

EASTERN REGIONAL POWER COMMITTEE

14 GOLF CLUB ROAD, TOLLYGUNGE, KOLKATA-700 033

Phone: 033-24235199/24235040 # Fax: 033-24171358/24221802 # Web: www.erpc.gov.in

AGENDA FOR THE 33rd COMMERCIAL SUB-COMMITTEE MEETING OF ERPC SCHEDULED TO BE HELD ON 03.11.2016 (THURSDAY) AT 11.00 HRS. AT ERPC, KOLKATA

ITEM NO. 1 Confirmation of the minutes of the 32nd Commercial Sub-Committee meeting held on 10.06.16

The minutes of the 32nd Commercial Committee meeting were intimated vide ERPC letter No. ERPC/COM-I/GEN/2016/434 dated 27.06.2016

No request for amendment has been received by ERPC Secretariat.

Members may confirm the minutes of the 32nd Commercial Sub Committee Meeting.

ITEM NO. 2 Payment/Receipt Status from various pool accounts in ER

a) Payment of Deviation Charges -- present status

As informed by ERLDC, the status of Deviation Charge payment as on 24.10.2016 is enclosed at **Annexure--I**. The current principal outstanding Deviation Charge of BSPHCL & JUVNL is **Rs. 19.98 Cr & Rs. 21.17 Cr** respectively considering bill up to 09.10.2016. Moreover, an interest amount of **Rs. 1.71 Cr** (as on 24.10.2016) is also payable by JUVNL due to delay payment of DSM charges. BSPHCL and JUVNL have not paid the deviation charge since 16.07.16 and 27.09.16 respectively.

ERLDC may update. JUVNL and BSPHCL may confirm the program for payment of outstanding dues.

b) Reactive Energy Charges – present status.

In accordance with Revised Reactive bill for Period: 30.11.15 to 06.12.15 of FY 2015-16 on 25.04.16 where GRIDCO supposed to get refund of **Rs 92,24,476/-** (Rupees Ninety Two Lakhs Twenty Four Thousand Four Hundred and Seventy Six only) has been refunded to GRIDCO from Reactive Account.

The updated position of Receipt/Payment of Reactive Energy Charges in the pool as on 24.10.2016 (considering bill up to 09.10.2016) is indicated in **Annexure--II**. The total outstanding receivable on account of Reactive charges from WBSETCL/WBSEDCL is **Rs 7.20 Cr** and from **BSPHCL is Rs 0.94 Lac**.

In the last TCC/ERPC meetings WBSETCL had assured that the issue would be settled at the earliest.

WBSETCL/WBSEDCL and BSPHCL may confirm the program for payment of outstanding dues.

Workshop & Expenditure details

In accordance with the decision of 29th ERPC Meeting, ERPC Secretariat in co-ordination with ERLDC has organized Training cum Workshop on “Power System Protection” held from 30.05.16 to 03.06.16 at ERPC, Kolkata. An expenditure of **Rs. 4.05268 Lacs** incurred for arranging the above workshop have been reimbursed to ERPC from Reactive account on 08.07.2016.

Member may recommend to TCC for approval of the above expenditure.

c) RRAS Account ----Present Status.

As furnished by ERLDC, 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 24.10.2016 (considering bill up to 09.10.2016) is indicated in **Annexure –III**. So far Rs. 80.34 cr have been settled under RRAS in ER.

This is for information to the members.

d) Congestion Account - Present Status

The status of congestion charge payment after full settlement is enclosed at **Annexure – IV**

Members may please note.

e) Status of PSDF

As informed by ERLDC, an amount of **Rs. 5.31 Cr** from Reactive account & **Rs. 1.71 Cr** from Deviation Pool account have been transferred to PSDF after 32st Commercial sub-committee meeting held on 10.06.16. With this the total amount of **Rs 890.40 Cr** has been transferred to PSDF so far. The break up details of fund transferred to PSDF (till 24.10.16) is enclosed in **Annexure--V** .

This is for information to the members.

ITEM NO. 3 Reconciliation of Commercial Accounts

i) Reconciliation of Deviation Accounts.

ERLDC have informed that at the end of 2nd quarter of 2016-17, the reconciliation statement (Period: 01.07.16 to 30.09.16) has been issued by ERLDC on 03.10.16 and statements had been sent to the respective constituents and also uploaded the same at ERLDC website (www.erldc.org) on 21.10.2016. The constituents were requested to verify /check the same & comments if any on the same were to be reported to ERLDC by 20.04.2016. The status of reconciliation is enclosed in **Annexure-VI**.

⇒ Only DVC, GRIDCO, NTPC, NVVN & JITPL have signed reconciliation statement for 1st Qtr

⇒ GRIDCO, NVVN, MPL & JITPL have signed reconciliation for 2nd Qtr of 2016-17.

Rest of the constituents has not signed the reconciliation in 2016-17. Moreover JUVNL & Ind Barath have not signed reconciliation statement for more than last 6 quarters.

If the confirmation is not received within 2 weeks from the date of issuance of the letters the statements issued by ERLDC have been deemed to be reconciled.

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

ii) Reconciliation of Reactive Account

ERLDC have updated that at the end of 2nd quarter of 2016-17, the reconciliation statement (Period: 01.07.16 to 30.09.16) has also been issued by ERLDC on 03.10.16 and statements had been sent to the respective constituents. The constituents were requested to verify /check the same & comments if any on the same to be reported to ERLDC by 21.10.2016.

⇒ WBSETCL have not reconciled the Reactive account for last 2 quarter in 2016-17.

If the confirmation is not received within 2 weeks from the date of issuance of the letters the statements issued by ERLDC have been deemed to be reconciled.

Constituents are once again requested to get the statements reconciled.

iii) Disbursement of Interest due to delayed payment of deviation charges

ERLDC had recovered an amount of **Rs 246.85226 Lac** from JUVNL on 09.08.16 towards interest due to delayed payment of deviation charges in FY 2015-16. Deviation interest amount receivable by constituents of ER except NR pool and NHPC for FY 2015-16 has already been fully settled on 26.04.16. Interest amount of **Rs 2.80266 Lac** receivable by NR and **Rs 0.04947 Lac** receivable by NHPC from ER Pool due to delay payment by ER Pool during FY 2015-16 was paid on 11.08.16 and balance amount of **Rs 244.00013 Lac** was paid to NTPC towards Ancillary services for Week-16 (Period: 11.07.16 to 17.07.16).

With this, interest amount receivable/payable by constituents of ER for FY 2015-16 due to delayed payment of Deviation Charges is fully settled.

This is for information to the members.

iv) RRAS Account

At the end of 2nd quarter of 2016-17, the reconciliation statement (Period: 01.07.16 to 30.09.16) has been issued by ERLDC on 03.10.16 and statements had been sent to the respective constituents and also uploaded the same at ERLDC website (www.erldc.org). RRAS Provider i.e NTPC was requested to verify /check the same & comments if any on the same were to be reported to ERLDC by 21.10.2016.

NTPC is requested to send the signed statement.

v) Reconciliation for STOA payments made to SLDC / STU :

ERLDC have informed that the reconciliation statements of STOA payments for the period Apr'16 to Sep'16 have been send to the DVC, OPTCL and WBSETCL for checking at their end and confirmation.

⇒ WBSETCL is yet to confirm for the period of Jun' 16 to Sep' 16.

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.

WBSETCL is once again requested to get the statements reconciled.

vi) Reconciliation for payments received from STOA applicants:

The reconciliation statements of STOA payments for the period of Apr' 16-Jun' 16 have been send to DVC (Commercial Dept.) and for the period of Apr' 16-Sep' 16 have been send to GMRKEL, JSEB (Commercial Dept.) and JITPL for checking at their end and confirmation.

⇒ DVC (Commercial Dept.) is yet to confirm for the period Apr-16 to Jun-16.

⇒ JSEB is yet to confirm for the period Apr-16 to Sep-16.

⇒ GMRKEL and JITPL are yet to confirm for the period Jul-16 to Sep-16.

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 is attached in the **Annexure-VII**.

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 get the statements signed at the earliest.

ITEM NO. 4 State Transmission Utility Charges and Losses applicable for STOA for FY 2016-17

As available with ERLDC the STU charges and losses to be considered for STOA for FY 2015-16 is as follows:

Name of STU	Intra-State Transmission Charges	TRANSMISSION LOSS (For Embedded entities)
WBSETCL	*	3.10%
DVC	Rs. 80.0 / MWh	3.04%
OPTCL	Rs. 62.5 / MWh	3.70%
JSEB	*	#
BSEB	*	#
SIKKIM	*	#

N.B:

* Indicates rates yet to be furnished by concerned State Utilities. Transmission Charges for use of state network shall be Payable @ Rs.80 per MWh as per subsequent Amendment regulation 2009-dated 20.05.2009.

Not yet intimated by the State Utility.

Members may update

ITEM NO. 5 Submission of PAN no for STOA transaction

As per CERC regulation on Open Access in inter-State Transmission, RLDCs are providing single window clearance to the applicants and collecting all payments on behalf of STUs, SLDCs RLDCs and CTU. The charges on short term open access comprises of ISTS Charges, Application Money, RLDC Operating Charges, SLDC Operating Charges and STU Charges

The applicants are deducting the TDS on the charges being paid for Open Access. The applicants have been advised to deduct TDS separately on ISTS charges and all other charges. The TDS is deducted in two PAN numbers i.e. POWERGRID PAN for ISTS charges and POSOCO PAN for all other charges. It is worthwhile to mention that the all the charges on which the TDS is being deducted by the applicants under POSOCO PAN do not pertain to POSOCO.

In order to further streamline the process, applicants are requested to deduct the TDS to the respective PAN nos. of the STUs and SLDCs.

In view of the above, ERLDC has requested on 24/08/16 to WBSETCL, DVC, JUSNL, BSPTCL and SIKKIM to kindly forward their respective PAN details. Information has been received for all except SIKKIM.

Sikkim my kindly intimate. Members may please note.

ITEM NO. 6 Information of Deviation/reactive payment in ER pool account

Constituents of Eastern region are making payment of Deviation charge and Reactive Charge in ER Pool Accounts. However ERLDC is not getting details of payment made in ER pool account. In 31st CCM, all the ER pool members were requested to send the details of payment in the format to ERLDC in the email account at erldc@hotmail.com. APNRL, DANS Energy, JLHEP, TPTCL and MPL are sending the details. DVC and WBSETCL are sending through Hard Copy. Other constituents may furnish the details of payment made in ER Pool. The format is again reproduced below:

S.No	Name of Utility	Amount	DSM/Reactive Account Week No	Date	Cheque No	Mode of Payment
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Unless information along with payment is given to them it becomes very difficult to identify the payments. Therefore constituents are requested to forward the information in the format given for proper and quick identification of payments.

ERLDC may update.

ITEM NO.7 Opening of LC by ER constituents for Deviation Charges Payments

Clause 10 (4) of CERC Deviation Settlement Mechanism and related matters Regulations, 2014 vide notification No. L-1/132/2013/CERC dated 6th January, 2014 to be implemented from 17.02.2014 is reproduced below:

Quote

All regional entities which had at any time during the previous financial year failed to make payment of Charges for Deviation including Additional Deviation Charges for

Deviation within the time specified in this regulations shall be required to open a Letter of Credit (LC) equal to 110% of its average payable weekly liability for Deviations in the previous financial year, in favour of the concerned RLDC within a fortnight from the date these Regulations come into force.....

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

Unquote

The details of LC amount required to be opened in 2016-17 by ER constituents is given in **Annexure -VIII** . Letters to this effect has already been issued by ERLDC to the defaulting entities viz, APNRL, JUVNL, GATI, Sikkim.

APNRL, JUVNL, GATI, Sikkim and Ind Barath may please intimate the latest status.

ITEM NO.8 Updation of CT/PT Ratio

The meter details along with the CT/PT ratio has been uploaded at ERLDC website (www.erlhc.org). The constituents are requested to check CT/PT ratios being used. Comments/discrepancies, if any, on the same may please be communicated to ERLDC at the earliest. So far no discrepancy has been reported to ERLDC.

Members may please note.

ITEM NO.9 Meter readings related issues

A. Erroneous Data/meter reading

i. Karamnasa (BSPTCL)

Karamnasa end meter NP-6018-B installed for 132 KV Sahupuri (UPPCL) line is recording around 50 % less as compared to Sahupuri end since 14.08.16. It was gathered that there had been some panel replacement work at Karamanasa creating problem to the meter data during shifting work at Karamnasa. The above problem was informed to BSPTCL and PGCIL on 18.08.16 with request to check CT and PT connection at Karamnasa end. At present accounting of ER-NR and BSPHCL is done with Sahupuri end meter with no back up meter and validation. The above matter was also discussed in 126th OCC wherein BSPTCL informed that matter will be resolved immediately. However problem is still persisting.

BSPTCL may please update.

ii. Joda (OPTCL)

SEM data received from Joda(OPTCL) end of 220 KV Joda(OPTCL) – Ramchandarpur(JUVNL) line is showing erroneous(15-20% Less recording as compared to Ramchandarpur end) since 14.01.16. Matter was intimated to official of Joda OPTCL. In 119th OCC, OPTCL informed that SEM at Joda end needs to be checked and corrected. In 121st OCC, ERLDC suggested to place one meter at B/C and to check healthiness of existing SEM at Joda end of Ramchandarpur Line. Accordingly Meter at B/C has been installed and details received at ERLDC end. Meanwhile OPTCL had measured the Current and Voltage input to the said meter on 21.10.16 and Voltage and current in each phase was found to be Ok. Joda(OPTCL) end meter has improved its

recording and meter is recording around 7-8 % Less as compared to Ramchandarpur end meter.

This is for Information to the members

iii. Bolangir(PG)

Bolangir end meter NP-8790-A installed for 220 KV Katapalli (OPTCL) line is recording around 40-45 % less as compared to Katapalli end since 22.09.16. The matter was informed to Bolangir (PG) requesting to rectify the problem. However problem is still persisting and accounting of OPTCL is done with standby meter at Katapalli end.

PGCIL may update.

iv. Reverse polarity of SEM installed at Sabour in BSPTCL

SEM is installed at both end of 132 KV Sabour-Banka(PG) Line-2. It is observed that Sabour end meter is showing reverse polarity. The matter was also reported to BSPTCL official. However as per the SEM data received from Sabour, the polarity of the Sabour end meter is still reversed and the problem persists.

BSPTCL is requested to intimate the latest status.

B. Non Receipt of SEM data from Various Locations

i. Forbisganj at BSPTCL

Kishanganj (BSPTCL) end meter of 132 KV Purnea (PG) Line is not recording any flow compared to Purnea PGCIL end since 14:00 hrs of 29th June 2015. It was gathered that line is feeding load to Farbisganj at BSPTCL regularly through Transfer Bus of Kishanganj bypassing the SEM at Kishanganj. Accordingly 02 nos of SEM were installed at Forbisganj on 03.02.16 and DCD for downloading the data was handed over to BSPHCL. BSPHCL informed that due to installation problem of meter software, data is not being sent to ERLDC. 125th OCC advised PGCIL to provide necessary support in installing the software. Till now ERLDC has not received the SEM data.

BSPHCL may please respond.

ii. Kudra at BSPTCL

SEM data of Kudra end of 132 KV Kudra –Pusauli line is not being sent by BSPTCL since last one and half month. Further the Kudra end meter is not connected in AMR system which is supposed to be covered in AMR 3rd phase. In absence of Kudra end meter, end to end Validation of SEM data at ERLDC end is not done. The matter is already informed to BSPTCL.

BSPHCL may please respond.

iii. 220 KV Sonnagar S/S at BSPTCL

220 KV Sonnagar(BSPTCL)- Gaya(PG) Line was charged and powers started flowing through the line since June 2016. SEM was installed at Sonnagar end. The SEM data of Sonnagar end of aforesaid Line is not being sent by BSPTCL since charging of the line. Further the Sonnagar end meter is not connected in AMR system which is supposed to be covered in AMR 3rd phase. In absence of data of Sonnagar end meter, end to end Validation of SEM data at ERLDC end is not done. The matter is already informed to BSPTCL.

BSPHCL may please respond.

iv. Installation of SEMs at KBUNL MTPS Stg-II

For Drawl of startup power & injection of Infirm/firm Power from 2X195 MW KBUNL MTPS Stg-II, SEM is required to be installed. As per CEA Metering regulation, Special Energy meter on GTs, STs, all 220 KV Outgoing Feeder along with 220/132 KV Transformers at KBUNL end are to be installed by PGCIL. Meanwhile KBUNL has already installed same type energy meter (L&T Make ER-300P) in all commissioned bays as well as GT, ST and ICT. List of meters installed at KBUNL is enclosed in **Annexure-IX**. KBUNL had requested PGCIL to use the existing meters till the installation of new meters by PGCIL. The matter was also discussed in 126th OCC wherein it was decided that existing meter at KBUNL will be used for Drawl/Injection of KBUNL till PGCIL install new meter. Accounting of drawl/Injection of KBUNL will be done as per the Minutes of Special meeting for “Issues related to scheduling of KBUNL Stg-II” held on 26.05.2016 at ERPC.

ERLDC/PGCIL may please update.

ITEM NO. 10 Implementation of Automatic Meter Reading in Eastern Region.

AMRs have been installed at 97 locations in 1st phase and 25 locations in 2nd phase in Eastern region. Due to addition of new substations/generating stations/transmission lines in Eastern Region, another 25 new locations required to be added under AMR project as 3rd phase of implementation.

Inclusion of new locations and total cost involvement(including 5 years of AMC) for AMR 3rd phase were last discussed in 31st TCC/ERPC OCC meeting held on 13.11.15/14.11.15 wherein TCC/ERPC approved the cost of approximately Rs. 1.29 Cr \pm 10%. ERLDC furnished the list of meters already included in AMR and having problems in data sending(to be considered in AMC) along with new locations to be provided AMR and list of meters added in existing locations due to addition of new lines. Meanwhile due to addition of new substation/Generating station, number of new location has been increased to 32. List of new locations with SEMs and Future locations to be incorporated are enclosed in **Annexure-X**. In 33rd TCC/ERPC, PGCIL informed that the order to the vendor was placed for 16 new locations, the required number of locations had increased and negotiations were going on with the vendor for costs.

Powergrid may further update the latest status of implementation.

ITEM NO.11 Time correction of SEMs in Eastern Region

The drifting of meter time was important in commercial terms since the reading for a block for a time drifted meter might not be true and lead to erroneous calculation of Deviation Charge for that constituent. Further, it was decided to keep this as a standing agenda in Commercial Sub Committee meetings for monitoring. List of Time drifted (more than 5-6 min) meters in ER as on 20.10.16 is enclosed in **Annexure-XI**

ERLDC may update.

Members may please discuss.

ITEM NO.12 Non-submission of weekly SEM readings by Tuesday noon

As per IEGC (effective from 3.5.2010) Sub-clause-22 of Clause-6.4 (demarcation of responsibilities), all concerned utilities in whose premises SEMs are installed shall take weekly meter readings and transmit the same to RLDC by Tuesday noon for timely issuance of Deviation account Bill. Significant improvement in timely receipt of SEM data has been seen after AMR implementation at various locations and most of the meter data is being received by Tuesday. However general trend of receipt of readings is as below:

⇒ By Wednesday or later: WBSETCL (North Bengal) & SIKKIM

WBSETCL & Sikkim are once again requested to please adhere to the schedule.

ITEM NO.13 Procurement of new SEM's and DCD/Laptops

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 32nd TCC/ERPC, Powergrid intimated that order had been placed on 15.03.2016. In 33rd TCC/ERPC, PGCIL informed that delivery is expected in six phases starting August' 16.

Powergrid may further update the status of procurement.

ITEM NO.14 Nomination of Nodal Officers by Regional Entities—ERLDC Agenda

In the last CCM, all Regional entities were requested to intimate the contact details (like Name, designation, Mailing address, Landline No, Fax No, Email Id, Mobile No etc) of the Nodal Officer who could coordinate with their sites and ERLDC to ensure the following:

- Under - recording of SEM data due to reasons such as CT/PT input problems
- Polarity reversal
- Change in CT/PT ratio
- Meter replacements
- Completeness w.r.t no of meters and no of days
- Checking of time drift in meters: correction and reporting to RLDC

- Data non-availability due to reasons such as outage of Feeder etc.

ERLDC requested to furnish the details like Name, designation, Mailing address, Landline No, Fax No, Email Id, Mobile No etc. to ERLDC for smooth transaction of SEM data.

⇒ So far details of Nodal person only from BSPHCL, DVC, Teesta, NTPC ER-I(HQ), Talcher NTPC, GMR and GRIDCO have been received by ERLDC.

All other Constituents are once again requested to send the details of Nodal person from their end.

ITEM NO.15 Change of Control Area Jurisdiction of Vedanta from ERLDC to SLDC Odhisa

As per the Minutes of Special Meeting on “Issues related to Vedanta Limited” held on 14th October 2016 at ERPC, Vedanta would be treated as an embedded customer under the jurisdiction of SLDC Odhisa and ERLDC will start scheduling Vednata CPP Units# 1, 3 & 4 only after getting a fresh NOC from SLDC Odhisa and with grant of fresh connectivity by CTU. It was also decided that the control area jurisdiction may be handed over to SLDC Odhisa w.e.f 24.10.16.

Accordingly ERLDC has considered the injection/drawl through Rourkela and Ragiarih Line in GRIDCO Drawl wef 00:00 Hrs of 24.10.16 with 400 KV Vedanta-Raigarh and 400 KV Vedanta-Rourkela Line as a Tie Line with OPTCL system and Vedanta end meter is considered for GRIDCO Net Drawl.

ERLDC may update. OPTCL/Vedanta is requested to send the SEM data by Tuesday noon.

ITEM NO.16 Agenda items submitted by NHPC

1) Non-opening of LC of requisite value :-

- (i) As per PPA, **NBPDCL** has to provide LC of **Rs. 6.65 Crs.** Similarly, **SBPDCL** has to provide Letter of Credit of **Rs. 8.44 Crs.** But NBPDCL has provided LC of **Rs. 2.10 Crs** and SBPDCL **Rs. 2.90 Crs** which are far short of requisite values.

NHPC may elaborate.

2) Payment of outstanding dues for more than 60 days.

i) NBPDCL

An amount of **Rs. 20.16 Crs** is outstanding for more than 60 days including surcharge of **Rs. 0.72 Crs.**

ii) SBPDCL

An amount of **Rs. 7.62 Crs** is outstanding for more than 60 days including surcharge of **Rs. 0.84 Crs**

NHPC may elaborate. BSPHCL may respond.

3) Signing of reconciliation statement.

Reconciliation statements are pending for 1st quarter for the F.Y 2016-17 in r/o NBPDC, SBPDCL, DVC & JUVNL. All the above beneficiaries are requested to sign the reconciliation statements at the earliest. Reconciliation statements for 2nd quarter of 2016-17 have also been sent to all the beneficiaries which also need to be signed on priority.

NHPC may elaborate. BSPHCL may respond

4) Extension of BPSA in r/o Rangit & Teesta-V Power Stations

NHPC is regularly following-up with JUVNL & GRIDCO to extend the BPSA up to 35 years from COD of last unit of Rangit & Teesta-V Power Stations, on same terms and conditions.

NHPC requested to both beneficiaries to give consent for extension of BPSA at the earliest.

NHPC may elaborate. Beneficiaries may give their view.

5) Signing of PPA in respect of Teesta-IV H.E.Project.

Signing of Power Purchase Agreement is pending with GRIDCO in spite of regular follow up with these discoms. As per the request of some of the discoms for withdrawal of 'Payment security Mechanism' in form of 'Default Escrow Arrangement', NHPC has withdrawn this clause from draft PPA in respect of future projects also. Now, GRIDCO may be requested to sign the PPA at the earliest.

In the last CCM, GRIDCO representative informed that the matter was under consideration of management and would take some more time.

GRIDCO may like to update.

6) Signing of PPA in respect of Tawang H.E.Project, Stage-I & II.

Signing of Power Purchase Agreement is pending with GRIDCO, JUVNL & WBSEDCL. As per the request of many beneficiaries for withdrawal of 'Payment security Mechanism' in form of 'Default Escrow Arrangement', NHPC has replaced this in the draft PPA by adopting L.C. as a payment security mechanism.

NHPC may update.

7) Extension of PPA in r/o TLDP-III Power Station.

NHPC is regularly following-up with WBSEDCL to extend the PPA up to 35 years from COD of last unit of TLDP-III Power Station, on same terms and conditions as against the present PPA of 5 years from COD of first unit of TLDP-III power station.

NHPC may explain. WBSEDCL may respond

8) Levy of Natural water tax by Department of Forest, Environment & Wild life Management, Govt. of Sikkim.

Department of Forest, Environment & Wild life Management, Govt. of Sikkim levied tax on all agencies using water from natural sources for commercial or industrial purpose. As per the notification Teesta-V & Rangit Power Station is liable to pay Natural Water Tax to said department @ Rs. 0.25/ Cum. NHPC has challenged imposition of Natural Water Tax in Hon'ble High Court of Sikkim. The next hearing in the case will be on 01.12.2016.

This is for kind information of all beneficiaries of Rangit & Teesta-V Power Stations.

ITEM NO.17 Agenda items submitted by Powergrid

a) List of Assets commissioned

The list of transmission elements commissioned by Powergrid is at **Annexure-XII**

Members may please note.

b) Non Opening of LC requisite amount of LC :

Following constituents are required to enhance/ extend LC towards Payment Security Mechanism, as per CERC Regulations:

SI No	Amount(in Cr.)	
	Present Value of LC	Value of LC Required
North Bihar Power Distribution Company Limited(NBPDCL)	10.50	28.36
South Bihar Power Distribution Company Limited(SBPDCL)	14.50	39.67
Bhartiya Rail Bijlee Company (BRBCL)	LC expired on 31.05.16	3.06
Ind-Barath Energy (Utkal) Limited	LC expired on 07.08.16	14.38

Non-availability of LC for requisite value and validity as per CERC Regulations is causing serious problem for POWERGRID to comply with the provisions of CERC Regulations and Loan Covenants.

PGCIL may update. Concerned utilities may respond.

c) **Payment of Outstanding dues more than 60 days :**

Sl No	Amount(in Cr.)	
	Total Outstanding dues	Outstanding due more than 60 days
North Bihar Power Distribution Company Limited(NBPDCL)	123.48	63.90
South Bihar Power Distribution Company Limited(SBPDCL)	196.97	113.58
Bhartiya Rail Bijlee Company (BRBCL)	20.42	17.39
Ind-Barath Energy (Utkal) Limited	31.62	15.10

PGCIL may update. Members may respond.

d) **Issue related to non-payment of Transmission charges & non-renewal of LC by Ind-Bharat(Utkal) Limited :**

CTU has granted LTA to Ind Bharat Energy(Utkal) Limited for the transfer of 500 MW of power from their 700 MW(2x350 MW) at Shahajbahal in Jahrsuguda, Odisha to TANGEDCO on 22.07.15. After the grant of LTA, Ind Bharat opened Letter of Credit (LC) for an amount of Rs **27.73 Cr.** vide LC No 2273ILC011115 Dated 11.08.15 for one year, which had expired on **07.08.16**. LTA has started from Dec'15 & accordingly POWERGRID has started raising the PoC charges bills to Ind Barath of their LTA allocation. Ind Barath had made directly payment of **Rs 5.92 Cr** against our bills raised during the month of February'16 only. After this payment, Ind Barath has not made any direct payment to POWERGRID. So after this, every month we have received the payment through LC against our transmission charges bills raised up-to the month of June'16.The total outstanding of Ind Bharat come to **Rs 31.62 Cr** & they had neither renewed our LC nor making direct payment to POWERGRID. Several reminders are given to IBEUL for establishing the LC & making payment in timely. In 33rd ERPC meeting it was also decided that, **“from 1st August, 2016 IBEUL will not permitted to do any transaction – Infirm or firm through the LILO”.**

PGCIL may update. IBEUL may respond.

e) **Issue Related to non-payment of transmission charges of 400kV Nabinagar-Sasaram line by BRBCL :**

400 kV D/C Nabinagar-Sasaram transmission line was constructed by PGCIL for evacuation of power from Nabinagar generating station. Unit no. 1 of the said generating station has been commissioned and synchronized on 20.03.2016 but commercial operation is yet to be declared. CERC vide order dated 21.06.2013 in Petition No.83/TT/2012, directed that the transmission charges of afore mentioned line are payable by BRBCL till commissioning of Unit-1 of BRBCL Nabinagar Thermal Power Project. On the basis of this order, BRBCL, owner of Nabinagar generating station has

requested PGCIL to stop raising bill for the transmission charges of 400 kV D/C Nabinagar-Sasaram transmission line & associated system. Then the issue was represented in **2nd Meeting of the Validation Committee of CERC held on 30.05.2016 at NRLDC conference room, New Delhi, wherein it was minuted that transmission charges of 400kV D/C Nabinagar-Sasaram transmission line to be paid by BRBCL till commercial operation of Unit#1 achieved (copy at Annexure-XIII)**. In spite of decision taken in validation committee, BRBCL has not clear our outstanding dues which come to **Rs 20.42 Cr.** and neither renew our LC of Rs 3.06 Cr, which had expired on 31.05.16. Moreover start up power is being drawn by BRBCL which may be ascertained from SEM meter reading(from ERLDC website)

PGCIL, BRBCL may place their views.

- f) Collapse of One no Tower in 400KV D/C(Quad) Patna – Kishanganj TL due to river encroachment(This issue was discussed in 124th OCC meeting held on 23.08.16 at ERPC,Kolkata : MOM : Refer to CCM AND as per our letter dated : 07.10.16)**

Due to unprecedented flash flood in Kankai river, one number of tower at location no.51(DD+18) of 400Kv Patna-Kishanganj D/C line near village Simalbari, Distt. Kishanganj, Bihar had collapsed on 26.07.2016 at about 12:00 hrs. The site of collapsed tower is fully submerged with water and very difficult to reach at the affected site.

Further the committee constituted to investigate the cause of collapse of tower and to suggest the remedial measures consisting of expert members of Powergrid and CEA, Delhi they are not in a position to even visit the affected site due to severe flow of water in the Kankai River. The entire area is inundated with water. The flood situation in that area is worsen due to incessant rain in Nepal. The restoration of the said line shall be taken after receding the water at site.

In view of the above the said outage period may be treated as force majeure condition i.e beyond the control of Powergrid and outage shall be excluded for the purpose of availability up-to **Feb'17**.

PGCIL may update

- g) The Following Powergrid assets commissioned with different transmission licences :**

Sl No	Name of Asset	Date of Charging/DOCO	Status of Power Flow
01	2nos of 400kV line bays at Muzaffarpur sub-station for termination of Muzaffarpur(PG)-Darbhanga(TBCB) 400kV D/C (Triple Snowbird) line. (TBCB Line_Constructed by ESSEL Power Limited)	14/08/2016 & 31/08/16	Power Flow yet to started by Muzaffarpur-Darbhanga Transmission line.
02	2 nos 400 KV Line Bays alongwith 2x 50 MVAR Line Reactor at Ranchi under ERSS VII.(TBCB	15/10/16 & 17/1016	Power Flow yet to started by Ranchi-Purulia Transmission

	Line_ Constructed by Sterlite Power Limited)		line. Constructed by ESSEL Power Limited
03	4 nos 220Kv GIS Line Bays at Kishanganj(GIS) under ERSS XII.(Line Constructed by BSPTCL)	03/10/16 & 20/10/16	Power flow started in only 2 nos of line bays & 2 nos of bays power flow yet to started.

ITEM NO.18 Collapse of four ENICL towers in Ganga river of 400kV Punea-Biharshariff line 1& 2 due to heavy flooding on 23rd August ,2016 at 06:51 Hrs-agenda referred by OCC

Due to unprecedented flash flood in Ganga river, One tower at location 47/4 situated in the main stream of the river (at the Ganga river crossing near Begusarai) has apparently uprooted collapsed and washed away. Adjacent three towers (47/2,47/0 and 46/9) are severely damaged. The area is still unapproachable as it is completely submerged into water and flow of the water is very high. The site of collapsed tower is fully submerged with water and very difficult to reach at the affected area. The entire area is inundated with water. The flood situation in that area is worsen due to incessant rain in Nepal. The restoration of the said line shall be taken immediately after receding the water at site. In view of the above, ENICL requested that the said outage of the line may be treated as force majeure condition i.e. beyond the control of ENICL.

ENICL may update. Members may discuss.

ITEM NO.19 Any other item with the permission of chair.

Annexure - I
SUMMARY OF DEVIATION CHARGE RECEIPT AND PAYMENT STATUS

BILL from 28.03.16 to 09.10.16 (upto Week - 28 of 2016 - 17)
Last Payment Disbursement Date -19.10.16

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
WR	10926.31173	8135.00508	11799.31504	11799.31504	2791.30665
SR	1025.19928	1082.00881	18009.79708	13132.06137	-4934.54525
NER	49070.47391	43144.16013	148.66864	2867.28005	8644.92519
NR	223.58877	83.14544	48098.92823	40145.30225	-7813.18265
BSPHCL	5578.27126	3171.37389	409.16659	0.00000	1997.73078
JSEB	3863.53357	1294.61250	452.33933	0.00000	2116.58174
DVC	1145.63462	1160.33871	890.35694	867.75771	-37.30332
GRIDCO	1582.98317	1587.30113	807.53906	398.05103	-413.80599
WBSETCL	5378.48792	5331.10879	177.22284	444.51926	314.67555
SIKKIM	43.59053	0.00000	759.54726	534.98784	-180.96889
NTPC	7478.57313	6866.10868	0.00000	3.67096	616.13541
NHPC	0.00000	0.00000	1315.12405	1230.67944	-84.44461
MPL	43.37892	43.37892	447.53849	399.29187	-48.24662
STERLITE	5029.62048	4525.60393	0.00000	0.00000	504.01655
APNRL	343.14183	146.32986	123.17327	0.00000	73.63870
CHUZACHEN (GATI)	24.03633	24.03633	429.51833	397.24765	-32.27068
NVVN (IND-BNG)	182.04169	145.91805	82.23356	83.23362	37.12370
JITPL	1028.32671	1028.81886	545.69809	426.96076	-119.22948
GMR	321.59716	321.59716	582.69744	462.19819	-120.49925
IND BARATH	69.17259	35.60487	443.91325	432.14046	21.79493
TPTCL(DAGACHU)	1008.52668	992.83404	5.86148	6.03791	15.86907
JLHEP (DANS ENERGY)	285.33166	40.11075	128.07482	112.15935	229.30544
BRBCL(NABINAGAR)	131.03255	149.12165	0.00000	38.00000	19.91090
NVVN (IND-NEPAL)	354.08487	359.18911	29.47059	49.78834	15.21351
HVDC SASARAM	1.60348	0.00000	2.69459	0.00000	-1.09111
Pool Balance	0.00000	0.00000	-256.02044	0.00000	256.02044
Addl Deviation charge	7238.05777	9058.58605	0.00000	0.00000	-1820.52828
IRE	0.00000	0.00000	480.79540	0.00000	-480.79540
VAE	0.00000	0.00000	1986.83119	0.00000	-1986.83119
TOTAL	95138.54284	79667.70669	87900.48512	73830.68310	

	% Realization	83.74	As on	19.10.16
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

STATUS OF REACTIVE CHARGES

RECEIVABLE IN ER POOL AS PER PUBLISHED A/C UPTO 09.10.16 (2016 -17)
AS ON 24.10.2016

CONSTITUENT	AMOUNT RECEIVABLE IN THE POOL (Rs.)	AMOUNT RECEIVED IN THE POOL (Rs.)	OUTSTANDING (Rs.)
BSPHCL	378537	284950	93587
JSEB	1137688	1137688	0
DVC	357122	357122	0
GRIDCO	129566230	129566230	0
WBSETCL	221270594	149302044	71968550
SIKKIM	325817	325817	0
TOTAL	353035988	280973851	72062137

Note: (+ve) means payable by utility & (-ve) means receivable by utility

Annexure - III

SUMMARY OF RRAS CHARGE RECEIPT AND PAYMENT STATUS

Bills from 08.08.16 to 09.10.16 (upto Week - 28 of 2016 - 17)

Last Payment Disbursement Date -19.10.16

Figures in Rs. Lakhs

CONSTITUENTS	Receivable	Received	Payable	Paid	Outstanding
FSTPP STG-I	195.38185	188.77179	1697.37260	1544.12840	146.63414
FSTPP STG-II	42.76301	42.76301	592.63082	592.63082	0.00000
KhSTPP STG-I	143.44117	133.28179	937.38932	906.71795	20.51199
KhSTPP STG-II	50.58785	46.89271	3808.80256	3609.94091	195.16651
TSTPP STG-I	110.94069	109.98086	337.76688	325.63161	11.17544
BARH STG-I	0.00000	0.00000	0.00000	0.00000	0.00000
BARH STG-II	198.19172	193.18916	1808.13266	1770.53448	32.59562
NTPC TOTAL	741.30627	714.87931	9182.09483	8749.58415	406.08371
RANGIT	0.00000	0.00000	0.00000	0.00000	0.00000
TEESTA-V	0.00000	0.00000	0.00000	0.00000	0.00000
NHPC TOTAL	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL	741.30627	714.87931	9182.09483	8749.58415	406.08371

Annexure - IV

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

% Realization**As on 31.05.2015**

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		

DETAILS OF DISBURSEMENT TO POWER SYSTEM DEVELOPMENT FUND

SI No	Nature of Amount	Amount transferred to PSDF (Rs in Lac)	Date of Disbursement	Cheque No	Remarks
1	Opening Balance (upto 31.12.15)	83873.87922			
2	Addl. Dev	18.40442	01.01.16		Addl Dev Charge 15-16
3	Addl. Dev	16.46976	05.01.16		Addl Dev Charge 15-16
4	Addl. Dev	33.27577	07.01.16		Addl Dev Charge 15-16
5	Addl. Dev	19.11532	11.01.16		Addl Dev Charge 15-16
6	Addl. Dev	90.94357	14.01.16		Addl Dev Charge 15-16
7	Addl. Dev	19.04467	18.01.16		Addl Dev Charge 15-16
8	Addl. Dev	50.72543	20.01.16		Addl Dev Charge 15-16
9	Addl. Dev	11.10228	22.01.16		Addl Dev Charge 15-16
10	Addl. Dev	45.43206	27.01.16		Addl Dev Charge 15-16
11	Addl. Dev	96.62204	29.01.16		Addl Dev Charge 15-16
12	Reactive Charge	450.00000	02.02.16		Reactive Energy Charge_15-16
13	Addl. Dev	69.01901	04.02.16		Addl Dev Charge 15-16
14	Addl. Dev	45.99429	11.02.16		Addl Dev Charge 15-16
15	Addl. Dev	50.44878	15.02.16		Addl Dev Charge 15-16
16	Addl. Dev	371.30972	17.02.16		Addl Dev Charge 15-16
17	Addl. Dev	91.04585	22.02.16		Addl Dev Charge 15-16
18	Addl. Dev	121.28575	24.02.16		Addl Dev Charge 15-16
19	Addl. Dev	40.83267	29.02.16		Addl Dev Charge 15-16
20	Addl. Dev	61.45400	02.03.16		Addl Dev Charge 15-16
21	Addl. Dev	16.51444	04.03.16		Addl Dev Charge 15-16
22	Addl. Dev	142.93695	09.03.16		Addl Dev Charge 15-16
23	Addl. Dev	55.54777	15.03.16		Addl Dev Charge 15-16
24	Addl. Dev	85.71223	17.03.16		Addl Dev Charge 15-16
25	Addl. Dev	58.13810	21.03.16		Addl Dev Charge 15-16
26	Addl. Dev	253.40681	23.03.16		Addl Dev Charge 15-16
27	Addl. Dev	25.92020	28.03.16		Addl Dev Charge 15-16
28	Reactive Charges	250.00000	28.03.16		Reactive Charges_15-16
29	Addl. Dev	83.33978	01.04.16		Addl Dev Charge 15-16
30	Addl. Dev	43.77416	05.04.16		Addl Dev Charge 15-16
31	Addl. Dev	31.83984	07.04.16		Addl Dev Charge 15-16
32	Addl. Dev	52.08622	11.04.16		Addl Dev Charge 15-16
33	Addl. Dev	107.23773	13.04.16		Addl Dev Charge 15-16
34	Addl. Dev	220.15330	19.04.16		Addl Dev Charge 15-16
35	Addl. Dev	76.84824	21.04.16		Addl Dev Charge 15-16
36	Addl. Dev	20.84026	26.04.16		DSM Interest 2014-15(Paid by APNRL)
37	Addl. Dev	10.01920	26.04.16		Addl Dev Charge 16-17
43	Addl. Dev	432.25696	28.04.16		Addl Dev Charge 16-17
44	Addl. Dev	117.08707	02.05.16		Addl Dev Charge 16-17
45	Addl. Dev	41.65418	04.05.16		Addl Dev Charge 16-17
46	Addl. Dev	114.33049	06.05.16		Addl Dev Charge 15-16 & 16-17
47	Deviation Interest	38.50018	06.05.16		Deviation Interest
48	Addl. Dev	35.54178	10.05.16		Addl Dev Charge 16-17
49	Addl. Dev	448.87953	31.05.16		Addl Dev Charge 16-17
50	Addl. Dev	170.51274	29.06.16		Addl Dev Charge 16-17
51	Reactive Charges	530.57497	28.09.16		Reactive Charges_15-16
	Total	89040.05774			

Status of Reconciliation of Deviation Pool Account

Annexure-VI

	2015-16				2016-17	
Name of The Utility	Q1 (01.07.15)	Q2(05.10.15)	Q3(05.01.16)	Q4(05.04.16)	Q1 (04.07.16)	Q2 (03.10.16)
Inter Regional						
WR	YES	NO	YES	YES	NO	NO
SR	YES	YES	YES	YES	YES	NO
NER	NO	NO	YES	YES	NO	NO
NR	NO	NO	NO	NO	NO	NO
Intra Regional						
BSPHCL	YES	YES	YES	YES	NO	NO
JUVNL	NO	NO	NO	NO	NO	NO
DVC	YES	YES	YES	YES	YES	NO
GRIDCO	YES	YES	YES	YES	YES	YES
WBSETCL	YES	YES	YES	YES	NO	NO
SIKKIM	YES	YES	YES	YES	NO	NO
NTPC	YES	YES	YES	YES	YES	NO
NHPC	YES	YES	YES	YES	NO	NO
MPL	YES	YES	YES	YES	NO	YES
STERLITE	YES	YES	YES	YES	NO	NO
APNRL	YES	YES	YES	YES	NO	NO
CHUZACHEN(GATI)	YES	YES	YES	YES	NO	NO
NVVN(Ind-Bng)	YES	YES	YES	YES	YES	YES
NVVN(Ind-Nep)	N/A	N/A	N/A	N/A	YES	YES
GMR	YES	YES	YES	YES	NO	NO
JITPL	YES	YES	YES	YES	YES	YES
INBEUL	NO	NO	NO	NO	NO	NO
TPTCL (DAGACHU)	YES	YES	YES	YES	NO	NO
JLHEP(DANS ENERGY)	N/A	N/A	YES	YES	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

Reconciliation Between Open Access department of ERLDC and SLDCs, STUs							
Sl. No.	STUs / SLDCs Name	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
	Date of Issuance	13-May-16	14-Jun-16	13-Jul-16	17-Aug-16	16-Sep-16	14-Oct-16
1	West Bengal - SLDC and STU	YES	YES	NO	NO	NO	NO
2	DVC - SLDC	Not Applicable	YES	YES	YES	YES	NO
3	OPTCL-SLDC and STU	YES	YES	YES	YES	YES	NO

Reconciliation Between Open Access department of ERLDC and Applicants			
Sl. No.	Applicants Name	Quarter-I(Apr-16-June-16)	Quarter-II(Jul-16-Sep-16)
	Date of Issuance	14-Jul-16	18-Oct-16
1	Damodar Valley Corporation	NO	Not Applicable
2	GMR Kamalanga Energy Limited	YES	NO
3	Jindal India Thermal Power Limited	YES	NO
4	Jharkhand State Electricity Board	NO	NO

Current Status of Letter of Credit (LC) amount against UI 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 2015-16	Total Deviation charges payable to pool during 2015-16	Average weekly Deviation Charge liability	LC Amount	Due date of expiry	Remarks
		(A)	(B)	(C)	(D)	(E)	(F)	(G)
1	BSPHCL	42	42	9230.45609	177.50877	195.25965	03.01.2017	Opened for 529.52000 Lac
2	JUVNL	36	36	4060.64239	78.08928	85.89820	Expired	Not Opened /Renewed
3	DVC	11	N/A	1176.42772	22.62361	24.88597	17.11.2016	Opened for 155.18882 Lac
4	SIKKIM	5	5	75.76714	1.45706	1.60277	Expired	Not Opened/Renewd
5	MPL	7	2	34.59999	0.66538	0.73192	31.08.2017	Opened for 0.73192 Lacs
6	STERLITE	48	15	7892.76469	151.78394	166.96233	31.05.2017	Opened for 166.96233 Lacs
7	APNRL	24	24	741.51734	14.25995	15.68594	Expired	Not Opened /Renewed
8	CHUZACHEN	8	6	261.0675	5.02053	5.52258	31.03.2016	Not Opened /Renewed
9	GMR	19	7	929.588	17.87669	19.66436	15.07.2017	Opened for 19.66436 Lacs
10	IND-BARATH	46	16	248.75964	4.78384	5.26222	Not Opened	Not Opened /Renewed

Annexure-IX

KBUNL-LIST OF L&T ENERGY METERS								
SL.NO	FEEDER	METER SL.NO.	MODEL	MAKE	MFG.DAT	OWNER	CTR	PTR
1	Gen-1	LT-0161A	ER-300P	L&T	Jan-13	KBUNL	8000/5A	11KV/110V
2	Gen-2	LT-0170A	ER-300P	L&T	Jan-13	KBUNL	8000/5A	11KV/110V
3	GT-1	LT-0135A	ER-300P	L&T	Sep-12	KBUNL	400/1A	220KV/110V
4	GT-2	LT-0192A	ER-300P	L&T	Mar-14	KBUNL	400/1A	220KV/110V
5	ST-1	LT-0129A	ER-300P	L&T	Sep-12	KBUNL	100/1A	220KV/110V
6	ST-2	LT-0133A	ER-300P	L&T	Sep-12	KBUNL	100/1A	220KV/110V
7	IBT-1 MAIN	LT-0093A	ER-300P	L&T	Dec-10	KBUNL	300/1A	220KV/110V
8	IBT-1 CHECK	LT-0127A	ER-300P	L&T	Sep-12	KBUNL	300/1A	220KV/110V
9	IBT-2 MAIN	LT-0126A	ER-300P	L&T	Aug-12	KBUNL	300/1A	220KV/110V
10	IBT-2 CHECK	TP-0006A	ER-300P	L&T	Nov-07	KBUNL	300/1A	220KV/110V
11	IBT-3 MAIN	LT-0132A	ER-300P	L&T	Sep-12	KBUNL	600/1A	220KV/110V
12	IBT-3 CHECK	LT-0130A	ER-300P	L&T	Sep-12	KBUNL	600/1A	220KV/110V
13	BEGUSARAI-1 MAIN	To be installed	ER-300P	L&T		PGCIL	600/1A	220KV/110V
14	BEGUSARAI-1 CHECK	To be installed	ER-300P	L&T		PGCIL	600/1A	220KV/110V
15	BEGUSARAI-2 MAIN	LT-0092A	ER-300P	L&T	Dec-10	KBUNL	600/1A	220KV/110V
16	BEGUSARAI-2 CHECK	LT-0128A	ER-300P	L&T	Sep-12	KBUNL	600/1A	220KV/110V
17	DARBHANGA-1 MAIN	LT-0125A	ER-300P	L&T	Aug-12	KBUNL	600/1A	220KV/110V
18	DARBHANGA-1 CHECK	LT-0140A	ER-300P	L&T	Sep-12	KBUNL	600/1A	220KV/110V
19	DARBHANGA-2 MAIN	To be installed	ER-300P	L&T		PGCIL	600/1A	220KV/110V
20	DARBHANGA-2 CHECK	To be installed	ER-300P	L&T		PGCIL	600/1A	220KV/110V
21	GOPALGANJ-1 MAIN	LT-0131A	ER-300P	L&T	Sep-12	KBUNL	600/1A	220KV/110V
22	GOPALGANJ-1 CHECK	TP-0008A	ER-300P	L&T	Nov-07	KBUNL	600/1A	220KV/110V
23	GOPALGANJ-2 MAIN	LT-0246A	ER-300P	L&T	Apr-15	KBUNL	800/1A	220KV/110V
24	GOPALGANJ-2 CHECK	LT-0219A	ER-300P	L&T	Apr-15	KBUNL	800/1A	220KV/110V
25	Kaffen-1 Main	NP-7878A	ER-300P	L&T	Aug-12	PGCIL	600/1A	220KV/110V
26	Kaffen-1 Check	NP-5064A	ER-300P	L&T	Jun-06	PGCIL	600/1A	220KV/110V
27	Kaffen-2 Main	NP-7879A	ER-300P	L&T	Aug-12	PGCIL	600/1A	220KV/110V
28	Kaffen-2 Check	NP-5065A	ER-300P	L&T	Jun-06	PGCIL	600/1A	220KV/110V
29	Gen-3	LT-0252B	ER-300P	L&T	Apr-15	KBUNL	10000/5A	15.75KV/110V
30	Gen-4	LT-0260B	ER-300P	L&T	Apr-15	KBUNL	10000/5A	15.75KV/110V
31	GT-3	LT-0214A	ER-300P	L&T	Apr-15	KBUNL	800/1A	220KV/110V
32	GT-4	LT-0242A	ER-300P	L&T	Apr-15	KBUNL	800/1A	220KV/110V
33	ST-3	LT-0187A	ER-300P	L&T	Mar-14	KBUNL	200/1A	220KV/110V
34	ST-4	To be installed	ER-300P	L&T		KBUNL	200/1A	220KV/110V
35	Bus Sec-1 Main	To be installed	ER-300P	L&T		PGCIL		
36	Bus sec-1 Check	To be installed	ER-300P	L&T		PGCIL		
37	Bus Sec-2 Main	To be installed	ER-300P	L&T		PGCIL		
38	Bus sec-2 Check	To be installed	ER-300P	L&T		PGCIL		
39	ST-3 LV	To be installed	ER-300P	L&T		KBUNL		
40	ST-4 LV	To be installed	ER-300P	L&T		KBUNL		
41	UAT-3 LV	To be installed	ER-300P	L&T		KBUNL		
42	UAT-4 LV	To be installed	ER-300P	L&T		KBUNL		
43	COLONY TR-1	LT-0139A	ER-300P	L&T	Sep-12	KBUNL	300/1A	6.6KV/110V
44	COLONY TR-2	LT-0143A	ER-300P	L&T	Nov-12	KBUNL	300/1A	6.6KV/110V
45	UAT-1 (1BA)	LT-0134A	ER-300P	L&T	Sep-12	KBUNL	1A	6.6KV/110V
46	UAT-1 (1BB)	LT-0137A	ER-300P	L&T	Sep-12	KBUNL	1A	6.6KV/110V
50	UAT-2 (2BA)	LT-0190A	ER-300P	L&T	Mar-14	KBUNL	1A	6.6KV/110V
51	UAT-2 (2BB)	LT-0193A	ER-300P	L&T	Mar-14	KBUNL	1A	6.6KV/110V
52	STAGE-2 TR-1	TP-0007A	ER-300P	L&T	Nov-07	KBUNL	300/1A	6.6KV/110V
53	STAGE-2 TR-2	LT-0138A	ER-300P	L&T	Sep-12	KBUNL	300/1A	6.6KV/110V

Remark
Stage-1 Side
Stage-2 side
Stage-1 Side

3rd Phase : 32 Locations			Annexure-X			S.No	ERLDC_ID	OLD MTR	NEW MTR	LOCATION	S.No	ERLDC_ID	OLD MTR	NEW MTR	LOCATION
1	CHAIBASA(CHB)	PG	1	EN-29		NP-7950-A	ANGUL(PG)	86	ES-48		NR-4444-A		KISHANAGNJ(PG)		
2	RANGPO(RGP)	PG	2	EN-30		NP-7558-A	ANGUL(PG)	87	ES-49		NR-4436-A		KISHANAGNJ(PG)		
3	NEW MELLI(NML)	PG	3	EN-31		NP-7987-A	ANGUL(PG)	88	ES-50		NR-4440-A		KISHANAGNJ(PG)		
4	SAGBARI(SGB)	SIKKIM	4	EN-32		NP-7988-A	ANGUL(PG)	89	ES-11		NP-8887-A		KISHANGANJ(PG)		
5	GYALSHING(GSH)	SIKKIM	5	EN-43		NP-7629-A	ANGUL(PG)	90	ES-12		NP-8885-A		KISHANGANJ(PG)		
6	NABINAGAR(NBN)	NTPC	6	EN-44		NP-7949-A	ANGUL(PG)	91	ES-13		NP-8856-A		KISHANGANJ(PG)		
7	IND-BARATH(IBR)	IPPR	7	EN-32	NP-7988-A	NP-7908-A	ANGUL(PG)	92	ES-14		NP-8886-A		KISHANGANJ(PG)		
8	TALCHER SOLAR(TLS)	NTPC	8	EN-63		NP-8780-A	ANGUL(PG)	93	ES-15		NP-8858-A		KISHANGANJ(PG)		
9	KUDRA(KUD)	BIHAR	9	EN-64		NP-8781-A	ANGUL(PG)	94	ES-16		NP-8889-A		KISHANGANJ(PG)		
10	RANCHI NEW(RNC)	PG	10	EN-65		NP-8785-A	ANGUL(PG)	95	ES-17		NP-8859-A		KISHANGANJ(PG)		
11	LAKHISARAI(LKS)	PG	11	EN-66		NP-8786-A	ANGUL(PG)	96	ES-18		NP-8855-A		KISHANGANJ(PG)		
12	LAKHISARAI(LKK)	BIHAR	12	EN-77		NP-8778-A	ANGUL(PG)	97	ES-19		NP-8880-A		KISHANGANJ(PG)		
13	JAMUI(JMU)	BIHAR	13	EN-78		NP-8779-A	ANGUL(PG)	98	ES-20		NP-8888-A		KISHANGANJ(PG)		
14	KISANGANJ(KSN)	PG	14	EN-82		NP-8777-A	ANGUL(PG)	99	ES-21		NP-8857-A		KISHANGANJ(PG)		
15	BALIMELA(BLM)	GRIDCO	15	ES-06		NP-8788-A	ANGUL(PG)	100	WB-29		NP-7381-A		KOLAGHAT(WB)		
16	JLHEP(DANS ENERGY)	IPPR	16	ES-05	NP-8787-A	NP-7995-A	ANGUL(PG)	101	BI-50		NP-7869-A		KUDRA(BSPHCL)		
17	CHAIBASA(CHA)	JUVNL	17	AP-03	NP-7438-A	NP-8642-A	APNRL	102	BI-26		NP-8697-A		LAKHISARAI(BSPHCL)		
18	SADIEPALI(SDP)	GRIDCO	18	AP-02	NP-7462-A	NP-8643-A	APNRL	103	BI-30		NP-8670-A		LAKHISARAI(BSPTCL)		
19	KATAPALLI(KTP)	GRIDCO	19	EN-93		NP-8742-A	ARA(PG)	104	BI-31		NP-8671-A		LAKHISARAI(BSPTCL)		
20	NEW DUBRI(DBR)	GRIDCO	20	EN-94		NP-8743-A	ARA(PG)	105	EN-46		NP-7432-A		LAKHISARAI(PG)		
21	NEW PUSAULI(NPS)	BIHAR	21	ES-02		NP-8860-A	ARA(PG)	106	EN-27		NP-7433-A		LAKHISARAI(PG)		
22	FORBISGANJ(FBS)	BIHAR	22	OR-15		NP-7991-A	BALIMELA(GRIDCO)	107	EN-37		NP-7889-A		LAKHISARAI(PG)		
23	NALANDA(NLN)	BIHAR	23	OR-16		NP-7992-A	BALIMELA(GRIDCO)	108	EN-26		NP-7885-A		LAKHISARAI(PG)		
24	DUMKA(DUM)	JUVNL	24	BI-72		NP-8748-A	BANKA(BSPTCL)	109	EN-47		NP-7886-A		LAKHISARAI(PG)		
25	BANKA(BNK)	PG	25	EN-83		NP-8673-A	BANKA(PG)	110	EN-50		NP-7429-A		LAKHISARAI(PG)		
26	PANDIABILPNB)	PG	26	EN-84		NP-8675-A	BANKA(PG)	111	EN-50		NP-7429-A		LAKHISARAI(PG)		
27	KISANGANJ(KIS)	BSPTCL	27	ES-03		NP-8694-A	BANKA(PG)	112	EN-51		NP-7887-A		LAKHISARAI(PG)		
28	TEEST-III(TST)	TUL	28	ES-04		NP-8696-A	BANKA(PG)	113	EN-52		NP-7430-A		LAKHISARAI(PG)		
29	BANGRIPOSHI(BGR)	GRIDCO	29	BH-22		NP-7482-A	BARH(NTPC)	114	EN-89		NP-7887-A		LAKHISARAI(PG)		
30	DIKCHU(DIC)	DICKCHU	30	ES-45		NP-8074-A	BARIPADA(PG)	115	EN-90		NP-7430-A		LAKHISARAI(PG)		
31	DARBHANGA(DBG)	DMTCL	31	EN-68		NP-8721-A	BERHAMPURE(PG)	116	EN-51		NP-7888-A		LAKHISARAI(PG)		
32	HALDIA(HAL)	WBSETCL	32	EN-69		NP-8726-A	BERHAMPURE(PG)	117	EN-52		NP-7431-A		LAKHISARAI(PG)		
In Future			33	ES-22		NP-8790-A	BOLANGIR(PG)	118	EN-87		NP-8727-A		MAITHON(PG)		
1	CHANDWA(CHW)	JUVNL	34	ES-23		NP-8789-A	BOLANGIR(PG)	119	EN-88		NP-8739-A		MAITHON(PG)		
2	KESINGA(KES)	GRIDCO	35	EP-99		NP-7560-A	BOLANGIR(PG)	120	ES-42		NP-7401-A		MAITHON(PG)		
3	KEONJHAR(KEO)	GRIDCO	36	JS-11		NP-8865-A	CHAIBASA(JUVNL)	121	ES-27		NP-8775-A		MALDA(PG)		
4	ATRI(ATR)	GRIDCO	37	JS-12		NP-8866-A	CHAIBASA(JUVNL)	122	ES-28		NP-8776-A		MALDA(PG)		
5	PURI(PUR)	GRIDCO	38	JS-13		NP-8867-A	CHAIBASA(JUVNL)	123	OR-20	NP-5983-A	NP-7498-A		MENDHASAL(GRIDCO)		
			39	EN-58		NP-8678-A	CHAIBASA(PG)	124	ES-01		NP-8874-A		MUZAFFARPUR(PG)		
			40	EN-67		NP-8637-A	CHAIBASA(PG)	125	ES-07		NP-8871-A		MUZAFFARPUR(PG)		
			41	EN-97		NP-8868-A	CHAIBASA(PG)	126	ES-08		NP-8873-A		MUZAFFARPUR(PG)		
			42	EN-98		NP-8869-A	CHAIBASA(PG)	127	ES-09		NP-8872-A		MUZAFFARPUR(PG)		
			43	ES-29		NP-7471-A	CHAIBASA(PG)	128	ES-43		NP-6077-A		MUZAFFARPUR(PG)		
			44	ES-30		NP-7467-A	CHAIBASA(PG)	129	ES-44		NP-6078-A		MUZAFFARPUR(PG)		
			45	EM-49		NP-7880-A	CHANDIL(JUVNL)	130	NB-01		NP-8700-A		NABINAGAR		
			46	DM-01		NP-8656-A	DARBHANGA(DMTCL)	131	NB-02		NP-8701-A		NABINAGAR		
			47	DM-02		NP-8719-A	DARBHANGA(DMTCL)	132	NB-05		NP-8662-A		NABINAGAR		
			48	OR-23		NP-7915-A	DUBURI(GRIDCO)	133	NB-07		NP-8892-A		NABINAGAR		
			49	JS-09		NP-8695-A	DUMKA(JUVNL)	134	NB-11		NP-8891-A		NABINAGAR		
			50	JS-10		NP-8774-A	DUMKA(JUVNL)	135	OR-22		NP-7916-A		NEW DUBURI(GRIDCO)		
			51	BI-34		NP-8883-A	FORBESGANJ(BSPTCL)	136	EN-85		NP-8647-A		NEW MELLI(PG)		
			52	BI-35		NP-8884-A	FORBESGANJ(BSPTCL)	137	EN-86		NP-8640-A		NEW MELLI(PG)		
			53	EP-18	NP-7471-A	NP-8660-A	GAYA(PG)	138	ES-31		NP-7442-A		PANDIABILI(PG)		
			54	ES-26		NP-8659-A	GAYA(PG)	139	ES-32		NP-7427-A		PANDIABILI(PG)		
			55	EP-19	NP-7470-A	NP-8658-A	GAYA(PG)	140	ES-33		NP-7454-A		PANDIABILI(PG)		
			56	SM-07		NP-8730-A	GYALSHING(SIKKIM)	141	ES-34		NP-7554-A		PANDIABILI(PG)		
			57	WB-60		LT-0307-A	HALDIA CESC(WB)	142	ES-35		NP-7438-A		PANDIABILI(PG)		
			58	WB-61		LT-0311-A	HALDIA CESC(WB)	143	ES-36		NP-7407-A		PANDIABILI(PG)		
			59	IB-01		NP-8792-A	IBEUL	144	ES-10		NP-8655-A		PATNA(PG)		
			60	IB-02		NP-8793-A	IBEUL	145	BI-32		NP-8664-A		PUSAULI NEW(BSPHCL)		
			61	IB-03		NP-8795-A	IBEUL	146	BI-33		NP-8665-A		PUSAULI NEW(BSPHCL)		
			62	IB-04		NP-8794-A	IBEUL	147	ES-40		NP-8692-A		PUSAULI(PG)		
			63	IB-05		NP-8783-A	IBEUL	148	ES-41		NP-8693-A		PUSAULI(PG)		
			64	IB-06		NP-8782-A	IBEUL	149	EN-10		NP-7847-A		RANCHI NEW(PG)		
			65	IB-07		NP-8784-A	IBEUL	150	EN-11		NP-7876-A		RANCHI NEW(PG)		

66	IB-08		NP-8796-A	IBEUL	151	EN-12		NP-7849-A	RANCHI NEW(PG)
67	BI-27		NP-8698-A	JAMUI(BSPHCL)	152	EN-13		NP-7866-A	RANCHI NEW(PG)
68	BI-26		NP-8669-A	JAMUI(BSPHCL)	153	EN-14		NP-7865-A	RANCHI NEW(PG)
69	BI-27		NP-8668-A	JAMUI(BSPHCL)	154	EN-19		NP-7875-A	RANCHI NEW(PG)
70	OR-55	NP-0624-B	NP-5938-A	JODA(GRIDCO)	155	EN-91		NP-8755-A	RANCHI NEW(PG)
71	JL-01		NP-8737-A	JORETHANG(JLHEP)	156	EN-92		NP-8754-A	RANCHI NEW(PG)
72	JL-02		NP-8766-A	JORETHANG(JLHEP)	157	EN-99		NP-8753-A	RANCHI NEW(PG)
73	JL-03		NP-8762-A	JORETHANG(JLHEP)	158	RG-12		NP-8734-A	RANGIT(NHPC)
74	JL-04		NP-8763-A	JORETHANG(JLHEP)	159	RG-13		NP-8733-A	RANGIT(NHPC)
75	JL-05		NP-8764-A	JORETHANG(JLHEP)	160	RG-14		NP-8732-A	RANGIT(NHPC)
76	JL-06		NP-8765-A	JORETHANG(JLHEP)	161	RG-15		NP-8736-A	RANGIT(NHPC)
77	BI-68	NP-5064-A	NP-7398-A	KANTI(BSPHCL)	162	RG-16		NP-8735-A	RANGIT(NHPC)
78	BI-69	NP-5065-A	NP-7452-A	KANTI(BSPHCL)	163	EN-20		NP-7958-A	RANGPO(PG)
79	OR-17		NP-7561-A	KATAPALI(GRIDCO)	164	EN-21		NP-7959-A	RANGPO(PG)
80	JS-50		NP-8644-A	KENDIPOSI(JUVNL)	165	EN-22		NP-7933-A	RANGPO(PG)
81	WB-30		NP-7403-A	KHARAGPUR(WB)	166	EN-23		NP-7955-A	RANGPO(PG)
82	BS-38		NR-4442-A	KISHANAGNJ(BSPTCL)	167	EN-24		NP-7956-A	RANGPO(PG)
83	BS-39		NR-4445-A	KISHANAGNJ(BSPTCL)	168	EN-25		NP-7957-A	RANGPO(PG)
84	ES-46		NP-7013-A	KISHANAGNJ(PG)	169	EN-33		NP-7922-A	RANGPO(PG)
85	ES-47		NR-4614-A	KISHANAGNJ(PG)	170	EN-34		NP-7923-A	RANGPO(PG)
					171	EN-35		NP-7924-A	RANGPO(PG)
					172	EN-36		NP-7623-A	RANGPO(PG)
					173	EN-39		NP-7622-A	RANGPO(PG)
					174	EN-38		NP-7621-A	RANGPO(PG)
					175	EN-54		NP-7619-A	RANGPO(PG)
					176	EN-55		NP-7620-A	RANGPO(PG)
					177	EN-59		NP-8710-A	RANGPO(PG)
					178	EN-60		NP-8711-A	RANGPO(PG)
					179	EN-80		NP-8714-A	RANGPO(PG)
					180	EN-81		NP-8715-A	RANGPO(PG)
					181			NP-7940-A	RANGPO(PG)
					182			NP-7941-A	RANGPO(PG)
					183	ES-24		NP-8712-A	RANGPO(PG)
					184	ES-25		NP-8713-A	RANGPO(PG)
					185	BI-07	NP-6074-A	NP-7825-A	SABOUR(BSPHCL)
					186	BI-73		NP-8749-A	SABOUR(BSPHCL)
					187	OR-18		NP-7944-A	SADEIPALI(GRIDCO)
					188	WB-23		LT-0194-A	SAGARDIGHI(WBSETCL)
					189	WB-24		LT-0191-A	SAGARDIGHI(WBSETCL)
					190	WB-25		NP-8724-A	SAGARDIGHI(WBSETCL)
					191	WB-26		NP-8725-A	SAGARDIGHI(WBSETCL)
					192	WB-27		NP-8723-A	SAGARDIGHI(WBSETCL)
					193	WB-28		NP-8722-A	SAGARDIGHI(WBSETCL)
					194	SM-05		NP-8797-A	SAGBARI(SIKKIM)
					195	SM-06		NP-8798-A	SAGBARI(SIKKIM)
					196	WB-53	NP-6488-A	NP-7942-A	SANTALDIH(WB)
					197	BI-28		NP-8653-A	SULTANGANJ(BSPHCL)
					198	BI-29		NP-8672-A	SULTANGANJ(BSPHCL)
					199	BI-61	NP-6019-B	NP-7400-A	SULTANGANJ(BSPHCL)
					200	EN-40		NP-7906-A	SUNDERGARH(PG)
					201	EN-41		NP-7634-A	SUNDERGARH(PG)
					202	EN-42		NP-7638-A	SUNDERGARH(PG)
					203	EN-57		NP-7907-A	SUNDERGARH(PG)
					204	EN-79		NP-7636-A	SUNDERGARH(PG)
					205	EN-95		NP-7635-A	SUNDERGARH(PG)
					206	TL-32		NP-7961-A	TALCHER SOLAR(NTPC)
					207	TL-33		NP-7626-A	TALCHER SOLAR(NTPC)
					208	TL-34		NP-7962-A	TALCHER SOLAR(NTPC)
					209	TL-35		NP-7628-A	TALCHER SOLAR(NTPC)
					210	TL-37		NP-7627-A	TALCHER SOLAR(NTPC)
					211	TL-38		NP-5968-A	TALCHER SOLAR(NTPC)
					212	TL-31		NP-7909-A	TALCHER SOLAR(NTPC)
					213	TL-30		NP-5979-A	TALCHER SOLAR(NTPC)
					214	TL-37	NP-7627-A	NP-7946-A	TALCHER SOLAR(NTPC)
					215	TL-40	NP-7618-A	NP-7945-A	TALCHER SOLAR(NTPC)
					216	TL-39	NP-7614-A	NP-7631-A	TALCHER SOLAR(NTPC)

217	TL-41	NP-7615-A	NP-7633-A	TALCHER SOLAR(NTPC)
218	TL-36	NP-7632-A	NP-7630-A	TALCHER SOLAR(NTPC)

List of Time Drifted SEMs in ER

Annexure-XI

SNO	LOCATION ID	METER SNO	FEEDER NAME	DCU TIME	METER TIME	TIME DIF(min)
1	APNRL	NP-7884-A	400 KV JAMSHEDPUR(PG)-II	22:39:25	22:49:50	10
2	ARAH(BIHAR)	NP-6052-A	ARA END OF ARAH (PG)	23:48:25	23:59:27	11
3	BARIPADA(PG)	NP-5912-A	BARIPADA END OF RAIRANGPUR(GRIDCO)	09:04:44	09:13:40	9
4	BARIPADA(PG)	NP-5913-A	BARIPADA END OF BALASORE (GRIDCO) -2	09:01:56	09:16:43	15
5	BARIPADA(PG)	NP-5915-A	BARIPADA END OF BALASORE(GRIDCO)-1	09:01:01	09:11:38	10
6	BARIPADA(PG)	NP-5916-A	BARIPADA END OF BARIPADA(GRIDCO)	09:05:37	09:14:46	9
7	BARIPADA(PG)	NP-5971-A	BARIPADA END OF MENDHASAL(GRIDCO)-2	09:09:09	09:24:07	15
8	BARIPADA(PG)	NP-5974-A	BARIPADA END OF JAMSHEDPUR	09:10:54	09:26:08	16
9	BARIPADA(PG)	NP-5975-A	BARIPADA END OF MENDHASAL(GRIDCO)-1	09:08:17	09:22:35	14
10	BIDHANNAGAR	NP-5831-A	400 KV B NAGAR-1 LINE MAIN	09:16:51	09:30:15	14
11	BIHARSHARIFF(PG)	NP-6061-A	400 KV BIHARSHARIFF(ER)-BALIA (NR)-1	09:10:09	09:18:15	8
12	BIHARSHARIFF(PG)	NP-6062-A	400 KV BIHARSHARIFF(PG) - SASARAM (ER) -2	09:02:34	09:09:51	7
13	BIHARSHARIFF(PG)	NP-6064-A	400 KV BIHARSHARIFF(PG) - SASARAM (ER) -1	09:04:20	09:12:01	8
14	BIHARSHARIFF(PG)	NP-6065-A	400 KV BIHARSHARIFF(ER)-BALIA (NR)-2	09:03:27	09:12:48	9
15	BIHARSHARIFF(PG)	NP-7840-A	400 KV BIHARSHARIFF(PG)-PURNEA(PG) LINE-1	09:09:23	09:17:24	8
16	BIHARSHARIFF(PG)	NP-7841-A	400 KV BIHARSHARIFF(PG)-LAKHISARAI(PG) LINE-1	09:01:01	09:08:46	7
17	BIHARSHARIFF(PG)	NP-7842-A	400 KV BIHARSHARIFF(PG)-KAHALGAON(NTPC) LINE-2	09:01:48	09:10:29	9
18	BIHARSHARIFF(PG)	NP-7867-A	400 KV B SHARIFF(PG)-SASARAM(PG)-III	09:07:03	09:14:22	7
19	BIHARSHARIFF(PG)	NP-7868-A	400 KV B SHARIFF(PG)-GAYA(PG)	09:08:36	09:16:12	8
20	BIHARSHARIFF(PG)	NP-8640-A	400 KV BIHARSHARIFF(PG)-KODERMA(DVC)LINE-I	09:12:01	09:19:47	7
21	BINAGURI	NP-7917-A	BINAGURI END BONGAIGAON LINE - 3	09:12:24	09:29:32	17
22	BINAGURI	NP-7918-A	BINAGURI END BONGAIGAON LINE - 4	09:11:35	09:27:21	16
23	BINAGURI(PG)	NP-5086-A	BINAGURI END OF TALA (THP)-1	09:00:54	09:12:49	12
24	BINAGURI(PG)	NP-5087-A	BINAGURI END OF TALA (THP)-2	09:04:28	09:12:03	8
25	BINAGURI(PG)	NP-5088-A	BINAGURI END OF MALBASE(PG)	09:03:35	09:15:59	12
26	BINAGURI(PG)	NP-5090-A	BINAGURI END OF PURNEA-1	09:07:57	09:16:45	9
27	BINAGURI(PG)	NP-5091-A	BINAGURI END OF PURNEA-2	09:08:53	09:22:12	14
28	BINAGURI(PG)	NP-5092-A	BINAGURI END OF PURNEA-3	09:06:13	09:16:50	10
29	BINAGURI(PG)	NP-5093-A	BINAGURI END OF PURNEA-4	09:07:05	09:14:56	7
30	BINAGURI(PG)	NP-5881-A	BINAGURI END OF NEW JALPAIGURI (WBIHAR)-2	09:14:03	09:21:42	7
31	BINAGURI(PG)	NP-5882-A	BINAGURI END OF NEW JALPAIGURI (WBIHAR)-I	09:13:11	09:27:44	14
32	BINAGURI(PG)	NP-5884-A	BINAGURI END OF BONGAIGAON (NER)-1	09:01:50	09:11:23	10
33	BINAGURI(PG)	NP-5885-A	BINAGURI END OF BONGAIGAON (NER)-2	09:05:20	09:17:16	12
34	BINAGURI(PG)	NP-5886-A	BINAGURI END OF TEESTA-V-1	09:09:46	09:20:31	11
35	BINAGURI(PG)	NP-5887-A	BINAGURI END OF TEESTA-V-2	09:10:42	09:25:47	15
36	BINAGURI(PG)	NP-5888-A	BINAGURI END OF TALA (THP)-4	09:02:43	09:16:23	14
37	BIRPARA(PG)	NP-5892-A	BIRPARA END OF BIRPARA (WB)-1	23:46:51	00:22:24	36
38	BIRPARA(PG)	NP-6490-A	BIRPARA END OF MALBASE	23:51:21	23:43:24	-8
39	BIRPARA(WB)	NP-5893-A	BIRPARA END OF BIRPARA (PG)-2	22:48:22	23:11:10	23
40	BIRPARA(WB)	NP-6464-A	BIRPARA END OF CHUKHA (CHPC) -2	23:49:28	23:40:20	-9
41	BOLANGIR(PG)	NP-7537-A	BOLANGIR END OF JEYPORE-1	23:48:43	00:03:30	15
42	BOLANGIR(PG)	NP-7538-A	BOLANGIR END OF JINDAL(JDL)	23:50:59	00:07:28	17
43	CHANDIL(JKND)	NP-7434-A	CHANDIL END OF RANCHI (PG)	22:56:17	23:13:35	17
44	CHANDIL(JKND)	NP-7435-A	CHANDIL END OF HATIA(JSEB)	22:50:54	23:06:20	16
45	CHANDIL(JKND)	NP-7436-A	CHANDIL END OF SANTALDIH (WBIHAR)	22:55:29	23:12:12	17
46	CHANDIL(JKND)	NP-7461-A	CHANDIL END OF MANIQUE (DVC)	22:54:41	23:06:50	12
47	DALKHOLA(PG)	NP-5068-A	220 KV DALKHOLA (WB) LINE-2	09:00:49	09:23:56	23
48	DALKHOLA(PG)	NP-6477-A	220 KV DALKHOLA FDR1	09:05:03	08:52:45	-13
49	DALKHOLA(PG)	NP-6479-A	220 KV DALKHOLA FDR2	09:04:07	08:48:58	-16
50	DALKHOLA(PG)	NP-7969-A	220 DALKHOLA(WBSETCL) LINE-1	09:00:02	09:16:47	16
51	DALKHOLA(WB)	NP-8729-A	DALKHOLA(WB) END OF DALKHOLA LINE-1	23:54:51	00:03:01	9
52	DEHRI(BIHAR)	NP-6097-A	220 KV DEHRI (BSPHCL) - PUSAULI (PG)	23:47:45	23:58:51	11
53	DEHRI(BIHAR)	NP-6098-A	132 KV DEHRI (BSPHCL) - PUSAULI (PG)	23:53:13	00:07:46	14
54	DEHRI(BIHAR)	NP-7397-A	220 KV DEHRI (BSPHCL)-GAYA(PG) LINE-II	23:52:28	00:07:48	15
55	DEHRI(BIHAR)	NP-7449-A	220 KV DEHRI (BSPHCL)-GAYA(PG) LINE-I	23:51:43	00:07:02	16
56	DUMRAON(BIHAR)	NP-6067-A	132 KV DUMRAON (BSPHCL) - ARAH (PG)	22:48:59	22:59:53	11
57	FARAKKA(NTPC)	NP-5222-A	FARAKKA (NTPC)-DURGAPUR (PG)	09:10:47	09:18:33	8
58	GANGTOK(PG)	NP-6026-A	132 KV GANGTOK(PG) - RANGPO (PG)	22:47:12	22:56:55	9
59	GANGTOK(PG)	NP-6027-A	132 KV GANGTOK(PG) - RANGIT (NHPC)	22:48:12	22:59:46	11
60	GANGTOK(PG)	NP-6028-A	132 KV SIDE OF GANGTOK 132/66 KV ICT-2	22:50:02	23:06:32	16
61	GANGTOK(PG)	NP-6029-A	132 KV SIDE OF GANGTOK 132/66 KV ICT-1	22:49:07	22:59:22	10
62	GAYA(PG)	NP-7396-A	220 KV GAYA (PG)-BODHGAYA(BSPHCL) LINE-I	15:52:14	16:01:55	9
63	GAYA(PG)	NP-7473-A	GAYA- KODERMA LINE-1	15:32:47	15:43:42	11
64	GAYA(PG)	NP-7857-A	220 KV GAYA (PG)-DEHRI(BSPHCL) LINE-I	15:57:56	16:07:54	10
65	HATIA(JKND)	NP-6121-A	HATIA END OF CHANDIL (JSEB)	09:01:01	09:23:40	22
66	HATIA(JKND)	NP-6122-A	HATIA END OF RANCHI (PG)	09:00:02	09:14:49	14
67	JAMSHEDPUR(PG)	NP-6010-B	JAMSHEDPUR END OF JODA(GRIDCO)	23:45:59	00:18:15	33
68	JEYPORE(PG)	NP-5959-A	JEYPORE END OF INDRAVATI (PG)	23:30:15	00:09:33	39
69	JEYPORE(PG)	NP-5960-A	JEYPORE END OF M MUNDALI (GRIDCO)	23:31:05	00:13:18	42
70	JEYPORE(PG)	NP-5962-A	JEYPORE END OF GAJUWAKA (PG) -2	23:32:10	00:13:54	41
71	JITPL	NP-7604-A	400 KV JINDAL-ANGUL(PG) LINE-2 (MAIN)	23:45:13	23:54:02	9
72	JITPL	NP-7895-A	400 KV JINDAL-ANGUL(PG) LINE-1 (MAIN)	23:46:46	23:55:57	9
73	JODA(GR)	NP-5937-A	220 KV JODA (GRIDCO)-RAMCHANDRAPUR (JSEB)	22:49:39	22:57:17	8
74	KAHALGAON(BIHAR)	NP-6071-A	KAHALGAON END OF LALMATIA LINE-I	22:47:53	23:05:55	18
75	KAHALGAON(BIHAR)	NP-6076-A	KAHALGAON END OF KAHALGAON (NTPC)	22:50:37	23:04:55	14
76	KALIMPONG	NP-5849-A	66 KV Kalimpong	23:46:43	00:02:18	16
77	KEONJHAR(PG)	NP-7547-A	KEONJHAR END OF 400 KV BARIPADA(PG)	09:08:20	09:25:59	17
78	KEONJHAR(PG)	NP-7548-A	KEONJHAR END OF 400 KV RENGALI(PG)	09:02:48	09:18:04	16
79	KHAGUAL(BSPTCL)	NP-5833-A	KHAGUAL END OF PATNA	22:50:15	23:04:18	14
80	KHAGUAL(BSPTCL)	NP-6060-A	KHAGUAL END OF ARAH (PG)-2	22:49:21	22:58:23	9
81	KHL(NTPC)	NP-5258-A	400 KV KAHALGAON (NTPC)-FARAKKA(NTPC)-1	09:19:21	09:27:58	8
82	KHL(NTPC)	NP-5861-A	400 KV KAHALGAON-BANKA-2 (CHK)	09:08:58	09:15:35	7
83	KISHANGANJ(BIHAR)	NP-6085-A	KISHANGANJ END OF DALKHOLA (WBIHAR)	23:51:15	00:03:21	12
84	KOLAGHAT(DVC)	NP-6558-B	KOLAGHAT END OF KOLAGHAT (WBIHAR)	22:17:19	22:08:26	-9
85	K'SWARI(DVC)	NP-6561-B	KALNESHWARI END OF MAITHON (PG) -1n2(SUM)	22:51:45	22:43:21	-8
86	LALMATIA(JKND)	NP-6107-A	132 KV LALMATIA (JSEB) - KAHALGAON (BSPHCL)	09:00:02	09:15:27	15
87	LALMATIA(JKND)	NP-6108-A	132 KV LALMATIA (JSEB) - KAHALGAON (NTPC)	09:01:01	09:15:45	14
88	LALMATIA(JKND)	NP-6109-A	220 KV LALMATIA (JSEB) - FARAKKA (NTPC)	09:01:53	09:14:48	13
89	MAITHON(PG)	NP-5206-A	MAITHON END OF MEJJA(DVC) LINE-1	23:53:59	00:25:36	32

90	MAITHON(PG)	NP-5225-A	MAITHON END OF MEJIA(DVC) LINE-2	23:47:26	00:19:30	32
91	MAITHON(PG)	NP-6519-A	MAITHON END OF MAITHON RB (MPL)-1	23:52:59	23:44:22	-8
92	MAITHON(PG)	NP-6520-A	MAITHON END OF MAITHON RB (MPL)-2	23:52:01	23:45:00	-7
93	MAITHON(PG)	NP-7492-A	MAITHON END OF DURGAPUR(PG)-II	23:57:09	00:15:53	18
94	MAITHON(PG)	NP-7534-A	MAITHON END OF DURGAPUR(PG)-I	23:56:23	00:13:16	17
95	MAITHON(PG)	NP-7535-A	MAITHON END OF RTPS -2	23:58:40	00:17:07	19
96	MAITHON(PG)	NP-7550-A	MAITHON END OF KODERMA LINE-I	23:59:25	00:16:53	17
97	MAITHON(PG)	NP-7551-A	MAITHON END OF KODERMA LINE-II	21:00:17	21:16:56	16
98	MAITHON(PG)	NP-7902-A	MAITHON END OF RANCHI LINE	23:57:54	00:13:32	16
99	MAITHON(PG)	NP-7903-A	MAITHON END OF KHALGAON LINE-1	23:55:38	00:12:14	17
100	MAITHON(PG)	NP-7904-A	MAITHON END OF KHALGAON LINE-2	23:54:53	00:11:25	17
101	MALDA(PG)	NP-6478-A	132 KV MALDA WBSETCL2	09:00:02	08:46:27	-14
102	MALDA(PG)	NP-7555-A	132 KV MALDA WBSETCL1	09:01:47	09:20:06	19
103	MEJIA(DVC)	NP-5227-A	MEJIA(DVC) END OF MAITHON(PG)-2	22:51:51	23:10:24	19
104	MEJIA(DVC)	NP-6508-A	MEJIA(DVC) END OF JAMSHEDPUR (PG)	22:58:22	22:50:03	-8
105	MEJIA(DVC)	NP-6557-A	MEJIA(DVC) END OF DSTPS (DVC)	22:56:36	22:46:58	-10
106	MEJIA(DVC)	NP-6776-A	MEJIA(DVC) END OF DSTPP (DVC)	22:55:41	22:44:01	-11
107	MEJIA(DVC)	NP-7493-A	MEJIA(DVC) END OF JAMSHEDPUR (PG)	22:57:34	23:13:08	16
108	MEJIA(DVC)	NP-7494-A	MEJIA(DVC) END OF MAITHON(PG)-1	22:49:16	23:04:50	15
109	MEJIA(DVC)	NP-7495-A	MEJIA(DVC) END OF MAITHON(PG)-2	22:51:03	23:12:30	21
110	MEJIA(DVC)	NP-7531-A	400 KV MAITHON (PG) -2 (CHECK)	23:47:40	23:54:34	7
111	MUZAFFARPUR(PG)	NP-5062-A	400 KV MUZAFFARPUR - PURNEA-2	09:03:42	09:12:29	9
112	MUZAFFARPUR(PG)	NP-5063-A	220 KV MUZAFFARPUR(PG) - KANTI(BASEB)-1	09:10:04	09:17:33	7
113	MUZAFFARPUR(PG)	NP-5071-A	400 KV MUZAFFARPUR (PG)-BIHARSHARIFF(PG)-1	09:05:31	09:13:36	8
114	MUZAFFARPUR(PG)	NP-5233-A	220 KV MUZAFFARPUR(PG)-HAJIPUR(BSPHCL) LINE-1	09:07:23	09:23:39	16
115	MUZAFFARPUR(PG)	NP-5234-A	220 KV MUZAFFARPUR(PG)-HAJIPUR(BSPHCL) LINE-2	09:08:19	09:21:47	13
116	MUZAFFARPUR(PG)	NP-7851-A	220KV MUZAFFARPUR -1 (PG)	09:00:02	09:17:07	17
117	MUZAFFARPUR(PG)	NP-7852-A	220KV MUZAFFARPUR -2(PG)	09:00:49	09:15:33	15
118	MUZAFFARPUR(PG)	NP-9981-A	400 KV MUZAFFARPUR (PG)-GORAKHPUR(NR)-2	09:04:38	09:13:54	9
119	NBU(WB)	NP-5939-A	132 KV JODA (GRIDCO)-KENDPOSI (JSEB)	22:48:38	22:56:23	8
120	NBU(WB)	NP-5953-A	NBU END OF SLIGURI(PG)-1	09:00:02	09:17:08	17
121	PANDIABILI(PG)	NP-7554-A	400 KV PANDIABILI(PG)-MENDHASAL(GRIDCO)-2	07:02:33	07:19:45	17
122	PATNA(PG)	NP-5272-A	400 KV PATNA - BARR-I	09:28:41	09:38:21	10
123	PATNA(PG)	NP-5273-A	400 KV PATNA (ER) - BALIA (NR)-2	09:31:32	09:43:16	12
124	PATNA(PG)	NP-5274-A	400 KV PATNA (ER) - BALIA (NR)-1	09:22:56	09:32:39	10
125	PATNA(PG)	NP-5832-A	220 KV PATNA(PG) - KHAGAUL(BSPHCL)	09:08:47	09:20:12	12
126	PATNA(PG)	NP-5865-A	220 KV PATNA - FATUA	09:00:02	09:12:54	12
127	PATNA(PG)	NP-7838-A	220 KV PATNA(PG)-SIPARA(BSPHCL) LINE-II	09:14:23	09:27:40	13
128	PATNA(PG)	NP-7850-A	220 KV PATNA (PG)	23:45:55	23:58:04	13
129	PATRATU(JKND)	NP-6003-B	PATRATU END OF PATRATU (DVC) TRANSFER BUS	09:01:51	09:17:44	16
130	PATRATU(JKND)	NP-6004-B	PATRATU END OF PATRATU (DVC) -1	09:00:55	09:22:46	22
131	PATRATU(JKND)	NP-6005-B	PATRATU END OF PATRATU (DVC) -2	09:00:02	09:20:27	20
132	PATRATU(JKND)	NP-6006-B	PATRATU END OF PATRATU(JSEB)-12(SUM)	23:48:50	23:56:50	8
133	PURNEA(PG)	NP-6081-A	PURNEA END OF PURNEA (BIHAR) -1	09:00:02	09:13:27	13
134	PURNEA(PG)	NP-6082-A	PURNEA END OF PURNEA (BIHAR) -2	09:01:01	09:11:41	10
135	PURNEA(PG)	NP-6083-A	PURNEA END OF PURNEA (BIHAR) -3	09:01:54	09:16:44	15
136	PURNEA(PG)	NP-6084-A	PURNEA END OF KISHANGANJ (BIHAR)	09:02:46	09:09:45	7
137	PURNEA(PG)	NP-6088-A	PURNEA END OF PURNEA (PG) -1	08:53:46	09:04:28	11
138	PURNEA(PG)	NP-6089-A	PURNEA END OF PURNEA (PG) -2	20:53:41	21:02:26	9
139	PURNEA(PG)	NP-6090-A	PURNEA END OF PURNEA (PG) -3	22:52:00	23:03:42	11
140	PURNEA(PG)	NP-7419-A	PURNEA END OF DALKHOLA (PG) -2	09:04:25	09:22:55	18
141	PURNEA(PG)	NP-7420-A	PURNEA END OF DALKHOLA (PG) -1	09:03:38	09:21:45	18
142	PURNEA(PG)	NP-7421-A	PURNEA END OF MUZAFFARPUR -1	09:05:47	09:22:37	17
143	PURNEA(PG)	NP-7422-A	PURNEA END OF MUZAFFARPUR LINE-2	09:05:01	09:23:32	18
144	PURNEA(PG)	NP-7423-A	PURNEA END OF BINAGURI (PG)-2	09:02:23	09:21:33	19
145	PURNEA(PG)	NP-7424-A	PURNEA END OF BINAGURI (PG)-1	09:01:36	09:18:53	17
146	PURNEA(PG)	NP-7828-A	PURNEA END OF MADHEPURA(BSPHCL) LINE-1	09:00:49	09:13:12	13
147	PURNEA(PG)	NP-7829-A	PURNEA END OF MADHEPURA(BSPHCL) LINE-2	09:00:02	09:16:39	16
148	PURNEA(PG)	NP-7835-A	PURNEA END OF BIHARSHARIFF LINE-2	09:07:31	09:21:57	14
149	PURNEA(PG)	NP-7843-A	220 KV PURNEA (PG) LINE-2	23:47:41	23:56:57	9
150	PURNEA(PG)	NP-7844-A	220 KV PURNEA (PG) LINE-1	23:46:53	23:56:04	10
151	PUSAULI(PG)	NP-6092-A	220KV PUSAULI-SAHUPURI(NR)	09:13:35	09:20:46	7
152	PUSAULI(PG)	NP-6093-A	220KV PUSAULI-DEHRI(BSPHCL)	09:14:28	09:22:17	8
153	PUSAULI(PG)	NP-6096-A	765 KV SASARAM(ER)- FATEHPUR(NR)	09:06:35	09:13:42	7
154	PUSAULI(PG)	NP-6101-A	400 KV SASARAM (PG) NORTH BUS-1 SARNATH	09:00:54	09:10:55	10
155	PUSAULI(PG)	NP-7468-A	400 KV SASARAM (PG) NORTH BUS-3 BALIA	09:09:11	09:26:42	17
156	RANCHI	NP-5835-A	400 KV RANCHI-SIPAT-1 (WR)	09:14:07	09:23:17	9
157	RANCHI	NP-5836-A	400 KV RANCHI-SIPAT-2 (WR)	09:15:00	09:23:06	8
158	RANCHI	NP-5871-A	400 KV RANCHI(PG)-RTPS(DVC)	09:07:56	09:19:58	12
159	RANCHI	NP-5877-A	400 KV RANCHI-MAITHON	09:06:10	09:17:55	11
160	RANCHI	NP-5879-A	220 KV RANCHI - HATIA (JSEB)	09:01:01	09:09:37	8
161	RANCHI	NP-7402-A	400 KV RANCHI(PG)- RANCHI NEW(PG) LINE-3	09:17:29	09:36:52	19
162	RANCHI	NP-7837-A	400 KV RANCHI(PG)- RANCHI NEW(PG) LINE-1	09:15:56	09:31:19	16
163	RANCHI	NP-7839-A	400 KV RANCHI(PG)- MAITHON RB(MPL)-I	09:08:49	09:18:36	10
164	RANCHI	NP-7873-A	400 KV RANCHI(PG)- RANCHI NEW(PG) LINE-4	09:18:16	09:34:20	16
165	RENGALI(PG)	NP-5990-A	RENGALI END OF RENGALI (GRIDCO) -2	22:53:58	23:01:36	8
166	RENGALI(PG)	NP-7952-A	RENGALI END OF 400 KV TSTPP LINE-1	22:56:35	23:07:05	11
167	RENGALI(PG)	NP-7953-A	RENGALI END OF 400 KV TSTPP LINE-2	22:55:47	23:05:40	10
168	ROURKELA(PG)	NP-7898-A	400 KV ROURKELA(PG) LINE-1	23:37:02	23:53:54	16
169	SANTALDIH(WB)	NP-7942-A	SANTALDIH END OF CHANDIL (JSEB)	23:48:06	00:05:20	17
170	SONNENAGAR(BIHAR)	NP-6013-B	SONNAGAR END OF RIHAND(UPSEB)	22:49:37	23:10:09	21
171	SONNENAGAR(BIHAR)	NP-6015-B	132 KV SONNENAGAR (BSPHCL)- JAPLA (JSEB)	22:48:42	23:10:02	22
172	SUBHASGRAM	NP-5080-A	SUBHASGRAM END OF SUBHASGRAM-1 (WB)	09:04:37	09:13:49	9
173	SUBHASGRAM	NP-5360-A	SUBHASGRAM END OF JEERAT (WB)	09:02:45	09:12:48	10
174	SUBHASGRAM	NP-5847-A	SUBHASGRAM END OF SUBHASGRAM-2 (WB)	09:03:41	09:14:57	11
175	SUBHASGRAM	NP-7935-A	SUBHASGRAM END OF EMBYPASS(WB) LINE-1	09:06:18	09:17:35	11
176	SUBHASGRAM	NP-7936-A	SUBHASGRAM END OF EMBYPASS(WB) LINE-2	09:07:04	09:16:43	9
177	SUBHASGRAM	NP-7937-A	400 KV HALDIA LINE 2	09:09:23	09:18:44	9
178	SUBHASGRAM	NP-7938-A	400 KV HALDIA LINE 1	09:08:37	09:20:57	12

179	TASKERA(GR)	NP-5934-A	TARKERA END OF ROURKELA (PG) -1	09:00:02	09:10:11	10
180	TENUGHAT(JKND)	NP-6115-A	TENUGHAT END OF BIHARSARIFF(BIHAR)	22:47:53	23:02:20	15

Date of Commercial Operation(DOCO) of the Asstes

						Annexure-XII
A	Split Bus arrangement for various substation in Eastern Region	DOCO	Approved Cost	Standing Committee Reference	RPC Meeting Reference	Sharing of Charges
01	400kV Transmission Line for Swapping of Purnea(1&2) bays with Sasaram(bays 3&4) AT Biharsharif Substation	21/07/16	Rs.135.16 Cr.(including IDC of Rs.5.14 Cr.).	SCM meeting of ER on 20.09.10.	15th ERPC meeting on 28.09.10	As per New Sharing methodology of PoC
B	Transmission System for Phase-I Generation Projects in Jharkhand & West Bangal Part-A1	DOCO	Approved Cost	Standing Committee Reference	RPC Meeting Reference	Sharing of Charges
01	400 kV D/C Ranchi(New)-Chandwa-Gaya line along-with associated bays at Ranchi,Chandwa & Gaya substation unde	12/07/16	Rs. 558.26 Cr. (including IDC of Rs. 26.30 Cr.).	SCM meeting of ER on 20.09.10.	16th ERPC Meeting on 18.12.10	As per New Sharing methodology of PoC
02	400kV,125 MVAR Bus Reactor I at Chandwa(GIS) substation and associated bay	12/07/16				
03	400kV,125 MVAR Bus Reactor II at Chandwa(GIS) substation and associated bay	12/07/16				
C	Eastern Region Strengthening Scheme-VI	DOCO	Approved Cost	Standing Committee Reference	RPC Meeting Reference	Sharing of Charges
01	2nos of 400kV line bays at Muzaffarpur sub-station for termination of Muzaffarpur(PG)-Darbhanga(TBCB) 400kV D/C (Triple Snowbird) line	31/08/16	Rs.12.50 Cr.(including IDC of Rs.0.69 Cr.).	SCM meeting of ER on 08.02.12 & 05.01.13.	21st ERPC Meeting at Kolkata on 21.04.14 & 24th ERPC meeting at Bhubaneswar on 27.04.13	As per New Sharing methodology of PoC
D	Eastern Region Strengthening Scheme-XII.	DOCO	Approved Cost	Standing Committee Reference	RPC Meeting Reference	Sharing of Charges
01	Replacement of existing 315 MVA, 400/220 kV ICT I with 500 MVA, 400/220 kV ICT I at Patna Sub-station	24/09/16	Rs.522.29 Cr.(including IDC of Rs.33.24 Cr.).	2nd 2013 SCM meeting of ER on 27.08.13.	25th ERPC Meeting on 21.09.13	As per New Sharing methodology of PoC
02	Replacement of existing 315 MVA, 400/220 kV ICT II with 500 MVA, 400/220 kV ICT II at Purnea Sub-station	30/09/16				
03	Conversion of 50 MVAR line reactor presently installed at Jeerat end of Baharampur-Jeerat 400kV line as Bus Reactor in parallel with existing Bus Reactor at Jeerat S/S	29/08/16				
04	Installation of 1 no of 1x125 MVAR Bus Reactor 400kV Maithan S/s with GIS bays	06/10/16				
05	1no 1x500 MVA,400/220 ICT at 400/220/132kV Baripada Sub-Station along-with GIS bays	02/10/16				
06	1no 1x25 MVAR,Bus Reactor at 400/220/132kV Baripada Sub-Station along-with GIS bays	02/10/16				
E	Eastern Region Strengthening Scheme-IX	DOCO	Approved Cost	Standing Committee Reference	RPC Meeting Reference	Sharing of Charges
01	Replacement of existing 315 MVA, 400/220 kV ICT with 500 MVA, 400/220 kV ICT I at Maithan Sub-station	18/09/16	Rs.196.58 Cr.(including IDC of Rs.10.65 Cr.).	SCM meeting of ER on 05.01.13.	22nd ERPC Meeting on 25.08.12 & 24th ERPC meeting on 27.04.13	As per New Sharing methodology of PoC
02	1 no of 1x125 MVAR Bus Reactor and associated bay at 400kV Maithan S/S	01/10/16				
F	Transmision system for transfer of Power from generation projects in Sikkim to NR/WR(Part A)	DOCO	Approved Cost	Standing Committee Reference	RPC Meeting Reference	Sharing of Charges
01	400/220kV 500 MVA ICT - I with associated bays at Kishanganj (GIS) substation	05/10/16	Rs.250.03 Cr.(including IDC of Rs.19.03 Cr.).	27th SCM meeting of NR on 30.05.09 , 29th SCM of WR on 10.09.09 & SCM of ER on 20.09.10.	15th & 16th ERPC Meeting on 28.09.10 & 18.12.10 respectively	As per New Sharing methodology of PoC
G	Eastern Region Strengthening Scheme-VII	DOCO	Approved Cost	Standing Committee Reference	RPC Meeting Reference	Sharing of Charges
01	2 nos of 400kV line bays along-with 1x63 MVAR(Fixed) line reactor at Chaibasa under Substation extention	19/06/16	Rs.71.35 Cr.(including IDC of Rs.3.96 Cr.).	SCM meeting of ER on 08.02.12	21st ERPC Meeting at Kolkata on 21.04.14	As per New Sharing methodology of PoC

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

No. Engg/Tr.Pricing/Validation/L-1/44/2013/CERC

Dated: 13/6/2016

To

Members of the Validation Committee
& Generating Companies
(As per list enclosed)

Subject: Minutes of the 2nd Meeting of Validation Committee for the Application Period from 1st July,2016 to 30th September, 2016 for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010

Sir,

Please find enclosed here with minutes of the **2nd Meeting of the Validation Committee for the year 2015-16 (Application Period from 1st July,2016 to 30th September, 2016)** for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses) **Regulations, 2010** held on 30.5.2016 in the NRLDC Conference Room at New Delhi for information and necessary action.

Yours faithfully,

S/d
(Shilpa Agarwal)
Dy. Chief (Engg)

Encl.: As above

Validation Committee Members

Sl. No.	Name of the Organizations	Name of the nominated persons	Address
1.	CERC	Shri S.C Shrivastava, Chief (Engg)	Central Electricity Regulatory Commission, 3 rd & 4 th Floor, Chanderlok Building, 36-Janpath, New Delhi -110001
2.		Shri P.K. Awasthi, Joint Chief (Fin.)	Central Electricity Regulatory Commission 3 rd & 4 th Floor, Chanderlok Building, 36-Janpath, New Delhi -110001
3.	CEA	Chief Engineer, (PSP & PA-II) Division	Central Electricity Authority 3 rd Floor, N-Wing SewaBhawan, R.K. Puram, New Delhi - 110 066
4.		Director, GM Division	Central Electricity Authority 6 th Floor, N-Wing SewaBhawan, R.K.Puram, New Delhi-110066
5.	CTU/ Powergrid	Shri H.K Mallick, GM (Comm)	Power Grid Corporation of India Ltd Plot No. 2, Sector-29, Near IFFCO Chowk, Gurgaon-122001
6.		Shri Dilip Rozekar, DGM (SEF)/ alternate member Shri RVMM Rao, Chief. Design Engineer (SEF)	Power Grid Corporation of India Ltd Plot No. 2, Sector-29, Near IFFCO Chowk, Gurgaon-122001
7.	POSOCO	Shri P. K. Agarwal General Manager	Northern Regional Load Despatch Centre,Jeet Singh Marg, KatwariaSarai, New Delhi-110016
8.		AGM, SRLDC	Southern Regional Load Despatch Centre 29, Race Course Cross Road, Bangalore, Karnataka-560009
9.		Shri K.V.S Baba Executive Director	National Load Despatch Centre B-9, Qutab Institutional Area,KatwariaSarai, New Delhi-110016
10.		Shri U.K. Verma, General Manager	Eastern Regional Load Despatch Center 14, Golf Club Road, Tollygunge, Kolkata-700 033 (W.B.)
11.	NRPC	P.S. Mhaske Member Secretary	Northern Regional Power Committee 18-A ShaheedJeet Singh Marg, KatwariaSarai, New Delhi-11
12.	WRPC	Shri S.D. Taksande, Member Secretary	Western Regional Power Committee Plot No. F-3, MIDC Area, Marol, Opp : SEEPZ, Andheri (East), Mumbai-400093

13.	SRPC	Shri S.R. Bhat, Member Secretary	Southern Regional Power Committee 29, Race Course Cross Road, Bangalore-560009, Karnataka
14.	ERPC	Shri A.K. Bandyopadhyay, Member Secretary	Eastern Regional Power Committee 14, Golf Club Road, Tollygunge, Kolkata-700 033 (W.B.)
15.		Shri S.K.Das, Director Engineering	Bihar State Electricity Board 1 st Floor, VidyutBhawan, Bailey Road, Patna-21, Bihar
16.	NERPC	Shri P.K Mishra Member Secretary	North Eastern Regional Power Committee, NERPC Complex, Dong Parmaw, Lapalang, Shillong-793006 Phone No:0364-2534077 Fax NO.:0364-2534040
17.		Shri Jatin Baishya, Assistant General Manager	State Load Despatch Centre Complex, Kahelipara, Guwahati
18.	SLDC	Shri P.A.R. Bende, Chief Engineer, SLDC	Chief Engineer Madhya Pradesh Power Transmission Company Ltd., Nayagaon, Rampur, Jabalpur- 482008
19.	KPTCL	Shri S. Sumanth Director(Transmission), KPTCL	Karnataka Power Transmission Corp.Ltd., KauveryBhavan, K.G. Road, Bangalore – 560009
20.	UPPTCL	Shri A.K. Singh, Director(Operation), Uttar Pradesh Power Transmission Corporation Ltd.	Uttar Pradesh Power Transmission Corporation Ltd , 7th Floor, Shakti Bhavan, Ashok Marg, Lucknow - 226001

LIST OF GENERATING COMPANIES

Sl. No.	Name of the Statutory Bodies	Name of the persons and Designation	Address
1.	NTPC	Shri U.P. Pani, Director (HR/Commercial)	NTPC Bhawan, Core 7, Scope Complex, Institutional Area, Load Road, New Delhi – 110003
2.	NHPC	Shri Janardan Choudhary, Executive Director, (O&M)	NHPC office Complex, Sector-33, Faridabad – 121003 (Haryana)
3.	NEEPCO	Shri P.K Singha, Executive Director	Brookland Compound, Lower New Colony, Shillong - 793003
4.	NLC	Director (Commercial)	No.135, Periyar E.V.R. High Road, Kilpauk, Chennai - 600 010. Tamil Nadu, India. .
5.	SJVN	Shri Romesh Kapoor, General Manager (C&SO)	SJVN Ltd, Sharma Niwas Below BCS, New Shimla – 171009.

Minutes of the 2nd Meeting of Validation Committee for the Application Period from 1st July, 2016 to 30th September, 2016 held on 30st May, 2016 at NRLDC, New Delhi.

1. The Chairman of the Validation Committee, Shri S.C Shrivastava, Chief (Engg.), CERC welcomed the participants present in NRLDC Conference Room and also the other participants of RPCs, RLDCs, STUs and Generating Companies present at Conference Room of WRLDC, SRLDC, ERLDC, NERLDC, SLDCs of Chhattisgarh, Gujarat, Telangana, Maharashtra, Madhya Pradesh and Delhi through video conferencing. List of the participants is enclosed at **Annexure-I**.
2. Chief (Engg.), CERC stated that the meeting is convened to discuss the Load Generation data for consideration of load flow studies for implementation of CERC (Sharing of Inter-State Transmission Charges and Losses), Regulations, 2010 for the second Quarter of 2016-17.
3. After deliberation among members, it was decided that the peak generation for new hydro units shall be considered at 100% since most of the hydro units will be able to generate at 100% load for the peak hours during July to September. For new coal based thermal units and new gas based stations, peak injection would be considered as 70% and 30% of ex-bus capacity, respectively.

4. Demand Projection for Q2 of Application Period from 1st July, 2016 to 30th September, 2016

4.1 Northern Region:

- (i) Representative of Delhi SLDC suggested that demand projections of Delhi may be taken as 5,600 MW instead of 5,310 MW.
- (ii) Uttar Pradesh has submitted demand projection as 15375 MW after the Validation Committee meeting..

4.2 Eastern Region:

- (i) Members present at ERLDC suggested that the demand projections of Bihar and Jharkhand may be taken as 3,650 MW and 1,100 MW instead of 3,658 MW and 1,150 MW respectively.

4.3 Western Region:

- (i) Representative of SLDC, Gujarat suggested that the demand projections of Gujarat may be taken as 15,500 MW instead of 16,062 MW. Later Gujarat has revised its demand quantum and informed the Implementing agency to consider 14570 MW for Q2 of 2016-17.
- (ii) Members present at WRLDC suggested the following :

(a) Demand projections of Madhya Pradesh may be taken as 8,800 MW instead of 8,820 MW.

(b) Demand projections of Maharashtra may be taken as 19,000 MW instead of 21,226 MW.

(c) Demand projections of Goa may be taken as 480 MW (including 80 MW Goa SR).

4.4 North Eastern Region: Representative of NERPC mentioned that the demand and generation data had already been discussed in the last OCC meeting of NERPC and the demand projections for NER constituents as per presentation are in order.

4.5 Southern Region: SRLDC stated that demand projections in respect of Southern states are in order except in case of Karnataka which may be taken as 8,842MW instead of 8,247MW.

5. Generation Projection for Q2 of Application Period from 1st July,2016 to 30th September, 2016:

5.1 Northern Region:

(i) Representative of Delhi SLDC suggested that the generation from Delhi may be taken as 1,071 MW (including BTPS Generation) instead of 691 MW.

(ii) Uttar Pradesh has not submitted its generation till 01.06.2016. In view of this, Uttar Pradesh generation has been taken from LGBR available at NRPC as 8,675 MW and It was decided that only one unit of Lalitpur (660MW) is to be considered due to evacuation problem.

The generation figures as suggested above were agreed.

5.2 Western Region:

(i) Members present at WRLDC suggested the following:

(a) Generation from DGEN may be taken as zero MW instead of 678 MW, because during this quarter DGEN is being operated with e-bid RLNG which shall not be available for next quarter.

(b) Generation from Tarapur APS may be taken as 733 MW (outage of one unit of 500 MW) instead of 1,233 MW.

(ii) Representative of Maharashtra SLDC suggested that the generation from Maharashtra may be taken as 14,500 MW (including wind generation) instead of 12,482 MW.

(iii) Representative of Gujarat SLDC suggested that the generation from BECL (Unit -1 of 250 MW) and Pipavav (unit-2 of 351 MW) may be considered. SLDC,Gujarat has submitted that generation from Gujarat may be taken as 11,415 MW

(iv) Representative of Madhya Pradesh stated that generation for Madhya Pradesh may be considered as 6,672 MW, which includes 1,300 MW of wind and solar generation.

The Generation figures as suggested above were agreed.

5.3 Eastern Region:

Members present at ERLDC suggested the following:

- (a) Generation from Bihar may be considered as 190 MW instead of 216 MW.
- (b) Generation from West Bengal may be taken as 5,000 MW instead of 4,565 MW.
- (c) Generation from Jharkhand may be taken as 450 MW instead of 330 MW.
- (d) Generation from Chujachan may be taken as 109 MW instead of 114 MW.
- (e) Generation from Adhunik power may be taken as 430 MW instead of 403 MW.
- (f) Generation from Bhutan may be taken as 1,475 MW instead of 1,574 MW.
- (g) Generation from MPL may be taken as 990 MW instead of 1,019 MW.
- (h) Generation from JITPL may be taken as 1,130 MW instead of 1,043 MW.
- (i) Generation from Raghunathpur may be taken as 570 MW instead of 785 MW.

The generation figures suggested by ERLDC and NTPC were agreed.

5.4 North Eastern Region:

The generation figures suggested by NER region entities as shown in presentation during the meeting were agreed.

5.5 Southern Region:

Members present at SRLDC suggested following changes:

- (i) Generation from Karnataka may be taken as 6,168 MW instead of 6,938 MW.
- (ii) Generation from Kudankulam may be taken as 900 MW instead of 284 MW.
- (iii) Generation from Andhra Pradesh may be taken as 5,866 MW (including NP Kunta generation as 100MW) instead of 5,766 MW.
- (iv) Generation from IL&FS may be taken as 700 MW instead of 785 MW.
- (v) Generation from MEPL and Coastal Energen may be taken as 250MW and 750 MW instead of 218 MW and 956 MW respectively.

The generation figures suggested by SRLDC were agreed.

7. HVDC Set Points :

- (i) HVDC set points to be considered in the All India Base case for computation of PoC charges and Losses for July-September' 2016 period were projected by Implementing Agency based on last 3 years' maximum flow during the Application Period.
- (ii) The following HVDC set points were finalised:

<i>MW Values</i>	
HVDC Name	Set points To be considered in Base case
Mundra-Mahindergarh Pole-1	1250
Mundra-Mahindergarh Pole-2	1250

Talcher-Kolar Pole- 1	1000
Talcher-Kolar Pole- 2	1000
Rihand-Dadri Pole- 1	750
Rihand-Dadri Pole- 2	750
Balia-Bhiwadi Pole-1	500
Balia-Bhiwadi Pole-2	500
Bhadrawati_HVDC	1000
Vindhyachal_HVDC	250
Gajuwaka_HVDC	650
Pusauli HVDC	400
Chandrapur-Padghe Pole-1	750
Chandrapur-Padghe Pole-2	750
BiswanathChariali - Agra	500 (towards NR)

8. Other Issues:

A. Issue regarding the 400 kV D/C Nabinagar-Sasaram Transmission Line associated with Transmission System for "immediate Evacuation System for Nabinagar TPS" in ER :

The representative of POWERGRID stated that the 400 kV D/C Nabinagar-Sasaram transmission line was constructed by PGCIL for evacuation of power from Nabinagar generating station. Unit no. 1 of the said generating station has been commissioned and synchronized on 20.03.2016 but commercial operation is yet to be declared. CERC vide order dated 21.06.2013 in Petition No.83/TT/2012, directed that the transmission charges of aforementioned line are payable by BRBCL till commissioning of Unit-1 of BRBCL-Nabinagar Thermal Power Project. On the basis of this order, BRBCL, owner of Nabinagar generating station has requested PGCIL to stop raising bill for the transmission charges of 400 kV D/C Nabinagar-Sasaram transmission line & associated system.

Chief (Engg.), CERC clarified that the transmission charges are to be paid by the generator till commercial operation of Unit no. 1 is achieved.

B. Issue regarding the submission of data by DICs, SLDCs and RLDCs to IA :

(i) The issue of submission of data by ISTS licensees and DICs/States was discussed and it was decided that all the data shall be submitted through email only. Email-id for data submission given by Implementing Agency was **implementingagency@posoco.in**. Chief (Engg.), CERC suggested that Implementing Agency may provide a contact number for the confirmation of data submission.

(ii) Implementing Agency pointed out that states were not providing updated network details upto 132kV/110kV which is resulting into incorrect system representation. In view of the above, all states were requested to provide updated network details upto 132kV/110kV in each quarter in PSS/E format. Further, all states were requested to provide any changes in the network separately, along with other data pertaining to the states.

C. After the deliberations, following was concluded:

(i) Peak generation of new hydro generation shall be considered at 100% of its capacity duly considering the fact that Q2 corresponds to high hydro season and maximum generation from hydro stations during the peak hours of high season is expected to be of the order of 100% of its capacity.

- (ii) In case of non-submission of data by the DICs, for the purpose of Basecase preparation:
 - (a) Peak Demand: Forecasted peak demand to be calculated from last 3 years' data taken from CEA website as per provisions of the Regulations.
 - (b) Peak Generation: Forecasted peak generation to be calculated from last 3 years' SEM/SCADA data available with RLDCs as per the provisions of the Regulations.

Preparation of final All India Basecase in PSS/E platform :

It may be mentioned that there would be variation in the validated generation and demand figures in the final all India Base case because of the following steps involved:

- (i) Normalization with All India Forecasted Peak Demand figure.
- (ii) Arriving at Load Generation Balance for convergence of the All India Base case.
- (iii) Adjustment of Slack Bus Generation.

Annexure-I

List of Participants in the second meeting for 2016-17 of the Validation Committee on 30th May 2016 at , New Delhi.

CERC

1. Shri S.C.Shrivastava, Chief (Engg.) – In Chair
2. Shri P.K Awasthi, Jt. Chief (Fin.)
3. Shri Akhil Kumar Gupta
4. Ms Shilpa Agarwal, Dy. Chief (Engg.)
5. Shri Harish Kumar, Engineer

POWERGRID

6. Shri H.K Mallick,GM (Comml.)
7. Ms Manju Gupta,AGM(Comml.)
8. Shri V Srinivas, DGM (Comml.)
9. Shri Rajesh Verma, Chief Manager

NLDC

10. Shri K.V.S Baba, ED, NLDC
11. Shri S.S. Barpanda, AGM
12. Shri G. Chakraborty, DGM
13. Shri Sanny Machal, Engineer
14. Shri Gaurav Verma, Senior Engineer

NHPC

15. Shri V.K Srivastava, Manager

WRPC

16. Shri S.D Taksande, Member Secretary
17. Shri L.K.S Rathore , DD(Operation)

WRLDC

18. Shri P.Mukhopadhyay, GM
19. Shri AbhimanyuGartia, DGM
20. Ms Pushpa.S, Chief Manager
21. Ms Chitrankshi, Dy Manager

D .B Power

22. Shri Alak Bhargava, AM (Power sales)

ERLDC

23. Shri G. Mitra, DGM
24. Shri P.S. Das, Asst. GM
25. Shri Subendu Mukherjee, Sr. Engineer
26. Shri Sawav Kumar Sahay, Sr. Engineer

GRIDCO

- 27. Shri S.K Maharana, AGM
- 28. Shri H Behera, Manager

BSPHCL

- 29. Shri Rajdeep Bhattacharjee,EEE

SLDC, Kalwa

- 30. Shri D.J Kolhe, EE(OP)

DVC, Kolkata

- 31. Shri S. Ganguly, SE(E)

SRPC

- 32. Shri Rangarajan.R.M, SE
- 33. Shri Anusha Das J, AEE

SRLDC

- 34. Shri V. Balaji, DGM
- 35. Shri Madukar G, Dy Manager
- 36. Ms Anusha Baruah, Sr Engineer
- 37. Shri Pramod Singh,Manager

KPTCL

- 38. Shri Ravindra. M, EE
- 39. Shri Prakash. M.R, AEE
- 40. Shri Mohammed Mustaq, EE

MSETCL

- 41. Shri Umesh Bhagat, EE(STU)

MSEDCL

- 42. Shri Paresh Bhagwat, SE(OPP)
- 43. Shri Bulute Arvind, EE(LM)
- 44. Shri Manoj Borole, AE(PP)

NERPC

- 45. Shri P.N Sarkar, E.E
- 46. Shri S.M Aimol, EE

NRLDC

47. Shri H. K Chawla, DGM. NRLDC
48. Shri Shyam Sunder Goyal, Engineer, NRLDC

NTPC

49. Shri Uday Shankar, DGM/ CommI

NERLDC

50. Shri Amaresh Mallick, DGM
51. Shri Momai Dey, Engineer

MEPTCL

52. Shri T Giddon, EE, SLDC

WBSIEDCL

53. Shri Sreyan Mondal, SE(E)
54. Shri Bratati Mukherjee, DE(E)
55. Shri Indranil Saha, JR EXE(fin)