

EASTERN REGIONAL POWER COMMITTEE

14, GOLF CLUB ROAD, TOLLYGUNGE, KOLKATA-700 033

Ph: 033-24239651/24239659 # Fax: 033-24239652/53 # Web: www.erpc.gov.in

MINUTES OF 42nd COMMERCIAL SUB-COMMITTEE MEETING OF ERPC HELD ON 25.02.2020 (TUESDAY) AT 11:00 HRS AT ERPC, KOLKATA

List of participants is at Annexure-A.

ITEM NO. A1: Confirmation of the minutes of the 41st Commercial Sub-Committee meeting held on 27.11.2019.

The minutes of the 41st Commercial Committee meeting were uploaded on ERPC website. No request for amendment has been received by ERPC Secretariat.

Members may confirm the minutes of the 41st Commercial Sub Committee Meeting.

Deliberation in the meeting:

Members confirmed the minutes of 41st Commercial Sub Committee Meeting.

PART B: ITEMS FOR DISCUSSION

ITEM NO. B1: Performance of Constituents of ER after implementation of DSM (5th amendment) Regulations of CERC - ERPC Agenda

DSM (5th Amendment) Regulations, 2019 was notified by Honorable CERC on 28th May, 2019. The said amendment has been implemented w.e.f 3rd June, 2019. Accordingly, DSM account is being prepared and issued by ERPC Secretariat as per 5th Amendment Regulations. The proposed sign change clause 7(10)(b) in the prevailing regulations would be implemented w.e.f. 01.04.2020.

ERPC Secretariat shall give a brief presentation on the performance of various constituents after the implementation of the latest regulations and also give a comparative analysis of sign change clause 7(10)(a) which has been implemented w.e.f. 03.06.2019 to 31.03.2020.

Members may discuss.

Deliberation in the meeting:

ERPC Secretariat gave a brief presentation on the behavior of various constituents & grid

frequency profile after implementation of DSM (5th amendment) Regulations'2019. During the presentation, it was highlighted that there was significant over drawl by Jharkhand & Sikkim.

Further, it was also observed that during the months of December, 2019 & January, 2020 by generators like Jorethang HEP, TPTCL (Dagachhu) and GMR Kamalanga resorted to significant under injection and the per unit cost of under-injection of these generators was found to be far below the average ACP rate of the market.

Members took serious note of this unchecked deviation by the beneficiaries as well as generators and all the regional entities were advised to adhere to their schedule.

During presentation, it was intimated that new sign change clause would be implemented from 01.04.2020. The no. of time-blocks for sustained unidirectional deviation will be reduced from the existing 12 time-blocks to 6 time-blocks. The impact of implementation of new sign change clause w.e.f 01.04.2019 was projected by comparing the DSM account for a week under the existing regulations with that of new sign change clause. Constituent members were requested to take a serious note of it.

ITEM NO. B2: Agenda by Bihar DISCOM (NBPDCCL)
(Copy of letter enclosed at Annexure-A1).

B2.1. Abolishment of capping of 150 MW for calculation additional deviation charges for scheduling of Power through ISGS.

Currently punitive deviation charges are imposed if the deviation in scheduled load and actual load crosses the limit of 12% or 150MW for scheduling of power through ISGS. However, this 150 MW deviation does not include intra-state scheduling. Such provision is against the mandate of the electricity Act,2003 which envisages DISCOMs as a separate entity having no generation of its own. DISCOMs of Bihar should not be treated differently than the DISCOMS of West Bengal just because DISCOMs of Bihar fulfils their requirement through ISGS.

Since, there is no capping for scheduling of power through intrastate generation, there should not be any capping for scheduling of power through ISGS also. Accordingly, it is requested to abolish the capping of 150 MW and it should be on %age basis only.

NBPDCCL may elaborate & Members may discuss.

Deliberation in the meeting:

NBPDCCL representative elaborated the issues faced by them as a Discom of Bihar because of clause of volume limit of 150 MW or 12% of deviation from schedule which was mentioned in the DSM regulations of CERC.

During the deliberation, it was explained that the CERC regulations are applicable to regional entities and the whole state of Bihar is considered as a regional entity for the purpose of energy accounting.

NBPDCL, being a Discom, is an embedded entity of Bihar system. Hence, any grievance of an embedded entity needs to be addressed to the respective State Electricity Regulatory Commission (here BERC).

B2.2. Modification in the methodology of DSM/UI calculation

Current DSM calculation methodology does not take in to account for unbalanced and intermittent drawl of power affecting grid stability much more than balanced and continues power. As the railway drawl its power intermittently and load is imbalanced, its DSM charges should be higher.

Accordingly, it is requested to modify DSM charge calculation methodology. Further, it creates voltage imbalance and load control of DISCOMs is affected. As such, DISCOMs should be compensated for DSM charges occurred due to such open access load.

NBPDCL may elaborate.

Members may discuss.

Deliberation in the meeting:

During the deliberation, it was explained that the CERC regulations are applicable to regional entities and the whole state of Bihar is considered as a regional entity for the purpose of energy accounting.

NBPDCL, being a Discom, is an embedded entity of Bihar system. Hence, any grievance of an embedded entity needs to be addressed to the respective State Electricity Regulatory Commission (here BERC).

Further, it was informed by NBPDCL representative intrastate ABT mechanism has been put in place in Bihar. Commercial Sub Committee noted that deviations by intra state entities of Bihar can get captured in the intrastate DSM accounts.

ITEM NO. B3: Revision of DSM accounts of GRIDCO from 04.05.2016 to 02.12.2018, due to erroneous less Energy reported at Bolangir (PGCIL) end SEM of 220kV Bolangir (PG) -Katapalli line (OPTCL).

Bolangir (PGCIL) end SEM of 220kV Bolangir (PG) –Katapalli line (OPTCL) tie line was reporting erroneous energy as compared to Katapalli (OPTCL) end SEM bearing meter no NP-7561A from 04.05.2016 to 02.12.2018. Being a tie line, SEM at Bolangir (PG) is used for energy calculation at ERPC, Kolkata. There is a huge difference of energy data of both end meters and the net energy difference is calculated to be **97281.8 MWH** for the period from 04.05.2016 to 02.12.2018. The net energy comparison sheet of both side SEM data for all the above weeks and 15 minutes energy data of Katapalli (OPTCL) end SEM for the period has been attached.

Further, SEMs at ICT end at Bolangir (PGCIL) have been considered for energy accounting at ERPC, Kolkata from 02.12.2018 onwards and above energy data was rectified after engagement of the above ICTs SEM at Bolangir PGCIL.

In 40th CCM, it was pointed out that GRIDCO/OPTCL should have been vigilant enough to bring this issue to the notice of ERPC/ERLDC when it started occurring. However, after a lapse of a period of about 2.5 years the metering issue is reported to have been resolved.

Further, it was intimated by GRIDCO representative that the metering issue got rectified after subsequent restoration of line after availing shutdown. During discussion, members could not ascertain the reasons for problem in the metering and subsequent resolution of the same.

Hence, it was decided to constitute a committee comprising of SE, ERPC (as Convener) and one representative each from ERLDC, GRIDCO/OPTCL & PGCIL (Odisha Projects) as Members of the committee. Concerned organizations were requested to nominate their representative and intimate the same to ERPC Secretariat within 15 days.

The Committee would:

- 1. Ascertain the reasons for problem in the meter at Bolangir (PG) end of 220kV Bolangir (PG) – Katapalli (OPTCL) line.*
- 2. Rectification of the issue after restoration of line subsequent to availing S/D*
- 3. Modalities for energy accounting, if any.*

The first meeting of the constituted committee was held on 16.07.2019 at ERPC, Kolkata. The committee advised OPTCL to furnish few clarifications in respect of 220KV Bolangir (PG)-Katapalli (OPTCL) line metering issue for further deliberation of the committee. (MoM attached at **Annexure-B**). Subsequently OPTCL replied to the queries raised by the committee vide email dated 24.07.2019. (**Annexure-C**)

Thereafter, second meeting was convened by the committee on 19.02.2020 at ERPC, Kolkata. The committee agreed for treating this as special case and suggested a methodology for accounting settlement of this issue (Minutes of Meeting is enclosed at **Annexure-D**) and referred the issue for further concurrence in Commercial meeting.

Members may discuss and concur.

Deliberation in the meeting:

The issue was briefly explained to the members and the committee as constituted in 40th CCM suggested a methodology for accounting and settlement based on the decisions taken in the meetings convened on 16.07.2019 & 19.02.2020 at ERPC, Kolkata. (Minutes of meetings enclosed at Annexure- D)

After detailed deliberation, Commercial Sub-committee accepted the accounting methodology as proposed by the committee for settlement of the issue of less energy recorded at Bolangir (PGCIL) end of 220kV Bolangir (PG) -Katapalli (OPTCL) line for the period from 04.05.2016 to 02.12.2018.

Commercial Sub-Committee advised OPTCL to diligently verify the meter data and bring any discrepancy to the notice of ERPC/ERLDC on time. OPTCL was warned that recurrence of such events in future shall not be entertained in any ERPC forum

Accordingly, the DSM account of GRIDCO shall be revised and the payment shall be made from the DSM pool of ER. However, other outstanding dues pending for payment from DSM pool shall be liquidated prior to the payment to GRIDCO on account of this revision.

It was decided to place the methodology for accounting and settlement, as suggested by the committee, in TCC for further concurrence.

**ITEM NO. B4: Energy accounting and settlement of Mangdechhu HEP, Bhutan – PTC
(Copy of letter enclosed at Annexure-E)**

The chronology of the events and deliberations in various meetings in respect of Mangdechhu HEP, Bhutan are as follows:

1. Unit-1 of MHEP was synchronized with Indian Grid on June 16, 2019 and MHEP power is being injected into Indian Grid from June 16, 2019 onwards.
2. Thereafter, COD of the Generating Units declared by BPSO are as under: -
 - (i) Unit-1 - June 28, 2019 at 12:30 Hrs. (BST),
 - (ii) Unit-2 – July 08, 2019 at 12:30 Hrs. (BST),
 - (iii) Unit-4 – August 14, 2019 at 12:30 Hrs. (BST),
 - (iv) Unit-3 – August 16, 2019 at 23:30 Hrs. (BST)
3. Inter-governmental Agreement dated April 23, 2019 specifies that the tariff of **Rs. 4.12** per unit shall be effective from the date of commercial operation of the Project.

4. Pursuant to ERPC share allocation order for Mangdechhu HEP issued vide letter no. dated 30.08.2019, power supply to the beneficiaries of Mangdechhu HEP started scheduled w.e.f. 00.00 hrs of September 01, 2019.
5. Bhutan has raised bills for entire energy of **488.478 MUs** injected at Jigmeling from 16.06.2019 till 31.08.2019 at the rate of Rs. 4.12 per unit (Rs. 201.25 crores).
6. In the special meeting convened by ERPC on 25.09.2019, subject direction received from government the following were decided: -
 - 6.1. Power injected by MHEP from 16.06.2019 till 15.08.2019 shall be deemed to be internally consumed by Bhutan and corresponding quantum shall be segregated into Tala, Chhukha & Kurichhu components in the ratio as per the REA of June, July & August 2019. REA and DSM for the above shall be revised accordingly so that amount shall be paid from DSM pool account to the beneficiaries.
 - 6.2. For the period from 16.08.2019 to 31.08.2019, power injected by MHEP shall be adjusted from the share allocation of beneficiaries of MHEP and the amount shall be paid from DSM pool account to beneficiaries, which shall be passed on to PTC as per the statement issued by ERPC.
7. Pursuant to the above special meeting, ERPC has issued provisional REA for period from June to August 2019, wherein 340.813 MUs of MHEP generation from 16.06.2019 to 16.08.2019 has been considered as infirm injection and adjusted towards corresponding generation from Tala, Chhukha & Kurichhu, which works out to approximately Rs. 77 crores. For the period 16.08.2019 to 31.08.2019, 151.494 MUs has been considered as MHEP injection in India to be paid at Rs. 4.12 as per Tariff Protocol, which works out to approximately Rs. 62.4 crores.
8. Further, Bhutan vide its letter dated 15.10.2019 has stated that: -
 - 8.1. COD for the purpose of billing should be considered for each unit separately as declared by BPSO and intimated to NLDC, ELRDC & ERPC by BPSO.
 - 8.2. Total infirm power generated by all the four units work out to 18.370 MUs, which may be considered as proposed by ERPC as mentioned above. For the purpose of adjustment of infirm power, suitable adjustment has to be carried out to calculate the infirm energy at delivery point.
9. In case of Tala HEP, COD of first unit (Unit No. 6) was declared on 31.07.2006 and the COD of last unit (Unit No. 3) was declared on 30.03.2007, however Bhutan was paid the project tariff from COD of first unit.

Therefore, total amount payable to Bhutan from 16.06.2019 to 31.08.2019, as per above decision in ERPC works out to approximately Rs. 139.4 crores against their claim of Rs. 201.25 crores. However, Bhutan is insisting for payment of the entire amount.

Members may discuss.

Deliberation in the meeting:

During the course of deliberation, the following points emerged:

- i) As per the Inter-Governmental Agreement dated April 23, 2019 between Govt. of India and Royal Govt. of Bhutan, CoD of project shall be considered for the purpose of scheduling and accounting of Mangdechhu HEP power.*
- ii) As per power supply agreement between PTC & beneficiaries, it has been mentioned that unit wise CoD shall be considered for the purpose of scheduling and accounting of Mangdechhu HEP.*
- iii) Therefore, there is an inconsistency and contradiction between the agreements entered by Govt. of India and Royal Government of Bhutan, and between PTC and the beneficiaries of Mangdechhu HEP.*
- iv) Further, in earlier cases like Tala HEP, the COD of the individual units were taken for scheduling and accounting purpose*

After detailed deliberations the following decisions were taken:

- i) PTC shall obtain necessary clarification from Ministry of Power, Govt. of India on whether the COD of individual unit or COD of the Mangdechhu HEP shall be taken for scheduling and accounting purpose.*
- ii) In case MoP, GoI clarifies that the COD of individual unit of Mangdechhu HEP shall be taken, the accounting issued by ERPC Secretariat for the period from 16.06.2019 to 31.08.2019 shall be accordingly revised.*
- iii) The additional payment, if any, shall be made from DSM Pool.*
- iv) There would not be any financial implications for the beneficiaries of Mangdechhu HEP.*
- v) The detailed meter reading for the purpose of computations for the period from 16.06.2019 to 31.08.2019 w.r.t. Mangdechhu HEP shall be provided by PTC.*

**ITEM NO. B5: Outstanding dues from Govt. of Sikkim-WBSEDCL
(Copy of letter enclosed at Annexure-F).**

The Energy and Power Deptt., Govt. of Sikkim has an agreement with WBSEDCL for purchase of power at a tariff which is the generation cost of Rammam Hydel project of WBSEDCL. WBSEDCL also purchase power from Govt. of Sikkim at a consumer mode. The quantum of power sale by WBSEDCL is considerably higher than the power purchase from Govt. of Sikkim whereas the tariff rate of WBSEDCL sale is considerably very low in comparison to the tariff of power purchase by WBSEDCL from Govt. of Sikkim.

The Govt. of Sikkim has been drawing power from WBSEDCL on regular basis but reluctant to pay the bill within due time. As a result, the outstanding dues from Govt. of Sikkim stands **Rs.31.38 Cr.(approx)** upto the consumption month of January,2020. On the contrary, WBSEDCL used to pay Govt. of Sikkim, their dues within due date since long but without having any alternative and no response from the Govt. of Sikkim started adjusting the power purchase bill with the outstanding dues from Mar,2017 to till date. As a result, the net due from Govt. of Sikkim now stands for **Rs.30.74Cr.** after all adjustments.

The evidence in support of the claim of WBSEDCL is duly annexed with this agenda where it shows the detail calculation of outstanding dues, some of the correspondences out of many with Govt. of Sikkim regarding realization huge number of dues.

WBSEDCL, finding no other remedy to realize the dues from Govt. of Sikkim and as the matter is now reached an alarming state, appeal before the Hon'ble ERPC to intervene into the matter as Govt. of Sikkim as well as WBSEDCL both are constituent members of ERPC.

Sikkim may respond.

Deliberation in the meeting:

WBSEDCL representative intimated that despite repeated efforts they could not resolve this bilateral issue of outstanding payment from Sikkim. Hence, they were compelled to bring this issue to Commercial Sub-Committee. He informed that Govt. of Sikkim has ₹ 30.74Cr. outstanding dues to WBSEDCL.

However, due to the absence of Sikkim representative the issue could not be discussed.

It was decided to place this agenda in the forthcoming TCC meeting.

**ITEM NO. B6: Nomination of Settlement Nodal Agency for Cross Border Transactions
(Copy attached at Annexure - G)**

NVVN has been nominated as Settlement Nodal Agency (SNA) vide MoP order dated 26th Nov,2019 as per the clause 8.8 of the guide lines for Import/Export (Cross Border) of Electricity 2018.

It is primarily for settlement of Grid operation related charges with neighboring countries like Bangladesh, Nepal, Bhutan and Myanmar. However, the functions of Nodal agency and modalities of settlements has not yet been finalized.

NVVN may elaborate.

Deliberation in the meeting:

NVVN representative was present in the meeting. He drew the attention of the members in the meeting regarding the order issued by MoP GoI wherein NVVN has been designated as Settlement Nodal Agency for import and export(Cross Border) of power. In this connection he informed that NVVN is already a nodal agency as far as Bangladesh and Nepal transactions are concerned. Further, in case of Bhutan, the hydro stations like Tala, Chukha, Kurichhu & Mangdechhu do not come under DSM regulations. However, Dagachhu HEP is included within the ambit of DSM with TPTCL acting as the nodal agency.

Based on the MoP order, NVVN proposed to become the nodal agency for Dagachhu transactions w.e.f 01.04.2020 and take up the scheduling and accounting responsibility w.r.t. Dagachhu HEP.

The proposal of NVVN was discussed in the Commercial sub-Committee meeting. Commercial Sub-Committee advised NVVN to enter into necessary agreement with TPTCL to take over all the responsibilities of nodal agency from TPTCL for Dagachhu HEP transactions. NVVN was also advised to complete the necessary registration process with ERLDC (POSOCO). After this, all matters pertaining to scheduling, payment & settlement shall be taken care of by NVVN.

It was decided to place this agenda in forthcoming TCC meeting for further approval.

ITEM NO. B7: Cold Spare transformer requirement for Eastern Region

CERC had set up a Committee on dated 15.03.2018 consisting of representatives from CERC, NLDC, CEA & POWERGRID under the Chairmanship of the Chief (Engineering) of the CERC to assess the requirement of regional spares including bus reactors, line reactors, ICTs, etc. This would ensure reliability of the grid and reduce downtime in case of any failure/outage. Based on CERC Committee recommendation, following spare transformers will be needed for Eastern Region:

MVA Rating and Phase	Voltage Rating	Qty Required as per	Available Regional Spare	Qty proposed for procurement	Spare requirement
----------------------	----------------	---------------------	--------------------------	------------------------------	-------------------

		norms			
3Ø-500MVA	400/220	3	0	3	Bihar, Odissa and West Bengal
3Ø-160MVA	220/132	4	2	2	Jharkhand and Odissa
3Ø-100MVA	220/132	2	0	0**	
Total		9	2	5	

**As per CERC committee recommendation, for 3-phase,220KV and below rated equipment, one 3-phase transformer is needed with highest MVA rating in each state.

OCC may consider for approval of 05 nos of cold spare transformers of various ratings as per CERC committee recommendation as mentioned above. The Tariff for the investment made is to be shared by all constituents as per CERC notification.

In 164th OCC, Powergrid informed that earlier they used to keep the regional spare ICTs and the spare ICTs were transported to necessary location as and when required for early restoration during any contingency. POWERGRID explained that, with the present tax regime, they are facing difficulty in transporting the ICT from one state to other state.

In view of above, they are planning to keep one spare ICT for each state. OCC opined that cold spare transformers are required for early restoration of defective transformer during the contingencies.

OCC in principle approved the requirement of 5 Nos of cold spare transformers and referred the issue to CCM for further deliberation.

PGCIL may explain along with the cost implication.

Deliberation in the meeting:

POWERGRID representative informed that the estimated cost to procure 5 Nos of cold spare transformers for Eastern Region is around ₹ 50 Crores including applicable taxes.

Commercial Sub-Committee noted the operational requirement of the spares as approved in the OCC meeting and agreed to the proposal for procurement of 5 nos. of Transformers as cold spares for Eastern Region at an estimated cost of ₹ 50 Crores (apprx.) including applicable taxes. It was decided to place this before upcoming TCC for further concurrence.

ITEM NO. B8: Computation & Issuance of Delayed payment Interest related to ER Pool Account -ERLDC

ERPC Secretariat issues the weekly statement for Deviation Charges, Reactive energy charges etc., to all regional entities. These payments have a high priority and the concerned regional

entities and other regional entities have to pay the indicated amounts into regional pool account operated by the RLDC within 10 (ten) days of statement issue. The regional entities who have to receive the money from regional Pool account is being paid out from the regional pool account, within two (2) working days from the receipt of payment in the pool account.

At present computation of delayed payment interest of Pool members of ER pool account is being done by ERLDC.

As per Clause 9(2) (ii) of DSM regulation 2014,

“Separate books of accounts shall be maintained for the principal component and interest component of Charges for Deviation and Additional Charges for Deviation by the Secretariat of the respective Regional Power Committee”.

Computation & Issuance of delayed payment interest of Pool members of ER pool account may be discussed.

Deliberation in the meeting:

Commercial Sub-Committee advised ERPC and ERLDC to discuss and resolve this bilaterally in due course of time.

ITEM NO. B9: Review of Methodology of Reactive Energy Accounting and Billing - ERLDC

As per Clause 11 & 12 of Annexure-I of IEGC (w.e.f. 03/05/2010)

Quote....

11. RPC Secretariats shall also issue the weekly statement for VAR charges, to all regional entities who have a net drawl/injection of reactive energy under low/high voltage conditions. These payments shall also have a high priority and the concerned regional entities and other regional entities shall pay the indicated amounts into regional reactive pool account operated by the RLDC within 10 (ten) days of statement issue, provided that the Commission may direct any entity other than RLDC to operate the regional reactive pool account. The regional entities who have to receive the money on account of VAR charges would then be paid out from the regional reactive pool account, within two (2) working days from the receipt of payment in the Reactive pool account.

12. If payments against the above VAR charges are delayed by more than two days, i.e., beyond twelve (12) days from statement issue, the defaulting regional entity shall have to pay simple interest @ 0.04% for each day of delay. The interest so collected shall be paid to the regional entities who had to receive the amount, payment of which got delayed. Persistent

payment defaults, if any, shall be reported by the RLDC to the Member Secretary, RPC, for initiating remedial action.

..... Unquote

As per ERPC weekly Reactive Charge Statement, Reactive Charges are billed to only those states that have to pay the reactive charges in the Reactive pool account as per the computation while total pay-out to the States from the Reactive Pool is reduced to zero.

This is being done as per the decision taken in the “Meeting of the Group for Fixing Methodology for computation of Reactive Energy on the Inter-state Lines” held on 15.09.2006 at ERPC.

The above methodology needs to be reviewed in line with IEGC and harmonized with other regions.

Member may discuss.

Deliberation in the meeting:

The present commercial settlement of reactive accounting is based on the decision taken in the “Meeting of the Group for Fixing Methodology for computation of Reactive Energy on the Inter-state Lines” held on 15.09.2006 at ERPC.

It was decided to constitute a committee comprising of SE, ERPC (Chairman) and one representative each from ERLDC, BSPHCL & WBSEDCL as members to review the existing methodology for Reactive Energy accounting.

Concerned organizations were requested to nominate their representative and intimate the same to ERPC Secretariat at the earliest.

The committee recommendation would be placed before upcoming TCC meeting for concurrence.

**ITEM NO. B10: Payment/Receipt Status from various pool accounts in ER – ERLDC
Agenda**

B10.1. Payment of Deviation Charge – Present Status.

The status of Deviation Charge payment as on 18.02.2020 is enclosed at *Annexure – I*. The current principal outstanding Deviation Charge of BSPHCL, JBVNL and GMR is **₹ 26.99 Cr, ₹ 13.11 Cr & ₹ 9.50 Cr** respectively considering bill up to 06.02.2020. ERLDC is regularly giving reminders to BSPHCL, JBVNL & GMR to liquidate the outstanding Deviation charges.

Further SIKKIM & APNRL are not paying DSM charges on regular basis and waiting for adjustment with the receivable amount.

SIKKIM & APNRL may please pay the Payable amount as per bill within due date instead of waiting for adjustment.

BSPHCL, JBVNL, APNRL, GMR & Sikkim may confirm the program for payment of outstanding dues.

Deliberation in the meeting:

Bihar representative assured to pay outstanding dues at the earliest.

JBVNL, APNRL, GMR & Sikkim representatives were not present in the meeting.

ERLDC further added for the last 4 weeks the DSM pool balance is running negative.

In view of the above it was requested the constituents to liquidate the outstanding dues at the earliest.

B10.2. Interest due to delayed payment of deviation charges

Due to delayed payment of deviation charges in DSM Pool in FY 2018-19, interest was computed for all the DSM Pool Members. ERLDC vide letter No. संदर्भ : पूक्षेभारप्रेके./एम.ओ/यू-11 / 1148 dated 24.06.19 have issued the interest statement for FY 2018-19.

Settlement of delayed payment Interest for 2018-19 for the recipient constituents has been done on 31.05.19. However, the statement aof interest amount as on 18.02.20 is enclosed in **Annexure-II**. Sikkim, Chuzachen, GMR and Dikchu are requested to clear the dues.

Sikkim, Chuzachen, GMR and Dikchu may please confirm the program for payment of Interest on account of delayed payment.

Deliberation in the meeting:

Sikkim, Chuzachen, GMR and Dikchu were not present in the meeting to update the status.

B10.3. Reactive Energy Charges --- Present Status.

The updated position of Receipt/Payment of Reactive Energy Charges in the pool as on 18.02.2020 is indicated in **Annexure – III**. The total outstanding receivable on account of Reactive charges from Bihar, GRIDCO & JBVNL are ₹ 1.01 Cr, ₹ 67.91 Lacs & ₹ 41.87 Lacs respectively. Further, an amount of ₹ 19,699/- on account of Reactive Charges is payable by SIKKIM.

BIHAR, GRIDCO, JBVNL & SIKKIM may confirm the program for payment of outstanding dues.

Deliberation in the meeting:

Bihar representative agreed to pay outstanding reactive dues by the next end of the March,2020

Further, ERLDC informed GRIDCO is regularly paying their dues and requested to liquidate outstanding charges at the earliest.

JBVNL representative was not present in the meeting.

B10.4. 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 on 17.02.2020 (considering bill up to 06.02.2020) is indicated in **Annexure – IV**. So far **₹ 84.38 Cr** has been settled under RRAS in ER during FY 2019-20.

This is for information.

Deliberation in the meeting:

Members Noted

B10.5. FRAS Account ----Present Status

The updated position of Payments to the FRAS Provider (i.e. NHPC) from the DSM pool and Payments by the FRAS Provider to the DSM pool as on 17.02.2020 (considering bill up to 06.02.2020) is indicated in **Annexure – IV**. So far **₹ 1.32 Lacs** has been settled under FRAS in ER during FY 2019-20.

This is for information.

Deliberation in the meeting:

Members Noted

B10.6. AGC Account ----Present Status

The updated position of Payments to the AGC Provider (i.e Barh) from the DSM pool and Payments by the AGC Provider to the DSM pool as on 17.02.2020 (considering bill up to 06.02.2019) is indicated in **Annexure – IV**. So far **₹ 2.60 Lacs** has been settled under FRAS in ER during FY 2019-20.

This is for information.

Deliberation in the meeting:

Members Noted

B10.7. Congestion account - Present Status

No Congestion in ER is imposed since 06.12.2012. The status of congestion charge payment after full settlement is enclosed at **Annexure –V**

This is for information.

Deliberation in the meeting:

Members Noted

B10.8. Status of PSDF

An amount of **₹ 802.27 Cr** from Reactive pool account has been transferred to PSDF after 41st Commercial sub-committee meeting held on 27.11.19. With this the total amount of **₹ 1303.69 Cr** has been transferred to PSDF so far. The break up details of fund transferred to PSDF (till 17.02.20) is enclosed in **Annexure VI**.

This is for information.

Deliberation in the meeting:

Members Noted

ITEM NO. B11: Reconciliation of Commercial Accounts – ERLDC Agenda

B11.1. Rreconciliation of Deviation Accounts

At the end of 3rd quarter of 2019-20, the reconciliation statement (Period: 01.10.19 to 31.12.19) has been issued by ERLDC on 13.01.20 and statements had been sent to the respective constituents and also uploaded the same at ERLDC website at <https://erlhc.in/market-operation/dsmreconciliation/> The constituents were requested to verify /check the same & comments if any to be reported to ERLDC at the earliest. The status of reconciliation is enclosed in **Annexure-VII**.

All the pool members except NTPC, DVC, Gridco, Chuzachen, NVVN (Nepal & Bangladesh), TPTCL, TUL & MPL ***have not signed reconciliation statement for last quarter i.e., 3rd Quarter of FY 19-20.***

Further, Bihar, JUVNL, Sikkim, NHPC, APNRL, Chuzachen, JLHEP, PGCIL(ER-I), Dikchu, SHIGA(Tashiding) not yet signed the reconciliation for **2nd quarter of FY 19-20.**

POWERGRID (ER-I) not yet signed the reconciliation since 4th quarter of FY 18-19 and Dikchu not reconciled the statement since **3rd quarter of FY 18-19.**

All above constituents are once again requested to submit the signed reconciliation statement at the earliest.

Deliberation in the meeting:

Bihar, Jharkhand, West Bengal, Sikkim, NHPC, APNRL, GMR, JITPL, DANS Energy, BRBCL, POWER (ER-I & ER-II), NPGC, DIKCHU have not yet reconciled for 3rd Quarter of FY 19-20.

ERLDC updated that Bihar, JUVNL, Sikkim, NHPC, APNRL, Chuzachen, JLHEP, PGCIL(ER-I), Dikchu, SHIGA (Tashiding), Chuzachen , DANS energy have not yet reconciled their statements for 2nd quarter of FY 19-20.

Except Bihar, West Bengal and Powergrid (ER-II) all other constituents were not present in the meeting. Further Bihar updated that the reconciliation of deviation accounts would be done by end of February,2020.

ERLDC requested POWERGRID (ER-I) to send the reconciliation for 4th quarter of FY 18-19 at the earliest.

B11.2. Reconciliation of Reactive Account

At the end of 3rd quarter of 2019-20, the reconciliation statement (Period: 01.10.19 to 31.12.19) has been issued by ERLDC on 13.01.20 and statements had been sent to the respective constituents and also uploaded the same at ERLDC website at link <https://erlhc.in/market-operation/reactivereconciliation/>. Constituents were requested to verify /check the same & comments if any to be reported to ERLDC. The status of reconciliation is enclosed in ***Annexure-VIII.***

BSPHCL, JUVNL, DVC, WBSETCL & SIKKIM have not reconciled the account for 3rd quarter of FY 19-20.

JUVNL has not reconciled the account since 4th quarter of FY 18-19 and BSPHCL has not reconciled the account since 1st quarter of FY 19-20.

All above constituents are once again requested to submit the signed reconciliation statement at the earliest.

Deliberation in the meeting:

BSPHCL, JUVNL, DVC, WBSETCL & SIKKIM have not reconciled the account for 3rd quarter of FY 19-20.

BSPHCL, BSETCL & DVC agreed to send the reconciliation by end of this month i.e., February, 2020.

JUVNL & SIKKIM were not present in the meeting.

B11.3. Reconciliation of RRAS, FRAS & AGC Account

At the end of 3rd quarter of 2019-20, the reconciliation statement (Period: 01.10.19 to 31.12.19) has been issued by ERLDC on 13.01.20 and statements had been sent to the respective constituents and also uploaded the same at ERLDC website at link <https://erlhc.in/market-operation/rrasreconciliation/>. All have reconciled the RRAS and FRAS Account. The status of reconciliation is enclosed in *Annexure-VIII*.

This is for information to the members.

Deliberation in the meeting:

Members Noted.

B11.4. Reconciliation for STOA payments made to SLDC / STU:

The reconciliation statements of STOA payments for the period of Apr'18 to Dec'19 have been sent to the DVC, OPTCL, BSPTCL and WBSETCL for checking at their end and confirmation from their side. DVC, OPTCL and WBSETCL have confirmed for the entire period.

BSPTCL is yet to confirm for the period Oct'18 to Dec'19.

Deliberation in the meeting:

ERLDC updated that BSPTCL agreed to confirm the reconciliation of STOA payments for the period Oct'18 to Dec'19 by end of February, 2020.

B11.5. Reconciliation for payments made to STOA applicants:

The reconciliation statements of STOA payments for the period of Apr'18 to Dec'19 have been sent to the CESC, JITPL, JBVNL and WBSEDCL for checking at their end and confirmation.

JITPL have confirmed for the above period. CESC is yet to confirm for the period Oct -18 to Dec-18. WBSEDCL is yet to confirm for the period Oct-18 to Dec-18. JBVNL is yet to confirm for the period Jul-19 to Dec-19.

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-IX**.

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.

Deliberation in the meeting:

ERLDC updated that CESC and WBSEDCL confirmed reconciliation statements of STOA payments.

JITPL, JBVNL were not present in the meeting.

B11.6. Opening of LC by ER constituents for DSM payments – ERLDC Agenda

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 2019-20 by ER constituents is given in **Annexure - X**. Letters to this effect has been issued by ERLDC to the defaulting entities.

LC of BSPHCL, DVC, GRIDCO, NVVN (NEPAL & BD), POWERGRID (ER-I & ER-II), GATI, JLHEP and DIKCHU has already expired and not yet renewed /opened.

LC of JUVNL is going to expire on 12.03.20 and TPTCL & JITPL LC going to expire on 31.03.20 respectively.

Defaulting constituents may please intimate the latest status.

Deliberation in the meeting:

ERLDC updated that GRIDCO has sent the copy of LC, However the LC copy from concerned bank is yet to be received.

DVC, NVVN (NEPAL & BD), POWERGRID (ER-II) informed that they would open required LC at the earliest.

JUVNL, JLHEP, GATI, DIKCHU representatives were not present in the meeting.

ITEM NO. B12: Meter related issues – ERLDC Agenda

B12.1. Less reading recorded at Farakka -NTPC

Main and Check meter (ER-1142-A & ER-1149-A) installed at 400 KV FARAKKA(NTPC)-GOKARNA(WB)-1 are showing less reading compare to Gokarna end meter data. Matter was informed several times to the respective station but the problem still persists.

NTPC may update the status.

Deliberation in the meeting:

ERLDC informed that the less reading of meters at Farakka end was a long pending issue and intermittently happening.

NTPC informed that issue has been resolved on 19.02.2020.

NTPC was advised to address the issue of intermittency. and intimate to ERLDC on priority basis. NTPC representative assured to look into the matter.

B12.2. Faulty meter locations in ER-1 Region.

The Following meters installed at different locations of ER-1 is faulty since long time

Sl. No	Feeder Name	Meter No	Remarks
1	220kV BIHARSHARIF(BSPHCL)-BIHARSHARIF(PG)-1	NP-5841-A	Faulty since 1 st week of Sept'19
2	400kV SIDE OF KAHALGAON GT-7	NP-5857-A	Faulty since 2nd week of Jan'20
3	400kV KAHALGAON (NTPC)-LAKHISARAI(PG)-1(MAIN)	NP-5248-A	Faulty since 2nd week of Jan'20
4	220kV DHANBAD (DVC)-MAITHON(PG) II	NP-6541-A	Faulty since 2 nd week of Jan'20

Several communicated from ERLDC for replacement of meter and till date no change in status.

POWERGRID/NTPC may update the status.

Deliberation in the meeting:

NTPC informed that faulty meters on 400kV side of KAHALGAON GT-7 & 400kV KAHALGAON (NTPC)-LAKHISARAI(PG)-1(MAIN) line has been replaced and the same was confirmed by ERLDC.

Further, ERLDC requested PGCIL to replace the faulty meters of 220kV BIHARSHARIF(BSPHCL)-BIHARSHARIF(PG)-1 and 220kV DHANBAD (DVC)-MAITHON(PG) II.

B12.3. Non-Receipt /Late Receipt of SEM data from various locations

As per IEGC (effective from 3.5.2010) Sub-clause-22 of Clause-6.4 (demarcation of responsibilities), all concerned utilities in whose premise SEMs are installed shall take weekly meter readings and send the same to RLDC by Tuesday noon for timely issuance of Deviation account Bill. Significant improvement in timely receipt of SEM data has been observed after AMR implementation at various locations and most of the meter data is being received by Tuesday. In 40th CCM, all were requested to adhere to the schedule as per IEGC.

B12.3.1. Late receipt of SEM data

ERLDC is receiving the weekly SEM data by Tuesday noon from maximum locations. However, data is received on Wednesday or later from Gangtok (PG), BSPTCL (Sonnagar New,Begusarai & Biharshariff), WBSETCL (North Bengal, Gazole, Bidhannagar Alipurduar and Rammam) , PGCIL(Angul PG), Muzzarffarpur PG) & SIKKIM.

PGCIL, WBSETCL, BSPTCL & Sikkim may update the status.

Deliberation in the meeting:

PGCIL, BSPTCL & WBSETCL representatives assured the required data would be sent in time.

Sikkim representative was not present in the meeting.

All respective constituents were advised to send the weekly SEM data in time for seamless transfer of processed data for preparation of weekly commercial accounts.

B12.3.2. Non-Receipt of SEM data from Arah, Dehri & Sipara BSPHCL

Ara (BSPTCL), Dehri (BSPTCL), FATUA (BSPHCL), JAGDISHPUR(BSPHCL), 132 kV Rajgih (BSPHCL), 132 kV Nalanda (BSPHCL) are not being received by ERLDC due to AMR related Issue. SEM data of the above locations were downloaded by ERLDC from AMR. Now, due to AMR problem at BSPTCL s/s was requested to send the data of meter from above locations by downloading at their end till restoration of AMR. M/s TCS has informed verbally that due to network failure, data is not available with AMR.

BSPHCL may please respond and POWERGRID may update the program AMR rectification

Deliberation in the meeting:

BSPHCL representative informed the meter reading from Jagdishpur end has been received by ERLDC and the same was confirmed by ERLDC.

POWERGRID informed that the AMR related issues of Ara & Dehri would be resolved at the earliest.

Further, BSPHCL was suggested to follow up the issue to resolve at the earliest.

B12.3.3. Reverse polarity issue of Energy Meter

- i) Begusarai (BSPTCL) : Meter(ER-1344-A) installed at 220 KV Begusarai (BSPTCL)-Purnea(PG) Line-2 at Begusarai end reads with reverse polarity w.e.f 04.09.2019.

BSPTCL may update the status.

Deliberation in the meeting:

BSPTCL representative informed the reverse polarity issue of Begusarai end meter would be resolved at the earliest. Members pointed out that it was a long pending issue and advised to resolved on priority basis.

ii) Patna (PG): Meter (ER-1311-A) installed at 220 KV SIDE OF 500 MVA PATNA ICT-2 at Patna end reads with reverse polarity.

PGCIL may update the status.

Deliberation in the meeting:

PGCIL representative informed the issue would be resolved at the earliest.

iii) Deoghar (Jharkhand): Meter (NP-6048-B) installed at 132 KV DEOGARH (JSEB) - SULTANGANJ (BSPHCL) at DEOGARH end reads with reverse polarity.

Jharkhand may update the status.

Deliberation in the meeting:

Jharkhand representative was not present in the meeting.

Further, ERLDC informed that the meter at Deogarh end has been replaced.

ITEM NO. B13: Trans-national (Bhutan) metering issue.

B13.1. Non-receipt of weekly SEM data associated with MHP

For Mangdechhu (4X180MW) energy calculation total 16 (sixteen) nos of SEMs are installed at different locations of Bhutan (Mangdechhu, Jigmelling & Yumro). SEM data of Mangdechhu, Jigmeling and Yumro is not received by ERLDC till date. Due to non-receipt of data, validation and meter healthiness is not yet been checked at ERLDC.

In 42nd TCC Meeting, PTC assured that the necessary action would be taken for timely furnishing of requisite data.

Bhutan/ PTC may please update the status.

Deliberation in the meeting:

PTC representative informed that the requisite data would be furnished to ERLDC for validation and for checking meter healthiness as well.

ITEM NO. B14: Testing and Calibration of Special type Energy Meter—ERLDC

Availability Based Tariff, Interface Meters (Special Energy Meters) have been installed by CTU at the points of interconnection with Inter-State Transmission System (ISTS) for energy accounting and billing. As per Central Electricity Authority (CEA) notification no. 502/70/CEA/DP & D dated 17.03.2006, all interface meters shall have to be tested at least once in five years using NABL accredited mobile laboratory or at any accredited laboratory. In this regard Clause 18(1) (b) of CEA (Installation and Operation of Meters) Regulations, 2006 state that:

Quote.....

All interface meters shall be tested at least once in five years. These meters shall also be tested whenever the energy and other quantities recorded by the meter are abnormal or inconsistent with electrically adjacent meters. Whenever there is unreasonable difference between the quantity recorded by interface meter and the corresponding value monitored at the billing center via communication network, the communication system and terminal equipment shall be tested and rectified. The meters may be tested using NABL accredited mobile laboratory or at any accredited laboratory and recalibrated if required at manufacturer's works.

.....Unquote

Presently, POWERGRID have installed about **1310 nos.** of Special Energy meters of 0.2 class accuracy in 765/400/220/132kV substations at about **189 nos** of locations in Eastern Region covering states of Orissa, West Bengal, Sikkim, Bihar and Jharkhand.

Out of 1310 no of meters installed in ER, around 768 meters (all L&T make) at 157 locations are more than five years old. Moreover, Testing and calibration of around 307 Interface meters in ER was last carried out in year 2013 i.e more than 6 years ago. A list of 140 no of meters which are severely drifted in time is already communicated to POWERGRID for replacement and accordingly, replacement work has started. In view of the above, remaining 628 meters may be tested and calibrated as per the provision of aforesaid regulation. Further Time correction of meters of drifted meters may also be done (under testing and calibration).

In 162nd OCC, Powergrid submitted that out of 768 L&T meters, 140 would be removed from service by November 2019. Testing will be done for the remaining meters and the detailed plan for the same including cost of testing would be submitted in the upcoming OCC. Powergrid clarified that in case of any abnormal results found during the testing, those L&T meters would be replaced by Genus meters and the defective L&T meters would be sent for calibration.

In 42nd TCC/ERPC meeting it was advised that

- i) 50 % of total old L&T Meters shall be tested and calibrated.*
- ii) ERLDC shall prepare the priority list for SEMs to be tested which are old and highly time drifted.*

- iii) *POWERGRID shall carry out testing and calibration for the old L&T meters as per the list.*

Accordingly, ERLDC has already provided the meter details in 164th OCC and the details of meter is again enclosed in **Annexure-XVI**.

POWERGRID may please update the latest status.

Deliberation in the meeting:

ERLDC informed that the priority list of 314 no of SEMs to be tested which are old and highly time drifted has been prepared and shared with POWERGRID.

POWERGRID informed that the time correction of drifted meters of L&T which was shared by ERLDC would not be possible to resolve at POWERGRID end due to Proprietary issue of L&T. Therefore, it was planned to take up the work of testing and calibration of time drifted meters as a whole with L&T.

Subsequently, POWERGRID was advised to update the progress of the work in forthcoming TCC meeting.

The matter was referred to forthcoming TCC/ERPC meeting.

ITEM NO. B15: Implementation of 4th phase AMR including requirement of AMR data for SCADA Comparison

Presently 150 Locations with 998 meters are connected through AMR system in ER. ERLDC is receiving data from 125 locations out of total 150 locations through AMR. The status of data receipt from the locations as on 18.02.2020 is as below:

Status Report of PGCIL AMR AMC (Phase I , II & III)	
Summary	
Total Substation	150
Communicating Sub Station	125
Non-communicating Sub Station	25
Total Meter	998
Communicating meter	921
Non-communicating Meter	77

There have been issues with the GPRS communication/DCU/Meter replacement for around 25 locations having 77 meters as mentioned above. The details of Non-communication substations along with probable reason are attached in **Annexure-XI**.

In 39th TCC/ERPC Meeting, it was agreed to implement 4th Phase AMR at a cost of ₹ 1.75 Cr in place of ₹ 93.56 Lakhs approved earlier considering the added requirement of metres, Locations, additional functionality, AMC's etc. ERPC suggested that Powergrid should ensure reliability in data transmission by implementing LAN connectivity through OPGC Network wherever feasible.

In 153rd OCC, Powergrid informed that Works had been awarded to M/s TCS on 23rd December 2018 at a cost of ₹ 1.69 Cr after negotiation. Powergrid further added that work would be completed by October 2019. List of 256 Meters and 29 New Locations for 4th Phase AMR is enclosed in **Annexure-XII**. The sub-station wise AMC details are in **Annexure-XIII**. PGCIL is requested to provide the comprehensive AMC plan.

In 39th CCM, Powergrid informed that LOA for 4th phase has been placed. Powergrid further informed that Phase wise expiry of AMC is commencing from June 2019 onward and Comprehensive AMC plan is being prepared and the same shall be put up separately.

Regarding data integration for SCADA, M/s TCS has informed the status as on 21.06.19 as below:

- ❖ Development work as per the original requirement of ERLDC SCADA team has been completed.
- ❖ AMR database has been updated as per the latest master file shared by ERLDC.
- ❖ Testing and data validation from ERLDC-SCADA team is going on.

In 41st CCM, POWERGRID informed that the list of meters for phase wise expiry of AMC and comprehensive AMC plan would be prepared at the earliest and the same has been provided to ERLDC.

POWERGRID may further update the latest status of implementation.

Deliberation in the meeting:

POWERGRID representative informed that the list of meters for phase wise expiry of AMC and comprehensive AMC plan have already been provided to ERLDC. Further, it was informed that the status of implementation would be updated in forthcoming TCC meeting.

The matter was referred to forthcoming TCC/ERPC meeting.

ITEM NO. B16: Replacement of GPRS communication with Optical Fiber for AMR

In ER, approximately 80% meters are connected through Automated Meter Reading (AMR). At present the communication system used for data transfer from each location is GPRS. It has been observed that many locations are not communicating with AMR system due to poor/no GPRS signal. Many substations have their own optical fiber which is also used for the LAN network of respective stations. TCS has successfully connected 02 locations (Subhasgram-PG and Binaguri-PG) in ER-II with PGCIL intranet and these two locations are smoothly reporting to AMR system after connecting with PGCIL LAN. The proposed network will not only provide better communication but also reduce the cost of GSM.

In 40th CCM, POWERGRID requests all the constituents to share the available optical fibre network connectivity for further configuration to Optical connectivity. This will also help to reduce the maintenance cost of AMR, as recurring cost towards SIM cards may be avoided in that case.

In 41st CCM, BSPTCL representative informed the required details of optical fibre network connectivity have been shared to POWERGRID for configuration AMR Optical connectivity. POWERGRID informed that they have not received any response from other constituents on this matter. All the constituents were advised to explore the possibility of Optical fibre network connectivity instead of GPRS for communication AMR system as this will significantly enhance the reliability of the system. The matter was referred to forthcoming TCC meeting for concurrence.

In 42nd TCC/ERPC, TCC advised all the other constituents to share the details of optical fibre in Test Meeting scheduled to be held on 20th December 2019, so that POWERGRID could carry out the configuration of AMR connectivity.

However, M/s TCS has confirmed that total 36 locations out of 40 have been connected with LAN and the status is enclosed in **Annexure-XIV**.

In 5th TeST meeting, BSPTCL submitted the details for implementation of AMR which is enclosed at **Annexure-XIV(i)**.

POWERGRID may please further update the latest status.

Deliberation in the meeting:

POWERGRID informed that the cost estimate for AMR implementation of BSPTCL system has been enclosed at Annexure-XIV (ii). POWERGRID representative intimated that the cost estimate needs to be further updated.

All other constituents were again advised to explore the possibility of Optical fibre network connectivity instead of GPRS for communication with AMR system as this will significantly enhance the reliability of the system.

POWERGRID was advised to submit the updated status in the upcoming TCC.

ITEM NO. B17: Procurement of new SEMs

In 30th ERPC meeting procurement of 965 no of SEM's and 110 nos of Laptop/DCD (in 111th OCC meeting) was approved. Further 31st TCC/ERPC approved the cost sharing mechanism of expenditure on SEM's and DCD/Laptops along with POWERGRID overhead charges @ 15% to be shared by the beneficiaries constituents of Eastern Region in proportional to the share allocation for the month in which the proposal was approved in the ERPC meeting.

In 35th CCM held at ERPC on 02.08.17, PGCIL informed that in 1st phase, 300 meters and 40 laptops with software had been supplied by M/s Genus so far.

In 145th OCC, PGCIL informed that 300 meters of 2nd lot has been supplied. Time drifted meters are being replaced by Genus meters phase wise.

In 38th CCM, PGCIL informed that remaining 364 nos. of meters have been delivered.

In 40th CCM, POWERGRID requested ERLDC to provide the list of required anticipated new connections and they will place the cost estimate accordingly.

In 42nd TCC/ERPC, it is approved that 300 Meters should be procured of in the first lot. Further requirement of the new SEM shall be reviewed periodically in the lower fora of ERPC.

POWERGRID may update the Stock of meters as well as status of delivery of remaining meters.

Deliberation in the meeting:

POWERGRID representative informed that the order for 300 nos. meter would be placed by the end of March, 2020 and the delivery may be expected in six months from the date of order.

POWERGRID was advised to update any change in status in forthcoming TCC/ERPC meeting.

ITEM NO. B18: Removal of Meter from identified locations of ER

It is identified that total 49 nos of SEM are installed at various locations of Eastern Region which are not in use and as well as not accommodated as per CEA metering Regulations. This situation is mainly raised due to modification of old network system and change in control area jurisdiction.

The list of non-usable meters is available in **Annexure- XV**. These meters may be utilized in some other locations of ER with the new synchronization of grid elements.

POWERGRID may update.

Deliberation in the meeting:

POWERGRID informed that unutilized meters from Mejia station have been collected and tested. The respective constituents were again requested to remove the unutilized meters at the specified locations of their substations and the same could be collected by PGCIL after intimation.

Further, the healthiness of meters would be checked and the same could be utilized by the constituents where ever it is required.

ITEM NO. B19: Implementation of U-NMS System in State Sector of Eastern Region.

In 24th SCADA O&M Meeting held at ERLDC on 14th August 2019, POWERGRID proposed for implementation of Unified Network Management System (U-NMS) in Eastern Region and presented the overview alongwith the technical aspects and its necessity. Member Secretary, ERPC informed that a Committee with members from ERLDC, ERPC, all the states and POWERGRID is required to be formed for the assessment of technical requirements to facilitate monitoring of ISTS communication network in line with CERC regulation.

Accordingly, a Committee was constituted and the Committee met on 24th October, 2019 at ERLDC, wherein POWERGRID made a detailed presentation on Unified Network Management System (U-NMS) Project to be implemented for managing Project for ISTS & State utilities communication network at State, Regional & National level. The technical feasibility report has been issued subsequently.

In 42nd TCC/ERPC meeting, ERPC gave in principle approval for go-ahead to Powergrid to undertake the U-NMS project for Eastern region subject to the following:

1. Powergrid shall hold separate discussion with each state of ER to understand the NMS system in the respective states if any already existing within the state and to assess the integration requirement including the cost thereof for each state.
2. The details are to be placed by PGCIL in the TeST meeting scheduled to be held in January 2020.
3. After finalization of the scheme the revised cost shall be placed by PGCIL in the next TCC meeting.

In 3rd TeST meeting, ERPC advised all constituents to provide the data in the format given by POWERGRID for implementation of UNMS System at respective constituents.

POWERGRID has approached all constituents and presented & discussed the implementation of the UNMS in respective constituents.

In 4th TeST meeting, POWERGRID submitted that cost of implementation of UNMS in state sector as per data provided by constituents estimated as below:

- 1) Regional U-NMS: ₹ 97.93 crores
- 2) State sector U-NMS: ₹ 2 crores with breakup as below:
 - a) DVC: ₹ 0.40 crores
 - b) BSPTCL: ₹ 0.40 crores
 - c) WBSETCL: ₹ 0.40 crores
 - d) OPTCL: ₹ 0.40 crores
 - e) JUSNL: ₹ 0.40 crores

The above cost is based on the data provided by constituents, the details of NMS & NEs to be integrated in each constituent.

In 4th TeST meeting, MS, ERPC advised POWERGRID to provide the cost sharing for Central Sector portion.

Thereafter, POWERGRID intimated the total estimated cost for UNMS Project for Central sector portion is Rs. 97.93 Crs. which is proposed to be apportioned between the constituents in PoC mechanism. Tentative ratio is as follows:

Based on the current PoC Slab Rate (CERC order No. L-1/44/2010-CERC dtd 04.02.2020), the tentative ratio and approximate cost involvement in PoC mechanism is calculated as below:

Total Investment Central Sector (Crore)	Constituent	PoC Slab Rate (Rs/MW/ Month)	Tentative Ratio	Share of Each Constituent (Crore)
97.93	Odisha	449682	Odisha:DVC:Bihar: Jharkhand:WB:Sikkim	33.89
	DVC	281847		21.24
	Bihar	169957		12.81
	Jharkhand	169957	35:22:13:13:13:4	12.81
	West Bengal	169957		12.81
	Sikkim	58067		4.38

All constituents are also requested to convey the implementation of the UNMS System in respective constituents for incorporation in the project along with Central Sector.

In 5th TeST meeting held on 24.02.2020, all constituents agreed to implement the UNMS system within the state along with the Central Sector UNMS project with a cost estimate as follows:

- 1) Regional U-NMS: ₹ 97.93 crores

2) State sector U-NMS: ₹ 2 crores

TeST committee noted the cost involvement by each constituent and referred to Commercial Committee Meeting for approval.

Members may discuss.

Deliberation in the meeting:

POWERGRID submitted the cost estimate for regional component of U-NMS is ₹ 97.93 crores and the State sector component of U-NMS is ₹ 2 crores.

Commercial Sub-Committee, in principle, approved the cost break up of UNMS project as submitted by POWERGRID.

Members referred the issue to forthcoming TCC meeting further approval.

PART C: ITEMS FOR INFORMATION

ITEM NO. C1: STU and SLDC Transmission & Operating charges.

C1.1: State Transmission Utility Charges and Losses applicable for STOA for FY 2019-20

As available with ERLDC the STU charges and losses to be considered for STOA for FY 2019-20 are as follows:

Name of STU	Intra-State Transmission Charges	TRANSMISSION LOSS (For Embedded entities)
WBSETCL	Rs. 225.93/ MWh	3.10%
DVC	Rs. 143.7 / MWh	2.68%
OPTCL	Rs. 62.5 / MWh	3.00%
JUSNL	*	#
BSPTCL	*	#
SIKKIM	*	#

* 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.

C1.2: State Load Despatch Centre Operating Charges for STOA for FY 2019-20

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

** 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 Dispatch 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.

Deliberation in the meeting:

Members Noted.

ITEM NO. C2: Information of Deviation/reactive payment in ER pool account

Constituents of Eastern region are making payment of Deviation charge, Reactive Charge, RAAS in ER Pool Accounts. However, ERLDC is not getting details of payment made in ER pool account from all constituents. In 31st and subsequent CCM, all the ER pool members were requested to send the details of payment in the format to ERLDC in the email account at erldcomm1@posoco.in. WBSETCL, NTPC, APNRL, DANS Energy, Shiga Energy, TPTCL and MPL are sending the details. DVC is sending through Hard Copy. Other constituents viz BSPHCL, JUVNL, GRIDCO, SIKKIM, PGCIL(HVDC), may also furnish the details of payment made in ER Pool.

S.No	Name of Utility	Amount	DSM/ReactiveAccount Week No	Date	Cheque No	Mode of Payment

Members may note for compliance.

Deliberation in the meeting:

Members Noted.

ITEM NO. C3: Bank Details Confirmation from all Entities/Applicant:

All ER Entities/Applicant/STU/SLDC are requested to furnish the bank verified account details as per **Annexure-XVII** and copy of the cancelled cheque for disbursement of different regulatory charges

Deliberation in the meeting:

ERLDC informed that the bank details of WBSETCL for STU charges, Jharkhand and Sikkim for SLDC and STU charges are yet to confirmed.

ITEM NO. C4: Any additional agenda—With the permission of Chair.

ANNEXURES



North Bihar Power Distribution Company Limited

(Regd. Office : Vidyut Bhawan, Bailey Road, Patna)

CIN:- U40109BR2012SGC018920

(Commercial Department)

Annexure-A

M.No: 9264437178

E-mail:- cecom1.nbpdc1@gmail.com

nbpdc1.pp.2012@gmail.com

Letter No. 76.....

NB/Comm/P.P/46/2019

Date:- 18/02/2020.....

From,

Deepak Kumar

Chief Engineer (Commercial)

To,

The Member Secretary

Eastern Region Power Committee

14, Golf Club Road, Tollygunj, Kolkata-700033.

Email ID:-cecom1.erpc@gov.in

Sub:- Regarding submission of agenda points for 42nd Commercial Sub-Committee meeting of ERPC on 25th February'2020 (Wednesday).

Ref:- 1. Your letter vide reference no. ERPC/COM-I/CCM/2019-20/11951-88 dated 10/02/2019.

Sir,

With reference to subject above, agenda points for detailed discussion in 42nd Commercial Sub-Committee meeting scheduled on 25th February'2020 (Wednesday) are as under:-

1. **Abolishment of capping of 150 MW for calculation of additional deviation charges for scheduling of Power through ISGS**

Currently punitive deviation charges are imposed if the deviation in scheduled load and actual load crosses the limit of 12% or 150MW for scheduling of Power through ISGS. However, this 150MW deviation does not include intra-state scheduling. Such provision is against the mandate of the Electricity Act, 2003 which envisages DISCOMs as a separate entity having no generation of its own. DISCOMs of Bihar should not be treated differently than the DISCOM of West Bengal just because DISCOMs of Bihar fulfils their requirement through ISGS. Since there is no capping for scheduling of Power through Intrastate generation, there should not be any capping for scheduling of Power through ISGS also. Accordingly, it is requested to abolish the capping of 150 MW and it should be on %age basis only.

2. **Modification in the methodology of DSM/UI calculation**

Current DSM calculation methodology does not take into account for unbalanced and intermittent drawl of power affecting Grid stability much more than balanced & continuous power. As the Railways draws its power intermittently and load is imbalanced, its DSM



North Bihar Power Distribution Company Limited

(Regd. Office : Vidyut Bhawan, Bailey Road, Patna)

CIN:- U40109BR2012SGC018920

(Commercial Department)

M.No: 9264437178

E-mail:- cecom1.nbpdc1@gmail.com

nbpdc1.pp.2012@gmail.com

charges should be higher. Accordingly, it is proposed to modify DSM charge calculation methodology. Further, it creates voltage imbalance and the load control of the DISCOMs is affected. As such, DISCOMs should be compensated for DSM charges occurred due to such open access load.

Accordingly, the above agenda points may kindly be included for discussion in 42nd Commercial Sub-Committee meeting.

The list of participants would be intimated letter on.

(Deepak Kumar)

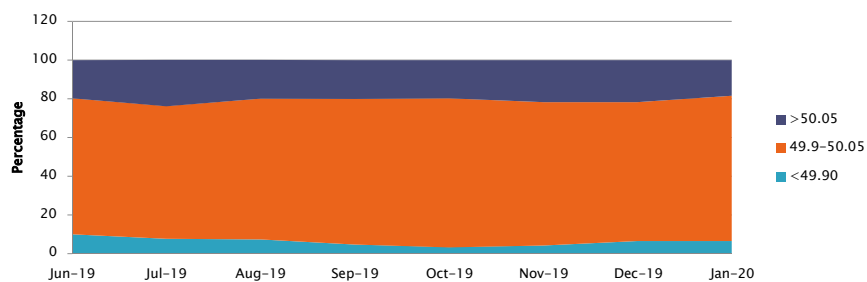
Chief Engineer (Commercial)

Annexure-A1

Performance of Eastern Region constituents after implementation of the DSM (5th Amendment) regulations

ERPC, KOLKATA

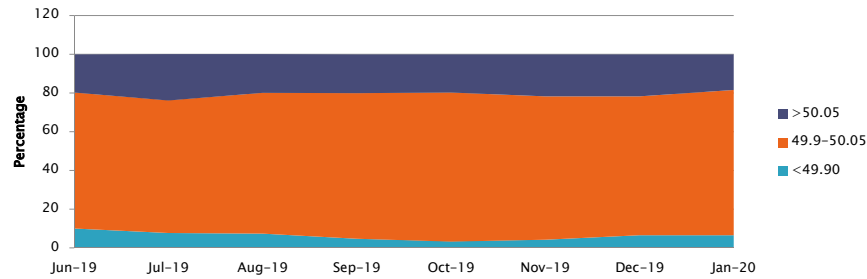
1



	JUVNL	SIKKIM		TEESTA-V	
	Jan'20	Dec'19	Jan'20	Dec'19	Jan'20
Dev(MWH)	-13899	-4145	-2144	4522	4085
Dev (%)	2.65	8.28	4.02	4.85	4.82
Total DSM Payable/Receivable (Lakhs)	-611.13018	-139.52157	-71.37727	108.10397	102.32562
Per Unit Rate(Rs.)	4.40	3.37	3.33	2.39	2.51
ECR(Rs.)				1.16	1.16
Avg ACP(Rs.)	2.85	2.92	2.85	2.92	2.85

ERPC, KOLKATA

2



	Jorethang HEP		TPTCL		GMRKEL	
	Dec'19	Jan'20	Dec'19	Jan'20	Dec'19	Jan'20
Dev(MWH)	-1253	-900	-7569	-4558	-6391	-7784
Dev(%)	7.35	7.34	29.07	23.48	1.67	2.49
Total DSM Payable/Receivable(Lakhs)	-18.28346	-9.96538	-169.19080	-106.42384	-132.78238	-171.26790
Per Unit Rate(Rs.)	1.46	1.11	2.24	2.33	2.08	2.20
ECR(Rs.)						
Avg ACP(Rs.)	2.92	2.85	2.92	2.85	2.92	2.85

ERPC, KOLKATA

3

5th Amendment Sign Change Clauses

For the period up to 31.03.2020

In the event of sustained deviation from schedule continues for 12 time blocks, the regional entity (buyer or seller), shall correct its position by making the sign of its deviation from schedule changed or by remaining in the range of +/- 20 MW with reference to its schedule, at least once, latest by 13th time block. Addl. Charges of 10% of the time block DSM payable/receivable shall be applicable in case of said violation.

For the period from 01.04.2020

In the event of sustained deviation from schedule continues for 6 time blocks, the regional entity (buyer or seller), shall correct its position by making the sign of its deviation from schedule changed or by remaining in the range of +/- 20 MW with reference to its schedule, at least once, latest by 7th time block. The additional charge shall be at the rate as specified in the following table.

No. of violations in a Day	Additional Charge Payable
From first to fifth violation	For each violation, an additional charge @ 3% of daily base DSM charge payable or receivable
From sixth to tenth violation	For each violation, an additional charge @ 5% of daily base DSM charge payable or receivable
From eleventh violation onwards	For each violation, an additional charge @ 10% of daily base DSM charge payable or receivable

ERPC, KOLKATA

4

Comparative DSM A/c for week 270120-020220

	DSM Account for 270120-020220	
	5 th Amendment upto 31.03.20(Rs in Lakhs)	5 th Amendment from 01.04.20(Rs in Lakhs)
Payable to the pool(A):	3960.59539	3960.59539
Payable from the pool(B):	4475.32080	4475.32080
Differential Amount Arising from capping of Generating Stations(A-B)	-514.72541	-514.72541
ADC due to volume limit	111.70951	111.70951
ADC due to violation of sign change	1.72944	100.41508

ERPC, KOLKATA

5

DSM 5th Amendment Sign Change Clause Comparison

	5 th Amendment upto 31.03.20(Rs in Lakhs)		5 th Amendment from 01.04.20(Rs in Lakhs)	
	No. of Sign Change Violation	ADC due to sign change violation(Rs in lac)	No. of Sign Change Violation	ADC due to sign change violation(Rs in lac)
BSPHCL	5	0.30907	36	33.10265
JUVNL	16	0.84853	47	41.56035
DVC	0	0	15	4.01905
GRIDCO	0	0	16	5.58413
SIKKIM	0	0	2	0.03817
WBSETCL	3	0.41056	25	12.39247

ERPC, KOLKATA

6

Minutes of the meeting of the committee constituted to discuss on "Metering issue of 220kV Bolangir (PG) – Katapalli (OPTCL) line" held on 16.07.2019 at ERPC, Kolkata

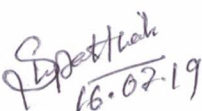
OPTCL, POWERGRID (Odisha projects), ERLDC and ERPC participated in the meeting. List of the participants is attached in **Annexure-A**.

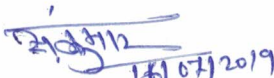
SE, ERPC welcomed the participants. The metering issue of 220kV Bolangir (PG) – Katapalli (OPTCL) line was put up as an agenda item for discussion in the 40th Commercial Sub-Committee meeting held on 02.07.19 at ERPC, Kolkata wherein, it was decided to constitute a committee with SE, ERPC (as Convenor) and one member each from OPTCL, ERLDC and PGCIL (Odisha Projects). Accordingly, first meeting of the committee has been convened on 16.07.2019 and following points have been finalized:


1. The period of erroneous metering at Bolangir end of 220kV Bolangir (PG) – Katapalli (OPTCL) line as submitted by OPTCL is from 04.05.2016 to 02.12.2018. As per Clause 6.4.22 of CERC IEGC Regulations, 2010 and amendments thereof "**All computations carried out by RLDC shall be open to all regional entities for checking/verifications for a period of 15 days....**". Hence the compliance with this clause would have helped to bring the issue for resolution at the right time. However, it has been brought to notice of ERPC after a lapse of more than 2.5 years by OPTCL and considering the fact that the period of DSM account revision, as requested, is quite significant, OPTCL is advised to submit a detailed justification along with necessary documents for such delay.
2. PGCIL (Odisha projects) representative explained that they checked the meter at their end and found that R phase of 220kV Bolangir (PG) – Katapalli (OPTCL) line was continuously recording less current. They replaced the CT on 06.06.2018 and also took the line to the transfer bus. The metering issue was still not resolved. He further informed that the line went under shutdown on transient fault on 07.01.19 and subsequently restored on 08.01.2019. After restoration of the line, the metering issue was found to be resolved. However, he and OPTCL representative could not ascertain the reasons for automatic rectification of the metering issue after restoration of the line. Hence, OPTCL is advised to submit a detailed report of the causes of the less current on R phase prior to transient fault on 07.01.2019 and subsequent corrective measures taken during shutdown which helped in resolution of the metering issue. PGCIL representative is requested to assist OPTCL in this regard.
3. OPTCL & PGCIL (Odisha projects) representatives were requested to share CT & PT details including test reports since the time of initial operation of LILO of Katapalli – Sadeipalli line at Bolangir S/S of PGCIL for verification.

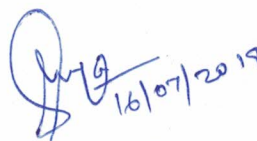
OPTCL & PGCIL (Odisha Projects) representatives are requested to submit all the documents within a week from today i.e. 16.07.2019 so that next meeting of the committee can be convened for further discussion on the issue.

Meeting ended with vote of thanks to the chair.


(AGM, Electrical)
OPTCL


DGM (AM/IT)
PGCIL, Odisha Projects


(Chief Manager)
ERLDC


(SE, Commercial)
ERPC

ERPC::KOLKATA**ATTENDANCE SHEET****Special Meeting on OPGC Issues :**

VENUE: ERPC CONFERENCE ROOM, KOLKATA

TIME: 11:00 HRS

DATE: 15.07.2019 (TUESDAY)

Sl. No.	Name	Designation & Organization	Contact Number	E-mail Id	Signature
1	J.BANDYOPADHYAY	MS,ERPC	9432326351	mserpc-power@gov.in	
2	D.K. Sain	ED, ER LDC	991034442	dk.sain@posoco.in	
3	G. Mihre	Sn. GM, ER LDC	98312 97396		
4	Nadim Ahmad	C. M. F. ERPC	9432351831	nadim@posoco.in	
5	MANAS DAS	C.M.	9107070925	manandas@posoco.in	
6	S.K. SAHU	DGM (AM/IT) POWERGRID, Odisha Proj.	9078883643	sk.sahu@powergridindia.com	
7	S. KEJRIWAL	SE, ERPC	9831919509	shyam.ies11@gmail.com	
8	Lenin B	AEE, ERPC	8335905973	lenin.cez@gn.in	
9	Saundarya K. Pattanayak	AGM (E&I), SLDC, Odisha	9438907245	st.sk.pattanayak@optcl.co.in	
10	Manmath Beura	GRIDCO, BBSR	9337271600	ele.mbeura@optcl.co.in	
11	K.C. Samantary	OPGC, BBSR	9338715428	krishna.samantary@opgc.co.in	
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					



Minutes of Meeting of the Committee constituted to discuss on "Metering Issue of 220kV Bolangir(PG)-Katapali(OPTCL) line" held on 16/07/19 at ERPC Conference hall, Kolkata

1 message

it.skpattanayak <it.skpattanayak@optcl.co.in>

Wed, Jul 24, 2019 at 7:15 AM

To: Mserpc power <mserpc-power@nic.in>, Dsmerpc <dsmerpc@gmail.com>

Cc: lenin.nitc@gmail.com, Erldcomml <erldcomml@posoco.in>, "Nadim Ahmed (नदिम अहमद)" <nadim@posoco.in>, Chief Load Dispatcher <cld_sldc@sldcorissa.org.in>, Dir com mkdas <dir.com.mkdas@gridco.co.in>, Sgm pp <sgm.pp@gridco.co.in>, "Chief General Manager (O n M)" <cgm.onm@optcl.co.in>, Gridco trading cell <gridco.trading.cell@gmail.com>

Sir,

With reference to the subject cited above, some points to be clarified before the committee as:

Point No.-1:

The committee requested to submit the detailed justification along with documents regarding Metering Issue of 220kV Bolangir (PG)-Katapali (OPTCL) line as submitted by OPTCL is from 04/05/2016 to 02/12/2018, which was delayed for more than 2.5 years.

Previous to 30/04/2018 OPTCL was used to check the direction of energy flow (C.T. polarities) of SEMs data by considered weekly SEM data of ERLDC. The detailed checked was not done at OPTCL end due to none availability of software for SEM data calculation and also some SEM data were not converted to NPC format due to some reason. In view of the above the data sheets (MONTH WISE DATA SHEETS) are attached for kind reference. While preparing the above month wise data sheet, it was observed on April 2018 that something was erroneously recorded by the SEM of Bolangir (PG) end and we immediately compared the both end SEMs data in day wise & block wise from May 2018 backward manually and it was found that the SEM data of Bolangir (PG) end was erroneously recorded from May 2016. The Block wise & day wise data comparison sheets are attached for your kind reference.

Point No.-2 :

We received the system disturbance report from Katapali Grid S/s on 23/07/19 and breakdown restoration letter from line maintenance engineer from Bargarh Grid S/s on 22/07/19, which are attached herewith for your kind reference.

It is observed that before tripping the said line, the power flow from Bolangir(PG) to Katapali and after restoration, the power was from katapali to Bolangir(PG) (Block wise MW Comparison from 30th Dec 18 to 16th Jan 19 data sheets are attached) . However, the phase wise current patterns (recorded in **Meter SI. No. ORP02909** at Katapali end for the said line) are almost same for before 07/01/19 and after 08/01/19 of said line from Katapali end. Also it is observed that before tripping (before 15:40 Hrs on 07/01/19) of the said line any loose connection are not observed from the above patterns (Line current pattern for Jan 19 attached), as power flow from Bolangir(PG) to Katapali.

Point No.-3 :

The detailed CVT & IVT test reports at Katapali end of 220Kv Katapali (OPTCL)-Bolangir (PG) line are attached herewith for your kind reference.

Encl: As above

Yours Faithfully

Saundarya Kumar Pattanayak

AGM(Ele), SLDC, OPTCL

7 attachments**MONTH WISE INTER-STATE-DATA COMPARISION SHEETS-2016.xlsx**

69K

**MONTH WISE INTER-STATE-DATA COMPARISION-SHEETS-2017.xlsx**

70K

**MONTH WISE INTER-STATE-DATA COMPARISION-SHEETS-2018.xlsx**

33K

**BLOCK WISE COMPARISION SHEET.xlsx**

221K

**DAY WISE COMPARISION.xlsx**

36K

**POINT No-2 Documents.rar**

3288K

**POINT No-3 Documents.rar**

1185K

ERPC: KOLKATA

Minutes of 2nd meeting of the Committee on “Metering & Accounting issue of 220KV Bolangir(PG)- Katapalli (OPTCL) line for the period from 04.05.2016 to 02.12.2018” held on 19.02.2020 at ERPC, Kolkata.


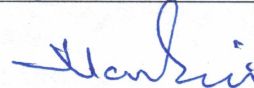
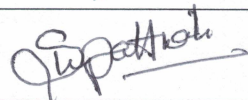

OPTCL, GRIDCO, Powergrid (Odisha Projects), ERLDC and ERPC participated in the meeting. List of the participants is attached in **Annexure-A**.

SE (Commercial), ERPC welcomed the participants. First meeting of the committee was held at ERPC, Kolkata on 16.07.2019. Based on the discussion taken in the 1st meeting, OPTCL was advised to furnish few clarifications. Accordingly, OPTCL replied to the queries raised in the 1st meeting of the committee vide email dated 24.07.2019. Considering the replies furnished by OPTCL and to take the matter forward, the following points have been discussed and finalized in respect of metering issue of 220 KV Bolangir(PG)- Katapalli(OPTCL) line:

1. OPTCL representative informed that they have been doing manual checking of meter data at their end. While checking the same in one of the instances, they found mismatch in energy recorded in Katapalli(OPTCL) & Bolangir(PGCIL) meterdata. This mismatch was traced back to 04.05.2016. The Committee had earlier observed that this discrepancy was pointed out by OPTCL after a lapse of more than 2.5 years and OPTCL could have been vigilant to bring the issue to the notice of ERPC/ERLDC earlier.
2. The Committee agreed to treat this as special case and accordingly revised DSM accounting for GRIDCO for the disputed period (04.05.2016 to 02.12.2018) shall be carried out by ERPC Secretariat. However, OPTCL is advised to check the meterdata regularly. Further, any discrepancy found in meterdata has to be brought to the notice of ERPC/ERLDC immediately so that required action can be taken. OPTCL is warned that in case of any negligence on their part in future, post facto accounting shall not be done. OPTCL representative agreed.
3. ERLDC representative asked for block-wise data of 220KV Sadepalli(OPTCL)- Katapalli(OPTCL) for verifying flow of power for the entire disputed period. OPTCL agreed to give the data by 20.02.2020.
4. Powergrid (Odisha Project) representative informed that they have tested the CVT & CT at Bolangir and test results are satisfactory.
5. The followings are agreed for accounting and settlement purpose subject to concurrence in the upcoming CCM & further ratification in the upcoming TCC/ERPC:
 - OPTCL to furnish all the time block-wise meterdata including that of 220KV Sadepalli(OPTCL)- Katapalli(OPTCL) to ERPC/ERLDC

- ERLDC shall verify the meterdata as submitted by OPTCL and submit the verified data to ERPC after applying applicable transmission loss.
- ERPC shall consider monthly average frequency for each month of the disputed period for computation of Deviation Charges. Accordingly, ERPC Secretariat shall prepare a consolidated DSM statement for GRIDCO on account of this revision by considering monthly average frequency and verified meterdata received from ERLDC.
- The amount receivable by GRIDCO due to this revision shall be paid from the DSM pool of Eastern Region. This payment shall be made to GRIDCO only after all the outstanding payments to beneficiaries of Mangdechhu HEP in Bhutan are liquidated.
- The payment to GRIDCO from DSM pool shall be subject to availability of fund and any liability of DSM payment by GRIDCO to ER DSM pool during any week shall not be adjusted against the amount receivable by GRIDCO on account of this revision.
- No interest shall be paid to GRIDCO on account of this revision.

Meeting ended with vote of thanks to chair.

Sl No	Name & Designation	Organisation	Signature
1	SHYAM KESRIWAL, SE	ERPC	
2	NADIM AHMAD CM	ERLDC	
3	Madhusudan Sahoo, DGM	GRIDCO Ltd.	M.S.Sahoo
4	Saundarya Ku. Pattanayak AGM (B&E)	SLDC, Odisha	
5	S.K. SAHU, DGM (AM/ID)	POWERGRID, Odisha Projects, B&E	

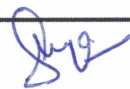
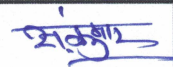

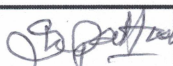
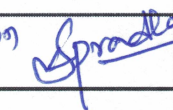
ERPC : KOLKATA

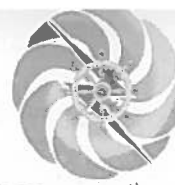
Participants in Special meeting on 220 KV Bolangir-Katapali metering issue

Venue: ERPC Conference Hall, Kolkata

Time: 11:00 hrs

Date: 19.02.2020 (Wednesday)

Sl No	Name	Designation/ Organization	Contact Number	Email	Signature
1	Shyam Kejriwal	SE, ERPC	9831919509	Shyam.ies11@gmail.com	
2	Nadim Ahmad	CU, ERLDC	9432351831	nadim@posoco.in	12/2
3	S.K. SAHU	POWERGRID, BSR DGM (AMT)	9078883643	SKSahu@powergridindia.com	
4	Sanjaya Kumar	DGM SLDC BBSR	9438907414	ele.skmishra@sldeorissa.org.in	
5	Sankar Dasgupta	ALM (E6) SLDC, Odisha	9438907845	2toshkpattnayak@optcl.co.in	
6	Madhusudan Sahoo	DGM (E6) GRIDCO Ltd.	9692427876	gridco.ebc@gmail.com	M.S. Sahoo
7	Shishir Kumar Pradhan	AD, ERPC	8249244719	shishir.1505@gmail.com	
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					



DGPC/O&MD/38/2019/581

October 15, 2019

Executive Director (Marketing)
Power Trading Corporation of India Limited
2nd Floor, NBCC Tower
15 Bhikaji Cama Place
New Delhi – 110 066

Kind Attn: Mr. Harish Saran

Subject: Bill for Energy Exported from Mangdechhu HEP for the month for June to Sep, 2019

Ref: 1. PTC letter No. C/PTC/DGPC/MHEP/2833 dated September 26, 2019
2. PTC email dated October 04, 2019

Dear Sir,

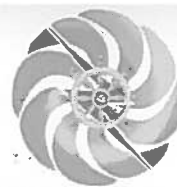
This has reference to your above referred letter dated 26/09/2019 vide in which PTC has raised certain issues in respect of the energy export bill for MHEP from June to August 2019 that was submitted by DGPC vide letter No. DGPC/MHEP/2019/01/557 dated September 06, 2019 and also to the referenced to PTC's email dated October 04, 2019. In this regard, DGPC would like to put forth our stand on the points raised by PTC as below:

1. COD of the Project

- a. The COD for individual units of MHEP has been declared at different dates starting from June 28, 2019 till August 16, 2019 by the Bhutan Power System Operator (BPSO) and the intimation of COD of each unit has been provided to NLDC (POSOCO), ERLDC and ERPC by our System Operator (BPSO). Vide PTC's above referred letter, the COD of the project has been indicated as the COD of last unit i.e. 16/08/2019. Neither the PPA dated August 15, 2019 nor the MHEP Tariff Protocol dated April 23, 2019 mentions that the COD of the project shall be considered from the date of COD of the last generating unit.
- b. Kindly note that the CERC regulation to arrive at the COD cannot be applied in this case since we are not in the purview of CERC norms. Further, the Article 3(b) of the Bilateral Agreement dated April 30, 2010 between RGoB and GOI on the Implementation of Mangdechhu HEP clearly specifies "the first repayment commencing one year **from the mean date of commercial operation**" which clearly indicates that the COD as proposed by you is not applicable for MHEP power transaction.
- c. You are also requested to note that, in the Article 1, Clause 1(C) of the PPA dated September 27, 2006 for the sale/purchase of Tala Power, the date of commissioning is indicated as "**The date of commissioning shall be reckoned as the date on which each unit of generating plant and equipment is declared as commissioned by THPA. This date will also be treated as the date of commercial operation, unit wise, for billing purposes.**" The Mangdechhu tariff and PPA were negotiated in the spirit of Tala only.

DRUK GREEN POWER CORPORATION LIMITED

CORPORATE OFFICE: Post Box 1351, Thimphu, Bhutan. PABX +975-2-336413/4 Fax # +975-2-336417 Web: www.drukgreen.bt



- d. In line with the above clarifications, the COD for the purpose of billing should be considered for each unit separately as declared by BPSO and intimated to all concerned stakeholders. The CODs for each unit are as below:

Unit No. 1 – June 28, 2019 at 12.30 Hrs.

Unit No. 2 – July 08, 2019 at 12.30 Hrs.

Unit No. 3 – August 16, 2019 at 23.30 Hrs.

Unit No. 4 – August 14, 2019 at 12.30 Hrs.

2. Adjustment of Infirm Power

Based on the meeting held on May 17, 2019 at ERPC where it was informed that the infirm power shall be consumed by Bhutan, we agree to your proposal of considering the infirm power as internally consumed by Bhutan and corresponding upward adjustment in the energy injected from THP, CHP & KHP in the ratio as per the REA of June, July & August 2019. However, the infirm power has to be considered as per Point No. 1 above. For your kind information, the total infirm energy generated by all 4 units of MHEP works out to 18.370 MU. For the purpose of adjustment of infirm power, suitable adjustment has to be carried out to calculate this energy at delivery point. The details of JEMR taken to compute the infirm power by MHEP can be provided to PTC/ERPC.

3. Adjustment of Transmission Loss

- a. Vide email dated October 04, 2019 of PTC, it was informed that ERPC has considered 1% loss provisionally for the month of September 2019 in lieu of Mangdechhu power flowing through 400 kV Jigmeling - Punatsangchhu II - Alipurduar link. Accordingly an energy of 3.37527MU has been deducted from the energy received at incomer of Jigmeling sub-station and billed to PTC.
- b. The above deduction cannot be accepted by DGPC since clause 3.1.1. of the PPA dated August 15, 2019 clearly specifies that the Indo-Bhutan international border at Jigmeling shall be deemed to be the delivery point for the energy to be received by PTC for power flowing on the 400kV Mangdechhu – Alipurduar transmission lines and also for power flowing through 400kV / 132 kV ICT at MHP pot head yard.
- c. The clause No. 6.1 of the PPA also clearly indicates the formula for MHP energy received by PTC as below:

$$\text{MHP(Export)} = \text{MJ1} + \text{MJ2} + \text{MJ3} + \text{MJ4} \dots$$

Where, MJ1, MJ2, MJ3 & MJ4 are the energy meter readings on the 4 Nos. of 400kV Mangdechhu – Jigmeling incoming at Jigmeling end.

- d. The MHEP power has to be exported on interim basis through the Jigmeling – Puna-II – Alipurduar line due to the delay in completing the 400kV Jigmeling – Alipurduar transmission line by POWERGRID. The transmission line on the Bhutan side has been made ready for power evacuation well before the commissioning of MHEP. Therefore, any



transmission losses beyond the energy recorded at incomer of Jigmeling sub-station should be considered as exported.

4. SEM Data at Jigmeling End

Regarding the SEM/Energy meters reading for 400kV MHEP – Jigmeling at Jigmeling end for August 16, 2019 (COD of Unit No. 3), it has been already conveyed to PTC vide our email dated September 13, 2019 regarding the non-availability of SEM data (15 minutes block) from July 01, 2019 till September 09, 2019 for 400 kV MHEP – Jigmeling Incomer at Jigmeling end. Moreover, the main energy meter readings for 400kV MHEP-Jigmeling at Jigmeling end are available for all the CODs and can be furnished to PTC/ERPC. You are also requested to please note that MHEP has intimated PTC on all CODs to depute your representative for the purpose of taking JEMR at all locations i.e. Mangdechhu end, Jigmeling and Alipurduar.

Based on the discussions at Delhi on October 07, 2019 between PTC and DGPC, the already approved payment for the energy exported from June to September 2019 as per REA of ERPC may be released at an early date as an Advance Payment. Meanwhile, PTC is requested pursue with the relevant GOI and other Indian entities to clarify on the above matters and ensure that the balance bill amounts are released to DGPC at the earliest.

Yours sincerely,


(Tashi Tshering)

Offtg Director

Operation & Maintenance Department

Copy to:

1. Hon'ble Secretary, MoEA, RGoB, Thimphu.
2. Managing Director, MHEP, Trongsa.
3. Managing Director, DGPC, Thimphu.
4. Director, DHPS, MoEA, Thimphu.

Agenda: Outstanding dues from Govt. of Sikkim

The Energy and Power Deptt., Govt. of Sikkim has an agreement with WBSEDCL for purchase of power at a tariff which is the generation cost Rammam Hydel project of WBSEDCL. WBSEDCL also purchase power from Govt. of Sikkim at a consumer mode. The quantum of power sale by WBSEDCL is considerably high than the power purchase from Govt. of Sikkim whereas the tariff rate of WBSEDCL sale is considerably very low in comparison to the tariff of power purchase by WBSEDCL from Govt. of Sikkim.

The Govt. of Sikkim has been drawing power from WBSEDCL on regular basis but reluctant to pay the bill within due time. As a result, the outstanding dues from Govt. of Sikkim stands as Rs.31.38 Cr.(approx) upto the consumption month of Jan'2020. On the contrary, WBSEDCL used to pay Govt. of Sikkim, their dues within due date since long but without having any alternative and no response from the Govt. of Sikkim started adjusting the power purchase bill with the outstanding dues from Mar'2017 to till date. As a result the net due from Govt. of Sikkim now stands for Rs.30.74Cr. after all adjustments.

The evidence in support of the claim of WBSEDCL is duly annexed with this agenda where it shows the detail calculation of outstanding dues, some of the correspondences out of many with Govt. of Sikkim regarding realization huge amount of dues.

WBSEDCL, finding no other remedy to realize the dues from Govt. of Sikkim and as the matter is now reached an alarming state, appeal before the Hon'ble ERPC to intervene into the matter as Govt. of Sikkim as well as WBSEDCL both are constituent members of ERPC.



West Bengal State Electricity Distribution Company Limited
(A Government of West Bengal Enterprise)
Vidyut Bhavan (7th floor) DJ Block, Sec-II Salt Lake, Kolkata- 700 091
CIN: U40109WB2007SGC113473, Web: www.wbsedcl.in
Telephones : 2321-0078, 2359-1930-40, Extn - 382 Fax: 033-2334-5862
POWER TRADING & PROCUREMENT CELL

Memo No : PTP/ Sikkim/

Dated : 21.04.2017

To
The Secretary
Energy & Power Department,
Government of Sikkim, Kazi Road,
Gangtok, Sikkim -5.

Fax No. 03592-201148 /220199.

Sub : Outstanding dues amounting to Rs 25,58,04,273/- as on 31.03.2017 to
WBSEDCL for drawl of power by Sikkim from Rammam HEP, Stage-II

Ref: Earlier letter no PTP/Sikkim/Rammam/33 dated 12.04.2017

Sir,

Kindly refer to our earlier letter mentioned above . In this regard once again this is to inform you that an amount of Rs 25,58,04,273/- is payable to WBSEDCL by the Dept. of Energy & Power, Govt. of Sikkim for drawl of power from Rammam HEP, Stage-II till 31.03.2017.

Undersigned had a telephonic discussion with Mr S.P.Kajee in this regard and it was told that the matter would be referred to the concerned person. But the same is still awaited.

You are requested to make arrangement for a discussion with the concerned person so that the issue may be resolved at the earliest.

Yours faithfully,


Sd/-
(T. K. De)
Chief Engineer (PTP)

Memo No : PTP/ Sikkim/ 44 (1-3)

Dated : 21.04.2017

Copy to:

- 1) The General Manager (F&A), Corporate, WBSEDCL.
- 2) The Sr Manager (F&A), PTPCell, WBSEDCL.
- 3) The PS to the Director (R&T), WBSEDCL.


Chief Engineer (PTP)



West Bengal State Electricity Distribution Company Limited

(A Government of West Bengal Enterprise)

Vidyut Bhavan (7th floor) DJ Block, Sec-II Salt Lake, Kolkata- 700 091

CIN: U40109WB2007SGC113473, Web: www.wbsedcl.in

Telephones : 2321-0078, 2359-1930-40, Extn - 382 Fax: 033-2334-5862

POWER TRADING & PROCUREMENT CELL

Memo No : PTP/ Rammam/

Dated :

To
The Secretary
Energy & Power Department,
Government of Sikkim, Kazi Road,
Gangtok, Sikkim -5.

Fax No. 03592-201148 /220199.

Sub : Payment of outstanding dues amounting to Rs 25,58,04,273/- as on 31.03.2017 to WBSEDCL for drawl of power by Sikkim from Rammam HEP, Stage-II

Sir,

This is to inform you that an amount of Rs 25,58,04,273/- is payable to WBSEDCL by the Dept. of Energy & Power, Govt. of Sikkim for drawl of power from Rammam HEP, Stage-II till date.

So, it is requested to disburse outstanding dues of Sikkim payable to WBSEDCL on account of drawl of Rammam HEP-II power **immediately**.

Yours faithfully,

Sd/-

(T. K. De)
Chief Engineer (PTP)

Memo No : PTP/ Sikkim/ Rammam/ 33(1-3)

Dated : 12.04.17

Copy to:

- 1) The General Manager (F&A), Corporate, WBSEDCL.
- 2) The Sr Manager (F&A), PTPCell, WBSEDCL.
- 3) The PS to the Director (R&T), WBSEDCL.


Chief Engineer (PTP)



West Bengal State Electricity Distribution Company Limited

(A Government of West Bengal Enterprise)

Vidyut Bhavan (7th floor) DJ Block, Sec-II Salt Lake, Kolkata- 700 091

CIN: U40109WB2007SGC113473, Web: www.wbsedcl.in

Telephones : 2321-0078, 2359-1930-40, Extn - 382 Fax: 033-2334-5862

POWER TRADING & PROCUREMENT CELL

Memo No : PTP/ Sikkim/

Dated : 13.05.2017

To
The Secretary
Energy & Power Department,
Government of Sikkim, Kazi Road,
Gangtok, Sikkim -5.

Fax No. 03592-201148 /220199.

Sub : Outstanding issues of Sikkim

Ref: Earlier letter no PTP/Sikkim/Rammam/44

dated 21.04.2017

Sir,

Kindly refer to our earlier letter mentioned above . In this regard this is to inform you once again that as per WBSEDCL's accounts there is an outstanding of **Rs 25,58,04,273/- payable to WBSEDCL by the Dept. of Energy & Power, Govt. of Sikkim** for drawl of power from Rammam HEP, Stage-II till 31.03.2017.

As such, this has been decided by WBSEDCL to withhold the payment against power drawn by WBSEDCL at Rangpoo point till the settlement of outstanding issue of Sikkim.

You are once again requested to make arrangement to resolve the Outstanding issue as early as possible.

Yours faithfully,

Sd/-

(T. K. De)

Chief Engineer (PTP)

Memo No : PTP/ Sikkim/ 80 (1-3)

Dated : 13.05.2017

Copy to:

- 1) The General Manager (F&A), Corporate, WBSEDCL.
- 2) The Sr Manager (F&A), PTPCell, WBSEDCL.
- 3) The PS to the Director (R&T), WBSEDCL.

Chief Engineer (PTP)

PTP Cell

Receive 1061

Date 08-09-17

Dir (Fin)/NRJ 1195

DL 6.9.17

Dir(R&T)/LR/ 1285

Date: 07/9/17



West Bengal State Electricity Distribution Company Limited

(A Government of West Bengal Enterprise)

Vidyut Bhavan (7th floor) DJ Block, Sec-II Salt Lake, Kolkata- 700 091

CIN: U40109WB2007SGC113473, Web: www.wbsedcl.in

Telephones : 2321-0078, 2359-1930-40, Extn - 382 Fax: 033-2334-5862

POWER TRADING & PROCUREMENT CELL

Memo No : PTP/ Sikkim/

To
The Secretary
Energy & Power Department,
Government of Sikkim, Kazi Road,
Gangtok, Sikkim -5.

GN/FA/DCL/LTR/ 1263
DATED 6.9.17

Dated : 05.09.2017

Fax No. 03592-201148 /220199.

Sub : Payment outstanding issues of Sikkim

Ref: Reconciliation statement sent through mail on 17.06.2017 from your end

Sir,

In response to your reconciliation statement sent through mail on 17.06.2017 this is to bring to your notice that one arrear bill no: PTR/SIKKIM/RAMMAM/BILL/2012-13/SUP2 dated 12.12.13 of Rs 67,92,890/- is missing in your reconciliation statement. Taking into account the above bill amount in the outstanding dues shown in your statement, the actual outstanding becomes Rs 25,41,79,483/- (Rs 24,73,86,593 + Rs 67,92,890/-)

We would, therefore, request you to revise your outstanding amount incorporating the missing arrear bill which was already sent you through mail and make arrangement for payment to resolve the outstanding payment issue as early as possible.

We again mail the scan copy of the missing arrear bill along with this letter for ready reference.

Director (RT)

May kindly see for
early liquidation of dues.
07/9/17

Yours faithfully,

Sd/-

(T. K. De)

Chief Engineer (PTP)

Dated : 05.09.2017

Memo No : PTP/ Sikkim/ 234 (1)

Copy to:

- 1) The General Manager (F&A), Corporate, WBSEDCL.
- 2) The Sr Manager (F&A), PTPCell, WBSEDCL.
- 3) The PS to the Director (R&T), WBSEDCL.

Chief Engineer (PTP)

Director
(Finance)

As per
person
07/9/17



West Bengal State Electricity Distribution Company Limited

(A Govt. of West Bengal Enterprise)

ZONAL OFFICE SILIGURI

2nd Mile, Sevoke Road, Siliguri

Tele: 0353-2542747 Fax : 0353-2541401 E-mail : zm_siligurizone@yahoo.in

Memo.No.ZM/SZ/Accounts/ 3491

Date : 12.02.2018

To
The Secretary,
Energy & Power Department,
Government of Sikkim, Kazi Road,
Gangtok, Sikkim -5.

FAX NO. 03592-201148/ 220199

PTP Cell

Receive... 2115

Date... 08.03.18

Sub : Payment of outstanding dues of Rs. 25,41,79,483/- upto March,2017.

Ref : Our memo No. PTP/Sikkim/375(i) dated 12.12.2017 of Chief Engineer (PTP)

Sir,

In reference to our memo mentioned above, you are requested to please pay the outstanding dues amounting to Rs. 25,41,79,483/- up-to March,2017 to WBSEDCL as early as possible.

Thanking you,

Yours faithfully,

Sd/-

[K.K.Das]

Addl. C.E. & Zonal Manager
Zonal Office, Siliguri.

Memo.No.ZM/SZ/Tech-2/ 3491

Date : 12.02.2018

- Copy to:
1. The Chief Engineer (PTP), WBSEDCL, Vidyut Bhawan (7th Floor), Kolkata : 91.
 2. The General Manger (F&A), Corporate, WBSEDCL, Vidyut Bhawan, Kolkata : 700091.
 3. P.S. to Director (Finance), WBSEDCL, Vidyut Bhawan, Kolkata : 91.

12.02.18
Addl. C.E. & Zonal Manager
Zonal Office, Siliguri.

etc

DE(E)
12
08.03.18

DL 469
13.12.17



West Bengal State Electricity Distribution Company Limited
(A Government of West Bengal Enterprise)
Vidyut Bhavan (7th floor) DJ Block, Sec-II Salt Lake, Kolkata- 700 091
CIN: U40109WB2007SGC113473, Web: www.wbsedcl.in
Telephones : 2321-0078, 2359-1930-40, Extn - 382 Fax: 033-2334-5862
POWER TRADING & PROCUREMENT CELL

Memo No : PTP/ Sikkim/

Dated : 12.12.2017

To
The Secretary
Energy & Power Department,
Government of Sikkim, Kazi Road,
Gangtok, Sikkim -5.

Fax No. 03592-201148 /220199.

Sub : Payment outstanding issues of Sikkim
Ref: Signed reconciled statement of outstanding dues sent to your end on
21.06.17

Sir,

In response to reconciliation statement mailed on 20.06.2017, we have sent the signed copy of the same to your end through mail on 21.06.17. The outstanding dues of Rs 25,41,79,483/- upto March 2017 stands payable by Sikkim to WBSEDCL.

We would, therefore, again reiterate to arrange for payment to resolve the outstanding payment issue as early as possible.

Yours faithfully,

Sd/-
(T. K. De)
Chief Engineer (PTP)

Dated : 12.12.2017

Memo No : PTP/ Sikkim/ 375 (1)

Copy to:

- 1) The General Manager (F&A), Corporate, WBSEDCL.
- 2) The Sr Manager (F&A), PTPCell, WBSEDCL.
- 3) The PS to the Director (R&T), WBSEDCL.

Chief Engineer (PTP)

Director (Finance)
for your kind personal
GM (F&A) -
ZM - Siliguri may be advised to follow-up
with the respective Dept. of Sikkim.
As observed above please
13/12/17



West Bengal State Electricity Distribution Company Limited

(A Government of West Bengal Enterprise)

Vidyut Bhavan (7th floor) DJ Block, Sec-II Salt Lake, Kolkata- 700 091

CIN: U40109WB2007SGC113473, Web: www.wbsedcl.in

Telephones : 2321-0078, 2359-1930-40, Extn - 382 Fax: 033-2334-5862

POWER TRADING & REGULATORY DEPARTMENT

Memo No. PTP/ SIKKIM/

Dated :

To
The Secretary,
Energy & Power Department,
Govt. of Sikkim,
Kazi Road,
Gangtok, Sikkim-5

Fax No. 03592 201148/220199

Sub: Issue regarding outstanding Dues.

Ref: WBSEDCL Letter No-PTP/Sikkim/461 dtd 01.02.2018.

Sir,

Kindly refer the discussion had with you on 17.03.2018 at ERPC meet held at Goa regarding payment of Outstanding dues of Rs.25,41,79,483/- wherein it was given to understand that the payment process will commence from May 2018 in installment basis.

In view of above, you are requested to extend good office towards payment of the aforesaid outstanding dues.

Soliciting your earnest cooperation in this regard.

Thanking you.

Yours faithfully,

Sd/
(P.P. Mukherjee)
Chief Engineer, PTP Cell

Memo No. PTP/ Sikkim/ 75

Dated : 11.05.18

Copy to:-

1. The General Manager (F&A), Corporate, WBSEDCL.
2. The Sr. Manager (F&A), PTP Cell, WBSEDCL.
3. The PS to the Director (R&T), WBSEDCL.
4. The Assistant Engineer(Elec), Rangpoo
Energy & Power Dept, Sikkim

Chief Engineer, PTP Cell

Registered Office: Bidyut Bhaban, Block -DJ, Sector -II, Salt Lake City, Kolkata - 700 091

WBSEDCL



**West Bengal State Electricity
Distribution Company Limited**
(A Government of West Bengal Enterprise)

Memo No : PTP/SIKKIM/ 38

Dated : 20.04.2019

To
The Principal Chief Engineer Cum Secretary
Energy & Power Department,
Government of Sikkim,
Kazi Road, Gangtok,
Sikkim -5.

**Sub : Payment of outstanding dues i.r.o power supply from
Rammam HEP to the state of Sikkim.**

Ref Letter no : i) PTP/Sikkim/Rammam/33	Dated 12.04.2017
ii) PTP/Sikkim/Rammam/44	Dated 21.04.2017
iii) PTP/Sikkim/Rammam/80	Dated 13.05.2017
iv) PTP/Sikkim/Rammam/234	Dated 05.09.2017
v) PTP/Sikkim/Rammam/375	Dated 12.12.2017
vi) PTP/Sikkim/Rammam/461	Dated 01.02.2018
vii) PTP/Sikkim/Rammam/75	Dated 11.05.2018

Sir,

Reference to the aforesaid communications of Chief Engineer, PTP Cell wherein it has been requested to liquidate the outstanding dues in respect of sale of power from Rammam HEP which is increasing on account of irregular payment of the current bills.

The total outstanding dues accumulated as on 12.04.2019 is Rs. 25,55,40,423/- (Rupees Twenty Five Crore Fifty Five Lac Forty Thousand Four Hundred and Twenty Three only).

We request you to kindly look into the above for expeditious liquidation of dues.

Yours faithfully,

(Rajesh Pandey)

Chairman & Managing Director,
WBSEDCL

**Outstanding Dues status of Power Dept, Govt. of Sikkim for Drawal
of Power from Rammam HEP Stage-II.**

Bill Period	Unpaid Bill Amount(In Rs.)
OSD upto 31.03.2017	254179483
Bill for Jan'19	1904640
Bill for Feb'19	1676160
Bill for Mar'19	1904640
Bill for Apr'19	1996800
Bill for May'19	2273280
Bill for Jun'19	3563520
Bill for Jul'19	8171520
Bill for Aug'19	9523200
Bill for Sep'19	9216000
Bill for Oct'19	8714880
Bill for Nov'19	4823020
Bill for Dec'19	3440640
Bill for Jan'20	2457600
Total Outstanding Dues as on 14.02.2020	313845383
Less adjusted power purchase bill from Mar'17 to Dec'19	6441364
OSD as on 14.02.2020	307404019

No. 14/1/2017-Trans-Pt(1)

Government of India

Ministry of Power

Shram Shakti Bhawan, Rafi Marg, New Delhi- 110 001.

Dated, 26th November, 2019

To

Shri Asim Kumar Poddar, CEO,
NTPC Vidyut Vyapar Nigam Ltd.
SCOPE Complex, 7 Institutional Area,
Lodhi Road, New Delhi-110003.


**Subject: Nomination of Settlement Nodal Agency (SNA) under
Guidelines for Import/Export (Cross Border) of Electricity
2018- reg.**

Sir,

I am directed to state that as per the clause 8.8 of the Guidelines for Import/Export (Cross Border) of Electricity 2018, M/o Power, Govt. of India has nominated NTPC Vidyut Vyapar Nigam Ltd. (NVVN) as Settlement Nodal Agency (SNA) for settlement of grid operation related charges with neighbouring countries, namely, **Bangladesh, Bhutan, Nepal and Myanmar.**

2. This issues with the approval of Competent Authority.

Yours faithfully,


(Bihari Lal) 26/11/19

Under Secretary (Trans)

Tele-fax: 2332 5242

Email: transdesk-mop@nic.in

Copy to:

- 1) Secretary, CERC, New Delhi.
- 2) Member(PS), CEA, New Delhi.
- 3) Joint Secretary(North), MEA, New Delhi.
- 4) Joint Secretary(BM), MEA, New Delhi.
- 5) Joint Secretary(Hydro), M/o Power, New Delhi.

ANNEXURE-I

SUMMARY OF DEVIATION CHARGE RECEIPT AND PAYMENT STATUS

BILL UPTO 26.01.20 (Week -43 of 2019 - 20)
Last Payment Disbursement Date - 18.02.20

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
WR	962.33303	135.72083	179611.97571	176769.19439	-2016.16912
SR	92127.51003	87256.29777	10199.12733	10243.25191	4915.33684
NER	68670.85879	70307.67061	29905.40136	28752.08208	-2790.13110
NR	53735.38437	52844.46584	17328.19969	16059.96333	-377.31783
BSPHCL	7056.59535	3967.19037	390.16612	0.00000	2699.23886
JSEB	5689.10771	4070.97940	307.26825	0.00000	1310.86006
DVC	4694.18086	4854.98930	1983.72143	2093.21289	-51.31698
GRIDCO	11755.14336	11755.14359	928.21552	841.17101	-87.04474
WBSETCL	13624.63135	13467.39090	596.63720	469.00123	29.60448
SIKKIM	483.17630	0.00000	413.04649	0.00000	70.12981
NTPC	8019.86185	7988.43622	2162.21871	2130.79308	0.00000
NHPC	123.49227	39.91657	1682.46878	1515.71967	-83.17341
MPL	79.84339	79.84339	604.92830	511.57061	-93.35769
MTPS STG-II	916.41932	916.41920	2.65114	2.65102	0.00000
APNRL	965.74574	881.14720	76.61400	0.00000	7.98454
CHUZACHEN (GATI)	85.54830	85.54830	85.93355	80.73953	-5.19402
NVVN(IND-BNG)	2566.83223	2566.83223	3.40866	3.40866	0.00000
JIITPL	680.82979	656.11439	51.38963	51.38963	24.71540
GMR	2252.31958	1292.94601	9.12062	0.00000	950.25295
IND BARATH	0.00000	0.00000	0.00000	0.00000	0.00000
TPTCL(DAGACHU)	2552.86591	2552.86591	0.00000	0.00000	0.00000
JLHEP(DANS ENERGY)	680.49911	680.63708	9.65741	9.79538	0.00000
BRBCL(Nabinagar)	548.01181	547.82358	208.52207	188.70558	-19.62826
NVVN (IND-NEPAL)	882.99098	884.10567	182.81830	150.77878	-33.15421
HVDC SASARAM	16.43152	14.63643	12.68576	7.65587	-3.23480
HVDC ALIPURDUAR	26.94176	25.09501	19.61224	15.64286	-2.12263
TEESTA-III	1509.93603	1518.28186	598.39199	600.75198	-5.98584
DIKCHU	161.54945	160.02107	344.74738	343.76893	0.54993
TASHIDING(THEP)	298.05509	309.16478	184.91853	196.02822	0.00000
OPGC	440.38333	440.38333	3028.92286	3028.92286	0.00000
NPGC	1548.71636	1548.69187	2541.38889	2520.85583	-20.50857
TOTAL	283156.19497	271848.75871	253474.15792	246587.05533	

As on

18.02.20

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-II**Deviation Interest Bill due to delay payment during FY 2018-19**

As on 18.02.2020

SI No.	Name of Constituents	Interest amt payable by party (in ₹)	Amount paid/recovered by party(in ₹)	Interest amt receivable by party(in ₹)	Amt paid to the party(in ₹)	Outstanding Interest as on 18.02.20
1	BSPHCL	17962810	17962809.82	0	0	0
2	JUVNL	30295597	30295597	0	0	0
3	DVC	170088	170088	0	0	0
4	GRIDCO	0	0	520	0	-520
5	WBSETCL	0	0	1199	1199	0
6	SIKKIM	1039941	959498	0	0	80442
7	NTPC	16883	16883	0	0	0
8	NHPC	0	0	23828	23828	0
9	MPL	0	0	8387	7596	-791
10	APNRL	270694	270694	0	0	0
11	CHUZACHEN	9527	0	0	0	9527
12	NVVN(IND-BD)	0	0	1659	1659	0
13	JITPL	58	58	0	0	0
14	GMR	1265691	0	0	0	1265691
15	IND BARATH	78784	0	0	0	78784
16	TPTCL(DAGACHU)	61182	61182	0	0	0
17	JLHEP	12876	12876	0	0	0
18	BRBCL	7602	7602	0	0	0
19	NVVN(IND-NEP)	8314	8314	0	0	0
20	TUL(TEESTA-III)	0	0	17676	17676	0
21	DIKCHU	7180	0	0	0	7180
22	HVDC-PSL	73334	73334	0	0	0
23	HVDC-ALPD	0	0	4410	0	-4410
24	TASHIDING	119055	119055	0	0	0
25	OPGC	0	0	0	0	0
26	NPGC	77385	77385	0	0	0
27	KBUNL	24623	24623	0	0	0
	Total	51501623	50060000	57679	51958	1435902

Annexure - III

STATUS OF REACTIVE CHARGES

RECEIVABLE IN ER POOL AS PER PUBLISHED A/C FROM 02.04.18 TO 26.01.20

AS ON 18.02.20

CONSTITUENT	AMOUNT RECEIVABLE IN THE POOL (Rs.)	AMOUNT RECEIVED IN THE POOL (Rs.)	OUTSTANDING (Rs.)
WBSETCL	334977114	337783941	-2806827
DVC	2135995	2135995	0
BSPHCL	14716142	4631550	10084592
SIKKIM	95830	76131	19699
JUVNL	4724309	536864	4187445
GRIDCO	39282332	32491344	6790988
TOTAL	395931722	377655825	18275897

Annexure - IV

SUMMARY OF RRAS CHARGE RECEIPT AND PAYMENT STATUS

BILL from 01.04.19 TO 26.01.20(upto Week -43 of 2019 - 20)

Last Payment Disbursement Date -18.02.20

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
NTPC	4828.33566	1631.84453	7736.96050	4528.08647	-12.38290
BRBCL (Nabinagar)	865.76594	54.27914	4354.45240	3191.10892	-351.85668
KBUNL (MTPS-II)	427.34707	47.50980	2476.93502	2048.26928	-48.82847
MPL	739.15705	168.88210	1202.14277	631.86782	0.00000
NPGC	208.61527	140.23404	150.02194	81.64071	0.00000
TOTAL	7069.22099	2042.74961	15920.51263	10480.97320	-413.06805

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 FRAS CHARGE RECEIPT AND PAYMENT STATUS

BILL from 01-Apr-19 TO 26-Jan-20 (upto Week -43 of 2019 - 20)

Last Payment Disbursement Date -18.02.20

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
NHPC	0.00000	0.00000	1.32191	1.32191	0.00000
TOTAL	0.00000	0.00000	1.32191	1.32191	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

SUMMARY OF AGC CHARGE RECEIPT AND PAYMENT STATUS

BILL from 01.04.19 TO 26.01.20(upto Week -43 of 2019 - 20)

Last Payment Disbursement Date -18.02.20

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
BARH	467.13840	264.22680	207.53202	4.62042	0.00000
TOTAL	467.13840	264.22680	207.53202	4.62042	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

SUMMARY OF CONGESTION CHARGE RECEIPT AND PAYMENT STATUS

Bill upto 07.01.2013
Last Payment Disbursement Date - 13.05.2013

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
BSEB	0.67823	0.67823	0.39118	0.39118	0.00000
JSEB	16.37889	16.37889	2.61323	2.61323	0.00000
DVC	0.00000	0.00000	6.24040	6.24040	0.00000
GRIDCO	5.34488	5.34488	0.00000	0.00000	0.00000
WBSETCL	0.00000	7.42249	4.32834	11.75083	0.00000
SIKKIM	0.65609	6.20909	0.00000	5.55300	0.00000
NTPC	6.93152	6.93152	7.42249	7.42249	0.00000
NHPC	0.70445	0.70445	0.05875	0.05875	0.00000
MPL	4.81694	4.81694	0.85169	0.85169	0.00000
STERLITE	7.70504	7.70504	0.00000	0.00000	0.00000
Pool Balance	0.00000	0.00000	21.30996	21.30996	0.00000
TOTAL	43.21604	56.19153	43.21604	56.19153	0.00000

<p style="text-align: center;">% Realization</p> <p>Receivable: Receivable by ER POOL</p> <p>Received Received by ER POOL</p> <p>"- ve" Payable by ER pool "+ ve" Receivable by ER pool</p>	<p style="text-align: center;">As on 31.05.2015</p> <p>Payable Payable by ER POOL</p> <p>Paid Paid by ER POOL</p>
---	--

Annexure - VI

DETAILS OF DISBURSEMENT TO POWER SYSTEM DEVELOPMENT FUND

SI No	Nature of Amount	Amount transferred to PSDF (Rs in Lac)	Date of Disbursement	Remarks
1	Opening Balance (upto 31.12.16)	90040.05774		
2	Reactive Energy Charge	248.26904	31.07.17	Reactive Charges_17-18
3	Reactive Energy Charge	128.44284	29.08.17	Reactive Charges_17-18
4	Reactive Energy Charge	103.22685	26.09.17	Reactive Charges_17-18
5	Reactive Energy Charge	249.14078	31.10.17	Reactive Charges_17-18
6	Reactive Energy Charge	172.20693	30.11.17	Reactive Charges_17-18
7	Reactive Energy Charge	200.00000	15.12.17	Reactive Charges_17-18
8	Reactive Energy Charge	100.00000	05.01.18	Reactive Charges_17-18
9	Reactive Energy Charge	558.45339	06.02.18	Reactive Charges_17-18
10	Reactive Energy Charge	171.95546	06.03.18	Reactive Charges_17-18
11	Reactive Energy Charge	129.35497	04.04.18	Reactive Charges_17-18
12	Reactive Energy Charge	126.21494	07.05.18	Reactive Charges_18-19
13	Reactive Energy Charge	183.31081	06.06.18	Reactive Charges_18-19
14	Reactive Energy Charge	215.58816	05.07.18	Reactive Charges_18-19
15	Reactive Energy Charge	176.54245	03.08.18	Reactive Charges_18-19
16	Reactive Energy Charge	39.54556	06.09.18	Reactive Charges_18-19
17	Reactive Energy Charge	34.03973	01.10.18	Reactive Charges_18-19
18	Reactive Energy Charge	74.57236	05.11.18	Reactive Charges_18-19
19	Reactive Energy Charge	40.66623	04.12.18	Reactive Charges_18-19
20	Reactive Energy Charge	236.89035	02.01.19	Reactive Charges_18-19 & 15-16
21	Reactive Energy Charge	300.04546	05.02.19	Reactive Charges_18-19 & 15-16
22	Reactive Energy Charge	233.27998	05.03.19	Reactive Charges_18-19
23	Reactive Energy Charge	105.79202	04.04.19	Reactive Charges_18-19
24	Reactive Energy Charge	287.48448	03.05.19	Reactive Charges_18-19 & 19-20
25	Reactive Energy Charge	129.69559	03.06.19	Reactive Charges_19-20
26	Reactive Energy Charge	207.83840	04.07.19	Reactive Charges_19-20
27	Reactive Energy Charge	94.91703	02.08.19	Reactive Charges_19-20
28	Reactive Energy Charge	188.53681	02.09.19	Reactive Charges_19-20
29	Surplus DSM amount transferred	32210.51998	24.09.19	DSM Charges_19-20
30	Reactive Energy Charge	173.06004	01.10.19	Reactive Charges_19-20
31	Reactive Energy Charge	273.15002	01.11.19	Reactive Charges_19-20
32	Reactive Energy Charge	401.09564	04.12.19	Reactive Charges_19-20
33	Reactive Energy Charge	252.53573	02.01.20	Reactive Charges_19-20
34	Reactive Energy Charge	148.65520	07.02.20	Reactive Charges_19-20
	Total	130369.44774		

DSM account Reconciliation Status of ER constituents and Inter Regional

Annexure-VII

	2018-19				2019-20		
Reconciliation Status of ER constituents and							
Name of The Utility	Q1(19.07.18)	Q2(08.10.18)	Q3(09.01.19)	Q4(18.04.19)	Q1(17.07.19)	Q2(21.10.19)	Q3(13.01.20)
Inter Regional							
WR	NO	NO	NO	NO	NO	NO	NO
SR	YES	YES	YES	NO	NO	NO	NO
NER	YES	NO	NO	NO	NO	NO	NO
NR	NO	NO	NO	NO	NO	NO	NO
Intra Regional							
BSPHCL	YES	YES	YES	YES	YES	NO	NO
JUVNL	YES	YES	YES	YES	YES	NO	NO
DVC	YES	YES	YES	YES	YES	YES	YES
GRIDCO	YES	YES	YES	YES	YES	YES	YES
WBSETCL	YES	YES	YES	YES	YES	YES	NO
SIKKIM	YES	YES	YES	YES	YES	NO	NO
NTPC	YES	YES	YES	YES	YES	YES	YES
NHPC	YES	YES	YES	YES	NO	NO	NO
MPL	YES	YES	YES	YES	YES	YES	YES
KBUNL	YES	YES	YES	YES	YES	YES	NO
APNRL	YES	YES	YES	YES	YES	NO	NO
CHUZACHEN(GATI)	YES	YES	YES	YES	NO	NO	YES
NVVN(Ind-Bng)	YES	YES	YES	YES	YES	YES	YES
NVVN(Ind-Nep)	YES	YES	YES	YES	YES	YES	YES
GMR	YES	YES	YES	YES	YES	NO	NO
JITPL	YES	YES	YES	YES	YES	NO	NO
INBEUL	NO	NO	NO	NO	NO	NO	NO
TPTCL (DAGACHU)	YES	YES	YES	YES	YES	YES	YES
JLHEP(DANS ENERGY)	YES	YES	YES	YES	NO	NO	NO
BRBCL	YES	YES	YES	YES	YES	YES	NO
POWERGRID (ER-I)	YES	YES	YES	NO	NO	NO	NO
POWERGRID (ER-II)	YES	YES	YES	YES	YES	YES	NO
TUL (TEESTA-III)	YES	YES	YES	YES	YES	YES	YES
DIKCHU	YES	YES	NO	NO	NO	NO	NO
SHIGA (TASHIDING)	YES	YES	YES	YES	NO	NO	NO
OPGC	YES	YES	YES	NO	NO	NO	NO
NPGC	YES	YES	YES	YES	YES	YES	NO

(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

(3) NO Indicates that signed reconciliation statement is not received by ERLDC

Reactive Account Reconciliation Status

	2018-19				2019-20		
Reactive account Reconciliation Status of ER constituents							
Name of The Utility	Q1(19.07.18)	Q2(08.10.18)	Q3(09.01.19)	Q4(18.04.19)	Q1(17.07.19)	Q2(21.10.19)	Q3(13.01.20)
Intra Regional							
BSPHCL	N/A	N/A	NO	YES	NO	NO	NO
JUVNL	N/A	YES	YES	NO	NO	NO	NO
DVC	N/A	N/A	NO	YES	YES	NO	NO
GRIDCO	N/A	N/A	YES	YES	YES	YES	YES
WBSETCL	YES	YES	YES	YES	YES	YES	NO
SIKKIM	YES	YES	YES	YES	NO	NO	NO

Note:

(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

RRAS Account Reconciliation Status

	2018-19				2019-20		
RRAS account Reconciliation Status							
Name of The Utility	Q1(19.07.18)	Q2(08.10.18)	Q3(09.01.19)	Q4(18.04.19)	Q1(17.07.19)	Q2(21.10.19)	Q3(13.01.20)
NTPC	YES	YES	YES	YES	YES	YES	YES
BRBCL	YES	YES	YES	YES	YES	YES	NO
KBUNL	NA	NA	YES	YES	YES	YES	NO
NPGC	NA	NA	NA	NA	NA	NA	NO
MPL	NA	NA	NA	NA	NA	YES	YES

FRAS Account Reconciliation Status

	2018-19				2019-20		
FRAS account Reconciliation Status							
Name of The Utility	Q1(19.07.18)	Q2(08.10.18)	Q3(09.01.19)	Q4(18.04.19)	Q1(17.07.19)	Q2(21.10.19)	Q3(13.01.20)
NHPC	NA	NA	YES	YES	NO	NO	N/A

AGC Account Reconciliation Status

	2018-19				2019-20		
AGC account Reconciliation Status							
Name of The Utility	Q1(19.07.18)	Q2(08.10.18)	Q3(09.01.19)	Q4(18.04.19)	Q1(17.07.19)	Q2(21.10.19)	Q3(13.01.20)
NTPC	NA	NA	NA	NA	NA	YES	YES

Note:

(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

Annexure-IX

Reconciliation Between Open Access department of ERLDC and SLDCs

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)
	Date of Issuance	16-07-2018	15-10-2018	18-01-2019	18-04-2019	15-07-2019	16-10-2019	16-01-2020
1	West Bengal - SLDC and STU	YES	YES	YES	YES	YES	YES	YES
2	DVC - SLDC	YES	YES	YES	YES	YES	YES	YES
3	OPTCL-SLDC and STU	YES	YES	YES	YES	YES	YES	YES
4	Bihar-SLDC and STU	NA	NA	NO	NO	NO	NO	NO

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)
	Date of Issuance	25-07-2018	15-10-2018	17-01-2019	12-04-2019	11-07-2019	15-10-2019	16-01-2020
1	Calcutta Electric Supply Company	YES	NA	NO	NA	NA	NA	NA
2	Jindal India Thermal Power Limited	YES	YES	YES	YES	YES	NA	NA
3	Jharkhand Urja Vitaran Nigam Limited	YES	YES	YES	YES	YES	NO	NO
4	West Bengal State Distribution Company	YES	YES	NO	NA	YES	YES	YES

Annexure - X

Current Status of Letter of Credit (LC) amount against DSM charges for ER constituents*Figures in Lacs of Rupees*

SI No	ER Constituents	No. of weeks in which Deviation Charge payable	No of times payment was delayed during 2017-18	Total Deviation charges payable to pool during 2017-18	Average weekly Deviation Charge liability	LC Amount	Due date of expiry	Remarks
					(C)/52 weeks			
		(A)	(B)	(C)	(D)	(E)	(F)	(G)
1	JUVNL	51	51	12409.04823	238.63554	262.49910	12.03.2020	Opened for 221.83872 Lac
2	Sikkim	23	23	909.21958	17.48499	19.23349	18.09.2020	Opened for 19.23349 Lacs
3	NTPC	52	5	6247.87876	120.15151	132.16667	30.06.2020	Opened for 132.16667 Lacs
4	KBUNL(MTPS-II)	52	4	1785.94282	34.34505	37.77956	16.08.2020	Opened for 37.77956 Lacs
5	JITPL	20	1	293.68897	5.64786	6.21265	31.03.2020	Opened for 13.19100 Lac
6	GMR	42	15	1494.22674	28.73513	31.60864	06.06.2020	Opened for 31.60864 Lacs
7	TPTCL(DAGACHU)	49	6	4589.54652	88.26051	97.08656	31.03.2020	Opened for 97.08656 Lacs
8	Tashiding (THEP)	35	23	329.24531	6.33164	6.96480	27.06.2020	Opened for 2.71519 Lacs
9	NPGC	45	12	1200.26970	23.08211	25.39032	08.12.2020	Opened for 25.39032 Lacs
10	BRBCL(NABINAGAR)	21	6	248.44057	4.77770	5.25547	09.07.2020	Opened for 5.25547 Lacs
11	BSPHCL	42	42	7816.20467	150.31163	165.34279	Expired on 16.11.2018	Letter issued
12	APNRL	32	32	432.08168	8.30926	9.14019	Expired on 31.12.2019	Discussed in 41st CCM
13	JLHEP (DANS ENERGY)	25	10	247.86542	4.76664	5.24331	Expired on 30.11.2019	Discussed in 41st CCM
14	CHUZACHEN (GATI)	20	12	115.63343	2.22372	2.44609	Expired on 31.03.2019	Letter issued
15	DIKCHU	19	7	128.3546	2.46836	2.71519	Expired on 20.05.2019	Letter issued
16	DVC	45	4	19887.13946	382.44499	420.68949	Not opened	Letter issued
17	GRIDCO	50	2	22550.74179	433.66811	477.03492	Not opened	Letter issued
18	NVVN (IND-BNG)	38	1	1939.58895	37.29979	41.02977	Not opened	Letter issued
19	NVVN (IND-NEPAL)	43	1	4255.71388	81.84065	90.02472	Not opened	Letter issued
20	HVDC SASARAM	9	4	51.11504	0.98298	1.08128	Not opened	Letter issued
21	HVDC-ALIPURDUAR	7	2	99.14089	1.90656	2.09721	Not opened	Letter issued

Annexure - XI

Status Report of PGCIL AMR AMC (Phase I, II & III)		Date: 18-Feb-2020
Summary		
Total Substation	150	
Communicating Sub Station	125	
Non-communicating Sub Station	25	
Total Meter	998	
Communicating meter	921	
Non-communicating Meter	77	

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	2	Meter off .
3	NTPC	DARLIPALLI	4	GPRS issue. Need PGCIL LAN provision .
4	BIHAR	DEHRI(DEH)	3	GPRS issue.
5	SIKKIM	DIKCHU	5	GPRS issue.
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	WEST BENGAL	KALIMPONG(KLM)	1	GPRS issue.
10	DVC	KALNESHWARI(KAR)	3	GPRS issue.
11	BIHAR	KISHANGANJ(KSN)	2	Meter RS-485 port issue. Request to replace the meter.
12	DVC	MANIQUE(MNQ)	1	GPRS issue.
13	SIKKIM	MELLI(MEL)	4	GPRS issue.
14	GRIDCO	MENDHASAL(MEN)	2	GPRS issue.
15	GRIDCO	MIRAMUNDALI (MML)	3	Meters faulty, need to be replaced. After meter replacement, it will be connected with AMR
16	BSEB	NALANDA	1	Suspecting GPRS issue. Site engineer will visit there shortly to check the issue.
17	GRIDCO	NEW DUBRI(DBR)	2	GPRS issue.
18	POWERGRID	NEW MELLI	2	GPRS issue.
19	POWERGRID	GAYA	5	Replaced meter. Will be connected .
20	POWERGRID	PANDIABIL(PNB)	5	Replaced meter. Will be connected .
21	POWERGRID	PUSALI	4	GPRS issue. And due to that, DCU has become faulty
22	BSEB	RAJGIR	2	Suspecting GPRS issue. Site engineer will visit there shortly to check the issue.
23	WEST BENGAL	RAMMAM(RMM)	1	GPRS issue.
24	IPPR	STERLITE(SEL)	10	Unable to communicate with substation regarding AMC work
25	NTPC	TALCHER SOLAR(TLS)	6	TCS will visit there and will do necessary AMC work shortly.
26	NTPC	TALCHER SOLAR(TLS)	6	TCS will visit there and will do necessary AMC work shortly.
27	JSEB	TENUGHAT	1	GPRS issue.

Annexure-XI

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)	133	GENUS	ER-1135-A	BERHAMPORE(PG)
2	L&T	NP-7886-A		134	GENUS	ER-1140-A	BANKA(PG)
3	L&T	NP-7429-A		135	GENUS	ER-1349-A	
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	CHAI BASA(PG)
18	GENUS	ER-1047-A		150	GENUS	ER-1415-A	
19	GENUS	ER-1048-A		151	GENUS	ER-1420-A	BIRPARA(WB)
20	GENUS	ER-1049-A		152	GENUS	ER-1079-A	BARIAPDA(PG)
21	GENUS	ER-1465-A		153	GENUS	ER-1594-A	BARH(NTPC)
22	GENUS	ER-1463-A		154	GENUS	ER-1446-A	JAMSHEDPUR(PG)
23	GENUS	ER-1469-A		155	GENUS	ER-1220-A	RANGPO(PG)
24	GENUS	ER-1467-A		156	GENUS	ER-1468-A	KISHANGANJ(PG)
25	GENUS	ER-1473-A		157	GENUS	ER-1153-A	
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	MALDA(PG)
32	GENUS	ER-1498-A		164	GENUS	ER-1438-A	
33	GENUS	ER-1046-A		165	GENUS	ER-1531-A	
34	GENUS	ER-1088-A	NPGC(NTPC)	166	GENUS	ER-1536-A	MEJIA(DVC)
35	GENUS	ER-1089-A		167	GENUS	ER-1008-A	
36	GENUS	ER-1233-A		168	GENUS	ER-1031-A	
37	GENUS	ER-1240-A		169	GENUS	ER-1122-A	MPL
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(BRCL)
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	DARIIPALLI(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	GENES (BSPTCL)
48	GENUS	ER-1025-A	
49	GENUS	ER-1024-A	
50	GENUS	ER-1295-A	
51	GENUS	ER-1158-A	KISHANGANJ(BSPTCL)
52	GENUS	ER-1156-A	
53	GENUS	ER-1157-A	
54	GENUS	ER-1001-A	
55	GENUS	ER-1009-A	KLC BANTALA(WB)
56	GENUS	ER-1052-A	OPGC
57	GENUS	ER-1027-A	
58	GENUS	ER-1112-A	
59	GENUS	ER-1026-A	
60	GENUS	ER-1030-A	
61	GENUS	ER-1053-A	
62	GENUS	ER-1066-A	
63	GENUS	ER-1068-A	
64	GENUS	ER-1060-A	
65	GENUS	ER-1456-A	
66	GENUS	ER-1541-A	TEESTA-III
67	GENUS	ER-1542-A	
68	GENUS	ER-1546-A	
69	GENUS	ER-1543-A	
70	GENUS	ER-1519-A	
71	GENUS	ER-1545-A	
72	GENUS	ER-1547-A	
73	GENUS	ER-1450-A	
74	GENUS	ER-1549-A	
75	GENUS	ER-1548-A	
76	GENUS	ER-1250-A	MOTIHARI(BSPTCL)
77	GENUS	ER-1245-A	MOTIPUR(BSPTCL)
78	GENUS	ER-1286-A	
79	GENUS	ER-1288-A	ATRI(GRIDCO)
80	GENUS	ER-1111-A	
81	GENUS	ER-1007-A	RAXAUL(BSPTCL)
82	GENUS	ER-1248-A	
83	GENUS	ER-1249-A	SAMANGARA(GRIDCO)
84	GENUS	ER-1113-A	
85	GENUS	ER-1073-A	SAMASTIPUR(BSPTCL)
86	GENUS	ER-1223-A	BETIAH(BSPTCL)
87	GENUS	ER-1227-A	
88	GENUS	ER-1173-A	BHOGRAI(GRIDCO)
89	GENUS	ER-1116-A	JALESWAR(GRIDCO)
90	GENUS	ER-1114-A	SUBHASHGRAM(WBS)
91	GENUS	ER-1127-A	
92	GENUS	ER-1003-A	SAGARDIGHI(WB)
93	GENUS	ER-1131-A	
94	GENUS	ER-1132-A	
95	GENUS	ER-1134-A	
96	GENUS	ER-1520-A	
97	L&T	LT-0312-A	
98	GENUS	ER-1451-A	RAJARAHAT(PG)
99	GENUS	ER-1453-A	
100	GENUS	ER-1253-A	LAUKAHI(BSPHCL)
101	GENUS	ER-1409-A	
102	GENUS	ER-1373-A	

29 NEW LOCATIONS WITH 132 METERS

179	GENUS	ER-1461-A	NEW MELLU(PG)
180	GENUS	ER-1470-A	
181	GENUS	ER-1491-A	DURGAPUR(PG)
182	GENUS	ER-1496-A	
183	GENUS	ER-1298-A	RAMCHANDARPUR(IUSNU)
184	GENUS	ER-1020-A	RENGALI(PG)
185	GENUS	ER-1402-A	RANCHI(PG)
186	GENUS	ER-1083-A	BIDHANAGAR(WB)
187	GENUS	ER-1012-A	SUNDERGARH(PG)
188	GENUS	ER-1093-A	
189	GENUS	ER-1100-A	
190	GENUS	ER-1019-A	
191	GENUS	ER-1118-A	
192	GENUS	ER-1022-A	
193	GENUS	ER-1062-A	
194	GENUS	ER-1023-A	
195	GENUS	ER-1117-A	
196	GENUS	ER-1119-A	
197	GENUS	ER-1021-A	
198	GENUS	ER-1067-A	
199	GENUS	ER-1061-A	SILIGURI(PG)
200	GENUS	ER-1070-A	
201	GENUS	ER-1065-A	PUSAULI(PG)
202	GENUS	ER-1064-A	
203	GENUS	ER-1500-A	RANCHI NEW(PG)
204	GENUS	ER-1493-A	
205	GENUS	ER-1217-A	
206	GENUS	ER-1218-A	
207	GENUS	ER-1318-A	
208	GENUS	ER-1319-A	
209	GENUS	ER-1372-A	
210	GENUS	ER-1379-A	
211	GENUS	ER-1378-A	
212	GENUS	ER-1236-A	
213	GENUS	ER-1237-A	PURNEA(PG)
214	GENUS	ER-1221-A	
215	GENUS	ER-1230-A	
216	GENUS	ER-1371-A	
217	GENUS	ER-1355-A	
218	GENUS	ER-1358-A	PATNA(PG)
219	GENUS	ER-1436-A	
220	GENUS	ER-1359-A	
221	GENUS	ER-1351-A	
222	GENUS	ER-1352-A	
223	GENUS	ER-1231-A	PANDIABILI(PG)
224	GENUS	ER-1232-A	
225	L&T	NP-8862-A	
226	GENUS	ER-1311-A	
227	GENUS	ER-1407-A	
228	GENUS	ER-1314-A	
229	GENUS	ER-1408-A	PANDIABILI(PG)
230	GENUS	ER-1098-A	
231	GENUS	ER-1591-A	PANDIABILI(PG)
232	GENUS	ER-1583-A	
233	GENUS	ER-1586-A	
234	GENUS	ER-1587-A	

25 OLD LOCATIONS WITH 124 METERS

103	GENUS	ER-1377-A	KHIZIRSARAI(BSPHCL)	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	
108	GENUS	ER-1222-A		240	GENUS	ER-1170-A	
109	GENUS	ER-1224-A	DARBHANGA(BSPTCL)	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	GAYA(PG)
121	GENUS	ER-1205-A		253	GENUS	ER-1582-A	
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	BOLANGIR(PG)
125	GENUS	ER-1431-A		TOTAL METERS = 256			
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)				

AMR Phase-1 AMC Details of all Sub Stations
Annexure-XIII

SL No	State	Sub Station	Utilities	TOC Date	TOC Month	AMC End Date	Total Meter
1	West Bengal	DSTPS	DVC	15-Mar-14	Mar-14	Mar-19	78
2	Jharkhand	Jamshedpur	PG	30-Mar-14	Mar-14	Mar-19	
3	West Bengal	Jeerat	WBSEB	15-Mar-14	Mar-14	Mar-19	
4	West Bengal	K'neswari	DVC	30-Mar-14	Mar-14	Mar-19	
5	West Bengal	Kolaghat	DVC	15-Mar-14	Mar-14	Mar-19	
6	West Bengal	Maithon	DVC	24-Mar-14	Mar-14	Mar-19	
7	West Bengal	Maithon	PG	30-Mar-14	Mar-14	Mar-19	
8	West Bengal	Malda	WBSEB	30-Mar-14	Mar-14	Mar-19	
9	West Bengal	Mejia	DVC	30-Mar-14	Mar-14	Mar-19	
10	Jharkhand	Ramchandrapur	JSEB	30-Mar-14	Mar-14	Mar-19	
11	West Bengal	Siliguri	PG	31-Mar-14	Mar-14	Mar-19	
12	West Bengal	Subhasgram	PG	30-Dec-13	Mar-14	Mar-19	
13	West Bengal	Waria	DVC	30-Mar-14	Mar-14	Mar-19	89
14	Jharkhand	Barhi	DVC	30-Apr-14	Apr-14	Apr-19	
15	Odisha	Baripada	PG	15-Apr-14	Apr-14	Apr-19	
16	West Bengal	Bidhannagar	WBSEB	15-Apr-14	Apr-14	Apr-19	
17	West Bengal	Binaguri	PG	15-Apr-14	Apr-14	Apr-19	
18	West Bengal	Birpara	WBSEB	15-Apr-14	Apr-14	Apr-19	
19	West Bengal	Birpara	PG	15-Apr-14	Apr-14	Apr-19	
20	Jharkhand	Chandil	JSEB	30-Apr-14	Apr-14	Apr-19	
21	Jharkhand	Garwa	JSEB	30-Apr-14	Apr-14	Apr-19	
22	Jharkhand	Hatia	JSEB	30-Apr-14	Apr-14	Apr-19	
23	Jharkhand	Jamshedpur	DVC	30-Apr-14	Apr-14	Apr-19	47
24	West Bengal	Kalimpong	WBSEB	30-Apr-14	Apr-14	Apr-19	
25	West Bengal	Maithon RB	MPL	30-Apr-14	Apr-14	Apr-19	
26	Jharkhand	Manique	DVC	30-Apr-14	Apr-14	Apr-19	
27	SIKKIM	Melli	SIKKIM	30-Apr-14	Apr-14	Apr-19	
28	West Bengal	NBU	WBSEB	15-Apr-14	Apr-14	Apr-19	
29	West Bengal	Sagardihi	WBSEB	15-Apr-14	Apr-14	Apr-19	
30	West Bengal	Teesta	NHPC	30-Apr-14	Apr-14	Apr-19	
31	West Bengal	Dalkhola	WBSEB	30-May-14	May-14	May-19	
32	Jharkhand	Deogarh	JSEB	15-May-14	May-14	May-19	67
33	Jharkhand	Dhanbad	DVC	15-May-14	May-14	May-19	
34	Jharkhand	Jamtara	JSEB	15-May-14	May-14	May-19	
35	Odisha	Joda	GRIDCO	30-May-14	May-14	May-19	
36	Bihar	Kishanganj	BSEB	30-May-14	May-14	May-19	
37	West Bengal	Parulia	DVC	30-May-14	May-14	May-19	
38	Jharkhand	Patratu	DVC	15-May-14	May-14	May-19	
39	Bihar	Purnea	BSEB	30-May-14	May-14	May-19	
40	Bihar	Purnea	PG	30-May-14	May-14	May-19	
41	West Bengal	Rammam	WBSEB	30-May-14	May-14	May-19	
42	SIKKIM	Rangit	NHPC	30-May-14	May-14	May-19	
43	West Bengal	Santalidih	WBSEB	30-May-14	May-14	May-19	67
44	Jharkhand	Tenughat	JSEB	15-May-14	May-14	May-19	
45	Odisha	Jindal	GRIDCO	30-May-14	May-14	May-19	
46	Jharkhand	Jaipal	JSEB	15-May-14	May-14	May-19	
47	Bihar	Arah	BSEB	15-Jun-14	Jun-14	Jun-19	
48	Bihar	Arah	PG	15-Jun-14	Jun-14	Jun-19	
49	Odisha	Baripada	GRIDCO	30-Jun-14	Jun-14	Jun-19	
50	Odisha	Budhipadar	GRIDCO	15-Jun-14	Jun-14	Jun-19	
51	Bihar	Dumraon	BSEB	15-Jun-14	Jun-14	Jun-19	
52	West Bengal	Malda	PG	30-Jun-14	Jun-14	Jun-19	
53	Odisha	Mendashal	GRIDCO	15-Jun-14	Jun-14	Jun-19	67
54	Odisha	M'mundali	GRIDCO	15-Jun-14	Jun-14	Jun-19	
55	Odisha	Rengali	GRIDCO	15-Jun-14	Jun-14	Jun-19	
56	Odisha	Rengali	PG	15-Jun-14	Jun-14	Jun-19	
57	Odisha	Rourkela	GRIDCO	15-Jun-14	Jun-14	Jun-19	
58	Odisha	Rourkela	PG	15-Jun-14	Jun-14	Jun-19	
59	Odisha	Sterlite	IPPR	15-Jun-14	Jun-14	Jun-19	
60	Odisha	Tarkera	GRIDCO	15-Jun-14	Jun-14	Jun-19	
61	Bihar	Biharshariff	BSEB	15-Jul-14	Jul-14	Jul-19	
62	Bihar	Dehri	BSEB	15-Jul-14	Jul-14	Jul-19	
63	Jharkhand	Goelkera	JSEB	30-Jul-14	Jul-14	Jul-19	
64	Bihar	Kahalgaon	BSEB	30-Jul-14	Jul-14	Jul-19	67
65	Bihar	Mohania	BSEB	15-Jul-14	Jul-14	Jul-19	

66	Bihar	Rajgir	BSEB	15-Jul-14	Jul-14	Jul-19	34
67	Bihar	Sabour	BSEB	15-Jul-14	Jul-14	Jul-19	
68	Bihar	Sonengar	BSEB	15-Jul-14	Jul-14	Jul-19	
69	Bihar	Sultanganj	BSEB	15-Jul-14	Jul-14	Jul-19	
70	Jharkhand	Kendoposi	JSEB	30-Jul-14	Jul-14	Jul-19	
71	Bihar	Khagaul	BSEB	15-Jul-14	Jul-14	Jul-19	
72	Bihar	Kanti	BSEB	15-Jul-14	Jul-14	Jul-19	
73	Odisha	Bolangir	PG	30-Aug-14	Aug-14	Aug-19	23
74	Odisha	Indravati P/H	GRIDCO	15-Aug-14	Aug-14	Aug-19	
75	Odisha	Indravati	PG	15-Aug-14	Aug-14	Aug-19	
76	Odisha	Jeypore	GRIDCO	15-Aug-14	Aug-14	Aug-19	
77	Odisha	Jeypore	PG	15-Aug-14	Aug-14	Aug-19	
78	Odisha	Keonjhar	PG	30-Aug-14	Aug-14	Aug-19	
79	Jharkhand	Lalmatia	JSEB	15-Aug-14	Aug-14	Aug-19	
80	Odisha	Rairangpur	GRIDCO	15-Aug-14	Aug-14	Aug-19	
81	Odisha	Talcher	NTPC	15-Sep-14	Sep-14	Sep-19	12
82	West Bengal	Durgapur	PG	30-Nov-14	Nov-14	Nov-19	199
83	Odisha	Balasore	GRIDCO	30-Dec-14	Dec-14	Dec-19	
84	Bihar	Barh	NTPC	30-Dec-14	Dec-14	Dec-19	
85	Bihar	Biharshariff	PG	15-Dec-14	Dec-14	Dec-19	
86	West Bengal	Farakka	NTPC	31-Dec-14	Dec-14	Dec-19	
87	Sikkim	Gangtok	PG	30-Dec-14	Dec-14	Dec-19	
88	Bihar	Gaya	PG	30-Dec-14	Dec-14	Dec-19	
89	Bihar	Kahalgaoon	NTPC	30-Dec-14	Dec-14	Dec-19	16
90	Bihar	Karmanasha	BSEB	15-Dec-14	Dec-14	Dec-19	
91	Bihar	Mzaffarpur	PG	30-Dec-14	Dec-14	Dec-19	
92	Bihar	Patna	PG	30-Dec-14	Dec-14	Dec-19	
93	Jharkhand	Patratu	JSEB	15-Dec-14	Dec-14	Dec-19	
94	Jharkhand	Ranchi	PG	30-Dec-14	Dec-14	Dec-19	
95	Bihar	Pusauli	PG	21-Jan-15	Jan-15	Jan-20	
96	West Bengal	Berhampore	PG	30-May-15	May-15	May-20	16
97	West Bengal	Dalkhola	PG	30-May-15	May-15	May-20	
98	Bihar	Fatua	BSEB	30-May-15	May-15	May-20	
99	Bihar	Hajipur	BSEB	30-May-15	May-15	May-20	
100	Bihar	Jagdishpur	BSEB	30-May-15	May-15	May-20	
101	Bihar	Sipara	BSEB	30-May-15	May-15	May-20	
102	Odisha	Adhunik	IPPR	30-Jun-15	Jun-15	Jun-20	
103	Odisha	Angul	PG	30-Jun-15	Jun-15	Jun-20	
104	Bihar	Banka	BSEB	30-Jun-15	Jun-15	Jun-20	
105	Bihar	Bodhgaya	BSEB	30-Jun-15	Jun-15	Jun-20	
106	Sikkim	Chuzachen	IPPR	30-Jun-15	Jun-15	Jun-20	
107	Odisha	GMR	GRIDCO	30-Jun-15	Jun-15	Jun-20	
108	Odisha	Jindal	IPPR	30-Jun-15	Jun-15	Jun-20	
109	West Bengal	Kharagpur	WBSEB	30-Jun-15	Jun-15	Jun-20	
110	Jharkhand	Koderma	DVC	30-Jun-15	Jun-15	Jun-20	
111	West Bengal	Kurseong	WBSEB	30-Jun-15	Jun-15	Jun-20	
112	Bihar	Madhepura	BSEB	30-Jun-15	Jun-15	Jun-20	
113	Sikkim	Ravangla	SIKKIM	30-Jun-15	Jun-15	Jun-20	
114	Odisha	RTPS	DVC	30-Jun-15	Jun-15	Jun-20	
115	Odisha	Sundergarh	PG	30-Jun-15	Jun-15	Jun-20	
116	Jharkhand	TISCO	DVC	30-Jun-15	Jun-15	Jun-20	

656

Annexure-XIV

List of Substation Connected with PGCIL Intranet connection				Date : 18-Feb-2020
SI No.	Substation name	Utility	Date	
1	Subhashgram	Powergrid	15-Jun-2017	
2	Binaguri	Powergrid	20-Jul-2017	
3	Malda	Powergrid	06-Jun-2018	
4	Kishanganj	Powergrid	15-Jul-2018	
5	Siliguri	Powergrid	12-Sep-2018	
6	Gangtok	Powergrid	15-Sep-2018	
7	Rourkela	Powergrid	03 – Oct – 2018	
8	Gaya	Powergrid	25 – Dec - 2018	
9	Biharshariff	Powergrid	27 – Dec – 2018	
10	Arah	Powergrid	29 – Oct – 2018	
11	Jamshedpur	Powergrid	02 – Nov – 2018	
12	Rangpo	Powergrid	01 – Nov – 2018	
13	Rangpo	Powergrid	05 – Dec – 2018	
14	Durgapur	Powergrid	07 – Dec – 2018	
15	Jeyapore	Powergrid	10 – Dec – 2018	
16	Maithon(MTN)	Powergrid	11 – Dec – 2018	
17	Pusaul	Powergrid	19 – Dec – 2018	
18	Muzaffarpur	Powergrid	20 – Dec – 2018	
19	Barh	NTPC	21 – Dec – 2018	
20	Kahalgaon	NTPC	21 – Dec – 2018	
21	Purnea	Powergrid	24 – Dec – 2018	
22	Banka	Powergrid	27 – Dec – 2018	
23	Teesta	NHPC	01 – Jan – 2019	
24	Rangit	NHPC	02 – Jan – 2019	
25	Baripada	Powergrid	15 – Nov – 2018	
26	Ranchi	Powergrid	10 – Jan – 2019	
27	Talcher	NTPC	16 – Jan – 2019	
28	Farakka	NTPC	22 – Jan – 2019	
29	Chaibasa	Powergrid	28 – Jan – 2019	
30	Dalkhola	Powergrid	28 – Jan – 2019	
31	Birpara	Powergrid	29 – Jan – 2019	
32	Rajarhat	Powergrid	18 – Apr – 2019	
33	Kanti	NTPC	28 – May – 2019	
34	Patna	Powergrid	20-Sep-19	
35	Behrampore	Powergrid	18-Nov-19	
36	Pandiabil	Powergrid	30-Jan-20	

Annexure-XIV(i)

Distance between SDH & AMR at diffrent GSS of BSPTCL is as below: -

S.No.	GSS Name	Fiber Connectivity	Distance between SDH and AMR (mts)
1	Ara	Yes	10
2	Banka	Yes	12
3	Biharsharif	Yes	46
4	Bodhgaya	Yes	65
5	Dehri	Yes	65
6	Dumraon	No	25
7	Fathua	Yes	25
8	Hajipur	Yes	10
9	Jagdishpur	No	NA
10	Jamui	No	NA
11	Kahalgaon	No	100
12	Kanti	Yes	120
13	Karamnasa	No	NA
14	Khagaul	Yes	100
15	Kishanganj	Yes	50
16	Kudra	No	NA
17	Lakhisarai	Yes	55
18	Madhepura	Yes	15
19	Sipara	Yes	50
20	Sonenagar	Yes	30
21	Sonenagar New	Yes	10
22	Sultanganj	Yes	110
23	Sabour	Yes	100
24	Mohania	No	NA
25	Nalanda	Yes	30

Annexure-XIV(ii)

Annexure-II							
Sr	Item	Unit	Rate as per Web	DOR Price (F&I, Transport & Tax incusive)	Qty	Amount	Remarks
1	Media converter	Nos	3,539	5,000	16	80,000	2 for each station with L > 50 m
2	OFC Cable- single mode, armoured	Mtr	35	50	735	36,750	
3	Duct	Mtr	127	150	735	1,10,250	Optional item
4	LAN Cable with RJ 45 Connector	Mtr	26	30	613	18,390	LAN Cable for L<50 M and 10 Mtr per Media Converter
5	Erection Cost	L S per station	5,000	10,000	20	2,00,000	No. of stations
						4,45,390	

Annexure-XV

List of Meter to be Removed			
Sl No.	STATION	BAY	Meter No.
1	STERLITE	STERLITE GT-1	NP-6540-A
2	STERLITE	STERLITE GT-2	NP-6528-A
3	STERLITE	STERLITE GT-3	NP-6555-A
4	STERLITE	STERLITE GT-4	NP-6556-A
5	STERLITE	STERLITE ST-1	NP-6543-A
6	STERLITE	STERLITE ST-2	NP-6527-A
7	MEJIA (DVC)	400 KV SIDE OF MEJIA GT-1	NP-6534-A
8	MEJIA (DVC)	400 KV SIDE OF MEJIA GT-2	NP-6532-A
9	MEJIA (DVC)	400 KV SIDE OF MEJIA STN TRANSF-1	NP-7943-A
10	MEJIA (DVC)	400 KV SIDE OF MEJIA STN TRANSF-2	NP-6533-A
11	MEJIA (DVC)	400 KV MAITHON(DVC) (CHECK)	NP-6776-A
12	DSTPP (ANDAL)	400 KV SIDE OF GT-I (MAIN)	NP-6554-A
13	DSTPP (ANDAL)	400 KV SIDE OF GT-I (CHECK)	NP-6497-A
14	DSTPP (ANDAL)	400 KV SIDE OF STN TRF-I (MAIN)	NP-6496-A
15	DSTPP (ANDAL)	400 KV SIDE OF STN TRF-I (CHECK)	NP-6498-A
16	JEERAT (WBSETCL)	400 KV SAGARDIGHI(WB)	ER-1477-A
17	KOLAGHAT (WBSETCL)	400 KV KHARAGPUR (WBSETCL)	NP-6487-A
18	SAGARDIGHI(WBSETCL)	400 KV JEERAT(WB)(MAIN)	ER-1134-A
19	SAGARDIGHI(WBSETCL)	400 KV JEERAT(WB)(CHECK)	ER-1520-A
20	IBEUL	400 KV SIDE STN TRF-1	NP-8783-A
21	IBEUL	400 KV SIDE STN TRF-2	NP-8782-A
22	IBEUL	400 KV SIDE GEN TRF-1	NP-8784-A
23	IBEUL	400 KV SIDE GEN TRF-2	NP-8796-A
24	CHAIBASA(JUVNL)	220 KV CHAIBASA(JUVNL)-JODA(GRIDCO)	NP-8867-A
25	MELLI (SIKKIM)	132 KV SAGBARI(SIKKIM)	NP-5997-A
26	SAGBARI(SIKKIM)	132 KV MELLI(SIKKIM)	NP-8797-A
27	SAGBARI(SIKKIM)	132 KV GYALSHING(SIKKIM)	NP-8798-A
28	GYALSHING(SIKKIM)	132 KV SAGBARI(SIKKIM)	NP-8730-A
29	KOLAGHAT(DVC)	132KV KOLAGHAT (WBSETCL)	NP-6558-B
30	NABINAGAR(BRBCL)	6.6 KV INCOMING FEEDER AT SC BUS	ER-1418-A
31	NABINAGAR(BRBCL)	6.6 KV INCOMING FEEDER AT SD BUS	ER-1414-A
32	DSTPS(DVC)	400 KV JAMSHEDPUR (PG)-II (CHECK)	NP-6523-A
33	DSTPS(DVC)	400 KV JAMSHEDPUR-I (CHECK)	NP-6525-A
34	MEJIA (DVC)	400KV JAMSHEDPUR (PG) (CHECK)	NP-7493-A
35	MEJIA (DVC)	400 KV MEJIA(DVC)-MAITHON(PG)-1(CHECK)	NP-7494-A
36	MEJIA (DVC)	400 KV MEJIA(DVC)-MAITHON(PG)-2(CHECK)	NP-7495-A
37	RTPS(DVC)	400 KV MAITHON(PG)- II (CHECK)	NP-7531-A
38	RTPS(DVC)	400 KV RANCHI(PG)- II (CHECK)	NP-7562-A
39	KODERMA (DVC)	400 KV GAYA(PG)-I (CHECK)	NP-7892-A
40	KODERMA (DVC)	400 KV GAYA(PG)-II (CHECK)	NP-7893-A
41	RTPS(DVC)	400 KV RANCHI(PG)-2(CHECK)	ER-1260-A
42	RTPS(DVC)	400 KV RANCHI(PG)-3(CHECK)	ER-1269-A
43	SAGARDIGHI(WBSETCL)	400 KV DURGAPUR (PG) -1 (CHECK)	NP-6547-A
44	SAGARDIGHI(WBSETCL)	400 KV DURGAPUR(PG)-1(CHECK)	NP-7990-A
45	SAGARDIGHI(WBSETCL)	400 KV SUBHASGRAM(PG) (CHECK)	LT-0312-A
46	SAGARDIGHI(WBSETCL)	400 KV FARAKKA(NTPC)-1 (CHECK)	LT-0191-A
47	SAGARDIGHI(WBSETCL)	400 KV BERHAMPURE(PG)-1(CHECK)	NP-8725-A
48	SAGARDIGHI(WBSETCL)	400 KV BERHAMPURE(PG)-2(CHECK)	NP-8722-A
49	SAGARDIGHI(WBSETCL)	400 KV FARAKKA(NTPC)-2(CHECK)	ER-1132-A

Annexure-XVI

List of Meter for Testing & calibration in Eastern Region					
S. NO.	Make	ERLDC ID	STATION	BAY	Meter No.
1	L&T	BI-09	KAHALGAON(BSPHCL)	132 KV LALMATIA(JUVNL)	NP-6071-A
2	L&T	BI-10	KAHALGAON(BSPHCL)	132KV KAHALGAON (NTPC)	NP-6076-A
3	L&T	RG-08	RANGIT(NHPC)	66KV/11 KV TRANSFORMER	NP-5918-A
4	L&T	RG-01	RANGIT(NHPC)	RANGIT GT-1	NP-5919-A
5	L&T	RG-02	RANGIT(NHPC)	RANGIT GT-2	NP-5920-A
6	L&T	RG-03	RANGIT(NHPC)	RANGIT GT-3	NP-5921-A
7	L&T	RG-10	RANGIT(NHPC)	132KV SAGBARI (SIKKIM) (MAIN)	NP-5925-A
8	L&T	RG-07	RANGIT(NHPC)	66KV RAVANGLA (SIKKIM) (MAIN)	NP-5926-A
9	L&T	DV-06	DSTPS(DVC)	400 KV JAMSHEDPUR (PG)-II (MAIN)	NP-6522-A
10	L&T	DV-07	DSTPS(DVC)	400 KV JAMSHEDPUR (PG)-II (CHECK)	NP-6523-A
11	L&T	DV-10	DSTPS(DVC)	400 KV JAMSHEDPUR-I (MAIN)	NP-6524-A
12	L&T	DV-11	DSTPS(DVC)	400 KV JAMSHEDPUR-I (CHECK)	NP-6525-A
13	L&T	FK-31	FARAKKA(NTPC)	FARAKKA ST-5	NP-5215-A
14	L&T	FK-30	FARAKKA(NTPC)	FARAKKA GT-6	NP-5216-A
15	L&T	FK-09	FARAKKA(NTPC)	400KV KAHALGAON (NTPC) -2	NP-5200-A
16	L&T	FK-26	FARAKKA(NTPC)	400KV KAHALGAON (NTPC) -2	NP-5201-A
17	L&T	FK-08	FARAKKA(NTPC)	400KV KAHALGAON (NTPC) -1	NP-5202-A
18	L&T	FK-25	FARAKKA(NTPC)	400KV KAHALGAON (NTPC) -1	NP-5203-A
19	L&T	FK-12	FARAKKA(NTPC)	400KV MALDA (PG) -1	NP-5204-A
20	L&T	FK-11	FARAKKA(NTPC)	400KV DURGAPUR (PG) -2	NP-5208-A
21	L&T	FK-24	FARAKKA(NTPC)	400KV DURGAPUR (PG) -2	NP-5209-A
22	L&T	FK-14	FARAKKA(NTPC)	220KV LALMATIA (JUVNL)	NP-5211-A
23	L&T	FK-16	FARAKKA(NTPC)	400KV SAGARDIGHI(WB)-1 (MAIN)	NP-5213-A
24	L&T	FK-22	FARAKKA(NTPC)	400KV SAGARDIGHI (WB)-1 (CHECK)	NP-5214-A
25	L&T	FK-21	FARAKKA(NTPC)	400KV SAGARDIGHI (WB)-2 (CHECK)	NP-5220-A
26	L&T	FK-15	FARAKKA(NTPC)	400KV SAGARDIGHI (WB)-2 (MAIN)	NP-5221-A
27	L&T	FK-23	FARAKKA(NTPC)	400KV DURGAPUR (PG) -1	NP-5222-A
28	L&T	FK-13	FARAKKA(NTPC)	400KV MALDA (PG) -2	NP-5223-A
29	L&T	FK-29	FARAKKA(NTPC)	400KV MALDA (PG) -2	NP-5224-A
30	L&T	FK-10	FARAKKA(NTPC)	400KV DURGAPUR (PG) -1	NP-5228-A
31	L&T	FK-28	FARAKKA(NTPC)	400KV MALDA (PG) -1	NP-5229-A
32	L&T	DV-26	MEJIA (DVC)	400 KV MEJIA(DVC)-MAITHON(PG)-1(CHECK)	NP-7494-A
33	L&T	DV-27	MEJIA (DVC)	400 KV MEJIA(DVC)-MAITHON(PG)-2(CHECK)	NP-7495-A
34	L&T	WB-14	SAGARDIGHI(WBSETCL)	400 KV DURGAPUR (PG) -1 (MAIN)	NP-6546-A
35	L&T	WB-15	SAGARDIGHI(WBSETCL)	400 KV DURGAPUR (PG) -1 (CHECK)	NP-6547-A
36	L&T	DV-35	TISCO(DVC)	400 KV JAMSHEDPUR(PG)	NP-7406-A
37	L&T	DV-34	TISCO(DVC)	400 KV BARIPADA(PG)	NP-7408-A
38	L&T	DV-20	KODERMA (DVC)	400 KV - BIHARSHARIFF (PG)-1(MAIN)	NP-7831-A
39	L&T	GM-10	GMR (GRIDCO)	400 KV M'MUNDLI(GRIDCO)(MAIN)	NP-7483-A
40	L&T	EM-93	ROURKELA(PG)	400 KV SUNDERGARH(PG)-4	NP-6545-A
41	L&T	MR-03	MAITHON RB (MPL)	400 KV MAITHON (PG)-1 (CHECK)	NP-6549-A
42	L&T	MR-04	MAITHON RB (MPL)	400 KV MAITHON (PG)-2 (CHECK)	NP-6550-A
43	L&T	MR-07	MAITHON RB (MPL)	400 KV SIDE OF MAITHON RB STN TRF-1	NP-6552-A
44	L&T	BI-22	KHAGAIL(BSPHCL)	220 KV PATNA (PG)	NP-5833-A
45	L&T	BI-14	KHAGAIL(BSPHCL)	220KV ARAH (PG)-2	NP-6060-A
46	L&T	BH-06	BARH(NTPC)	400 KV PATNA-1(MAIN)	NP-6080-A
47	L&T	BH-04	BARH(NTPC)	400 KV KAHALGAON-1(MAIN)	NP-6111-A
48	L&T	BH-12	BARH(NTPC)	400 KV SIDE OF ICT -I	NP-6531-A
49	L&T	KH-39	KAHALGAON(NTPC)	400KV FARAKKA (NTPC) -3	NP-7826-A
50	L&T	ER-45	BINAGURI(PG)	220KV JALPAIGURI(WBSETCL)-2	NP-5881-A
51	L&T	TS-07	TEESTA(NHPC)	400KV RANGPO-1 (CHECK)	NP-5895-A
52	L&T	TS-08	TEESTA(NHPC)	400KV RANGPO-2 (CHECK)	NP-5897-A
53	L&T	TS-06	TEESTA(NHPC)	400KV RANGPO-2 (MAIN)	NP-5898-A
54	L&T	TS-01	TEESTA(NHPC)	TEESTA GT-1	NP-5899-A
55	L&T	TS-02	TEESTA(NHPC)	TEESTA GT-2	NP-5900-A
56	L&T	TS-03	TEESTA(NHPC)	TEESTA GT-3	NP-5901-A
57	L&T	EM-82	RANCHI(PG)	400KV ROURKELLA (PG)-1	NP-5876-A
58	L&T	EM-83	RANCHI(PG)	400KV ROURKELLA (PG)-2	NP-6530-A
59	L&T	FK-32	FARAKKA(NTPC)	400KV KAHALGAON (NTPC) -3 (MAIN)	NP-5207-A
60	L&T	FK-35	FARAKKA(NTPC)	400KV KAHALGAON (NTPC) -4 (CHECK)	NP-5217-A
61	L&T	FK-33	FARAKKA(NTPC)	400KV KAHALGAON (NTPC) -3 (CHECK)	NP-5218-A
62	L&T	FK-34	FARAKKA(NTPC)	400KV KAHALGAON (NTPC) -4 (MAIN)	NP-5219-A
63	L&T	MR-12	MAITHON RB (MPL)	400 KV RANCHI (PG)-2 (CHECK)	NP-5252-A
64	L&T	DV-17	MEJIA (DVC)	400KV JAMSHEDPUR (PG) (CHECK)	NP-7493-A
65	L&T	SM-01	RAVANGLA (SIKKIM)	66 KV RANGIT (NHPC)	NP-6481-A
66	L&T	ER-14	PUSAULI(PG)	220KV NADHOKHAR(BSPHCL) -2	NP-6511-A
67	L&T	ER-13	PUSAULI(PG)	220KV NADHOKHAR(BSPHCL) -1	NP-6512-A
68	L&T	ER-97	PUSAULI(PG)	400/220KV ICT-1	NP-6513-A
69	L&T	ER-94	PUSAULI(PG)	400/220KV ICT-2	NP-6516-A
70	L&T	ER-82	PUSAULI(PG)	400KV SASARAM (PG) EAST BUS-1	NP-6514-A
71	L&T	ER-83	PUSAULI(PG)	400KV SASARAM (PG) EAST BUS-2	NP-6515-A
72	L&T	BI-12	DUMRAON(BSPHCL)	132KV ARAH (PG)	NP-6067-A
73	L&T	BI-17	DEHRI (BSPHCL)	220 KV GAYA (PG) -1	NP-7449-A
74	L&T	TL-18	TALCHER(NTPC)	400KV MIRAMUNDALI(GRIDCO) (MAIN)	NP-5970-A
75	L&T	ER-79	PUSAULI(PG)	132KV MOHANIA(BSPHCL)	NP-6094-A

76	L&T	ER-78	PUSAULI(PG)	132KV KUDRA(BSPHCL)	NP-6095-A
77	L&T	WB-59	KALIMPONG (WBSETCL)	66 KV MELLI (SIKKIM)	NP-5994-A
78	L&T	SM-51	MELLI (SIKKIM)	66 KV KALIMPONG (WBSETCL)	NP-5849-A
79	L&T	EP-08	PUSAULI(PG)	400 KV ALLAHABAD (NR)	NP-6091-A
80	L&T	JS-06	HATIA(JUVNL)	220 KV RANCHI (PG)-2	NP-6121-A
81	L&T	JS-07	HATIA(JUVNL)	220 KV RANCHI (PG)-1	NP-6122-A
82	L&T	JS-51	RAMCHANDRAPUR(JUVNL)	220KV JODA (GRIDCO)	NP-6102-A
83	L&T	JS-01	RAMCHANDRAPUR(JUVNL)	220KV JAMSHEDPUR(PG)-1	NP-6103-A
84	L&T	WB-06	MALDA (WBSETCL)	132 KV MALDA (PG) -2	NP-6472-A
85	L&T	WB-05	MALDA (WBSETCL)	132KV MALDA (PG) -1	NP-6480-A
86	L&T	BI-62	DEHRI (BSPHCL)	220KV PUSAULI (PG)	NP-6097-A
87	L&T	BI-66	SONENAGAR (BSPHCL)	132KV NPGC(BSPHCL)	NP-6013-B
88	L&T	BI-60	SONNAGAR(BSPHCL)	132KV JAPLA (JUVNL)	NP-6015-B
89	L&T	JS-55	PATRATU (JUVNL)	132KV PATRATU (DVC) TRANSFER BUS	NP-6003-B
90	L&T	JS-54	PATRATU (JUVNL)	132KV PATRATU (DVC) -1	NP-6004-B
91	L&T	JS-40	PATRATU (JUVNL)	132KV PATRATU (DVC) -2	NP-6005-B
92	L&T	BI-63	KARAMNAGA(BSPHCL)	132KV CHANDAULI (UPSEB)	NP-6017-B
93	L&T	BI-64	KARAMNAGA(BSPHCL)	132KV SAHUPURI(UPSEB)	NP-6018-B
94	L&T	BI-49	MOHANIA (BSPHCL)	132KV PUSAULI (PG)	NP-6099-A
95	L&T	DV-53	PATRATU (DVC)	132KV PATRATU(JUVNL)-1&2(SUM)	NP-6006-B
96	L&T	DV-18	DHANBAD (DVC)	220 KV MAITHON (PG)-2	NP-6541-A
97	L&T	DV-19	DHANBAD (DVC)	220 KV MAITHON (PG)-1	NP-6542-A
98	L&T	OR-09	MIRAMUNDALI(GRIDCO)	220KV TSTPP (NTPC) -1	NP-5981-A
99	L&T	OR-10	MIRAMUNDALI(GRIDCO)	220KV TSTPP (NTPC) -2	NP-5982-A
100	L&T	ER-62	PURNEA(PG)	132KV PURNEA (BSPHCL) -1	NP-6081-A
101	L&T	ER-63	PURNEA(PG)	132KV PURNEA (BSPHCL) -2	NP-6082-A
102	L&T	ER-48	PURNEA(PG)	132KV PURNEA (BSPHCL) -3	NP-6083-A
103	L&T	ER-49	PURNEA(PG)	132KV KISHANGANJ (BSPHCL)	NP-6084-A
104	L&T	EM-50	PURNEA(PG)	400/220 KV ICT-2	NP-6086-A
105	L&T	ER-04	PURNEA(PG)	400 KV SIDE 500 MVA ICT-1	NP-6087-A
106	L&T	RG-04	RANGIT(NHPC)	132KV KURSEONG(WBSETCL) (MAIN)	NP-6503-A
107	L&T	RG-06	RANGIT(NHPC)	132KV RAMMAM (WBSETCL) (MAIN)	NP-6504-A
108	L&T	RG-11	RANGIT(NHPC)	132KV RANGPO (PG) (MAIN)	NP-6506-A
109	L&T	OR-04	RENGALI (GRIDCO)	220KV RENGALI (PG) -2	NP-5985-A
110	L&T	OR-11	RENGALI (GRIDCO)	220KV TSTPP (NTPC)	NP-5986-A
111	L&T	WB-51	BIDHANNAGAR (WBSETCL)	220 KV WARIA (DVC)-1	NP-6484-A
112	L&T	WB-07	BIDHANNAGAR (WBSETCL)	220 KV PARULIA (PG)	NP-6486-A
113	L&T	BI-03	PURNEA (BSPHCL)	132KV PURNEA (PG) -1	NP-6088-A
114	L&T	BI-04	PURNEA (BSPHCL)	132KV PURNEA (PG) -2	NP-6089-A
115	L&T	BI-51	PURNEA (BSPHCL)	132KV PURNEA (PG)-3	NP-6090-A
116	L&T	WB-57	KURSEONG(WBSETCL)	132 KV RANGIT(NHPC)	NP-7541-A
117	L&T	WB-58	KURSEONG(WBSETCL)	132 KV SILIGURI(PG)	NP-7542-A
118	L&T	DV-04	MEJIA(DVC)	400KV MAITHON (PG) (MAIN)	NP-6557-A
119	L&T	BI-21	BAISI (BSPHCL)	132 KV DALKHOLA (WBSETCL)	NP-6085-A
120	L&T	BI-20	KISHANGANJ (BSPHCL)	132 KV PURNEA (PG)	NP-5236-A
121	L&T	TL-24	TALCHER(NTPC)	400KV RENGALI (PG) -2	NP-5972-A
122	L&T	OR-61	BARIPADA(GRIDCO)	132KV BARIPADA(PG)	NP-5908-A
123	L&T	OR-62	BANGRIPOSI(GRIDCO)	132KV BARIPADA(PG)	NP-5907-A
124	L&T	EM-59	BARIPADA(PG)	220KV SIDE OF BARIPADA 220/132 KV ICT	NP-5911-A
125	L&T	DV-55	MANIQUE (DVC)	132KV CHANDIL (JUVNL)	NP-6011-B
126	L&T	OR-63	BALASORE(GRIDCO)	220KV BARIPADA(PG)-2	NP-5904-A
127	L&T	OR-60	BALASORE(GRIDCO)	220KV BARIPADA(PG)-1	NP-5906-A
128	L&T	BI-19	JAGDISHPUR(BSPHCL)	132 KV ARAH(PG)-2	NP-7689-A
129	L&T	ER-08	DURGAPUR(PG)	400KV BIDHANAGAR(WB)-2	NP-6459-A
130	L&T	ER-07	DURGAPUR(PG)	400 KV JAMSHEDPUR(PG)	NP-6461-A
131	L&T	OR-54	JINDAL (GRIDCO)	220KV JAMSHEDPUR (DVC)	NP-6502-A
132	L&T	DV-51	BARHI (DVC)	132KV RAJGIR/BSF (BSPHCL)	NP-6007-B
133	L&T	JS-62	TENUGHAT (JUVNL)	220KV BIHARSARIFF (BSPHCL)	NP-6115-A
134	L&T	JS-57	CHANDIL (JUVNL)	220KV SANTALDIH (WBSETCL)	NP-7436-A
135	L&T	JS-05	CHANDIL (JUVNL)	220 KV RANCHI (PG)-1	NP-7434-A
136	L&T	ER-05	DURGAPUR(PG)	220KV PARULIA (DVC) -1	NP-6456-A
137	L&T	EM-08	BINAGURI(PG)	400KV TALA (THP)-2	NP-5087-A
138	L&T	EM-14	BINAGURI(PG)	400KV KISHANGANJ(PG)-2	NP-5093-A
139	L&T	JS-52	KENDOPOSI (JUVNL)	132KV JODA (GRIDCO)	NP-6117-A
140	L&T	OR-53	JODA (GRIDCO)	220KV RAMCHANDRAPUR (JUVNL)	NP-5937-A
141	L&T	OR-52	JODA (GRIDCO)	132KV KENDPOSI (JUVNL)	NP-5939-A
142	L&T	EM-74	SUBHASGRAM(PG)	400KV SAGARDIGHI(WBSETCL)	NP-5846-A
143	L&T	WB-20	BIDHANNAGAR (WBSETCL)	400 KV DURGAPUR (PG) -2	NP-6499-A
144	L&T	JS-58	GARWA(JUVNL)	132KV RIHAND (UPSEB)	NP-6113-A
145	L&T	JS-53	GOELKERA (JUVNL)	132KV ROURKELA (GRIDCO)	NP-6009-B
146	L&T	JS-64	JAPLA (JUVNL)	132KV SONENAGAR (BSPHCL)	NP-6112-A
147	L&T	ER-06	DURGAPUR(PG)	220KV PARULIA (DVC) -2	NP-6458-A
148	L&T	EM-91	DURGAPUR(PG)	400 KV SAGARDIGHI (WBSETCL)-1	NP-6548-A
149	L&T	BH-13	BARH(NTPC)	400 KV SIDE OF ICT -II	NP-7481-A
150	L&T	OR-56	BUDHIPADAR (GRIDCO)	220KV RAIGARH (MPEB)	NP-5940-A
151	L&T	OR-57	BUDHIPADAR (GRIDCO)	220KV KORBA (MPEB) -2	NP-5941-A
152	L&T	OR-59	BUDHIPADAR (GRIDCO)	220KV KORBA (MPEB) -3	NP-5944-A
153	L&T	OR-01	TARKERA (GRIDCO)	220KV ROURKELA (PG) -1	NP-5934-A
154	L&T	OR-02	TARKERA (GRIDCO)	220KV ROURKELA (PG) -2	NP-5935-A
155	L&T	ER-54	SILIGURI(PG)	132KV KURSEONG(WBSETCL)	NP-5947-A

156	L&T	ER-50	SILIGURI(PG)	220KV KISHANGANJ (PG) -1	NP-5949-A
157	L&T	DV-60	WARIA (DVC)	220KV BIDHANNAGAR (WBSETCL)-1	NP-6564-B
158	L&T	JS-63	LALMATIA (JUVNL)	132KV KAHALGAON (BSPHCL)	NP-6107-A
159	L&T	JS-03	LALMATIA (JUVNL)	132KV KAHALGAON (NTPC)	NP-6108-A
160	L&T	JS-04	LALMATIA (JUVNL)	220KV FARAKKA (NTPC)	NP-6109-A
161	L&T	ER-30	RENGALI(PG)	220KV RENGALI (GRIDCO) -1	NP-5989-A
162	L&T	ER-31	RENGALI(PG)	220KV RENGALI (GRIDCO) -2	NP-5990-A
163	L&T	DV-01	PARULIA (DVC)	220KV PARULIA (PG) -1&2(SUM)	NP-6563-B
164	L&T	ER-53	SILIGURI(PG)	132KV NJP(WBSETCL)	NP-5946-A
165	L&T	ER-76	SILIGURI(PG)	220/132 KV ICT -1	NP-5951-A
166	L&T	WB-11	RAMMAM (WBSETCL)	132 KV RANGIT (NHPC)	NP-5917-A
167	L&T	JS-65	DEOGARH (JUVNL)	132KV SULTANGANJ (BSPHCL)	NP-6048-B
168	L&T	ER-29	RENGALI(PG)	400KV INDRAVATI (PG)	NP-5987-A
169	L&T	WB-04	NBU(WBSETCL)	132KV SILIGURI(PG)	NP-5953-A
170	L&T	WB-03	NJP(WBSETCL)	132KV SILIGURI(PG)	NP-5952-A
171	L&T	JS-66	JAMTARA (JUVNL)	132KV MAITHON (DVC)	NP-6110-A
172	L&T	OR-05	JEYNAGAR (GRIDCO)	220KV JEYPORE (PG) -1	NP-5963-A
173	L&T	OR-06	JEYNAGAR (GRIDCO)	220KV JEYPORE (PG) -2	NP-5964-A
174	L&T	ER-39	BIRPARA(PG)	220KV CHUKHA (CHPC) -1	NP-6465-A
175	L&T	EM-94	RANCHI(PG)	400 KV MAITHON RB -I	NP-7839-A
176	L&T	ER-96	ARAH(PG)	220/132 KV ICT-2	NP-6059-A
177	L&T	OR-21	MENDHASAL (GRIDCO)	400 KV PANDIABILI (PG)-1	NP-5980-A
178	L&T	EM-21	BIHARSHARIFF(PG)	400KV BALIA (NR)-1	NP-6061-A
179	L&T	ER-90	BIHARSHARIFF(PG)	400KV SASARAM (NR) -2	NP-6062-A
180	L&T	ER-01	BIHARSHARIFF(PG)	400/220 KV ICT-1	NP-6063-A
181	L&T	EP-74	BIHARSHARIFF(PG)	400 KV KAHALGAON(NTPC) LINE-1	NP-6064-A
182	L&T	EM-22	BIHARSHARIFF(PG)	400KV BALIA (NR)-2	NP-6065-A
183	L&T	ER-03	BIHARSHARIFF(PG)	400/220 KV ICT-3	NP-6068-A
184	L&T	ER-02	BIHARSHARIFF(PG)	400/220 KV ICT-2	NP-6069-A
185	L&T	DV-05	MEJIA(DVC)	400KV JAMSHEDPUR (PG) (MAIN)	NP-6508-A
186	L&T	OR-13	INDRAVATI P/H (GRIDCO)	400KV INDRAVATI (PG)	NP-5967-A
187	L&T	WB-02	BIRPARA (WBSETCL)	132KV BIRPARA(PG)-2	NP-5893-A
188	L&T	ER-18	JAMSHEDPUR(PG)	400/220 KV ICT-2	NP-6105-A
189	L&T	ER-17	JAMSHEDPUR(PG)	400/220 KV ICT-1	NP-6106-A
190	L&T	BI-48	BIHARSHARIFF (BSPHCL)	132KV RAJGIR (BSPHCL)	NP-6070-A
191	L&T	BI-55	RAJGIR(BSPHCL)	132KV BARHI (DVC)	NP-6066-A
192	L&T	BI-11	ARAH(BSPHCL)	132KV ARAH (PG)	NP-6052-A
193	L&T	ER-09	ARAH(PG)	132KV ARAH (BSPHCL)	NP-6051-A
194	L&T	ER-10	ARAH(PG)	132KV DUMRAO (BSPHCL)	NP-6054-A
195	L&T	ER-65	PURNEA(PG)	220KV DALKHOLA (PG) -2	NP-7419-A
196	L&T	ER-64	PURNEA(PG)	220KV DALKHOLA (PG) -1	NP-7420-A
197	L&T	BI-02	BIHARSHARIFF(BSPHCL)	220KV BIHARSHARIF(PG)-2	NP-5840-A
198	L&T	BI-01	BIHARSHARIFF(BSPHCL)	220KV BIHARSHARIF(PG)-1	NP-5841-A
199	L&T	BI-67	BIHARSHARIFF(BSPHCL)	220KV BIHARSHARIF(PG)-3	NP-5843-A
200	L&T	BI-57	BIHARSHARIFF(BSPHCL)	220KV TENUGHAT (JUVNL)	NP-5844-A
201	L&T	EP-42	PATNA(PG)	400 KV BALIA (NR)-3	NP-7684-A
202	L&T	EP-40	PATNA(PG)	400 KV BARH(NTPC)-3	NP-7685-A
203	L&T	BI-18	DEHRI (BSPHCL)	220 KV GAYA (PG) -1	NP-7397-A
204	L&T	EP-17	GAYA(PG)	400 KV SIDE 1500 MVA GAYA ICT-2	NP-7469-A
205	L&T	EM-75	BIRPARA(PG)	132KV BIRPARA(WB)-2	NP-6470-A
206	L&T	EP-32	BOLANGIR(PG)	400 KV ANGUL(PG) LINE	NP-7538-A
207	L&T	ER-86	INDRAVATI(PG)	400KV INDRAVATI P/H	NP-5966-A
208	L&T	ET-10	JEYPORE(PG)	430 V SIDE OF TERTIARY TRF(PG)	NP-5965-A
209	L&T	KG-01	KAHALGAON(NTPC)	KAHALGAON GT-5	NP-5116-A
210	L&T	KH-32	KAHALGAON(NTPC)	400KV BANKA-2(MAIN)	NP-5117-A
211	L&T	KH-33	KAHALGAON(NTPC)	400KV BANKA-1(CHECK)	NP-5235-A
212	L&T	KH-13	KAHALGAON(NTPC)	132KV SABOUR (BSPHCL)	NP-5239-A
213	L&T	KH-23	KAHALGAON(NTPC)	400KV MAITHON (PG) -1	NP-5242-A
214	L&T	KH-14	KAHALGAON(NTPC)	132KV LALMATIA (BSPHCL)	NP-5244-A
215	L&T	KH-31	KAHALGAON(NTPC)	400KV BANKA-1(MAIN)	NP-5245-A
216	L&T	KH-11	KAHALGAON(NTPC)	400KV LAKHISARAI(PG)-1	NP-5246-A
217	L&T	KH-09	KAHALGAON(NTPC)	400KV MAITHON (PG) -1	NP-5247-A
218	L&T	KH-25	KAHALGAON(NTPC)	400KV LAKHISARAI(PG)-1	NP-5248-A
219	L&T	KH-02	KAHALGAON(NTPC)	KAHALGAON GT-2	NP-5250-A
220	L&T	KH-16	KAHALGAON(NTPC)	K'GAON 400/132 ATR-II	NP-5251-A
221	L&T	KH-24	KAHALGAON(NTPC)	400KV MAITHON (PG) -2	NP-5253-A
222	L&T	KH-08	KAHALGAON(NTPC)	400KV FARAKKA (NTPC) -2	NP-5254-A
223	L&T	KH-17	KAHALGAON(NTPC)	COLONY TRANSFORMER-I	NP-5255-A
224	L&T	KH-06	KAHALGAON(NTPC)	KAHALGAON STN TRANS-2	NP-5256-A
225	L&T	KH-10	KAHALGAON(NTPC)	400KV MAITHON (PG) -2	NP-5257-A
226	L&T	KH-07	KAHALGAON(NTPC)	400KV FARAKKA (NTPC) -1	NP-5258-A
227	L&T	KH-21	KAHALGAON(NTPC)	400KV FARAKKA (NTPC) -1	NP-5259-A
228	L&T	KH-22	KAHALGAON(NTPC)	400KV FARAKKA (NTPC) -2	NP-5260-A
229	L&T	KH-19	KAHALGAON(NTPC)	132KV KAHALGAON (BSPHCL)	NP-5261-A
230	L&T	KH-05	KAHALGAON(NTPC)	KAHALGAON STN TRANS-1	NP-5262-A
231	L&T	KH-27	KAHALGAON(NTPC)	400/132 ATR-I	NP-5263-A
232	L&T	KH-37	KAHALGAON(NTPC)	400KV BARH-1 (CHECK)	NP-5264-A
233	L&T	KH-28	KAHALGAON(NTPC)	400/132 ATR-II	NP-5265-A
234	L&T	KH-36	KAHALGAON(NTPC)	400KV BARH-2 (MAIN)	NP-5266-A
235	L&T	KH-18	KAHALGAON(NTPC)	COLONY TRANSFORMER-II	NP-5267-A

236	L&T	KH-38	KAHALGAON(NTPC)	400KV BARH-2 (CHECK)	NP-5268-A
237	L&T	KH-35	KAHALGAON(NTPC)	400KV BARH-1 (MAIN)	NP-5269-A
238	L&T	KH-15	KAHALGAON(NTPC)	K'GAON 400/132 ATR-I	NP-5837-A
239	L&T	KH-03	KAHALGAON(NTPC)	KAHALGAON GT-3	NP-5850-A
240	L&T	KH-01	KAHALGAON(NTPC)	KAHALGAON GT-1	NP-5851-A
241	L&T	KG-02	KAHALGAON(NTPC)	KAHALGAON GT-6	NP-5852-A
242	L&T	KG-06	KAHALGAON(NTPC)	132KV STN TRANS-5	NP-5856-A
243	L&T	KG-03	KAHALGAON(NTPC)	KAHALGAON GT-7	NP-5857-A
244	L&T	KH-04	KAHALGAON(NTPC)	KAHALGAON GT-4	NP-5859-A
245	L&T	KH-34	KAHALGAON(NTPC)	400KV BANKA-2(CHECK)	NP-5861-A
246	L&T	KG-04	KAHALGAON(NTPC)	132KV STN TRANS-3	NP-5862-A
247	L&T	KG-05	KAHALGAON(NTPC)	132KV STN TRANS-4	NP-5863-A
248	L&T	ET-11	KEONJHAR(PG)	33 KV SIDE OF TERTIARY TRF(PG)	NP-7921-A
249	L&T	DV-65	KHARAGPUR (DVC)	132KV KHARAGPUR (WBSETCL)	NP-6559-B
250	L&T	ES-46	KISHANAGNJ(PG)	400 KV SIDE OF 500 MVA ICT-1	NP-7413-A
251	L&T	DV-09	K'NESWARI (DVC)	220KV MAITHON (PG) -4	NP-6493-A
252	L&T	WB-10	KOLAGHAT (WBSETCL)	400 KV KHARAGPUR (WBSETCL)	NP-6487-A
253	L&T	DV-61	KOLAGHAT(DVC)	132KV KOLAGHAT (WBSETCL)	NP-6558-B
254	L&T	ER-15	MAITHON(PG)	400KV DSTPS ANDAL (DVC)	NP-6521-A
255	L&T	DV-16	MEJIA (DVC)	400 KV MAITHON(DVC) (CHECK)	NP-6776-A
256	L&T	EM-23	MUZAFFARPUR(PG)	400KV BIHARSARIFF-1	NP-5071-A
257	L&T	EM-25	MUZAFFARPUR(PG)	400KV GORAKHPUR(NR)-1	NP-5074-A
258	L&T	EM-27	MUZAFFARPUR(PG)	400KV PURNEA-1	NP-5075-A
259	L&T	EM-26	MUZAFFARPUR(PG)	400KV GORAKHPUR(NR)-2	NP-9981-A
260	L&T	EM-30	MUZAFFARPUR(PG)	400/220KV ICT-1	NP-9983-A
261	L&T	BI-56	NALANDA(BSPHCL)	132KV BARHI (DVC)	NP-7690-A
262	L&T	EN-86	NEW MELLI(PG)	220 KV TASHIDING	NP-8740-A
263	L&T	EN-85	NEW MELLI(PG)	220 KV RANGPO(PG)-2	NP-8746-A
264	L&T	ES-39	PANDIABILI(PG)	415 V SIDE OF TERTIRAY AT PANDIABIL	NP-7462-A
265	L&T	EM-71	PATNA(PG)	400KV BARH-2	NP-5838-A
266	L&T	EP-41	PATNA(PG)	400 KV BARH(NTPC)-4	NP-8632-A
267	L&T	DV-62	PURULIA (DVC)	132KV PURULIA (WBSETCL)	NP-6560-B
268	L&T	EG-66	PUSAULI(PG)	415 V SIDE OF PUSAULI 11/0.415 ST LIGHT TF-	NP-6016-B
269	L&T	JS-02	RAMCHANDRAPUR(JUVNL)	220KV JAMSHEDPUR(PG)-2	NP-5119-A
270	L&T	EG-89	RANCHI NEW(PG)	765 KV SIDE OF 765/400 KV ICT-1	NP-7848-A
271	L&T	EG-90	RANCHI NEW(PG)	400 KV SIDE OF 765/400 KV ICT-1	NP-8756-A
272	L&T	EM-47	RANCHI(PG)	400KV SIPAT(WR)-1	NP-5835-A
273	L&T	EM-48	RANCHI(PG)	400KV SIPAT(WR)-2	NP-5836-A
274	L&T	EM-61	RANCHI(PG)	220KV SIDE OF RANCHI ICT-1	NP-5870-A
275	L&T	EM-41	RANCHI(PG)	400KV RAGHUNATHPUR(DVC)-II	NP-5871-A
276	L&T	EM-43	RANCHI(PG)	220KV SIDE ICT-2	NP-5872-A
277	L&T	EM-42	RANCHI(PG)	400KV SIDE ICT-2	NP-5873-A
278	L&T	EM-45	RANCHI(PG)	220KV CHANDIL (JUVNL)-1	NP-5874-A
279	L&T	EM-46	RANCHI(PG)	400KV MAITHON-1	NP-5877-A
280	L&T	EM-60	RANCHI(PG)	400KV SIDE OF RANCHI ICT-1	NP-5878-A
281	L&T	EM-44	RANCHI(PG)	220KV PATRATU (JUVNL)	NP-5879-A
282	L&T	ER-28	RENGALI(PG)	400KV BARIPADA (PG)	NP-5991-A
283	L&T	WB-12	SAGARDIGHI(WBSETCL)	400 KV FARAKKA (NTPC)-1(MAIN)	NP-6482-A
284	L&T	WB-13	SAGARDIGHI(WBSETCL)	400 KV SUBHASGRAM(PG)	NP-6483-A
285	L&T	WB-21	SAGARDIGHI(WBSETCL)	400 KV DURGAPUR(PG)-1(MAIN)	NP-7964-A
286	L&T	WB-22	SAGARDIGHI(WBSETCL)	400 KV DURGAPUR(PG)-1(CHECK)	NP-7990-A
287	L&T	ST-12	STERLITE	400 KV SUNDERGARH (CHECK)-1	NP-6536-A
288	L&T	ST-11	STERLITE	400 KV SUNDERGARH (CHECK)-2	NP-6537-A
289	L&T	ST-10	STERLITE	400 KV SUNDERGARH (MAIN)-1	NP-6538-A
290	L&T	ST-09	STERLITE	400 KV SUNDERGARH (MAIN)-2	NP-6539-A
291	L&T	TL-14	TALCHER(NTPC)	400KV TSTPP STG-I - STG-II-1	NP-5066-A
292	L&T	TL-19	TALCHER(NTPC)	400KV ANGUL (PG) (MAIN)	NP-5067-A
293	L&T	TL-16	TALCHER(NTPC)	400KV TSTPP STG-II - STG-I -1	NP-5069-A
294	L&T	TL-17	TALCHER(NTPC)	400KV TSTPP STG-II - STG-I -2	NP-5070-A
295	L&T	TL-25	TALCHER(NTPC)	400/220KV ATR-1	NP-5077-A
296	L&T	TL-27	TALCHER(NTPC)	400KV MIRAMUNDALI (CHECK)	NP-5078-A
297	L&T	TL-13	TALCHER(NTPC)	220/11 KV STATION TRANS. -1	NP-5081-A
298	L&T	TL-21	TALCHER(NTPC)	400KV ROURKELA (PG) -1	NP-5082-A
299	L&T	TL-05	TALCHER(NTPC)	400KV ROURKELA (PG) -1	NP-5083-A
300	L&T	TL-06	TALCHER(NTPC)	400KV ROURKELA (PG) -2	NP-5084-A
301	L&T	TL-07	TALCHER(NTPC)	400KV RENGALI (PG) -1	NP-5085-A
302	L&T	TL-12	TALCHER(NTPC)	220KV M'MUNDALI (GRIDCO) -2	NP-5101-A
303	L&T	TL-10	TALCHER(NTPC)	220KV RENGALI HPS (GRIDCO)	NP-5102-A
304	L&T	TL-09	TALCHER(NTPC)	220KV TTPS (GRIDCO)	NP-5103-A
305	L&T	TL-28	TALCHER(NTPC)	400KV ANGUL (PG) (CHECK)	NP-5104-A
306	L&T	TL-02	TALCHER(NTPC)	TALCHER GT-2	NP-5105-A
307	L&T	TL-08	TALCHER(NTPC)	400KV RENGALI (PG) -2	NP-5106-A
308	L&T	TL-01	TALCHER(NTPC)	TALCHER GT-1	NP-5107-A
309	L&T	TL-03	TALCHER(NTPC)	400/220KV ATR-1	NP-5108-A
310	L&T	TL-04	TALCHER(NTPC)	400/220KV ATR-2	NP-5109-A
311	L&T	TL-23	TALCHER(NTPC)	400KV RENGALI (PG) -1	NP-5110-A
312	L&T	TL-11	TALCHER(NTPC)	220KV M'MUNDALI (GRIDCO) -1	NP-5112-A
313	L&T	TL-26	TALCHER(NTPC)	400/220KV ATR-2	NP-5113-A
314	L&T	TL-22	TALCHER(NTPC)	400KV ROURKELA (PG) -2	NP-5115-A