



भारत सरकार **Government of India**

विद्युत मंत्रालय **Ministry of Power**

उत्तर पूर्वी क्षेत्रीय विद्युत समिति **North Eastern Regional Power Committee**

AGENDA NOTES FOR DISCUSSION

OF

20TH TCC MEETING

(UNDER THE AEGIS OF OTPC & NETC)

Venue : Hotel Vivanta Taj, Guwahati

Date (TCC) : 12th September, 2019

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1. MEETING SCHEDULE

SN	Meeting	Date	Time	Venue
1	TCC	12.09.2019	10:00 AM	"Hotel Vivanta by Taj," Guwahati
2	NERPC	13.09.2019	10:30 AM	

2. CONFIRMATION OF THE MINUTES OF 19TH TCC MEETING & 19TH NERPC MEETING

The minutes of the 19th TCC & 19th North Eastern Regional Power Committee (NER Power Committee) meetings held on 28th & 29th November, 2018 respectively at Guwahati were circulated vide letter no. NERPC/OP/Committee/2019/6242-6315 dated 14th January, 2019.

Comments received from POWERGRID

"In MOM of 19th TCC wrt Item No.B.09 (: REPLACEMENT OF OBSOLETE RTUs IN NERTS –POWERGRID), it was recorded as "TCC noted & recommended for approval with revised cost of Rs.9 Crore. TCC recommended for NERPC approval"(P.19).

However, in final MOM of 19th NERPC as issued, there seems a typographical error with wordings written as below: "Deliberation of the TCC: TCC noted in line with recommendation of 148th OCC and recommended for approval of RPC Deliberation of the RPC: The RPC noted and approved the recommendation of TCC."

Correction proposed in MOM as per 19th TCC/NERPC wrt Agenda item no. B.09 is follows: *"Deliberation of the TCC: TCC noted in line with recommendation of 148th OCC & recommended for approval of RPC with revised cost of Rs.9 Crore.*

Deliberation of the RPC: The RPC noted and approved the recommendation of TCC."

The Committee may confirm the minutes of the 19th RPC with the above modifications.

**3. ARRANGEMENT OF AGENDA OF 20th TCC MEETING:**

SN	DESCRIPTION	CATEGORY
1	ITEMS FOR DISCUSSION	A
2	ITEMS FOR APPROVAL	B
3	COMMERCIAL ISSUES	C
4	ITEMS FOR INFORMATION	D

1. CATEGORY - A : ITEMS FOR DISCUSSION**ITEM NO. A.01 : ACUTE RIGHT OF WAY CONSTRAINTS IN EXECUTION OF RAILWAY DIVERSION WORK OF 132KV NIRJULI - RANGANADI TL - POWERGRID**

The issue of RoW constraints encountered by POWERGRID in Railways diversion work of 132KV Nirjuli -Ranganadi TL in Arunachal Pradesh was discussed in details during 19th TCC & 19th NERPC meeting held at Guwahati on 27th & 28th Nov'2018. As decided during the meeting, POWERGRID has already taken up the matter with Commissioner (Power), Govt. of Arunachal Pradesh & it is understood that necessary instruction has been passed on to the district Administration for early resolution of the RoW constraints.

It is pertinent to mention here that due to acute RoW issue the original route involving 3 locations was changed to another route involving 4 locations as per the advice of DC. However, as on date, POWERGRID is yet to receive clearance from AP Administration for RoW in the revised route which falls in Ambabasti village under Papumpare District. This is severely affecting the diversion work of the line as well as OPGW link establishment between Nirjuli, Lekhi (DoP, A.P.) & Ranganadi HEP under Microwave vacation project.

TCC Deliberation :

NERPC Deliberation :



ITEM NO. A.02 : ACUTE RIGHT OF WAY CONSTRAINTS FACED BY POWERGRID IN ASSAM FOR MAINTENANCE OF TRANSMISSION LINES - POWERGRID

During 19th NERPC Meeting held on 28th and 29th November 2019 at Guwahati, the issue of acute ROW problem faced by POWERGRID for maintaining 800 kV HVDC, BNC-AGRA Line, 400 kV D/C Bongaigaon – Balipara – III & IV, 400 kV D/C Silchar – PK Bari – I & II Line was discussed in details.

Till now, since then, there is no improvement in ROW issues. It is to be mentioned here that \pm 800kV HVDC Line is passing through three region viz. NER, ER & NR and so, if any one Region takes shut down; other two Regions get opportunity shut down for maintenance of the line. Thus, there are many opportunities shut downs available in this line but unfortunately, NER is not able to avail such opportunity shut down, apart from its own approved shut down because of persisting ROW issues. The matter needs to be resolved on priority by escalating at highest administrative authority so that such important lines can be made defect free by carrying out regular maintenance by POWERGRID.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.03 : DOWNSTREAM SYSTEM DEVELOPMENT BY STUS FROM VARIOUS COMMISSIONED AND ON-GOING ISTS SUBSTATIONS - POWERGRID

The status of downstream intra-state system form ISTS substation as per last NERPC meeting is as under:

NORTH EASTERN REGIONAL POWER COMMITTEE



Sl.No.	ISTS S/s	Voltage ratio, Trans. Cap	Voltage level (kV)	Total no. of Bays	Lines emanating from S/s	No. of circuit	Status of Lines	Remarks
1	Biswanath Chariali	400/132kV, 2x200MVA	132	2 - Existing	Biswanath Chariali- Pavoi	2	Existing	
				2 - Awarded	Biswanath Chariali - Itanagar	2	Under TBCB	NERSS-II Part-B (RfP Schedule Mar 2020)
2	Surajmaninagar	400/132kV, 2x315MVA	132	2 - (RfP Schedule Jul 2020)	Surajmaninagar (TSECL) - Surajmaninagar (TBCB)	2	Matter discussed in CEA meeting	NERSS-V
3	P. K. Bari	400/132kV, 2x315MVA	132	2 - (RfP Schedule Jul 2020)	P. K. Bari (TSECL) - P. K. Bari (TBCB)	2		NERSS-V
4	New Mariani	400/220kV, 2x500MVA	220	2 - to be awarded	New Mariani - Mariani	2	AEGCL to implement in matching time frame	NERSS-VI



Sl.No.	ISTS S/s	Voltage ratio, Trans. Cap	Voltage level (kV)	Total no. of Bays	Lines emanating from S/s	No. of circuit	Status of Lines	Remarks
5	New Kohima	400/220kV, 2x500MVA	220	2 - (RfP Schedul e Jul 2020)	New Kohima (TBCB) – New Kohima (Nagaland)	2	Nagaland to update	NERSS-VI

TCC Deliberation :

NERPC Deliberation :

**ITEM NO. A.04 : AVAILABILITY OF SPARE 132KV BAYS AT 400KV/132KV
SILCHAR SS - POWERGRID**

Further, due to shifting of various 400kV lines (being operated at 132kV) at Silchar at its rated voltage, 132kV bays became spare. The list is as under:

Sl.No.	ISTS S/s	Voltage ratio, Trans. Cap	Voltage level (kV)	no. of spare Bays	Lines emanating from S/s	No. of circuit	Status of Lines	Remarks
1	Silchar	400/132kV, 2x200MVA +1x315MVA	132	4	Silchar – Ghungur	1	Dec'21	Available since Jan'19 after Upgradation of Silchar – Imphal 400kV D/c line
					Silchar - Udarbond	1		



					To be identified	2	-	Available by Jul '20 after Upgradation of Silchar – P.K.Bari D/c line
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TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.05 : GRANT OF SUBSIDY/INCENTIVE TO BgTPP - NTPC

Bongaigaon Thermal Power Station (BgTPS) is 750 MW (3 X 250 MW) in NER Region. Being first coal based Thermal Power Station in North Eastern Region and also being largest power station in NER, it is playing a vital role in providing stability and reliability to NER Grid. Three units of BgTPS / NTPC Ltd have already been declared commercial operation and it is supplying reliable power to all the NER States.

Because of its unique location, project has faced many hurdles in its development. The lack of infrastructure, law and order situation and adverse climatic condition has delayed the project inordinately. As a result appreciable escalation of the project cost has taken place. In order to have reliable, affordable and cheap power to all the consumers of NER States and to mitigate the financial hardship being faced by all the NER States, it is therefore proposed to pass a resolution requesting Union Minister of Power, GoI to grant subsidy/incentive to BgTPS so as to make its power affordable to all NER beneficiaries.

Therefore, it is requested to bring one resolution on the said matter in the forthcoming NERPC meeting for early approval of the same.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.06 : SURVEY AND INVESTIGATION OF HYDRO PROJECT AT TUYUNGBI AND MAKLANG RIVER CONFLUENCE AT KHONGLO, KAMJONG DISTRICT, MANIPUR LOCATED ON NH-102 A - NEC



One of the new mandates of NEC is to carry out Survey and Investigation of Hydro projects in NER. In a preliminary survey, it has been found that Hydro project at Tuyungbi and Maklang river Confluence at Khonglo, Kamjong District, Manipur located on NH-102 A is one of the potential hydro projects in NER that can generate power at a minimal cost.

The Tuyungbi and Maklang river Confluence is near Khonglo village in Kamjong District, Manipur located on NH-102 A about 80kms from Imphal and about 120 kms from Kamjong District headquarter. The advantage of Tuyungbi and Maklang river Confluence is located in a very very narrow gorge and there is hardly any flat land on Maklang river except a few hectares of paddy field in the upstream of the Tuyungbi river. Hence, land compensation will be minimal. The volume of water on Maklang river is considerable throughout the year and it can easily generate between 40-50 MW.

It is requested that the above proposal may be included as one of the agendas in the next Board meeting of NERPC, 22nd August, 2019 at Guwahati for Survey and Investigation by NEC.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.07 : RESTORATION OF DIMAPUR IMPHAL TL - MSPCL

On the request of the Government of Nagaland for dismantling of the Dimapur - Imphal 132 kV line to facilitate expansion of National Highway No. 29 from Dimapur to Kohima sector in Nagaland, a Special Meeting was held on the 25th of September, 2018 at Hotel Classic Grande, Imphal under the aegis of NERPC. In the meeting, it was agreed that PGCIL would complete the diversion of 132 kV Dimapur-Imphal line by January 2019 with “Deemed Availability” status and Nagaland will assist PGCIL in resolving ROW issues.

Due to inability to complete the shifting by the agreed deadline, the 152nd OCC Meeting held on 11th January 2019 at Guwahati had extended the completion timeline to 31st March, 2019. In view of this, MSPCL had written a letter, requesting Executive Director, NERTS to ensure completion of the shifting work by



the new timeline looking into the criticality of maintaining connectivity of this line for Manipur.

Instead, the 155th OCC meeting held on the 10th of April, 2019 at Guwahati, extended the completion schedule indefinitely linking it with clearance of ROW issue by Nagaland Government. This very decision goes against the interest of Manipur as it may affect the power supply scenario in Manipur in adverse situation and the State's displeasure was made known to the Member Secretary, NERPC through an official letter.

In this regard, it is to mention that Manipur depends solely on i) Silchar-Imphal 400 kV D/C line & ii) Dimapur-Imphal 132 kV line for interstate power supply management and prolong shutdown of Dimapur-Imphal is not desirable in State's interest. Here, you may kindly recall the eventual grid failure of southern NER grid on 20.04.2019 leading to, among others, complete blackout of Manipur. It is worth mentioning that Power failure in Manipur could have been avoided had there been Dimapur-Imphal 132 kV line connectivity. And no one can assure that the same phenomenon shall not happen again.

Considering the above facts and circumstances, PGCIL is requested to place the current status of the diversion work and also commit a completion timeline.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.08 : INORDINATE DELAY IN COMPLETION OF SHIFTING OF THE 400 kV SILCHAR-IMPHAL D/C LINE NEAR IMPHAL (PG) SUB-STATION AT YUREMBAM, IMPHAL - MSPCL

Construction of 3x105 MVA, 400/132 kV Sub-Station at Thoubal in Manipur is completed and ready for commissioning. The associated 400 kV D/C line from Imphal (PG) to Thoubal is also complete except for few spans which is delayed due to PGCIL's inability to complete the shifting work.

Commissioning of this 400 kV sub-station depends on the completion of the shifting work pending with PGCIL. The forum of the 19th TCC & 19th NERPC Meeting held



on 28th & 29th November, 2018 at Guwahati also reiterated the completion of this diversion work at the earliest but no substantial progress is seen on the ground. Instead PGCIL has set a new timeline for completion by October, 2019 which is not at all realistic as the harvesting season completes only by early December.

Rather, in anticipation of the completion of the shifting work, MSPCL had centrifuged the transformer in September, 2018 and planned to commission the sub-station by December, 2018. The Company had undertaken the same work again in March, 2019 hoping to commission the 400 kV S/S before the onset of monsoon and the paddy cultivation season. These delays had forced MSPCL to keep the 400/132 kV transformers idle for a long time which may deteriorate the insulation of the transformers. In spite of necessary precaution and inspection, keeping the transformers idle for a long time can cause damage due to ingress of moisture and other contaminants as a result of weak insulation.

Further, the delays had caused cost escalations which will invite audit review.

PGCIL is therefore requested to place the status of work and also commit a realistic timeline for the completion of shifting/diversion of the 400 kV Silchar – Imphal D/C line.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.09 : AUTOMATIC GENERATION CONTROL

Hon'ble CERC has issued order in Petition no. 319/RC/2018 dated 28.08.2019 on AGC. Summary of order is as below:

- i. All thermal ISGS stations with installed capacity of 200 MW and above and all hydro stations having capacity exceeding 25 MW excluding the Run-of-River Hydro Projects irrespective of size of the generating station and whose tariff is determined or adopted by CERC are directed to install equipment at the unit control rooms for transferring the required data for AGC as per the requirement to be notified by NLDC. NLDC shall notify the said requirements within one month of this order.



- ii. All such ISGS stations whose tariff is determined or adopted by CERC shall have communication from the nearest wide band node to the RTU in the unit control room.
- iii. The Central Transmission Utility (CTU) is directed to have communication availability from NLDC/ RLDCs to the nearest wide band node/ switchyard for the generating stations in a redundant and alternate path ensuring route diversity and dual communication.
- iv. The NLDC is also directed to commission the required communication infrastructure.
- v. The expenditure as a result of compliance of the above directions may be claimed as per relevant regulations or provisions of the PPA.
- vi. The NLDC is directed to monitor implementation of the above directions so that all the ISGS stations whose tariff is determined or adopted by CERC are AGC-enabled within six months of this order.
- vii. The framework regarding compensation for AGC support and deviation charges as stipulated in the Commission's Order in Petition no. 79/RC/2017 dated 06.12.2017 shall apply to the five pilot projects as also to other ISGS as and when they are AGC enabled. This arrangement shall remain in place till the relevant regulations interalia on compensation for AGC services are framed by the Commission.
- viii. NLDC/RLDCs are allowed to operate the AGC system for enabling the signals to the power plants at the earliest.
- ix. All new thermal ISGS stations with installed capacity of 200 MW and above and hydro stations having capacity exceeding 25 MW excluding the Run-of-River Hydro Projects irrespective of size of the generating station and whose tariff is determined or adopted by CERC shall mandatorily have the capability to provide AGC support.

The AGC Pilot projects under implementation are:

SN	Name	Capacity	Name of Utility
1	Dadri (Stage II)	4x210	NTPC



2	Simhadri (Stage II)	2x550	NTPC
3	Mauda (Stage II)	2x660	NTPC
4	BARH	2x660	NTPC
5	BGTPP	3x250	NTPC

Out of the above, it has been implemented in all locations except BgTPP which is now in the pipeline. AGC pilot project at BgTPP is expected to be operationalized in Sep'19.

Members may like to discuss.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.10 : FOR SUB-GROUP TO RECOMMEND SUITABLE MEASURES AND ROADMAP FOR INSTITUTION BUILDING AND STRENGTHENING OF THE LOAD DESPATCH CENTRES (LDCS) - NERLDC

(i) Manpower: As NER SLDCs fall under small category so basic manpower requirement is 30-50. It was agreed in 19th. TCC meeting, that all SLDCs would be manned accordingly. SLDC Arunachal Pradesh, SLDC Mizoram, SLDC Nagaland and SLDC Tripura is having manpower shortage presently.

Members may discuss for enhancement of manpower for the above LDCs.

(ii) Financial benefit for completion of certification course: No state has implemented yet.

Members may discuss

(iii) Ring fencing of SLDC: No state has implemented yet.

Members may discuss

TCC Deliberation :

NERPC Deliberation :



ITEM NO. A.11 : ROADMAP AND TIMELINE FOR IMPLEMENTATION OF CABIL REPORT RECOMMENDATIONS - NERLDC

Step	Activity	Action by	Target (days)	Status
1	Workshops in each SLDC on the report of the sub group	SLDC/ RLDC	15 Zero date: DEC,18	All states completed by RLDC
2	Publication of draft Regulations for Fees & Charges of Load Despatch Centre in line with Model F&C Regulation	SERC	30	Regulation is not in place for Arunachal and Tripura
3	Interactive session with Stakeholders to emphasize the need for Institution building/strengthening of LDCs and elaborate on the principles of LDC fees and charge regulations	SERC	45	
4	Notification of Regulations for Fees and Charges of Load Despatch Centre after public hearing.	SERC	90	
5	Registration of Users of LDC	LDC	100	
6	Separation of financial accounts for LDCs and Identification of Assets and Liabilities of LDCs	STU	120	
7	Preparation of organization Chart for LDC and Identification of			



	Human Resources for LDCs. Identification of list of Certified Operators	STU	130	
8	Creation of separate Bank Account for LDC and a separate Bank Accounts for Regulatory Pool funds to be managed by LDCs	LDC	150	Assam, Meghalaya have opened separate bank account.
9	Preparation of CAPEX plan for up gradation of SCADA, IT and civil infrastructure of LDCs	LDC	150	
10	Preparation of plan for application software relevant for the respective LDC	LDC	180	
11	Preparation of plan for capacity building of HR personnel in LDC to ensure minimum 7 man-days of training to every employee of LDC	LDC	180	
12	Submission of Petition for approval of Fees and Charges of Load Despatch Centre in respective ERC	LDC	210	
13	Approval of Fees and Charges for Control period	SERC	300	
14	Commencement of billing of LDC fees and charges	LDC	330	
15	1st Review of progress in the activities for F&C utilization	ERC	365	



Members may discuss

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.12 : REQUIREMENT OF MODEL DATA FOR SIMULATION OF POWER SYSTEM STABILITY AND DYNAMICS - NERLDC

Simulation of power system stability conditions is important in understanding the behavior of the power system and taking necessary steps for ensuring security of the grid. Considering the complexity of India's power system and likely integration of high quantum of RE generation to the grid, efforts of all stakeholders of power system operation, planning and regulations need to be put together in building an accurate, robust and sustainable all India dynamic simulation model. Consultant appointed by the Taskforce on Power System Analysis under Contingencies (By MoP in December 2012 as a follow up) recommended development of standard modelling procedures and data management procedures, besides the need for periodic validation of generator models through site testing for the purpose of transient stability and small-signal stability studies.

To gain confidence in the stability studies that adequately represent system performance, fit-for-purpose models of power system elements are of utmost importance. A functional fit-for-purpose dynamic model would help to identify the secure operating envelope and thereby managing security effectively. It will allow assessment of impact on grid elements due to connection of new elements and permit power system assets to be run with margins determined on the basis of security assessments. It would also facilitate the tuning of control systems, such as power oscillation dampers, frequency controllers and improve the accuracy of online security tools.

At present, any new generator that seeks connectivity with the grid has to provide the data in the formats as prescribed by CTU or STU/SLDCs. This data is primarily related to equipment's steady state behavior and lacks the necessary information required for dynamic modelling. Therefore, improvised templates have been prepared based on the inputs received from several consultants and POSOCO's experience and have been shared with CTU and CEA recently. It may please be



noted that templates for Wind and Solar have already been incorporated by the CTU in its CON-4 format after similar exercise.

Same has to be emulated at state level also. States may be advised to improve their connection agreement to include dynamic parameters for new generators and collect the necessary data in the prescribed format from the concerned entity before allowing them to connect with the grid. In case of already connected plants, SLDC/STU may issue the necessary instruction to the concerned generator with modified templates and request them to furnish the information latest by Dec 2019 to expedite the process of preparing all India dynamic model, continuous follow up is required at various fora.

Members may discuss.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.13 : SAMAST FOR BALANCE THREE STATES - NERPC

SAMAST for states of Assam, Meghalaya, Manipur and Tripura has been approved by CEA/NLDC and the common NIT for above States will be floated by NERPC soon. However, SAMAST for the remaining states of Arunachal Pradesh, Mizoram and Nagaland are yet to be approved by CEA/NLDC.

Members may discuss.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. A.14 : IMPLEMENTATION OF 132KV LINE BAY AT PALATANA GENERATION SWITCHYARD - NERPC

During 1st NERSCT meeting, TSECL stated that they are constructing Monarchak – Surajmaninagar 132kV D/c line. However, due to severe RoW issues, the line is getting delayed and at least 6 months are required to complete the line. After completion of the line, Palatana – Udaipur 132kV S/c line would be opened to enable termination of 2nd circuit of Palatana – Surajmaninagar line at Palatana end.



Members agreed to retain connection of Palatana – Udaipur line in Surajmaninagar line bays at Palatana end for additional six months (upto May 2019). It was emphasized that Tripura may expeditiously complete the Monarchak – Surajmaninagar line to avoid further time extension.

Members may discuss.

TCC Deliberation :

NERPC Deliberation :

2. CATEGORY - B : ITEMS FOR APPROVAL

ITEM NO. B.01 : CONVERSION OF 132KV BADARPUR, 132KV KHLIEHRIAT, 132/33KV NIRJULI AND 132KV IMPHAL STATION FROM SINGLE MAIN TRANSFER SCHEME TO DOUBLE MAIN TRANSFER SCHEME ON COMPLETION OF 25 YEARS AGE - POWERGRID

During 16th NERPC and 6th SCM Meeting, approval was accorded for up-gradation of Bus Bar Scheme from Single Main Transfer to Double Main for 132kV Haflong, 132kV Jiribam, 132kV Kumarghat and 132kV Aizawl Sub Station on completion of 25 Years age considering the fact that Single Main and Transfer Scheme offers minimum reliability. Due to space constraint the conversion / up-gradation was approved on GIS from AIS.

Now the existing Bus Bar arrangement of 132kV Badarpur, 132kV Khliehriat, 132/33kV Nirjuli and 132kV Imphal Station is also Single Main and Transfer Scheme. These stations are going to complete 25 Years age during current tariff block 2019-24. Hence, in line with earlier approval of 132kV Haflong, 132kV Jiribam, 132kV Kumarghat and 132kV Aizawl Sub Station, it is proposed to convert the existing Single Main Transfer Scheme of 132kV Badarpur, 132kV Khliehriat 132/33kV Nirjuli and 132kV Imphal Station to Double Main and Transfer on completion of 25 Years. Further, the 132kV Badarpur Sub Station is located near a



cement factory and there are frequent deposits on the exposed AIS equipments which is creating difficulties in maintenance. Hence it is proposed to upgrade Bus Scheme on GIS. However for the other station viz. 132kV Khliehriat, 132/33kV Nirjuli and 132kV Imphal Sub Station upgradation is proposed preferably by Bus Sectionalisation on AIS depending on layout or alternatively on GIS if layout does not permit Bus Sectionalisation. The tentative expenditure (considering each station to be Rs. 30.00 Crores) is Rs. 120.00 Crores.

During 155th OCC Meeting the issue was discussed and the forum agreed to the upgradation and recommended for approval of NERPC & NERSCT

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.02 : FINAL REVISED PROJECT COST FOR INSTALLATION OF 20 MVAR 220 KV LINE REACTOR AT KATHALGURI - POWERGRID

During 152nd OCC Meeting, POWERGRID informed that the 20 MVAR, 220 kV Line Reactor at Kathalguri was put in to service on 21.03.2017. The Reactor was installed by POWERGRID as deposit work of NEEPCO with original estimated cost of Rs 4.44 Crore which was approved during 11th TCC & 11th NERPC Meeting held on 5th & 6th May 2011 with condition that, revised cost if any, may be put up to RPC again to get it approved.

Now, the final Project Cost is Rs 5.73 Crore is put up for kind information of NEEPCO and the Forum.

During deliberation in 152nd OCC Meeting the forum recommended for TCC/RPC approval of final cost.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :



ITEM NO. B.03 : SCHEMES AGREED IN 1ST NERSCT MEETING HELD ON 29-11-2018 AT GUWAHATI – POWERGRID/CTU

The following agenda items were approved in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

- (i) Establishment of Roing – Chapakhowa 132kV D/c and Tinsukia – Namsai 220kV D/c lines (item no:02)
- (ii) Implementation of 132kV line bay at Palatana generation switchyard (item no:05)
- (iii) Modification in installation scheme of 100MVA_r (4x25MVA_r three phase) reactor at 33kV level at Misa (POWERGRID) S/s (item no:21)

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.04 : IMPLEMENTATION OF REVISED SPS – 3 SCHEMES FOR PALLATANA GENERATION CONNECTING SILCHAR – BYRNIHUT – AZARA – BONGAIGAON - NERLDC

Following two nos. of GD – V Level Grid disturbance in NER on 03 & 20.04.2019, involving SPS-3 Scheme of Pallatana, a special meeting was conducted on 02.05.2019 at OTPC wherein it was deliberated by NERLDC to modify the existing SPS 3 Scheme as below:

Present SPS 3 Scheme

Opening of both GTGs breakers at Palatana upon tripping of 400kV Silchar-Azara & 400kV Silchar-Byrnihat

Proposed Revised SPS 3 Scheme

Tripping of Palatana unit(s) based on pre-fault flow through the 400kV Silchar-Azara & 400kV Silchar-Byrnihat corridor:

SN	Net flow in the 400kV Silchar-Azara & 400kV Silchar-Byrnihat corridor (in MW)	Tripping(s)/ Generation reduction required at Palatana



1	Flow<120	No trip
2	120<=Flow<350	1 GTG(232MW)
3	350<=Flow<470	1GTG & 1 STG (363MW)
4	470<=Flow<700	2 GTGs & 1 STG(595MW)
5	Flow>= 700	2GTGs & 2 STGs(726MW)

Brief reasons necessitating the revision

- (i) In the present scheme in majority of successful SPS operations, it has been observed that there is disproportionate generation reduction due to tripping of both GTGs in Southern part of NER grid.
- (ii) This results in overloading of parallel 132kV corridors viz. 132kV Dimapur-Imphal, 132kV Haflong-Jiribam, and 132kV Khliehriat-Badarpur resulting in their tripping
- (iii) Thus to maintain the load generation balance in Southern part of NER grid and prevent overloading of parallel links this revision is required.

The issue was subsequently discussed in OCC Meeting and accordingly, offer was sought from M/S GE to provide offer for implementation of the scheme. M/S GE has already submitted BOQ with Technical Offer for confirmation from our end so that they can submit commercial offer for execution. M/s GE through POWERGRID has informed the cost of INR 1,00,00,000/- (approx.). The cost will be borne by all the constituents of NER on equal basis.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.05 : VSAT LINKS FOR ROING TEZU NAMSAI - POWERGRID

In line with discussion in 9th, 13th & 14th NETeST, implementation of VSAT scheme was proposed as redundancy to future FO system for remote stations namely 132kV Roing Tezu Namsai. This was proposed keeping in view poor network availability, no PLCC link with existing wide band & urgency of station-telemetry requirement wrt these stations. VSAT scheme was recommended in sub-committee with Demo in



one site. Based on the discussion in NETeST, NERTS had taken up the issue with NELCO for optimized bandwidth and demo in one of the sites. Earlier cost quoted was apx. Rs.5.00 cr with 2MBPs/data or voice however, the revised cost after optimization of band width is Rs.85,00,000.00 + GST (apx) for Supply, installation & 7(6+1) years AMC, with 128kpbs/data or voice & minimum 95% availability). The same is proposed to be invested by POWERGRID and be recovered on cost plus basis on POC Mechanism. As per recommendation of 13th & 14th NETeST, demo for one site is completed through M/s NELCO. Based on demo performance by party order will be placed by POWERGRID to respective party at the earliest possible.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.06 : IMPLEMENTATION OF SPS FOR TRANSFER OF 160 MW POWER TO BANGLADESH LINK AND MODIFICATIONS SUGGESTED FOR OTHER SPSS IN NER-NERPC

Four SPS schemes have been agreed pertaining to Bangladesh as below:

SN	Contingency	SPS Action
1	Outage of one ICT out of 400/132 kV, 2x125 MVA ICTs at Palatana	Limit transfer to 100 MW on Cross-Border link, followed by shifting of 60 MW load from Indian Grid to Bangladesh Grid.
2	Outage of 400 kV Palatana – Surajmani Nagar line (Charged at 132 kV)	Tripping of cross border link followed by shifting of entire 160 MW load from India Grid to Bangladesh Grid.
3	Outage of one circuit of 400 kV Surajmani Nagar - South Comilla line (Charged at 132 kV)	Limit transfer to 130 MW on Cross-Border link, followed by shifting of 30 MW load from Indian Grid to Bangladesh Grid.



4	Outage of both 400/132 kV, 2x125 MVA ICT I & II at Palatana	Tripping of cross border link followed by shifting of entire 160 MW load from India Grid to Bangladesh Grid.
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NERPC vide letter dated. 30.08.2019 has requested Member(PS), CEA for implementation of the above SPSs. The SPSs' is being put up for approval.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.07 : ADDITIONAL ICT AT RHEP - NERLDC

Requirement of additional 400/132 kV ICT at Ranganadi Power Station to prevent interruption of power supply to the State of Arunachal Pradesh as well as tripping of multiple units at Ranganadi – Pare Complex was discussed in the 158th OCC Meeting of NERPC and the forum agreed to the requirement of 3rd 400/132kV ICT at RHEP.

This is for approval of TCC/NERPC forum and subsequent deliberation of the issue in next SCM for CEA approval.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.08 : PALATANA-BONGAIGAON TRANSMISSION SYSTEM, NETC: PERMANENT PROTECTION WORK TAKEN UP IN 9 NOS. VULNERABLE LOCATIONS OF 400 KV D/C PALATANA-SILCHAR LINE- INCLUSION OF COST IN TARIFF THEREOF - NETC

Palatana-Silchar 400 kV D/C transmission line is passing through 73 KMs of hilly Reserve Forest stretch in the state of Tripura. During construction, hill cutting was minimised by using uneven leg extensions for better stability. In the year 2018, the State of Tripura experienced unprecedented heavy monsoon with incessant rains in



the month of June. The intensity of rain was so severe that within a time span of 7 – 10 days the free flowing rain water caused very heavy landslides in the entire hilly stretch of Tripura resulting severe erosion in the subject transmission line corridor.

Due to such natural calamity, 9 (nine) tower locations of this transmission line were badly affected which was beyond the control of NETC. Immediately, temporary measures were taken to provide minimum protection in those vulnerable locations by POWER GRID (the PMC of NETC). These protection measures taken were temporary in nature and only for protecting the locations during that difficult time. Subsequently, the matter regarding taking up of the permanent protections in these vulnerable locations was initiated jointly by POWER GRID & NETC. Simultaneously, NETC being a very small Entity, the matter was put up in the 152nd OCC Meeting with a request for booking of such heavy expenditure through PoC mechanism. After detailed deliberation the forum suggested/ advised NETC to take up the work immediately considering any additional endangered locations and subsequently to submit petition to CERC for inclusion of the cost in tariff.

Subsequently, action taken by POWER GRID/NETC to provide permanent protection e.g.: RRM wall etc in all these 9 (Nine) tower locations at a cost of Rs.283.29 lakhs. This matter was also taken up in 38th Commercial Sub-Committee meeting and all the members were apprised about the cost and for inclusion of the same in tariff. The committee appreciated the importance of permanent protection to the vulnerable locations which was instrumental in ensuring the stability of the Palatana-Silchar-Bongaigaon corridor thereby ensuring the transfer of Scheduled power at competitive rate to all the NER beneficiaries of OTPC Palatana.

For consideration of NETC petition by CERC for the subject work, clearances of TCC & RPC are invariably required. Hence, this proposal is submitted to TCC Forum for kind deliberation and clearance.

The details of locations with location wise expenditure incurred are as below:

Location wise estimated expenditure:

Locn. 211	: Rs.27.39Lakhs
Locn. 218	: Rs.15.26Lakhs
Locn. 264 & 267	: Rs.48.72Lakhs



Locn. 271	: Rs. 89.52 Lakhs
Locn. 279	: Rs.60.47 Lakhs
Locn. 364	: Rs.26.66 Lakhs
Locn. 428	: Rs. 7.12 Lakhs
Locn. 145 (addl. Locn)	: Rs. 8.14 Lakhs
Total	: Rs. 283.29 Lakhs (Say Rs 2.83 Crores)

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.09 : TRANSFER OF OWNERSHIP OF TWO 220KV BAYS AT MARIANI GSS OF AEGCL FROM PGCIL TO AEGCL - AEGCL

Consequent upon the LILO connection of 400kv (charged at 220kv) Misa line & 220kv Kathalguri line at PGCIL's New Mariani S/S, the present connection of AEGCL's 220kv Mariani SIS with these two lines will cease to exist. This will render five nos. of double circuit towers (designed for 400kv) of PGCIL redundant. AEGCL intends to utilize these towers for connecting its Mariani GSS with New Mariani GSS of PGCIL to reinforce the reliability and security of 220kv system at our Mariani GSS. The 18th TCC & 18th NERPC Meeting on 10th & 11th October, 2017, deliberated on this issue and necessary approval was accorded for utilization of the five redundant towers by AEGCL. However, the two 220kv bays at Mariani GSS of AEGCL (presently utilized for Missa & Kathalguri connection) will also become redundant. These bays are currently owned and maintained by PGCIL. AEGCL, therefore, intends to utilize these two bays for connection of the proposed double circuit link from Mariani (AEGCL) to New Mariani (PGCIL). The modus operandi for such an utilization of these towers may be sorted out through discussion and on mutually agreeable terms between AEGCL and PGCIL

The issue was discussed in 153rd OCC Meeting and the forum agreed in-principle to allow utilization of the two 220kv bays at Mariani GSS of AEGCL (presently utilized for Missa & Kathalguri connection) by AEGCL in line with 5 nos. of 400kV towers already approved in 18th NERPC with a condition that that in case of any



financial implications as per CERC direction will have to be borne by AEGCL and Assam agreed. Thereafter, TCC & NERPC approved the decision.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

**ITEM NO. B.10 : RECONDUCTORING OF SILIGURI-BONGAIGAON 400KV
D/C TWIN MOOSE LINE WITH TWIN HTLS CONDUCTOR -
NERPC**

The following agenda items were approved in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

- (i) Implementation of LILO of both circuit of Alipurduar – Bongaigaon 220kV D/c line at new substation at Agamoni 220/132kV, 2x160MVA along with bus split arrangement at both 220kV and 132kV levels at Agamoni S/s so that one section (with first 220/132kV, 160MVA ICT) is fed from Alipurduar (Gossaigaon 132kV may be fed from this section) and the other section (with second 220/132kV, 160MVA ICT) is fed from Bongaigaon (Gauripur 132kV may be fed from this section) by AEGCL as intra-state scheme.
- (ii) Reconductoring of Siliguri – Bongaigaon line with Twin HTLS conductor (ampacity of single HTLS shall be 1596A, which is equivalent to Twin ACSR Moose conductor for 45°C ambient and 85°C maximum conductor temperature) along with requisite modifications in line bay equipment at both ends with implementation of Bornagar – Parbotipur (Bangladesh) – Katihar 765kV (initially to be operated at 400kV) D/c cross border line.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :



ITEM NO. B.11 : LILO OF KAHILIPARA – UMTRU 132KV D/C LINE AT KILLING (BYRNIHAT) S/S OF MEGHALAYA - NERPC

The following agenda items were approved in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

- (i) LILO of Kahilipara - Umtru 132kV D/c lines at Killing S/S of MePTCL by MePTCL as intra-state scheme of Meghalaya.
- (ii) Reconductoring of Umtru – Kahilipara and Umtru – Sarusajai 132kV D/c line with HTLS conductor by AEGCL and MePTCL as intra-state scheme in respective territory along with required strengthening of bay equipment and towers.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.12 : HANDING OVER OF BALIPARA-KHUPI-KIMI 132KV S/C LINE ALONG WITH 132KV SUBSTATIONS - NERPC

The following agenda items were approved in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

NEEPCO may hand over the following transmission assets associated with Balipara-Khupi-Kimi 132kV S/c line mentioned below to DoP, Arunachal Pradesh on mutually agreed terms:

SN	Description
1	<p><u>Transmission Lines:</u></p> <ul style="list-style-type: none"> (i) Balipara- Khuppi 132 KV S/c or D/c line (68 km) (ii) Khuppi- Kimi (Kameng HEP) 132 KV S/c line (8 km)-(presently charged at 33kV)
2	<p><u>Extension works at 220KV/132 KV Sub Station at Balipara:</u></p> <ul style="list-style-type: none"> (i) 50MVA 220/132 KV Transformer - 1 no. (ii) One 132 KV Line bay for Khuppi -Balipara 132 kV S/c line



3	<p><u>132/33 KV Sub-Station at Khuppi</u></p> <p>(a) 132 KV Switchyard:</p> <p>(i) One 132 KV bay for Khuppi -Balipara 132 kV S/c line</p> <p>(ii) 132KV Transformer bay</p> <p>(iii) 132KV Bus transfer bay (under S/D)</p> <p>(iv) One 132KV bay (under S/D) for Khuppi –Kimi 33 kV line</p> <p>(b) 33 KV switchyard:</p> <p>(i) One 33KV line bay for Khuppi –Kimi 33 kV line</p> <p>(ii) One 33KV bay for Khuppi –Tenga 33 kV line</p> <p>(iii) 33KV bay for DoP</p> <p>(c) Power transformers:</p> <p>(i) 5MVA 132/33KV Transformers- 4 nos. (including one spare transformer unit)</p> <p>(d) Distribution transformers:</p> <p>(i) 630 KVA, 33/0.4 KV-2 nos. (One for S/S, One for NEEPCO colony at Khuppi)</p> <p>(e) 132/ 33 KV Sub-station Control Room with all control equipment, battery & batter chargers etc.</p>
4	<p>Associated LT Distribution Systems</p> <p>(i) Khuppi-Tenga 33 KV Line (5 km)</p> <p>(ii) (ii) Tenga-Bichom 33 KV Line (16 km)</p>

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.13 : ENHANCEMENT OF TRANSFORMERS CAPACITY TO 2X500 MVA INSTEAD OF 2X315 MVA AT THE UPCOMING 400/220KV S/S AT SONAPUR S/S - NERPC



The following agenda items were approved in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

In the 5th meeting of SCPSPNER, establishment of 2x315MVA, 400/220kV Sonapur GSS in eastern part of Guwahati was agreed to be implemented by AEGCL as an intra-state scheme for mitigating the contingency of 400kV Azara GSS through LILO of Silchar-Byrnihat 400kV line. However, CEA vide letter dated 15.10.2018 recommended for enhancement of capacity from 2x315MVA to 2x500MVA and during 1st NERSCT meeting members agreed to the proposed modification in transformation capacity at 400/220kV Sonapur substation of Assam from 2x315MVA to 2x500MVA.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.14 : INTRA-STATE TRANSMISSION SYSTEM STRENGTHENING AT VARIOUS VOLTAGE LEVELS IN ASSAM - NERPC

The following agenda items were approved in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

AEGCL stated that as per the vision of Govt. of India “24x7 Power for all” and Planning for 2017-22 period, 24 nos. of new substations and associated transmission lines, capacity augmentation of transformers (total capacity addition 769MVA), Re-conductoring by HTLS (total 186ckm), Bay extension (29 nos.), Conversion of one no. AIS to GIS (132/33KV Gohpur S/s) and Replacement of Existing Ground Wire of the transmission lines with OPGW (615km) are proposed under “Enhancement of Intra State Transmission System” in Assam. AEGCL further, stated that they are availing funding from ADB and entire system is expected to be completed progressively by Dec. 2022. Further, Chief Engineer (PSPA-II), CEA stated that the detailed proposal of Assam was studied during the joint system study meeting on 12-11-2018 and following comments/suggestion were made on the proposed transmission system of AEGCL:



(a) Ghungur 132/11kV sub-station:

Due to 400kV operation of Silchar-PK Bari and Silchar-Imphal, it is expected that 4 no. 132kV line bays shall be vacant at Silchar (POWERGRID) 400/132kV S/s. Accordingly, it was suggested that Ghungur S/s may be connected through Ghungur – Silchar 132kV S/c line instead of Ghungur – Srikona 132kV S/c line. Moreover, it has been observed that Silchar – Srikona 132kV D/c line was overloaded under N-1 contingency. Connection of Ghungur to Silchar would avoid additional loading on already critically loaded Silchar-Srikona 132kV D/c line. Connectivity to ISTS point

shall also improve reliability of power supply in the area.

AEGCL agreed to connect Ghungur 132kV substation to Silchar (POWERGRID) S/s utilising the vacant 132kV line bays at Silchar

(b) Rowta 220/132kV:

It has been proposed to connect Rowta new substation to Rangia (existing) 220kV S/s. It was suggested that Rowta 220kV S/s may be connected to the proposed Rangia 400/220kV, 2x500MVA S/s (proposed under this scheme itself).

AEGCL agreed to connect the new 220kV substation at Rowta with their proposed Rangia 400/220kV, 2x500MVA S/s.

(c) Rangia 400/220kV:

(i) It has been proposed by AEGCL to establish Rangia through LILO of one circuit of Balipara – Bongaigaon 400kV D/c (Twin Moose) line. However, in the 7th SCM of NER it was agreed that Rangia S/s may be established through LILO of both circuits of Balipara – Bongaigaon 400kV D/c (Twin Moose) line. Thus, AEGCL may consider LILO of both circuits as agreed in the 7th SCM of NER.

AEGCL agreed to the proposal.

(ii) Similarly, at 220kV level in the 7th SCM of NER, it was agreed that both circuit of Rangia – Amingaon 220kV D/c line may be LILOed at Rangia 400/220kV S/s. However, AEGCL has proposed LILO of one circuit of Rangia – Amingaon 220kV D/c line. Thus, AEGCL may consider LILO of both circuits as agreed in the 7th SCM of NER.

AEGCL agreed to the proposal.



(iii) As mentioned above, Rowta 220kV may be connected to Rangia 400/220kV S/s instead of existing Rangia 220kV S/s.

AEGCL agreed to connect the new 220kV substation at Rowta with their proposed Rangia 400/220kV, 2x500MVA S/s.

Members agreed to the proposal of proposal of AEGCL for “Enhancement of Intra State Transmission System” in Assam State to be implemented as intra-state scheme by AEGCL with modifications mentioned at para 16.2 above. And, accordingly, the intra-state strengthening system in Assam, as agreed, is given at **Annexure – B.15.**

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.15 : MODIFICATION IN INSTALLATION SCHEME OF 100 MVAR (4X25MVAR THREE PHASE) REACTOR AT 33KV LEVEL AT MISA (POWERGRID) S/S - NERPC

The following agenda items were approved in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

Modification of connectivity of 100MVAR (4x25MVAR three phase) reactor at 33kV level at Misa (POWERGRID) S/s with tertiary of two nos. of 400/220kV ICTs to ensure availability of reactors in the event of outage of any ICTs at Misa (POWERGRID) S/s, as part of ongoing works under NERSS-IV scheme.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.16 : 400/220KV, 500MVA SPARE ICT AND 420KV, 125MVAR SPARE BUS REACTOR IN NER - NERPC

The following agenda items was discussed in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:



SE, NERPC stated that installation of 400/220kV, 500MVA ICTs and 420kV, 125MVA bus reactors have been planned for first time in NER system and are already under implementation. Accordingly, a spare 400/220kV, 500MVA ICT and spare 420kV, 125MVA reactor are required to take care of contingency of failure of such ICTs/reactors. He added that in the 19th TCC and NERPC meetings it has been agreed to have one spare ICT of 400/220kV, 500MVA and one spare reactor of 420kV, 125MVA in the region. Members noted the decision of TCC/NERPC.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.17 : CONNECTION OF DIKSHI HEP (24MW) IN WEST KAMENG, ARUNACHAL PRADESH - NERPC

The following agenda items was discussed in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

- (i) Power from Dikshi HEP (24MW) may be evacuated through below mentioned transmission system:

Transmission element

- a) 132kV S/C Dikshi switchyard to Tenga switching station - 10.5 Kms
b) 132kV D/C Tenga switching station to Nechipu LILO connection (on Balipara-Khupi 132kV line) - 21.5 km

Substations

- c) 132 kV Tenga switching station with 4 no. of bays

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

ITEM NO. B.18 : INTERCONNECTION OF 132KV SUBSTATION AT SURAJMANI NAGAR (TSECL) & 400KV SURAJMANI NAGAR (ISTS) AND 132KV SUBSTATION AT P.K. BARI (TSECL) & P.K. BARI (ISTS) - NERPC



The following agenda items was discussed in the 1st NERSCT meeting held on 29-11-2018 at Guwahati:

Modification in part scope of the scheme – “POWERGRID works associated with NERSS-V” (Subject to views of TSECL – as per para 13.8 above)

Earlier scope:

Additional 400kV D/c line at Surajmani Nagar end for termination of Palatana – Surajmani Nagar 400kV D/c line (op. at 132kV) line at 400kV Surajmani Nagar (ISTS) S/s

Revised scope:

LILO of Palatana – Surajmani Nagar (TSECL) 400kV D/c line (op. at 132kV) at Surajmani Nagar (ISTS) S/s and operation of Palatana – Surajmani Nagar (ISTS) section at rated voltage level of 400kV & operation of Surajmani Nagar (TSECL) – Surajmani Nagar (ISTS) section at 132kV (with provision to operate the line at 400kV level in future, as and when required).

Upgradation of 132kV Surajmani Nagar (TSECL) S/s to 400kV level, can be examined when TSECL submits relevant study alongwith system data and load growth/generation addition planned in Tripura.

Members may kindly approve.

TCC Deliberation :

NERPC Deliberation :

3. CATEGORY - C : COMMERCIAL ISSUES

ITEM NO. C.01 : OUTSTANDING DUES - POWERGRID

The total outstanding of POWERGRID’s NER beneficiaries as on 26.04.19 is as under and DICs may kindly liquidate their respective outstanding dues immediately.

(All Figures in INR Crores) The total outstanding of POWERGRID’s NER beneficiaries as on **20.08.2019** is as under and DICs may kindly liquidate their

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respective outstanding dues immediately. These figures include both PoC as well as non-PoC billing amounts.

(All Figures in INR Crores)

DIC	Total Outstanding dues	Outstanding more than 45 days	Outstanding more than 120 days	Average monthly billing	Remarks
Ar. Pradesh	8.58	1.93	0.01	2.99	<i>Approx. 03 months receivables</i>
APDCL (Assam)	51.43	0.00	0.00	46.58	-
MSPDCL (Manipur)	18.28	9.65	0.00	4.28	<i>Approx. 04 months receivables</i>
MSPCL (Manipur)	2.97	2.77	2.58	0.10	<i>Arrear amounts for FY 2016-17, 2017-18 & 2018-19 yet to be received</i>
MeECL (Meghalaya)	16.25	7.22	0.00	4.63	<i>Approx. 04 months receivables</i>
Mizoram	1.90	0.00	0.00	2.40	-
Nagaland	3.50	0.00	0.00	3.99	-
TSECL	0.20	0.20	0.04	3.63	-

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(Tripura)					
Total	103.15	21.77	2.63	68.60	-

Concerned DICs with >45 days outstanding may be impressed upon to clear the outstanding dues immediately as POWERGRID is facing financial constraints. Manipur may be specifically requested to clear their outstanding dues as the same have accumulated to beyond 120 days

Members may update the status.

ITEM NO. C.02 : LC REQUIREMENT AGAINST POC BILLING AS PER CL. NO. 3.6 OF BCD (BILLING COLLECTION AND DISBURSEMENT) PROCEDURES OF CERC ORDER NO. L-1/44/2010-CERC, DTD. 29.04.11 - POWERGRID

REQUIREMENT AND STATUS OF LC AS ON DATE (11.02.2019) OF NER BENEFICIARIES

(All Figures in INR Lakh) LC requirement against PoC billing as per Cl. No. 3.6 of BCD (Billing Collection and Disbursement) Procedures of CERC order no. L-1/44/2010-CERC, Dtd. 29.04.11

REQUIREMENT AND STATUS OF LC AS ON DATE (20.08.2019) OF NER BENEFICIARIES

(All Figures in INR Lakh)

SN	Beneficiary	Required LC Amount	Validity of existing LC	Total LC Amount to be maintained including enhanced value		
				Existing	Enhancement	Total
1	Ar. Pradesh	249.39	31.03.2020	321.46	0.00	321.46
2	APDCL (Assam)	3930.00	30.04.2020	3930.00	0.00	3930.00
3	MSPDCL (Manipur)	390.93	28.03.2020	236.79	154.14	390.93
4	MeECL	365.00	04.10.2019	365.00	0.00	365.00

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	(Meghalaya)					
5	Mizoram	290.56	04.05.2020	290.56	0.00	290.56
6	Nagaland	319.48	21.03.2020	437.73	0.00	437.73
7	TSECL (Tripura)	367.00	14.02.2020	367.00	0.00	367.00

Manipur (MSPDCL) to be impressed upon for enhancement of LC to requisite amount.

Members may update the status.

ITEM NO. C.03 : LIQUIDATION OF OUTSTANDING BY MEECL – NTPC

Outstanding dues more than 45 days as on 31.08.2019 is Rs 340.78 Crore.

Sl.No	Beneficiaries	Total Outstanding in Cr.	Outstanding more than 45 days
1	MeECL, Meghalaya	357.40 (Including Surcharge)	340.78

Meghalaya is requested to make payment at the earliest.

Members may update the status.

ITEM NO. C.04 : OPENING OF LETTER OF CREDIT – NTPC

As per MOP-GOI order No. 23/22/2019-R&R, dated 28th June 2019 regarding Opening and Maintaining of adequate Letter of Credit (LC) as Payment Security Mechanism under Power Purchase Agreements by Distribution Licensees. The following beneficiaries as given below are requested to open the LC at the earliest.

Sl.No	Beneficiaries	LC Required As per PPA (Cr.)	Remarks
1	MeECL, Meghalaya	13.60	Not yet opened
2	MSPDCL, Manipur	15.40	LC opened for Rs 3.79 Crs. The same to be enhanced.

Members may update the status.



ITEM NO. C.05 : OUTSTANDING DUES OF OTPC AGAINST NER BENEFICIARIES – OTPC

The current total outstanding dues of OTPC against the NER beneficiary states (as on 22-08-2019) are as under:

(Amount in Rs Crores)

Sl.No.	Beneficiary	Outstanding Dues (>45 Days)	Total Outstanding
1	Arunachal Pradesh	0.00	0.00
2	Assam	0.00	0.00
3	Manipur	18.34	26.43
4	Meghalaya	79.78	95.40
5	Mizoram	0.00	0.00
6	Nagaland	0.00	0.00
7	Tripura	0.00	0.00
	Total	98.12	126.38

The total outstanding dues as on 28-08-2019 are Rs 126.38 Crores out of which outstanding beyond 45 days is Rs 98.12 Crores. The outstanding dues of Meghalaya and Manipur as accumulated to alarming levels. The auditors have been regularly reflecting the issue of outstanding dues of Meghalaya and Manipur as a special concern in our Board Meetings. Accordingly, Meghalaya and Manipur are hence requested to clear at least the outstanding dues over 45 days, at the earliest.

Members may update the status.

ITEM NO. C.06 : OUTSTANDING DUES OF NHPC FOR MORE THAN 45 DAYS – NHPC

- (i) MeECL, Meghalaya: As per MeECL Letter No.251 dated 31.01.2017 entire outstanding dues had to clear by August, 2017. But till date, MeECL Meghalaya have not cleared the entire dues despite their commitment in Jan'2017. As on date, an amount of Z 27.13 Crs (Including surcharge of 216.60 Crs up to 30.07.2019) is due for payment from MeECL, Meghalaya. It is reiterated that amount outstanding beyond a period of 45 days from date of billing is attracting late payment surcharge at the rate of 1.50% per month as per CERC (Terms & Conditions of Tariff) Regulations, 2019. The auditors are stressing upon NHPC to settle the issue of pending huge outstanding dues at the earliest. Latest reminder has been sent on 19.08.2019. In this regard senior officers from NHPC visited



Shillong on 26-28th June'2019 and held meeting with CMD, MeECL and CE (Comml.),MeECL in this regard but payments are not forthcoming. MeECL, Meghalaya is requested to liquidate the entire outstanding dues as early as possible or at least principal amount of of 210.53 Crs to avoid further levy of surcharge. NHPC Ltd is contemplating to approach NCLT for redressal of the long pending issue for early realization of the outstanding dues.

- (ii) MSPDCL (Manipur): An amount of Z 20.32 Crores is due for payment (Including surcharge of 20.47 Crs up to 30.07.2019) from MSPDCL (Manipur) including current bill of Aug'2019. MSPDCL (Manipur) is requested to liquidate the amount at the earliest to avoid late payment surcharge f ling which NHPC Ltd shall constrained to present (LC) to the bankers for encashment.

Members may update the status.

ITEM NO. C.07 : SIGNING OF POWER PURCHASE AGREEMENT (PPA) IN RESPECT OF SUBANSIRI LOWER H.E PROJECT (2000MW) IN ARUNACHAL PRADESH – NHPC

Signing of PPA with Deptt. of Arunachal Pradesh in respect of Subansiri Lower H.E Project is pending since long. Modification sought by Arunachal Pradesh in PPA has already been agreed to & conveyed vide this office letter dated 10.11.2016. Latest letter was sent on 15.05.2018 to Govt. of Arunachal Pradesh for the same. Moreover Hon'ble NGT, Principal Bench, New Delhi vide order dated 31.07.2019 has upheld expert committee Constituted by MoEF & CC for Subansiri Lower HE Project.

In view of above, Deptt. of Power, Govt. of Arunachal Pradesh is requested to resolve the issue at the earliest.

Members may update the status.

ITEM NO. C.08 : OUTSTANDING DUES OF REGULATORY ACCOUNTS – NERLDC

(a) DSM CHARGE OUTSTANDING

Major defaulter in terms of O/s Payable for weeks >13 are Arunachal Pradesh (28.18 Cr), Assam (5.38 Cr), Manipur (4.08 Cr), Mizoram (7.58 Cr), Nagaland (26.36 Cr).



(b) REACTIVE CHARGE OUTSTANDING

Major defaulter Ar.Pradesh(Rs: 2795916/-), Manipur (Rs: 12406 /-), Mizoram (Rs: 345504 /-), Nagaland (Rs: 260859 /-), Tripura (Rs: 176024 /-) are major defaulters.

(c) FEES & CHARGES OUTSTANDING

Major defaulter in terms of O/s Payable for days > 45 is Manipur (₹886428/-)

Utilities are requested to clear the dues.

4. CATEGORY - D : ITEMS FOR INFORMATION

ITEM NO. D.01 : EARLY COMPLETION OF OPGW BASED COMMUNICATION SYSTEM IN INTRA-STATE GRID OF MANIPUR IN THE INTEREST OF NER GRID SECURITY AND SMOOTH POWER SUPPLY MANAGEMENT IN MANIPUR - POWERGRID

During 19th TCC & 19th NERPC Meeting, POWERGRID informed that LOA was placed on M/s TCIL. All materials received at site and all out efforts to be made to complete work by July'19.

Now, OPGW stringing is in progress and expected completion by July'2019. Till date, 200Km of 482 Km completed in Manipur including State & Central Sector. Refer **Annexure – D.01** for details

For Kind information

ITEM NO. D.02 : STATUS OF FO EXPANSION AND MW VACATION PROJECT IN NER - POWERGRID

During 19th TCC & 19th NERPC Meeting, POWERGRID informed that the project shall be completed by July'19. The status of project during 19th NERPC Meeting and 20th NERPC Meeting is as below:



19 th NERPC Meeting	20 th NERPC Meeting
PROJECT: MICROWAVE REPLACEMENT (1135KM OF OPGW)	
<ul style="list-style-type: none"> • 13 links out of 30 links commissioned. • Approx. 8 Km stringing balance due to issues such as tower diversion and re-stringing requirement. 	<ul style="list-style-type: none"> • 21 links out of 30 links completed • Expected commissioning by June'2019 except Nirjuli-Leikhi-Parey Link where ROW issue still not resolved by Administration of Arunachal. • Rectification has been completed for links (a) 220kV Agia-Sarusujai with LILO at Boko, Mirza, (b)132KV Namrup-Tinsukia, (c) 220kV S/C Samaguri - Mariani TL (CKT - II) and (d) 220kV BTPS-Agia • Links of AEGCL has already been handed on 21.2.19
PROJECT: FO EXPANSION (1887KM OF OPGW)	
<ul style="list-style-type: none"> • Stringing Completed - 912 Km • Stringing completion is expected by July '2019. 	<ul style="list-style-type: none"> • Stringing Completed - 1081 Km • Stringing completion is expected by August '2019.

Refer **Annexure – D.02** for details

For Kind information

ITEM NO. D.03 : PROGRESS OF URTDSM PROJECT - POWERGRID

The status during 19th and 20th NERPC Meeting is as below:

19 th NERPC Meeting	20 th NERPC Meeting
PROJECT: PMU	
<ul style="list-style-type: none"> • 46 out of total 51 PMUs commissioned in 12 substations. Installation is in progress at BNC and 	<ul style="list-style-type: none"> • 50 out of total 51 PMUs commissioned in 14 substations.



<p>at Ranganadi same is planned from start of Jan'19.</p> <ul style="list-style-type: none"> • Out of 12 commissioned stations Dimapur is planned from Jan' 19 end. 	
<p>PROJECT: CONTROL CENTERS</p>	
<ul style="list-style-type: none"> • Installation done for 3 control centers (NERLDC, Assam and Meghalaya) out of 4. SAT done for NERLDC, Assam and Meghalaya. Installation pending at Arunachal Pradesh. • POWERGRID requested for commencement of SAVT in Dec'18, which was agreed by members. 	<ul style="list-style-type: none"> • SAVT (after SAT) for NERLDC, Assam and Meghalaya started on 08.03.2019. Provisional TOC for control centre issued to Ms/ GE Dtd.26.03.19 • As agreed in NERPC, due to space constraints Arunachal Pradesh PDC cannot be installed in UTDSM phase-I project. Region to expedite shifting of PDC to Tripura. Proposal for transportation has been put up. <ul style="list-style-type: none"> • The target for completion is by 1st Week19. Additional cost of Rs.43lac (Tax amount) is involved for GST/IGST diversion from one state to other state. <p>Delay in gang mobilization got delayed due to Flood in South ASSAM/North Tripura in August</p>

Refer **Annexure – D.03** for details

For Kind information

ITEM NO. D.04 : UP-GRADATION OF 220/132KV SALAKATI SUB-STATION FROM CONVENTIONAL TO SAS ON COMPLETION OF 25 YEARS AGE AND CAPITALIZATION DURING TARIFF BLOCK (2019-2024) - POWERGRID

During 16TH TCC & 16th NERPC Meeting (MOM Item No. A.9) approval was accorded for up-gradation of 220/132kV Salakati Sub Station by POWERGRID on completion of 25 Years. The activities covered under up-gradation in Tariff Block 2014-19 was replacement of all old equipments and up-gradation of the Substation from



conventional to SAS with tentative expenditure of Rs 10.00 to 12.00 Crores under PoC Mechanism.

Now, the up-gradation tender is in final stage and the job will be taken up in tariff block 2019-24.

This is for kind information to forum for onwards information to next 20th TCC & 20th NERPC Meeting.

For Kind information

ITEM NO. D.05 : BETTER WEATHER FORECASTING FOR POWER SECTOR BY IMD - NERLDC

It was informed by IMD that they would install 150 nos AWS in NER and IMD proposed to set up AWS in substations of NER and they are ready to share data with NERLDC & SLDCs which will be beneficial for load forecast.

In the 158th OCCM, Dr. Sanjay O' Neil Shaw, Scientist E/Dy Director General of Meteorology, Regional Meteorological Centre, IMD, Guwahati gave a presentation on the IMD offering for the power sector of NER. The forum thanked IMD for the offer and approved of the weather station requirements. Further it was decided that a list of stations would be prepared by NERLDC in consultation with the constituents of NER and submitted to IMD for feasibility check.

The respective utilities nominated the following as nodal officers i.r.o. IMD project in the 158th OCCM.

For Kind information

ITEM NO. D.06 : REACTIVE POWER CAPABILITY TESTING OF GENERATORS IN NER REGION - NERLDC

Procedure for reactive power capability testing was approved in 158th OCC meeting of NERPC Forum held on 12th July, 2019 at Guwahati. Thereafter the first reactive capability testing in NER Region was conducted at OTPC, Palatana on 13th and 14th August, 2019. The testing at all ISGS in NER will be conducted on monthly basis i.e. one ISGS each month.

For Kind information



ITEM NO. D.07 : DISMANTLING OF 132KV S/C DIMAPUR - IMPHAL TRANSMISSION LINE ON ACCOUNT OF HIGHWAY CONSTRUCTION BY NHIDCL AT NAGALAND - POWERGRID

During the deliberation of special meeting held at Imphal on 25.09.2018 in connection with dismantling of 132KV Dimapur - Imphal S/C Transmission Line of POWERGRID to facilitate construction of Dimapur-Kohima 4-lane Highway, it was discussed and decided that POWERGRID would dismantle the line in various stretches involving 32 nos. of locations to clear the front to NHIDCL for construction of the Highway. Further, POWERGRID agreed to restore the line within 31.01.2019 subject to resolution of all RoW issues in time by Nagaland State Administration immediately on occurrence.

During the 155th OCC meeting, POWERGRID stated that although the foundation & erection works for diversion of the line has been taken up by POWERGRID with adequate mobilization, Right of Way issues along the new route involving 28 nos. of locations had become deterrent to the progress as those are taking considerable time to get resolved. In the said meeting, POWERGRID also raised concern over the apprehended uncongenial working conditions during the Monsoon period leading to further spillage of the work.

Considering all above stated facts, the subcommittee agreed to consider the outage of 132kV Dimapur – Imphal Line under “*Force Majeure Condition*” till completion of restoration.

Now, as on date, following critical issues are still pending with state administration:

- (i) Finalization of compensation of ROW for balance 2 locations in Kohima District & 1 location in Dimapur District.
- (ii) Finalization of compensation for Surface damage for all the new spans in Kohima District.

POWERGRID is pursuing continuously with the Administration to resolve above issues at the earliest.

It may also be mentioned here that heavy rain fall & landslides during the last few months at various locations along the Dimapur-Kohima highway has adversely



affected the pace of the ongoing work even as physical movement of working personnel & carriage of construction materials to new locations have been hampered on account of breakdown of communication to the locations. Meanwhile, 2 No. existing towers viz. loc.355 & 356 of the line have collapsed on account of severe landslide along the Dimapur-Kohima highway. Apparently it seems that due to massive soil excavation on account of highway construction the soil Strata might have got disturbed resulting severe landslides along the highway.

Currently, adverse weather conditions & frequent breakdown of communication on account of landslides, as stated above has gravely impacted the restoration work.

Despite all the obstructions, POWERGRID is making all out efforts for restoration of the line at the earliest. However, considering the present conditions, it is expected that it would be possible to restore the line overcoming all the Force Majeure Conditions by November-2019 only. This is however subject to clearance of ROW issues at the balance locations.

It is pertinent to mention here that a section of the 132KV Dimapur-Imphal line (from Imphal to Kohima) is presently under use by DoP, Nagaland for feeding power to Kohima as requested by DoP, Nagaland & subsequently agreed in the 158th OCC meeting (which is an interim arrangement for 6 months).

For Kind information

ITEM NO. D.08 : STATUS OF NORTH - EASTERN REGION SCHEMES UNDER PSDF - CEA
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The status of schemes of North-Eastern Region as sanctioned under PSDF is attached at **Annexure-D.08**. The pace of activity is rather slow in the instant schemes.

For Kind information





ANNEXURES



ANNEXURE – B.15

A. Details of substations and lines (New works)

SL NO	SCOPE OF WORK	ROUTE LENGTH / LOAD (CKMM/M W)	TYPE OF CONDUCTOR	Remarks (NEW/EXISTING/AUGMENTATION)	Approval in
1	Establishment of new 220/132 kV (2 X 160 MVA) and 132/33 kV (2 X 50 MVA) S/s at Khumtai			New Substation	5 th SCM
	220 kV:				
	LILO of Mariani-Samaguri (AEGCL-Existing) S/C Line 1 at Khumtai (AEGCL-New)	6 km	ACSR Zebra	New	
	LILO of Mariani-Samaguri (AEGCL-Existing) S/C Line 2 at Khumtai (AEGCL-New)	5 km	AAAC Zebra	New	
	132 kV:				
	LILO of Jorhat (W)-Bokakhat (AEGCL-Existing) at Khumtai (AEGCL-New) S/C Line	5 km	AAAC Panther	New	
	Khumtai (AEGCL-New) - Sarupathar (AEGCL-Existing) S/C Line	60 km	AAAC Panther	New	
	Load	20MW	Load	at 33 kV Bus	
2	Establishment of new 220/33 kV (2 X 100 MVA) S/s at Bihpuria			New Substation	1 st NERSCT
	220 kV:				
	220KV Bihpuria (AEGCL-New) - Sonabil (AEGCL-Existing) D/C Line	78km	AAAC Zebra	New	
	Load	30 MW	Load		
3	Establishment of new 220/132 kV (2 X 160 MVA) and 132/33 kV (2 X 50 MVA) GIS Substation at Agamoni			New Substation	6 th SCM
	220 kV:				
	LILO of both ckt of Alipurduar (PGCIL) - Bongaigaon (PGCIL) D/C line at Agamoni (AEGCL- New)	25 km	ACSR Zebra	New	
	132 kV:				
	LILO of Gossaigaon - Gauripur S/C (AEGCL-Existing) Line at Agamoni (AEGCL- New)	10 km	HTLS	New	
	Load	16 MW	Load		
4	Establishment of new 220/132 kV (2 X 160 MVA) GIS Substation at Shankardevnagar			New Substation	5 th SCM
	220 kV:				
	Shankardevnagar (AEGCL-New) - Misa (AEGCL-Existing) D/C Line	25 km	ACSR Zebra	New	
	Shankardevnagar (AEGCL-New) – Lower Kopili HEP (APGCL) D/C Line- (Other Source)	50 km	AAAC Zebra	New	



ANNEXURE – B.15

SL NO	SCOPE OF WORK	ROUTE LENGTH / LOAD (CKM/MW)	TYPE OF CONDUCTOR	Remarks (NEW/EXISTING/AUGMENTATION)	Approval in
5	Establishment of new 220/33 kV (2 X 100 MVA) GIS Substation at Boragaon (Jalukbari)			New Substation	1 st NERSCT
	220 kV:				
	Boragaon (Jalukbari) (AEGCL-New) - Kukumara (AEGCL-Existing) D/C Line	21 km	18 km OH & 3 km UG Cable	New	
	Load	30 MW			
6	Establishment of new 220/33 kV (2 X 100 MVA) GIS Substation at Panjabari			New Substation	1 st NERSCT
	220 kV:				
	LILO of Sonapur-Sarusajai (AEGCL-Existing) -S/C Line at Panjabari (AEGCL- New)	3 km	AAAC Zebra	New	
	Load	30 MW			
7	Establishment of new 220/33 kV (2 X 100 MVA) GIS Substation at Jakhlabandha			New Substation	1 st NERSCT
	220KV:				
	LILO of 220kv Samaguri-Mariani line 1 (AEGCL-Existing) at Jakhlabandha(AEGCL-New) S/C line	10KW	AAAC Zebra	New	
	Load	18MW			
8	Establishment of new 132/33 kV (2 X 50 MVA) Substation at Dhing			New Substation	1 st NERSCT
	132 kV:				
	Dhing (AEGCL- New) - Nagaon (AEGCL-Existing) - S/C Line	35 km	AAAC Panther	New	
	Load	12 MW			
9	Establishment of new 132/11 kV (2 X 31.5 MVA) GIS Substation at Ghungur (Silchar-2)			New Substation	1 st NERSCT
	132 kV:				
	Ghungur (AEGCL- New) - Silchar (POWERGRID) S/C Line	10 km	XLPE Armoured Al Cable	New	
	Load	20 MW			
10	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Titabor			New Substation	1 st NERSCT
	132 kV:				
	Titabor (AEGCL-New) - Mariani (AEGCL-Existing) D/C Line	20 km	AAAC Panther	New	
	Load	24 MW			



ANNEXURE – B.15

SL NO	SCOPE OF WORK	ROUTE LENGTH / LOAD (CKM/M W)	TYPE OF CONDUCTOR	Remarks (NEW/EXISTING/AUGMENTATION)	Approval in
11	Establishment of new 132/11 kV (2 X 31.5 MVA) GIS Substation at Zoo Road			New Substation	1 st NERSCT
	132 kV:				
	Zoo Road (AEGCL-New) - GMC (AEGCL-Existing) S/C Line	8 km	XLPE Armoured Al Cable	New	
	Load	25 MW			
12	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Chhaygaon			New Substation	1 st NERSCT
	132 kV:				
	Chhaygaon (AEGCL-New) - Boko (AEGCL-Existing) D/C Line	20 km	AAAC Panther	New	
	Load	28 MW			
13	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Kumarikata			New Substation	1 st NERSCT
	132 kV:				
	Kumarikata (AEGCL-New) - Nalbari (AEGCL-Existing) S/C Line on D/C Tower	40 km	AAAC Panther	New	
	Load	10 MW			
14	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Burhigaon			New Substation	1 st NERSCT
	132 kV:				
	LILO of Rowta-Sipajhar (AEGCL-Existing) S/C Line at Burhigaon (AEGCL-New)	15 km	AAAC Panther	New	
	Load	15 MW			
15	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Chabua			New Substation	1 st NERSCT
	132 kV:				
	LILO of Tinsukia (AEGCL-Existing) - Dibrugarh (AEGCL-Existing) S/C Line	8 km	AAAC Panther	New	
	Load	18 MW			
16	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Morigaon			New Substation	1 st NERSCT
	132 kV:				
	Baghjhap(Existing)-Morigaon(New) D/C Line.	20km	AAAC Panther	New	



ANNEXURE – B.15

SL NO	SCOPE OF WORK	ROUTE LENGTH / LOAD (CKM/MW)	TYPE OF CONDUCTOR	Remarks (NEW/EXISTING/AUGMENTATION)	Approval in
	Load	15 MW			
17	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Nagaon-2			New Substation	1 st NERSCT
	132 kV:				
	132 kV Samaguri (AEGCL- Existing) - Nagaon-2 (AEGCL-New) D/C Line	41 km	AAAC Panther	New	
	Load	25 MW			
18	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Amayapur			New Substation	1 st NERSCT
	132 kV:				
	Amayapur (AEGCL- New) - Hajo (AEGCL- Existing) D/C Line	25 km	AAAC Panther	New	
	Load	15 MW			
19	Establishment of new 132/33 kV (2 X 50 MVA) GIS Substation at Lumding			New Substation	1 st NERSCT
	132 kV:				
	LILO of Shakardevnagar (AEGCL- Existing) S/C Line - Diphu (AEGCL-Existing) S/C Line at Lumding (AEGCL-New)	10 km	AAAC Panther	New	
	Load	16 MW			
20	Establishment of new 132/33 kV (2 X 50 MVA) Substation at Serfanguri			New Substation	1 st NERSCT
	132 kV:				
	Serfanguri (AEGCL- New) - Kokrajhar (AEGCL-Existing) D/C Line	18 km	AAAC Panther	New	
	Load	15 MW			
21	Establishment of new 220/132 kV (2 X 160 MVA) Substation at Rowta			New Substation	1 st NERSCT
	220 kV:				
	Rowta (AEGCL- New) – 400/220 kV Rangia (AEGCL) D/C Line	80 km	AAAC Zebra	New	
22	Establishment of new 132/33 kV (2 X 50 MVA) Substation at Dhupdhara			New Substation	1 st NERSCT
	132 kV:				
	Dhupdhara (AEGCL- New) - Boko (AEGCL- Existing) D/C Line	25 km	AAAC Panther	New	
	Load	8 MW			
23	Establishment of new 400/220 kV (2 X 500 MVA) Substation at Rangia			New Substation	7 th SCM
	400 kV:				



ANNEXURE – B.15

SL NO	SCOPE OF WORK	ROUTE LENGTH / LOAD (CKM/M W)	TYPE OF CONDUCTOR	Remarks (NEW/EXISTING/AUGMENTATION)	Approval in
	LILO of both ckt of Balipara (PGCIL)-Bongaigaon (PGCIL) 400kV (Twin Moose) D/c Line at Rangia (AEGCL-New)	21 km	ACSR Twin Moose	New	
	125 MVAR Bus Reactor	2 no.		New	
	220 kV:				
	LILO of both ckt of Rangia - Amingaon (Existing-AEGCL) D/c Line at Rangia (AEGCL-New)	20 km	ACSR Zebra	New	5 th SCM
24	Establishment of new 400/220 kV (2 X 500 MVA) Substation at Sonapur			New Substation	
	400 kV:				
	LILO of Silchar (PGCIL)-Bymihat (Meghalaya) 400kV S/c Line at Sonapur (AEGCL-New)	25 km	ACSR Twin Moose	New	
	50 MVAR Switchable Line Reactor in Sonapur-Silchar section at Sonapur end	1 nos.			
	80 MVAR Bus Reactor	2 no.			

B. Details of cost components of transformer capacity augmentation of existing substations (agreed in 1st meeting of NERSCT)

SL. NO.	Name of Substation	Net Capacity Addition in MVA
1.01	Narengi: 2x50 MVA, in place of 2x25 MVA, 132kV	50
1.02	Bornagar: 2x50 MVA, in place of 2x25 MVA, 132/33kV	50
1.03	Moran: 2x50 MVA, in place of 2x16 MVA, 132/33kV	68
1.04	Gauripur: 2x50 MVA, in place of 2x25 MVA, 132/33kV	50
1.05	Dibrugarh: 2x50 MVA, in place of 2x31.5 MVA, 132/33kV	37
1.06	Depota: 2x50 MVA, in place of 2x31.5 MVA, 132/33kV	37
1.07	Kahilipara: 3x50 MVA, in place of 2x31.5 MVA & 1x30 MVA, 132/33kV	57
1.08	Rangia: 2x50 MVA, in place of 2x25 MVA, 132/33kV	50
1.09	Golaghat: 2x50 MVA, in place of 2x25 MVA, 132/33kV	50
1.10	Sankardeb Nagar: 2x50 MVA, in place of 2x25MVA, 132/33kV	50
1.11	Panchgram: 2x50 MVA, in place of 2x25MVA, 132/33kV	50
1.12	Boko: 1x160 +1x100 MVA, in place of 1x50 +1x100 MVA, 220/132kV	110



1.13	Agia: 1x160 +1x100 MVA, in place of 1x50 +1x100 MVA, 220/132kV	110
1.14	Kukumara: 2x50 MVA, in place of 1x25+1x16MVA, 132/33kV	59
	TOTAL	828.00

C. Capacity Augmentation of Transmission lines (agreed in 1st meeting of NERSCT)

SI No	Name of Line	Route Length KM	Circuit Type	CkM
1	2	3	4	
1	TRANSMISSION LINES			
1.01	BTPS (Salekati) – Dhaligaon 132kV D/C line	38	D/C	76
1.02	Kukumara – Sarusajai 220kV D/C line	24	D/C	48
*1.03	Gossaigaon – Gauripur 132kV S/C line	62	S/C	62
	TOTAL	124		186

* Re conducting of this line is recommended by CEA because of overloading of Gossaipur-Gauripur line due to feeding of power from 220KV Agamoni SS by LILoing of this line.

D. Bay Extension in Existing Substations (In accordance with agreed system)

SL. NO.	Name of Existing Substation where bay Extension required	No. of Bays
1.01	Azara: Two 220 kV line bays for Azara-Boragaon 220 kV Line	2
1.02	Mariani: Two 132 kV Line bays for Mariani - Titabor D/C line.	2
1.03	Srikona: One 132 kV Line bay for Srikona - Ghungur S/C Cable line.	1
1.04	Baghjap (Jagiroad): Two 132 kV Line Bays for Nagaon - Baghjap D/C line	2
1.05	Nagaon: Three 132 kV Line Bays for Nagaon - Baghjap D/C line.	3
1.06	Moran: Two 132 kV Line Bays for Moran-Betbari S/C Line	2
1.07	Sibasagar: Two 132 kV Line Bays for Moran-Betbari S/C Line	2
1.08	Sarupathar: One 132 kV Line Bay for Khumtai - Sarupathar 132 kV S/C Line	1
1.09	GMC GIS: One 132kV GIS Line Bay for GMC - Zoorad UG Cable line	1
1.1	Nalbari: One 132kV line bay for Nalbari - Kumarikata 132kV line	1
1.11	BOKO: Four line bays for Boko - Chhaygaon 132kV D/C line& Boko – Dhupdhara 132kV D/C line	4
1.12	BOKAJAN: One 132kV line bay for Bokajan-Diphu 132kV S/C line	1
1.13	DIPHU: One 132kV line bay for Bokajan-Diphu 132kV S/C line	1
1.14	HAJO: Two line bays for Hajo - Bogaribari 132kV D/C line	2
1.15	Boko: Two 132 kV line bays for Boko-Dhupdhara 132 kV D/C Line	2
1.16	Kokrajhar: Two 132 kV line bays for Kokrajhar-Serfanguri 132 kV D/C Line	2
	TOTAL BAY EXTENSION	29

**E. Conversion of Air Insulated S/S(AIS) to Gas Insulated S/s(GIS) (agreed in 1st meeting of NERSCT)**

SI No	Name of Work	Name Of Substation
1.01	Conversion of Air Insulated S/s (AIS) to Gas Insulated S/s(GIS) (One No.)	132/33KV Gohpur

F. Replacement of Ground Wire to OPGW (agreed in 1st meeting of NERSCT)

SL. NO.	Name of Links	km/nos.
1	Fiber Optics on balance transmission lines of AEGCL,	615km
2	Fiber Optics on Station Equipments at various Substation	18nos.



ANNEXURE – D.01

SUPPLY & ERECTION BY M/S KEC-Completed

SN	Link Name	Sector	OPGW Erection (in KM)	Remarks / Status
1	132KV Silchar (PG)-Badarpur (PG)	Central Sector	19.221	Completed
2	132kV Badarpur-Kolasib	Central Sector	106.759	completed
3	132kV Kolasib-Aizawl	Central Sector	65.732	Completed
4	132kV Nehu-Khelieriat Part	Central Sector	5.400	Completed
5	220KV Misa-Samaguri	Central Sector	34.373	Completed
6	400KV BTPS-Salakati via NTPC	Central Sector	3.490	Completed
7	132kV Badarur(PG)-Badarpur(AEGCL)	Central Sector	1.023	Completed
Sub Total (A) = TOTAL (Central Sector) =			235.998	
8	132KV Pailapool-Srikona	AEGCL	33.692	Completed
9	132kV Jiribam-Pailapool	AEGCL	12.752	Completed
10	132kV Badarur(AEGCL)-Srikona(AEGCL)	AEGCL	19.586	Completed
11	132KV Balipara-Gohpur	AEGCL	101.124	Completed
12	132kV S/C Mariani - Lakwa TL	AEGCL	79.298	Completed
13	132kV D/C Lakwa - Namrup TL	AEGCL	58.394	Completed
14	220kV Agia-Sarusujai (with LILO at Boko, Mirza)	AEGCL	130.706	Completed
15	132KV Namrup-Tinsukia	AEGCL	43.571	Completed
16	220kV BTPS-Agia	AEGCL	65.732	Completed
17	220kV S/C Samaguri - Mariani TL (CKT - II)	AEGCL	169.717	Completed
Sub Total (B) = TOTAL (State Sector) =			714.572	Links handed over
Grand Total (Sub Total A+B) =			950.570	

All Links completed, Target Completion of rectification: Dec-18



ANNEXURE – D.02

PART – 1: SUPPLY & ERECTION BY M/S TEN DOT
Project: Microwave Vacation OPGW PROJECT -NER
(Equipment are clubbed with NER FO Expansion)

A.1 Status of OPGW Links (as pending)

S N	Link Name	OPGW Stringing status	End Equipment Status	Overall reporting of end stations to NERLDC/ SLDC	Remarks (w.r.t terminal equipments)
1	132KV Silchar- Srikona	Complete	Complete	Data reporting	
2	132KV Mariani- Mariani	Complete	-do-	Data and voice reported dtd 31.03.2019. SAT Pending/Jun 19	Completed
3	132KV Nirjuli- Ranganadi	ROW issue	-do-	** 03 months after ROW is resolved	OPGW completed (except Railway/high way diversion part where work is stopped due to ROW)/ Matter taken up through NERPC
4	132kV Imphal(PG)- Imphal (State)	Complete	Equipment commissioning in progress	Oct-19	MW Vacation - Imphal PG FO Expansion - Imphal State
5	LILO of 132kV Aizawl- Zemabawk-II at Melriat SS	Complete	Complete	Oct-19	MW Vacation- Melriat

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6	132KV Melriat- Sihmuii	Complete	Equipment commissioning in progress	Oct-19	MW Vacation- Melriat FO Expansion- Sihmuii. Sihmuii end State station not ready-Not charged
7	132KV Mokokchung(PG) - Mokokchung (state)	Complete	Data Integration & reporting to RLDC/SLDC pending	Oct-19	FO Expansion- Mokokchung PG & Mokokchung State
8	Ranganadi- Gohpur (Part-I)	Complete	Complete	Data and voice reported dtd 18.01.2019	
9	Ranganadi- Gohpur (Part-II)	Complete	Complete		
10	Aizawl- Zemabawk-II	Complete	Installation work at Zemabawk-II is in progress	Oct-19	MW Vacation- Aizawl FO Expansion- Zemabawk II
11	Dimapur- Dimapur	Link Complete	Data Integration & reporting to RLDC/SLDC pending	Oct-19	MW Vacation- Dimapur FO Expansion - Dimapur State
12	132kV Ranganadi- Ziro	Complete	Installation of Equipment(FIBC OM & TEJAS) at Ziro is in progress.	Oct-19	MW Vacation- Ranganadi FO Expansion- Ziro
13	132KV Lekhi- Itanagar / Chimpu	Complete	Installation & Commissioning - work in progress	Oct-19	MW Vacation- Itanagar SLDC



	SLDC				FO Expansion- Lekhi
14	132KV LILO of Nirjuli-Ranganadi at Lekhi- This is part of Sl.No.3	ROW issue	Installation & Commissioning - work in progress	03 months after ROW is resolved	OPGW Completed (except Railway/high way diversion part where work is stopped due to ROW)
15	BNC LILO- 25km	Delayed due to Flood	Shut down was not approved I 158-159 th OCC & plan delayed	Oct-19	

Project: NER FO EXPANSION(Status of “Fiber Optic Cable Package for NR fiber optic expansion (additional requirements) and NER fiber optic expansion under establishment of Fiber Optic Communication system in Northern Region”

Sl No	Link Name	OPGW Stringing status	End Equipment Status	Overall reporting of end stations to NERLDC/ SLDC
	Central Sector			
1	132kV Melriat (PG) ~ Silchar (PG)	Complete	Complete	Data and voice reported dtd 31.03.2019. SAT Pending
2	132kV Khandong~Halflong (PG)	Complete	Optical connection established over SDH. Data/Voice	Sept-19

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			integration with PDH in progress	
3	132kV Dimapur (PG)~ Doyang (NEEPCO)	-do-	Do	Sept-19
4	132kV Doyang (NEEPCO)~ Mokokchung (State)	-do-	Do	Sept-19
5	220kV Mokokchung (PG)~ Mariani (PG)	-do-	Do	Sept-19
6	400kV Mariani (PG)~ Kathalguri (NEEPCO)	-do-	Do	Sept-19
7	400kV Surajmaninagar (TSECL) ~ Pallatana (OTPC)	Stringing Completed 27.967/36 714 Km	plan delayed due to non-granting of shutdown	Oct-19
8	132kV Badarpur(PG) ~ Jiribam(PG)	Stringing Completed: 48/67.16 Km	Do	Sept-19
9	Bongaigaon (PG-400 kV) ~ 220kV Salakati- 220 kV BTPS	0/4.5 Km	Work on halt due to flood	Oct-19
10	400kV Mirza (Azara) ~ Byrnihat	0/47.208 Km	Installation to be started	Oct-19
11	400kV Silchar ~ Pallatana	Stringing Complete: 61.146/24 7.409 Km/ROW issue	On halt due to flood & non issue of on time PTW by Pallatana for grid security	Dec-19
12	132kV Agartala(TSECL) ~	Complete	Installation in progress.	Space is provided by NEEPCO IN August only. Oct19
13	132kV Jiribam (PG) (Manipur) ~ Loktak (NHPC)	0/82.461Km	Work to be started, Jiribam state end space issue	Dec-19

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14	132kV Loktak (NHPC) ~ Imphal (PG)	Complete#	OPGW part completed. Equipment I&C in progress.	Sept-19
15	PK Bari (TSECL)--LILO of (NETCL) Belonia	0/10.441Km	Work to be started	Dec-19
16	132kV Pare ~ Chimpu	0/31Km	OPGW Supply Completed. Works yet to started for I&C.	Dec-19
Manipur State Sector				
1	132kV Yurembam ~ Yaingangpokpi	Complete#	OPGW part completed (except Approach cable). Installation of Equipment are also completed. WIP	Sept-19
2	132kV Yaingangpokpi ~ Kongba	Complete#	-do-	Sept-19
3	132kV Kongba ~ Kakching with LILO at Thoubal	Complete#	-do-	Sept-19
4	132kV Imphal(State) ~ Karong	45.4/60Km. WIP	OPGW Stringing in progress/ ROW Faced	Oct19/ ROW to be solved. Matter intimated to State
5	132kV Kakching ~ Churachandpur	19.60/38 Km. WIP	-do-	Oct19/ Work delayed & to restart after collapsed tower restored by State
6	132kV Loktak(NHPC) ~ Ningthoukhong	Complete#	OPGW part completed Installation of Ap	Sept-19

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			Cable/Equip ment WIP	
7	132kV Yaingangpokpi ~ Hundung	14.5/30K m	OPGW Stringing in progress	Sept-19
8	132kV Kakching ~ Chandel	16.37/25K m	OPGW Stringing in progress	Sept-19
9	132kV Loktak(NHPC) ~ Rengpang	0/47Km	OPGW stringing work yet to start..ROW/mis creant problem faced. Assistance of supervisor sought from MSPCL	Jan-19
10	132kV Jiribam ~ Jiribam state	0/1Km	OPGW stringing work yet to start.	Sept-19
11	132kV Ningthoukhong ~ Churachandpur	16.80/32K m	OPGW Stringing in progress	Oct19/ Work delayed & to restart after collapsed tower restored by State
Tripura State Sector				
1	132kV Agartala(TSECL) ~ Barumura(GTP)	Complete	Complete	Data and voice reported dtd 31.03.2019. SAT-Oct19
2	66kV 79 Tilla Grid (TSECL) ~ Badharghat	-do-	-do-	-do-
3	132kV Surajmaninagar(TSECL) ~ Budhungnagar	-do-	-do-	-do-
4	132kV Agartala(TSECL) ~ SM Nagar (TSECL)	-do-	-do-	-do-

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5	132kV Pallatana(OTPC) ~ Udaipur(TSECL)	-do-	With the completion of SM Nagar-Palatana OPGW, data/voice shall be made reported to SLDC	Oct-19
6	132kV Udaipur(TSECL) ~ Rokhia GTP	-do-	With the completion of SM Nagar-Palatana OPGW, data/voice shall be made reported to SLDC	Oct-19
7	66kV Udaipur(TSECL) ~ Gumti HEP	-do-	With the completion of SM Nagar-Palatana OPGW, data/voice shall be made reported to SLDC	Oct-19
8	66kV Gumti HEP ~ Amarpur(TSECL)	-do-	With the completion of SM Nagar-Palatana OPGW, data/voice shall be made reported to SLDC	Oct-19
			OPGW, data/voice shall be made reported to SLDC	Oct-19
9	66kV Satchand(TSECL) ~ Sabroom(TSECL)	-do-	Islanded link. Neither of Terminal stations is a wideband location	Oct-19
10	132kV 79 Tilla Grid (TSECL) ~ Dhalabil(TSECL)	-do-	Islanded link. Neither of Terminal stations is a wideband location	Oct-19

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11	132kV Rokhiya (GBPP) ~ Surajmani nagar(TSE CL)	Supply Complete. Front Not ready (TL under constructio n)	Front Not Ready	Link to be deleted. Supply material isto be handed over to
12	132kV Surajmaninagar(TSECL) ~ Monarchak (NEEPCO)	-do-	Front Not Ready	TSECL. DOCO will be done with consent from TSECL
Meghalaya State Sector				
1	132kV Nehu ~ Neigrihms	0/7.7Km	OPGW stringing work yet to start.	Oct-19
2	132kV Khliehriat(PG) ~ Khlehriat (State)	Complete#	OPGW part almost complete (Except Approach cable part).	Oct-19
3	132kV Khliehriat(State) ~ Myntdu Leshka- HEP	24/24.932 Km	OPGW part complete (Except Approach cable part).	Oct-19
4	132kV Khliehriat(PG) ~ Lumshnong (S/C)	2/25.19K m	Work on halt due to rainy season	Oct-19
Nagaland State Sector				
1	132kV Kohima (132KV) ~ Kohima (220KV)	0/25Km	OPGW stringing work yet to start.	Dec19
2	132kv Kohima ~ Wokha	0/58Km	OPGW stringing work yet to start./ DOP to ensure completion of Links of LILO of Wokha Kohima at New Kohima/Jadhima	Dec19
3	132kV Doyang (NEEPCO)	0/10Km	OPGW stringing work	Dec19



	~ Sanis		yet to start.	
	Mizoram State Sector			
01	Aizawl~Zemabawk I	0/1Km	OPGW stringing work yet to start.	Sept-19

NOTE1: Above mentioned communication links got delayed due to certain unavoidable situation like;

- 1) **Strike & Protest in Northeast due to GST Amendment bills**
- 2) **Strike, Curfew in Ar Pradesh in the month of Feb-19**
- 3) **Strike, Curfew in Meghalaya in the month of May-Jun-18**
- 4) **Floods in Assam & Manipur –July 17**
- 5) **ROW issues (paddy field/ asking additional compensation)**
- 6) **Work connected to Trans line connected to Loktak was stopped two times due to miscreants. The same will be restarted soon.**
- 7) **Recent flood in June & July19 across upper Assam ,Lower & South Assam has hindered movement of Fibcom team, Tejas team to Tripura, Meghalaya & AP. However teams have been re-mobilized**

NOTE-2:

1. **All concerned stations (State or ISTS/ISGS) where End equipment being installed are to provide**
 - a) **Auxiliary power as input to charger of DCPS**
 - b) **Air conditioning environment for equipment under LD&C packages ULDC packages**
 - c) **PDH space within 20meter of RTU/Gateway if data path is serial type**
 - d) **SDH pace within 15-20meter of PDH & SDH is to be placed within 15-20 meter**
 - e) **Respective station owner has to arrange of their own-**
 - f) **2wire normal telephone (along with telephone wire from control desk/control room up table) to the PDH/SDH to be provided by user**
 - g) **For RTU data also, necessary cable is to be provided by RTU-owner/owner of station.**
 - h) **e.g. one Ethernet cable(shielded) for serial data(if K 101) reporting by RTU & one Ethernet cable(shielded) to be laid & connected (between RTU/GATEWAY up to the Communication equipment-SDH/PDH for data &) by use/owner RTU station**
 - i) **f) State will jointly check with POWERGRID & one dedicated coordinator at State SLDC/Department will be assigned for communication**



-
- j) State can opt to keep EW or may ask contractor to Take back.**
 - k) AMC after execution will be supervised by respective state & paid by respective state directly to contractor. However for achieving competitive price, AMC rate was included during tendering itself for each state, rates have been finalized by POWERGRID through contract and will be shared with State**



Project: URTDSM PROJECT STATUS

Sl. No.	Equip.	Scope		Status				Status / Remarks
		Nos.	Locatio	Erection	SAT	Rep	Data Validati	
1	SPDC		NERLDC	1	1	1	NA	Completed 26.3.19/PTOC issued after SAVT
2	PDC		Assam	1	1	1	NA	Completed 26.3.19/PTOC issued after SAVT
3	PDC		Meghalaya	1	1	1	NA	Completed 26.3.19/PTOC issued after SAVT
4	PDC		Arunachal/ Tripura	0	0	0		A.12 (By Aug19) Diversion under process Materials delivered in Tripura. Work is targeted completed by 2 months (SAT). Additional cost of Rs.43lac (Tax amount) is involved for GST/IGST diversion from one state to other state
	Total	4						
5	PMU	3	Salakati	3	3	2	3	Completed
6	PMU	6	Balipara	6	6	6	6	Completed
7	PMU	6	Bongaigaon	6	6	6	6	Completed
8	PMU	4	BNC	4	4	4	4	Completed
9	PMU	4	Silchar	4	4	4	4	Completed
10	PMU	7	Misa	7	7	7	6	Completed
11	PMU	3	Mariani	3	3	3	3	Completed
12	PMU	5	Dimapur	5	5	5	3	Completed
13	PMU	1	RHEP - NEEPCO	1	1	1	2	Completed
14	PMU	2	Kopili - NEEPCO	2	2	2	2	Completed
15	PMU	4	Samaguri – Assam	4	4	4	4	Completed
16	PMU	2	Agia - Assam	2	2	2	2	Completed
17	PMU	2	Mariani – Assam	2	2	2	2	Completed
18	PMU	2	Tinsukia - Assam	2	2	2	2	Completed
		51		51	51	50	47	

Over all Target-URTDSM project t(for CS PDC & associated system as diverted to Tripura & UPS: Dec '19(including SAVT of 42days after SAT, work already started). Other parts completed including analytical.

GE did not mobilize team in July citing safety issues of Flood in South Assam, South Tripura & North Tripura

POWER SYSTEM DEVELOPMENT FUND														Annexure-D.08		
Status of the Projects in North Eastern Region																
Sl No	State	Entity	Name of the scheme	Estimated Cost given by entity	Estimated Cost Accepted	Grant Approved/ Sanctioned	Date of Sanction	Date of signing of Agreement	Original (as per DPR) completion Schedule (in months)	Date of First Disbursement	Completion schedule w.r.t date of 1st instalment	Grant Released	Grant released as percentage of grant	Time Est. (Required as of now/ Applied)	Time Est granted upto	Remarks
1	Assam	APPC	Renovation and Upgradation of Protection System, (044)	33.45	18.21	18.21	5-Sep-16	Agreement not signed	18	Till now, not applied for first instalment		0.0	0	Yes/No		1. Agreement not signed since a long time. 2. In the 10th Monitoring Group meeting of PSDF, held in Guwahati, the entity informed that they shall finalise the tender by September-2018 and furnish revised timeline for implementation of the scheme.
2	Assam	DoP, Assam	Implementation of Automatic Demand Management System (ADMS) to integrate 33/11kV System with Assam Pradesh SLDC. (146)	4.99	1.97	1.97	24-May-19	Agreement not signed	9			0.0	0			Agreement not signed
Total				38.44	20.18	20.18							0			
3	Assam	AEGCL	Renovation and Upgradation of protection system of substations(011)	382.48	299.37	299.37	11-May-15	29-Feb-16	18	31-Mar-16	30-Sep-17	120.05	40	Yes/Yes	31-Dec-19	1. First time Time extension granted upto 31-Mar-19 and second time granted up to 31-Dec-19 2. Slow progress of the schemes is a matter of concern
4	Assam	AEGCL	Installation of BCU, (047)	57.13	53.52	53.52	28-Oct-15	29-Feb-16	18	25-Nov-16	25-May-18	24.63	46	Yes/Yes	31-Dec-19	
5	Assam	APDCL	33/11kV System Integration with SLDC System in Assam. (156)	5.00	3.26	3.26	24-May-19	Agreement not signed	6				0			Agreement not signed
Total				444.61	356.15	356.15						144.68	41			
6	Manipur	MSPCL	Renovation and Upgradation of Grid Substation of MSPCL (055)	36.78	33.5	33.50	5-Sep-16	9-Nov-17	18	27-Mar-18	27-Sep-19	30.15	90			1. Last 10% not requested 2. Inspection to be done for release of last 10%
7	Manipur	Manipur SLDC	33kV system Integration with SLDC system in manipur. (093)	77.01	13.37	13.37	22-May-17	9-Nov-17	18	27-Mar-18	27-Sep-19	1.34	10			Time for Completion schedule about to complete. Only 10% grant requested so far.
8	Manipur	MSPCL	Implementation of OPGW based reliable communication at 132 kv and above substations. (152)	11.36	8.15	4.08	15-Nov-17	29-Jan-18	18	25-May-18	25-Nov-19	0.41	10	No/Yes	31-Mar-20	First time Time extension granted upto 31-Mar-19 and second time granted up to 31-Mar-20. Only 10% grant requested so far.
9	Manipur	MSPCL	Implementation of Automatic Demand Management Scheme (ADMS) Pilot Projects at Three Power Substation in Manipur (140)	6.55	2.24	2.24	24-May-19	Agreement not signed	9				0			Agreement not signed
Total				131.7	57.26	53.19						31.9	60			
10	Meghalaya	MePTCL	Renovation and Upgradation of protection system of substations (042)	102.80	69.19	69.19	4-Aug-15	8-Mar-16	18	28-Jun-16	28-Dec-17	56.87	82	Yes/Yes	31-Dec-19	First time Time extension granted upto 31-Mar-19 and second time granted up to 31-Dec-19.
11	Meghalaya	MePGCL	Renovation and upgradation of Protection and Control System (57)	41.93	32.53	32.53	5-Jan-16	10-Jun-16	18	25-Nov-16	25-May-18	25.64	79	Yes/Yes	31-Mar-20	First time Time extension granted upto 31-Mar-19 and second time granted up to 31-Mar-20
12	Meghalaya	MePDCL	33/11kV System integration with SLDC system in Meghalaya. (166)	2.07	2.07	2.07	24-May-19	Agreement not signed	6				0			Agreement not signed
13	Meghalaya	MePTCL	Installation of Numerical line differential relays in the 132kV transmission lines (Short Lines). (160)	4.51	3.27	3.27	24-May-19	Agreement not signed	18				0			Agreement not signed
Total				151.31	107.06	107.06						82.51	77			
14	Mizoram	DoP, Mizoram	Renovation and Upgradation of protection system of substations. (32)	31.38	26.84	26.84	28-Oct-15	26-Apr-16	18	25-Nov-16	25-May-18	23.87	89	Yes/Yes	31-Dec-19	1. First time Time extension granted upto 31-Mar-19 and second time granted up to 31-Dec-19. 2. Last installment of 10% has not been requested
15	Mizoram	DoP, Mizoram	33/11kV System integration with SLDC System Automatic Demand Management Scheme	5.40	1.97	1.97	24-May-19	Agreement not signed	6				0			Agreement not signed
Total				36.78	28.81	28.81						23.87	83			
16	Nagaland	DoP, Nagaland	Renovation and Upgradation of protection system of substations (017)	39.96	39.96	39.96	11-May-15	17-Aug-15	18	25-Nov-16	25-May-18	32.90	82	Yes/Yes	31-Mar-20	1. First time Time extension granted upto 31-Mar-19 and second time granted up to 31-Mar-20. 2. Requested for Last 10% but Statement of Expenditure and inspection report pending.
17	Nagaland	DoP, Nagaland	33/11kV System integration with SLDC System in Nagaland	5.09	2.12	2.12	24-May-19	Agreement not signed	9				0			Agreement not signed
Total				45.05	42.08	42.08						32.90	78			
18	NERPC	NERPC	Study programme on the Integration of Renewable Energy Resources (RES) into power system management system. The project will be implemented in following States: Assam	8	6.5	6.50	16-May-17	1-Jun-17	3	19-Jun-17	19-Sep-17	4.45	68	Yes/No		Time extension not requested
19	NERPC	NERPC	Study programme on the Integration of Renewable Energy Resources (RES) into power system management system. The project will be implemented in following States: Assam	26.74	18.00	18.00	27-Jul-18	20-Aug-18	18	26-Mar-19	26-Sep-20	16.15	90			1. Last 10% not requested 2. Inspection to be done for release of last 10%
Total				34.74	24.5	24.50						20.6	84			
20	Tripura	TSEBL	Renovation and Upgradation of Protection System (040)	79.95	31.05	31.05	5-Jan-16	30-Mar-16	18	9-Jan-17	9-Jul-18	26.10	84	Yes/No		1. Final 10% request Statement of Expenditure details not provided 2. Inspection to be done for release of last 10%
21	Tripura	TSECL	Implementation of Automatic Demand Management System (ADMS) in SLDC, Tripura.	2.32	2.32	2.32	24-May-19	Agreement not signed	9				0			Agreement not signed
Total				82.27	33.37	33.37						26.10	78			
Grant Total				964.90	669.41	665.34						362.56	54			