. C5 :	**Payment Status**

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 15.02.2022 (considering bill up to 30.01.2022) is indicated in **Annexure – IV**. Total receivable by the pool is ₹**150.31 Cr** and the total payable by the pool is ₹**173.05 Cr** as of 10.03.2022 (considering bill up to 20.02.2022).

This is for information to the members.

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 15.02.2022 (considering bill up to 30.01.22) is indicated in **Annexure – IV.** Total receivable by the pool is **₹30.07 Cr** and the total payable by the pool is **₹5.23 Cr** as of 10.03.2022 (considering bill up to 20.02.2022).

This is for information to the members.

C. Status of PSDF

An amount of total **₹ 185.09 Cr** from Reactive account (**26.62 Cr.**) & DSM Account (**158.47 Cr**.) has been transferred to PSDF after 44th Commercial sub-committee meeting held on 07.07.2021. With this the total amount of **₹ 1521.32 Cr** has been transferred to PSDF so far. The breakup details of fund transferred to PSDF (till 15.02.22) is enclosed in **Annexure V.**

This is for information to the members.

D. State Transmission Utility Charges and Losses applicable for STOA of FY 2021-22

Name of STU	Intra-State Transmission Charges	TRANSMISSION LOSS (For Embedded entities)
WBSETCL	Rs. 243.92 /MWh	3.10%
DVC	Rs. 143.7 / MWh	2.28%
OPTCL	Rs. 280 / MWh	3.00%
JUSNL	*	#
BSPTCL	Rs. 263 / MWh	3.00%
SIKKIM	*	#

N.B:
* Indicates rates yet to be furnished by concerned State Utilities. Transmission Charges for use of state network shall be Payable @ Rs.80 per MWh as per subsequent Amendment regulation 2009-dated 20.05.2009.
# Not yet intimated by the State Utility.

State Load Despatch Centre Operating Charges for STOA for FY 2021-22

Name of SLDC	SLDC Operating Charge
West Bengal	**
DVC	**
Odisha	Rs. 2000
Jharkhand	**
Bihar	**
SIKKIM	**

N.B:
** Indicates rates yet to be furnished by concerned State Utilities. Operating charges at the rate of Rs 1000/-per day or part of the day for each bilateral transaction for each of the Regional Load Despatch Centre involved and at the rate of Rs 1000/- per day or part of the day for each
State Load Despatch Centre involved shall be payable by the applicant as per subsequent Amendment regulation 2009-dated 20.05.2009.

This is for information to the members and any discrepancy may be reported.

E. Status of Start-up power drawl, infirm injection and CoD Declaration

Updated Status of Start-up power drawl, infirm injection and CoD Declaration of Generator as Reginal entity and Pool member in last Quarter is as follows:

1. Start Up power

S. No	Generator	Date of start-up Power Drawl
1.	NPGC(2X660MW) Unit-3	28.03.2021
2.	Barh Stg-I(3X660MW) U-2	18/01/2022

2. Infirm Power

S. No	Generator	Infirm Injection Started From	6 month period would end by	Extension granted by CERC
1	NPGC(2X660MW) Unit-3	28/03/2021	27/09/2021	Extension allowed Upto 27/09/2022
2.	Barh Stg-I(3X660MW) U-2	Not Started Yet		

TCC may note.

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Working arrangement for commercial settlement of transfer of URS from one constituent to another constituent

(i) Existing URS Methodology as per regulatory provisions:

a) The un-requisitioned surplus left over in a station can be availed by the beneficiaries requiring power more than their entitlement.

b) The surplus power of one or more beneficiaries of the stations is apportioned to one or more availing beneficiaries on pro rata distribution

c) The surrendering beneficiary does not pay the Fixed Charge (FC) of its surplus share availed by the beneficiary/beneficiaries. The availing beneficiary/beneficiaries pay the FC of the station of the surplus power availed by them.

d) During off peak period, the stations are not getting the Technical Minimum Schedule because of not qualifying in Merit Order Dispatch (MoD) of beneficiaries & opting for RSD. Once the station goes under RSD, the station at many times is not available during the peak period. Thus, the beneficiaries who badly need power are not getting the power due to station under RSD. Also, the FC of the Station under RSD has to be borne by beneficiaries.

e) Therefore, in Eastern Region, it is proposed to utilise the URS power effectively and efficiently, the brief summary of the idea/scheme is as follows:

Scheme finalized in Working Committee meetings & 45th CCM meeting:

a. Waiver of Fixed Cost for Scheduling up to technical minimum: West Bengal, Odisha, Bihar, Jharkhand agreed for 100% FC waive off and DVC agreed for 50% FC waive off for the URS availed by the availing beneficiary/beneficiaries up to TM. So, considering Sikkim's insignificant share in NTPC Stations as compared to other beneficiaries of ER, Sikkim may be considered 0% FC waive off the URS availed by the availing beneficiary/beneficiaries up to TM.

b. NTPC will continuously display the cost of the URS Power available at the discounted rate. Beneficiaries participating in the scheme shall avail the URS power based on their MoD.
c. Post facto Commercial settlement will be done by NTPC and beneficiaries participating in the scheme.

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

No. ERPC/COMM-I/2022/1662 **Date: 21.03.2022**

To

Member Secretary,
Eastern Regional Power Committee,
14, Golf Club Road, Tollygunge
Kolkata-700033

Subject: Report of the Committee on Cost-sharing issue of Boundary Wall constructed at Darbhanga S/s of DMTCL-reg

Ref: ERPC office order vide ERPC/COMM-I/2021/1155 dated 18.11.2021

Sir,

With reference to the above, please find the Committee report on Cost-sharing issue of Boundary Wall constructed for flood protection at Darbhanga S/s of DMTCL. This is for your kind information.

Yours faithfully

(S. K. Pradhan)
AD(Comml.), ERPC &
Convener of the Committee

Copy for Kind information of the Committee members:

1. Shri Anjani Kumar, CE(Civil), BSPTCL, Vidyut Bhavan, Baily Road, Patna-800001
2. Shri Sudipta Sengupta, CGM, OPTCL, Janpath, Bhubaneswar-751022
3. Shri Rakesh Kumar, GM(Civil), JUSNL, Engineering Building, HEC, Ranchi-834004
4. Shri Ranjan Das, Addl CE, WBSETCL, Vidyut Bhavan, Bidhannagar, Kolkata-700091

Report of the Committee on Cost-sharing issue of Boundary Wall constructed at Darbhanga S/s of DMTCL.

The committee has been constituted as per the decision taken in the 44th TCC meeting of ERPC held at Kolkata on 29.09.2021. The committee consists of the following members

1. Shri Anjani Kumar, CE(Civil), BSPTCL-Member

2. Shri Sudipta Sengupta, CGM, OPTCL- Member

3. Shri Rakesh Kumar, GM(Civil), JUSNL-Member

4. Shri Ranjan Das, Addl CE, WBSETCL-Member

5. Shri Shishir Kumar Pradhan, AD(Comml.), ERPC- Convener

Term of reference of this Committee is to examine all aspects of proportionate cost-sharing by substation bays owners (M/s PMTL and ATL) for boundary wall construction work carried out at Darbhanga substation by DMTCL and submit the report within one month.

In the First Meeting of the Committee on 21.12.2021, DMTCL submitted that the severe flood during the period of July'2020 at Darbhanga area leading to complete shutdown of Darbhanga S/s for a period of 12 days. Further, on advice of ERPC, ERLDC and BSPTCL, DMTCL constructed flood protection wall at the premises of 400/220 kV GIS Substation at Darbhanga as a long-term mitigation plan to tackle the future flood and an expenditure sum of Rs 3.25 crore has been borne by them. DMTCL requested for proportionate cost sharing of the said amount among the utilities having bays at the premises of Darbhanga S/s.

ATL representative highlighted that as per TBCB projects scope of the work and TSA agreement, concerned TSP needs to construct boundary wall for flood protection at S/s premises. He further added that Adani constructed many TBCB projects, where boundary walls have also been constructed by them. He pointed out that at Darbhanga S/s, DMTCL had constructed the fence instead of boundary wall during project development stage. So it is the responsibility of DMTCL to construct boundary wall and bear the cost of the same.

PMTL representative informed that the construction of boundary wall for flood protection should be in the scope of the S/s owner. He further informed that PMTL is also constructing boundary wall for the S/s under the scope of TBCB project based on the present flood level parameters. PMTL representative further submitted that this cost sharing mechanism shall be applicable for all the similar kinds of TBCB projects.

In the committee deliberation dated 21.12.2021, the followings were decided:

1. The construction of flood protection wall at 400/220 kV Darbhanga S/s was need of the hour for protection of S/s equipment from damages as well as outage of S/s during the times of flood to provide reliable Power Supply to Eastern Region.

2. Expenditure sum of Rs 3.25 crores borne by DMTCL towards construction of flood protection wall would be analysed by the Committee members. Award of tender documents and all other invoices to be shared by DMTCL for assessment of the same.

3. All the utilities (DMTCL, ATL & PMTL) to share their cost of the assets situated at Darbhanga S/s premises.

4. All the utilities (DMTCL, ATL & PMTL) to share their TSA agreements for further study by the committee to ascertain the scope of the work and methodology for apportioning the cost of boundary wall constructed at Darbhanga S/s, if any.

After getting inputs as sought from DMTCL, ATL & PMTL in the first meeting, the committee members met again on 09.03.2022 and 12.03.2022 and did an in-depth discussion on all aspects of TSA agreements of the stakeholders. The followings were examined in light of above issue.

1. **As per the TSA agreement of DMTCL with Long Term Transmission Customers dated 08.08.2013**

*"……In accordance with the Bidding Guidelines, the Bid Process Coordinator (hereinafter referred to as **BPC)** had initiated a competitive bidding process through issuance of RFQ and RFP for selecting a Successful Bidder to **build, own, operate and maintain the Project comprising of the Elements mentioned in Schedule 2** (hereinafter referred to as the **Project)……"***

Extract of Schedule 2 of DMTCL's TSA agreements with LTTCs:

"……Creation of 2x500 MVA 400/220 kVGIS Substation at Darbhanga with space for future extension (1x500 MVA) and

i)400 kV line bays-2 Nos
ii) 400 kV ICT bays-2 Nos
iii) 220 kV line bays-7 Nos
iv) 220 kV ICT bays- 2 Nos
v) Space for future bays-7 Nos 400 kV and 6 Nos 220 kV
vi) 125 MVAR bus reactor- 2 Nos
vii) Bus reactor bays- 2 Nos

Darbhanga S/s will be located near Darbhanga town……."

As per above, DMTCL will build, Own, Operate and maintain Darbhanga S/s and also it will keep space for *future extension (1x500 MVA) and* future bay extension-*7 Nos 400 kV and 6 Nos 220 kV* and 2 Nos bus reactor at Darbhanga S/s premises.

2. Extract of Schedule 2 of ATL's TSA agreement is reproduced here

"……....Kishanganj (POWERGRID)-Darbhanga (DMTCL#) 400kV 0/c line with quad moose conductor

Sub-station Extn:

- *2 nos. 400kV line bays at Darbhanga for termination of Kishanganj - Darbhanga 400kV D/c(quad) line*
- *80MVAr switchable line reactors(with 400 ohm NGR) in each circuit at Darbhanga end of Kishanganj-Darbhanga 400kV D/c (quad) line…….. ……..*

Note:

…..Darbhanga-Motihari Transmission Company Ltd. (DMTCL, SPV for ERSS-VI scheme) would provide space for 2 nos. 400kV line bays at Darbhanga substation for termination of Kishanganj- Darbhanga 400kV D/c (quad) line……...

SPECIFC REQUIREMENTS FOR CONSTRUCTION OF BAYS ALONG WITH REACTORS AT DARBHANGA SUB-STATION

Note - Darbhanga sub-station is being developed by M/s Darbhanga Motihari Transmission Company Limited (DMTCL). Before proceeding with the construction of bays along with associated reactors at Darbhanga substation, the BIDDER must fully familiarize himself with the site conditions and general arrangements & schemes etc. of the existing sub-station.

Note :- For the construction of bays along with reactors at Darbhanga S/s, the TSP shall be required to match the technical specifications of the equipments of the Dharbhanga S/s being developed by M/s DMTCL.

The proposed S/s is a Gas Insulated Sub-station (GIS) type generally confirming to requirement of CEA regulation for Construction of Sub-station.

Other relevant details related development of project (as per scope) at Darbhanga sub-station are as follows:
*(i)**The Land is in the possession of M/s DMTCL and shall be provided to the TSP free of cost…….***
(v) TSP shall be responsible for carrying out the Operation & Maintenance of line bays.

As per above, ATL will terminate 2 nos. 400kV line bays at Darbhanga for termination of Kishanganj - Darbhanga 400kV D/c(quad) line and line reactor at Darbhanga S/s at free of cost.

3. **Extract of Schedule 2 of Project scope and project description of PMTL's TSA agreement is reproduced here:**

"….4. Substation extension at Darbhanga S/s

400 kV Line bays with space for Switchable line reactor: 2 no

(2 no. for Darbhanga Sitamari(New) 400 kV D/c line with Tripple snowbird conductor)

……

Note:

(b) Darbhanga and Motihari substations belong to Darbhanga Mohtihari Transmission Limited. (subsidiary of Essel Infra). DMTCL to provide space to successful bidder for extension works.

Note: Darbhanga and Motihari substation develop by M/s Darbhanga and Motihari Transmission Company Limited(DMTCL). Before proceeding with extension works at Darbhanga and Motihari sub-stations, the BIDDER must fully familiarize himself with the site conditions and arrangements & schemes etc. of the existing substation……"

As per above, PMTL will terminate 2 nos. 400kV line bays for termination of Darbhanga Sitamari(New) 400 kV D/c line with Tripple snowbird conductor and line reactor at Darbhanga S/s at free of cost.

In light of the above, the Committee finds that Darbhanga S/s ownership lies with DMTCL. DMTCL will build, own, operate and maintain starting from the site selection, land procurement, Design and construction of the Substation. As per the TSA agreements, DMTCL will provide space for future bay extensions (7 no.) and Line Reactor at Darbhanga S/s for other project developer at free of cost. At present, ATL has 2 nos line bay & one-line reactor and PMTL has 3 Nos 400 kV line bay(02 main bay & 01 tie bay) at Darbhanga S/s.

After going through all the aspects of TSA Agreements of DMTCL, ATL, PMTL, and ERPC OCC forum decisions and subsequent letters of communication among the utilities, prior to the commencement of boundary wall project, the committee unanimously decided the followings:

1. **Darbhanga S/s ownership lies with DMTCL. So, any construction/alternation work within the premises of S/s is lying with DMTCL only.**

2. **The expenditure sum of Rs 3.25 crores incurred by DMTCL towards construction of flood protection wall at Darbhanga S/s premises will be borne by DMTCL.**

-------End------

भारत सरकार
विद्युत मंत्रालय
पूर्वी क्षेत्रीय विद्युत समिति
GOVERNMENT OF INDIA
MINISTRY OF POWER
EASTERN REGIONAL POWER COMMITTEE

No. ERPC/COMM-I/2021/ 1155

Date: 18.11.2021

Office Order

Subject: Constitution of committee for boundary wall issue of DMTCL-reg

As per decision taken in the 44th TCC meeting held on 29.09.2021 at Kolkata (in agenda Item No B12), a committee comprising of following members is being constituted:

1. One representative from BSPTCL-Member
2. One representative from OPTCL-Member
3. One representative from JUSNL- Member
4. One representative from WBSETCL- Member
5. One representative from ERPC Secretariat - Member convener

Terms of reference of the committee:

a. Examine all the aspects of the issue of proportionate cost-sharing by substation bays owners (M/s PMTL and ATL) for boundary wall construction work carried out at Darbhanga substation by DMTCL and submit the report within one month.

b. DMTCL, ATL & PMTL will assist committee for inputs as required.

In view of above, your good office is requested to nominate one senior executive from your organisation as a member of the above committee. The nomination details may be intimated to ERPC Secretariat through email mserpc-power@nic.in and eecom1.erpc@gov.in within 7 days.

This for your kind information and necessary action.

Yours faithfully

N Mondal 18.11.2021

(N. S. Mondal)
Member Secretary

To,

1. Director (Operation), BSPTCL, Vidyut Bhavan, Bailey Road, Patna-800001
2. Director (Operation), OPTCL, Janpath, Bhubaneswar – 751022
3. Executive Director (Operation), JUSNL, Engineering Building, HEC, Ranchi-834004
4. Director (Operation), WBSETCL, Vidyut Bhavan, Bidhannagar, Kolkata-700091.

ISTS				
Name of the element	Length (km)	Main	BackUp	Remarks
220 kV Rajarhat-NewTown D/c	7.2	Distance	Distance	To be finalizaed after discussion with PGCIL
220 kV Subhashgram-Subhashgram (WB) D/c	0.6	Differential	Distance	Diff. Rly(P545) already installed by M/S GE except communication.
400 kV Rangpo-Teesta V D/C	11.6	Distance	Distance	Proposal under approval stage
400 kV Teesta III-Dikchu	15.1	Distance	Distance	
220 kV Rangpo-Rongnichu D/c	7.26	Distance	Distance	
Odisha				
Name of the element	Length (km)	Main	BackUp	Remarks
400kV Indravati - Indravati (Gridco)	3.7			to be implemented by OHPC
400kV Meramundali GMR T/C	8	Distance	Distance	
400kV New Duburi - TSL D/C	8.65	Line Diff.	Distance	
220kV Chandaka - Chandka B	1	Line Diff.	Distance	
220kV Rengali - Rengali D/C	1	NA	Dir.O/C & E/F	Pilot Wire Protection in Main are in Default Condition.
220kV Meramundali - TATA BSL D/C	2.4	Distance	Distance	In the process of Implementation.
220kV Bolangir - New Bolangir D/C	2.8	Distance	Distance	
220kV Tarkera - RSP D/C (3&4)	4.07	Line Diff.	Distance	
220kV Sterlite - Vedanta D/C	4.15			Vedanta
220kV New Duburi - Jindal Steel D/C	4.8	Distance	Distance	
220kV Rengali - Rengali PH D/C	5	Distance	Dir.O/C & E/F	
220kV Mendhasal - Infocity	5.5	Distance	Distance	
220kV Jayanagar - Upper Kolab D/C	5.8	Distance	Dir.O/C & E/F	
220kV Keonjhar - Keonjhar D/C	7.52	Distance	Distance	
220kV Jeypore - Jayanagar D/C (1&3)	8.8	Distance	Distance	
220kV New Duburi - TSL D/C	8.65	Line Diff.	Distance	
220kV Jeypore-Jayanagar D/C (2&4)	8.8	Distance	Dir.O/C & E/F	
220kV Tarkera - RSP D/C (1&2)	10.2	Distance	Line Diff.	
220kV Bidanasi - Cuttack D/C	10	Distance	Distance	
220kV Budhipadar-SMC D/C	6.7	Distance	Distance	

West Bengal				
Name of the element	Length (km)			
220 kV Bidhannagar-DPL D/c	8	Distance	Distance	The Line will be reconfigured to upcoming 220KV DPL-AB Zone S/S. Diff. Rly will be installed after reconfiguration.
220 kV Bakreswar-Sadaipur D/c	4.6	Distance	Distance	Differential will be installed.
220 kV Domjur-New Chanditala D/c	8.6	Distance	Distance	Differential will be installed.
Bihar				
Name of the element	Length (km)			
220 kV Purnea-New Purnea D/c	1.087	Differential	NA	
220 kV Darbhanga-Darbhanga (DMTCL) D/c	2.9	Distance	Distance	Communication had been given to DMTCL and OEM for implementing line differential protection scheme in 220 kV Darbhanga-Darbhanga (DMTCL) D/c
220 kV Kishanganj-Kishanganj Q/c	4.4	Distance	Distance	
220 kV Pusauli-New Sasaram (Nadokhar) D/c	6.25	Distance	Distance	
Jharkhand				
Name of the element	Length (km)			
220 kV Chaibasa-Chaibasa (JUSNL) D/c	0.7	Differential	Distance	
220 kV Ranchi-Hatia	6	Distance	Distance	

BIHAR STATE POWER TRANSMISSION COMPANY LTD., PATNA
A subsidiary company of Bihar State Power (Holding) Company Ltd., Patna
CIN – U40102BR2012SGC018889
[SAVE ENERGY FOR BENEFIT OF SELF AND NATION]
Head Office, Vidyut Bhawan, Bailey Road, Patna – 800021

E-mail address – cecritlbsptcl@gmail.com Website - www.bsptcl.in

U.O.I No. 01

Dated: 10.03.22

BUFF-SHEET

CE (O&M), BSPTCL

Sub: Regarding status of Bus Bar protection scheme in GSS of BSPTCL.

Ref: Email of Power System Operation Corporation Ltd. On 01.02.22

Sir,

With reference to subject noted above, Status of Bus Bar Protection scheme in different GSS of BSPTCL is submitted herewith for your kind information and onward needful action.

Remedial measures have been suggested for aforementioned non-functional Bus Bar Scheme. However, for Retrofitting/Panel replacement, detailed Bill of quantity may be get obtained from OEM or concerned project/Planning team of BSPTCL.

Yours Faithfully

Satyajai Kumar

(Satyajai Kumar) 10-03-2022

Chief Engineer (I/C) ,CRITL

Enclosure:As above

220kV Bus Bar Protection status at BSPTCL

Sl. no.	Name of the GSS	Status	Remarks
01	Fatuha	GE make Bus Bar Panel available at site. Its commissioning work is pending as one of the relay found defective during panels testing. Relay replacement and further commissioning work to be done by agency.	Continuous follow up from site is needed.
02	Khagaul	Bus Bar Protection Panel not available. One main one transfer bus scheme.	New installation and commissioning is needed.
03	Biharsharif	• Installation and commissioning of new Bus Bar Protection Panel was awarded to M/s GE in 2015, but work remained partially completed and executing agency left midway. • At present 18 no of 220kV bays are available which cannot be integrated in existing Bus Bar Protection Relays. • Also, suitable space is not available in cable trench.	• As per service engineer of m/s GE following modification in old Bus Bar scheme is needed. a) Scheme modification b) Hardware modification c) Software modification d) Firmware modification. • Suitable space in cable trench also needed.
04	Dehri	Bus Bar Panel not available. One main one transfer bus scheme.	New installation and commissioning is needed.
05	Bodhgaya	Bus Bar Panel not available. One main one transfer bus scheme.	New installation and commissioning is needed.
06	Sampatchak	• ABB make Electromechanical type Bus Bar Panel available but not in service due to cases of mal operation. • An estimate for new bus bar scheme prepared and submitted, as per field officials. • Fault Data extraction facility not available in present scheme.	Retrofitting with Numerical type Bus Bar Relay or change of complete Bus Bar Panel is needed for Proper Data Extraction and Fault Analysis
07	Begusarai	ABB make Electromechanical type Bus Bar Panel available but not in service. Fault	Retrofitting with Numerical type Bus Bar Relay or

		Data extraction facility not available in present scheme.	change of complete Bus Bar Panel is needed for Proper Data Extraction and Fault Analysis
08	Bihta new	Alstom make Bus Bar Protection scheme available. Not in service since 28.08.21 due to repeated operation of Y phase Bus Bar Relay. Matter communicated to OEM for rectification of Y phase relay.	Defective relay needs to be replaced to take the Bus Bar Protection system in service
09	Pusauli	ERL make numerical type Bus Bar Protection panel available, but out of service due to mal operation just after commissioning of the GSS.	As it is not working properly since its commissioning in 2015, thorough inspection from OEM is needed.
10	Gopalganj	• As reported, Bus Bar Protection panel was not working properly after its commissioning in 2005. • Easun make **Digital type** Bus Bar Panel available but out of service. Fault Data extraction facility not available.	Retrofitting with Numerical type Bus Bar Relay or change of complete Bus Bar Panel is needed for Proper Data Extraction and Fault Analysis
11	Hajipur	• ABB make **Electromechanical type** Bus Bar panel available but out of service since 03 nos. GSS Bays of BGCL commissioned in same switchyard in 2016. • Fault Data extraction facility not available in present scheme.	Retrofitting with Numerical type Bus Bar Relay or change of complete Bus Bar Panel is needed for Proper Data Extraction and Fault Analysis
12	Darbhanga	• As reported, Bus Bar Protection Panel was not working properly after its commissioning in 2006. • Easun make **Digital type** Bus Bar Panel available but out of service. Fault Data extraction facility not available.	Retrofitting with Numerical type Bus Bar Relay or change of complete Bus Bar Panel is needed for Proper Data Extraction and Fault Analysis
13	Sonenagar NEW	Working	Bus Bar Protection testing done in July 2021 for integration of 220/132 kV 160 MVA ICT.
14	Motipur	Working	
15	Musahari	Working	

16	Khagaria new	Working	Bus Bar Protection testing done on 18/01/22 for integration of 220kV Saharsa New (PGCIL) d/c bays
17	Kisanganj new	Working	Bus Bar Protection testing done on 05/03/22 for integration of 220kV Thakurganj (u/c) d/c bays
18	Madhepura	Not Working	• Existing Bus Bar scheme has 04 nos. of bays. • 06 nos. of bays not integrated. • Electromechanical type Bus Bar scheme, fault Data extraction facility not available.
19	Laukahi	Working	

Present Status of Busbar Protection for 220 KV System of OPTCL					
Name of Substation	**Relay Make**	**Relay Model**	**Numerical/Static**	**Busbar Status**	**Remarks**
400/220/132/33 KV Mendhasal	SIEMENS	7SS5231-5CA01-0AA1/HH	Numerical	Healthy	
220/132/33 KV Atri	ALSTOM	BCU-P40 AGILE,P743; MCU-P40 AGILE,P741	Numerical	Healthy	
220/132/33 KV Chandaka-B	SIEMENS	MICOM P741	Numerical	Healthy	
220/132/33kV Goda	GE	B-90	Numerical	Healthy	
220/132/33 KV Balasore	SIEMENS	SIPROTEC 7SS52	Numerical	Healthy	
400/220/33 KV New Duburi	SIEMENS	SIPROTEC 7SS52	Numerical	Healthy	
220/132/33 KV Duburi Old	SIEMENS	SIPROTEC 7SS52	Numerical	Healthy	
220/132/33 KV Joda	SIEMENS	SIPROTEC 7SS52	Numerical	Healthy	
220/132/33 KV Kesinga	SCHNEIDER	MCU-MICOM P741;BCU-MICOM P43	Numerical	Healthy	
220/132/33 KV Jayapatna	GE	B90 Multiline	Numerical	Healthy	
220/132/33 KV Bhanjanagar	SIEMENS	SIPROTEC 7SS52	Numerical	Healthy	
220/132/33 KV Aska New	ALSTOM	MVAJM	Numerical	Healthy	
220/132/33 KV Bargarh New	GE	B90 Multiline	Numerical	Healthy	
220/132/33 KV Nayagarh					Not Available. New Numerical Relay will be commissioned.
220/132/33 KV Samangara	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	01no. Bay Unit (Bus Coupler) is defective. 220kV power supply is not available due to breakdown of D/C Lines during cyclone.
220/132/33 KV Chandaka	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	02nos. Bay Units are defective. M/s SIEMENS is not responding to the call.
220/132/33 KV Cuttack	SIEMENS	SIPROTEC 7SS5251	Numerical	Unhealthy	01no. Bay Unit is defective & sent to SIEMENS Factory for repair.
220/132/33 KV Bidanasi	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	02nos. Bay Units are defective. M/s SIEMENS has been contacted for rectification.
220/132/33 KV Paradeep	ALSTOM	BCU-P40 AGILE,P743; MCU-P40 AGILE,P741	Numerical	Not Commissioned	Will be commissioned during ongoing SAS Project.
220/33 KV Rengali	ER	B3, B24H2	Electromagnetic	Defunct	To be replaced by Numerical Relay
400/220/132/33 KV Meramundali	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	Central Unit & 01no. Bay Unit are defective.M/s SIEMENS has been contacted for rectification.
220/132/33 KV Bhadrak	AREVA	P141	Numerical	Defunct	To be replaced by Numerical Relay.
220/132/33 KV Bolangir New	ABB	REB500	Numerical	Not Commissioned	To be replaced by Numerical Relay of new version.
220/132/33 KV Narendrapur	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	01no. Bay Unit is defective.M/s SIEMENS has been contacted for rectification.

Name of Substation	Relay Make	Relay Model	Numerical/Static	Busbar Status	Remarks
400/220/132/33 KV Lapanga	SIEMENS	SIPROTEC 7SS52	Numerical	Not Commissioned	Will be Commissioned after procurement of CT Primary links for higher CT Ratio.
220/132/33 KV Katapalli	ABB	REB500	Numerical	Not Commissioned	To be replaced by Numerical Relay of new version.
220/132/33 KV Budhipadar	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	03nos. Bay Units are defective.M/s SIEMENS has been contacted for rectification.
220/132 KV Tarkera	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	03nos. Bay Units are defective.M/s SIEMENS has been contacted for rectification.
220/132/33 KV Jayanagar	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	01no. Bay Unit is defective.M/s SIEMENS has been contacted for rectification.
220/132/33 KV Therubali	SIEMENS	SIPROTEC 7SS52	Numerical	Unhealthy	03nos. Bay Units are defective.M/s SIEMENS has been contacted for rectification.
220/33 KV Infocity-2	SIEMENS	SIPROTEC 7SS54	Numerical	Healthy	
220/33 KV Narsinghpur	GE	B90 Multiline	Numerical	Healthy	
220/33 KV Ranki/ Keonjhar	TOSHIBA	GRB200	Numerical	Healthy	
220/33 KV Barkote	ALSTOM	FAC34RF111B	Electromechanical	Not Commissioned	To be replaced by Numerical Relay of new version.
220/33 KV Bonai	GE	B30 Multiline	Numerical	Not Commissioned	To be replaced by Numerical Relay of new version.
220/33 KV Malkangiri	SIEMENS	SIPROTEC 7SS52	Numerical	Healthy	
220/33 KV Balimela	ABB	SPAE 010	Static	Defunct	To be replaced by Numerical Relay of new version.
220/33 KV Kashipur	GE	B90 Multiline	Numerical	Unhealthy	Central Unit & 01no. Bay Unit are defective.M/s GE has been contacted for rectification.
220/33 KV Laxmipur	SCHNEIDER	MICOM P741	Numerical	Unhealthy	01no. Communication Cable of Bay Unit is defective.

Present Busbar Protection Status of 220 KV System under WBSETCL

Name of Substation	Relay Make	Type	Numerical/Static	Status	Remarks
Alipurduyar 220 KV	Siemens	7SS52	Numerical	Functional	
New Jalpaiguri 220 KV	Abb	RADSS	Static	Functional	
Dalkhola 220 KV	Abb	RADHA	Static	Functional	
Gazole 220 KV	Siemens	7SS85	Numerical	Functional	
Gokarna 400 KV	Abb	REB670	Numerical	Static relay replacing by Numerical	Expected to be put into service with in May-22
Rejinagar 220 KV	Alstom	Micom P741/743	Numerical	Functional	
Sagardighi 220 KV	ZIV	DBC/DBP	Numerical	Functional	
Jeerat 400 KV	Abb	REB670	Numerical	Functional	
Dharampur 220 KV	Alstom	Micom P746	Numerical	Functional	
Krishnanagar 220 KV	Areva	FAC34	Static	Functional	
Kasba 220 KV	Abb	REB670	Numerical	Functional	
KLC 220 KV	Abb	REB670	Numerical	Functional	
NewTown 220 KV	Abb	RADHA	Static	Functional	
Barasat 220 KV	Siemens	7SS85	Numerical	Functional	
Subhasgram 220 KV	Areva	FAC34	Static	Functional	
Laxmikantapur 220 KV	Abb	REB670	Numerical	Functional	
New Haldia 220 KV	Abb	RADHA	Static	Functional	
Domjur 220 KV	Abb	RADHA	Static	Functional	
Foundry Park 220 KV	Siemens	7SS52	Numerical	Functional	
Howrah 220 KV	Areva	FAC34	Static	Functional	
Rishra 220 KV	Abb	RADHA	Static	Functional	
Chanditala 400 KV	Alstom	Micom P741/743	Numerical	Functional	
Midnapore 220 KV	Abb	RADHA	Static	Functional	
Kharagpur 400 KV	Alstom	Micom P741/743	Numerical	Functional	
Vidyasagar Park 220 KV	Alstom	MFAC34	Static	Functional	
Egra 220 KV	Siemens	7SS85	Numerical	Functional	
New Bishnupur 220 KV	Abb	REB670	Numerical	Functional	
Arambag 400 KV	Abb	REB670	Numerical	Work in progress	Expected to be put into service with in April--22
Satgachia 220 KV	Abb	REB670	Numerical	Static relay replacing by Numerical	Expected to be put into service with in May-22
Durgapur 220 KV	Abb	REB670	Numerical	Functional	
Sadaipur 220 KV	Abb	REB670	Numerical	Functional	
Asansol 220 KV	Abb	RADHA	Static	Functional	
Hura 220 KV	Siemens	7SS52	Numerical	Functional	

Annexure-A

SOUTH BIHAR POWER DISTRIBUTION CO. LTD.,

Registered Office: Vidhyut Bhawan, Bailey Road, Patna-21.
(A Govt. of Bihar Undertaking)

Illuminating lives...

CIN No. U40109BR2012SGC018890

Letter No..... Dated.....
Cash/SBPDCL/26/2018-19

From,

Vijay Kumar
Chief Engineer (Com.)

To,

The Executive Director
Power System Operation Corporation Ltd., ERLDC, Kolkata- 700033

Sub.:- **Regarding Trial operation of the Project of Powergrid Mithilanchal Transmission Limited.**

Ref.:- 1. PMTL Ref: ER-I/PMTL/CPBG dated 22.12.2021.
2. Transmision Service Agreement (TSA) dated 22.12.2017.
3. CERC order dated 25.04.2018 in petition no.39/AT/2018 for adoption of Tariff.

Sir,

With reference to above, it is to submit that Powergrid Mithilanchal Transmission Limited (PMTL), vide ref: ER-I/PMTL/CPBG dated 22.12.2021 has informed that the project stated under the TSA dated 22.12.2017 has achieved COD on 17.10.2021. However no Certificates of completion of Trial Operation issued by ERLDC were submitted for the said project.

Further, Article 6.2.1 of TSA dt 17.12.2017 provides the following, "*An Element of the Project shall be declared to have achieved COD seventy two (72) hours following the connection of the Element with the Interconnection Facilities or seven (7) days after the date on which it is declared by the TSP to be ready for charging but is not able to be charged for reasons not attributable to the TSP or seven (7) days after the date of deferment, if pursuant to Article 6.1.2...*".

It is explicit that as per Article 6.2.1 an Element of the said Transmission system shall be considered to have achieved COD after completion of 72 hrs of Trail run.

Therefore, on the basis of above facts, it is requested to kindly clarify whether the said project has completed Trail Operation in light of the said provision under the TSA.

Enclosed: As above.

Yours Faithfully
Sd/-
Vijay Kumar
Chief Engineer (Com)

Memo No..... Dated.....

Copy forwarded to Powergrid Mithilanchal Transmission Limited, ER-I RHQ, Board Colony, Shastri Nagar, Patna, Bihar - 800023 for information & necessary action.

Sd/-
Vijay Kumar
Chief Engineer (Com)

South Bihar Power Distribution Co. Ltd.; Vidyut Bhawan, Bailey Road, Patna – 21.
E-mail:- cecom.sbpdcl@gmail.com; Mob. No.- 7763814027

SOUTH BIHAR POWER DISTRIBUTION CO. LTD.,

Registered Office: Vidhyut Bhawan, Bailey Road, Patna-21.
A Govt. of Bihar undertaking
(Commercial Department)

CIN No. U40109BR2012SGC018890

Letter No. 124 SBC-1254-2019 Dated 24.08.2020

From,
Chief Engineer (Com.)
SBPDCL

To,
Executive Director
Power System operation corporation Ltd., ERLDC, Kolkata- 700033

Sub.:- **Regarding Trail operation of Transmission Elements of Alipurduar Transmission Limited.**

Ref.:- (i) ERLDC Certificate no. ERLDC/Trail Operation/2020/Januray/04 dated 07.02.2020
(ii) ERLDC Certificate no. ERLDC/Trail Operation/2019/March/08 dated 05.04.2019

Sir,

With reference to above, it is to submit that M/s Alipurduar Transmission line (ATL) vide Ref no.-ATL/LTTC/CPGB/001/2020-2021 dated 04.04.2020 has submitted the Certificates of completion of Trail Operation for the said Transmission system (Element-1and Element-2) issued by ERLDC. It may be observed that the certificates have been issued after the completion of trail run of the Assets for 24 hrs only. Whereas, Article 6.2.1 of TSA provides the following, "*An Element of the Project shall be declared to have achieved COD seventy two (72) hours following the connection of the Element with the Interconnection Facilities or seven (7) days after the date on which it is declared by the TSP to be ready for charging but is not able to be charged for reasons not attributable to the TSP or seven (7) days after the date of deferment, if pursuant to Article 6.1.2...*". The same has also been noted by Hon'ble CERC vide order dated 22.03.2016 passed for adoption of the Tariff of the Transmission System.

This office, vide letter No.91 dated 29.04.2020, has informed about this irregularity to M/s ATL. However, no reply has been received till date

Hence, it is explicit that as per Article 6.2.1 an Element of the said Transmission system shall be considered to have achieved COD after completion of 72 hrs of Trail run. This has not been followed for the Elements of Transmission system of ATL.

Therefore, on the basis of above facts, it is requested to clarify/revise the Certificates of completion of Trail Operation for the Transmission Assets/Elements of ATL in light of CERC order dated 22.03.2016 and the said provision under the TSA.

Yours faithfully,
24.8.2020
Chief Engineer (Com),
SBPDCL

(Com.) 82/2020
SUDHIR (DEO)

पावर सिस्टम ऑपरेशन कॉरपोरेशन लिमिटेड
(भारत सरकार का उद्यम)
POWER SYSTEM OPERATION CORPORATION LIMITED
(A Govt. of India Enterprise)
GSTIN : 19AAFCP2086B1ZJ, CIN : U40105DL2009GOI188682

पूर्वी क्षेत्रीय भार प्रेषण केन्द्र, 14, गोल्फ क्लब रोड, टलिगंज, कोलकाता - 700 033
EASTERN REGIONAL LOAD DESPATCH CENTRE, 14, Golf Club Road, Tollygunge, Kolkata - 700 033
Tel./ दूरभाष : 033-2423 5875, 2417 4049, Fax / फैक्स : 033-2423 5809, E-mail / ई-मेल : erldc@posoco.in

ERLDC/SO/2020/122-Trans-Licensee/0962 Date: 25-08-2020

To,
Chief Engineer (Com.)
SBPDCL

Subject: Trial operation of Transmission Elements of Alipurduar Transmission Limited.

Ref:- SBPDCL letter no"SBC-1254-2019/124" dated 24-08-2020

Sir,

This is in reference to your letter dated 24-Aug-2020 under above mentioned subject. This is to inform you that ERLDC only certifies the 24 Hours continuous power flow as trial run operation of any ISTS elements as per IEGC clause no 6.3.A.5, quoted as below:

Quote

Trial run and Trial operation in relation to a transmission system or an element thereof shall mean successful charging of the transmission system or an element thereof for 24 hours at continuous flow of power, and communication signal from the sending end to the receiving end and with requisite metering system, telemetry and protection system in service enclosing certificate to that effect from concerned Regional Load Despatch Centre

Unquote

Alipurduar Transmission Limited (ATL) successfully competed 24 Hours trial run operation of 400 kV Darbhanga-Kishanganj D/C & 400 kV Alipurduar-Binaguri D/C on 13-Mar-2019 & 17-Jan-2020 respectively and ATL submitted all the desired documents for issuance of successful trial run certificate. ERLDC issued the trial run certificate of above mentioned elements as per IEGC clause no 6.3.A.5 on 05-Apr-2019 & 02-Feb-2020 vide certificate no. "ERLDC/Trial Operation/2019/March/8" and "ERLDC/Trial Operation/2020/January/04".

This is for your kind information.

Thanking you.

Yours faithfully,

25-08-2020

D. K. Jain
ED, ERLDC

पंजीकृत एवं केन्द्रीय कार्यालय : प्रथम तल, बी-9, कुतुब इंस्टिटयूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016
Registered & Corporate Office : 1st Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110016
Website : www.posoco.in, E-mail : posococc@posoco.in

116

02 APR 2019
CLEARANCE
DEPUTY REGISTRAR (JUD.)

CONSOLIDATED WRIT APPLICATION
IN THE HON'BLE HIGH COURT OF ORISSA, CUTTACK

(Original Jurisdiction Case)

W. P. (C) No. 18150 of 2018

Code No. 070600

In the matter of: An application under Article 226 & 227 of the Constitution of India.

AND

In the matter of: The Electricity Act, 2003 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, 2009 and 2014.

AND

In the matter of : An application challenging legality and validity of Notification No. 8960-OPGC-PPD-TH-97/07/E dated 08.08.2008 issued by Energy Department, Government of Odisha, being illegal, arbitrary, without authority of law, violative of Article, 265, 300A and 14 of the Constitution of India and utlra vires the provisions of Sections 61 and 62 of Electricity Act and Regulations made thereunder.

AND

In the matter of : An application praying for a declaration that the Clause 3 of the Supplemental Memorandum of Understanding dated 17.10.2008 executed between State of Orissa and the Petitioner herein amending clause 1.(iii) of the MOU dated 26.09.2006, Clause 2.2.1 and Clause 6.1 to 6.4 of the Power Purchase Agreement dated 05.01 2011 between the Petitioner and GRIDCO pursuant to

Notification 8960-OPGC-PPD-TH-97/07/E dated 08.08.2008 as well as Clause 1.0 of the Supplementary Power Purchase Agreement dated 23.07.2013 amending Clause 4.0 of the Power Purchase Agreement dated 05.01.2011 by providing that the Petitioner shall bear the necessary interstate transmission charges, including transmission losses and other applicable charges while supplying State's share of power, are illegal, arbitrary, without authority of law, violative of Article, 265, 300A and 14 of the Constitution of India and utlra vires the provisions of Sections 61 and 62 of Electricity Act and Regulations made thereunder.

AND

In the matter of:

M/s. Jindal India Thermal Power Limited, a Company registered under the Companies Act represented by its authorized officer Shri Punit Gupta aged about 52 years, S/o- Shri Hari Krishan Gupta, Registered Office At- Plot No.2, Second Floor, Pocket-C, Nelson Mandela Marg, Vasant Kunj, New Delhi and Plant at Village: Deranga, Po. Kaniha, District: Angul, Orissa.

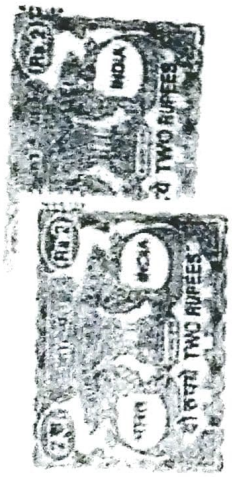
... ... **Petitioner**

-Versus-

1 **State of Orissa**, represented by Commissioner-cum-Secretary, Energy Department, Govt. of Orissa, New Capital Secretariat Building, Bhubaneswar.

2. **GRID Corporation of Odisha Limited,**
At Power House Square, Janpath, Bhubaneswar- 751020, Dist.-Khurda, Odisha, represented through its Director (Commercial)

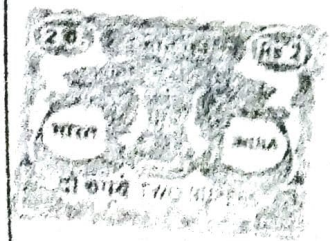
... ... **Opp. Parties**

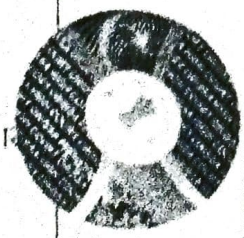


[O. H. C.-98]

W.P.(C) No.18150 of 2018

Sl. No. of Order	Date of Order	ORDER WITH SIGNATURE	Office note as to action (if any), taken on Order
14.	16.05.2019	**W.P(C) No.18150 of 2018 & I.A. No.5439 of 2019** Heard Mr. Rath, learned Senior Counsel for the petitioner and Mr. Tripathy, learned Addl. Government Advocate. Mr. Rath, learned Senior Counsel submits that though as per MOU under Annexure-5 dated 26.9.2006 it was agreed that suitable statutory arrangements are to be made for making available 12% of the total power generated at the variable cost, however till date no statutory arrangements have been made. In absence of such statutory arrangements, the opposite parties are bound to follow the Regulation-15 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 which speaks of a Tariff covering both fixed charges as well as variable charges. Further, he submits till date even Central Electricity Regulatory Commission has not fixed any tariff. In such background, he submits that insisting on supplying of power only at variable cost/charge is impermissible under law. Considering such submissions, this Court is of the opinion that the matter requires examination by this Court. Issue notice. Since Mr. Tripathy, learned Addl. Government Advocate accepts notice on behalf of opposite party no.1 and Mr. Pradipta Kumar Mohanty, learned Senior Counsel accepts notice on behalf of opposite party no.2, required number of copies be served on them within a week. List this matter on 12.07.2019. In the interim, it is directed that no coercive action shall be taken against the petitioner till the next date. Urgent certified copy of this order on proper application. S/d. B. Mohanty, J.	





Annexure-I

SUMMARY OF DEVIATION CHARGE RECEIPT AND PAYMENT STATUS

Figures in Rs. Lakhs

CONSTITUENTS	Net outstanding for 2020-21	Receivable	Received	Payable	Paid	Outstanding for 2021-22	Total Outstanding
BSPTCL	0.00000	22,092.05435	16,960.78734	1,808.64688	0.00000	3,322.62013	3,322.62013
JUVNL	0.00000	7,437.48572	1,096.61510	472.67272	0.00000	5,868.19790	5,868.19790
DVC	0.00000	13,448.13490	13,448.13491	3,418.28422	3,418.28422	-0.00001	-0.00001
GRIDCO	0.00000	3,396.79194	3,311.46601	4,113.82859	4,113.82859	85.32593	85.32593
WBSETCL	0.00000	16,485.80934	16,545.74745	151.13891	256.67742	45.60040	45.60040
Sikkim	100.49308	2,717.37676	0.00000	539.34334	0.00000	2,178.03342	2,278.52650
NTPC	0.00000	6,676.96261	6,676.96261	4,702.87541	4,702.87541	0.00000	0.00000
NHPC	0.00000	27.73626	27.73626	1,017.05463	1,017.05463	0.00000	0.00000
MPL	0.00000	136.98663	136.98663	648.06071	648.06071	0.00000	0.00000
APNRL	0.00000	322.86508	322.86510	346.10244	346.10244	-0.00002	-0.00002
CHUZACHEN	0.00000	33.65615	33.65615	123.23799	123.23799	0.00000	0.00000
NVVN-BD	0.00000	490.34036	490.34036	440.26562	440.26562	0.00000	0.00000
GMR	0.00000	42.36335	42.36335	1,348.53122	1,348.53122	0.00000	0.00000
JITPL	0.00000	1,107.77647	1,107.77657	120.87731	120.87731	-0.00010	-0.00010
TPTCL (Dagachu)	0.00000	2,120.38053	2,104.88661	0.00000	0.00000	15.49392	15.49392
JLHEP	0.00000	992.47788	979.07917	14.87015	14.87015	13.39871	13.39871
NVVN-NEPAL	0.00000	5,418.62638	5,319.78724	2,240.50396	2,240.50396	98.83914	98.83914
IBEUL	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BRBCL	0.00000	571.59626	571.59626	398.31234	398.31234	0.00000	0.00000
PGCIL SASARAM	0.00000	21.97438	21.97438	37.01297	37.01297	0.00000	0.00000
TUL (Teesta-III)	0.00000	791.27800	791.27800	52.53778	52.53778	0.00000	0.00000
NERLDC	0.00000	1,04,707.48570	1,05,588.33160	33,519.12988	33,519.12988	-880.84590	-880.84590
WRLDC	0.00000	14,325.90702	14,368.65026	6,48,813.75130	6,66,380.33930	17,523.84476	17,523.84476
NRLDC	0.00000	1,77,186.56280	1,77,303.17600	43,867.44685	43,867.44685	-116.61320	-116.61320
SRLDC	0.00000	4,22,258.39100	4,06,442.71690	857.43235	857.43235	15,815.67410	15,815.67410
VAE	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Dikchu	0.00000	79.25582	79.25581	180.07023	180.07023	0.00001	0.00001
PGCIL-Alipurduar	0.00000	41.01513	37.53862	18.98885	15.51234	0.00000	0.00000
Tashiding(THEP)	0.00000	771.88136	763.72330	46.09542	46.09542	8.15806	8.15806
OPGC	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
KBUNL	0.00000	348.40369	348.40369	252.63149	252.63149	0.00000	0.00000
NPGC	0.00000	607.86277	607.86277	609.99107	609.99107	0.00000	0.00000
NPGC-Infirm	0.00000	1,085.10103	1,085.10103	3,273.73343	3,273.73343	0.00000	0.00000
RONGNICHU	0.00000	110.75737	106.13440	165.13737	160.51440	0.00000	0.00000
BRBCL_U4_Infirm	0.00000	65.02918	65.02918	640.63616	640.63616	0.00000	0.00000
PTC Bhutan	0.00000	198.03575	198.03575	50.67285	50.67285	0.00000	0.00000
Total	**100.49308**	**8,06,118.36197**	**7,76,983.99881**	**7,54,289.87444**	**7,69,133.23853**	**43,977.72725**	**44,078.22033**

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

Deviation Interest Bill due to delay payment

Annexure-II

All figs in Rupees.

Sl No.	Constituent Name	Interest outstanding till Q4_2020-21	Interest Received by Pool against outstanding	Interest Paid by pool against Outstanding	Net Interest outstanding till Q4_2020-21
1	BSPTCL	91,05,608	91,05,608		0
2	DVC	23,718			23,718
3	GRIDCO	-2,79,466		2,79,466	0
4	JUVNL	4,34,61,973	4,34,61,973		0
5	Sikkim	11,76,865	11,76,865		0
6	WBSETCL	21,415	21,415		0
7	NHPC	-54,745		54,745	0
8	NTPC	0			0
9	APNRL	11,33,748	11,33,748		0
10	BRBCL	-1,316		1,316	0
11	JLHEP	1,28,853	1,15,968		12,885
12	CHUZACHEN	-3,119		3,119	0
13	GMR	1,73,96,828			1,73,96,828
14	IBEUL	26,75,383			26,75,383
15	JITPL	8,589	8,589		0
16	KBUNL	40	40		0
17	MPL	-33,428		33,428	0
18	NPGC-Infirm	0			0
19	NPGC	-10,953		10,953	0
20	NVVN-BD	24,603			24,603
21	NVVN-NEPAL	0			0
22	OPGC	24,209			24,209
23	PGCIL-Alipurduar	1,72,257	1,72,258		-1
24	PGCIL SASARAM	1,686	1,686		0
25	Tashiding(THEP)	1,57,661	1,57,661		0
26	Dikchu	28,701	28,701		0
27	TPTCL (Dagachu)	0			0
28	TUL (Teesta-III)	-1,134		1,134	0

'- ve' Payable by ER pool

'+ ve' Receivable by ER pool

Note: Ind-bharath interest is calculated till 29.05.2019

RRAS interest details

Constituents	Amount in ₹ Lacs	Interest Paid in 1st Quarter 2021-22	Balance	Payment Date
NTPC	-4.85430	4.85430	0.00000	16.06.2020
BRBCL	-0.60400	0.60400	0.00000	16.06.2020
KBUNL	-3.22746	3.22746	0.00000	16.06.2020
MPL	-2.22505	2.22505	0.00000	16.06.2020
NPGC	-0.79683	0.79683	0.00000	16.06.2020
Total	-11.70764	11.70764		

Annexure - III

STATUS OF REACTIVE CHARGES

Annexure-III

AS ON 10.03.22

Name of Parties	Receivable Amount by pool	Received Amount by pool	Payable Amount by pool	Paid Amount by pool	Outstanding Amount Receivable(+Ve) / Payable by pool(-Ve)	
BSPHCL	110063742	37904316	38338891	31945318	65765853	**657.66**
JUVNL	98569361	83230845	782704	0	14555812	**145.56**
DVC	61390105	58049933	15149935	14015568	2205805	**22.06**
GRIDCO	214339314	211426817	18660309	18660309	2912497	**29.12**
SIKKIM	7708688	334815	2415640	545890	5504123	**55.04**
WBSETCL	56872940	47023823	5737146	5737146	9849117	**98.49**

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

Annexure - IV

SUMMARY OF RRAS CHARGE RECEIPT AND PAYMENT STATUS

BILL UPTO 20-02-2022 (W-47 of 2021-2022)

Last Payment Disbursement Date -10.03.22

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
NTPC	8878.81036	4939.77285	10840.33481	6901.29727	0.00
MPL	1965.95409	1237.77267	1599.07643	870.895	0.00
BRBCL	3017.14243	2309.5855	1064.09807	356.54118	0.00
KBUNL	518.59272	138.04919	2007.58987	1627.04635	0.00
NPGC	650.67572	366.05954	1794.40796	1509.79178	0
TOTAL	**15031.17532**	**8991.23975**	**17305.50714**	**11265.57158**	**0.00**

Receivable: Receivable by ER POOL Payable Payable by ER POOL

Received Received by ER POOL Paid Paid by ER POOL

"- ve" Payable by ER pool "+ ve" Receivable by ER pool

SUMMARY OF AGC CHARGE RECEIPT AND PAYMENT STATUS

BILL UPTO 20-02-2022 (W-47 of 2021-2022)

Last Payment Disbursement Date - 10-03-2022

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
NTPC	880.09766	880.09766	370.70112	370.70112	**0.00000**
NHPC	5.76945	5.76945	44.10807	44.10807	**0.00000**
MPL	1948.06812	1948.06812	89.07641	89.07641	**0.00000**
NPGC	172.87845	172.87845	18.91501	18.91501	**0.00000**
TOTAL	**3006.81368**	**3006.81368**	**522.80061**	**522.80061**	**0.00000**

Receivable: Receivable by ER POOL Payable Payable by ER POOL

Received Received by ER POOL Paid Paid by ER POOL

"- ve" Payable by ER pool "+ ve" Receivable by ER pool

Annexure - V

DETAILS OF DISBURSEMENT TO POWER SYSTEM DEVELOPMENT FUND

Sl No	Nature of Amount	Amount transferred to PSDF (Rs in Lac)	Date of Disbursement		Remarks
1	**Opening Balance (upto 31.03.2019)**	**95896.17**			
2	Reactive Energy Charge	105.79	04.04.19		Reactive Charges_18-19
3	Reactive Energy Charge	287.48	03.05.19		Reactive Charges_18-19 & 19-20
4	Reactive Energy Charge	129.70	03.06.19		Reactive Charges_19-20
5	Reactive Energy Charge	207.84	04.07.19		Reactive Charges_19-20
6	Reactive Energy Charge	94.92	02.08.19		Reactive Charges_19-20
7	Reactive Energy Charge	188.54	02.09.19		Reactive Charges_19-20
8	Surplus DSM amount transferred	32210.52	24.09.19		DSM Charges_19-20
9	Reactive Energy Charge	173.06	01.10.19		Reactive Charges_19-20
10	Reactive Energy Charge	273.15	01.11.19		Reactive Charges_19-20
11	Reactive Energy Charge	401.10	04.12.19		Reactive Charges_19-20
12	Reactive Energy Charge	252.54	02.01.20		Reactive Charges_19-20
13	Reactive Energy Charge	148.66	07.02.20		Reactive Charges_19-20
14	Reactive Energy Charge	205.22	04.03.20		Reactive Charges_19-20
15	Bank interest from Reactive acct	0.22	03.04.20		Bank interest from Reactive acct
16	Reactive Energy Charge	843.03	03.06.20		Reactive Charges_19-20 & 20-21
17	Reactive Energy Charge	507.80	07.07.20		Reactive Charges_17-18,18-19 & 20-21
18	Reactive Energy Charge	309.41	06.08.20		Reactive Charges_17-18,18-19 & 20-21
19	Reactive Energy Charge	83.24	02.09.20		Reactive Charges_19-20 & 20-21
20	Bank interest of DSM A/C-TDS portion	251.65	18.09.20		Bank interest TDS portion transferred from POSOCO,CC
21	Bank interest of DSM A/C-TDS portion	15.65	22.09.20		Bank interest TDS portion transferred from POSOCO,CC
22	Reactive Energy Charge	118.86	06.10.20		Reactive Charges_ 20-21
23	Reactive Energy Charge	101.43	04.11.20		Reactive Charges_ 20-21
24	Reactive Energy Charge	82.35	04.12.20		Reactive Charges_ 20-21
25	Reactive Energy Charge	500.95	06.01.21		Reactive Charges of 19-20 & 20-21
26	Reactive Energy Charge	92.51	03.02.21		Reactive Charges of 19-20 & 20-21
27	Reactive Energy Charge	50.23	04.03.21		Reactive Charges of 19-20 & 20-21
28	Reactive Energy Charge	32.15	07.04.21		Reactive Charges of 19-20 & 20-21
29	Reactive Energy Charge	39.60	05.05.21		Reactive Charges of 19-20 & 20-21
30	Reactive Energy Charge	18.96	01.06.21		Reactive Charges of 20-21 & 21-22
31	Reactive Energy Charge	392.25	12.07.21		Reactive Charges of 20-21 & 21-22
32	Reactive Energy Charge	214.22	22.07.21		Reactive Charges 20-21
33	Addl. Dev	392.94	25.08.21		DSM Charges of 19-20 received from Jharkhand
34	Addl. Dev	5.99	03.09.21		DSM Charges of 19-20 received from Jharkhand
35	Reactive Energy Charge	330.73	09.09.21		Reactive Charges 21-22
36	Addl. Dev	1334.98	23.09.21		DSM Charges of 20-21 received from Bihar
37	Addl. Dev	500.00	27.09.21		DSM Charges of 20-21 received from Bihar
38	Addl. Dev	1500.00	29.09.21		DSM Charges of 20-21 received from Bihar
39	Addl. Dev	500.00	01.10.21		DSM Charges of 20-21 received from Bihar
40	Addl. Dev	1000.00	05.10.21		DSM Charges of 20-21 received from Bihar
41	Addl. Dev	402.60	05.10.21		DSM Charges of 20-21 received from Jharkhand
42	Reactive Energy Charge	131.06	07.10.21		Reactive Charges 21-22
43	Addl. Dev	1000.00	22.10.21		DSM Charges of 20-21 received from Bihar
44	Addl. Dev	1000.00	26.10.21		DSM Charges of 20-21 received from Bihar
45	Addl. Dev	539.21	28.10.21		DSM Charges of 20-21 received from Bihar
46	Reactive Energy Charge	224.71	03.11.21		Reactive Charges 21-22
47	Reactive Energy Charge	366.26	03.12.21		Reactive Charges 21-22
48	Reactive Energy Charge	5.34	09.12.21		Interest Amount received in Reactive Account
49	Addl. Dev	489.57	04.01.22		DSM Charges of 20-21 received from Jharkhand
50	Reactive Energy Charge	449.70	04.01.22		Reactive Charges 21-22
51	Reactive Energy Charge	547.41	04.02.22		Reactive Charges 21-22
52	Addl. Dev	7182.01	08.02.22		Excess amount after clearing Wk-43
	Total	**152131.70**			

DSM account Reconciliation Status of ER constituents and Inter Regional Annexure-VI

	2019-20				2020-21				2021-22		
Name of The Utility	**Q1(17.07.19)**	**Q2(21.10.19)**	**Q3(13.01.20)**	**Q4(15.04.20)**	**Q1(15.07.20)**	**Q2(23.10.20)**	**Q3(20.01.21)**	**Q4(28.04.21)**	**Q1(06.07.21)**	**Q2(07.10.21)**	**Q3(11.01.22)**
Inter Regional											
WR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
SR	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO
NER	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES
NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Intra Regional											
BSPHCL	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
JUVNL	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO
DVC	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO	NO
GRIDCO	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO
WBSETCL	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO
SIKKIM	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NTPC	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO
NHPC	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO
MPL	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KBUNL	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO
APNRL	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO
CHUZACHEN(GATI)	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO
NVVN(Ind-Bng)	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO
NVVN(Ind-Nep)	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO
GMR	YES	YES	YES	YES	NO	NO	NO	YES	NO	NO	NO
JITPL	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
TPTCL (DAGACHU)	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES	YES
JLHEP(DANS ENERGY)	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
BRBCL	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES
POWERGRID (ER-I)	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
POWERGRID (ER-II)	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO
TUL (TEESTA-III)	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES
DIKCHU	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO
SHIGA (TASHIDING)	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO
OPGC	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NPGC	YES	YES	YES	YES	YES	NO	YES	YES	YES	NO	NO
Rongnichu								NO	NO	NO	YES

(1)The dates in the bracket indicates the date of sending the Reconciliation statements by ERLDC to utilities.
(2) YES Indicates that signed reconciliation statement received by ERLDC
(3) NO Indicates that signed reconciliation statement is not received by ERLDC

Reactive Account Reconciliation_Status

Annexure-VII

	2019-20				2020-21				2021-22		
	Reactive account Reconciliation Status of ER constituents										
Name of The Utility	**Q1(17.07.19)**	**Q2(21.10.19)**	**Q3(13.01.20)**	**Q4(15.04.20)**	**Q1(15.07.20)**	**Q2(23.10.20)**	**Q3(20.01.21)**	**Q4(28.04.21)**	**Q1(06.07.21)**	**Q2(07.10.21)**	**Q3(11.01.22)**
Intra Regional											
BSPHCL	YES	NA	YES	YES	YES	YES	YES	YES	YES	NO	NO
JUVNL	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
DVC	YES	N/A	N/A	N/A	YES	NO	NO	NO	NO	NO	NO
GRIDCO	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	NO
WBSETCL	YES	YES	NO	NO	YES	NO	NO	YES	YES	NO	NO
SIKKIM	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

RRAS Account Reconciliation_Status

	2019-20				2020-21				2021-22		
	RRAS account Reconciliation Status										
Name of The Utility	**Q1(17.07.19)**	**Q2(21.10.19)**	**Q3(13.01.20)**	**Q4(15.04.20)**	**Q1(15.07.20)**	**Q2(23.10.20)**	**Q3(20.01.21)**	**Q4(28.04.21)**	**Q1(06.07.21)**	**Q2(07.10.21)**	**Q3(11.01.22)**
NTPC	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
BRBCL	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES
KBUNL	YES	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO
NPGC	NA	NA	YES	YES	YES	NO	YES	NO	YES	NO	NO
MPL	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO

AGC Account Reconciliation_Status

	2019-20				2020-21				2021-22		
Name of The Utility	**Q1(17.07.19)**	**Q2(21.10.19)**	**Q3(13.01.20)**	**Q4(15.04.20)**	**Q1(15.07.20)**	**Q2(23.10.20)**	**Q3(20.01.21)**	**Q4(28.04.21)**	**Q1(06.07.21)**	**Q2(07.10.21)**	**Q3(11.01.22)**
(NTPC)	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	NO
MPL										YES	YES
NHPC										NO	NO
NPGC											NO

Annexure-VIII

Reconciliation Between Open Access department of ERLDC and SLDCs, STUs

Sl. No.	STUs / SLDCs Name	Quarter-I (2018-19)	Quarter-II (2018-19)	Quarter-III (2018-19)	Quarter-IV (2018-19)	Quarter-I (2019-20)	Quarter-II (2019-20)	Quarter-III (2019-20)	Quarter-IV (2019-20)	Quarter-I (2020-21)	Quarter-II (2020-21)	Quarter-III (2020-21)	Quarter-IV (2020-21)	Quarter-I (2021-22)	Quarter-II (2021-22)	Quarter-III (2021-22)
	Date of Issuance	16-07-2018	15-10-2018	18-01-2019	18-04-2019	15-07-2019	16-10-2019	16-01-2020	16-04-2020	15-07-2020	14-10-2020	12-01-2021	13-04-2021	13-07-2021	11-10-2021	17-01-2022
1	West Bengal - SLDC and STU	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO
2	DVC - SLDC	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO	NO
3	OPTCL-SLDC and STU	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES
4	Bihar-SLDC and STU	NA	NA	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES

Reconciliation Between Open Access department of ERLDC and Applicants

Sl. No.	Applicants Name	Quarter-I (2018-19)	Quarter-II (2018-19)	Quarter-III (2018-19)	Quarter-IV (2018-19)	Quarter-I (2019-20)	Quarter-II (2019-20)	Quarter-III (2019-20)	Quarter-IV (2019-20)	Quarter-I (2020-21)	Quarter-II (2020-21)	Quarter-III (2020-21)	Quarter-IV (2020-21)	Quarter-I (2021-22)	Quarter-II (2021-22)	Quarter-III (2021-22)
	Date of Issuance	25-07-2018	15-10-2018	17-01-2019	12-04-2019	11-07-2019	15-10-2019	16-01-2020	16-04-2020	14-07-2020	14-10-2020	12-01-2021	13-04-2021	13-07-2021	08-10-2021	17-01-2022
1	Bihar State Power Holding Company Limited	NA	NA	NA	NA	NA	NA	NA	NA	NO	NO	NA	NA	NA	NA	NA
2	Calcutta Electric Supply Company	YES	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3	GRIDCO Ltd	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO	NA	NA
4	Jindal India Thermal Power Limited	YES	YES	YES	YES	YES	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	Jharkhand Bijli Vitaran Nigam Limited	YES	YES	YES	YES	YES	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO
6	NHPC Limited	NA	NA	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7	West Bengal State Electricity Distribution Company Limited	YES	YES	NO	NA	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	YES

Annexure -IX

Current Status of Letter of Credit (LC) amount against DSM charges for ER constituents

Figures in Lacs of Rupees

Sl No	ER Constituents	No. of weeks in which Deviation Charge payable	No of times payment was delayed during 2020-21	Total Deviation charges payable to pool during 2020-21	Average weekly Deviation Charge liability (C)/52 weeks	LC Amount 110% of (B)	Defaulting Weeks	Due date of expiry	Remarks
		(A)	(B)	(C)	(D)	(E)	(G)	(F)	(G)
1	Bihar State Power Holding Corporation Limited / बिहार	44	44	15486.42	297.82	327.60	All Weeks	13-11-2022	
2	Jharkhand State Electricity Board / झारखंड	29	29	3249.42	62.49	68.74	All Weeks	22-11-2022	
3	Damodar Valley Corporation / डीवीसी	39	10	5182.62	99.67	109.63	Week-1,5,6,7,10,19	No Valid LC	
4	Gridco Limited / ग्रिडको	19	16	1491.45	28.68	31.55	Week-3,6,7	No Valid LC	
5	SLDC - UI FUND - WBSETCL / पश्चिम बंगाल	49	8	15847.85	304.77	335.24	Week-40,45	No Valid LC	
6	Power Deptt, Govt. of Sikkim / सिक्किम	17	17	316.51	6.09	6.70	Week-1,14,15,26	No Valid LC	
7	DANS Energy Private Limited - Operation Retention Account / डेन्स ऊर्जा	50	35	896.76	17.25	18.97	Week-10,19,21,23	No Valid LC	Existing LC of 1.88477 Lac expired on 16.06.21
8	Powergrid Corporation Of India Limited-Sasaram / ससाराम	16	7	13.28	0.26	0.28	Week-19,20,21,27,28	31-03-2022	
9	Sneha Kinetic Power Projects Pvt. Ltd./ दिकचू	13	6	94.76	1.82	2.00	Week- 5,28,44	12-05-2022	Rs 2.01000 Lac Opened
10	Jindal India Thermal Power Ltd. / जिंदल	34	20	771.66	14.84	16.32	Week-5,11,18	31.03.2022	LC existing of 20.67845 Lac
11	PGCIL-Alipurduar / अलीपरद्-आर	24	24	6.92	0.13	0.15	Week-3,4,5,15	31.12.2022	
12	Shiga Energy Private / शिगा ऊर्जा	40	35	435.95	8.38	9.22	Week-4,10,19,22	No Valid LC	
13	Kanti BijleeUtpadan Nigam Limited-MTPS-Stg-II / कांति बीजली	46	3	453.16	8.71	9.59	Week-32	28.09.2022	
14	NABINAGAR POWER GENERATING CO. PVT LTD. / नबीनगर	37	1	3620.30	69.62	76.58	Week-32	02-02-2023	

List of Drifted Main Meters to be replaced : ER

(time drift available in AMR system as on 01.02.2022)

Annexure-X

UTILITY	SNO	LOCATION ID	FEEDER NAME	METER NO	TIME DIFFER(min)	Pending
BIHAR	1	BI-57	220 KV BIHARSHARIFF (BSPHCL) - TENUGHAT (JSEB)	NP-5844-A	7	
	2	BI-13	220 KV KHAGAUL(BSPHCL) - ARAH (PG)-1	NP-8641-A	-21	
	3	BI-14	220 KV KHAGAUL(BSPHCL) - ARAH (PG)-2	NP-6060-A	6	
	4	BI-33	220 KV NADHOKHAR(BSPHCL)- PUSAULI (PG)-2	NP-8665-A	-14	
	5	BI-21	132 KV BAISI(BSPHCL) - DALKHOLA (WBSETCL)	NP-6085-A		
	6	BI-09	132 KV KAHALGAON(BSPHCL) - LALMATIA(JSEB)	NP-6071-A	23	
	7	BI-61	132 KV SULTANGANJ (BSPHCL) - DEOGARH (JSEB)	NP-7400-A	25	Total=14
Newly Added	8	ER-01	400KV SIDE OF BIHARSARIF (PG) 400/220 KV ICT-1	NP-6063-A	18	
	9	ER-02	400KV SIDE OF BIHARSARIF (PG) 400/220 KV ICT-2	NP-6069-A	19	
	10	ER-03	400KV SIDE OF BIHARSARIF (PG) 400/220 KV ICT-3	NP-6068-A	8	
	11	BI-63	132 KV KARMANASHA(BSPHCL) - CHANDAULI (UPSEB)	NP-6017-B	37	
	12	BI-64	132 KV KARMANASHA(BSPHCL) - SAHUPURI(UPSEB)	NP-6018-B	12	
	13	BI-60	132 KV SONENAGAR (BSPHCL)- JAPLA (JSEB)	NP-6015-B	31	
	14	BI-66	132 KV SONENAGAR(BSPHCL) - NAGARUNTARI(JSEB)	NP-6013-B	30	
JHARKHAND	1	JS-51	220 KV RAMCHANDRAPUR (JSEB) - JODA (GRIDCO)	NP-6102-A	16	
	2	JS-57	220 KV CHANDIL (JSEB) - SANTALDIH (WBSETCL)	NP-7436-A	31	
	3	JS-62	220 KV TENUGHAT (JSEB) - BIHARSHARIFF (BSPHCL)	NP-6115-A	21	
	4	JS-52	132 KV KENDOPOSI (JSEB) - JODA (GRIDCO)	NP-6117-A	replaced	
	5	JS-50	132 KV KENDOPOSI(JSEB)-JODA(GRIDCO) TRANSFER BUS	NP-8644-A	replaced	
	6	JS-63	132 KV LALMATIA (JSEB) - KAHALGAON (BSPHCL)	NP-6107-A	23	
	7	JS-64	132 KV JAPLA(JSEB) - SONENAGAR (BSPHCL)	NP-6112-A	-6	
	8	JS-66	132 KV JAMTARA (JSEB) - MAITHON (DVC)	NP-6110-A	35	Total=14
Newly Added	9	ER-17	400 KV SIDE OF JAMSHEDPUR(PG) 400/220 KV 315MVA ICT-1	NP-6106-A	12	
	10	ER-18	400 KV SIDE OF JAMSHEDPUR(PG) 400/220 KV 315MVA ICT-2	NP-6105-A	10	
	11	EM-44	220 KV RANCHI(PG) - HATIA (JSEB)-2	NP-5879-A	20	
	12	EM-45	220 KV RANCHI(PG) - CHANDIL (JUVNL)-1	NP-5874-A	16	
	13	EM-49	220 KV RANCHI(PG) - HATIA (JUVNL)-3	NP-7880-A	20	
	14	JS-55	132KV PATRATU (JSEB)-RAMGARH (DVC)-TR.BUS	NP-6003-B	19	
	15	JS-40	132KV PATRATU (JSEB) - PATRATU (DVC) -2	NP-6005-B	26	
	16	JS-54	132KV PATRATU (JSEB) - PATRATU (DVC) -1	NP-8610-B	-3	
DVC	1	DV-20	400 KV KODERMA (DVC) - BIHARSHARIFF(PG)-I	NP-7831-A	replaced	
	2	DV-21	400 KV KODERMA (DVC) - BIHARSHARIFF(PG)-II	NP-7830-A	replaced	
	3	DV-40	400 KV KODERMA(DVC)-GAYA(PG) LINE-I(MAIN)	NP-7891-A	replaced	
	4	DV-42	400 KV KODERMA(DVC)-GAYA(PG) LINE-II(MAIN)	NP-7890-A	replaced	
	5	DV-10	400 KV DSTPS(DVC)-JAMSHEDPUR-I(MAIN)	NP-6524-A	replaced	Total=02
	6	DV-06	400 KV DSTPS(DVC)-JAMSHEDPUR(PG)-II(MAIN)	NP-6522-A	replaced	
Newly Added	7	DV-53	132 KV PATRATU (DVC)-PATRATU(JSEB)-1&2(SUM)	NP-6006-B	11	
	8	DV-61	132 KV KOLAGHAT(DVC) - KOLAGHAT (WBSETCL)	NP-6558-B	-17	
	9	DV-55	132KV MANIQUE (DVC) - CHANDIL (JSEB)	NP-6011-B	33	
GRIDCO	1	OR-21	400 KV MENDHASAL (GRIDCO)- PANDIABIL(PG)-1	NP-5980-A	replaced	
	2	OR-20	400 KV MENDHASAL (GRIDCO)- PANDIABIL(PG)-2	NP-7498-A	replaced	
	3	OR-22	400 KV DUBURI (GRIDCO)- BARIPADA(PG)	NP-7916-A	replaced	
	4	OR-23	400 KV DUBRI(GRIDCO)-PANDIABIL(PG)	NP-7915-A	replaced	
	5	OR-53	220 KV JODA (GRIDCO)-RAMCHANDRAPUR (JSEB)	NP-5937-A	replaced	
	6	OR-54	220 KV JINDAL (GRIDCO)-JAMSHEDPUR (DVC)	NP-6502-A		Total=01
	7	OR-52	132 KV JODA (GRIDCO)-KENDPOSI (JSEB)	NP-5939-A	replaced	
	8	OR-56	220 KV BUDHIPADAR (GRIDCO) - RAIGARH (PG)	NP-5940-A	replaced	
	9	OR-57	220 KK BUDHIPADAR (GRIDCO)-KORBA(MPEB)-2	NP-5941-A	replaced	
	10	OR-59	220 KK BUDHIPADAR (GRIDCO)-KORBA(MPEB)-3	NP-5944-A	replaced	
WEST BENGAL	1	WB-29	400 KV KHARAGPUR(WB)-CHAIBASA(PG)-2	NP-8720-A	-4	
	2	WB-30	400 KV KHARAGPUR(WB)-CHAIBASA(PG)-1	NP-8731-A	34	
	3	WB-53	220 KV SANTALDIH (WBSETCL) - CHANDIL(JSEB)	NP-7942-A	replaced	
	4	WB-57	132 KV KURSEONG(WBSETCL)-RANGIT(NHPC)	NP-7541-A	26	
	5	WB-58	132 KV KURSEONG(WBSETCL)-SILIGURI(NHPC)	NP-7542-A	16	
	6	WB-52	132 KV DALKHOLA (WBSETCL)-BAISI(BSPHCL)	NP-8741-A	-2	Total=10
	7	WB-59	66 KV KALIMPONG (WBSETCL) - MELLI (SIKKIM)	NP-5994-A		
Newly Added	8	WB-12	400 KV SAGARDIGHI(WB) - FARAKKA (NTPC)-1(MAIN)	NP-6482-A		
	9	WB-25	400 KV SAGARDIGHI(WB)-BERHAMPORE(PG) LINE-2(MAIN)	NP-8724-A		
	10	WB-27	400 KV SAGARDIGHI(WB)-BERHAMPORE(PG) LINE-1(MAIN)	NP-8723-A		
	11	WB-11	132 KV RAMMAM (WBSETCL) - RANGIT (NHPC)	NP-5917-A		
SIKKIM	1	SM-51	66 KV MELLI (SIKKIM) - KALIMPONG (WBSETCL)	NP-5849-A	24	
	2	SM-01	66 KV RAVANGLA (SIKKIM) - RANGIT (NHPC)	NP-6481-A		Total=04
Newly Added	3	SM-03	132KV MELLI (SIKKIM) - RANGPO (PG)	NP-8770-A	-8	
	4	SM-02	132KV MELLI (SIKKIM) - SILIGURI (PG)	NP-8771-A	10	
INTER REGIONAL						
Newly added	1	EM-21	400KV BIHARSHARIFF(ER)-BALIA (NR)-1	NP-6061-A	17	Total=03
	2	EM-47	400 KV RANCHI(PG)-SIPAT-1 (WR)	NP-5835-A	19	
	3	EM-48	400 KV RANCHI(PG)-SIPAT-2 (WR)	NP-5836-A	17	

Annexure- XI

Status Report of PGCIL AMR AMC (Phase I , II & III)	Date: 15-Feb-2022
Summary	
Total Substation	163
Communicating Sub Station	146
Non-communicating Sub Station	17
Total Meter	1228
Communicating meter	1135
Non-communicating Meter	93

Details of Non-communicating Sub Stations				
SNO	**Utility Name**	**Substation Name**	**Total Meter**	**Probable issue**
1	BIHAR	ARAH(ARB)	1	GPRS issue.
2	POWERGRID	ANGUL(AGL)	8	Meters are replaced, AMC work for meter integration will be done soon.
3	NTPC	DARLIPALLI	4	GPRS issue. Need PGCIL LAN provision .
4	GRIDCO	INDRAVATI(IND)	1	GPRS issue.
5	SIKKIM	DIKCHU	5	GPRS issue. Poor network connectivity.
6	BIHAR	FATUA(FAT)	1	Meter RS-485 port issue. Request to replace the meter.
7	IPPR	IND-BARATH(IBR)	6	Unable to communicate with substation regarding AMC work .
8	SIKKIM	JORTHANG	6	GPRS issue.
9	BIHAR	KISHANGANJ(KSN)	2	Meter RS-485 port issue. Request to replace the meter.
10	DVC	KALYANESWARI	2	Meter faulty. Request to replace the meter.
11	NTPC	FARAKKA	38	Replaced meter. Substation did not allow for meter integration work due to COVID-19 restrictions.
12	WB	RAMMAM(RMM)	1	GPRS issue.
13	IPPR	STERLITE(SEL)	10	Unable to communicate with substation regarding AMC work
14	NTPC	TALCHER SOLAR(TLS)	6	TCS will visit there and will do necessary AMC work shortly.
15	DVC	BARHI(BAR)	1	Meter faulty. Request to replace the meter.
16	DVC	TISCO(TIS)	2	Replaced meter. Substation did not allow for meter integration work due to COVID restrictions.
17	SIKKIM	RAVANGLA(RVG)	1	GPRS issue.
		Total Non Comm	**93**	

Annexure-XII

List of Meters and Location for AMR 4th Phase implementation

S.No	MAKE	Meter Serial No	LOCATION		S.No	MAKE	Meter Serial No	LOCATION	
1	L&T	NP-7885-A	LAKHISARAI(PG)	29 NEW LOCATIONS WITH 132 METERS	133	GENUS	ER-1135-A	BERHAMPORE(PG)	25 OLD LOCATIONS WITH 124 METERS
2	L&T	NP-7886-A			134	GENUS	ER-1140-A		
3	L&T	NP-7429-A			135	GENUS	ER-1349-A	BANKA(PG)	
4	L&T	NP-7429-A			136	GENUS	ER-1347-A		
5	L&T	NP-7887-A			137	GENUS	ER-1350-A		
6	L&T	NP-7430-A			138	GENUS	ER-1341-A		
7	L&T	NP-7888-A			139	GENUS	ER-1350-A		
8	L&T	NP-7431-A			140	GENUS	ER-1341-A		
9	GENUS	ER-1433-A			141	GENUS	ER-1015-A	ANGUL(PG)	
10	GENUS	ER-1346-A			142	GENUS	ER-1016-A		
11	GENUS	ER-1104-A	ALIPURDUAR(PG)		143	GENUS	ER-1085-A		
12	GENUS	ER-1146-A			144	GENUS	ER-1087-A		
13	GENUS	ER-1005-A			145	GENUS	NP-7947-A		
14	GENUS	ER-1006-A			146	GENUS	ER-1554-A		
15	GENUS	ER-1002-A			147	GENUS	ER-1557-A		
16	GENUS	ER-1004-A			148	GENUS	ER-1110-A	BIRPARA(PG)	
17	GENUS	ER-1044-A			149	GENUS	ER-1041-A		
18	GENUS	ER-1047-A			150	GENUS	ER-1415-A	CHAIBASA(PG)	
19	GENUS	ER-1048-A			151	GENUS	ER-1420-A		
20	GENUS	ER-1049-A			152	GENUS	ER-1079-A	BIRPARA(WB)	
21	GENUS	ER-1465-A			153	GENUS	ER-1594-A	BARIAPDA(PG)	
22	GENUS	ER-1463-A			154	GENUS	ER-1446-A	BARH(NTPC)	
23	GENUS	ER-1469-A			155	GENUS	ER-1220-A	JAMSHEDPUR(PG)	
24	GENUS	ER-1467-A			156	GENUS	ER-1468-A	RANGPO(PG)	
25	GENUS	ER-1473-A			157	GENUS	ER-1153-A	KISHANGANJ(PG)	
26	GENUS	ER-1474-A			158	GENUS	ER-1160-A		
27	GENUS	ER-1475-A			159	GENUS	ER-1293-A		
28	GENUS	ER-1476-A			160	GENUS	ER-1296-A		
29	GENUS	ER-1492-A			161	GENUS	ER-1159-A		
30	GENUS	ER-1494-A			162	GENUS	ER-1154-A		
31	GENUS	ER-1532-A			163	GENUS	ER-1437-A		
32	GENUS	ER-1498-A			164	GENUS	ER-1438-A		
33	GENUS	ER-1046-A			165	GENUS	ER-1531-A	MALDA(PG)	
34	GENUS	ER-1088-A			166	GENUS	ER-1536-A		
35	GENUS	ER-1089-A			167	GENUS	ER-1008-A	MEJIA(DVC)	
36	GENUS	ER-1233-A	NPGC(NTPC)		168	GENUS	ER-1031-A	MPL	
37	GENUS	ER-1240-A			169	GENUS	ER-1122-A		
38	GENUS	ER-1210-A			170	GENUS	ER-1123-A		
39	GENUS	ER-1207-A			171	GENUS	ER-1124-A		
40	GENUS	ER-1216-A			172	GENUS	ER-1129-A		
41	GENUS	ER-1219-A			173	GENUS	ER-1418-A	NABINAGAR(BRBCL)	
42	GENUS	ER-1213-A			174	GENUS	ER-1414-A		
43	GENUS	ER-1214-A			175	GENUS	ER-1281-A		
44	GENUS	ER-1094-A	DARLIPALLI(NTPC)		176	GENUS	ER-1299-A		
45	GENUS	ER-1097-A			177	GENUS	ER-1292-A		
46	GENUS	ER-1091-A			178	GENUS	ER-1294-A		
47	GENUS	ER-1095-A			179	GENUS	ER-1461-A	NEW MELLI(PG)	
48	GENUS	ER-1025-A			180	GENUS	ER-1470-A		
49	GENUS	ER-1024-A			181	GENUS	ER-1491-A	DURGAPUR(PG)	
50	GENUS	ER-1295-A	KISHANGANJ(BSPTCL)		182	GENUS	ER-1496-A		
51	GENUS	ER-1158-A			183	GENUS	ER-1298-A	KMCHANDARPUR(JUSN	
52	GENUS	ER-1156-A			184	GENUS	ER-1020-A	RENGALI(PG)	
53	GENUS	ER-1157-A			185	GENUS	ER-1402-A	RANCHI(PG)	
54	GENUS	ER-1001-A	NEW TOWN(WB)		186	GENUS	ER-1083-A	BIDHANAGAR(WB)	
55	GENUS	ER-1009-A	KLC BANTALA(WB)		187	GENUS	ER-1012-A		
56	GENUS	ER-1052-A	OPGC		188	GENUS	ER-1093-A	SUNDERGARH(PG)	
57	GENUS	ER-1027-A			189	GENUS	ER-1100-A		
58	GENUS	ER-1112-A			190	GENUS	ER-1019-A		
59	GENUS	ER-1026-A			191	GENUS	ER-1118-A		
60	GENUS	ER-1030-A			192	GENUS	ER-1022-A		
61	GENUS	ER-1053-A			193	GENUS	ER-1062-A		
62	GENUS	ER-1066-A			194	GENUS	ER-1023-A		
63	GENUS	ER-1068-A			195	GENUS	ER-1117-A		
64	GENUS	ER-1060-A			196	GENUS	ER-1119-A		
65	GENUS	ER-1456-A			197	GENUS	ER-1021-A		
66	GENUS	ER-1541-A	TEESTA-III		198	GENUS	ER-1067-A		
67	GENUS	ER-1542-A			199	GENUS	ER-1061-A		
68	GENUS	ER-1546-A			200	GENUS	ER-1070-A		
69	GENUS	ER-1543-A			201	GENUS	ER-1065-A		
70	GENUS	ER-1519-A			202	GENUS	ER-1064-A		
71	GENUS	ER-1545-A			203	GENUS	ER-1500-A		
72	GENUS	ER-1547-A			204	GENUS	ER-1493-A	SILIGURI(PG)	
73	GENUS	ER-1450-A			205	GENUS	ER-1217-A		
74	GENUS	ER-1549-A			206	GENUS	ER-1218-A		
75	GENUS	ER-1548-A			207	GENUS	ER-1318-A		
76	GENUS	ER-1250-A	MOTIHARI(BSPTCL)		208	GENUS	ER-1319-A	PUSAULI(PG)	
77	GENUS	ER-1245-A			209	GENUS	ER-1372-A		
78	GENUS	ER-1286-A	MOTIPUR(BSPTCL)		210	GENUS	ER-1379-A		
79	GENUS	ER-1288-A			211	GENUS	ER-1378-A		
80	GENUS	ER-1111-A	ATRI(GRIDCO)		212	GENUS	ER-1236-A		
81	GENUS	ER-1007-A			213	GENUS	ER-1237-A		
82	GENUS	ER-1248-A	RAXAUL(BSPTCL)		214	GENUS	ER-1221-A		
83	GENUS	ER-1249-A			215	GENUS	ER-1230-A	RANCHI NEW(PG)	
84	GENUS	ER-1113-A	SAMANGARA(GRIDCO)		216	GENUS	ER-1371-A		
85	GENUS	ER-1073-A			217	GENUS	ER-1355-A		
86	GENUS	ER-1223-A	SAMASTIPUR(BSPTCL)		218	GENUS	ER-1358-A		
87	GENUS	ER-1227-A	BETIAH(BSPTCL)		219	GENUS	ER-1436-A		
88	GENUS	ER-1173-A			220	GENUS	ER-1359-A		
89	GENUS	ER-1116-A	BHOGRAI(GRIDCO)		221	GENUS	ER-1351-A		
90	GENUS	ER-1114-A	JALESWAR(GRIDCO)		222	GENUS	ER-1352-A	PURNEA(PG)	
91	GENUS	ER-1127-A	SUBHASHGRAM(WBS)		223	GENUS	ER-1231-A		
92	GENUS	ER-1003-A			224	GENUS	ER-1232-A		
93	GENUS	ER-1131-A			225	L&T	NP-8862-A		
94	GENUS	ER-1132-A			226	GENUS	ER-1311-A		
95	GENUS	ER-1134-A			227	GENUS	ER-1407-A		
96	GENUS	ER-1520-A			228	GENUS	ER-1314-A		
97	L&T	LT-0312-A	SAGARDIGHI(WB)		229	GENUS	ER-1408-A	PATNA(PG)	
98	GENUS	ER-1451-A	RAJARAHAT(PG)		230	GENUS	ER-1098-A		
99	GENUS	ER-1453-A			231	GENUS	ER-1591-A		
100	GENUS	ER-1253-A			232	GENUS	ER-1583-A		
101	GENUS	ER-1409-A	LAUKAHI(BSPHCL)		233	GENUS	ER-1586-A	PANDIABILI(PG)	
102	GENUS	ER-1373-A	KHIZIRSARAI(BSPHCL)		234	GENUS	ER-1587-A		
103	GENUS	ER-1377-A			235	GENUS	ER-1588-A		
104	GENUS	ER-1584-A			236	GENUS	ER-1590-A		
105	GENUS	ER-1592-A	KEONJHAR(GRIDCO)		237	GENUS	ER-1552-A		
106	GENUS	ER-1138-A			238	GENUS	ER-1551-A	KEONJHAR(PG)	
107	GENUS	ER-1133-A	GOKARNA(WB)		239	GENUS	ER-1263-A	GAYA(PG)	
108	GENUS	ER-1222-A	DARBHANGA(BSPTCL)		240	GENUS	ER-1170-A		
109	GENUS	ER-1224-A			241	GENUS	ER-1262-A		
110	GENUS	ER-1195-A			242	GENUS	ER-1261-A		
111	GENUS	ER-1192-A			243	GENUS	ER-1375-A		
112	GENUS	ER-1197-A			244	GENUS	ER-1380-A		
113	GENUS	ER-1196-A			245	GENUS	ER-1163-A		
114	GENUS	ER-1199-A			246	GENUS	ER-1416-A		
115	GENUS	ER-1193-A			247	GENUS	ER-1419-A		
116	GENUS	ER-1191-A			248	GENUS	ER-1411-A		
117	GENUS	ER-1155-A			249	GENUS	ER-1448-A		
118	GENUS	ER-1206-A			250	GENUS	ER-1449-A		
119	GENUS	ER-1152-A			251	GENUS	ER-1442-A		
120	GENUS	ER-1201-A			252	GENUS	ER-1447-A		
121	GENUS	ER-1205-A			253	GENUS	ER-1582-A	BOLANGIR(PG)	
122	GENUS	ER-1202-A			254	GENUS	ER-1575-A		
123	GENUS	ER-1204-A			255	GENUS	ER-1573-A		
124	GENUS	ER-1434-A			256	GENUS	NP-7919-A		
125	GENUS	ER-1431-A							
126	GENUS	ER-1432-A							
127	GENUS	ER-1203-A							
128	GENUS	ER-1435-A	DALTONGANJ(PG)						
129	GENUS	ER-1198-A							
130	GENUS	ER-1194-A	DALTONGANJ(JUVNL)						
131	GENUS	ER-1344-A							
132	GENUS	ER-1342-A	BEGUSARAI(BSPTCL)						

TOTAL METERS = 256

Annexure-XIII

List of Substation Connected with PGCIL Intranet connection(LAN)

Sl No.	Substation name	Uitility	LAN Integration Date
1	Power Grid	Subhashgram	15-Jun-17
2	Power Grid	Binaguri	20-Jul-17
3	Power Grid	Malda	06-Jun-18
4	Power Grid	Kishanganj	15-Jul-18
5	Power Grid	Siliguri	12-Sep-18
6	Power Grid	Gangtok	15-Sep-18
7	Power Grid	Rourkela	03-Oct-18
8	Power Grid	Gaya	25-Dec-18
9	Power Grid	Biharshariff	27-Dec-18
10	Power Grid	Arah	29-Oct-18
11	Power Grid	Jamshedpur	02-Nov-18
12	Power Grid	Rangpo	05-Dec-18
13	Power Grid	Durgapur	07-Dec-18
14	Power Grid	Jeypore	10-Dec-18
15	Power Grid	Maithon	11-Dec-18
16	Power Grid	Pusaul	19-Dec-18
17	Power Grid	Muzaffarpur	20-Dec-18
18	NTPC	Barh	21-Dec-18
19	NTPC	Kahalgaon	21-Dec-18
20	Power Grid	Purnea	24-Dec-18
21	Power Grid	Banka	27-Dec-18
22	NHPC	Teesta	01-Jan-19
23	NHPC	Rangit	02-Jan-19
24	Power Grid	Baripada	15-Nov-18
25	Power Grid	Ranchi	10-Jan-19
26	NTPC	Talcher	16-Jan-19
27	NTPC	Farakka	22-Jan-19
28	Power Grid	Chaibasa	28-Jan-19
29	Power Grid	Dalkhola	28-Jan-19
30	Power Grid	Birpara	29-Jan-19
31	Power Grid	Rajarhat	18-Apr-19
32	NTPC	Kanti	28-May-19
33	Power Grid	Patna	20-Sep-19
34	PGCIL	Behrampore	18-Nov-19
35	PGCIL	Pandiabil	30-Jan-20
36	DVC	Mejia	30-Sep-20
37	DVC	RTPS	25-Feb-21
38	PGCIL	Bolangir	26-Feb-21
39	PGCIL	New Melli	04-Mar-21
40	PGCIL	Sundergarh	12-Mar-21
41	DVC	DSTPP (AND)	28-Jul-21
42	DVC	JAMSHEDPUR (JAM)	31-Aug-21
43	DVC	KALNESHWARI (KAR)	03-Aug-21
44	DVC	KODERMA (KOD)	05-Aug-21
45	DVC	KOLAGHAT (KGT) DVC	27-Jul-21
46	DVC	MAITHON (MAI)	03-Aug-21
47	DVC	MANIQUE (MNQ)	01-Sep-21
48	DVC	WARIA (WAR)	28-Jul-21
49	DVC	DHANBAD	04-Aug-21
50	DVC	PARULIA	29-Jul-21
51	DVC	PATRATU	07-Aug-21
52	DVC	BARHI	06-Aug-21
53	PGCIL	Medinipur	06-Sep-21
54	PGCIL	Alipurduar	23-Sep-21
55	WBSEB	Jeerat	12-Jul-21
56	BSEB	Bodhgaya	26-Oct-21
57	BSEB	Hajipur	26-Oct-21
58	BSEB	Lakhisarai	25-Oct-21
59	BSEB	Sipara	26-Oct-21
60	PGCIL	Sitamari PG	09-Oct-21
61	WBSEB	Malda	08-Nov-21
62	WBSEB	Dalkhola	10-Nov-21
63	WBSEB	Birpara	08-Nov-21
64	WBSEB	Subhasgram	02-Nov-21
65	WBSEB	New Town	01-Nov-21
66	WBSEB	Kharagpur	12-Nov-21
67	WBSEB	PPSP-New	11-Nov-21
68	WBSEB	Bidhannagar (220KV and 400KV)	18-Nov-21
69	Sikkim	Melli	22-Nov-21
70	WBSEB	NJP	30-Nov-21
71	WBSEB	NBU	12-Nov-21
72	PGCIL	Saharsha	30-Nov-21
73	BSEB	Biharshariff	08-Dec-21
74	BSEB	Nalanda	08-Dec-21
75	BSEB	Jamui	08-Dec-21
76	BSEB	Khagaul	09-Dec-21
77	BSEB	Sultanganj	09-Dec-21
78	BSEB	Sabour	09-Dec-21
79	BSEB	Jagadispur	11-Dec-21
80	BSEB	Sonnenagar New	11-Dec-21
81	BSEB	Dumraon	14-Dec-21
82	BSEB	Madhepura	14-Dec-21
83	BSEB	Dehri	15-Dec-21
84	BSEB	Sonnenagar	16-Dec-21
85	JSEB	Chaibasa 220KV	16-Dec-21
86	JSEB	Tenughat	18-Dec-21
87	BSEB	Karmanasha	18-Dec-21
88	JSEB	Ramchandrapur	23-Dec-21
89	JSEB	Hatia	29-Dec-21
90	OPTCL	Meramumdali	03-Jan-22
91	OPTCL	Budhipadar	03-Jan-22
92	BSEB	Fathua	04-Jan-22
93	OPTCL	Tarkera	08-Jan-22
94	OPTCL	Balasore	10-Jan-22
95	BSEB	Kishanganj	10-Jan-22
96	OPTCL	Baripada	11-Jan-22
97	OPTCL	Jeynagar	11-Jan-22
98	PGCIL	Indravati	12-Jan-22
99	PGCIL	Daltongonj	08-Jan-22
100	OPTCL	Bolangir	13-Jan-22
101	OPTCL	Joda	20-Jan-22
102	BSEB	Banka	27-Jan-22
103	OPTCL	Katapali	28-Jan-22
104	BSEB	Mohania	28-Jan-22
105	JSEB	Lalmatia	29-Jan-22
106	OPTCL	New Dubri	02-Feb-22
107	PGCIL	Rengali	02-Feb-22
108	BSEB	Rajgir	03-Feb-22
109	PGCIL	Mendashal	03-Feb-22

RPO Compliance 2021-22

Annexure-XIIV

States/UTs	Energy Supplied (MU)	Hydro (MU)	Energy Supplied excl. Hydro (MU)	Solar RPO (%)	Non-Solar RPO (%)	Total RPO (%)	Solar Obligation (MU)	Non-Solar Obligation (MU)	Total RE Obligation (MU)	Net REC Bought Solar (MU)	Net REC Bought Non solar (MU)	Net REC Bought Total (MU)	Net ISTS Import Solar (MU)	Net ISTS import Non Solar (MU)	Solar Generation (MU)	Non-Solar Generation (MU)	Total Generation (MU)	Solar Consumption (MU)	Non-Solar Consumption (MU)	Total RE Consumption (MU)	Actual RPO Achieved (%)	RPO Compliance (%)
Bihar			0			0.00%	0	0	0	0.0	0.0	0.0					0	0	0	0	#DIV/0!	#DIV/0!
DVC			0			0.00%	0	0	0	0.0	0.0	0.0					0	0	0	0	#DIV/0!	#DIV/0!
Jharkhand			0			0.00%	0	0	0	0.0	0.0	0.0					0	0	0	0	#DIV/0!	#DIV/0!
Odisha			0			0.00%	0	0	0	0.0	0.0	0.0					0	0	0	0	#DIV/0!	#DIV/0!
Sikkim			0			0.00%	0	0	0	0.0	0.0	0.0					0	0	0	0	#DIV/0!	#DIV/0!
West Bengal			0			0.00%	0	0	0	0.0	0.0	0.0					0	0	0	0	#DIV/0!	#DIV/0!

CENTRAL ELECTRICITY REGULATORY COMMISSION
3rd & 4th Floor, Chanderlok Building, 36, Janpath, New Delhi-110001

E-3587/Engg-17/4/2019-CERC

Dated: 04.01.2022

To,

Chairperson
Southern Regional Power Committee
Central Electricity Authority
Mo. 29 Race Course Cross Road,
Banglore-560009

Chairperson
Northern Regional Power Committee,
18A, Qutab Institutional Area,
Shaheed Jeet Singh Marg,
Katwaria Sarai, New Delhi 110016

Chairperson
Western Regional Power Committee,
F-3, MIDC Area, Marol, Opp. SEEPZ,
Central Road, Andheri (East),
Mumbai 400093

Chairperson
Eastern Regional Power Committee
14, Golf Club Road,
Tollygunj, Kolkata-700033

Chairperson
North Eastern Regional Power Committee,
NERPC Complex,
Dong Parmaw Lapalamg, Shillong 793009

Sub: Minutes of 3rd meeting (through video conferencing) of the Commission with Chairperson and Member Secretary of RPCs held on 17.11.2021 -Reg.

Sir,

Please find enclosed herewith minutes of meeting of Commission with Chairperson and Member Secretary of RPCs held on 17.11.2021 through video conferencing for information and necessary action.

This issues with the approval of competent authority

(Abhishek Rohilla)
Dy. Chief (Engg.)

Copy to:

1. Member Secretary, Southern Regional Power Committee
2. Member Secretary, Northern Regional Power Committee
3. Member Secretary, Western Regional Power Committee
4. Member Secretary, Eastern Regional Power Committee
5. Member Secretary, North Eastern Regional Power Committee

Record notes of the 3rd interaction (through video conferencing) of the Commission with Chairpersons and Member Secretaries of RPCs held on 17.11.2021 at 10.30 AM

1. List of participants is enclosed as Annexure-A.

2. At the outset, Joint Chief (Engineering), CERC welcomed the participants and stated that the objective of such interactions with RPCs is to get the first-hand experience and feedback from RPCs and appreciate any new issues coming up in the power sector.

3. Chairperson, CERC observed that such periodic interactions with RPCs not only enables CERC to understand various operational difficulties, but also provides an opportunity to RPCs to flag various issue. He stated that CERC values the inputs and feedbacks received from RPCs. He requested the Chairpersons of RPCs to give their opening remarks before the formal agenda is taken up for discussions.

4. Chairperson, SRPC observed that such interactions provide a good opportunity for RPCs to share their views. He thanked CERC for organising such interactions where various issues are discussed and resolved without having to go through the process of litigation and adjudication.

5. He flagged the issue pertaining to generating stations whose power are being evacuated through the State transmission network or through both State transmission network and ISTS (inter-State transmission system), but are being loaded with ISTS charges considering full capacity as deemed LTA (long term access) by CTU (Central Transmission Utility), causing a heavy burden on such generating stations.

6. Chairperson, WRPC stated that looking at the dynamic nature of the power sector, such interactions are very important.

7. Chairperson, ERPC stated that during the Covid-19 pandemic, there have been changes in the demand profiles due to which there have been deviations from schedule and, therefore, penalty has been imposed under Deviation Settlement Mechanism Regulations. He suggested that there should be some mechanism to take care of such extraordinary events in the Regulations.

8. After the opening remarks, the formal agenda was taken up for discussion.

9. **Reserve Shutdown (RSD)**

a) Member Secretary (ERPC) stated that in a scenario where a generating station/ unit goes under RSD due to less requisition by majority shareholder, the minority shareholders are required to buy power from the market at a higher rate despite bearing fixed cost for such unit under RSD. He suggested that guideline may be issued to protect the interest of minority shareholders in those generating stations/ units.

b) Member Secretary (WRPC) stated that WRPC has devised a mechanism of shifting schedule for such minority shareholders to next cheaper

generating station available. For example, if Mauda generating station of NTPC is under Reserve Shut Down, the minority shareholders of Mauda generating station who want to schedule power can be given schedule from Sipat generating station of NTPC. He, at the same time, observed that if a generating station/ unit goes under RSD due to less schedule during off-peak hours, the same generating station is not available for peak hours also. He suggested that if power from such generating station in off-peak hours is scheduled to some other constituents who agree to bear the fixed cost, the station may not go under RSD. Such URS (un-requisitioned surplus) power may be allocated in the priority of % of fixed cost agreed to be borne by such constituents i.e. those agreeing to a higher fixed cost liability will have priority over other constituents who are willing for lower fixed cost liability. He stated that this issue was discussed in WRPC meeting and was agreed to, but the mechanism requires regulatory facilitation for implementation as there is a need to have provisions in regulations for doing away with pro-rata allocation of URS.

c) Chief (RA), CERC requested the participants to provide suggestions on whether under Regulation 6(3) of Power Market Regulations, which states that in the event of a forced outage of a generating station or unit thereof, or any other event as may be notified by the Commission, wherein the obligation of the generating station to supply electricity continues under an existing contract, such generating station may fulfil its obligation by entering into Day Ahead Contracts and Real-time Contracts or Intraday Contracts and Contingency Contracts or Term Ahead Contracts.

d) Member Secretary (NRPC) agreed with suggestion of Chief (RA) and stated that merely by going under the Reserve Shut down, the generator cannot run away from its obligation to supply power to the minority shareholders. He further stated that the Power Market Regulations can resolve the issue where volume is less. However, where the volume is large, it may not be possible for the generator to arrange power under existing provisions of the Power Market Regulations. Therefore, the present issue should be resolved in a holistic manner and should be addressed when amendment to the Grid Code is taken up.

e) Shri N.R.L.K. Prasad, SE (SRPC) stated that, to address the issue, SRPC has finalised revised RSD Procedure and has sent the same to CERC. He stated that the detailed implementation guidelines are also available on SRPC website.

f) Chairperson, CERC stated that this issue is under active consideration of CERC and will be addressed in the amendments to the Grid Code.

10. **Scheduling of ISGS beyond declared ex-power plant MW capability**

a) Shri N.R.L.K. Prasad, SE (SRPC) stated that Regulation 5.2(h) of the Grid Code provides that a generating station shall not be scheduled beyond ex-bus generation corresponding to 100% of the installed capacity of the generating station for the purpose of ensuring providing primary response. However, this is not happening in few cases. The schedule of generating stations participating in the day ahead market in power exchanges whose volumes are cleared, cannot be revised. However, if the beneficiary of that

generating station revises its schedule to take back the surrendered power, schedule for such generating station becomes more than the declared capacity. RLDCs have opined that they do not have any control over the transactions at power exchanges and they are obliged to schedule the power as requested by the beneficiaries. Due to this, the margins expected from the generators to support the ancillary services are often not available. He suggested that POSOCO should be asked to issue specific direction to generating stations to comply with the provisions of the Grid Code.

b) Chairperson, SRPC stated that MoP has issued guidelines, according to which the generators are entitled to sell their power to power exchange on day ahead basis. But under the Grid Code, the schedule can be changed from $7^{th}/8^{th}$ time blocks, which is resulting in over-scheduling. He added that they have requested MoP that the generators should be allowed to sell power to the power exchange only on real-time basis, which will solve the issue.

c) Joint Chief (Engg), CERC clarified that the last amendment to the Grid Code provides that generators can sell power in the day ahead market only after obtaining consent from their beneficiaries. If a beneficiary of a generating station has given consent to the generator for selling URS power in power exchange, and if the same gets cleared, then that beneficiary should not revise its schedule to take that power back. Therefore, the issue has relevance only in cases where power is sold by a generating station without consent of the beneficiaries.

d) Sh. P.D. Lone, WRPC suggested that the capacity charges which are borne by the beneficiaries should be waived off so that the beneficiaries will not have incentive to revise their schedule to take back the power which has been sold in the power exchange by the generators.

e) Chairperson, CERC acknowledged the issue and agreed that schedule should not be more than the declared capacity. He also agreed that either the generators should sell power in the power exchange on real time basis or beneficiaries should not be allowed revise such schedule if they have given consent.

f) Member (ISJ), CERC requested SRPC to send specific cases so that the issue may be looked into in detail.

11. **Implementation of AGC**

a) Member Secretary (ERPC) stated that AGC has been implemented in some of the Central generating stations and private sector power plants but yet to be implemented in the generating stations of the States. The matter was discussed at ERPC forum where WBSLDC highlighted the CERC order dated 13.10.2015. The said order states, *"The Central Commission advises the State Commissions to issue orders for intra-state generators in line with this timeline as AGC is essential for reliable operation of India's large inter-connected grid."* WBSLDC pointed out that State Commissions have not issued any direction in this regard and compensation for the AGC implementation is also not clear.

MS, ERPC requested that the Commission may advise the State Regulators especially WBERC to issue direction to SLDC in this regard.

b) Chairperson, CERC stated that the matter will be taken up in the Forum of Regulators. The Commission has mandated ISGS to be AGC-enabled and has also advised the generating stations of the Sate to be AGC-enabled. Such generating stations are free to participate in providing Ancillary Services and other services. He further observed that since more and more renewable energy-based power plants are coming up, it is necessary to address the issue of reserves and more generating stations are required to participate in providing Ancillary Services and other services. The funding issue for implementation of AGC in State-owned generating stations can be handled by the State Regulators.

12. **Restoration of schedule revision time period to 4 time-blocks**

a) Shri N.R.L.K. Prasad, SE (SRPC) stated that TSTRANSCO has made specific request for restoration of provision related schedule revision from 7^{th}/8^{th} time blocks to 4 time-blocks.

b) Member Secretary (NRPC/SRPC) stated that RE generating stations can revise the schedule from 4^{th} time block which is earlier than the time allowed for revising schedule by Discoms i.e. 7^{th}/8^{th} time block. In such a situation, the Discoms are forced to purchase power from the market to meet their demand.

c) Chairperson, SRPC stated that the aforesaid problem is more acute in Telangana, Tamil Nadu and in the places where generation from wind resources is high such as Gujarat. The problem occurs only for 2-3 months in a year. Inconsistency between the State Grid Code and the Grid Code (specified by CERC) is one of the reasons behind this. The actual reason is unpredictability and lack of accurate forecasting of power from wind plants.

d) Chief (RA) stated that the need for alignment of revision in time period of RE generators and conventional generators was highlighted by the stakeholders while the Commission was finalising amendments for the purpose of introducing RTM (real-time market). However, he clarified that there is a difference between the 4 time-blocks flexibility given to RE Generators and the 4 time-blocks flexibility which was available with the Discoms. The 4 time-blocks flexibility in case of Discoms during the day implies that the schedule can be revised by the Discoms 24 times in a day, while the RE generators can revise their schedule only once over 1.5 hours, which means the maximum number a RE generator can revise its schedule is 16 times in a day. However, he observed that there is need for alignment of provision related to revision of schedule in case of all the generators and that can be taken care of in the amendments to the Grid Code.

e) Chairperson, CERC stated that CERC acknowledges this issue and that it will be addressed in the amendments to the Grid Code.

13. **SCED (Security Constrained Economic Despatch)**

a) Shri N.R.L.K. Prasad, SE (SRPC) stated that the issue of sharing full benefits of SCED to beneficiaries has been raised by many SR constituents in various commercial sub-committee meetings. The general perception is that since the generators are already getting compensated through part-load compensation, heat rate compensation and O & M expenses compensation which are also indirectly borne by beneficiaries, the full benefits of SCED should be shared only amongst the beneficiaries.

b) Member Secretary (NRPC) stated that ISGS are getting their full cost recovered through the Regulations framed by this Commission and therefore, there is no necessity to further incentivise ISGS for selling full power. It should be made part of their obligations that they should endeavour to sell all the remaining power.

c) Chairperson, CERC and Member (ISJ) observed that compensation to generators for participation in SCED is already limited to only 7 paise and therefore, if the same is removed, there may not be any incentive left for the generators to participate in SCED.

14. **Reactive power support**

a) Member Secretary (NRPC) stated that some of the generating stations are giving reactive power support while others do not do so under one pretext or other. During winter season, when the reactive power support is much needed, NRPC is disconnecting 50-60 lines every night and re-connecting them in the morning since there is not enough reactive power support. With the integration of more renewable power in the grid, there is a need to address this issue. He suggested that there is need to incentivise the RE generating stations for this purpose since 50 MW of RE generating station can absorb 16 MVAR i.e. 1500 MW can absorb about 400 MVAR which shall result into voltage control of 7-8 kV. He further stated that it is more economical to incentivise RE generating stations compared to installing reactive power control devices such as STATCOMs.

b) Member Secretary (WRPC) stated that the generators should generate their power at the rated voltage and as instructed by RLDC. In such a case, the reactive power will be taken care automatically.

c) Shri N.R.L.K. Prasad, SE (SRPC) stated that the solar generators generate active power only during the day time while high voltage phenomenon is witnessed during the night hours. A study has been carried out by SRPC and POSOCO that suggests that solar power inverters can be used during night to absorb reactive power. A pilot study has been taken up at Anantpuram Solar Park in this regard. Therefore, he suggested that some incentive may be given to solar power stations for giving reactive support because using solar power inverters during night time decreases their longevity. He further added that SRPC is finalizing the report of the pilot study soon.

d) Chairperson, CERC and Member (ISJ), CERC requested SRPC to submit the report of their pilot study of using the solar power inverters for reactive power control as that will help making appropriate provisions for the same in the Grid Code.

e) Member Secretary (SRPC) assured that SRPC shall share the report of the pilot study as soon as the same is finalized.

15. **SCADA vs. SEM**

a) Member Secretary (NRPC) stated that NRLDC engineers did some tuning in the RTU in SCADA and by mistake tagged 400 kV Moga ICT as 765 kV, which resulted in wrong visibility for Punjab. It appeared to Punjab & NRLDC that Punjab was under-drawing from the grid whereas, Punjab was actually overdrawing at that time. Since both NRLDC and Punjab SLDC were under the impression that Punjab was under-drawing, Punjab kept on increasing load to maintain the schedule and this continued for a number of days. Later, when the DSM (deviation settlement mechanism) accounts were prepared, it revealed that Punjab was overdrawing and, on account of the said overdrawal, Punjab was levied penalty of approximately Rs.90 crore. NRPC Secretariat analysed the issue and found about the wrong tagging of Moga ICT and reported to RLDC and the same was corrected. Punjab protested the levy of the penalty on account of DSM contending that wrong visibility on account of wrong tagging of Moga ICT due to which power was overdrawn was not Punjab's fault. In this case, Punjab did not use its own meters to cross check its drawal and relied solely on the SCADA reading of NRLDC. The issue was discussed in the TCC board meeting also and since Punjab had already consumed the power, it was decided that Punjab should pay Rs.45 crore and the balance penalty towards this deviation was waived off. It was also deliberated in the TCC board meeting that the incident and action taken by NRPC i.e. waiving off a part of the penalty should be informed to the Commission. Member Secretary, NRPC also clarified that such incident occurred only once in NR.

b) Member Secretary (NRPC) stated that the issue of mismatch between energy readings from SCADA and SEM is now gradually become rare.

c) Member Secretary (ERPC) stated that similar problem of overdrawal occurred in Eastern region just after first-time charging of a newly commissioned transmission line. West Bengal overdrew since SCADA data was not integrated and West Bengal SLDC could not visualise the power flows. WBSEDCL had approached OCC forum seeking relief from DSM due to same.

d) Sh. P. D. Lone, WRPC stated that States are willing to install their own meters but transmission licensees are not allowing it. Only Gujarat has been allowed to install its own meters. He further added that it should be allowed because States are bearing the cost of metering and trying to minimize their deviation. He requested that there should be provisions in the Regulations regarding the same.

e) Responding to Member (ISJ), CERC's query as to which meter shall be used for billing and accounting of DSM in such a case - whether States' own

meters or SEM – Member Secretary (NRPC) stated that States can use their meters for monitoring their drawl from the grid while accounting should be done as per the SEM only. He stated that in this proposal, no commercial mechanism is proposed to be changed.

f) Responding to Member (ISJ), CERC's further query as to which agency has issues with installation of meter by States - CTU or PGCIL - Member Secretary (NRPC) clarified that PGCIL cited apprehensions regarding likely issues that may come up with CT/PT.

g) Member Secretary (WRPC) stated that with Automatic Meter Reading (AMR), this problem will get resolved. However, since full AMR installation may take two or more years, for the time being, if some State wants to install its own meters, it should be allowed.

h) Chairperson, CERC stated that the issue of Punjab (relaxation in DSM penalty by NRPC) has been taken note of. He also stated that in his view, SCADA/ SEM mismatch issues have largely been addressed. He further stated that the suggestion of WRPC regarding installation of meters by States have been noted and that the same will be discussed with CTU/POSOCO to decide the future course of action.

16. **Sharing Regulations**

a) ERPC has raised the issue regarding special dispensation to hydro-generating stations where, in RTDA (regional transmission deviation account), the capacity of hydro station during peak season is calculated at over and above 10% of such generating station's capacity. ERPC has requested that there should be proper guidelines for declaration of peak season (in respect of hydro-generating stations) by the Implementing Agency (NLDC) for the purpose of the Sharing Regulations.

b) Member Secretary (ERPC) stated that RPCs decide the peak demand season and communicate the same to the Commission as per the 2019 Tariff Regulations. But in this case, the Implementing Agency (NLDC) is required to make such declaration. Sh. Kejriwal SE(ERPC) stated that under the 2019 Tariff Regulations, ERPC is finalising high demand season and low demand season for thermal power generating stations after discussing in the RPC and the same is communicated to all.

c) Member (ISJ) observed that RPC is the agency that may be entrusted with declaration of peak season for hydro-generating stations too. Chairperson, CERC observed that same formulation, as provided in the 2019 Tariff Regulations, can be extended for declaration of peak season for the purpose of the Sharing Regulations for the hydro-generating stations also i.e. RLDC in consultation with RPC.

17. **LTA/ MTOA quantum for generating stations connected to both ISTS and intra-State transmission system**

a) Shri N.R.L.K. Prasad, SE (SRPC) stated that under the erstwhile Sharing Regulations, 2010, the transmission charges were levied on the basis

of usage of transmission asset. However, under the present Sharing Regulations, 2020, the majority of charges are based on sum of LTA and MTOA quantum of the DICs. Therefore, it has become important to determine the correct sum of LTA and MTOA of the DICs, otherwise DICs will be liable to pay more transmission charges. At present, there are 29 Central Generating Stations which are connected to both ISTS and intra-State transmission system and where CTU has no LTA agreement in place. NLDC (Implementing Agency under the Sharing Regulations, 2020) has also mentioned in its procedure that CTU shall provide details of such LTA. Therefore, it is necessary to exclude LTA corresponding to the power drawn through State network in respect of such generating stations. TANGEDCO has raised this issue for four generating stations (MAPS, NTECL Vallur TPS, NLC TPS Stage-II and Kudankulam) on the ground that CTU & NLDC have been considering full quantum of LTA for power drawn from these generating stations. Since CTU also does not have any methodology to identify breakup of such LTA, CTU and TANGEDCO had requested SRPC to convene a special TCC meeting. In that meeting, a sub-committee has been constituted to formulate a methodology and general philosophy that needs to be followed in such cases.

b) Member (ISJ), CERC observed that genesis of the transmission line at time of planning is to be seen and not the power flow in such transmission lines, which is a dynamic thing. The Sharing Regulations, 2020 provides for sharing charges of transmission system that is planned and constructed for evacuation of power from a particular generating station. Therefore, if for a generating station, a transmission system is planned and constructed for evacuation of power from such generating station, yearly transmission charges for such transmission system should be included for calculation of transmission charges in terms of the Sharing Regulations, 2020. However, sometimes, despite availability of ISTS, a State constructs intra-State transmission system for its drawal of power. In such cases, it cannot be considered that such State is using its own intra-State transmission system for drawal of power and that it should not pay for the ISTS.

c) Chairperson, SRPC stated that the CTU is not following the said principle. For example, for MAPS and KAPS generating stations, power was planned to be evacuated from the intra-State transmission lines but the LTA is being loaded on Tamil Nadu. Tamil Nadu has given up claim in Kudankulam, but CTU is still continuing with the LTA. In a meeting at SRPC, CTU stated that the if transmission charges for LTA in respect of these generating stations is not loaded on to Tamil Nadu, the same will have to be recovered from other States. The stand taken by CTU is not correct and that it should take the decision in accordance with the principles of the Sharing Regulations, 2020. He requested that if Commission convenes a meeting in this regard with CTU/ POSOCO, SRPC may also be invited for the meeting.

d) Member Secretary (NRPC) stated that there is a lack of co-ordination between NLDC and CTU. The transmission system of old intra-State generating stations like Unchahar and Narora is with them only. Their transmission systems are being considered as deemed LTA and they are being made liable to pay the applicable charges. The issue can be sorted out easily as the Regulations are clear and there is no ambiguity therein.

e) Chairperson, CERC stated that a group may be formed involving CTU, WRPC, SRPC, NLDC and others under chairmanship of Member (ISJ), CERC to solve the issue.

18. **LTA of exempted RE-based generation for computation of transmission charges for States**

a) Shri N.R.L.K. Prasad, SE (SRPC) stated that LTA being considered for computation of RTA (regional transmission accounts) does not include LTA of exempted RE generation. However, for the purpose of RTDA (regional transmission deviation accounts) computation, LTA of exempted RE generation is added to the LTA of respective States. Thus, LTA quantum being considered for RTA and RTDA are different.

b) Chairperson, SRPC stated that LTA of exempted RE generation may be mentioned in the Sharing Regulations for computation of transmission deviation.

c) Member (ISJ), CERC stated that this issue has arisen due to waiver of transmission charges available to certain categories of RE generation. Due to such waiver, corresponding LTA from these generating stations is not considered in RTA. However, while calculating transmission deviation the LTA quantum cannot be excluded because States are entitled to draw power from these stations.

d) Joint Chief (Engg), CERC suggested that a solution could be that while finalising RTDA, the schedule from only those RE generating stations for which transmission charges are waived off may be considered rather than LTA.

e) Member (ISJ), CERC requested Chairperson, SRPC to submit the proposal of SRPC with respect to this issue.

f) MS (NRPC) raised the issue that RTDA is issued for State as a whole, and the same is being divided among the constituents/ entities in the State by CTU on pro-rata basis in proportion to their LTA. He stated that this is not justified as all Discoms may not have over-drawn/ under-drawn power.

g) Member (ISJ), CERC suggested that SLDC is the right body that can give such data on how to distribute RTDA. MS (NRPC) agreed to suggestion of Member (ISJ), CERC and stated that CTU should get inputs from SLDC before billing the entities within the States by dividing the deviation amount. Member (ISJ), CERC observed that RPCs can suggest the solution and this issue can also be addressed in the meeting of CTU and RPCs. Joint Chief (Engg), CERC requested all RPCs to give details for States in their respective region as available with respective SLDC.

19. **Intra-State lines carrying inter-State power**

a) Shri N.R.L.K. Prasad, SE (SRPC) stated that in previous Sharing Regulations, 2010, there was provision for certification of RPCs with regard to intra-State lines carrying inter-State power. However, there is no such provision in the present Sharing Regulations, 2020. He stated that STUs also have the webnet software and can themselves do the study and identify if the lines carry inter-State power and, thereafter, approach Commission for tariff determination and inclusion as ISTS.

b) Shri N.R.L.K. Prasad, SE (SRPC) further stated that APTRANSCO has got certain intra-State lines whose tariff has been approved by APERC for period before November 2020 and order was issued in 2021. For these intra-State transmission lines, it is unable to claim the tariff as approved by APERC since there is no provision in the Sharing Regulations, 2020.

c) Member (ISJ), CERC stated that to determine whether a transmission line can be termed ISTS, one needs to go to the genesis of the transmission line i.e. how planning was done. If due to change in power flow, a transmission line carries more inter-State power, it should not mean that such a transmission line is to be considered ISTS. Similarly, by virtue of LILO, an intra-State transmission line should not be claimed as inter-State line.

d) Joint Chief (Engg), CERC stated that the Sharing Regulations, 2020 provides that only those transmission systems shall be considered as ISTS whose tariff is determined by this Commission. The Sharing Regulations, 2010, on the other hand, provided that tariff determined by State Commission was also to be considered.

e) Member Secretary (NRPC) referred to an order of MoP regarding "Waiver of inter-state transmission charges on transmission of electricity generated from solar and wind sources of energy" which states that certification of intra-State lines as ISTS may be done by RPC and that there have been communications from Rajasthan and other State requesting to certify certain intra-State transmission lines as ISTS. NRPC has communicated to them that there is no such provision of certifying the transmission lines by RPC in the Sharing Regulations, 2020 and that they can approach CERC for determination of tariff for such lines.

f) Chairperson, CERC stated that under the Sharing Regulations, 2020 anybody can approach the Commission for determination of tariff for intra-State transmission lines that carry inter-State power. The Commission can refer such cases to RPCs for system study analysis.

g) Chairperson, SRPC stated that he will try to resolve the issue of APTRANSCO at RPC level.

20. **Transition Period Billing**

a) Member Secretary (NRPC) stated that as per Regulation 22 of the Sharing Regulations, 2020, bill for months of November 2020 and December 2020 have to be as per the Sharing Regulations, 2010 while billing from January 2021 onwards would be based on the Sharing Regulations, 2020. Bill issued in the month of January 2021 will be based on data of November 2020 and so on. However, an issue came up in respect of Western Central Railways

(WCR) that had MTOA of 5 months and 19 days and, therefore, it was supposed to be billed for 5 months and 19 days. However, due to transition period related issues, 7 bills were raised on WCR. In order to ensure that WCR pays transmission charges only for 5 months and 19 days, the matter was discussed in Commercial sub-committee meeting of NRPC where CTU clarified that it will not raise the bill for the billing month of March 2021, and only partial bill of 19 days for the billing month of February 2021 (i.e. MToA would be deemed to be completed by 19.12.2020 for billing purpose). Member Secretary (NRPC) requested that the Commission may look into the issue and clarify/ endorse the methodology adopted by CTU for WCR so that a uniform approach is followed for all such cases.

b) Sh. P. D. Lone (SE), WRPC stated that this may happen in other cases also where MTOA had started before the transition period of the Sharing Regulations, 2020 and in such cases, CTU may be advised to bill only for period of MTOA.

c) Member (ISJ), CERC stated that all such cases should be referred to CTU. Member (AG) stated that since CTU has sorted out the issue of WCR, and removal of difficulty order is also clear, if there is apprehension that there might be other similar cases, CTU may suggest the solution.

d) Chairperson, ERPC stated that Bihar has also been billed twice for the same billing period - one under the Sharing Regulations, 2010 and another under the Sharing Regulations, 2020 for which payments have been made under protest.

e) Joint Chief (Engg.), CERC stated that officials of CERC had discussed the matter with CTU and it was assured by CTU that entities shall be billed for their period of access only.

f) Chairperson, CERC, acknowledging the concern of Bihar, directed staff of the Commission to discuss the matter with CTU and resolve the issue in accordance with removal of difficulty order.

21. **Levy of DSM charges during specific events beyond the control of the Regional Entities**

a) Member Secretary (WRPC) stated that even during unforeseen situations such as cyclones, the entities have to pay DSM and penalties if they deviate from their schedule. He further stated WRPC has devised a mechanism in the OCC meetings to tackle this issue wherein SLDC declares the cyclone period, the same is vetted by RLDC and, thereafter, it is submitted to Member Secretary (WRPC). The affected entity honours the DSM bills but additional penalties are waived of.

b) Member Secretary (ERPC) stated that the same issue has been faced by constituents of ER also. He narrated an incidence wherein some people were stranded in the lower part of a dam and upon the instruction of the local administration, the generating station was directed to be shut down. However, the penalty was imposed under the DSM mechanism, though there was no fault on the part of the generator. Therefore, there should be some mechanism to

waive DSM charges in such instances. Also, during COVID-19 period, some Discoms were forced to draw above their schedule. He requested that such situations should be accounted for in the DSM Regulations and appropriate relief may be provided.

c) Chief (RA), CERC stated that any change in the regulations will not be applicable retrospectively. CERC will consider the suggestions while issuing the new DSM Regulations. However, any such issue related to extra-ordinary/ force majeure event should be dealt with on case to case basis and not on the basis of generic rule.

d) Member Secretary (ERPC) agreed that relief from penalties should be given for limited period only.

e) Member (ISJ), CERC observed that if such unforeseen event continues for 10-15 days, why any entity would continue to deviate from its schedule when it can revise its schedule under the Grid Code.

f) Member Secretary (WRPC) stated that during cyclone, the situation does not come under control for 2-3 days as the restoration work of towers takes time.

g) Member (AG), CERC stated that sometimes events such as these are subjective and in such cases waiver of penalties should be exercised with caution.

h) Chairperson, ERPC stated that event of COVID may be looked at differently because the demand profile had changed and load shedding was not an option with the Discoms as they had to supply power 24x7. In this background, penalties under DSM may need to be relooked.

i) Member Secretary (NRPC) stated that RPCs can resolve these issues at their level with consensus of the constituents and intimate the Commission. If no resolution is reached at the RPC level, then aggrieved entity or RPC may approach the Commission.

j) Member (ISJ), CERC stated that limits and penalties provided in the DSM Regulations have been included to ensure that entities do not deviate so that the grid remains safe.

k) Chairperson, CERC stated that the concerns and suggestions have been noted and the same shall be considered while finalising the new DSM Regulations.

22. **Zero cost for underdrawal beyond the limits by Renewable rich state**

a) Chairperson, SRPC stated that as per draft DSM Regulations, underdrawal limit for 250 MW has been removed, and it is a major concern for RE-rich States. He further stated that there are many issues specific to RE-rich States, a detailed note on which can be shared if the Commission permits.

b) Chief (RA), CERC clarified that limit of 250 MW has not been withdrawn in the draft DSM Regulations. He further clarified that for underdrawal, it is proposed that there will be no payment.

c) Chairperson, CERC stated that during the past 3-4 years, forecasting technologies have improved and if the range of permissible deviations is not narrowed, there will be no incentive for the entities to invest in technology for better forecasting and controllability.

d) Chairperson, SRPC stated that every State doesn't have balancing reserve and if like SCED, balancing is done at national level, many issues of RE-rich States may get resolved. He stated that SRPC has written to Ministry of Power regarding the same.

e) Chief (RA) clarified that energy balancing and system balancing are different. This kind of balancing requirements i.e. last mile energy balancing and system balancing which is handled by system operator are there in all power systems in the world. In Indian power market, the Real Time Market (RTM) needs to increase in terms of depth. Prior to 2021, India did not have organised platform to schedule energy balancing requirements close to real time, but with RTM, it is possible now. The possible answer lies in maintaining appropriate reserves rather than allowing unscheduled interchange of 200-250 MW, thereby endangering grid security.

f) Chairperson, CERC stated that the Commission has been working on energy balance, system balance, reserves and role of system operator. With increasing RE integration with grid, there will be problems if these issues are not addressed appropriately.

23. **Term Ahead Market transactions and Receipt of negative amount by Sellers**

a) Shri N.R.L.K. Prasad, SE (SRPC) stated that there have been instances of negative payment to sellers due to proportionately higher transaction costs such as operating charges/ transmission charges/ application fees. The same happens when transaction is for a small quantum of energy. The Commission may like to take a note and resolve the issue.

b) Chairperson, CERC stated that the issue has been noted and will be dealt with while taking up amendments to Regulations.

24. **Deemed availability certificate for the shutdown period availed by transmission licensees for shifting of transmission lines for National Highway Authority of India (NHAI) projects**

a) Member Secretary (NRPC) stated that the Tariff Regulations, 2019 provides that if an entity asks for shutdown of any transmission line for undertaking some work on the transmission line, then such entity has to compensate for the non-availability of the transmission line to the transmission licensee. When NHAI wanted shutdown of some transmission lines and POWERGRID claimed charge, NHAI did not agree to pay the charges and the

issue was raised before the Ministry of Power. During a meeting taken by Secretary (Power), it was deliberated that generally customers of transmission lines are not affected by shutdown of a particular transmission line, due to redundancy in the transmission system and NHAI projects are of national importance. Therefore, it was decided in that meeting that in case of NHAI projects, RPC secretariat would provide deemed availability certificate for the shutdown period availed by transmission licensees for shifting of their transmission lines, provided that transmission customers are not affected by the shutdown of the line. Also, Director, Ministry of Power sent a letter to CERC to incorporate such provision in the Tariff Regulations, 2019. This issue was explained to the constituents in TCC board meeting also where NRLDC and a few constituents said that it can be applicable only when CERC amends the Tariff Regulations, 2019. Member Secretary (NRPC) further added that provisional deemed availability can be given because there is no impact on any beneficiaries and the availability can be revised based on CERC's directions. He requested that Tariff Regulations, 2019 may be amended so that RPC Secretariat can issue deemed availability certificate for the shutdown period availed by transmission licensees for shifting of their transmission lines for NHAI projects, provided that transmission customers are not affected by the shutdown of the line.

b) Chairperson, CERC requested NRPC to send the communications referred by them, so that a view can be taken.

c) Member Secretary (NRPC) assured that NRPC will share the formulations and relevant documents with CERC.

25. **Ramping assessment**

a) Shri N.R.L.K. Prasad, SE (SRPC) stated that NLDC has revised the guidelines for ramping assessment in December 2020, as per which in particular cases, some time-blocks have been exempted from ramping performance assessment. Such particular cases are where there is change in the direction of scheduled ramp rate, or where in preceding block, ramp rate is less than 0.5% per min. Some constituents are requesting relaxation in DSM Regulations for such cases.

b) Chairperson, CERC stated that the issue will be examined.

26. **Norms for imported coal-based plants to blend the domestic coal**

a) Shri N.R.L.K. Prasad, SE (SRPC) requested that the Tariff Regulations, 2019 may incorporate appropriate provisions for blending of domestic coal in the imported coal based generating stations.

b) Chairperson, CERC clarified that there is provision of blending of imported coal in the domestic coal based generating station but the converse provision does not exist. However, the suggestion has been noted.

27. **Issues related to expiry of PPA**

a) NRPC raised the issue relating to guidelines issued by MoP, which enables the Discoms to either continue or exit from the PPA after completion of the term of the PPA i.e. beyond 25 years or a period specified in the PPA. However, due to such exit if 100% power is not tied up, issues like part load compensation, availability factor shall come up.

b) The issue was noted.

28. **Declaring transmission charges for ±800 kV Raigarh-Pugalur-Thrissur HVDC Transmission Line as 'National Component' (SRPC) for purpose of the Sharing Regulations 2020**

a) Chairperson, SRPC stated that Raigarh-Pugalur-Thrissur HVDC Transmission Line may be considered as transmission line of national importance considering the huge surplus RE power that is planned to be transmitted from Southern Region to the rest of country.

b) Member (ISJ), CERC requested SRPC to share the documents to substantiate that the transmission line will carry RE power from SR to rest of the country.

c) Chairperson, CERC observed that already a petition in this regard is pending before CERC and the issue shall be adjudicated in that petition.

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

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

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

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

30. **Settlement of DSM accounts of IPP stations during Grid Disturbance Period**

a) Member Secretary (ERPC) stated that it is not clear whether IPPs are covered in the "Methodology of settlement of accounts for bilateral short term and collective transactions, for the period of Grid Disturbance" dated

09.10.2019 issued by the Commission. ERLDC has denied settlement of one such IPP on ground that it is not ISGS. He stated that ERLDC has informed that IPPs are not covered in ISGS definition of the Grid Code because in their PPA/ contract is in MW and not in terms of the percentage shares.

b) Joint Chief (Engg), CERC clarified that the methodology is applicable to IPP as well if it is an ISGS which is a regional entity. She requested ERPC to share the documents/ letter of ERLDC in which they have not accepted treatment of the IPP as ISGS.

c) Member Secretary (ERPC) clarified that the communication was verbal only. He further stated that he will take up the issue at RPC forum.

d) Chairperson, CERC observed that the Commission will discuss the issue with ERLDC.

Concluding Remarks

31. Chairperson, SRPC thanked the Commission and all the participants for their participation and valuable contributions in the discussions. He expressed satisfaction that the issues of RPCs have been heard at length and the concerns have been noted by the Commission. Member Secretary (NRPC) also thanked the Commission and others participants. He stated that such meetings with RPCs provide an effective platform for placing the issues and concerns of RPCs before the Commission.

32. The Commission thanked all the RPCs for their active participation and expressed that such dialogues would continue in the future.

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Annexure -A

List of Participants

Sr. No.	Name and Designation
CERC	
1.	Shri P.K. Pujari, Chairperson
2.	Shri I.S. Jha, Member
3.	Shri Arun Goyal, Member
4.	Shri Pravas Kumar Singh, Member
5.	Shri Sanoj Kumar Jha, Secretary
6.	Dr. S.K. Chatterjee, Chief (Regulatory Affairs)
7.	Shri Proteek Kumar Chakraborty, Chief (Finance)
8.	Shri T. Rout, Senior Advisor
9.	Ms. Shilpa Agarwal, Joint Chief (Engg.)
10.	Shri Sunil Kumar Jain, Joint Chief (Engg.)
11.	Shri B. SreeKumar, Joint Chief (Legal)
12.	Shri T D Pant, Joint Chief (Legal)
13.	Shri Sreenivas, Dy. Chief (Legal)
14.	Shri Ravi Shankar, Dy. Chief (Engg.)
15.	Shri Abhishek Rohilla, Dy. Chief (Engg.)
16.	Shri Shiva Suman, Dy. Chief (Engg.)
17.	Shri Ravindra Kadam, Advisor
18.	Shri Ramanjaneyulu Gali, Asst. Chief (Engg.)
19.	Shri Surya Kant, Research Officer
ERPC	
1.	Shri Sanjeev Hans, Chairperson (ERPC)-cum-CMD, BSPHCL
2.	Shri A K Sinha, Chairperson TCC & Director, BSPGCL
3.	Shri N. S Mondal, MS, ERPC
4.	Shri S. Kejriwal, Superintending Engineer
5.	Shri Alikpantha De, EE
6.	Shri P.P. Jena, EE
7.	Shri S.K. Pradhan, AEE
8.	Shri S.R. Swain, AE
WRPC	
1.	Shri Prasanna Kumar, Chairperson (WRPC)-cum-MD, GSECL
2.	Shri Satyanarayan S., Member Secretary, WRPC
3.	Shri P.D. Lone, Superintending Engineer
4.	Shri J.K. Rathod, Superintending Engineer
5.	Shri Deepak Gawali, Superintending Engineer
6.	Shri Sachin Bhise, Dy. Dir. WRPC
7.	Shri Deepak Sharma, Executive Engineer
8.	Shri P. Vidya Sagar, Executive Engineer
9.	Shri Vikas Mundotia, Executive Engineer
10.	Shri Karthik Vaghchara, Assistant Director-I
NRPC	
1.	Shri Naresh Bhandari, Member Secretary, NRPC
2.	Shri Saumitra Mazumdar, Superintending Engineer
3.	Shri Vikrant Singh Dhillon, Executive Engineer
4.	Director (Project), PTCUL
SRPC	
1.	Shri Rajesh Lokhani, Chairperson (SRPC)-cum-CMD, TANGEDCO
2.	Shri S. Shanmugam, Chairperson (TCC), Managing Director, TANTRANSCO
3.	Shri Naresh Bhandari Member Secretary (in-charge)
4.	Shri N.R.L.K. Prasad, Superintending Engineer
5.	Shri Meka Ramakrishna, Superintending Engineer
6.	Shri R.P. Madhu, Superintending Engineer
7.	Ms. Anusha Das J., Executive Engineer

Sr. No.	Name and Designation
NERPC	
1.	Shri B. Lyngkhoi, Member Secretary
2.	Shri S.M. Aimol, Director/ Superintending Engineer (Comml.)
3.	Shri Abhijeet Agrawal, Executive Engineer (Comml.)