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SUMMARY RECORD OF DISCUSSIONS
18TH TECHNICAL COORDINATION COMMITTEE

&

18TH NORTH EASTERN REGIONAL POWER COMMITTEE MEETINGS

The 18th TCC & 18th NER Power Committee meetings were held on 10th & 11th October, 2017 respectively at “State Convention Centre”, Shillong. The meetings were co-hosted by Power Department, Government of Meghalaya & Meghalaya Energy Corporation Limited (MeECL).

The list of participants is enclosed at **Annexure – I & II.**

I : PROCEEDINGS OF THE 18TH TCC MEETING

The meeting started with welcome address by Shri. E.B. Kharmujai, CE (Commercial), (MeECL). Shri Kharmujai welcomed all TCC members and participants to the 18th TCC meeting and wished all participants a comfortable stay at the venue. After this, Shri E.W. Nongrum, Chairman, TCC addressed the 18th TCC meeting. In his brief speech, Shri Nongrum stated that TCC is an important forum for resolving various problems to make NER a self-reliant in Power sector. He impressed upon the house that each utility should improve its own performances and try to deliver the mandate of the government i.e. to supply power to all household. Shri P. K. Mishra, Member Secretary, NERPC welcomed all delegates of the 18th TCC meeting on behalf of NERPC. He expressed his sincere thanks to MeECL for hosting the 18th TCC & 18th NERPC meetings and for making excellent arrangement and providing a comfortable stay for the delegates. Speech of Member Secretary, NERPC is attached at **Annexure – III.**

Thereafter, Chairman, TCC requested Member Secretary to take up the agenda items for discussion.

The TCC meeting was concluded with the vote of thanks by Shri K.N. War, CE, MePTCL.

II : PROCEEDINGS OF THE 18TH NERPC MEETING

The 18th NER Power Committee meeting commenced with bouquets presentations to dignitaries followed by ceremonial lighting of lamps by Shri Coming One Ymbon, Hon'ble Power Minister, Meghalaya & Chairman, NERPC, Shri Manik Dey, Hon'ble Power Minister, Tripura, Shri Kipili Sangtam, Hon'ble Power Minister, Nagaland, Shri Tamiyo Taga, Hon'ble Power Minister, Arunachal Pradesh, Shri Pallab Lochan Das, Hon'ble Minister of State (Power), Govt. of Assam & Shri P. K. Mishra, Member Secretary, NERPC.

Shri C. Kharkrang, Director (Transmission), MePTCL delivered the welcome address. Shri Kharkrang extended warm welcome to all the dignitaries, senior officials of central and state government departments and utilities and participants of the 18th NER Power Committee meeting. He urged all the constituents to come forward and solve mutual and common problems together for the benefit of NER region.

Shri P. K. Mishra, Member Secretary, NERPC welcomed all participants and expressed gratitude for participation in the meeting. He mentioned that during the last two years many developments have taken up in the power sector in the region. He mentioned that TCC/NERPC Meetings should be held regularly to address the issues of the region. He requested that the trend should continue regularly. His speech is placed at **Annexure – IV**.

Shri Coming One Ymbon, Hon'ble Power Minister, Meghalaya & Chairman, NERPC addressed the 18th NER Power Committee. He stated that the Reliable Communication is very important to operate the grid smoothly. He mentioned about the low voltage problem in the region and stated that the forum will request the Govt. of India for funding the Capacitor Bank installation in the region. He also requested that skill developments are very important so that the youths of NER can be employed for better future.

Full text of the speech of Hon'ble Power Minister, Meghalaya & Chairman, NERPC is placed at **Annexure – V**.

Shri Manik Dey, Hon'ble Power Minister, Tripura in his brief address expressed gratitude to NERPC and NERLDC for providing continued assistance to Tripura in managing day to day power supply in the state. He expressed that the Ministry of power, Government of India has deprived the NER states while sanctioning centrally sponsored schemes like IPDS & DDUGJY. Tripura has submitted DPR under DDUGJY (Deen Dayal Upadhyaya Gram Jyoti Yojana) for Rs. 903.01 Crore for electrification of Un-electrified Habitations for covering 100% Households including quality power supply to rural areas. But sanction has been received for Rs. 74.12 crores only which is about 8.21% of the total requirement. Similarly, under IPDS (Integrated power Development scheme) Tripura had submitted DPR for Rs. 510.16 crore for renovation, augmentation and strengthening of urban distribution system for supply of reliable & quality power. But sanction has been received for Rs. 74.12 crores only which is about 14.55% of the total requirement.

Further, he highlighted that with the above meager sanction amount how state can meet the objective of “24x7 power for all (PFA)”.

Full text of the speech of Hon'ble Power Minister, Tripura is placed at **Annexure – VI**.

Shri Kipili Sangtam, Hon'ble Power Minister, Nagaland in his brief address expressed gratitude to NERPC for giving the opportunity to attend the august forum and to give the views of power sector on behalf of Nagaland. He said that the region has many miles to go to come at par with the rest of the country pertaining to power sector. Govt. of India has to help the NER States by providing assistance of funds not on 90:10 basis but 100% grant so that burden will not fall on poor consumers. He also emphasized the need of installing pre-paid meters in the State by capturing first the big towns of the State. He said unless the revenue is collected properly, it would be very difficult to sustain in the future. He wished the discussion of the forum will be beneficial for the NER.

Shri Tamiya Taga, Hon'ble Power Minister, Arunachal Pradesh in his brief address expressed gratitude to be part of the august forum and stated that being a first timer to the forum it is a great opportunity to learn for the benefit of Arunachal Pradesh. He highlighted the huge potential of Hydro Electricity Power in the State and expected that soon the State will have surplus of power. He requested the co-operation of Assam to resolve the issue of long pending Lower Subansiri HEP for the benefit of NER. He stated that many power projects are under execution in Ar. Pradesh and the issue of downstream affect raised by Assam can be mutually discussed. He also raised the issue of PoC mechanism where a transmission charge is not uniformed and this has put the feeling of betrayals amongst the different States. He requested the forum to look into the matter and urge the Govt. of India to address the issue at the earliest. He wished the deliberation in the meeting to be fruitful.

Shri Pallab Lochan Das, Hon'ble Minister of State (Power), Assam in his brief address stated that during the last few months the entire region has faced serious challenges to mitigate the system constraints in view of increased load demand due to factors such as industrialization, change in life style of people on one hand and augmentation and strengthening of network under flagship programs like. DDUGJY, RAPDRP, IPDS, ADB funded projects alongwith many other state Govt. sponsored project like Assam Bikas Yojana (ABY), TDF etc., on the other.

Peak demand has breached 1750 MW. Assam's own generation is less than 300 MW and in order to breach the gap PPAs' has to be signed with various ISGS to fulfill the requirement. We also look forward to procuring power from upcoming projects in our neighborhood states.

Due to increased reliability on external sources our vulnerability to outages has also gone up. The need for stable generation cannot be over emphasized. In order to achieve 24x7 power for our 3.5 Crore population, it is essential that adequate capacity is installed in the north eastern states.

Full text of the speech of Hon'ble Power Minister, Govt. of Assam is placed at

Annexure – VII.

Shri Thongam Biswajit Singh, the Hon'ble Power Minister, Govt. of Manipur could not attend the meeting due to unavoidable circumstances. In his note he wanted to point out that timely commissioning of the 400 kV substation at Thoubal depends on the completion of the up-gradation of 2x50 MVA, 132/33 kV substation at Imphal (PG) to 400/132 kV, 7x105 MVA single phase units including one spare single phase unit and the construction of 2 Nos. 400 kV GIS line bays at 400/132 KV substation Silchar for termination of Silchar- Imphal (PG) 400 kV D/C line. Further, in the interest of the region it may be iterated that there is no slippage in the completion of Imphal- New Kohima –New Mariani 400 KV D/C line under NERSS-VI which Kalpataru Power Transmission Ltd. (KPTL) is constructing on TBCB.

He expressed that PGCIL should closely monitor the progress of works for the up-gradation of the 400KV substation at Imphal and 2 nos. 400 kV GIS line bays at 400/132 kV substation Silchar to ensure that there is no slippage in the time line

His speech was taken as read and placed at **Annexure – VIII**.

After this Chairman, NERPC requested Member Secretary, NERPC to take up the agenda for discussion.

The vote of thank from MeECL side was given by by Shri T. Passah, Director, MePDCL.

The meeting concluded with the vote of thank from NERPC Secretariat side by Shri B. Lyngkhai, Director (C&O).

**RECORD NOTES OF DISCUSSION
OF
18TH TCC & 18TH NERPC MEETINGS**

III : CONFIRMATION OF THE MINUTES OF 15TH TCC MEETING & 15TH NERPC MEETING (S)

The minutes of the 17th TCC Meeting held on 4th October, 2016 at Imphal were circulated vide letter no. NERPC/OP/Committee/2016/2437-2512 dated 05.12.2016. Also, the minutes of 17th North Eastern Regional Power Committee (NER Power Committee) meeting was approved by circulation to NERPC Members.

No comments or observations were received from any constituents and hence, TCC and NERPC may confirm the minutes of above meetings.

Deliberation of the TCC

TCC confirmed the minutes of 17th TCC meeting.

Deliberation of the RPC

The RPC confirmed the minutes of 17th NERPC meeting.

CATEGORY – A : ITEMS DISCUSSED AND APPROVED BY THE COMMITTEE

ITEM NO. A.1 : PROTECTION WORK AT 8 LOCATIONS IN 400kV D/C PALATANA – SILCHAR LINE - NETC

Palatana-Bongaigaon 400 kV D/C transmission system was developed for evacuation of power from 726.6 MW capacity, Gas Based Combined Cycle Power Plant (GBCCPP) of ONGC Tripura Power Company (OTPC) situated at Palatana, Tripura. The length of transmission system is 663 Km. 5 assets of the transmission system were commissioned in phases from 2012 to 2015. Palatana-Silchar 400 kV D/C transmission line was commissioned in the month of September, 2012 and is passing

through 73 KMs of hilly forest stretch in the state of Tripura. During construction, soil cutting/benching in this hilly stretch was minimized by using uneven leg extensions for better stability and economy.

During last year, this region experienced frequent earthquakes of high intensity and heavy monsoon with incessant rains which are not normal phenomenon. During earthquake the horizontal seismic forces have created voids in soil strata due to which water seepage caused sinking of land mass in this region. There were several road blockage and land-slides experienced during the last year and the subject transmission line corridor also got affected. Due to foregoing, 8 towers location of 400 kV D/C Palatana-Silchar transmission lines got badly affected which is beyond the control of NETC. Emergency temporary measures were taken in few of the vulnerable locations at that time by POWERGRID (Project Management Consultant for NETC for this project) to continue the power evacuation. As these emergency measures are temporary in nature therefore immediate steps shall have to be taken for protection of all these 8 nos. towers for long time safety and security of the subject transmission line.

The issue was deliberated during the 127th OCC Meeting and the estimated expenditure was intimated to be Rs. 70.77 Lakhs to build protection wall at 8 locations on immediate basis. Booking of such expenditure is proposed to be met through PoC mechanism. The members of the OCC agreed in principle to the proposal and recommended for approval of 18thTCC/NERPC.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

ITEM NO. A.2 : DIVERSION OF 400 KV D/C SILCHAR-BYRNIHAT-AZARA TRANSMISSION LINE BETWEEN LOCATION NO. 573 TO 580 (2.33 KM) TO FACILITATE CONSTRUCTION OF TETELIA - BYRNIHAT RAILWAY LINE OF NORTHEAST FRONTIER RAILWAY (NFR) - NETC

The 400 kV D/C Silchar – Byrnihat-Azara line is the part of 400 kV Palatana

Transmission System owned by NETC presently being maintained by PGCIL. Silchar – Byrnihat Ckt & Silchar – Azara Ckt of the said line were commissioned on 01.03.2013 and on 27.07.2014 respectively.

However, now to facilitate construction of Tetelia – Byrnihat Railway line of NFR, a section of the line to the tune of 2.33km involving 6 (six) tower locations is to be diverted through a new alignment. During construction of the line in the year 2012, NFR had claimed that both the line and Railway corridor in this section are overlapping each other and hence the line is to be shifted prior to the construction of the Railway line. The permission for possession of land was granted to NFR as per notification u/s 4 (1) in July 2010 by Addl. Dy. Commissioner, Kamrup (Metro), Guwahati.

NETC in the capacity of transmission systems developer finalized the route alignment during 2005-06 after obtaining necessary approvals such as section 68 & section 164 under Electricity Act 2003. Though it was not mandatory, NETC obtained approval from Revenue Authorities of Sonapur during December 2010 much before taking up the construction activity in the Tetelia-Byrnihat section by NFR and completed the work by April 2012. Since then, series of meetings were held between NETC & NFR in presence of representative of Govt. of Assam. But till August, 2016, no conclusion could be arrived with regard to which party (NETC/NFR) would bear the expenses of the said diversion. Finally, in the meeting convened by Special Secretary (Power) GoI on 26.09.2016, NETC had issued the letter of acceptance for diversion of the line as per their directive. Accordingly, NETC has placed the LOA for diversion of the line with a target to complete by December, 2017. On behalf of NETC, PGCIL is executing the job under Project Management Consultancy (PMC). The total cost of this diversion work will be around Rs. 14.0 Cr. NETC has proposed for booking of this expenditure under PoC Mechanism as the line has to be diverted in the interest of the Nation, in general and for the State of Meghalaya in particular.

The issue was deliberated in 134th OCC Meeting and the members agreed to the proposal of NETC and recommended for approval of TCC and NERPC.

Deliberation of the TCC

TCC Members were of the opinion that railways should deposit the amount on

submission of DPR by NETC as is the norm followed by railways for diversion of roads, transmission lines. Member Secretary intimated that the decision was taken by the Ministry of Power and hence it needs to be examined thoroughly.

The matter was referred for discussion to RPC.

Deliberation of the RPC

The RPC also endorsed the view of TCC and decided that a Resolution will be adopted by Hon’ble Power Ministers of NER to Ministry of Power and Ministry of Railways to pay to NETC.

ITEM NO. A.3 : USE OF MULTI-CIRCUIT TOWERS AND MONOPOLES – NERPC

During 134th OCC Meeting, Sterlite informed that there are two lines: one is 400kV D/C Surajmaninagar - P.K. Bari Transmission line which is 92 kms and other is 132kV D/C AGTPP (NEEPCO) – P.K. Bari (TSECL) Transmission line which is 82 kms. These two lines are parallel to each other in forest, so we want to implement Multi circuit Towers in forest area by merging these two lines for approx. 60 kms (M/C Start point to M/C End Point). The 132kV D/C will be kept in lower side and 400kV D/C in the upper side of the tower. The usage of multi circuit towers will reduce the Forest area and there would be a substantial reduction in the number of trees to be felled in Forest Portion. The details are as given below:

Description	SMN-P.K. Bari 400kV	NEEPCO-P.K. Bari 132	Total Forest Area details while Laying Single Lines	NEEPCO-SMN-Pkbari 400kV/132kV Multi Circuit Line	Saving in Forest area / Tree Cutting while using Multi Circuit Transmission Line in Forest Portion.
	L Length:	L Length:	Line Length:	Line Length:	Line Length:
	Tripura	Tripura	Tripura	Tripura	Tripura
Length of Transmission Line in K.M	92	82	174	115	59
Forest Length in K.M	32.5	41	73.5	34.5	39.0
Line Corridor in Meter	46	27		46	
Forest Area (In	150	111	261	159	102

hac)					
Total Trees Enumerated on Sample Basis @ 600 Tree/Hectare	89,700	66,420	1,56,120	95,220	60,900
No. of Forest Proposals Submissions	1	1	2	2	

In doing so around 60,900 trees would be saved from felling and there would be a reduction in Forest area required for diversion by 102 Ha.

Use of Monopoles – 132kV D/C Biswanath Chariyalli (PowerGrid) – Itanagar Transmission line is of 69kms, out of which we proposed to install Monopoles in the forest Area of Arunachal Pradesh for approximately 14 kms.

The Sub-Committee appreciated the efforts of Sterlite and agreed in principle as it is beneficial for NER States. The same would be put up to next TCC/NERPC meetings for endorsement.

Deliberation of TCC

Director (Tech.), TPGL stated that both 400kV S.M. Nagar-P.K. Bari D/C and 132kV AGTCCPP-P.K. Bari D/C falls in cyclonic zone. So reliability may be affected. He suggested that addition in scope may be done by rerouting of 132kV AGTCCPP-P.K. Bari D/C through Budhjungnagar.

ED(LD&C),POWERGRID informed that usage of Multi-circuit towers and monopoles have been done by PGCIL previously in other regions. Further any modification may be done with the approval of SCM. MD, OTPC expressed concern whether commissioning of 400kV S.M. Nagar- P.K. Bari would entail shutdown of 132kV Palatana - S.M. Nagar and in turn affect evacuation of power from Palatana GBPP to Tripura.

Member Secretary, NERPC requested Tripura & Sterlite to discuss the issue bilaterally regarding rerouting through Budhjungnagar.

The forum requested M/s Sterlite to give detailed presentation in 18th NERPC meeting so that all doubts may be clarified.

Deliberation of RPC

*After presentation, The RPC approved using multi-circuit & Monopoles for the benefit of the region. (Presentation attached at **Annexure – A.3**)*

A.4 : UPDATE ON NERSS-II(B) & V AWARDED UNDER TBCB

The following transmission system associated with North Eastern Region Strengthening Scheme were discussed in 4th, 5th and 6th SCMPSP of NER and was agreed to be implemented through TBCB route in 35rd Empowered Committee held on 14th September 2015.

A. NERSS II Part B

- a. Biswanath Chariyali (POWERGRID) – Itanagar 132kV D/c line.
- b. 2 nos. 132kV line bays at Itanagar for termination of Biswanath Chariyali (POWERGRID) – Itanagar 132kV D/c line.
- c. LILO of one circuit of Biswanath Chariyali (POWERGRID) – Itanagar 132kV D/c line at Gohpur (AEGCL)
- d. Silchar (POWERGRID) – Misa (POWERGRID) 400kV D/c Line.

B. NERSS –V

- a. Establishment of 400/132kV, 2 X 315MVA S/s at Surajmaninagar
- b. Establishment of 400/132kV, 2 X 315MVA S/s at P.K. Bari
- c. Surajmaninagar – P.K. Bari 400kV D/C line
- d. 2 no. 400kV line bays at Palatana GBPP switchyard for termination of Palatana-Surajmaninagar 400kV D/c line
- e. AGTPP (NEEPCO) – P.K.Bari (TSECL) 132kV D/c line with high capacity HTLS conductor
- f. 2 no. 132 kV line bays at P.K.Bari (TSECL) S/s for termination of AGTPP (NEEPCO) – P.K.Bari (TSECL) 132kV D/c line.

During the 134th OCC Meeting, Sterlite Power informed that the above projects have been awarded to the firm recently, and latest status would be updated periodically to the forum. He informed that their target to complete the projects would be July, 2019 against the scheduled completion date of July, 2020.

The Sub-Committee appreciated the efforts of Sterlite and agreed in principle as it is benefited for NER States. The same would be put up to next TCC/NERPC meetings for endorsement.

Deliberation of the TCC

Member Secretary, NERPC informed that there would be no cost escalation as per presentation given by M/s Sterlite in CEA. ED(LD&C),POWERGRID stated that bays would be commissioned by POWERGRID. As discussed with CEA, agreement is to be

signed between PGCIL & Sterlite. However the works by POWERGRID would be completed as per original schedule. The forum requested POWERGRID to complete in time so as to match with M/s Sterlite

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.5 : FINALIZATION OF CONSOLIDATED OPGW NETWORK & INSTALLATION PROJECT

The OPGW replacement and ownership under the North Eastern Region Unified Load Despatch Communication (ULDC) project on transmission lines owned by the State Utilities should be transferred to the State Utilities after full recovery of charges in line with existing Agreement.

The Agreement signed between the North Eastern States and POWERGRID for implementation of the North Eastern Region Unified Load Despatch Communication (ULDC) project by POWERGRID is due to expire in 2018 (15 years). Certain sections of the OPGW network implemented under ULDC are installed on the intra transmission lines of MePTCL as shown below:

- a. 132KV Khliehriat – NEHU single circuit line
- b. 132KV NEHU – Umiam Stage i single circuit line
- c. 132KV Umiam Stage I – Stage III double circuit line

The communication network installed and owned by POWERGRID during the tenure of the Agreement are to be transferred to the respective States after full recovery of charges, which is for a period of 15 years from the date of commercial operation. After the network is handed over, MePTCL shall provide POWERGRID the optical fibers required for ULDC.

Deliberation of the TCC

ED(LD&C),POWERGRID informed that as per discussion in NETeST meeting of NERPC all ULDC lines can to be replaced by PGCIL and referred lines are to be replaced by MePTCL-subject to unhealthiness.

Director (Trans.), MePTCL informed that fibers required for ULDC will be provided after handing over of fiber after completion of a period of 15 years from the date of

commercial operation. He further clarified that separate terminal equipment will be provided.

ED(LD&C),POWERGRID opined that Meghalaya have to match completion schedule with PGCIL so that data upto RLDC is not affected. Director(C&O), NERPC clarified that CTU has to lay fibers for ISTS lines including NETC.

Deliberation of the RPC

GM (AM), POWERGRID clarified that the OPGW installed on the lines of MePTCL were covered under the Central Sector and not the State Sector. Accordingly, ownership of the asset would continue to be with POWERGRID.

The deliberation regarding replacement of OPGW is recorded under Agenda Item No. A.6

The RPC noted and approved the recommendation of TCC.

A.6 : Replacement of old OPGW of ULDC in State Sector Lines

The installation of OPGW under Reliable Communication Scheme totaling to 2125 KM Approx (consisting of 966.94 kM replacement under ULDC OPGW links [laid over Central sector TL & State sector TL] + additional of 1158 kM [under Central Sector for redundancy] was discussed in the 17th NERPC Meeting. TCC requested NERPC to constitute a Sub-committee to discuss and finalize the requirement of FO links.

Subsequently, the committee was formed in 5th NETeST Meeting. After detail deliberation during 6th &7th NETeST, the committee recommended for further deliberation of replacement of old ULDC OPGW comprising of 151 km in following state sector transmission lines.

SN	FROM	TO	KM RL
1	Kahelipara	Umiam III (ASEB/MESEB)	59.132
2	Umiam III	Umiam I(MESEB)	17.455
3	Umiam I	NEHU(MESEB)	10.257
4	NEHU (MESEB)	Khliehriat (MESEB)-ckt-1	64.094
Total =			150.938

Placed for approval of TCC/NERPC.

Deliberation of the TCC

The forum approved the replacement of above old ULDC for above lines along with equipments by concerned utilities as per scheme proposal by Meghalaya. For ULDC purpose, requisite 6 fibers or as required will be provided. Further it was decided as per deliberation in 6th NETeST that OPGW are to be replaced subject to confirmation of un-healthiness.

TCC recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.7 : FIBER OPTIC COMMUNICATION SCHEME (ADDITIONAL) UNDER CENTRAL SECTOR FOR NER

As per 5th NETeST meeting held on 16th November 2016, requirement of Tezu – Namsai (96 km) fiber optic link was agreed to provide connectivity at Namsai 132kV S/S with existing central sector network. Accordingly, subject link was approved for inclusion in already approved Fiber Optic communication Scheme (Additional) under central sector for North Eastern Region.

After inclusion of subject link total kms for subject scheme is 851 kms & the estimated cost of the scheme shall be Rs 31.95 crs.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the proposal.

A.8 : INSTALATION OF AMR IN NER

During 24th CC Meeting it was agreed that AMR (Automated meter reading) scheme will be implemented in NER expeditiously and cost of same will be recovered by POWERGRID through tariff. POWERGRID informed that the tentative cost of AMR is Rs. 1.72 Crore only.

Subsequently, during 15th TCC & 15th NERPC Meeting all constituents have agreed for installation of AMR by incorporating the comments on technical specification by NERLDC and accordingly, TCC and NERPC accorded approval.

However, due to various issues like change of specification, addition of backup RLDC at Guwahati, change of meter data processing software etc. the revised cost became Rs. 4, 38, 21,500.00 (Rupees four crore thirty eight lakhs twenty one thousand five hundred only).

During 27th Metering Meeting the members opined the requirement of AMR project in NER at the earliest and agreed to the revised cost estimate of Rs. 4, 38, 21,500.00 (Rupees four crore thirty eight lakhs twenty one thousand five hundred only) in-principle. POWERGRID NERTS was advised to proceed with tendering activity to avoid further delay. It was agreed that the matter would also be put up to next TCC/RPC meeting scheduled shortly for formal approval.

Regarding cost recovery mechanism, it was agreed that cost would be shared by the NER beneficiaries in proportion to weighted average entitlement as per monthly REA of March, 2017 issued by NERPC secretariat. It was agreed that this would also be formally approved by TCC/NERPC in next meeting.

Put up for approval

The Sub-committee unanimously agreed and requested to get it endorsed in the next TCC/NERPC Meetings.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

On enquiry by TSECL regarding funding of the scheme; NERLDC clarified that bill will be raised by CTU and reimbursed by constituents *as per the practice of SEMs*. The forum approved and put up for approval of RPC

TCC recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the proposal.

A.9 : SPARING OF REDUNDANT TOWER OF 220KV MISA-MARIANI-KATHALGURI LINE TO AEGCL
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During OCC Meeting AEGCL requested the forum to allow utilization of 5 nos. of 400kV towers of PGCIL which will become redundant upon shifting of existing 220KV LILO of Misa – Kathalguri line from 220/132kV Mariani (AEGCL) SS to 220kV Mariani (PGCIL) SS which will be upgraded to 400KV Station under NERSS-VI Scheme as approved in 5th SCM and 15th NERPC Meeting. The utilization of redundant towers by AEGCL will be done for new 220kV D/C connectivity between Mariani (AEGCL) and Mariani (PGCIL) SS.

The 135th OCC forum agreed to the proposal of AEGCL and recommended for approval of 18th TCC and 18th NERPC Meeting.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

POWERGRID agreed in-principle and stated that financial implications if any as per CERC direction will have to be borne by AEGCL. Assam agreed.

TCC recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

<p>A.10 : REVIEW OF FRAMEWORK OF SHARING OF INTER-STATE TRANSMISSION CHARGES AND LOSSES - POINT OF CONNECTION (POC) METHODOLOGY AND OTHER MATTERS</p>
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CERC vide office order dated 10.7.2017 has constituted a task force under the Chairmanship of Shri A.S. Bakshi, Member, CERC to undertake review of existing framework of sharing of interstate transmission charges and losses and recommend modifications, if any.

Concerns/suggestions/views were invited from the stakeholders and interested parties, on the existing framework of sharing of transmission charges (Point of Connection charges) and suggest alternatives supported by justification and relevant data.

The matter was discussed in 33rd Commercial Committee Meeting of NERPC held on 25th August 2017 at Sonapur, Assam and following were agreed:

1. Need for simplification of the method: Present Average Participation (AP)/ Marginal

Participation (MP) method needs to be simplified as the present methodology is not clear. The detail calculations should be transparent and made available to all the DICs.

2. Major portion of YTC (about 80-85%) should be recovered as uniform charges (may be part of reliability charges) and should be applied to both generation (in case of ISGS it will be passed to the beneficiaries) and drawal entities.
3. 15-20% may be made sensitive to distance and direction.
4. It was deliberated that in Nordic system where Point of Connection tariff is in place, 15-20 % is variable element which is linked to marginal loss factor at each node which is transparent and scientific based on studies.
5. Tripura representative suggested National Postage Stamp which might be largely achieved with 80-85% uniform charge.
6. Meghalaya representative pointed out that quarterly variation in charges create a jerk as the States can file petition to SERC only on Annual basis. It was requested to have fixed rate throughout the year and have adjustment bill at the year end.
7. It was felt that HVDC charges should be socialized.

It was agreed in the meeting that the issue would be discussed in the ensuing TCC/NERPC meetings which is likely to be held in October 2017 for a resolution and then the resolution of NERPC would be forwarded by NERPC Secretariat to CERC and MOP.

In the meantime, NERPC Secretariat has forwarded its views to CERC which is attached at **Annexure – A.10**

Deliberation of the TCC

Member Secretary informed that CERC has already invited all the stakeholders including RPCs & DISCOMs to present her views and NERPC has already forwarded its views as decided in the 33rd Commercial Committee Meeting of NERPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.11 : INSTALLATION OF PROTECTION DATABASE MANAGEMENT SYSTEM (PDMS) IN NER

The issue of having the Data Based Management System was conceived during the 104th OCC & 28th PCC Meetings of NERPC on December, 2014. Since then, NERPC has been followed up in various OCC meetings and it was felt that the Project is very essential for analyzing the root cause of trippings, corrective measures, relay settings etc.

NPC, CEA advised NERPC to form a sub-group to finalize the DPR in respect of PDMS. Accordingly, NERPC has constituted the sub-group comprising of members from NERPC, NERLDC, POWERGRID, NEEPCO & MeECL. During the 136th OCC meeting, the number of licensees has been finalized and the draft DPR has been completed. The Tentative cost of the Schemes is Rs. 26.74 Crores.

The forum unanimously concurred upon the urgent requirement of the system and referred the matter to TCC/RPC.

Deliberation of the TCC

TCC recommended the above DPR for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.12 : PROCUREMENT OF ERS FOR NER

PSDF Secretariat (NLDC, New Delhi) vide. NLDC-PSDF/NPC-CEA/2016-17/60 dtd. 21st April 2016 has intimated that submission and approval of the schemes is governed in accordance with the guidelines for disbursement of funds from PSDF approved by MoP on 18.9.2014. Guidelines are available on <http://psdfindia.in/>. The schemes have to be submitted as per formats prescribed in guidelines.

In 122nd OCCM, DGM(AM), NERTS requested NERPC to write to ED, NERTS in this regard, so that DPR may be prepared in earnest. NERPC informed that letter has already been sent to ED, NERTS for necessary action.

During 124th OCCM, NERTS stated that detailed clarification is required with regard to the following:

1. Status of funding from PSDF
2. Ownership of Asset and location of storage.
3. Signing authority for consultancy agreement.

In 126th OCCM, NERTS informed that the signing authority would be owner of the asset, and also that consultancy charges may be waived off in case signing authority is NERPC. OCC forum mandated NERPC to be the signing authority and recommended that the matter be put up in the next TCC/RPC meeting for approval.

Deliberation of the TCC

After detailed deliberation the forum agreed that ERS be procured through PSDF funding. PGCIL should prepare DPR and submit to NERPC for necessary action. It was also agreed that ownership and administrative control should be with NERPC. Transport and other recurring expenditure for utilization of ERS would be arranged & borne by the requisitioned utility.

TCC recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.13 : TRANSMISSION LINE SURGE ARRESTER – AN ALTERNATIVE TO ARREST FREQUENT TRIPPING OF 132KV LINES IN NER DURING MONSOON

In North Eastern Region around 70% Tripping of Lines are mainly due to lightening. Again more than 80% Lightning related tripping are in 132kV Lines. In order to arrest tripping of 132kV Transmission lines of NER during lightning; installation of TLSA was explored. The issue was deliberated in 127th OCC Meeting and POWERGRID gave a presentation on Transmission Line Surge Arrestor and stated that despite of counterpoise earthing and additional shield wire earthing of POWERGRID's Transmission Line in NER there are no. of Tripping of 132kV Lines during lightening.

POWERGRID informed that they are going to install TLSA in 132kV Khandong - Khliehriat Line # 1, 132kV Badarpur - Khliehriat Line and 132kV Aizawl – Kumarghat Line on experimental basis and observe the performance of the Lines during lightening and if the performance improves NER should go for installation of TLSA in 132kV Lines. So far as cost is concerned, POWERGRID will recover from PoC Mechanism and States may explore for funding from PSDF for the same work. The OCC forum agreed and requested NERPC to put up in next TCC/RPC Meetings.

Members may like to discuss for In-principle approval.

Deliberation of the TCC

TCC agreed In-principle & recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.14 : APPROVAL OF RELIABLE COMMUNICATION SCHEME -CENTRAL SECTOR PART

The installation of OPGW under Reliable Communication Scheme totaling to 2125 KM Approx (consisting of 966.94 kM replacement under ULDC OPGW links [laid over Central sector TL & State sector TL] + additional of 1158 kM [under Central Sector for redundancy] was discussed in the 17th NERPC Meeting. TCC requested NERPC to constitute a Sub-committee to discuss and finalize the requirement of FO links.

Subsequently, the committee was formed in 5th NETeST Meeting. After detail deliberation during 6th & 7th NETeST, the committee recommended following for approval:

1. Installation of additional 1158 km of 24F OPGW along with communication equipments as a **Reliable Communication Scheme under Central Sector for North-Eastern Region**
2. Replacement ULDC OPGW in Central Sector TLs comprising 816 Km of OPGW alongwith communication equipment **under Reliable Communication Scheme under Central Sector for North-Eastern Region**. The List of Central Sector Links are as below:

SN	FROM	TO	KM RL
1	NEHU	Shillong UNDER GROUND FO	6.23
2	Khliehriat (MESEB)	Khliehriat (PGCIL)	7.791
3	Khliehriat	Khandong(PGCIL)	40.99
4	Khandong(PGCIL)	Koplili (PGCIL)	11.191
5	Misa(PGCIL)	Koplili (PGCIL)	73.186
6	Misa(PGCIL)	Balipara(PGCIL)	94.046
7	Misa(PGCIL)	Dimapur(PGCIL)	119.192
8	Badarpur(PGCIL)	Khliehriat(PGCIL)	73.183

9	Badarpur(PGCIL)	Kumarghat(PGCIL)	117.519
10	Agartala Gas(PGCIL)	Kumarghat(PGCIL)	99.817
11	Agartala (PGCIL)	Agartala Gas(PGCIL)	7.416
12	Dimapur (PGCIL)	Kohima(PGCIL)	59.8
13	Kohima(PGCIL)	Imphal(PGCIL)	105.64
Sub Total SC&C			816.00

Cost of implementation of 1974Km (1158Km + 816Km) of 24F OPGW alongwith communication equipments is estimated to be Rs. 75Cr.

However, actual cost shall be discovered only after bidding process and implementation of the project. Tender activities have also been initiated based on DPR.

Deliberation of the TCC

TCC recommended for approval of RPC.

(Note: Old OPGW to be replaced subject to unhealthiness as recommended by NeTEST)

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.15 : VOIP EXCHANGE PROJECT IN NERLDC & SLDCS OF NER

It may be noted that VOIP exchange facility is under installation by M/s Orange under supervision of POWERGRID in NER for NERLDC & different SLDCs. Originally it was proposed to be booked under MW Vacation Project by POWERGRID. But MW vacation Project has only Assam & Central sector. During 6th NETeST, it was opined that “as VOIP Exchange pertains to all SLDCs specifically separately, POWERGRID may explore cost booking in line with philosophy adopted for SLDC Up gradation/Expansion project” in NER where specific head of each state SLDC is available.

It is proposed to book the cost under SLDC Project/NER FO Expansion project.

Deliberation of the TCC

TCC recommended for approval of RPC.

(Note: Cost to be booked under NER FO Expansion Project)

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.16 : FINALIZATION OF LOCATIONS OF PMU TO BE PLACED UNDER PHASE-2 URTDSM PROJECT THROUGH SUB-COMMITTEE & STUDY GROUP

During deliberation in 6th NETeST MOM, the matter was referred to next Study group meeting. Before commencement of study group meeting, states/utilities was to forward their comments to the respective study group members & then to NERPC. NERLDC (POSOCO) has forwarded requirement of PMUs to NERTS (LD&C) & RPC during 7th NETeST meeting and the same is enclosed in **Annexure – A.16**.

Deliberation of the TCC

After detailed deliberation the forum referred the matter to TCC/RPC for approval as per locations identified by NERLDC

TCC recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

ITEM NO. A.17 : NETC MEMBERSHIP - NERPC

NETC vide letter dated 28.09.2016 has intimated that North East Transmission Company Limited (NETC) is a JV of PGCIL & six other states of NER. They have requested to obtain full membership of NERPC forum for better coordination of their transmission lines.

Deliberation of the TCC

Member Secretary, NERPC informed that the issue was discussed in the 17th TCC & NERPC Meetings and the same was approved. NERPC has also written a letter to CEA and communicated the decision of the 17th NERPC. However, the communication from CEA is yet to receive.

TCC referred to NERPC

Deliberation of the RPC

NERPC members felt that since 400kV D/C Pallatana – Silchar – Byrnihat- Azara – Bongaigaon is very important power corridor in NER and the participant of NETC in various meetings of NERPC is necessary for smooth flow of power in the region. Moreover, since NER States are also the shareholders of NETC, hence NERPC members approved & agreed to grant NETC full membership of NERPC and requested NERPC Secretariat to communicate the decision to CEA/MoP.

CATEGORY – B : ITEMS INFORMED TO / NOTED BY THE COMMITTEE

B.1 : LOW VOLTAGE IN TRIPURA / MIZORAM AREA

It is observed that almost regularly during evening peak hours, the 132 kV system voltage of major stations in Tripura, Mizoram sub system comes down to around 122-124 kV. During this time the MW/MVAR export to Bangladesh is of the order of 140-160MW / 50-70 MVAR. Tripura drawal from grid also remains high. The system voltage in the subsystem comes down to 122-124 kV. Units of AGTTP have tripped on few occasions on account of this low voltage. The low voltage phenomenon is difficult to content despite opening of all reactors available nearby [mainly of 400kV Silchar S/s]. MVAR support from Monarchak, Rokhia, and Baramura power stations remain low or negligible even though there are enough margins as per the capability curve of the machines.

Matter was discussed in the 136th OCC. It was agreed that as a practice, generators are not supposed to provide reactive power support to beneficiaries, rather Tripura should have its own Capacitor banks in place to compensate reactive drawal. The forum requested TSECL to regulate Bangladesh MVAR drawal and conduct meeting at appropriate level in this regard. Member Secretary, NERPC concluded that Tripura should conduct studies and submit DPR of scheme for installation of Capacitor banks at the earliest.

Deliberation of the TCC

Director, (Tech.), TPGL informed that Bangladesh has been requested to reduce MVAR drawal. He also informed that recently the MVAR injection by AGTCCPP and Monarchak has been found to be satisfactory and for 33kV system studies will be done by TSECL.

E-in-C, P&ED, Mizoram stated that loads are mostly domestic and experienced low voltage in the State and hence installation of Capacitor Bank has been initiated by them. He requested Tripura also to do the same. Further, he also informed that DPR

for installation of capacitor banks have been submitted for PSDF funding.

DGM(AM), NERTS informed that once 400kV Silchar-Melriat is commissioned, voltage profile would improve and studies be conducted taking into account this addition.

Member Secretary, NERPC stated that the system studies have to be done in totality by considering the present scenario and the commissioning of upcoming projects in the area.

Deliberation of the RPC

The RPC noted as above.

B.2 : SIGNING OF TRIPARTITE AGREEMENT (TPA)

Ministry of Power, Govt. of India has approved the extension of Payment Security Mechanism of CPSUs beyond Oct'16 on 22.12.2016. All NER States have signed the TPA except Tripura. Hence, Tripura is requested to sign the same at the earliest.

Deliberation of the TCC

AGM, NTPC informed that all NER constituents have already signed the TPA except Tripura.

Director (TGPL), TSECL informed that signing of TPA is under process and they will sign soon.

Deliberation of the RPC

The RPC noted as above.

B.3 : NLCPR FUNDING TO NTPC, BONGAIGOAN

In order to facilitate speedy development of the NER States, Non-lapsable Central Pool of Resources was constituted in the year 1998-99 after it was passed by Parliament. The broad objective of the Non-lapsable Central Pool of Resources scheme is to ensure speedy development of infrastructure in the North Eastern Region by increasing the flow of budgetary financing for new infrastructure projects/schemes in the Region. As per NLCPR guidelines, Projects of regional/national importance or priority shall be

posed for funding under this scheme. Bongaigaon Thermal Power Projects is the only Coal based power generating stations in Kokrajhar District in the state of Assam with an approved capacity of 750 MW(3 X250MW) , committed to supply reliable, stable power to the North Eastern states.

Therefore, NERPC is requested to take up the matter with Ministry of Development of North Eastern Region, to grant NLCPR fund to NTPC Ltd so that the same benefit shall be extended to the NER customers which will reduce their power purchase cost.

However, during the 17th NERPC Meeting a Resolution has been adopted and a Memorandum signed by all the Power Ministers of NER was sent to Hon'ble Union Power Minister, Govt. of India and the outcome is awaited.

Deliberation of the TCC

Member Secretary informed that since resolution which has been signed by all Power Ministers of NER regarding high cost of NTPC power has been sent to Union Minister of Power on 28.09.2017 and the outcome is awaited. He requested NTPC also to follow up the issue.

Deliberation of the RPC

The RPC noted as above.

B.4 : EARLY COMPLETION OF OPGW BASED COMMUNICATION SYSTEM IN INTRASTATE GRID OF MANIPUR IN THE INTEREST OF NER GRID SECURITY AND SMOOTH POWER SUPPLY MANAGEMENT IN MANIPUR

Power Grid, in pursuance of 14th NERPC Meeting, established SLDC Manipur with 11 nos. of RTUs in the existing 132 kV sub-stations – nine for State sector and 2 for Central sector - and its commercial operation was declared on 9/11/2016. Due to absence of OPGW connectivity and installation of communication equipment in the aforesaid 11 nos. of nodes, SCADA and voice connectivity from the nodes could not be acquired to the main control center at Yurembam. Currently SLDC at Yurembam is operated with data acquired from few sub-stations through PLCC links only. This has defeated the very purpose of establishment of SLDC for real time scheduling and dispatch of electricity in the intra-state system for ensuring grid security.

During the 15th TCC & 15th NERPC Meeting held on 20th and 21st August, 2015 at Guwahati, the TCC recommended the revision of OPGW connectivity for Manipur from 149 Km to 365 Km and RPC noted and approved it. The investment is to be recovered as per tariff determined by CERC.

PGCIL is implementing the work for the installation of 385 Km. of OPGW including 20 Km for LI-LO on Kongba – Kakching at Thoubal under Quantity Variation Clause. MSPCL has already furnished line parameters and a team from the executing agency has also surveyed the sites for installation of communication equipment. So far MSPCL has not seen any progress in the field nor the executing agency approach MSPCL. As the OPGW and Communication equipment are quite essential for the full functioning of the SLDC, PGCIL may expedite the work at the earliest.

MSPCL has taken up integration of 400 kV sub-station and the remaining 132 kV sub-stations into SLDC Manipur with 5 nos of RTUs and 206 km of OPGW under PSDF funding. This has been incorporated in the scope of “Reliable Communication & Data Acquisition System upto 132 kV Sub-Stations in Manipur (NER)” initiated by the Government of India.

PGCIL is therefore requested to pay special attention and place the latest status of the work including timeline for completion before the board for deliberation.

TCC may kindly deliberate the request of MSPCL in the interest of NER Grid Security and smooth power supply management in Manipur and may advise PGCIL to complete the installation of OPGW at the earliest.

Deliberation of the TCC

MD, MSPCL informed that Intra-state communication is under focus of government and it is being monitored very closely. He stated that though quantity modification was done in 17th TCC/RPC (held on 04.10.2016), work has not yet been completed.

ED(LD&C),POWERGRID informed that materials have been inspected at China and by end of Nov’17, materials would be delivered. GM, NERTS informed that target time for completion as per 6th NETeST meeting of NERPC is November, 2018.

Regarding the security issues raised by POWERGRID; MD, MSPCL informed that work front would be problem free. GM, MSPCL informed that out of 11RTUs only 4/5 reporting, inspite of the fact that they were supposed to report through PLCC. GM,

NERTS stated that exact problem is to be identified. The TCC forum noted the erection & commissioning to be completed by Nov'2018 and any ROW issue to be sorted out by the state.

Deliberation of the RPC

The RPC noted as above.

B.5 : NO SLIPPAGE OF TIME IN (I) THE COMPLETION OF UPGRADATION OF 2X50 MVA, 132/33KV SUBSTATION AT IMPHAL (PG) TO 400/132KV, 7X105MVA SINGLE PHASE TRANSFORMER AND (II) CONSTRUCTION OF 2 NOS. 400 KV GIS LINE BAYS AT 400/132 KV SILCHAR SUB-STATION FOR TERMINATION OF SILCHAR - IMPHAL (PG) 400 KV D/C LINE

During the 17th TCC Meeting held on 4th of October, 2016 at Imphal; MSPCL pointed out that the construction of 400/132 kV Sub-Station at Thoubal in Manipur was targeted for commissioning by the end of 2016 and requested PGCIL to complete the up-gradation of 2x50 MVA, 132/33 KV Sub-Station at Imphal (PG) and construction of 2 nos. 400 kV GIS line bays at 400/132 kV Sub-Station Silchar to match with the completion of 3x105 MVA, 400/132 kV Sub-Station at Thoubal, Manipur.

PGCIL informed that LOAs for up-gradation of 132/33 KV Sub-Station at Imphal (PG) to 400/132 KV and 2 nos. 400 kV GIS line bays at 400/132 kV Silchar have already been placed to M/S Sterling & Wilson and M/S ABB respectively. The timeline for completion of Imphal sub-station is January 2018 and Silchar sub-station is December 2017.

Due to compelling circumstances, the construction of 400/132 kV Sub-Station at Thoubal in Manipur along with associated 400 kV D/C line from Imphal (PG) to Thoubal could not be commissioned by the end of 2016 as targeted earlier. Construction of this 400 kV Sub-Station is completed and the associated 400 kV D/C line is expected to be completed by the end of November, 2017. MSPCL is targeting to inaugurate the 400 kV sub-station in December, 2017.

PGCIL is therefore requested to pay special attention to the up-gradation of 2x50 MVA, 132/33 KV Sub-Station at Imphal (PG) to 400/132 KV, 7x105 MVA single phase unit

(including one spare single phase unit) and the construction of 2 nos. 400 kV GIS line bays at 400/132 kV Sub-Station Silchar for termination of Silchar – Imphal (PG) 400 kV D/C line there is no slippage in the target for completion fixed earlier.

TCC may kindly deliberate the request of MSPCL and may advise PGCIL to closely monitor the progress of works and ensure that there is no slippage in the timeline

Deliberation of the TCC

MD, MSPCL expressed concern regarding delay in up-gradation of Silchar & Imphal to be completed. GM, NERTS informed that POWERGRID has been facing some transportation problems and assured that it would be completed by Jan'18.

Deliberation of the RPC

The RPC noted as above.

B.6 : EVACUATION OF 2ND CIRCUIT OF EXISTING 132kV UDAIPUR

Referring to the minutes of CEA meeting held on 18.07.17 which was circulated vide No. CEA/PSPA-II/2017/89/1/585-597, dated- 01.08.2017 regarding arrangement for construction of 400 KV Bays at Palatana and commissioning of Palatana- S M Nagar D/C line at 400 KV level and proposal for disconnection of Udaipur- Palatana 132 KV line.

It is noted from the minutes of meeting that the existing Udaipur – Palatana 132 KV line would be disconnected from OTPC Gas based power Project at Palatana for termination of 2nd circuit of Palatana – S M Nagar 400 KV D/C line charged at 132 KV. In this regard the following observations have been made for kind consideration:

1. Udaipur is a District headquarters and supplying power to other Districts is also through Udaipur 132 KV Substation of TSECL. This substation is presently interconnected with Palatana Power Project and state Grid.
2. The 101 MW Gas Based Power Project at Monarchak owned by NEEPCO is also connected with Udaipur and Rokhia generating Station. The dedicated 132 KV D/C transmission line from Monarchak – S M Nagar is yet to be completed due to compensation issues.

Therefore, the generation from Monarchak Project is currently evacuated through Monarchak- Udaipur – Palatana 132 KV, S/C system and Monarchak – Rokhia 132 KV S/C line. In case of disconnection of Palatana – Udaipur line Monarchak generation would not be able to generate more than 60% of its capacity because of transmission lines limitations. If the Udaipur – Palatana line is disconnected at Palatana Project, the Power supply system at Udaipur being main source, the entire 132 KV supply to the south Tripura will be unstable with no redundancy.

3. Further, the Power evacuation from Monarchak Project will severely be affected as the entire generation 101 MW of this project will flow towards Rokhia connected with only one 132 KV D/C line through Rokhia – Agartala which will affect the power evacuation from Rokhia Project also.
4. The Palatana Project at times need start up power from the state Grid being mostly supplied from Rokhia Project through Rokhia – Monarchak – Udaipur – Palatana line only. Therefore, in case Udaipur – Palatana is disconnected, Palatana may not be able to draw start up power from Tripura system.
5. It will be extremely difficult to operate state Grid in stability without Udaipur – Palatana link due to the above reasons.

However, after commissioning of 132 KV Monarchak – S M Nagar D/C line (Target March'18) and 132 KV Rokhia – S M Nagar D/C line, the agreed disconnection of Udaipur- Palatana 132 KV line at Palatana can be implemented. Power supply to southern Tripura through Agaratala- Rokhia- Udaipur shall continue to be unstable in view of the fact that there is no redundancy to the point of supply of Udaipur at 132 KV level.

Tripura state system being predominantly operating at 132 KV and 66 KV, in absence of 220 KV between 400 KV and 132 KV level has always been contributing to certain degree of instability in the system.

In view of the above, it is requested for kind consideration to review the decisions of disconnection of Udaipur – Palatana line at Palatana Project for maintaining the stability of state Grid operation apart from maintaining evacuation of full generation of Monarchak 101 MW Project of NEEPCO.

Deliberation of the TCC

Director (Tech.), TGPL stated that if 132kV Palatana-Udaipur is disconnected; then Monarchak power may be evacuated to 60MW approx. Also he informed the forum that many ROW challenges are associated with commissioning of 132kV Monarchak – S.M. Nagar.

ED (O&M), NEEPCO strongly agreed with TSECL as there would be heavy loss due to generation reduction of Monarchak and requested that 132kV Palatana-Udaipur remain connected.

Director(C&O), NERPC requested that the disconnection may be deferred till April, 2018.

Member Secretary intimated that decisions taken in CEA meeting could not be revoked and requested Tripura to write to CEA/MOP so that they may be agreed for deferment till April, 2018 and requested TSECL to strictly adhere to the time line agreed in the meeting.

Deliberation of the RPC

The RPC noted as above.

B.7 : SIGNING OF POWER PURCHASE AGREEMENT (PPA)

a. Signing of Power Purchase Agreement (PPA) in respect of Tawang HE Project, Stage – I & II:

Signing of PPA in respect of Tawang HE Project, Stage – I & II is pending with Manipur & Arunachal Pradesh. The matter was discussed in 31st CCM of NERPC in which it was informed by the representative of MSPDCL that matter has been put up to the Electricity Deptt., Govt. of Manipur & reply of Government is awaited. In this regard, NHPC has also requested Chief Engineer, Electricity Department, Govt. of Manipur vide letter dated 06.01.2017 & subsequent letter dated 13.02.2017 to give their concurrence at the earliest so that formal agreement could be signed. Recently, the matter was also discussed in 32nd CCM of NERPC held at Puri, Odisha in which representative of Manipur informed that matter shall be taken up after the assembly election in March.

In view of above, MSPDCL, Manipur is requested to pursue with their State Government & after getting consent from Government, intimate date & venue for its signing.

b. Signing of Power Purchase Agreement (PPA) in respect of Subansiri Lower HE Project (2000 MW) in Arunachal Pradesh:

Signing of PPA with Department of Power, Govt. of Arunachal Pradesh in respect of Subansiri Lower HE Project (2000 MW) in Arunachal Pradesh is pending since long. Modification sought by Arunachal Pradesh has already been agreed & conveyed vide our letter dated 10.11.2016. Further, quarries of Arunachal Pradesh is suitably addressed & sent vide ED (Itanagar), NHPC’s letter dated 23.01.2017. Last reminder sent on 06.02.2017. Reply of Arunachal Pradesh is still awaited.

In view of above; Department of Power, Govt. of Arunachal Pradesh is requested to give their consent at the earliest. PPA of Tawang - I &II will also be signed on similar lines.

Deliberation of the TCC

CE, DoP Ar. Pradesh informed that Ar. Pradesh is ready to sign agreement for Tawang & Lower Subansiri HEPs and he requested NHPC to propose date & time for signing of the agreement.

ED, MSPDCL informed that proposal is under consideration of the government in respect of Tawang HEP. He further stated that they will pursue with the state government.

Deliberation of the RPC

The RPC noted as above.

B.8 : TRIPPING OF OTPC PALLATANA UNITS DUE TO GRID FAILURE

OTPC blocks have tripped on a number of occasions during pre-monsoon and during monsoon period due to poor maintenance of the lines. The exact details are as below:

Year	Number of Trippings	Dates
2014	4	19/03/2014, 08/04/2014, 10/05/2014, 25/07/2014
2015	3	25/03/2015, 8/08/2015, 24/09/2015

2016	2	24/02/2016, 16/04/2016
2017	4	24/04/2017, 28/04/2017, 16/05/2017, 08/06/2017

Non-availability seriously affects evacuation of power from Palatana with subsequent unit tripping on over-frequency. Forum is requested to ensure availability of lines at all times for reliable supply of power to NER beneficiaries and reduced damage to plant machineries.

OTPC requests NERPC for advising the concerned agencies to maintain stability in the system by proper maintenance of lines to keep such tripping to a minimum.

Deliberation of the TCC

MD, OTPC informed that after June, 2017 trippings have reduced and tripping incidents on or before June, 2017 were mainly due to non-Pre-monsoon maintenance by NETC. MD, NETC informed that portions of line are prone to lightning. He further stated that a slew of measures have been taken up from their side as follows:

- TLSA installation is being explored.
- Regular patrolling and clearance of vegetation.
- Maintenance has been strengthened. O&M offices have been opened in specific location.

He further stated that coordination has to be improved between central utilities, AEGCL, MeECL.

MD, OTPC informed that spurious signal sent from Azara, Byrnihat is operating the SPS unnecessarily and affecting evacuation of power. He also raised the issue of scheduling of power which is below the technical minimum which is not possible for operation.

Member Secretary informed that considering the problem faced by OTPC, the SPS meeting will be held on 11.10.2017 after the 18th NERPC meeting.

Deliberation of the RPC

The RPC noted as above.

B.9 : CONSTRUCTION OF 6KM (APPROX.) TEZU (PG)-TEZU (AP) LINE

6KM (Approx.) Tezu (PG)-Tezu (AP) Line is being done by Power department Govt. of Arunachal Pradesh as a deposit work of POWERGRID. Advance for the work already deposited by POWERGRID. Power Department, Govt. of Arunachal Pradesh may expedite the construction of the line for utmost benefits of drawl of Power from 132 KV Roing-Tezu line.

Deliberation of the TCC

CE, DoP Ar. Pradesh informed that work is under progress and would be completed by November, 2017.

Deliberation of the RPC

The RPC noted as above.

B.10 : SAMAST IMPLEMENTATION IN NER

A robust mechanism known as **SAMAST** i.e. SCHEDULING (S), ACCOUNTING (A), METERING (M), AND (A), SETTLEMENT OF (S) TRANSACTIONS (T) IN ELECTRICITY should be in place in all the States across the Country. The implementation would include Metering at intra-State level, AMR scheme to fetch data to SLDC, intra-State scheduling, Open Access web portal, Accounting, Settlement system etc. This would pave way for intra-State ABT implementation. The States should proceed with the activities as listed in SAMAST report and apply for PSDF funding.

NERPC and NERLDC are providing support to the States on this scheme. A SAMAST Group has already been formed comprising of NERLDC, NERPC and all States are to join in the Group for implementation of SAMAST. Matter is being reviewed in OCC forum of NERPC. During the 136th OCC meeting, it was decided that a uniform DPR would be prepared by NERPC Secretariat (through Core Group Members of NERPC, NERLDC, POWERGRID, Assam & Meghalaya) and this would act as a model to the remaining States of NER and only the quantities have to be intimated by the States. The Combined DPRs of 2-3 NER States would be sent by NERPC to NPC, CEA and NLDC so that the work scheme can be completed on time. The OCC requested NERPC to get it endorse during the 18th TCC/NERPC Meetings.

Deliberation of the TCC

Member Secretary informed that the sub-group has already been formed comprising of members from NERPC, NERLDC, NERTS, Assam & Meghalaya for preparation of uniform DPR. He informed that this DPR would act as a model to the remaining States of NER and only the quantities have to be intimated by the States. The Combined DPRs of 2-3 NER States would be sent by NERPC to NPC, CEA and NLDC so that the work scheme can be completed on time.

Deliberation of the RPC

The RPC noted as above.

<p>B.11 : CONSTRAINTS IN GRID OPERATION BY REAL TIME SYSTEM OPERATORS DUE TO TELEMETRY ISSUES AND NON-AVAILABILITY OF DEDICATED COMMUNICATION</p>
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Dedicated voice communication and availability of the same is one of the key requirements for efficient grid management which is a collective responsibility.

Further, most of the POWERGRID sub stations are connected through only one dedicated voice communication. Minimum two nos. of dedicated voice communication links need to be established for each substations and 4 nos. of dedicated voice communication links for important 400kV substations, HVDC station and SLDCs.

No dedicated Link:

1. Imphal, Aizawl and Itanagar SLDCs do not have VOIP.
2. Palatana, Monarchak Power Stations
3. 400 KV Silchar, Byrnihat, Azara S/S,
4. Surjamaninagar & Salakati S/S with international connectivity

Malfunctioning of links:

1. Kathalguri, Ranganadi, Itanagar, Kolasib, Kohima, Jiribam

Telemetry related issues:

1. **ASSAM:** around 20-23 stations are reporting out of 62 nos. stations covered by ULDC. Though telemetry from all identified locations are desired, immediately data from the following stations of Assam are required

- a. Boko, b. Agia, c. Mariani, d. Namrup, e. Tinsukia, f. BNC, g. Dullavcherra
h. Bokajan, i. Azara & j. Badarpur
2. **Mizoram:** Kolasib
3. **Nagaland:** Likimaro HEP
4. **NEEPCO:** AGBPP, RHEP, Monarchak and Tuirial
5. **POWERGRID:** 400 KV Balipara: Important parameters related to S/s viz Bus [400, 220 and 132kV] related data and power flow in 220 kV Sonabil feeder are still not reporting. As regional system frequency reference is taken from Balipara S/s, complete restoration of Telemetry related to Balipara S/s is crucial. Melriat, Roing and Tezu data are not reporting.

Deliberation of the TCC

Member Secretary stated that telemetry & communication are very essential for smooth grid operation. Availability of the same is being monitored by Hon'ble CERC and has also come out with a regulation emphasizing target availability for the same. The matter was also discussed in NPC forum and issue of availability calculation for telemetry will be further discussed and finalized in next NPC meeting.

ED(O&M), NEEPCO raised the issue of telemetry of Tuirial HEP and stated that they will ensure telemetry of Tuirial upto Kolasib and balance arrangement upto SLDC is to be done by Mizoram.

Director (O&C), NERPC told that in line with the request of Engineer-In-Chief, Mizoram, a meeting was convened at NERPC for finalization of responsibilities of different organizations in this matter. He requested NEEPCO & P&E Department of Mizoram to adhere to the decision agreed in the Sub-committee.

GM, NERLDC stated that as highlighted in the agenda due to non-availability of telemetry with different S/S & generating stations visibility of real time conditions of the grid remains very poor affecting smooth operation. Moreover due to non-availability of adequate communication links with various SLDCs & other stations it is very difficult to maintain proper co-ordination. Especially during contingency conditions of the grid it becomes very difficult to assess actual system condition and ensure secure grid operation. He requested the higher authorities of the concerned utilities, present in the meeting, to kindly look into matter and take action for rectification of the deficiencies highlighted in the agenda.

MD, MSPCL & ED, NERLDC enquired from POWERGRID regarding establishment of VOIP links with Imphal, Aizawl & Itanagar SLDCs & Palatana GBPP. POWERGRID intimated that the links will be established through on going communication project.

ED LD& C informed that the complete project of Communication in NER will be completed by November, 2018 as committed in the NeTEST Meeting.

The forum requested PGCIL to stick to the target and timeline as committed,

Deliberation of the RPC

The RPC noted as above.

**B.12 : TECHNICAL MINIMUM SCHEDULE 55% OF IC AS PER IEGC
(FOURTH AMENDMENT)**

CERC has introduced the Indian Electricity Grid Code, (Fourth Amendment) Regulations, 2016 vide its notification dated 06.04.2016. Clause 6.3B of this amendment regarding Technical Minimum Schedule for operation of Central Generating Stations and Inter-State Generating Stations states that:

“The technical minimum for operation in respect of a unit or units of a Central Generating Station of inter-State Generating Station shall be 55% of MCR loading or installed capacity of the unit of at generating station”.

After the notification of the amendment 23 Technical Minimum Scheduling instructions have been issued to OTPC.

OTPC had submitted to CERC that for stable operation of station it is always desirable to run the gas turbines in PM mode and mode changeover from PM to PPM mode must be avoided as long as possible as it hampers machine stability and the turbine can trip during mode changeover. The proposed Technical Limit (55%) is on transient zone of mode changeover, and it is causing the instability of our Gas Turbine operation.

The matter was also raised by OTPC in 133rd OCC meeting and a detailed presentation was given by VP (Plant) in following the Technical minimum of 55%. OTPC had put up the technical, contractual & environmental compliance difficulties with technical minimum as 55% of the Installed Capacity. The forum had taken note

of the concerns of OTPC and had assured to take up the matter with CERC. A meeting in this regard was held at CERC on 16/06/2017 where OTPC had put up the facts for the consideration of the Hon'ble Commission. OTPC had requested the Hon'ble Commission to allow OTPC a Technical Minimum generation level at 63% of installed capacity. The outcome will be intimated to the Forum accordingly.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.13 : ABRUPT LOAD REDUCTION OF OTPC PALATANA BELOW TECHNICAL MINIMUM DURING SHUTDOWN OF TRANSMISSION LINES

- a. On 3rd August 2017, during shutdown of 400 KV Silchar-Byrnihat line, NERLDC had revised OTPC Palatana Scheduled Generation to 300 MW from 08:45 hrs to 17:00 hrs (block 36 to 68).
- b. On 16th September 2017, during shutdown of 400 KV Silchar-Azara line, NERLDC had revised OTPC Palatana Scheduled Generation to 300 MW from 07:30 hrs to 17:00 hrs (block 31 to 68).

This Load curtailment is done by NERLDC since Silchar upstream breakers i.e. at Silchar and Azara are still not envisaged in SPS-3 scheme. This concern was also deliberated in special meeting held at NERLDC conference hall at Shillong on dated 23/06/2017.

Due to untimely incorporation of proposed SPS-3 by concerned agencies, OTPC has been asked to reduce the load considerably even below technical minimum level. OTPC had also raised these concerns in the subsequent OCC meeting, and had communicated the concerns with NERPC/NERLDC. (Letters Annexed)

- c. On 19th September 2017, NERLDC had revised OTPC Palatana Scheduled Generation to 120 MW from 7am to 4 pm, during approved shutdown of Line-2 of 400 kV system (Palatana-Silchar circuit)

OTPC had taken approval for 400KV line-2 (Palatana-Silchar ckt) in 136th OCC for replacement of Lightning Arrestors of line reactor. The approved shutdown had to be cancelled by OTPC in real time, due to downward revision of schedule by NERLDC from 501 MW to 120 MW i.e. even below technical minimum level of one unit of generation.

NERLDC had conducted the following Load study for 19th Sept 2017 approved shutdown with three scenarios of Palatana generation and corresponding generation of other generators. The load study was done on night of 18th September 2017 and was informed to OTPC at 0016 Hrs of 19th September 2017. As such low load was unmaintainable; OTPC had decided not to avail the approved shutdown.

Plant	Scenario-1 Generation (MW)	Scenario-2 Generation (MW)	Scenario-3 Generation (MW)
Palatana	120	170	190
Rokhia	66	66	44
Monarchak	100	63	63
AGTCCPP	90	90	90
Baramura	21	21	21

Constraint	132 kV P K Bari-Kumarghat: 71 MW	132 kV P K Bari-Kumarghat: 71 MW	132 kV P K Bari-Kumarghat: 71 MW
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Bangladesh Load	100 MW
Tripura Demand Met (With Bangladesh)	240 MW

Palatana Project has employed and tested SPS-2 at the station to prevent any sudden inrush of power into Tripura 132 kV system resulting in critical overloading of the system. It is therefore difficult to understand the rationale behind such schedule advice from NERLDC which is even below technical minimum level of one unit of generation.

Such unmaintainable schedule revisions lead to sizeable generation loss for the plant and renders station vulnerable to tripping as also explained in last OCC Meeting. Further, such downward revision leads to huge UI by the beneficiary states as prevailing high market prices may act as a bottleneck for instant power purchase. OTPC had again raised these concerns with NERPC/NERLDC.

NERPC is requested to take corrective measures so that such arbitrariness in real-time grid operation is curbed for economic and safe grid operation in future.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.14 : RE-IMPORT OF KURICHHU ENERGY BV BHUTAN FROM ASSAM GRID

Deliberation of the TCC

Member Secretary informed that meeting will be convened with ERPC, Assam and NERPC to resolve the issue.

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.15 : GRANT OF FINANCIAL ASSISTANCE FOR CONVERSION OF OPEN CYCLE GAS THERMAL PROJECT AT BARAMURA INTO COMBINED CYCLE UNDER CENTRAL NLCPR THROUGH MINISTRY OF DONER

The 2x21 MW Open Cycle Gas Thermal Project at Baramura in Tripura was established under NEC funding and the power generated from this project is shared by Tripura, Manipur and Mizoram at a ratio of 2:1:1. In order to have additional generation of 25 MW without any additional fuel, it is proposed to convert this Open Cycle project into Combined Cycle so that the benefit of additional generation of 25 MW without any additional fuel cost can be shared by Tripura, Manipur and Mizoram at the existing sharing ratio of 2:1:1. This will also ensure clean energy apart from proposed capacity addition. Accordingly, it is proposed to consider funding support from the Ministry of DoNER under central NLCPR considering shared regional project.

TCC/NERPC may kindly deliberate and consider recommending the proposed conversion from open cycle to combined cycle under central NLCPR funding through Ministry of DoNER.

Deliberation of the TCC

TCC members opined the importance of the above project and requested NERPC to put up in the RPC meeting.

The TCC noted as above.

Deliberation of the RPC

RPC has accepted the importance of proposal for conversion of 2x21 MW GTG open cycle funded under NEC at Baramura to combine cycle and requested NEC for funding.

Economic Adviser, NEC requested Tripura to submit the Proposal for consideration.

The RPC noted as above.

B.16 : OUTSTANDING DUES OF NHPC AGAINST NER BENEFICIARIES

a. Outstanding dues of NHPC for more than 60 days:

- (i) **MeECL, Meghalaya:** - In response to our various letters & efforts, CAO, MeECL, Meghalaya intimated vide their letter dated 31.01.2017 that **“we agree to your proposal of payment the principal in installment latest by August, 2017”**. As agreed by MeECL, first installment of **Rs. 3 Crores** was to be released by MeECL during February, 2017 but till now, we have not received any installment of Rs 3 Crores in spite of our regular follow up.

As on date, an amount of Rs **32.42 Crs** (Including surcharge of Rs **10.90 Crs** up to 28.02.2017) is payable by MeECL, Meghalaya.

In view of above, MeECL/MePDCL, Meghalaya is requested to release first two installments of Rs 3 Crores each immediately and balance installments be also released in time so that entire outstanding dues shall be cleared by August/September, 2017 as per their commitment.

(ii) **MSPDCL, Manipur:** - An amount of **Rs.15.27 Crores** (including surcharge of **Rs 0.60 Crores** up to 28.02.2017) is due for payment from MSPDCL. Out of which principal amount of **Rs 8.78 Crores** is outstanding for more than 60 days. Recently, the matter of outstanding dues was discussed in 32nd CCM of NERPC & it is assured by the representative of MSPDCL that outstanding dues of more than 60 days will be cleared after Election.

So, MSPDCL, Manipur is requested to clear their outstanding dues of more than 60 days as per their commitment on priority.

b. Opening/maintaining of Letter of Credit (LC):

In spite of our regular follow up, Arunachal Pradesh & Manipur has not provided LC of requisite amount till now. Recently, the matter was also discussed in 32nd CCM of NERPC & it was assured by MSPDCL that LC of requisite amount of **Rs 5.23 Crores** will be opened after Election. In this regard, last reminder sent to MSPDCL, Manipur and Dept. of Power, Govt. of Arunachal Pradesh on 03.03.2017 & 09.03.2017 respectively. Details of LC's are as under:-

<u>Name of beneficiary</u>	<u>Requisite amount</u>	<u>Validity already expired on</u>
Arunachal Pradesh	Rs. 0.84 Crs	31.03.2016
Manipur	Rs. 5.23 Crs	15.09.2016

Department of Power, Govt. of Arunachal Pradesh & MSPDCL, Manipur are requested to furnish the "Letter of Credit (LC)" of requisite amount immediately with validity up to 31.03.2018 on top priority. All other beneficiaries are also requested to open the LC of requisite amount up to the period 31.03.2018.

Deliberation of the TCC

Director (Dist.), MePDCL informed that they are in the process of arrangement of fund through the help of government and they will be able to clear their outstanding dues soon.

ED (Comml.), MSPDCL stated that Manipur will clear their outstanding dues soon. He further stated that LC will also be put in place.

Both Mizoram & Ar. Pradesh also intimated that LC will be put in place at the earliest.

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.17 : OUTSTANDING DUES OF OTPC

a. The current total outstanding dues of OTPC against the NER beneficiary states (as on 20-09-2017) are as under:

(Amount in Rs Crores)

Sl. No.	Beneficiary	Outstanding Dues including Supplementary Bill (>60 Days)	Total Outstanding including Supplementary Bill
1	Arunachal Pradesh	0.00	5.34
2	Assam	70.55	131.47
3	Manipur	20.16	30.93
4	Meghalaya	43.53	61.62
5	Mizoram	0.00	5.55
6	Nagaland	3.12	5.57
7	Tripura	91.79	140.81
	Total	229.15	381.30

The total outstanding dues as on 20-09-2017 are Rs 381.30 Crores out of which outstanding beyond 60 days is Rs 229.15 Crores. Constituents are requested to clear at least the outstanding dues over 60 days, at the earliest.

b. Status of Payment Security Mechanism of the beneficiaries required against monthly energy billing as per Power Purchase Agreement and CERC regulations - OTPC

S. No.	Beneficiary	Letter of Credit (LC) required as per PPA (Rs Crore)	LC amount status (Rs Crore)	Valid Upto	Remarks
1	Arunachal Pradesh	11.62	11.62	31-Mar-2016	Kindly renew the LC and park sufficient funds with bank for LC
2	Assam	40	40	28-Apr-2018	LC is in place

3	Manipur	15.02	3.7	15-Sept-2016	Kindly renew the LC
4	Meghalaya	29.78	-	-	Meghalaya has never provided the LC even after continuous persuasion
5	Mizoram	7.5	7.5	6-May-2017	Kindly renew the LC
6	Nagaland	9.46	9.46	20-Mar-2018	LC is in place
7	Tripura	46.53	18	19-Mar-2018	LC is in place

Beneficiaries are requested to enhance and renew the LC amount as per the PPA at the earliest.

Deliberation of the TCC

Forum requested all concerned utilities to clear the outstanding dues at the earliest. Also beneficiaries were requested to enhance the LC at the earliest.

All constituents agreed to clear the same soon.

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.18 : OUTSTANDING DUES OF REGULATORY ACCOUNTS

a. Deviation/Reactive charge outstanding:

From the outstanding status, it can be seen that Assam (Rs. 26.14 Crores), Ar. Pradesh (Rs. 2.96 Crores), Manipur (Rs.1.83 Crores) and Mizoram (Rs. 1.45 Crores) are major defaulters.

Ar. Pradesh, Manipur and Mizoram have outstanding of more than 13 weeks (90 days).

From the Reactive Outstanding Status, it can be seen that Ar. Pradesh (Rs. 22.44 Lacs), Assam (Rs. 16.28 Lacs) Manipur (Rs. 1.2 Lacs) Mizoram (Rs. 5.7 Lacs) and Tripura (Rs. 12.38 Lacs) are defaulters.

CERC in order dated 02.09.2015 in Petition No: 142/MP/2012 with I.A. 7/2013 has stipulated denial of Open Access in case of default in payment of UI/deviation charges,

transmission charges, reactive energy charges, congestion charges and RLDC fees and charges for more than 90 days.

All are requested to take note of above and clear outstanding to avoid regulatory measures.

b. Opening of LC against Deviation Charges Liability:

As per DSM charges and related matters Regulations, 2014 of CERC, following are the LC amounts pertaining to NER entities and they are required to open LC accordingly:

NER entities	LC Amt (Rs. in Lakhs)
Ar. Pradesh	95.81
Assam	562.00
Manipur	42.13
Meghalaya	14.00
Mizoram	58.43
Nagaland	54.72
Tripura	199.00

Till date only Nagaland has opened LC. However, confirmation from Bank is yet to be received.

It is requested to open LC to adhere to CERC stipulation.

Deliberation of the TCC

Forum requested all concerned utilities to clear the outstanding dues at the earliest. Also beneficiaries were requested to enhance the LC at the earliest.

All constituents agreed to clear the same soon.

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.19 : OUTSTANDING DUES OF NERTS, POWERGRID

a. The details of outstanding dues for more than 60 days as on 11.09.2017 in respect of defaulting beneficiaries of POWERGRID are as under:

Name of the DIC	30-60 days	60-90 days	>90 days	Total
Assam	33.20	35.29	11.48	79.98
Meghalaya	6.23	6.09	5.25	17.57
Mizoram	3.83	0.57		4.41
Ar. Pradesh	3.04	3.52		6.55
Nagaland	2.95			2.95
Manipur	3.96	3.72	3	15.23

The concerned utilities may liquidate the outstanding dues on priority and update the status.

b. 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 (11.09.17) OF NER BENEFICIARIES

(All Figures in Rs. Lakh)

Sl	Beneficiary	Required LC Amount	Due date of enhancement and renewal (for one year)	Value of Existing LC
1	Ar. Pradesh	321.46	31.03.16	252.00
2	AEGCL (Assam)	4217.83	31.05.18	3217.89
3	Manipur	393.05	15.09.16	213.13
4	MeECL	700.00	04.10.17	300.00
5	Mizoram	400.94	04.05.17	269.59
6	Nagaland	437.73	21.03.18	459.62
7	Tripura	416.86	14.02.18	271.00

- DICs are requested to renew & enhanced the LC as per requirement.
- **AEGCL, MeECL** may be impressed upon to enhance LC of requisite amount immediately.

- **Arunachal Pradesh, Manipur, Mizoram may be impressed upon to renew as well as enhance the LC as per requirement immediately.**

Deliberation of the TCC

Forum requested all concerned utilities to clear the outstanding dues at the earliest. Also beneficiaries were requested to enhance the LC at the earliest.

All constituents agreed to clear the same soon.

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.20 : OUTSTANDING DUES OF NEEPCO AGAINST NER BENEFICIARIES

Non-payment of dues by MePDCL to NEEPCO against purchase of energy.

MePDCL's payment record over the past few years has been dismal compelling NEEPCO to regulate supply of power from its stations on several occasions, the last being during April 2016 to December 2016. The last regulation was withdrawn on 23rd December 2016 in view of the ensuing festival season as well as MEPDCL's assurance to immediately pay Rs. 325.00 crore and to finalize a timeline for liquidating the remaining dues as per a mutually agreed one time settlement scheme which envisaged the reciprocal waiver of 60 % of the accumulated late payment surcharge by NEEPCO.

Although Rs. 325.00 crore was paid immediately as committed, MePDCL once again fell back on its assurance to liquidate the balance under the one time settlement scheme. Further, MePDCL also stopped making payments against the regular monthly energy bills as well as other bills raised on them since December 2016. As a result the principal dues payable by MePDCL has once again escalated to an amount of Rs. 153.86 crore as on 22.09.2017. In addition there is an accrued late payment surcharge of Rs. 273.59 crore which makes **the total dues outstanding as on 22.09.2017 stand at Rs. 427.45 crore.**

It is pertinent to mention here that at a meeting held at the Ministry of Power, Government of India, on 4th August 2017 to review the status of outstanding dues of

hydro CPSUs, the Joint Secretary (Hydro), Ministry of Power, Government of India suggested to the representative of the Government of Meghalaya to pay Rs. 30.00 crore to NEEPCO within 20th August 2017 and the remaining dues at the rate of Rs. 30.00 crore per month over and above the current monthly dues so that the old outstanding dues can be paid by October end. However, it is regretted that Meghalaya has so far failed to act on this suggestion.

It is matter of serious concern to NEEPCO that despite persuasion at all levels, neither MePDCL nor the Government of Meghalaya have so far responded. It should also be matter of serious concern to this forum that this huge quantum of unrealized dues may jeopardize the operation and maintenance of NEEPCO's power stations.

In view of the gravity of the situation elucidated above, this forum is requested to kindly deliberate on this issue with all seriousness and impress upon MePDCL to clear the dues in totality immediately in the overall interest of the health of the power sector of this region.

In this context it is also mentioned that all other beneficiaries of NEEPCO power stations have either cleared most of the past dues or are actively pursuing measures towards that end.

Deliberation of the TCC

After deliberation on the issue the forum noted concern of NEEPCO and requested MePDCL to expedite the liquidation process. The house urges MePDCL to liquidate the principal portion of outstanding dues immediately and to pay the monthly energy bills on regular basis.

Director (Dist.), MePDCL pointed out that there are some anomalies on surcharge calculation done by NEEPCO. Replying to this NEEPCO informed that the same is under scrutiny and within few days NEEPCO will sit with MePDCL for reconciliation of outstanding figures.

Deliberation of the RPC

Forum requested MePDCL & NEEPCO to clarify the anomalies and also urged MePDCL to clear the outstanding dues at the earliest.

The RPC noted as above.

B.21 : COMMISSIONING SCHEDULE OF ONGOING PROJECTS IN NER

The Sub-committee also reviewed the status of commissioning of various ongoing projects in NER during OCC Meetings. The status as on last 136th OCC Meeting held on 13.09.2017 is as below:

GENERATION

SN	AGENCY	PROJECT	COMMISSIONING SCHEDULE
1	NHPC	Lower Subansiri	12th Plan
2	NEEPCO	Kameng HEP	Unit I & II: March 2018
3	NEEPCO	Tuirial HEP	Oct-Nov, 2017
4	NEEPCO	Pare HEP	March, 2018
6	NTPC	Bongaigaon TPS	Unit II: 31.10.2017
7	NHPC	Tawang HEP	13 th Plan

TRANSMISSION

SN	AGENCY	PROJECT	COMMISSIONING SCHEDULE
1	NTPC	400/220kV, 315 MVA ICT-1 at Bongaigaon	30.11.2017
2	NERTS	400 kV D/C Silchar - Melriat line	31.12.2017
	AEGCL	220kV Rangia - Salakati	31.03.2018
	TSECL	132kV Monarchak – Surjamaninagar D/C	31.03.2018
	NERTS	400kV D/C Balipara – Kameng	To be matched with Kameng HEP.
	NERTS	400 kV Silchar – Misa D/C	31.03.2019
	NERTS	220 kV, 1x31.5 MVAR Bus Reactor at Mokokchung	31.12.2017
	MSPCL	PLCC Panels at Loktak end of Loktak – Ningthoukhong 132 kV feeder and Loktak - Rengpang 132 kV feeder	31.05.2018
	Ar. Pradesh	LILO portion of 132kV Ranganadi – Nirjuli(diversion work) at Lekhi	31.12.2017

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.22 : REVISED (FINAL) LIST OF NER FO EXPANSION

The revised list, after considering changes proposed by Manipur, Tripura, Nagaland, AP & CS as per site requirement, of on-going NER FO project is attached in **Annexure – B.22**. NER FOR Expansion along with details of STM-16/4 network

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.23 : STATUS OF INSTALLATION/UPGRADATION OF SLDCs IN NER

SN	Utility	Status as informed in 7th NETeST	Status as informed in 6th NETeST	Target Completion
UPGRADATION OF SLDCs				
1	Assam	Completed.	EMS Tuning left. Supply of DG set by left.	Completed. DG set-Target Nov17.
2	Tripura	Completed. Space for DG set is to be assured by TSECL. Further, AMC issue to be addressed by TSECL in line with agreement & other SLDCs	EMS tuning completed. Some site requires 48V DC supply and some require civil work.	Completed. DG set-Target Nov17.
3	Meghalaya	Completed.	EMS SAT Competed. DG set to be installed later.	Completed. DG set-Target Nov17.

4	NERLDC	Completed.	Completed.	Completed. DG set-Target Nov17.
5	Manipur	Completed.	EMS tuning completed. DG set to be installed later.	Completed. DG set-Target Nov17.
6	Nagaland	EMS SAT to be completed by 15th September 2017. Modification in DG set foundation to be done by DOP, Nagaland soon.	Installation to be completed by May. EMS SAT to be completed by July, 2017.	Completed. DG set-Target Dec 17.
7	Mizoram	Completed. DG set placement area is not handed over by P&E, Mizoram. VC unit is to be installed by GE	EMS tuning to be done through DTS simulation by June, 2017.	Completed. DG set-Target Nov17. Subject to immediate hand over of DG site
8	Ar. Pradesh	EMS SAT to be completed by 15th September 2017.	SAT to be completed by May, 2017. EMS tuning to be done through DTS simulation by June, 2017.	Completed. DG set-Target Nov17.
9	Backup NERLDC	Completed.	Completed.	Completed. DG set-Target Nov17.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

**B.24 : STATUS OF IMPLEMENTATION OF PROJECTS FUNDED FROM PSDF
IN NER**

The status as informed in 136th OCC:

State	Protection System	ADMS	Capacitor Installation	SAMAST**
Arunachal Pradesh	Tendering in process.	DPR preparation stage.	-	SLDC to apprise SERC of the project.
Nagaland	Work under execution. Completion by 31.12.17.	Under scrutiny of Techno-Economic Sub-group.	Under process of approval. To submit undertaking and other required documents.	Documents and relevant papers have been furnished to Nagaland SERC as desired by Chairperson, SERC. SERC has requested for a presentation at Kohima/Nagaland by the SAMAST group
Mizoram	By Sept'17 all LOAs would be issued. First installment has been received.	To be further examined by Techno-Economic Sub-group after interaction with consultant.	Proposal on hold. To be considered upon funds being available.	To furnish action plan.
Manipur	By Sept'17 all tenders to be completed. By Sept-Oct'17 all LOAs' to be issued.	Pilot project under scrutiny of Techno-Economic Sub-group. To submit clarification.	-	NERPC/NERLDC members to meet SERC /MSPCL higher officials to enable take-off of the project.
Tripura	LOAs to be issued by Sept'17.	Submitted to NPC/NLDC.	Under Study stage**	NERPC/NERLDC members to meet TSERC /TSECL higher officials to enable take-off of the project.
Assam	By Oct'17 all LOAs would be issued. Remaining tenders by Sept'17.	Under scrutiny of Techno-Economic Sub-group.	-	Joint meeting of Assam, Meghalaya, NERLDC & NERPC to be held at Kahelipara on 22.09.17 for finalization of DPR.

Meghalaya	MePTCL – Remaining 10% LOAs by Oct’17. Execution 7% completed. MePGCL – by Sept, 2017 all LOAs	DPR submitted to CEA & NLDC	-	To initiate activity for identification of Metering points.
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This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

CATEGORY – C : ITEMS REFERRED TO STANDING COMMITTEE

C.1 : PROPOSED SCHEME FOR LILO OF 132kV KAHILIPARA – UMTRU D/C AT KILLING S/S

To relieve the ICTs at Sarusajai GSS of AEGCL, and also to increase the stability of power supply in greater Guwahati and its adjoining areas, AEGCL desires that the 132kV Kahilipara - Umtru double circuit lines be LILO connected at Killing GSS of MeECL. This reconfiguration of the network will also enhance the stability of power supply in Umtru and Byrnihat areas of Meghalaya.

Deliberation of the TCC

Director (Trans.), MePTCL informed that DPR for funding from NEC was submitted in 2014, but did not approved due to unknown reasons. He suggested that rates may be revised and both state utilities may take up for implementation. The TCC forum endorsed and referred to SCM.

TCC recommended for approval of RPC/SCM.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

C.2 : PROPOSED SCHEME FOR RELIEVED CONGESTION IN AGIA SUBSTATION OF ASSAM

The 220kV lines emanating from Agia GSS of AEGCL are being made to carry high quantum of load to the extent of more than the optimal limit due to additional loading of 132kV Agia - Mendipather line (50MW). On the other hand no tariff benefit accrues to AEGCL due to the conditions imposed by PoC regulations. AEGCL desires that a 220kV GSS either in West Garo Hills district or in the East Garo Hills district of Meghalaya should be set up by CTU and this s/s may be connected through construction of a new 220kV double circuit transmission line by PGCIL from Bongaigaon (PG) GSS. Later on this GSS may be connected to other PGCIL S/S in Meghalaya or elsewhere. This 220kV GSS will not only relieve the AEGCL transmission lines from congestion but will also enhance the reliability and stability of the system in the western parts of Meghalaya. Letter given by AEGCL enclosed at **Annexure-C.2**.

Deliberation of the TCC

Director (Trans.), MePTCL welcomed the suggestion. The TCC forum endorsed the proposal and referred to next SCM.

TCC recommended for approval of RPC/SCM.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

C.3 : STRENGTHENING OF CAPACITY OF KHANDONG BUS AS PER REQUIREMENT

The normal life of 2x25 MW Khandong Power Station will be completed in April, 2019. NEEPCO is in the process of R&M of the Power Station for life extension. Accordingly, order has been placed with M/s CPRI for field study and DPR preparation. Khandong Switchyard is having double Bus with transfer facility and bus conductor is single Zebra and all the jack buses and jumpers are single Panther. During 129th OCC Meeting, NERLDC informed that the calculated SC level after incorporating the future system up-gradations is coming around 11 kA (approx.), while the 3-phase SC level is 2000 MVA. The forum recommended bus up-gradation at Khandong. NEEPCO informed that prima facie it appears that bus should be upgraded. Since the structure

cannot support Twin Moose, HTLS Zebra would be considered for strengthening bus.
Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC approved and recommended for approval of RPC/SCM.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

C.4 : STRENGTHENING OF SOUTHERN PART OF NER GRID

Major loads in Southern Part of NER Grid i.e. South Assam, Tripura (including radial load to Bangladesh), Mizoram & Manipur, are fed through 400/132 kV substation at Silchar (POWERGRID). Total installed capacity of Southern part of NER Grid is 1305 MW which is one third of total installed capacity of NER. Major upcoming corridors are planned or already under operation/execution to major load centers in Southern part of NER Grid like 400 kV Silchar – Misa D/C, 400 kV Silchar – Melriat D/C, 400 kV Silchar – Palatana D/C, 400 kV Silchar – Byrnihat – Bongaigaon, 400 kV Silchar – Azara – Bongaigaon, 400 kV Silchar – Imphal D/C and 400 kV Silchar – P.K.Bari D/C. However in case of outage of 400/132 kV Silchar Sub-station, which is a credible contingency, Southern Part of NER Grid, will be insecure. To mitigate the problem, it is proposed to establish 400 kV Imphal - Melriat D/C and 400 kV Melriat - Palatana D/C (preferably 400 kV Melriat – PK Bari D/C as there would be four 400 KV circuits between Palatana and PK Bari obviating need of any further strengthening) transmission lines. The proposal was agreed in principle in the 127th OCCM

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of RPC/SCM.

Deliberation of the RPC

The RPC noted and approved the proposal.

C.5 : RECONDUCTORING OF 132kV KOPILI – KHANDONG LINE # I WITH HTLS CONDUCTOR

The transformation capacity at Kopili is being enhanced to 2x160 MVA, 220/132kV after installation of 2nd ICT which is under progress. However, there are two 132 kV

circuits between Kopili and Khandong HEP. The Circuit # 2 is strung with ACSR Zebra conductor but, the Old Circuit # 1 is strung with ACSR Panther conductor. Thus capacity of Circuit # 1 will limit the evacuation of power between Kopili and Khandong in the event of outage of Circuit # 2. Thus, to have (N-1) compliance between Kopili and Khandong HEP, the existing ACSR Panther Conductor needs to be replaced with HTLS Panther equivalent conductor.

The issue was deliberated in 127th OCC Meeting and the requirement of re-conductoring was agreed by the members. The forums recommended for approval of TCC and subsequently, deliberate the issue in next SCM for CEA approval.

Deliberation of the TCC

TCC recommended for approval of RPC/SCM.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

C.6 : BACK UP CONNECTIVITY FROM MAIN NER GRID TO ARUNACHAL PRADESH VIDE NAMSAI NODE
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Deliberation of the TCC

CE, DoP Ar. Pradesh intimated that Roing –Tezu—Namsai has been a radial connectivity and there is urgent need of back up connectivity at Namsai node preferably. It was requested to forum that connectivity from Kathalguri to Namsai (with Namsai up-gradation to 220kV) or so. NEEPCO intimated that the same is acceptable subject to confirmation of space at Kathalguri. Forum agreed in principle

TCC recommended for approval of RPC/SCM.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

C.7 : MODIFICATIONS IN THE NERSS-II (PART-B) AND NERSS-V SCHEMES

Deliberation of the TCC

Following elements (**bold**) has been approved under Final Scope of NERSS-II (Part-B) and NERSS-V schemes in line with 36th ECM approval:

SN	Revised addition of Links (under Final Scope)	Remarks
1	LILO of one circuit of 132kV Biswanath Chariali (PG) - Itanagar at Gohpur (AEGCL).	NERSS-II Part-B
2	Establishment of 400/132 kV, 7x105MVA Single Phase (including one spare) S/sat Surajmaninagar	NERSS
3	400 kV: • ICTs: 400/132 kV, 7x105 MVA single phase (including one spare)	NERSSV
4	• Space for future line bays (including space for switchable line reactor): 6 no.	NERSSV
5	132 kV • ICTs bays: 2 no. • Line bays: 2 no. [2 no. for Surajmaninagar (TSECL) - Surajmaninagar (TBCB) 132kV D/c high capacity / HTLS (equivalent of single moose) line] Space for future line bays: 6 no	NERSSV
6	Establishment of 400/132 kV: 7X105MVA Single Phase (including one spare) S/sat P.K. Bari	NERSSV
7	• Space for future line bays (including space for switchable line reactor): 6 no.	NERSSV
8	132 kV • Line bays: 2 no. • Space for future line bays: 6 no.	NERSSV
9	TSECL would implement the following: Surajmaninagar (T&ECL) - Surajmaninagar (TBCB) 132kV D/c line with high capacity / HTLS (equivalent of single moose)	NERSSV
10	Establishment of 400/220 kV, 7x167MVA Single Phase (including one spare) S/S at New Kohima 400 kV ICTs: 400/220kV, 7x167MVA Single Phase (including one spare) 220kV: Line bays: 2 no., Space for future line bays: 6 no., Space for 400/220kV, 500MVA ICT	NERSS-VI
11	Establishment of 2x500MVA 400/220 kV Pooling station at	“Transmission

	Rangia / Rowta in Assam 220 kV • Line bays - 6 no.	System for Phase-1 generation projects in Arunachal Pradesh”.
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TCC recommended for approval of RPC/SCM.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

CATEGORY – D : RESOLUTIONS TAKEN DURING THE 18TH RPC MEETING

The North Eastern Regional Power Committee (NERPC) unanimously resolved in the 18th NERPC meeting held on 11th October, 2017 at Shillong as follows:

That this Committee strongly urges upon Ministries of Government of India concerned for the following:

D.1 : DIVERSION OF 400KV D/C SILCHAR – BYRNIHAT - AZARA TRANSMISSION LINE BETWEEN LOC. NO. 573 TO 580 TO FACILITATE CONSTRUCTION OF TETELIA - BYRNIHAT RAILWAY (NFR)

We, the Power Ministers of North-Eastern States express our deep gratitude to the Government of India for the “Act East Policy” and the feeling of alienation has been lifted and the developments have been started in the right tract and we hope that the same spirit will continue in future till the North eastern Region of India reached the playing fields at par with the rest of the country.

We would like to bring to your kind notice that the 400kV D/C Silchar-Byrnihat-Azara transmission line was fully commissioned by North East Transmission Company (NETC) in the year 2014.

It was informed by NETC that due to overlapping with North East Frontier Railway's, Tetelia - Byrnihat rail line, NETC has been asked to divert the transmission line to facilitate construction of the said railway line by NFR. NETC informed that they had obtained approval from Revenue Authorities of Sonapur, Assam (jurisdiction area on which transmission line is situated) during December 2010 - although not mandatory-much before taking up the construction activity by NFR. NETC had finalized the route alignment of this transmission line during 2005-06, after obtaining necessary approval as per section 68 & section 164 of Electricity Act 2003.

However, NETC has been directed by Govt. of India to divert the said transmission line in order to facilitate construction of NFR's railway line and the cost incurred towards diversion should be borne by NETC, which is against the Government's Guidelines, as the cost of diversion of lines due to Railways' works is to be borne by the Railway.

Further, we would like to mention that all NER States are Share Holders of North East Transmission Company (NETC)

With this background in mind and considering the poor financial conditions of North eastern States, booking the cost of diversion of above lines will have severe impact upon the consumers of NER. We therefore, request your good self to intervene into the matter so that Ministry of Railways (NFR) should bear the Cost of diversion of the already commissioned transmission line above as is done in the case of diversion of road and transmission lines etc., by paying the cost of diversion expenditure (14 Cr. Approx.) to NETC.

D.2 : REDUCTION OF GAS SUPPLY TO PALLATANA GBPP

250MW first Unit of Bongaigaon Thermal Power Project (BgTPP) of NTPC is under continuous operation since 14.08.2017 after necessary rectification of technical snag. It is stated by the NTPC authorities that Unit # 2 of the station is likely to be put on bar in the later part of October 2017.

All the North Eastern States are drawing power from NTPC BgTPP's station to meet their power demand. Since last two months BgTPP station has received 07 rakes from

NEC and 04 rakes from ECL totaling to 45000 MT of coal against requirement of 1,27,000MT as per actual generation. The balance is made up by the station with the available coal stock as on 14.08.2017. However, due to non-receipt of sufficient coal during last almost 2 months, present stock of coal is only 7500 MT which is far below than the sustainable operation of the unit. In addition, with the operation of Unit 2, the condition will be much worsens. All the North-Eastern States will be badly hit if NTPC BgTPP station is forced to reduce the generation for want of coal.

With this background in mind and considering the poor financial conditions of North eastern States, we therefore, request your good self to intervene into the matter so that coal is made available to the above Plant for reliable power supply to North Eastern Region.

CATEGORY – E: FUNDING FROM PSDF

ITEM NO. E.1 : RELIABLE COMMUNICATION IN MEGHALAYA SYSTEM UNDER PSDF

The detailed project report for reliable communication & data acquisition system up to 132 kV level at an estimated cost of Rs 1973.34 Lakhs was forwarded to the National Load Despatch Centre and the Central Electricity Authority for sanction under PSDF on 11.05.2017. The forum may consider according approval of the same.

ITEM NO. E.2 : APPROVAL OF THE DETAILED PROJECT REPORT FOR INSTALLATION OF NUMERICAL LINE DIFFERENTIAL PROTECTION RELAYS IN THE 132 KV TRANSMISSION LINES (SHORT LINES)

In accordance with the resolution adopted at the 45th PCC meeting on 30.11.2016, the detailed project report for installation of numerical line differential protection relays in the 132 kV transmission lines (short lines) at an estimated cost of Rs 451.41 Lakhs has been approved by the Board of Directors of MePTCL on 11.09.2017. The

same will be forwarded to the NLDC with a proposal for sanction under PSDF. The forum may consider according approval of the same.

ITEM NO. E.3 : DETAILED PROJECT REPORT FOR RE-CONDUCTORING OF THE 132 KV SINGLE CIRCUIT LINE FROM KHLIEHRIAT TO RATACHERRA WITH HIGH TEMPERATURE AND LOW SAG (HTLS) CONDUCTOR (MEGHALAYA PORTION)

The 132 kV single circuit Khliehriat - Lumshnong - Rattacherra - Panchgram line is an inter-state transmission line, transmitting power between Assam and Meghalaya. This line connects Eastern Jaintia Hills District with the Barak Valley of Assam. The line was commissioned in 1983 and has been in service for over 30 years. The conductor used is ACSR Panther, but the transmission capacity has been restricted to 45 MW only, instead of 80 MW, due to conductor ageing. In order to enhance the capacity of this line, it is proposed to re-conductor with High Temperature and Low Sag (HTLS) conductor using the same towers, in line with resolution adopted in the Operation Control & Coordination (Regional) meetings. This conductor can be loaded up to 150 MW, without changing the design of the towers. With this enhanced capacity, the grid will be more flexible and this will lead to fewer disturbances in the grid. The detailed project report has been approved by the Board of Directors of MePTCL on 11.09.2017 at an estimated cost of Rs 4930.00 Lakhs. The same will be forwarded to the NLDC with a proposal for sanction under PSDF. The forum may consider according approval of the same.

ITEM NO. E.4 : NER – FIBER OPTIC EXPANSION PROJECT

During 15th NERPC meeting, the 132 KV lines of MePTCL were proposed to be included in the North Eastern Region Fibre Optics (FO) Expansion Project. However, MePTCL wanted to exclude the following transmission lines from the North Eastern Region Fibre Optics Expansion Project:

1. 132 KV NEHU – NEIGRIHMS Single Circuit line
2. 132 KV Khliehriat (MePTCL) – Khliehriat (POWERGRID) Single Circuit line
3. 132 KV Khliehriat – Lumshnong Single Circuit line
4. 132 KV Khliehriat – Myntdu Leshka Hydro Electric Project Double Circuit line

The scope for laying of Fibre Optics 132 KV Khliehriat (MePTCL) – Khliehriat (POWERGRID) Single Circuit line and 132 KV Khliehriat – Myntdu Leshka Hydro Electric Project Double Circuit line have been included under North Eastern Region Power System Improvement Projects (NERPSIP) funded by the World Bank and Government of India. Moreover, MePTCL has included the scope for laying of Fibre Optics on 132 KV NEHU – NEIGRIHMS Single Circuit line and 132 KV Khliehriat – Lumshnong Single Circuit line in the Detailed Project Report for Reliable Communication submitted to the Central Electricity Authority (CEA) and to the National Load Despatch Centre (NLDC) for funding under Power System Development Fund (PSDF).

ITEM NO. E.5 : INSTALLATION OF OPGW AND ACCESSORIES INCLUDING COMMUNICATION SYSTEM FOR SONAPANI POWER STATION FROM PSDF-

The OPGW is to link from Power Station to 33KV Mawprem Bus Station and the same is to be integrated with SLDC NEHU.

ITEM NO. E.6 : RE- ENGINEERING OF EXISTING BUS BAR FROM ACSR PANTHER TO ACSR ZEBRA CONDUCTOR AND PROVIDING TERMINAL EQUIPMENT AT 132KV SWITCHYARD BAY FOR UPPER KHRI FEEDERS AT STAGE- III POWER STATION, KYRDEMKULAI FROM PSDF

During the 135th OCC Meeting, MePGCL informed about the re-engineering of existing bus bar at Kyrdemkulai. They informed that as per their system studies the loading of the existing Bus Bar with Panther conductor has exceeded the permissible load and with the recent development of Upper Khri Stage –I and Stage-II Power Station bay extension is necessary at Stage-III Power Station.

ITEM NO. E.7 : DISBURSEMENT OF FUNDS FOR PROJECTS SANCTIONED UNDER PSDF

The mode of disbursement of fund for projects sanctioned under Power System Development Fund (PSDF) according to the tripartite agreement signed between the State Government, State Utility and National Load Despatch Centre, the Nodal Agency for PSDF is as follows:

First Stage – 30% of sanctioned grant within 15 days from date of signing of the Agreement and fulfillment of all requirements, including requisite legal formalities by the Government of Meghalaya and Utility as per the sanction letter of the project. The release of 1st installment would be after the Letter of Award has been issued by the entity and agreement has been signed with the contractor.

Second/ Intermediate Stage(s) – 60% of sanctioned grant within 15 days from date of submitting the expenditure details to Nodal Agency by Entity after utilizing the fund received in 1st installment and consumption of self-contribution of Entity.

Final Stage – Balance 10% of sanctioned grant within 30 days from submitting the expenditure details and completion certificate to Nodal Agency by Entity.

The mode of disbursement of funds was later changed from that mentioned in the tripartite agreement (mentioned to be in line with Deen Dayal Upadhyayan Gram Jyoti Yojana (DDUGJY) guidelines). The modified mode of disbursements is as follows:

First Stage - 10% of the total grant sanctioned (out of first stage of 30%) shall be released after sanction of grant and signing of tripartite/bipartite agreement,

Second Stage - 20% of the total grant sanctioned (out of first stage of 30%) shall be released in accordance with the award of contracts in maximum no of five tranches.

Third/Intermediate Stage – 60% of the grant after utilization of the grant disbursed in first installment and consumption of self-contribution of the Entity.

Final Stage – Balance 10% of the grant on completion/ commissioning of the scheme.

1. The issue is the disbursing of 20% of fund against the amount as per the Letter of Award instead of against the total grant sanctioned. In the scheme sanctioned for Meghalaya, multiple Letter of awards are to be placed and by the time the 20% funding is released, the Contractors who were awarded first has supplied 100% of the items as per Contract and are ready for installation. The Contractors submit 100% invoice, but only 20% payment can be made, and at the same time they are expected to complete the installation works as well.
2. In view of the above, it is preferable that the funding be disbursed not in accordance with the award of contracts, but against the total grant sanctioned.
3. However, it may also be mentioned that the above mode of disbursing of fund is not according to DDUGJY guidelines.

MePTCL wanted to give a presentation on disbursement of fund according to DDUGJY guidelines:

The MePTCL is proposing the Forum to take up this matter with NLDC to change the mode of disbursing of fund to ensure expeditious execution of the project.

ITEM NO. E.8 : RECONDUCTORING OF OLD INTRA-STATE TRANSMISSION LINES OF 132KV UMIAM STAGE I - STAGE III DOUBLE CIRCUIT LINE WITH HTLS CONDUCTOR UNDER PSDF

The 132 KV transmission double circuit line between Umiam Stage I Hydro Electric Project and Umiam Stage III Hydro Electric Project has crossed its useful life of 35 years. The generating stations located at Umiam Stage III HEP, Stage IV HEP, New Umtru HEP, as well as the 400/220 KV interstate substation at Killing, Byrnihat are connected with the rest of the state through this transmission line only. Moreover, the conductor used on this line is ACSR Panther and therefore the current carrying capacity is limited. MePTCL is preparing the Detail Project Report for re-conductoring of this line with HTLS conductor at a tentative project estimated cost of Rs 3648 lakhs (rupees three thousand six hundred forty eight) lakhs. MePTCL is requesting the Forum to consider recommending the funding of this project from PSDF.

ITEM NO. E.9 : PROPOSED SCHEME FOR AUGMENTATION OF 132/33KV MAWLAI SUB-STATION FROM 3 X 20 MVA TO 3 X 50 MVA, ALONGWITH RE-ENGINEERING OF 132KV BUS BAR FOR FUNDING UNDER PSDF

Meghalaya Power Transmission Corporation Limited proposes to augment the existing capacity of 132/33kV Mawlai substation from 3 x 20 MVA to 3 x 50 MVA along with re-engineering of the 132 kV bus bar from copper conductor to Zebra conductor and modification of the existing bus bar. The existing loading of the transformers have reached the optimum level. There is no further scope for adding another transformer except by augmenting the 20 MVA to 50 MVA. Due to overloading of the Transformers load shedding during peak hour has to be carried out to in winters. As loading of the Bus will increase with the augmentation, the present Bus arrangement needs Re-engineering to Zebra conductor to increase the loading capability. This project assumes importance, considering the power scenario in the State capital to meet the current and future demand. The tentative project estimated cost is Rs 5078.00 Lakhs

(rupees five thousand seventy eight lakhs) only and is expected to be completed within a period of 24 months from the date of availability of funds.

ITEM NO. E.10 : PROPOSED SCHEME FOR CONSTRUCTION OF 2 x 20 MVA, 132/33KV SUB-STATION AT NONGPOH, RI-BHOI DISTRICT, MEGHALAYA, ALONG WITH LOOP IN LOOP OUT (LILO) OF BOTH CIRCUITS OF 132 KV STAGE-III – UMTRU DOUBLE CIRCUIT LINE ON MULTI CIRCUITS TOWERS AT NONGPOH SUB-STATION, FOR FUNDING UNDER PSDF

Nongpoh is the district headquarters of Ri Bhoi District. The district is fast expanding and developing with many state and central projects, besides industries and agricultural activities. The district is also having a long inter-state boundary and is the gateway to Assam and other states in the NER region; as such the growth potential is very high. The power demand at Nongpoh alone is more than 5 MVA and is presently fed at 33 kV level from three different sources, Stage-III Power Station, Umiam and Byrnihat. Power supply is fed most frequently from Stage-III HEP and Umiam, which are at a distance of 40-45 km. This distance and the growing load on the 33 kV line adversely affects quality of power supply to the District, leading to low voltage in many villages. Moreover, the power supply to the area has become unreliable due to prolonged breakdowns. The construction of the 132/33kV, 2 x 20MVA substation at Nongpoh by looping in and out both circuits of the 132kV Stage-III - Umtru line is primarily to meet the growing demand in the Ri Bhoi District and to improve the quality and reliability of power supply in the entire District. It will also provide an alternative and reliable source of supply to the district headquarter and the adjoining areas. This arrangement would also help in creating an alternative source to feed Umiam, Kyrdemkulai and Byrnihat in the event of faulty conditions in the system. The Ri Bhoi District as a whole would also have a long term benefit as this power infrastructure is expected to take care of the power requirement for the next 10 to 15 year.

This sub-station will also provide for power evacuation from the upcoming 13.5 MW Small Hydro Power Station to be set up in Umran by an Independent Power Producer, viz. M/s JMD Aqua Power Private Limited.

The tentative project estimated cost is Rs 5844.00 Lakhs (rupees five thousand eight hundred forty-four lakhs) and is expected to be completed within a period of 36 months from the date of availability of funds.

ITEM NO. E.11 : FUNDING OF SUB-TRANSMISSION PROJECTS UNDER THE SCHEME POWER SYSTEM DEVELOPMENT FUND (PSDF) FOR MEGHALAYA

The objective of the scheme is to relieve the congestion in evacuation of power from the 132 kV Sub-stations, through the 33 kV lines and also to add more 33/11 kV Sub-stations.

Accordingly, Meghalaya Power Distribution Corporation Limited (MePDCL) proposed the projects **as per Annexure E.11** for funding under PSDF. The total estimated cost proposed under PSDF is Rs 173.31 crore. The projects were conceived to achieve the following objectives:

- To improve quality, quantity and reliability of power supply.
- To reduce Technical losses.
- To bring about consumers' satisfaction.
- To relieve the overloaded 33 KV Lines and substations.

Deliberation of the TCC

Forum opined that the items from E.1 to E.11 pertaining to Meghalaya for funding from PSDF be taken up by Meghalaya with NPC, CEA & NLDC respectively. NERPC Secretariat may assist them if necessary.

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

DATE & VENUE OF THE NEXT MEETING

The next meeting of 19th TCC & 19th NERPC is proposed to be held in December, 2017 at Goa. As per roster, POWERGRID will host the next TCC/NERPC Meetings, The exact date & venue will be intimated later.

The meeting ended with vote of thanks to the Chair



ANNEXURES

ANNEXURE - I

LIST OF PARTICIPANT IN 18TH TCC MEETING

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
1	ASSAM	Ajanta Kumar Goswami	CGM (Comml.), APDCL
2		B.M. Saikia	GM (TRC), APDCL
3		J. K. Baishya	GM (Com-Rev), APDCL
4		Kumud Goswami	Consultant (Comml.), APDCL
5		Z.A. Choudhury	CGM (SLDC, AEGCL
6		Sanjeev Goswami	GM (NRE), APDCL
7		D.C. Das	AGM LD-Com, SLDC, AEGCL
8	Arunachal Pradesh	Er. Anong Perme	CE (P), Transmission
9		Er. Hage Mima	EE (Planning, Comml.)
10		Er. Nangkong Perme	EE (SLDC)
11	MANIPUR	N. Sarat Singh	MD, MSPCL
12		T. A. Singh	ED, MSPDCL
13		H. Shanti kumar Singh	GM(SLDC)
14		Ng. Birjit Singh	OSD(Planning), MSPCL
15	MEGHALAYA	E.W. Nongrum	TCC Chairman & Dir.(Gen.)
16		T. Passah	Director (Tech.), MePDCL
17		C. Kharkrang	Director (Trans.), MePTCL
18		K.N. War	CE (Dist.), MePDCL
19		E.B. Kharmujai	CE (Comml.), MePDCL
20		L.M.F. Sohtun	CE (Trans.), MePTCL
21		K. Tiewsoh	CE (Civil) M&SH, MePGCL
22		E. Shabong	CE (Civil) HP& HC, MePGCL
23		M. Shangpliang	CE (Generation), MePGCL
24		R. Syiem	ACE (Trans.), MePTCL
25		A. Kharpran	ACE (Comml.), MePDCL
26		M. Rymbai	ACE (Civil), MePGCL

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
27		T.R. Pdah	ACE (Eastern Zone), MePDCL)
28		H. Massar	ACE , O/o CE (Gen.), MePGCL
29		M. Marbaniang	SE (T&T), MePTCL
30		M.K. Chetri	SE ,O/o Director (T), MePTCL
31		R. Majaw	SE (EM), MePDCL
32		F.E. Kharshiing	SE, SLDC, MeECL
33		M. Swer	SE, O/o CE (Gen.), MePGCL
34		A. Lyngdoh	SE (PM), MePGCL
35		L. Shylla	SE (Circle-I), MePGCL
36		B.M. War	SE (Civil), MePGCL
37		H.F. Shangpliang	SE (Circle-I), MePGCL
38		T. Gidon	EE (SLDC), MePTCL
39		B. Nikhla	EE (SP), MePTCL
40		B.Narry	EE (Gen. Division-I, MePGCL
41		W. Khyriem	EE (SP), MePGCL
42	MIZORAM	L. Pachuau	Engineer-in-Chief
43		Lalbiaksanga	SE, SLDC
44	NAGALAND	Rokozhalie Angami	CE (T&G)
45		Wabangmeren Jamir	EE (Trans)
46	TRIPURA	M. Debbarma	Director (Tech.), TPGL
47		Debabrata Pal	Sr. Manager
48	NEEPCO	M.S. Shunmuganathan	Director (Financial)
49		M.S. Jyrwa	Executive Director (O&M)
50		R.C. Sarma	Executive Director (Comml.)
51		P. C. Barman	General Manager (Comml.)
52		C. Choudhury	DGM (Comml.)
53		Bhaskar Goswami	Sr. Manager
54		Joypal Roy	Sr. Manager (O&M)
55	NHPC	Chander Mohan	ED (Comml.)

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
56		Mohamad Arif	Manager
57	NERLDC	T.S. Singh	Executive Director
58		N.R. Paul	GM
59		R. Sutradhar	DGM
60		A. Mallick	DGM
61		B.S. Roy	Asst. GM
62		POWERGRID	Sunil Agarwal
63	Manju Gupta		AGM, New Delhi
64	Ramchandra		DGM, New Delhi
65	D.S. Yadav		Executive Director
66	A. Patir		GM
67	Prasanta Kanungo		DGM
68	Supriya Paul		Manager
69	NTPC		P.R. Jena
70	SPTL	Karuna Sarma	Sr. Consultant
71		Abhay Adya	Manager
72	OTPC	Satyajit Ganguly	MD
73		Arup Ch. Sarma	GM
74		Sudin Chattopadyay	VP
75	NETC	S.N. Sunkari	MD
76		Ashwani Jain	Director (Project)
77		D.K.Sarma	Sr. Consultant
78	NERPC	P.K. Mishra	MS
79		B. Lyngkhoi	Director/SE (C&O)
80		L.B. Muanthang	Director/SE (P&SS)
81		S.M. Aimol	Deputy Director (C&O)
82		S. Mukherjee	Asst. Director -I/AEE
83		Sadiq Imam	Asst. Director-I/AEE
84		Shaishav Ranjan	Asst. Director/AE

ANNEXURE - II

LIST OF PARTICIPANT IN 18th NERPC MEETING

- | | | |
|----|-----------------------|---|
| 1. | Sh. Pallav Lochan Das | Hon'ble Power Minister, Govt. of Assam |
| 2. | Sh. Tamyra Taga | Hon'ble Power Minister, Govt. of Ar.Pradesh |
| 3. | Sh. Coming One Ymbon | Hon'ble Power Minister, Govt. of Meghalaya |
| 4. | Sh. Kipili Sangtam | Hon'ble Power Minister, Govt. of Nagaland |
| 5. | Sh. Manik. Dey | Hon'ble Power Minister, Govt. of Tripura |
| 6. | Sh. M.S. Rao | Principal Secy., Govt. of Meghalaya Power Dept. |
| 7. | Sh. K.D. Vizo | Secretary (Power), Govt. of Nagaland |

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
8	ASSAM	R. Kalita	OSD, Power Dept.
9		S.N. Kalita	MD, AEGCL
10		Kalyani Baruah	MD, APGCL
11		Ajanta K. Goswami	CGM (Comml.), APDCL
12		B.M. Saikia	GM (TRC), APDCL
13		J.K. Baishya	GM (Com-Rev), APDCL
14		Sanjeev Goswami	GM (NRE), APDCL
15		Kumud Goswami	Consultant (Coml.), APDCL
16		Z.A. Choudhury	CGM (SLDC, AEGCL)
17		D.C. Das	AGM, SLDC, AEGCL
18		Arunachal Pradesh	Er. Anong Perme
19	Er. Hage Mima		EE (Planning, Comml.)
20	Er. Nangkong Perme		EE (SLDC)
21	MANIPUR	N. Sarat Singh	MD, MSPCL
22		T.A. Singh	ED, MSPDCL

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION	
23		H. Shanti Kumar Singh	GM(SLDC)	
24		Ng. Birjit Singh	OSD(Planning), MSPCL	
25	MEGHALAYA	E.W. Nongrum	TCC Chairman & Dir.(Gen.)	
26		T. Passah	Director (Tech.), MePDCL	
27		C. Kharkrang	Director (Trans.), MePTCL	
28		K.N. War	CE (Dist.), MePDCL	
29		E.B. Kharmujai	CE (Comml.), MePDCL	
30		L.M.F. Sohtun	CE (Trans.), MePTCL	
31		K. Tiewsoh	CE (Civil) M&SH, MePGCL	
32		E. Shabong	CE (Civil) HP& HC, MePGCL	
33		M. Shangpliang	CE (Generation), MePGCL	
34		R. Syiem	ACE (Trans.), MePTCL	
35		A. Kharpran	ACE (Comml.), MePDCL	
36		M. Rymbai	ACE (Civil), MePGCL	
37		T.R. Pdah	ACE (E- Zone), MePDCL)	
38		H. Massar	ACE, (Gen.), MePGCL	
39		M. Marbaniang	SE (T&T), MePTCL	
40		M.K. Chetri	SE, (T), MePTCL	
41		R. Majaw	SE (EM), MePDCL	
42		F.E. Kharshiing	SE, SLDC, MeECL	
43		M. Swer	SE, (Gen.), MePGCL	
44		MEGHALAYA	A. Lyngdoh	SE (PM), MePGCL
45			L. Shylla	SE (Circle-I), MePGCL
46			B.M. War	SE (Civil), MePGCL
47			H.F. Shangpliang	SE (Circle-I), MePGCL
48	T. Gidon		EE (SLDC), MePTCL	
49	B. Nikhla		EE (SP), MePTCL	
50	B. Narry		EE (Division-I, MePGCL	
51	W. Khyriem		EE (SP Div), MePGCL	
52	MIZORAM		L. Pachuau	Engineer-in-Chief
53		Lalbiaksanga	SE, SLDC	

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
54	NAGALAND	Khose Sale	Chief Engineer
55		Rokozhalie Angami	ACE (T&G)
56		Wabangmeren Jamir	EE (Trans)
57	TRIPURA	M. Debbarma	Director (Tech.), TPGL
58		Debabrata Pal	Sr. Manager
59	NEEPCO	V.K. Singh	Director (Tech.)
60		M.S. Jyrwa	Executive Director (O&M)
61		Bhaskar Goswami	Sr. Manager
62		Joypal Roy	Sr. Manager (O&M)
63		D. Choudhury	DGM (Comml.)
64		R.C. Sarma	Executive Director (Comml.)
65		P. C. Barman	General Manager (Comml.)
66		M.S. Shunmuganathan	Director (Financial)
67	NHPC	Chander Mohan	ED (Comml.)
68		Mohamad Arif	Manager
69	NERLDC	T.S. Singh	Executive Director
70		N.R. Paul	GM
71		R. Sutradhar	DGM
72		A. Mallick	DGM
73		B.S. Roy	Asst. GM
74	POWERGRID	Sunil Agarwal	ED (LD&C), New Delhi
75		Manju Gupta	AGM, New Delhi
76		Ramchandra	DGM, New Delhi
77		D.S. Yadav	Executive Director
78		A. Patir	GM
79		Prasanta Kanungo	DGM
80		Supriya Paul	Manager
81	NTPC	D.K. Sood	Regional ED, (ER-2)
82		R.K. Sood	AGM (Coml)
83		P.R. Jena	AGM
84		U. Chakraborty	ED (BgTPP)
85	NETC	S.N. Sunkari	MD

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
86		Ashwani Jain	Director (Project)
87		D.K. Sarma	Sr. Consultant
88	OTPC	Satyajit Ganguly	MD
89		Arup C. Sarma	DGM
90	SPTL	Tan Reddy	VP
91		N.Chakraborty	Chief Manager
92		Siraj Bhattacharya	GM
93		Abhay Adya	Manager
94		Karuna Sarma	Sr. Consultant
95		Pratik	
96		Prashant tiwari	
97	NERPC	P.K. Mishra	MS
98		B. Lyngkhoi	Director/SE (C&O)
99		L.B. Muanthang	Director/SE (P&SS)
100		S.M. Aimol	Deputy Director (C&O)
101		S. Mukherjee	Asst. Director -I/AEE
102		Sadiq Imam	Asst. Director-I/AEE
103		Shaishav Ranjan	Asst. Director/AE

ANNEXURE-III

**KEYNOTE ADDRESS OF SHRI P. K. MISHRA, IES (CPES)
MEMBER SECRETARY, NERPC ON THE OCCASION OF
THE 18th TCC MEETING OF
THE NORTH EASTERN REGIONAL POWER COMMITTEE
HELD ON 10TH OCTOBER, 2017 IN SHILLONG**

Chairman of TCC & Director, MePGCL, Shri E.W. Nongrum, Shri N. Sarat Singh, Ex-TCC Chairman & Managing Director, MSPCL Shri T. S. Singh, Executive Director, NERLDC, My colleagues from NERPC, Officers from NE states, central Utilities, other distinguished guests and Ladies and gentlemen.

On behalf of NERPC Secretariat, I sincerely extend a very warm welcome to all of you and convey my deep gratitude and thanks for sparing your valuable time for attending the 18th TCC meeting of NERPC. I would also like to take this opportunity to convey my sincere thanks to MePTCL, MePDCL & MePGCL of MeECL for hosting the 18th TCC & 18th NERPC meetings and for making excellent arrangement and providing a comfortable stay for the delegates in this beautiful pine city of Shillong.

I have completed two & half years of my tenure in NER and during this time I have seen many improvements with regard to power sector in spite of many challenges due to unfavorable geographical terrain, poor connectivity, communication and transportation problems. Nevertheless, with cooperation from all constituents, NERPC, as a forum, has been able to resolve and bring to consensus various common issues and difficulties faced in the region. I am very happy that TCC & NERPC meetings are being conducted regularly now and I hope this trend will continue for the benefit of the region.

I would like to inform that since TCC/NERPC could not be held on time, issues pertaining to benefit of NE Region will be discussed in this meeting and after getting endorsement from NERPC, the same will be forwarded to the Standing Committee of CEA.

I once again like to mention that the R&M works are not up to the mark especially in respect of Ar. Pradesh & Manipur. The issue has been viewed seriously by the Govt. of India and once again requested that all tender related issues along with LOAs should be completed by October, 2017 as agreed in the OCC Meetings.

I would like to bring to NEEPCO Authorities about the delay in completion of Conference hall of NERPC. Almost all the works are completed and unless NEEPCO completes the above works, NERPC will be not in a position to inaugurate the Secretariat and its complex. I request NEEPCO to look into the matter as top priority.

I would request all the TCC Members to kindly note the yeoman service of Shri N. Sarat Singh, Ex-TCC Chairman, NERPC & Managing Director, MSPCL during the tenure. NERPC will place in record that under his dynamic Chairmanship many issues were resolved under his guidance. The NERPC forum felicitated him as a token of respect for his contribution.

I hope and wish that we will have a fruitful deliberation for the benefit of our region in particular and the nation in general.

With these few words, I request all the participants to actively participate in the discussion for fruitful outcome of the meeting.

Thank you very much.

ANNEXURE-VI

**KEYNOTE ADDRESS OF SHRI P.K. MISHRA, IES (CPES)
MEMBER SECRETARY, NERPC
ON THE OCCASION OF THE 18th MEETING
OF
THE NORTH EASTER REGIONAL POWER COMMITTEE
HELD ON 11th OCTOBER, 2017 AT SHILLONG.**

Respected Chairman, NERPC & Hon'ble Power Minister, Govt. of Meghalaya, Shri Ymbon Ji, Hon'ble Power Minister, Govt. of Tripura Shri Dey Ji being one of the oldest member of NERPC, Hon'ble Power Minister, Govt. of Nagaland, Shri Singtam Ji, Hon'ble Power Minister, Govt. of Arunachal Pradesh, Shri Taga Ji, Hon'ble Minister of State, Power Minister, Govt. of Assam, Shri Das Ji, Shri M S Rao, Principal Secretary (Power), Govt. of Meghalaya, Shri Vizo, Commissioner & Secretary (Power), Govt. of Nagaland, Shri Nongrum, TCC Chairman & Director, MePGCL and all the Senior officers from NE States, Central Utilities, Special Invitees, ladies and gentlemen.

On behalf of NERPC Secretariat, let me first extend a very warm welcome to all the dignitaries and the senior most officers from all the utilities to the 18th NERPC meeting. I would also like to express my humble gratitude to all of you for sparing your valuable time to attend this very important NERPC meeting today. Shillong is known as Scotland of the East and I hope you have a pleasant stay in this beautiful pine city. I am pleased to inform the house that today is one of the most successful meeting as maximum number of delegates from all State & Central Utilities are present today. This shows our sincerity towards improvement of power sector in our region and I hope many important decisions will be taken today which will benefit N.E. Region.

It gives me great pleasure in appreciating the efforts taken by Meghalaya Energy Corporation Limited in hosting the 18th TCC & NERPC Meetings today. I, on behalf of NERPC would like to convey our heartfelt gratitude to Shri E. W. Nongrum, TCC Chairman, NERPC & Director (MePGCL) and especially his teams for helping NERPC in convening the meeting in Shillong. The way you have taken care of us and making comfortable arrangement is highly appreciated by all of us.

Since time is very short, I will not prolong my address, but I would like to highlight the major activities/achievements by NERPC during the last few months.

- Status of new SLDCs in four states of NER: The SLDCs at Manipur & Mizoram have completed. The commissioning activities of SLDCs of Ar. Pradesh & Nagaland are under progress and soon the work will be completed. And by March, 2018 all NER States SLDCs will be fully functional and this is one of the biggest achievements of our region.
- With continuous persuasion of NERPC, CDAC has agreed to prepare the software for Real-Time Data Acquisition System, Real-time Energy Accounting System and Short Term Load Forecasting free of cost. Only the bare minimum hardware cost has been borne by NER States. The software will help in proper forecasting which will reduce the DSM charges and maintain the grid discipline.
- With sincere efforts of NERPC, the DPRs for implementation of ADMS project in NER have already been sent to CEA & NLDC as directed by CERC and the works will be started once the PSDF fund is received.
- NERPC has taken up the initiative for implementation of Inter-State accounting & settlement system known as SAMAST Project. SAMAST means Scheduling, Accounting, Metering And Settlement of Transactions and it is indispensable as it solves the puzzle “Who” Pays to “Whom” and for “What”. During the visit of members of Honble CERC to Shillong, the issue has been raised and they have agreed to give funding form PSDF for the States to implement the project. NERPC has formed a sub-group for fast tract the project and unified

DPRs is being prepared by the committee where Assam, Meghalaya & Tripura are likely to be in Phase – I followed by other NER States.

- NERPC has constituted a Committee for preparation of DPR for Installation of Power Data Management System in NER and the same has been finalized by the Committee. Once this scheme is in place, it will help the NER constituents to analyze the reasons of tripping as well as the recommendations for remedy the problems.
- To comply with the decision of 16th NERPC; first batch of Middle Management of NERPC comprising of 21 Officers has undergone training in Spain & Germany for Integration of Renewable Energy to the Grid w.e.f. 02.07.2017 to 15.07.2017.

With sincere efforts and dedications the following elements were added to NER Grid since last NERPC Meeting and this in turn has enhanced the drawing capacity as well as relieved the congestions of NER Grid.

- 132kV Roing – Tezu S/C line has been test charged on 30.03.2017.
- 132kV Pasighat – Roing line has been charged on 30.03.2017
- The 132kV Doyang – Wokha line has been charged on 26.04.2017. This is one of the old and non-function line for almost a decade but yet a very important line in Nagaland. With the available of this line the drawing capacity of Nagaland has been enhanced.
- Commissioning of 315 MVA ICT-2 at Bongaigoan GTPP on 18.02.2017, then 160MVA ICT at Balipara on 26.09.2017, then 20MVAR at Kathalguri and many small transformation capacities have added to the grid. Hence the drawing capacity has been enhanced to almost all NER States but in order to reach to the common man, Distribution Network has to be in place. I would therefore wanted to draw the attention of the August body that as all wings of power sector are under the ambit of NERPC, the DISCOMS are still with CEA HQR and hopefully for better monitoring as well as

for the benefit of NER, Distribution meeting should be under the ambit of NERPC.

- Finally, the issue relating to high cost of NTPC, Bongaigoan, the Resolution signed by all the Power Ministers of NER States has finally been sent to Union Power Minister on 28.09.2017 under the guidance and signatory of Chairman, NERPC & Hon'ble Power Minister, Govt. of Meghalaya. We hope that GoI will look into the matter and give subsidies to Coal/Transport so that power is affordable to NER constituents. I also put on record the efforts and dedication of Shri B. Lyngkhoi, Director, NERPC for getting the signatories of all Power Ministers of NER.
- There were so many goals achieved during the last few months which I cannot mention all of them. Finally my sincere request is that all the constituents should try earnestly to liquidate their outstanding dues to the affected party so that both the parties can grow together. Unless financial transactions are happening and dues are cleared, it would be difficult to survive as utilities.

Before I conclude I would also like to mention that the progress of implementation of R&M under PSDF is very slow especially in Ar. Pradesh & Manipur. I request the Management of these two States who are present here today should look into the matter at the earliest; else the fund would be diverted to other needy States. This is also applicable to other States which 100% LOAs should be completed within October, 2017 as committed in last OCC Meeting.

On behalf of NERPC, I once again extend my heartiest greetings to all the participants and look forward to meaningful deliberation.

I wish MeECL well and the plenary a grand success.

Thank you very much.

ANNEXURE-V

**SPEECH BY SHRI COMING ONE YMBON
CHAIRMAN, NERPC**

&

**HON'BLE POWER MINISTER, GOVT. OF MEGHALAYA
ON THE OCCASION OF THE 18th MEETING OF THE
N. E. REGIONAL POWER COMMITTEE
HELD ON 11th OCTOBER 2017 AT SHILLONG**

My Colleague Minister from other North-Eastern States, officials of the Central Governments of the NE States, Officials from other Central and State Organization, Ladies and Gentlemen.

It is indeed a great pleasure for me to be in this august gathering on the occasion of the 18th North East Regional Power Committee (NERPC) meeting and I hope that this particular meeting addresses many of the nagging issues affecting the power sector of the NE region. We are all aware that NERPC, since its formation, is working relentlessly for making NE power

system operation of this region in the coming days. This is essential for meeting our common objective of providing 24X7 Power for all at an affordable price.

Geographical isolation of this region has made many issues region specific in nature and we have many challenging tasks ahead that we have to tackle and overcome. NE Region is endowed with abundant resources for development of power especially hydro potential. Unfortunately, most of these resources remain untapped. We must all urge the Government of India to give a special focus on the overall development of power sector in the NE Region. I hope that detailed deliberations and recommendations have been fruitfully exercised in the Technical Coordination Committee meeting yesterday, which will benefit all the NE States. And today, I hope we shall be able to sort out important issues which require the special attention of the Government of India for the development of the power sector of the NE Region.

NER is facing some low voltages in several pockets and to address the problems, Capacitor Bank installation has to be put in place. It is learnt that the DPRs of Mizoram & Nagaland for the above scheme have been kept in low priority and we need to take this issue together very strongly with Central Electricity Authority and the Ministry of Power. The low voltage problem in Tripura also is a serious matter and necessary action has been taken immediately and funding from the Power System Development Fund (PSDF) is to be made available for the NE Region.

The issue regarding the difficulties faced by the North-east Transmission Company & POWERGRID towards maintenance of the 400 KV D/C Pallatana – Silchar line is a matter of concern. This is the only highway of evacuation of power from the 726 MW OTC, Pallatana Gas Based Power Plant of the North Eastern Grid and export to other parts of the country as well. Any outage of this transmission line shall not only lead to constraint in evacuation of generation but also lead to acute power crisis in the Region. Therefore, continuous and unhindered maintenance is of utmost important

for averting any outage of the transmission line and consequential power interruption. I hope that the Government of Assam and the Government of Tripura will look into the matter as top most priority.

In the State of Meghalaya, the power is primarily met from the State owned generating company, namely, Meghalaya Power Generation Corporation Limited (MePGCL). The present generation capacity is 354.7 MW, with an addition of 40 MW after the recent commissioning and declaration of commercial operation on 1st July 2017 of the New Utru Hydro Electric Project. There are two ongoing small hydro project, namely Ganol HEP and Lakroh HEP. Survey and Investigation is currently underway for 22 hydro-electric project, including 16 small hydro projects. The Government of Meghalaya has envisaged development of Solar Power Park in the State and has taken up development of two solar parks of 10 MW each.

The transmission sector in the state is being strengthened and expanded through various schemes, including North Eastern Region Power System Improvement Project (NERPSIP). We have placed proposals in this meeting, which include reliable communication, reconductoring of old lines with HTLS conductor, new sub-station and lines, etc. We therefore urge upon the committee to endorse these proposals, which are vital to transmission system capacity and reliability in our State. Furthermore, I also propose that this Committee endorse our proposal to review the funding norm under PSDF, to facilitate expeditious execution of PSDF schemes.

The distribution sector is the most critical segment entire power supply value chain. Accordingly, the Govt. of India has given much emphasis in the development of this sector, through system improvement schemes and electrification schemes, such as DDUGJY and IPDS with the aim of providing 24X7 Power for all by 2019. Recently, the Honorable Prime Minister has launched the “SAUBHAGYA” scheme, for the electrification of all households in the entire country by DECEMBER 2018. It is imperative that the sub-transmission system, which is the backbone of the distribution network, be upgraded and strengthened. It is a challenge that we must all

endeavor to face in order to meet the increasing demand for power and to ensure reliable power supply to all the nooks and corner of the NE Region.

One of the most important issues I would like to mention here is the development of skilled manpower in the region. Construction activities of power house, transmission lines, substations etc., are being carried out by skilled people from other regions. It is an area of job creation and opportunity for the people of the NE Region. NERPC Secretariat is requested to look into the matter and explore the possibilities to provide relevant skills to the unemployed youths of then N.E. Region. This agenda item together with the related proposal may be put up in the next NERPC Meeting.

On behalf of NERPC, I once again extend my heartiest greeting to all the participant and forward to meaningful deliberations.

THANK YOU!

ANNEXURE-VI

**SPEECH BY SHRI MANIK DEY
HON'BLE POWER MINISTER, RD (PANCHAYAT), TRANSPORT & RURAL
DEVELOPMENT ETC. GOVT. OF TRIPURA
ON THE OCCASION OF THE 18th MEETING OF THE
N. E. REGIONAL POWER COMMITTEE
HELD ON 11th OCTOBER 2017 AT SHILLONG**

Hon'ble Minister for Power, Meghalaya and Chairman of NERPC and Hon'ble Power Minister of North Eastern States, Officer of State Power Department /

State Power Utilities, Central Power Utilities, Senior officers of Central and State Governments, Distinguished Guests & Special Invitees, Ladies and Gentlemen.

2. I like to sincerely thank the Meghalaya Energy Corporation Ltd. (MeECL) for organizing this meeting and making all arrangements in a befitting manner. I would also like to thank both NERPC and NERLDC for their unrelenting Power system Operation and management smooth benefitting all NER States.
3. NERPC had been working relentlessly for making NER power system operation reliable, efficient and economic since its formation. I trust outcome of the meeting will contribute significantly in making the grid operation of this region efficient and reliable with better coordination in days to come. This is essential for meeting our common objective of providing 24X7 Power for all at affordable price.
4. The stumbling financial health due to increasing gap between the cost of supply and realization of distribution power utilities is becoming a serious matter of concern. Ever increasing cost of power purchase, fuel, wheeling charges etc. are making the recovery of cost of supply by the Distribution utilities much more difficult. Investment restructuring for power projects to reduce the tariff has become essential. Government of India should formulate suitable guideline to reduce the cost of power purchase, fuel and wheeling etc., to meet 24X7 power supply to all consumers at affordable price.
5. The distribution utilities are heavily burdened with accumulated outstanding dues to the CPSUs and other generating companies due to continuous hike of power purchase cost. Further, fluctuation in the price of natural gas is also financially burdening the states having own generation plants running on natural gas. As upward rise in gas price is seriously impacting the financial condition of states, Government of India should put rider on the hike of gas price.
6. The power purchase cost of Bongaigaon Thermal Power Station of NTPC has become very expensive due to higher cost and time overrun. The

generation tariff is about Rs.5.50 per unit of this plant and is one of the highest in the country now. Tripura requested to the Ministry of Power, Government of India for consideration of surrender of share allocation in the greatest interest of the consumer of the state but till date no response has been received from the Ministry in spite of several persuasions. Ministry of Power, Government of India may kindly expedite the de-allocation of Tripura's share from Bongaigaon Thermal Power Station of NTPC.

7. The power generation from the 2X21 MW Open Cycle Gas Thermal Project at Baramura in Tripura funded by the NEC is shared by Tripura, Manipur and Mizoram at a ratio of 2:1:1. Conversion of this Open Cycle project into combined Cycle for capacity addition of 25 MW without any addition fuel linkage may be funded under central NLCPR considering regional project and to avail the benefit of lesser per unit cost of generation as no additional fuel cost will be applicable . The proposed additional generation may be shared among Tripura, Manipur and Mizoram at the existing ratio. NERPC may consider recommending the proposed conversion from open cycle to combined cycle under central NLCPR funding through Ministry of DoNER.
8. Tripura has submitted Detailed project Report (DPRS) for “ Conversion of Rokhia & Baramura Open cycle Project into Combine cycle project and Modernization & Renovation of Gumati Hydro Project “ for a total project value of Rs. 552.60 Crores to DoNER for financial assistance which are presently under scrutiny at Central Electricity Authority (CEA). I had personally requested Chairperson, CEA during the conference of power, Renewable Energy and Mines Minister held on 3rd and 4th May'2017 at New Delhi for early clearance of the DPRs but the clearance is still awaited. The delay will also result in cost escalations. Ministry of Power, Government of India may kindly intervene for early clearance of above DPRs.
9. The Ministry of power, Government of India has deprived the NEER states while sanctioning centrally sponsored schemes like IPDS & DDUGJY. Tripura has submitted DPR under DDUGJY (Deen Dayal Upadhyaya Gram Jyoti Yojana) for Rs. 903.01 Crore for electrification of Un-

electrified Habitations for covering 100% Households including quality power supply to rural areas. But sanction has been received for Rs. 74.12 crores only which is about 8.21% of the total requirement. Similarly, under IPDS (Integrated power Development scheme) Tripura had submitted DPR for Rs. 510.16 crore for renovation, augmentation and strengthening of urban distribution system for supply of reliable & quality power. But sanction has been received for Rs. 74.12 crores only which is about 14.55% of the total requirement.

With the above meager sanction amount how state can meet the objective of “24x7 power for all (PFA)”.

10. Alternative line through Bangladesh from Tripura to West Bengal may be constructed to strengthen the inter-regional transmission network and for establishment of connectivity with national grid which will not only provide upgraded connectivity in transmission system but will also reduce the line length of about 500 km and will also pass through plain land without any hilly terrain and any forest related issue. It is found that the southern part of NER Grid involving Tripura, South Assam, Manipur and Mizoram are frequently affected due to tripping of 400 kV and 132 KV transmission lines due to hilly terrain. Therefore, strengthening of this area’s grid connectivity by construction of alternative 400 KV transmission line from Tripura to West Bengal via Bangladesh is essential. This will facilitate NER states to have stable and reliable grid connection.
11. Enabling IT system for Distribution System has been implemented under R-APDRP Scheme in urban areas in the state with an objective of improving utility functioning as well as providing better services to consumers. Now, consumers not covered under the above facility are demanding similar service across the state. Accordingly, extension of the Enabling IT system is required to cover the entire state irrespective of rural urban divide. Since this facility have been established through a common Data Centre at Guwahati and common DR Centre at Agartala, immediate up-gradation/capacity augmentation of both Data Centre & DR Centre is required. As both DC & DR is a common resource for all

the NER States, Government of India may consider required funding support for this.

12. As per decision of Ministry of Power, Government of India, APDCL has implemented the NER Common Data Centre at Guwahati & Disaster Recovery Centre at Agartala as the lead state on behalf of all other NER states. The O&M costs of both Data Centre & Disaster Recovery Centre at Agartala and the additional infra costs for DR Building, Dedicated Power Supply System beyond the sanctioned amount of GOI was decided to be shared by all the NER states on the basis of No. of Towns approved under the R-APDRP Schemes. Hence, I would request all the beneficiary states to release their share of payment against the claim raised by APDCL & TSECL regularly for maintaining smooth operation of both DC & DR.
13. Implementation of Centrally sponsored schemes is taken up on priority by the states but flow of fund from the Government of India is not smooth resulting delay in progress of implementation. Further, cost escalations of the schemes are also taking place due to time overrun for delay in releasing payment to the executing agencies/contractors. Ministry of Power, Government of India may kindly consider timely release of fund to States for all the centrally sponsored schemes.
14. Implementation of World Bank funded North Eastern Regional Power System Improvement Project – (Tranche-I) has already started in NER States including Tripura. But, for ensuring overall improvement of NER Power System particularly in the state sector, sanction of Trench-II of the World Bank funded North Eastern Regional Power System Improvement Project is required immediately. The Ministry of Power, Government of India may kindly consider early sanction of Trench-II of the World Bank funded North Eastern Regional Power System Improvement Project for the NER states.

In conclusion, I look forward to participating in future deliberation and hope that discussions today would benefit the NE Region.

THANK YOU

ANNEXURE-VII

**SPEECH BY SHRI PALLAB LOCHAN DAS
HON'BLE MINISTER OF STATE (POWER), GOVT. OF ASSAM
ON THE OCCASION OF THE 18th MEETING OF THE
N. E. REGIONAL POWER COMMITTEE
HELD ON 11th OCTOBER 2017 AT SHILLONG**

Chairman, NERPC, my counterparts from other North Eastern states, officials of Central and State Governments as well as other Central and State utilities, ladies and gentlemen.

It is indeed a great pleasure for me to be in this august gathering on the occasion of the 18th NERPC meeting and I would like to focus on few issues that I feel are relevant to this forum.

In the last few months the entire region has faced serious challenges to mitigate the system constraints in view of increased load demand due to factors such as industrialization, change in life style of people on one hand and augmentation and strengthening of network under flagship programs like DDUGJY, RAPDRP, IPDS, ADB funded projects alongwith many other state Govt. sponsored project like Assam Bikas Yojana (ABY), TDF etc., on the other.

Peak demand in my state has breached 1750 MW. Our generation being less than 300 MW we have signed PPAs' with various ISGS to fulfil our requirement. We also look forward to procuring power from upcoming projects in our neighborhood states.

Due to increased reliability on external sources our vulnerability to outages has also gone up. The need for stable generation cannot be over emphasized. In order to achieve 24x7 power for our 3.5 Crore population, it is incumbent that adequate capacity is installed in the north eastern states.

Under Deen Dayal Upadhyay Gram Jyoti Yojana and SAUBHAGYA schemes, it is the responsibility of the State Government to give access to all rural and urban households by 2018. It is a challenging task while funds under this scheme are allocated through REC. To meet up the overhead costs sufficient Utility Charges should also be provided. Further the procedures for release of funds at all levels should be simplified in order to move towards a flexible mechanism for speeding up the projects. This is even more relevant to the states in the NER where rainy season is comparatively more severe and lasts longer than the rest of India.

Under R-APDRP and IPDS Schemes we have already managed to establish Data Center and Data Recovery Center at Guwahati and Agartala respectively. These state of the art facilities shall go along way in supporting IT initiatives in state DISCOMS. Assam shall continue to discharge its responsibility under the scheme for maintaining and expansion of the IT infrastructure. There are learnings between the states of this region which can bolster our standing and bring us at par with the performance indicators of other states. Manipur for instance has done exceptionally well in pre-paid metering. We are also to keep on building our experiences gained under Smart Grid Project. Our DISCOM is also aggressively tapping urban consumers for encouraging them to go for digital payment.

It is to be intimated to this august house that Assam has participated in Govt. of india's ambitious distribution reform scheme namely Ujjwal Discom Assurance Yojana (UDAY). As per the scheme Govt. of Assam is fulfilling its commitments in timely manner and hopefully positive results as envisaged will be a reality soon.

Further, I am also delighted to share with the members present here our grid interactive solar rooftop program which will soon become a reality.

We are also coming out with a solar policy for promotion of investment in New and Renewable energy sector. Assam being committed to the RPO targets placed by MNRE and Regulatory Commission is also looking forward to making effective forays into this upcoming area. We are in the process of setting up of 80 MW Solar Park at Amguri in Upper Assam. Further,

arrangements are being made to source renewable energy from other parts of the country at competitive tariffs. As the hydel potential is relatively high, we may impress upon the Central Government to consider removal of distinction between solar and non- solar so that our obligation can be met alternatively. This is even more pertinent in view of scarcity of waste land for augmenting installed solar capacity.

Lastly as regards the transmission sector, I have been advocating for creation of a robust transmission system within the region as well as inter regional links with 90% grant from the Central Government. This is the only possible way to accelerate the pace of capacity addition in the region.

Power Grid Corporation of India limited, has developed a comprehensive transmission system including number of 400 KV networks connecting NER with Eastern Region (ER) and 765KV Bishawanath Chariali- Agra HVDC Link connecting the NER with Northern Region (NR).

Due to difficult geo-spatial location, the Transmission Charges payable to CTU in NER is relatively higher than other regions since inception. Because of this mismatch in energy generation and corresponding investment in associated transmission assets, the transmission charges were shared equally by all Regional Beneficiaries. However with the switching over of sharing of Transmission Charge mechanism to the new one called Point of Connection (PoC) sensitive to Distance, Direction and Quantum; the Transmission Charge payable to CTU has increased exorbitantly for certain states for NER.

As per pre-requisite mandate of Electricity Act, 2003, supply of electricity at a reasonable rate to ultimate consumers is essential for overall development of the country. Keeping this in mind, consistency is needed to be maintained in transmission pricing framework in inter-state as well as intra-state systems. In the light of this mandate, it is urged to this August Forum to ponder over this issued and take immediate necessary steps to bring down the transmission tariff to a uniform and affordable level with immediate effect.

I hope the deliberations in this meeting will be fruitful in achieving the desired result in the power sector of the region.

At the end my special thanks to the organizers of the meeting namely NERPC Secretariat and Government of Meghalaya who have taken pains to arrange and host this meeting at Shillong in such a short notice.

I wish you all a great success in this meeting.

---Jai Hind---

ANNEXURE-VIII

**SPEECH OF SHRI THONGAM BISWAJIT SINGH,
HON'BLE MINISTER (POWER/PWD/R.D.&P.R./COMM.&IND./
ADMN. REFORMS & TRAINING/I.P.R.)
GOVT. OF MANIPUR
ON THE OCCASION OF THE 18th NERPC MEETING
HELD ON 11TH OCTOBER 2017 AT SHILLONG.**

Hon'ble Chairman of NERPC, Power Ministers from North Eastern States, NERPC Members, Central and State Government officials and distinguished Guests & Special Invitees, Ladies and Gentlemen.

It is a great privilege for me to be among you in this august gathering of the 18th Meeting of the North Eastern Regional Power Committee. I express my sincere thanks to the organizers for bringing us together to exchange our views to sort out specific problems and issues of the region. I am sure the deliberations on various issues will be helpful in solving the difficulties encountered while improving infrastructure , strengthening transmission and sub transmission systems, vitalizing communication networks, maintaining NER Grid security and problems of evacuation from generation projects and power supply management. In other words the deliberations

made here would help in removing the hurdles faced in supplying electricity to the consumers in the region.

Because of the geographical isolation of the region we are facing many issues specific to the region, which have posed many challenging tasks. We have to tackle and overcome them. I hope I shall be able to amicably sort out important issues which require special attention of the Government of India for the states of NER.

Manipur depends entirely on Central Sector Generating Stations for the supply of power. To a great extent the Inter State transmission constraints have been removed with the commissioning of the ATS 400 KV D/C line from Silchar to Imphal.

During the last few years MSPCL has made substantial progress in the enhancement and expansion of transmission and sub transmission infrastructure in the state. At present 14 nos. of substation with total capacity of 155 MVA and 23 nos. of 33 KV sub- station with total capacity of 206.5 MVA are expected to be commissioned during the current year.

To handle the quantum of load, higher transmission system voltage of 400 kV is being adopted to receive Manipur's share from central sector generating stations. However, due to compelling circumstances, the construction of 400/132 kV substation at Thoubal in Manipur along with associated 400 kV D/C line from Imphal (PG) to Thoubal could not be commissioned by the end of 2016 as targeted earlier.

I am happy to inform that this 400 KV substation is now ready to receive power. The associated 400 kV D/C line is expected to be completed by the end of November, 2017. MSPCL is targeting to inaugurate the 400 kV substation in December, 2017.

Here, I wish to point out that timely commissioning of the 400 KV substation at Thoubal depends on the completion of the upgradation of 2x50 MVA, 132/33 KV substation at Imphal (PG) to 400/132 kV, 7x105

MVA single phase units including one spare single phase unit and the construction of 2 Nos. 400 kV GIS line bays at 400/132 KV substation Silchar for termination of Silchar- Imphal (PG) 400 kV D/C line. Further, in the interest of the region it may be iterated that there is no slippage in the completion of Imphal- New Kohima –New Mariani 400 kV D/C line under NERSS-VI which Kalpataru Power Transmission Ltd. (KPTL) is constructing on TBCB.

I hope that PGCIL will closely monitor the progress of works for the up-gradation of the 400KV substation at Imphal and 2 Nos., 400 kV GIS line bays at 400/132 kV substation Silchar to ensure that there is no slippage in the time line .

Another important point nagging my state is the installation of OPGW and communication equipment essential for the full functioning of the State Load Despatch Center (SLDC). PGCIL is implementing the work for the installation of 385 km. of OPGW. A team from the executing agency has already surveyed the sites for installation of communication equipment. So far no sensible progress in the field is seen. The executing agency needs to be advised to inform MSPCL about any progress of the work from time to time. Meanwhile the state has taken up integration of 20 nos. of 33kV substations with SLDC system under PSDF in the first phase. Integration of another 58 nos. of 33kV substations is to be taken up in the second phase. Unless OPGW works of 132 kV lines are completed the operationalization of SLDC in its truest form may not be fulfilled.

I am sure that PGCIL will pay special attention to complete the work for the installation of OPGW as early as possible and not disappoint us.

It is a collective responsibility of all the members to make dedicated voice communication links available for important 400 kV sub-stations, HVDC station and SLDCs for efficient Grid management. But many of the SLDCs in the region do not have Voice Over Internet Protocol (VOIP) link while some links are malfunctioning. There are also problems in immediate data

acquisition from some of the stations in the region. The SLDC in my state is one of SLDCs that do not have VOIP link.

I do hope that all the ongoing works relating to communication networks in the region under different schemes are completed in time and the new works are taken up as early as possible to minimize the problems in communication.

With these few words I extend my warm wishes to all the participants here and once again thank the organizers for the excellent arrangement made for this meeting.

JAI HIND!

Annexure-A.3



18th NERPC Meeting – Addressing the pain areas of NE Utilities

11th October, 2017

Leadership with purpose

— EMPOWERING HUMANITY —
by addressing the toughest challenges of energy delivery



Leading the way, Raising the bar

- to complete a transmission project 12 months ahead of schedule
- Indian OPGW manufacturer and solution provider
- transmission company to form an Infrastructure Investment Trust (InvIT)
- to attract FDI in Indian power transmission sector



- to use aerial technologies (LiDAR, Heli-cranes, UAVs) to design, construct & maintain projects
- to execute OPGW and conductor stringing by helicopter in India
- private player to commission & own 765 KV double circuit transmission line in India
- to deliver Smart line (HPC+OPGW+ Communication) in India



Part of the Vedanta Group, a globally diversified natural resources major



Issues related to NER IIB and V Projects

NERSS-II(B) & V Projects being implemented by “NER-II Transmission Ltd.”

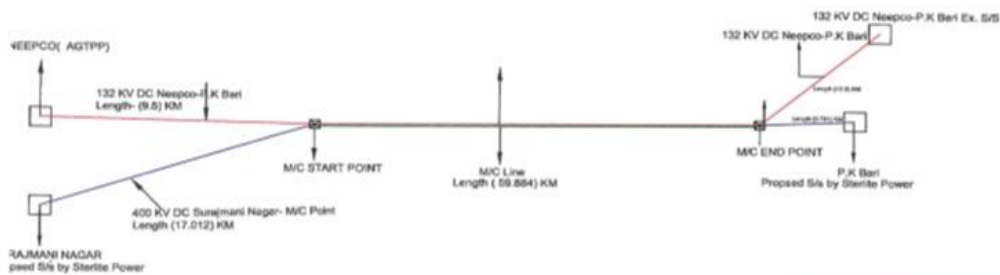
The Project consists of following 400kV & 132kV transmission lines and Sub-stations in Assam, Arunachal Pradesh and Tripura.

- Biswanath Chariyali to Itanagar 132kV D/C (Zebra) transmission line.
- LILO of single circuit of Biswanath Chariyali at Gohpur Sub-Station .
- Silchar (PG) – Misa (PG) 400kV D/C (Quad Moose) transmission line .
- Suraimaninagar to P. K. Bari 400 kV D/C Twin Moose transmission line.
- AGTPP (NEEPCO) – P.K. Bari (TSECL) 132 kV D/C (HTLS) transmission line.
- 2 nos. of 132kV line bays extension at Itanagar S/s.
- Establishment of 400/132kV, 2x315 MVA S/s at Suraimaninagar.
- Establishment of 400/132kV, 2x315 MVA S/s at P.K. Bari.
- 2 nos. of 132kV line bays extension at AGTPP (NEEPCO) Switchyard
- 2 nos. of 132kV line bays extension at P.K. Bari S/s (TSECL).
- 2 no. of 400kV line bays at Palatana GBPP switchyard for termination of Palatana - Suraimaninagar 400kV D/C line

Use of Multi-circuit towers in forest area (aprox. 60 Km) in the state of Tripura by merging

400kV D/C Suraimaninagar - P.K. Bari Transmission line
&
132kV D/C AGTPP (NEEPCO) – P.K. Bari (TSECL) Transmission line

Single line diagram of proposed multi circuit line in the forest area.



NER II (B) & V			
Sl.No.	Line Name	Line Length Length as per Bill	Line Colour Sym.
A-	132 KV DC Neepco-P.K Bari Separate Line Portion	Length (9.5) KM	Red
B-	400 KV DC Suraimani Nagar-P.K Bari Separate Line	Length (17.793) KM	Blue
C-	Multi Circuit (MC) Line 400/132 KV Portion	Length (59.884) KM	Green

In doing so around 60,900 trees would be saved from felling and there would be a reduction in Forest area required for diversion by 102 Ha.(255 acre of forest land)

- To save environment and forest we have adapting MCMV Transmission towers with higher FOC.
Further, for parallel lines it is very difficult to get forest clearance from MoEFCC and once it is rejected than entire processed have to be reworked and project will be uncertain.

- Multi circuit / multi voltage transmission towers shall be designed with higher reliability (higher factor of safety) compared to normal D/C towers considering the highest wind zone-vi.
- 400 kV shall be at higher level and 132 kV shall be at lower level.
- Configuration shall be symmetric and stable .
- MCMV towers designed above shall be type tested to all design loads to validate the designs.
- MCMV towers are used in India where there is narrow corridors in lines going through thickly populated cities (Mumbai / Delhi) similarly lines passing through forests to reduce forest footprints , tree cuttings , protecting the Mother Earth / environment.
- Most lines in Malaysia , Abudhabi are designed on MCMV configuration.

Use of Monopoles – 132kV D/C Biswanath Charivalli (PowerGrid) – Itanagar Transmission line is of 69kms, out of which we proposed to install Monopoles in the forest Area of Arunachal Pradesh for approximately 14 kms

- Monopoles are becoming more popular due to fast erection, much more construction friendly and reliable.
- The monopoles requires less area for installation and shall attract less destruction of forest. Hence, environment friendly.
- Easy to maintain. We shall be able to design and install 132 kV lines on Monopoles.
- All towers shall be self supporting and not guyed.

Target for completion of projects

- The projects are targeted for completion by July, 2019 against the scheduled completion date of July, 2020. CEA requested to commission the projects by Dec'2018 on best effort basis by adopting new technologies.
- NER states will be benefited for early completion of the projects and for the same new technology shall be used for construction.
- The proposal is in-principally approved by CEA. Necessary matching with readiness of other related elements shall be finalised for early commissioning.

Summary

Access to power has the potential to change the lives of millions, by bringing about a transformation in the local economy, and with it, the country as a whole. Sterlite Power is committed to its core purpose of empowering humanity by solving the toughest challenges of energy delivery



भारत सरकार **Government of India**

विद्युत मंत्रालय **Ministry of Power**

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय

NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006

Annexure-A.10

Ph. No: 0364 - 2534039

Fax No: 0364 - 2534040

Website: www.nerpc.nic.in

NERPC/Com/Corr/2016/3123
19, 2017

Dated: September

To

**Chief (Engineering),
Central Electricity Regulatory Commission,**

3rd and 4th Floor, Chanderlok Building,
36, Janpath, New Delhi-110001.

Sub: Decision of Commercial Committee of NERPC on “**Review of Point of
Connection(POC) Framework**”

Sir/Ma'am,

In the 33rd Commercial Committee Meeting of NERPC held on 25th August 2017 at Sonapur, Assam, the issue of high POC charges paid by some beneficiary constituents of NERPC was discussed. In the said meeting, following broad points were converged:

1. Need for simplification of the method: Present Average Participation (AP)/ Marginal Participation (MP) method needs to be simplified as the present methodology is not clear. The detail calculations should be transparent and made available to all the DICs.
2. Major portion of YTC (about 80-85%) should be recovered as uniform charges (may be part of reliability charges) and should be applied to both generation (in case of ISGS it will be passed to the beneficiaries) and drawal entities.
3. 15-20% may be made sensitive to distance and direction.

4. It was deliberated that in Nordic system where Point of Connection tariff is in place, 15-20 % is variable element which is linked to marginal loss factor at each node which is transparent and scientific based on studies.
5. Tripura representative suggested National Postage Stamp which might be largely achieved with 80-85% uniform charge.
6. Meghalaya representative pointed out that quarterly variation in charges create a jerk as the States can file petition to SERC only on Annual basis. It was requested to have fixed rate throughout the year and have adjustment bill at the year end.
7. It was felt that HVDC charges should be socialized.

It was agreed in the meeting that the issue would be discussed in the ensuing TCC/NERPC meetings which is likely to be held in October 2017 for a resolution and then the resolution of NERPC would be forwarded by NERPC Secretariat to CERC and MOP.

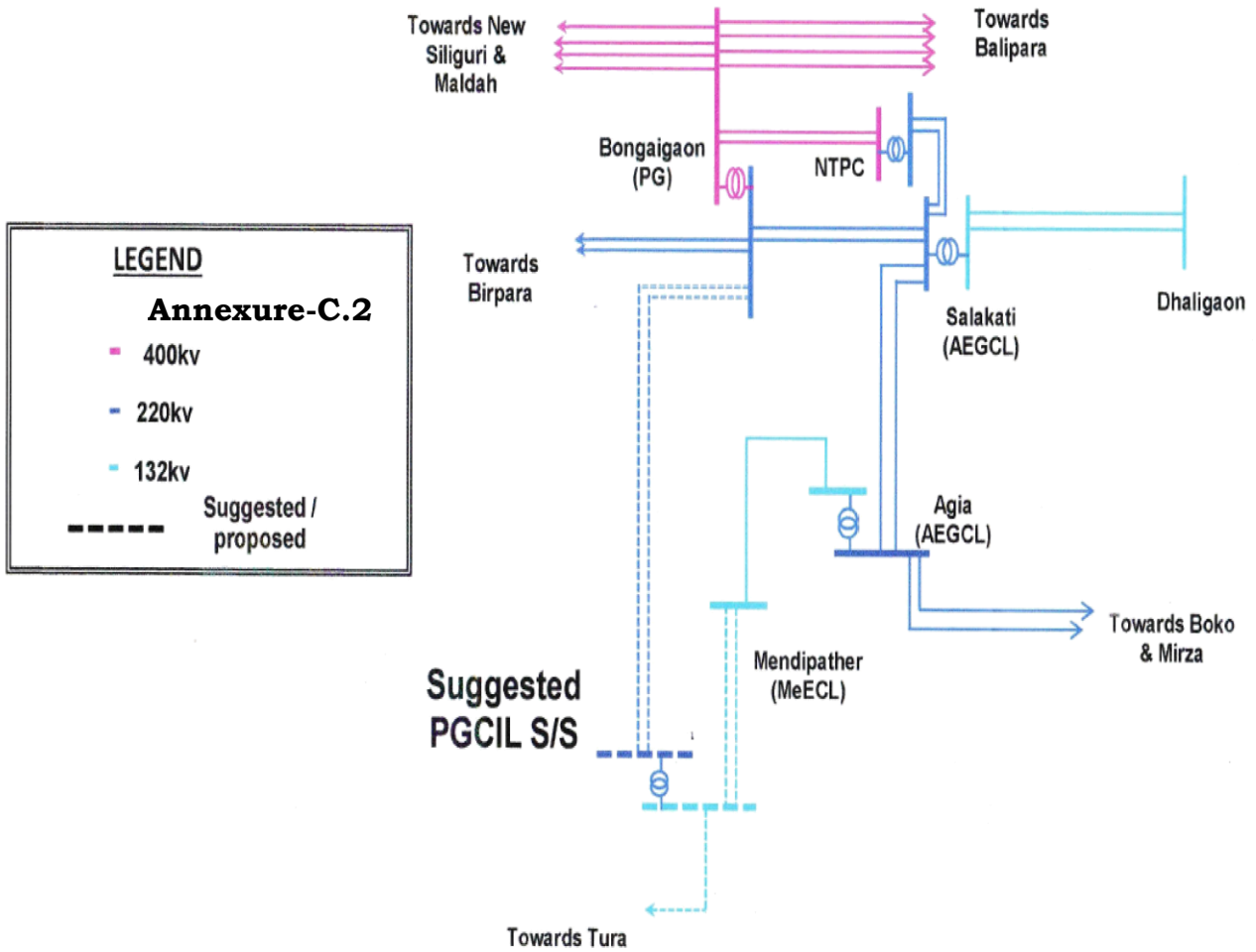
In view of above, it is humbly submitted before the Hon'ble CERC for consideration of the above points while reviewing the point of Connection (POC) framework.

Thanking you.

Yours faithfully,



(B. Lyngkhoi)
Director/SE (C &O)



पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
(भारत सरकार का उद्यम)
POWER SYSTEM OPERATION CORPORATION LIMITED
(A Government of India Enterprise)



उत्तर पूर्वी क्षेत्रीय भार ब्रेपण केंद्र : लोअर नोंग्राह, लापालांग, शिलांग - 793 006, (मेघालय)
North Eastern Regional Load Despatch Centre : Lower Nongrah , Lapalang, Shillong - 793 006, (Meghalaya)
Ph :0364 2537470,2537427, fax - 2537486 Website :www.nerlpc.org, Email- nerlpc@posoco.in, CIN : U40105DL2009GOI188682

संदर्भ : उपक्षेत्राधिकार/2017/ 9922
Ref: NERLDC/2017/ 9922

दिनांक/Date : 30.08.17

To:

General Manager (AM),
NERTS, POWERGRID Complex,
Lower Nongrah, Lapalang,
Shillong – 793006

Copy To:

Member Secretary, NERPC,
NERPC Complex,
Dong Parmaw, Lapalang,
Shillong – 793006

विषय / Sub : Requirement of PMUs at Power Stations of size more than 25 MW in NER

Dear Sir,

Please refer to discussions in 7th NETeST Meeting of NERPC held on 17th Aug 2017. As discussed and keeping in view the necessity for better visualization, event analysis, identification of source of oscillation triggered by generator etc., PMUs may be installed in the low voltage side of the step-up transformer of following generators in NER in addition to the PMUs already proposed under URTDMS project along with all necessary communication links and visualization tools at NERLDC:

- | | | |
|-----------------------|-----------------------|----------------------------|
| 1. AGBPP (9 nos.) | 8. Loktak (3 nos.) | 15. Langpi HEP (2 nos.) |
| 2. AGTCCPP (6 nos.) | 9. Palatana (4 nos.) | 16. Umiam Stg I (4 nos.) |
| 3. Ranganadi (3 nos.) | 10. BgTPP (3 nos.) | 17. Umiam Stg III (2 nos.) |
| 4. Doyang (3 nos.) | 11. Baramura (2 nos.) | 18. Umiam Stg IV (2 nos.) |
| 5. Khandong (3 nos.) | 12. Rokhia (3 nos.) | 19. MLHEP (3 nos.) |
| 6. Kopili (4 nos.) | 13. Namrup (2 nos.) | 20. New Umtru (2 nos.) |
| 7. Monarchak (2 nos.) | 14. Lakwa (8 nos.) | |

Thanking you.

भवदीय /Yours faithfully

(टी.एस सिंह / T.S Singh)

(कार्यपालक निदेशक / Executive Director)

उपक्षेत्राधिकार, शिलांग/NERLDC, Shillong

NER FO EXPANSION Project-State Wise List of Links

List of Links are defined after revision of 15th RPC and change in names as requested by Tsecl, Tripura; MSPCL, Manipur & DoP, Nagaland

SI No.	From	To	VOLTAGE LEVEL (in KV)	Owner of T/L	Revised Route km
NER Central Sector					
1	Badarpur(PG)	Jiribam(PG)	132	CS	67
2	Jiribam(PG)	Loktak(NHPC)	132	CS	82.461
3	Loktak(NHPC)	Imphal(PG)	132	CS	30.372
4	Agartala (PG)	R C Nagar(NEEPCO)	132	CS	7.656
5	Silchar(PG)	Melriat(PG)	400 charged at 132kV	CS	142.905
6	Surajmaninagar(TSECL)	Pallatana(OTPC)	400 charged at 132kV	CS	36.714
7	Bongaigaon(PG-400kV)	Salakati-BTPS AEGCL	via 220kV	CS	4.5
8	Mirza (Azara)	Byrnihat	400	CS	47.208
9	Silchar	Pallatana	400	CS	247.409
13	LILLO Sil-palla at P.K.Bari S/S(Kanchanpur-PK Bari 132kV)		132	CS	12
14	Parey	Chimpu	132	CS	26
Central Sector Total(Supply by SSDGI & Erection by TCIL, Sabari)					705.000
MEGHALAYA					
1	Nehu (S/C)	Neigrihms	132	Meghalaya	9
2	Khliehriat(PG)	Khliehriat(State) (S/C)	132	Meghalaya	5.282
3	Khliehriat(State) (D/C)	Myntdu Leshka-HEP	132	Meghalaya	24.932
4	Khliehriat(state)	Lumshnong (S/C)	132	Meghalaya	25.19
Meghalaya Total-PKG- (Supply bySSDGI & erection by TCIL)					64.404
TRIPURA					
1	Agartala(TSECL)	Baramura GTP	132KV S/C	TSECL	30
2	Agartala(TSECL)	Surajmaninagar(TSECL)	132 D/C	TSECL	17.918
3	Surajmaninagar(TSECL)	Budhiungnagar	132-D/C	TSECL	17.863
4	Pallatana(OTPC)	Udaipur(TSECL)	132 s/c	TSECL	11.528
5	Udaipur(TSECL)	Rokhia GTP	132 S/C---***SM Ngr/monarchok	TSECL	45.219
6	Udaipur(TSECL)	Gumti HEP	66-	TSECL	37.678
7	Gumti HEP	Amarpur(TSECL)	66	TSECL	24.003
8	Satchand(TSECL)	Sabroom(TSECL)	66	TSECL	12.244
9	Surajmaninagar(TSECL)	Badharghat	132(future)[66KV available bad-ag]	TSECL	9
10	79Tilla(TSECL)	Dhalabil	132D/C	TSECL	43.037
11	Surajmaninagar(TSECL)	Monarchak (NEEPCO)	132D/C	TSECL	42.172
12	Surajmaninagar(TSECL)	Rokhia GBPP(TSECL)	132D/C	TSECL	21.354
Tripura Total-PKG-1A(Supply by SSDGI, Erection by TCIL & Sabari)					312.016
MANIPUR					
1	Loktak(NHPC)	Ningthoukhong(State)	132	Manipur	11
2	Imphal(State)	Karong	132	Manipur	60
3	Yurembam	Yaingangpokpi	132	Manipur	42
4	Yaingangpokpi	Kongba	132	Manipur	32
5	Kongba	Kakching	132	Manipur	45
6	Kongba Kakchin LILLO at Thoubal	Thoubal	132	Manipur	10.626
7	Kakching	Churachandpur	132	Manipur	38
8	Yaingangpokpi	Hundung	132	Manipur	32
9	Kakching	Chandel	132	Manipur	25
10	Loktak(NHPC)	Rengpang	132	Manipur	47
11	Jiribam	Jiribam	132	Manipur	1
12	Ningthoukhong-	Churachandpur	132	Manipur	32
Manipur Total-PKG-1A(Supply by SSDGI & Stringing by TCIL)					376
NAGALANAD					
1	Kohima	Okha	132 S/C	Nagaland	58
2	Kohima(132KV)	Kohima(220KV)	132	Nagaland	25
3	Doyang--Saniss (via lilo OF Doyang -Okha)	Sains	132	Nagaland	10
Nagaland Total-PKG-1A(Supply by SSDGI & Stringing by TCIL)					93
MIZORAM					
2	Aizwal(PG)	Zimabawk-I(Luangmual)	132	Mizoram	1
Mizoram TotalPKG-1A(Supply by SSDGI & Stringing by TCIL)					1
Total Mizoram					1
Supply & Erection" under Package-III-C (Supply by M/s Taihan, Stringing by Sabari)					
1	Khandong	Haflong	132	CS	62.398
2	Dimapur(PG)	Doyang(NEEPCO)	132	CS	91.567
3	Doyang(NEEPCO)	Mokokchung(State) instead MokPg	132	CS	26.913
4	Mokokchung(PG)	Maryani(PG)	220	CS	50.93
5	Maryani(POWERGRID) instead of Mariani-State	Kathalguri(NEEPCO)	400 charged at 220kV	CS	159.245
CS Pkg IIC					391
Total Central Sector					1096
Total State Sector					846
Total					1942

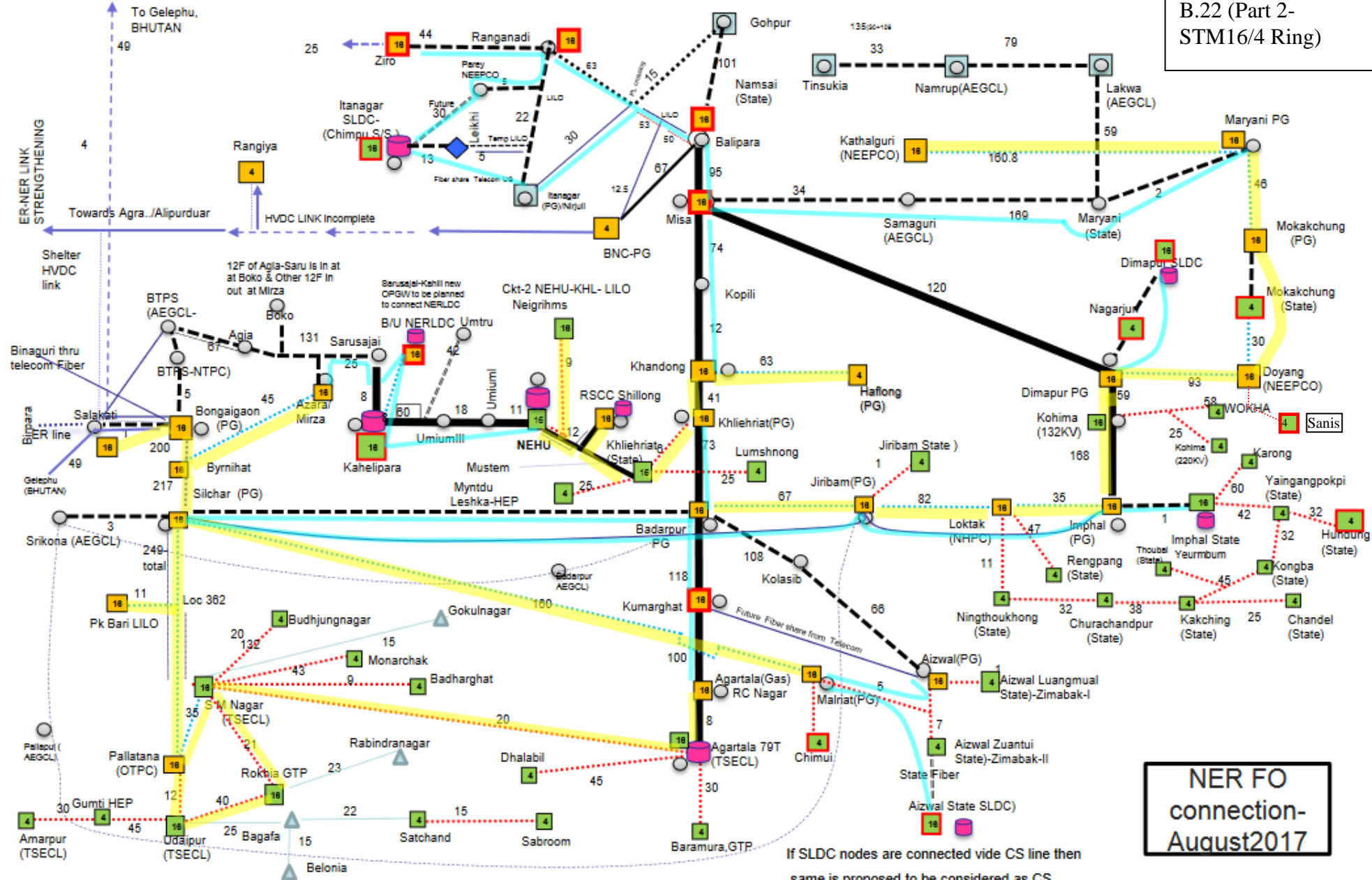
Annexure-A.14.

List Of Links with No OPGW/redundant path under NER region

S. No.	Name of Link	From	To	Voltage in kV	Length in Kms 17TH TCC	18TH TCC	Remarks
1	Mariani (new)- Misa II	Mariani (new)	Misa	400	223	223	No fibre
2	Bongaigaon III (quad)-Balipara	Bongaigaon	Balipara	400	309	309	Redundant path for reliable communication as line have Four ckts and Telecom fibre in ckt-I only.
3	Silchar - P. k. Bari	Silchar	P. k. Bari	400	127	0	Administrative Issue for Laying OPGW over Silchar-PK Bari. Connectivity achieved through Silchar-Palatana repeater at PK Bari
4	Misa - Kopli	Misa	kopli	220	73	73	Redundant path for reliable communication as Line have three ckts and OPGW in only one ckt.
5	Jiribam - Haflong	Jiribam	Haflong	132	101	101	Redundant path for reliable communication
6	Biswanath Chariali - Biswanath Chariali(Pavoi)	Biswanath Chariali	Pavoi)	132	13	13	No fiber. Double ckt line
7	Tezu-Namsai	Tezu	Namsai	132	96	0	Shifted to Add Communication
8	Silchar - Byrnihat	Sichar	Byrnihat	132	217	0	Shifted to Add Communication
9	Balipara -Bongaigaon-1	Balipara	Bongaigaon	400	0	290	No ULDC fiber
10	Kopili Khandong-other circuit	kopili	khandong	132	0	12	redundant path
11	Handong Khliehriat other circuit	khandong	khliehriat	132	0	43	redundant path
12	Other Line Future	CS1	CS2	400/220/132	0	95	Provision Kept for CS or redundat link as required for ring formation
Total					1158	1158	

ANNEX-FO EXP
B.22 (Part 2-
STM16/4 Ring)


















Fibre Optic Expansion Project of NER – FO Network—Considered with ULDC, MW Vacation & NER FO EX



**NER FO
connection-
August2017**

If SLDC nodes are connected vide CS line then same is proposed to be considered as CS

LEGEND

-  NER MW replacement FO
-  Proposed FO links under NER Expansion CS Lines/State Lines
-  Existing ULDC FO
-  Telecom Fiber
-  Fiber in NEA-W/ Other project
-  State owned Fiber
-  Link removed from FO expansion
-  NERLDC, Backup NERLDC, SLDC
-  Nodes under Expansion / STM-4-ECI
-  Node discarded/In Future
-  CS Nodes under Expansion-STM-16, STM 4
-  Newly proposed CS Nodes under Expansion STM-4, 16
-  CS Nodes under Expansion STM-4, 16-already approved
-  Newly proposed State Nodes under Expansion STM-4, 16
-  • Yellow Highlighted links are already approved STM-16 under NER Expansion
-  Sky Blue Highlighted links are proposed STM-16 under NER Expansion for STM16 Ring formation
-  •REMOVED LINES