



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, Meghalaya



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No. NERPC/OP/Committee/2015/3988-4059

Date: September 21, 2015

To,

1. Hon'ble Chief Minister & In-charge of Power, Govt. of Mizoram, Aizawl - 796 001
2. Hon'ble Chief Minister & In-charge of Power, Govt. of Manipur, Imphal - 795 001
3. Hon'ble Minister of Power, Govt. of Arunachal Pradesh, Itanagar - 791 111
4. Hon'ble Minister of Power, Govt. of Meghalaya, Shillong - 793 001
5. Hon'ble Minister of Power, Govt. of Nagaland, Kohima - 797 001
6. Hon'ble Minister of Power, Govt. of Tripura, Agartala - 799 001
7. Member (GO&D), CEA, Sewa Bhavan, R.K. Puram, New Delhi - 110 066
8. Secretary (Power), Govt. of Arunachal Pradesh, Itanagar - 791 111
9. Addl. Chief Secretary (Power & P.E), Govt. of Assam, Dispur, Guwahati - 781 006
10. Commissioner & Secretary (Power), Govt. of Manipur, Imphal - 795001
11. Commissioner & Secretary (Power), Govt. of Meghalaya, Shillong - 793001
12. Secretary (Power), Govt. of Mizoram, Aizawl - 796001
13. Secretary (Power), Govt. of Nagaland, Kohima - 797001
14. Principal Secretary (Power), Govt. of Tripura, Agartala - 799001
15. Chairman & Managing Director, Me.ECL, Lumjingshai', S.R. Road, Shillong - 793 001
16. Chairman & Managing Director, TSECL, Agartala - 799001
17. Chairman & Managing Director, NEEPCO Ltd., Lower New Colony, Shillong - 793 003
18. Chairman, APDCL/AEGCL/APGCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
19. Director (Finance), NHPC Ltd., NHPC Complex, Sector-33, Faridabad - 121 003
20. Director (Operation), POWERGRID, Saudamini, Plot No. 2, Sector-29, Gurgaon, Haryana - 122 001
21. Director (Marketing & BD), PTC, NBCC Tower, 15 Bhikaji Cama, Place, New Delhi - 110066
22. Director (Coml.), NTPC Ltd. NTPC Bhawan, Scope Complex, Institutional Area, Lodhi Road - 03
23. Managing Director, OTPC, 6th Floor, A-Wing, IFCI Tower -61, Nehru Place, New Delhi - 110019
24. Executive Director (SO), NLDC, B/9, Qutub Institutional Area, Katwaria Sarai, New Delhi - 16
25. CEO, NVVNL, Core 5, 3rd Floor, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi - 03
26. Managing Director, AEGCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001
27. Managing Director, APGCL, Bijuli Bhavan, Paltan Bazar, Guwahati - 781 001

Sub: Minutes of 15th TCC & 15th NER Power Committee Meetings held at Guwahati

Sir,

Please find enclosed herewith the minutes of 15th TCC and 15th NERPC meetings held at "Hotel Radisson Blu", Guwahati, Assam on the 20th & 21st August, 2015 respectively for your kind information and necessary action. The minute is also available on the website of NERPC, www.nerpc.nic.in.

Encl: As above

(P. K. Mishra)
Member Secretary

Copy to:-

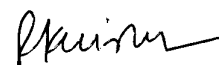
1. PS to Chairman, NERPC and Hon'ble Power Minister, Govt. of Assam, Guwahati - 781 006
2. PS to TCC Chairman, NERPC and Managing Director, APDCL, Bijuli Bhawan, Guwahati - 781 001.
3. Shri S. Goswami, OSD to Power Dept., Govt. of Assam, Guwahati - 781 006

Copy to TCC Members: for kind information and necessary action.

1. Director (Distribution), Me. ECL, Lumjingshai, S.R. Road, Shillong – 793 002
2. Director (Transmission), Me. PTCL, Lumjingshai, S.R. Road, Shillong – 793 002
3. Director (Generation), Me. PGCL, Lumjingshai, S.R. Road, Shillong – 793 002
4. Director (Tech), TSECL, Banamalipur, Agartala – 799 001
5. Director (Tech.), NEEPCO Ltd., Lower New Colony, Shillong-793 003.
6. Managing Director, MSPDCL, Electricity Complex, Keishampat, Imphal – 795 001
7. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
8. Regional ED (East –II), NTPC, 3rd Floor, OLIC Bldg., PI No- N.17/2, Nayapalli, Bhubaneswar-12
9. Executive Director, NERTS, PGCIL, Lapalang, Shillong - 793006
10. Executive Director (Comml.), NEEPCO Ltd., Lower New Colony, Shillong-793003.
11. Executive Director (O&M), NEEPCO Ltd., Lower New Colony, Shillong-793003.
12. Executive Director (Comml.), NHPC, NHPC Office Complex, Faridabad-121003.
13. Executive Director (O&M), NHPC, NHPC Office Complex, Faridabad-121003.
14. Executive Director (Marketing), PTC, NBCC Tower, 15 Bhikaji Cama, Place, New Delhi – 110066
15. Chief Engineer (GM), CEA, 6th Floor, Sewa Bhawan, R.K.Puram New Delhi-110066.
16. GM, NERLDC, Lapalang, Lower Nongrah, Shillong - 793006
17. GM (O&M), NERTS, POWERGRID, Lapalang, Shillong – 793006
18. GM (Plant), OTPC, Pallatana, Udaipur, Kakraban Road, South Tripura - 799116
19. Engineer-in-Chief, P&E Dept., Govt. of Mizoram, Aizawl – 796 001
20. Chief Engineer (E Zone), Dept. of Power, Govt. of Arunachal Pradesh, Itanagar-791111.
21. Chief Engineer (W Zone), Dept. of Power, Govt. of Arunachal Pradesh, Itanagar-791111.
22. Chief Engineer (TP&MZ), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 1
23. Chief Engineer (Power), Dept. of Power, Govt. of Nagaland, Kohima – 797 001.
24. Chief Engineer, Loktak HE Project, NHPC, Komkeirap, Manipur-795124.
25. CGM, AEGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
26. CGM, APGCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
27. CGM, APDCL, Bijuli Bhawan, Paltan Bazar, Guwahati – 781 001
28. CGM (LDC), SLDC Complex AEGCL, Kahelipara, Guwahati-781019.
29. Head of SLDC, Me. ECL, Lumjingshai, S.R. Road, Shillong-793001
30. Head of SLDC, Dept. of Power, Govt. of Arunachal Pradesh, Itanagar-791111
31. Head of SLDC, Dept. of Power, Govt. of Nagaland, Dimapur
32. Head of SLDC, Dept. of Power, Govt. of Manipur, Keishampat, Imphal-795001
33. Head of SLDC, P&E Dept., Govt. of Mizoram, Aizawl-796001
34. Head of SLDC, TSECL, Agartala – 799001

Special Invitee(s):

35. Chairperson, CEA, Sewa Bhawan, R.K.Puram, New Delhi – 110066
36. Member (Power Systems), CEA, Sewa Bhawan, R.K.Puram, New Delhi – 110066
37. Secretary, North Eastern Council, Nongrim Hills, Shillong – 793 003
38. Member Secretary, ERPC, 14 – Golf Club Road, Tollygunge, Calcutta – 700 033
39. Member Secretary, NRPC, NRPC Complex, 18-A, S.JS.S. Marg, Katwaria Sarai, New Delhi – 16
40. Member Secretary, WRPC, MIDC Area, Marol, Andheri (E), Mumbai – 400 093
41. Member Secretary, SRPC, 29 – R.C. Cross Road, Bangalore – 560 009
42. Director, NETC, 1st Floor, Corporation Tower, AMBIS Mall Complex, NH-8, Gurgaon – 122001.



Member Secretary

भारत सरकार **Government of India**

विद्युत मंत्रालय **Ministry of Power**

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



RECORD NOTE OF DISCUSSION

OF

15TH TCC MEETING

&

15TH NERPC MEETING

(UNDER THE AEGIS OF NEEPCO)

Venue : Hotel Radisson Blu, Guwahati

Date (TCC) : 20th August 2015

Date (NERPC) : 21st August 2015

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SUMMARY RECORD OF DISCUSSIONS

15TH TECHNICAL COORDINATION COMMITTEE

&

15TH NORTH EASTERN REGIONAL POWER COMMITTEE MEETINGS

The 15th TCC & 15th NER Power Committee meetings were held on 20th & 21st August 2015 respectively at Hotel “Radisson Blu”, Guwahati. The meetings were hosted by North Eastern Electric Power Corporation (NEEPCO) Ltd.

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

I : PROCEEDINGS OF THE 15TH TCC MEETING

The meeting started with bouquets presentation to the dignitaries followed by welcome address by Shri. P. C. Barman, GM (Comml) NEEPCO Ltd. Shri Barman welcomed all TCC members and participants to the 15th TCC meeting and wished all participants a comfortable stay at the venue. After this, Shri R. L. Baruah, Chairman, TCC addressed the 15th TCC meeting. In his brief speech, Shri Baruah 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 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 15th TCC meeting on behalf of NERPC. He expressed his sincere thanks to NEEPCO Ltd for hosting the 15th TCC & 15th NERPC meetings at a short notice and for making excellent arrangement and providing a comfortable stay for the delegates. Speech of Member Secretary, NERPC is attached at **Annexure – III**

There was also presentation by NERLDC on IEGC Amendment Regulation 2014, DSM Amendment 2014, Performance of states vis-à-vis DSM and other commercial issues. The presentation is attached at **Annexure-IV**

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 D. Choudhury, DGM, NEEPCO Ltd.

II : PROCEEDINGS OF THE 15TH NERPC MEETING
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The 15th NER Power Committee meeting commenced with bouquets presentations to dignitaries followed by ceremonial lighting of lamps by Shri Rakibul Hussain, Hon'ble Power Minister, Assam & Chairman, NERPC, Shri Manik Dey, Hon'ble Power Minister, Tripura, Shri Kipili Singtam, Hon'ble Power Minister, Nagaland, Shri Major Singh, Chairperson, CEA, Shri P. K. Mishra, Member Secretary, NERPC & Shri A. G. West Kharkongor, Director (F), NEEPCO Ltd.

Shri P. K. Singha, Executive Director, NEEPCO Ltd delivered the welcome address. Shri Singha extended warm welcome to all the dignitaries, senior officials of central and state government departments and utilities and participants of the 15th 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. He also mentioned that despite availability of power experts in the country, services rendered in power sector is much to be desired. He urged that all the technocrats to act together to usher in development in the country.

Shri A. G. West Kharkongor, Director (Fin.) in his brief speech stated that despite difficult terrain, adverse law and order problems, acidity problem of Kopili station, NEEPCO has been able to perform well as the main generator of Power in NER during FY 2014-15. He also stated that NEEPCO has also entered into joint venture in conventional and non conventional & renewable energy sector.

Shri P. K. Mishra, Member Secretary, NERPC welcomed all participants and expressed gratitude for participation in the meeting. His speech is placed at

Annexure – V.

Shri Major Singh, Chairperson, CEA stated that the Government of India has operationalized the PSDF scheme in 2014 for funding of schemes for improvement of grid security, removal of congestion etc. He further mentioned that the schemes submitted by NER states are being given priority in examination.

He urged upon the constituents to approach CEA for any matter relating to power sector and CEA will sincerely extend all possible technical support to help the constituents. Speech of Chairperson, CEA is placed at **Annexure – VI.**

After this, Shri C. Kipili Sangtam, Hon'ble Power Minister, Nagaland, addressed the 15th NER Committee meeting. Shri Sangtam stated that setting up of new SLDC in Nagaland is under implementation and thanked POWERGRID for their sincere efforts. He also requested NERPC forum to look into the communication issue to ensure that connectivity of the SLDCs with the various sub-stations is complete in totality.

The address of Hon'ble Power Minister, Nagaland is placed at **Annexure – VII.**

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 also stated that grid operation under DSM (Deviation Settlement Mechanism) regime has become very much complex and fully commercially driven. Revision of DC by generator during day of operation has created commercially heavy burden to the states. He further added that states are neither able to absorb the excess power nor able to meet the deficit powers due to such revision resulting in huge penalty for overdrawal. Therefore frequent and intraday DC revision by generator may be reduced for efficient grid operation and survivability of commercial health of the state utilities.

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

Shri Rakibul Hussain, Hon'ble Power Minister, Assam & Chairman, NERPC addressed the 15th NER Power Committee. Shri Rakibul stated that with the decision taken by the government of Assam, the largest thermal generating station of the region at Bongaigaon would be commissioned by NTPC in November, 2015. He further added that the Lakwa Waste Heat Project of capacity 37.2 MW had been commissioned two years back and the Namrup Replacement Project (100MW) is expected to be commissioned by end of this year.

Full text of the speech of Hon'ble Power Minister, Assam & Chairman, NERPC is placed at **Annexure - IX**.

The Hon'ble Chief Minister (I/C Power), Govt. of Manipur and The Hon'ble Parliamentary Secretary (Power), Govt. of Mizoram could not attend the meeting due to unavoidable circumstances. However, their speeches were taken as read and placed at **Annexure - X** & **Annexure - XI** respectively.

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

The meeting concluded with the vote of thank by Shri B. Lyngkhoi, Director/SE(O), NERPC.

RECORD NOTES OF DISCUSSION

OF

**15TH TCC & 15TH NORTH EASTERN REGIONAL POWER COMMITTEE
MEETINGS**

**III : CONFIRMATION OF THE MINUTES OF 14TH TCC MEETING & 14TH
NERPC MEETING (S)**

The minutes of the 14th TCC and 14th North Eastern Regional Power Committee (NER Power Committee) meetings held on 04.09.2013 at Agartala were circulated vide letter no. NERPC/OP/Committee/2014/4269-334 dated 16.01.2014.

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

Deliberation of the TCC:

TCC confirmed the minutes of 14th TCC meeting held on 04.09.2013 at Agartala.

Deliberation of the RPC

The RPC confirmed the minutes of 14th NERPC meeting.

CAT – A: ITEMS DISCUSSED AND APPROVED BY THE COMMITTEE

A.1 : LINES UNDER LONG OUTAGES - AGENDA REF. ITEM NO. A.7

The long outages of the following lines are being pursued in OCC forums. The status for restoration of these lines as reviewed in the 88th OCC meeting is as follows:

(a) 132kV Mariani – Mokokchung line – [Since Apr'08]

During 107th OCC meeting, Assam informed that reviving of 132 kV Mariani - Mokokchung line is not required. However, NERLDC re-iterated the importance of the line for redundancy in the system and requested the forum to look into the matter.

(b) 132kV Rengpang – Jiribam line – [Since Oct'02]:

During 107th OCC meeting, Manipur informed that due to problem of land compensation the work of 39 km of line was delayed. The matter is regularly reviewed by Manipur and the status will be intimated once the work is completed.

Deliberation of TCC

- a) The requirement of 132kV Mariani-Mokokchung Line for enhanced reliability was emphasized by NERLDC and agreed in-principle by the TCC members. Accordingly, TCC suggested Assam & Nagaland to restore the line at 132kV level through mutual discussion.
- b) Manipur stated that the line will be charged within this month.

Deliberation of RPC

The RPC approved TCC recommendations.

A.2 : REQUIREMENT OF REGIONAL SPARE 100MVA, 220/132KV TRANSFORMER FOR AUGMENTATION OF TRANSFORMATION CAPACITY OF 220/132KV SAMAGURI SUB STATION - AGENDA REF. ITEM NO. A.17

During 105th OCC Meeting, AEGCL requested NERPC & POWERGRID to spare 100MVA, 220/132kV Transformer (Regional Spare) from Dimapur Sub Station for Augmentation of transformation capacity of 220/132kV Samaguri Sub Station by installation of same in place on one no. of existing 50MVA Transformer. AEGCL further informed that the replaced 50MVA transformer can be kept as regional spare till they replenish the 100MVA Transformer which is already under procurement.

During OCC meeting, POWERGRID opined that regional spares are not meant for planned Augmentation of State project. Accordingly, matter is placed before TCC/RPC for discussion & decision

Deliberation of TCC

Constituents of NER are of the view that regional spare is for emergency purpose of CTU elements only.

After detailed discussion, TCC recommended that the 100MVA, 220/132kV Transformer will be kept for regional spare only for emergency situation.

Deliberation of RPC

The RPC approved the recommendation of TCC.

<p>A.3 : SALE OF UN-REQUISITIONED SURPLUS (URS) POWER OF DISCOMS/BENEFICIARIES BY RESPECTIVE GENERATORS AT POWER EXCHANGE - AGENDA REF. ITEM NO. A.18</p>
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It is observed that due to weather/rains/other reasons there is sometimes a load crash of beneficiaries resulting in non-utilization of allocated power from generating stations. This results in Un-Requisitioned Surplus (URS) power with generators leading to lower PLF, higher heat rate and higher auxiliary power consumption of generating stations. The beneficiary also makes losses as it has to pay Capacity Charges for such URS. The system suffers on account of poor utilization of the generating resources as there are power deficit areas in the country despite there being ample generation at hand. To mitigate the losses affecting both the generator and the beneficiary on account of URS, it is suggested to explore the possibility of sale of such URS power at the power exchanges. The issue was discussed in 26th CCM of NERPC AND THE FOLLOWING WAS RECOMMENDED:

1. URS is unreliable and can be recalled by the beneficiary at any point of time.
2. If it is sold in PX, there would be need of revision of PX schedule In case of recall by beneficiary.
3. If PX agrees for such revision, same has to be applicable for all PX transactions.

Deliberation of the TCC

MD, OTPC through a presentation proposed the following:

- 1) There is large quantum of un-requisitioned surplus (URS) in NER ISGS mainly during monsoon.
- 2) For effective utilization of URS, beneficiaries may indicate firm URS which will not be requisitioned back for a day.
- 3) OTPC can then trade this URS in the market and share any amount earned over and above energy charge with beneficiaries.

NERLDC clarified following:

- 1) Ancillary services regulation has been notified by CERC which will take care of ISGS URS.
- 2) OTPC may take up bilaterally with beneficiaries about the proposal.
- 3) To implement the proposal there would be need to amend scheduling and dispatch procedure.

Beneficiaries appreciated the proposal and agreed in principle. TCC recommended the proposal for approval of NERPC and OTPC will approach CERC subsequently for operationalizing it.

Deliberation of the RPC

The RPC approved the recommendation of TCC.

A.4 : NER STRENGTHENING SCHEME - AGENDA REF. ITEM NO. B.1
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Following are the detail of strengthening schemes of NER approved / revised in the 4th and 5th Meeting of Standing Committee on Power System Planning in NER held on 13-12-2014 and 08-08-2015 and Joint Standing Committee Meeting on Power System Planning of Eastern and North-Eastern Region held on 03-01-2014 and requires approval of NERPC

A.4.1 : NER STRENGTHENING SCHEME-II (NERSS-II: PART-A) - AGENDA REF. ITEM NO. B.1.1)

1. Installation of 2nd 400/220kV, 315MVA, ICT at Balipara Sub Station of POWERGRID
2. Replacement of existing 132/33kV, 2X10MVA ICT by 132/33kV, 2X50MVA ICT at Nirjuli Sub Station of POWERGRID

Note:

The above works will be carried out by POWERGRID under regulated tariff Mechanism.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

<p>A.4.2 : NER STRENGTHENING SCHEME-II (NERSS-II: PART-B) - AGENDA REF. ITEM NO. B.1.2</p>

Construction of following Transmission Lines through Tariff Based Competitive Bidding (TBCB) Route

- 1) Biswanath Chariali - Itanagar (Zebra conductor) 132 kV D/c line
- 2) Silchar - Misa 400kV D/c line (Quad) line
- 3) 2 no. 132 kV line bays at Itanagar for termination of Biswanath Chariali - Itanagar (Zebra conductor) 132 kV D/c line

Note

- a) DoP, Arunachal Pradesh would provide space for 2 no. 132kV line bays at Itanagar S/s for termination of Biswanath Chariali (POWERGRID) – Itanagar 132kV D/c (Zebra conductor) line
- b) CTU (POWERGRID) would provide 2 no. 400kV GIS line bays at Silchar and Misa for termination of Silchar - Misa 400kV D/c line (Quad) line
- c) CTU (POWERGRID) would provide 2 no. 132kV line bays at Biswanath Chariali for termination of Biswanath Chariali - Itanagar (Zebra conductor) 132 kV D/c line. In case there is a space constraint, GIS bays would be provided.
- d) 80 MVAR bus reactor at Misa (PG) along with GIS bay
- e) 1x80 MVAR switchable line reactor with GIS bays at Misa end of each circuit of Silchar- Misa 400kV D/C line

Imphal (PG) - New Kohima (State) 400 kV D/c line (to be initially operated at 132 kV) and Surajmaninagar - P. K. Bari 400 kV D/c (initially op. at 132 kV) earlier included in NERSS-II Part-B are now proposed to be charged directly at 400 kV. Accordingly, these lines along with associated sub-station works have been taken out from this scheme to facilitate timely execution of balance portion of NERSS-II Part-B. These 2 nos. 400 kV lines are proposed to be taken up as a separate project.

Note

It was also agreed that for any scheme involving substation extension, if there is a space constraint, GIS bays may be considered in place of AIS bays as a general principle.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

<p>A.4.3 : NER STRENGTHENING SCHEME-III (NERSS-III) - AGENDA REF. ITEM NO. B.1.3</p>

1. Installation of 2nd 400/220 kV, 315 MVA ICT at Bongaigaon substation of POWERGRID along with following associated works:
 - (a) New 220kV bus arrangement (GIS) at Bongaigaon
 - (b) 6 no. of 220kV bays at Bongaigaon
 - (c) 1 no. of 220kV line bays at Salakati (for 220kV D/c Bongaigaon- Salakati line)
2. Replacement of existing 60 MVA, 220 / 132kV ICT by 1 x 160 MVA 220 / 132 kV ICT at Kopili HEP along with following associated works:
 - (a) Upgradation of complete 132kV Single AIS Bus scheme to 132kV Double GIS Bus.
 - (b) Replacement of bay equipments of 60MVA Transformer
 - (c) Incorporation of Bus bar and LBB Scheme at 220kV and 132kV System

3. Replacement of existing 2x50MVA, 220/132kV ICTs by 2x160MVA, 220/132kV ICTs at Balipara sub-station of POWERGRID along with replacement of 132 kV equipment

Note

The above works will be carried out by POWERGRID under regulated tariff Mechanism.

Placed for approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

<p>A.4.4 : NER STRENGTHENING SCHEME-IV (NERSS - IV) - AGENDA REF. ITEM NO. B.1.4</p>

1. Augmentation of Transformers & Reactors
 - (a) Dismantling / Removal of 4x105 MVA, 1-Ph, 400/220 kV ICT at Misa sub-station of POWERGRID and addition of 2x500 MVA, 3-Ph, 400/200 kV ICT at Misa with GIS bays utilizing the space vacated after removal of 4x105 MVA, 400/220 kV ICT.
Note: 4x105 MVA, 400/220 kV ICT thus released shall be kept as regional spare
 - (b) 1x125 MVAR 420kV bus reactor at Balipara (POWERGRID) sub-station. In case of space constraint, the same may be installed with GIS bay
 - (c) 1x125 MVAR 420kV bus reactor at Bongaigaon (POWERGRID) sub-station. In case of space constraint, the same may be installed with GIS bay
2. Operation of Silchar - Imphal 400kV D/c line at rated voltage of 400kV (line is presently charged at 132kV)
 - (a) Up-gradation of existing 2x50 MVA, 132/33 kV Imphal (POWERGRID) substation to 400 kV with following scope :

- I) Installation of 400/132 kV, 2x315 MVA (7x105MVA single phase units) ICTs
 - II) 2 nos. 400kV line bays for termination of Silchar - Imphal 400kV D/c line
 - III) 80MVAR, 420kV bus reactor
 - IV) Adequate space for future expansion (3rd ICT, 400 kV & 132 kV line bays, reactors etc.)
- (b) Extension at existing 400/132 kV Silchar (POWERGRID) substation
- I) 2 nos. 400kV GIS line bays for termination of Silchar – Imphal 400kV D/c line
 - II) 1x125MVAR, 420kV bus reactor with GIS bay
3. Re-conductoring of Agartala GBPP - Agartala (State) 132kV D/c
- (a) Re-conductoring of Agartala GBPP - Agartala (State) 132kV D/c line with high capacity HTLS conductor along with necessary upgradation / modification in bay equipment at either ends

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.4.5 : NER STRENGTHENING SCHEME - V – 5TH SCM MOM REF. ITEM NO. 6.0

TBCB Scope

- 1) Establishment of 2x315 MVA 400/132 kV S/s at Surajmaninagar with 4 no. 400 kV line bays, 2x125 MVAR bus reactor and 4 no. 132 kV line bays

Note

Land for the Surajmaninagar 400/132kV S/s is identified and available with Tripura and the same would be provided to the TSP at cost

- 2) Establishment of 2x315 MVA 400/132 kV S/s at P. K. Bari with 4 no. 400kV line bays, 2x125 MVAR bus reactor and 4 no. 132 kV line bays

- 3) Surajmaninagar - P. K. Bari 400 kV D/c line
- 4) 2 no. 400 kV line bays at Pallatana GBPP switchyard for termination of Pallatana – Surajmaninagar 400kV D/c line.

POWERGRID Scope

- 1) Additional 400 kV D/c line at Pallatana end for termination of Pallatana-Surajmaninagar 400 kV D/c line (op. at 132 kV) at 400 kV Pallatana switchyard
- 2) Additional 400 kV D/c line at Surajmaninagar end for termination of Pallatana-Surajmaninagar 400 kV D/c line (op. at 132 kV) line at 400 kV Surajmaninagar S/s
- 3) Additional 400 kV D/c line at P. K. Bari end for termination of P. K. Bari-Silchar 400 kV D/c line (initially op. at 132 kV) at 400 kV P. K. Bari S/s
- 4) Additional 400 kV D/c line at Silchar end for termination of P .K. Bari-Silchar 400 kV D/c line (initially op. at 132 kV) at 400 kV Silchar S/s
- 5) 2 no. 400 kV GIS line bays at Silchar for termination of P .K .Bari – Silchar 400kV D/c line

Further, TSECL and OTPC would implement the following scope of works:

- 1) 1 no. 132 kV bay at Pallatana GBPP (by OTPC)
- 2) Surajmaninagar (TSECL) – Surajmaninagar (TBCB) 132kV line with high capacity / HTLS (equivalent of single moose) (By TSECL)
- 3) P. K. Bari (TSECL) – P. K. Bari (TBCB) 132kV D/c line with high capacity / HTLS (equivalent of single moose) (By TSECL)

TSECL may plan and inform the utilization of remaining 2 no. 132 kV bays at Surajmaninagar and P. K. Bari 400/132kV substation.

Placed for approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.4.6 : NER STRENGTHENING SCHEME - VI – 5TH SCM

TBCB Scope

- 1) Establishment of 2x500 MVA 400/220 kV S/S at New Kohima along with 4 no. 400 kV line bays, 2x125 MVAR bus reactor and 4 no. 220 kV line bays
- 2) Imphal – New Kohima 400 kV D/C line
- 3) New Kohima – New Mariani 400kV D/c line

Note:

- a) CTU (POWERGRID) to provide 2 no. 400 kV line bays at Imphal (PG) S/s for termination of Imphal – New Kohima 400kV D/c line
- b) CTU (POWERGRID) to provide 2 no. 400kV line bays at New Mariani S/s for termination of New Kohima – New Mariani 400kV D/c line

POWERGRID Scope

- 1) 1x125 MVAR bus reactor (2nd) at Imphal (PG)
- 2) Up-gradation of New Mariani substation to 400/220 kV with 2x500MVA transformer along with associated bays.
- 3) 2 no. 400kV line bays at New Mariani for termination of Misa-New Mariani 400kV D/c at 400kV
- 4) Termination of Misa-New Mariani section of existing LILO of Kathalguri-Misa 400 kV D/C line (circuit-1) (op. at 220 kV) at New Mariani from 220 kV to 400 kV
- 5) Disconnection of Kathalguri - Mariani (AEGCL) - Misa line from Mariani (AEGCL) S/s and LILO of the same at New Mariani (POWERGRID) with Misa-New Mariani section connected at 400kV and Kathalguri – New Mariani section connected at 220kV at New Mariani
- 6) 2 no. 400 kV line bays (GIS) at Misa for termination of New Mariani – Misa 400kV D/c line (presently charged at 220kV) at 400kV
- 7) Operation of New Mariani – Misa 400kV D/c line (presently charged at 220kV) at 400kV along with termination at Misa at 400kV
- 8) Operation of New Mariani – Kathalguri 400kV D/c line (presently charged at 220kV) at 220kV

Further, Nagaland and AEGCL would implement the following scope of works

- 1) New Mariani – Mariani 220kV D/c line (with high capacity Conductor) (By AEGCL)

- 2) Termination of Samaguri – Mariani 220kV 2xS/c lines at New Mariani (By AEGCL)
- 3) Establishment of 220/132kV, 2x160MVA substation at Khumtai (By AEGCL)
- 4) LILO of Samaguri – New Mariani 220kV 2xS/c lines at Khumtai (By AEGCL)
- 5) New Kohima (400/220kV TBCB) – New Kohima (220/132kV - Nagaland) 220kV D/c line with high capacity / HTLS conductor equivalent to twin moose (by Nagaland)

Note:

Nagaland may plan and inform the utilization of remaining 2 no. 220kV bays at New Kohima 400/220kV substation.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

<p>A.5 : ENHANCEMENT OF EXISTING TRANSFORMATION CAPACITY OF 2X200MVA TRANSFORMER AT 400/132/33KV AT SILCHAR S/S - AGENDA REF. ITEM NO. B.2</p>

The requirement of 3rd 400/132/33 kV ICT at Silchar to meet N-1 criteria has been discussed in OCC & PCC Meetings of NERPC. Finally, during 111th OCC meeting, the members agreed the requirement and subsequently, discussed in 5th Standing Committee Meeting of CEA held on 08.08.2015 at Imphal. Accordingly, during the 5th Standing Committee Meeting members agreed to the proposal of installation of 3rd ICT of 315MVA, 400/132kV Transformer at Silchar Sub Station along with associated bays in GIS by POWERGRID keeping in view N-1 contingency and long term load growth.

Placed for approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.6 : INSTALLATION OF BUS REACTOR AT RANGANADI - AGENDA REF. ITEM NO. B.3

The requirement of Bus Reactor at Ranganadi to contain overvoltage issue of NER Grid has been discussed in OCC & PCC Meetings of NERPC. Finally, during 110th OCC meeting, the members agreed the requirement and subsequently, discussed in 5th Standing Committee Meeting of CEA held on 08.08.2015 at Imphal. Accordingly, during the 5th Standing Committee Meeting members agreed to the proposal of installation of 80 MVA, 420 KV Bus Reactor at Ranganadi HEP by NEEPCO.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.7 : INSTALLATION OF 31.5 MVAR, 220KV REACTOR AT MOKOKCHUNG SUB STATION OF POWERGRID - AGENDA REF. IYEM NO. B.4

During 5th Standing Committee Meeting of CEA on 8th Aug'15 the issue of persisting overvoltage problem at 220/132kv Mokokchung Substation of POWERGRID was discussed. Accordingly, members agreed to install 31.5 MVAR 220kv Bus Reactor at 220/132kv Mokokchung Substation of POWERGRID by POWERGRID for stable operation of 220kv Mariani-Mokokchung Line # 1 & 2.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.8 : REQUIREMENT OF ADDITIONAL REGIONAL SPARE TRANSFORMERS & REACTORS - AGENDA REF. ITEM NO. B.5

During 111st OCC Meeting requirement of additional spare Transformers & Reactors in NER against central sector transmission system was discussed and accordingly

following quantities of spare Transformers & reactors agreed by the members. Further, the issue was discussed in 5th Standing Committee Meeting of CEA and members agreed for the proposal.

SN	Proposed Spare Equipment		Remarks
	Rating	Qty	
1.	220/132 kV, 160 MVA Transformer	1	4 units will be in service at Kopili & Balipara. 1 Spare shall be positioned at Kopili SS.
2.	132/33 kV, 50 MVA, 3-Phase Transformer	1	2 units will be in service at Nirjuli. 1No Spare shall be positioned at Nirjuli SS.
3.	400/132/33 kV, 200 MVA, 3-Phase Transformer	1	2 units is service at Silchar SS. 1 Spare shall be positioned at Silchar SS.
4.	400/220/33 kV, 315 MVA, 3-Phase Transformer	1	1 no. in service at Misa. 1 no each will be installed at Balipara & Bongaigaon
5.	400 kV 80 MVAR Reactor	1	2 Nos units at Bongaigaon & 1 No unit at Balipara SS. Spare shall be positioned at Bongaigaon SS.
6	400kV 63 MVAR Reactor	1	18 Units are in service. 1 spare already available.

POWEGRID informed that a no. of 400/220 kV 315 MVA transformers and 63 MVAR reactors taken out of service are available in other region as spare. These transformers and reactors can be brought to NER from other region.

Members agreed to the procurement of regional spares as indicated above. However, the availability of these spares in other regions and whether their transportation would be economical may be explored before procurement.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.9 : PREVENTIVE SHIFTING OF 400KV BALIPARA-RANGANADI #1&2 LINE ALONG THE RIVER DIKRONG WITH PILE FOUNDATION TO AVOID THREAT OF COLLAPSE OF LINE EVERY YEAR - AGENDA REF. IYEM NO. B.6

The river course of Dikrong River where the discharge of Ranganadi Generation is done changes frequently due to lower bed depth and higher scouring depth. As a result, every year one to two towers become endangered due to erosion of soil on account of wayward river course change. Meanwhile, 3 nos. of 400kV towers has already been shifted to pile and 3 nos. are under shifting. Considering the critically of 400kV Balipara-Ranganadi D/C Line for evacuation of 405MW Ranganadi HEP Generation and extending power supply to Arunachal Pradesh, the requirement of preventive shifting of balance 11 nos. of 400kV towers along the river to pile was discussed in OCC & PCC meetings of NERPC and the members agreed for preventive shifting of balance (11 Nos) 400 kV towers under PoC Mechanism. The tentative expenditure for shifting of 11 nos. of 400kV Towers will be around Rs. 22.00 Crores.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.10 : UP-GRADATION OF 132 KV HALFLONG, 132 KV JIRIBAM, 132 KV KUMARGHAT AND 132 KV AIZAWL SUB-STATION ON COMPLETION OF 25 YEARS AGE AND CAPITALIZATION DURING TARIFF BLOCK (2014-19) - AGRENDA REF. ITEM NO. B.7

The up-gradation of Haflong, Jiribam, Kumarghat and Aizawl sub stations on completion of 25 Years from AIS to GIS/Hybrid was discussed during 96th OCC & 20th PCC meeting with incorporation of Double Bus Bar Arrangement, Bus Bar Protection and LBB Scheme in SAS configuration to enhance reliability / continuity of power supply. The job is proposed to be carried out by POWERGRID and capitalize the same. The Sub-committee agreed to the proposal and requested POWERGRID to approach CERC for necessary Capitalization. The tentative expenditure will be around Rs. 30.00 Crores.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

**A.11 : CAPITALIZATION OF VARIOUS WORKS CARRIED OUT DURING
TARIFF BLOCK (2009 – 2014) - AGENDA REF. ITEM NO. B.8**

During 96th OCC & 20th PCC meeting POWERGRID informed that, in Tariff Block 2009-14, following activities were carried out as per the requirement of CEA regulations/system requirement and the same are proposed to be capitalized.

SN	Activity	Year of Execution	Expenditure (in Lakhs)
1	Installation of N ₂ Fire Extinguisher System (14 nos.) in Transformers and Reactors at Salakati (2 nos.), Dimapur (4 nos.), Nirjuli (2 nos.), Ziro (4 nos.), Kumarghat (1 no.) & Aizawl (1 no.) Sub Station	2013-14	149.89
2	Installation of 2 nd Numerical Relays (20 nos.) for 220kV Lines. (a) Misa-Dimapur D/C – 4 nos. (b) Misa-Kopili D/C – 2 nos. (c) Misa-Kopili S/C – 1 nos. (d) Misa – Samaguri D/C – 4 nos. (e) Misa–Mariani–Kathalguri D/C-4 no. (f) Balipara-Samaguri – 1 no. (g) Salakati-Birpara D/C – 2 nos. (h) Salakati-BTPS D/C – 2 nos.	2013-14	53.59
3	Replacement of Old (more than 15 years age) and Obsolete ETI PLCC Panels (38 NOS) at Misa (6 nos.), Samaguri (2 nos.), Kopili (3 nos.), Salakati (2 nos.), BTPS (2 nos.), Dimapur (3	2012-13	183.20

SN	Activity	Year of Execution	Expenditure (in Lakhs)
	nos.), Imphal (2 nos.), Loktak (2 nos.), Jiribam (3 nos.), Haflong (2 nos.), Aizawl (2 nos.), Khliehriat (1 nos.), Khandong (3 nos.), Nirjuli (2 nos.), Gohpur (1 nos.), Kumarghat (1 no.) and Ranganadi (1 no.).		
4	Pile foundation at the following tower locations:		
(i)	Loc. 73 & 75 of 132KV Gohpur-Itanagr line	2012-13	79.30
(ii)	Loc. 29 of 220KV Balipara-Samaguri line	2013-14	75.30
(iii)	Loc. 42 of 400KV Ranganadi - Balipara line.	2013-14	125.80
(iv)	Loc. 288 of 400KV Balipara-Bongaigaon line	2013-14	97.70
(v)	Loc. 586 & 587 of 400KV Misa-Mariani line.	2013-14	318.13

The Sub-committee requested POWERGRID to approach CERC for necessary Capitalization.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.12 : CAPITALIZATION OF VARIOUS WORKS TAKEN UP/TO BE TAKEN UP DURING TARIFF BLOCK (2014-2019) - AGENDA REF. ITEM NO. B.9

During 96th OCC & 20th PCC meeting POWERGRID informed that, in Tariff Block 2014-15, POWERGRID would take up following works required as per CEA regulations/system requirement and the same are proposed to be capitalized.

SN	Activity	Expenditure (in Lakhs)
1	Installation of Hydrant System at Salakati, Nirjuli, Ziro, Kumarghat & Aizawl Sub Station as per Regulation	60.00
2	Installation of 220kV Bus Bar Protection Scheme	50.00

SN	Activity	Expenditure (in Lakhs)
	including replacement of 245kV CTs at Dimapur Sub Station as per Regulation	
3	Optical Terminal Equipments (SDH) against Obsolete SDH	200.00
4	Installation of Fire Alarm system in Control Rooms	150.00
5	Replacement of Old (more than 25 years age) Bay Equipments viz: Isolator, CT & CVT of POWERGRID bays at Samaguri (AEGCL) Sub Station	80.00
6	Strengthening of Suspension towers of 400KV Balipara-Bongaigaon line	390.00
7	Pile foundation at loc.45, 58 & 66 of 400KV Ranganadi-Balipara line	500.00

The Sub-committee requested POWERGRID to approach CERC for necessary Capitalization.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

Activity (at SN. 3) has been deleted and the rest has been recommended by TCC for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.13 : PROVISION OF 2ND SOURCE FOR AUXILIARY SUPPLY AT VARIOUS SUBSTATIONS OF POWERGRID IN NER: AGENDA REF. ITEM NO. B.10

The provision for 2nd Dedicated Auxiliary Power Supply in Sub Stations of POWERGRID, NER as per the regulation was discussed in various OCC and PCC Meetings of NERPC. After exploring different constitutes for providing the 2nd Source of Auxiliary Supply, following arrangement under PoC Mechanism was agreed by the constituents of NER recommended for approval of TCC/NERPC.

SN	Station	2 nd Source	Remarks
1	Misa	2 nd Aux. Trans. in Tertiary	2 nd Main Transformer (Existing)
2	Balipara	2 nd Aux. Trans. in Tertiary	2 nd Main Transformer (Future)
3	Bongaigaon	2 nd Aux. Trans. in Tertiary	2 nd Main Transformer (Future)
4	Silchar	2 nd Aux. Trans. in Tertiary	2 nd Main Transformer (Existing)
5	Aizawl	2 nd DG Set	State do not have infrastructure
6	Haflong	2 nd DG Set	State do not have infrastructure
7	Nirjuli	2 nd DG Set	State do not have infrastructure
8	Ziro	2 nd DG Set	State do not have infrastructure
9	Salakati	2 nd DG Set	State do not have infrastructure
10	Badarpur	2 nd DG Set	State do not have infrastructure
11	Khliehriat	2 nd DG Set	State do not have infrastructure

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.14 : MODIFICATION IN SCOPE OF PALLATANA - BONGAIGOAN TRANSMISSION SYSTEM (FOR DELIVERY OF POWER TO MIZORAM) - AGENDA REF. ITEM NO. B.11

Additional arrangement for delivery of Pallatana GBPP share to Mizoram.

During 4th Standing Committee Meeting, Director (SP&PA), CEA stated that for drawal of Mizoram's share of power from Pallatana GBPP, Melriat-Sihhmui 132 kV D/C line is under construction. As an additional arrangement POWERGRID has proposed construction of LILO of one circuit of Aizawl (PG)-Zemabawk (Mizoram) 132 kV D/C line at Melriat (PG) for delivery of share of Mizoram. Two no. 132 kV bays released due to deletion of transformation capacity at Melriat (PG) would be utilized for the above proposed LILO work.

Members agreed to the above proposal.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.15 : UCC MEETING – AGENDA REF. ITEM NO. B.12

During 111th OCC meeting, all the constituents agreed that UCC meeting, presently coordinated by NERLDC, should be a part of Sub-committee meeting of NERPC and necessary amendment of Conduct of Business Rules (CBR) of NERPC in this regard may be endorsed. This is in line with the practice followed in Northern Region.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.16 : REPLACEMENT OF SYNCHRONOUS DIGITAL HIERACHY (SDH) NODES OF ULDC SCHEME – AGENDA REF. ITEM NO. B.13
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During 21st UCC meeting, it was discussed and decided to replace SDH equipment of all nodes of ULDC scheme through the same LOA awarded under MW vacation project for maintaining uniformity of equipments and common spares. The cost Implication is Rs. 2.30 crores (approx).

All constituents agreed to the proposal during 21st UCC meeting and requested NERTS/NERPC to put up the proposal in the next TCC/RPC meeting for endorsement.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.17 : NER EXPANSION PROJECT-REVISION OF LINKS – AGENDA REF. ITEM NO. B.14

It is proposed that following links may be deleted / revised from the list considered under NER Expansion project:

SN	Names of Links	Link length	Proposed Action	Reason for deletion/Revision	Remarks
1	132kV Silchar P.K. Bari	130km	Deletion	Insurmountable ROW issue due to which construction of Silchar-P.K. Bari T/L is highly delayed.	Forum may suggest alternate route, if at all required, keeping in view integrity of expansion network.
2	Bong-SKT	1km	Revision	Bong-NTPC-AEGCL already considered in MW vacation. And Bong-Salakati (PG) connected over ICT link under HVDC & NKN.	Forum may consider alternate route by connecting Bong-220kV to Salakati- BTPS (AEGCL)-3.5km link(owner-CS) may be considered

All constituents agreed to the above proposal in 111th OCC and requested NERTS/NERPC to put up the proposal in the next TCC/RPC meeting for endorsement.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.18 : REPLACEMENT OF PDH MULTIPLEXER NODES OF ULDC SCHEME & TERMINAL EQUIPMENT (PDH+SDH) FOR ALL NEW SLDC ENDS & IMPORTANT NODES FOR SLDC CONNECTIVITY - AGENDA REF. ITEM NO. B.15

During 20th & 21st UCC meetings, the requirement of replacement for all the obsolete PDH Multiplexers (FOX515-ABB) of existing ULDC Scheme was discussed and agreed upon by the constituents. Further, procurement of terminal equipment for new SLDCs were also discussed and agreed.

During 111th OCC Meeting, all constituents recommended to put up the proposal in the next TCC/RPC meeting for endorsement.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.19 : AUTOMATED METER-DATA READING (AMR) - AGENDA REF. NO. B.16

During 6th Metering Meeting, the Sub-committee noted the cost estimate submitted by NERTS, all constituents have agreed for installation of AMR by incorporating the comments on technical specification by NERLDC. Further during 26th CC Meeting, all constituents agreed to the above proposal and requested NERTS/NERPC to put up the proposal in the next TCC/RPC meeting for endorsement.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.20 : PROVISION OF ADDITIONAL INTER-STATE 132KV LINK BETWEEN IMPHAL (PG) AND IMPHAL (STATE) – AGENDA REF. NO. B.17

During 5th SCM, MD, MSPCL stated that 132 kV Sub-Station at Yurembam (Imphal-State) and Ningthoukhong are among the prominent pooling points of the state. 132 kV Sub-station at Yurembam (Imphal-State) is being upgraded from 3x20 MVA to 3x31.5 MVA along with the modernization of all the associated equipment under the Renovation and Modernization programme of 132 kV Sub-Stations in Manipur. It is also connected to 132 kV Sub-stations at Karong (2x20 MVA), Yaingangpokpi (2x20 MVA) and Kongba (2x20MVA). 132 kV Sub-station at Yaingangpokpi is further connected to recently completed 132 kV Sub-Station at Hundung (2x12.5 MVA). Under NERPSP tranche-I, 2x20 MVA 132/33 kV Sub-Station at Gamphazol along with LILO on Yurembam – Karong 132 kV line has been planned. Further additional 1x20 MVA each is being added to the 132 kV Sub-Stations at Yaingangpokpi and Kongba under State Plan and NERPSP tranche-I respectively.

He added that the existing two 132 kV links between Imphal (PG) and Yurembam, one owned by state and other by POWEGRID, would not be sufficient to cater to the anticipated load on Yurembam S/s. In order to strengthen the interconnection between Imphal (PG) and Yurembam, MSPCL has planned to construct Imphal (PG) and Yurembam 132 kV D/C line with high capacity conductor using the RoW of existing Imphal (PG)-Yurembam 132 kV S/C line.

MD, MSPCL requested POWERGRID to re-conductor their Imphal (PG)-Yurembam 132 kV S/C line with high capacity conductor.

After further discussion, members agreed the following was agreed:

- 1) Construction of 132 kV Imphal (PG)-Yurembam 132 kV D/C line with high capacity conductor using ROW of existing 132 kV Imphal (PG)-Yurembam 132 kV S/C MSPCL line along with up gradation / modification of bay equipments at both ends. (By MSPCL)
- 2) Re-conductoring of Imphal (PG)-Yurembam 132 kV S/C POWERGRID line with high capacity conductor (by POWERGRID)
- 3) Up gradation / modification of bay equipments at Imphal (PG) by POWERGRID and at Yurembam by MSPCL because of the re-conductoring.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.21 : REVISION OF OPGW LINK AGAINST MW VACATION PROJECT – AGENDA REF. NO. B.18
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The revision of OPGW Links being established to vacate MW Links was discussed during 21st UCC meeting considering various aspects like connectivity of upcoming SLDCs, redundancy of NERLDC to SLDC, Connectivity with AP, Generating stations, non-availability of lines etc. Accordingly, members agreed to revise the links as per **Annexure – XII** for which original quantity of supply changed from 1163 Km to 1231 Km and laying of OPGW changed from 1145 Km to 1187 Km.

The issue was subsequently deliberated during 111th OCC Meeting and POWERGRID was suggested for further needful in line with discussion of 21st UCC Meeting.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.22 : STANDARDIZATION OF OPGW IN LIEU OF ONE EARTH WIRE IN ALL TRANSMISSION LINES - AGENDA REF. NO. B.19
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The Power System requirement for Communication is increasing multifold due to

- (a) Special Protection Scheme
- (b) Ever increasing data reporting to Load Dispatch Centre
- (c) Phasor measurements based data collection and reporting
- (d) Remote monitoring/operation of sub-station/elements
- (e) Differential protection on Lines

The practice of putting fibre in select lines lead to situation where station connectivity is held up due to either identified line delay, LILO of under construction line etc. OPGW installation on existing lines is taking long time/delayed due to shut down, ROW issues as well as capacity constraints of executing agencies.

The issue was discussed during 5th Standing Committee Meeting of CEA on 8th August'15 at Imphal and members / constituents agreed to include one 24 Fibre (OPGW) in all transmission lines which will ensure availability of wideband Communication from all substations to cater bandwidth for various power system application for which communication equipment (SDH- STM-16) shall be provided at all upcoming substations.

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.23 : TUIRIAL TRANSMISSION SYSTEM – AGENDA REF. ITEM NO. B.20

Mizoram Government has signed PPA with NEEPCO for purchase of full power of Tuirial HEP project and no allocation from project to NER constituents has been made by Ministry of Power. Accordingly, CEA has revised the scheme vide Letter No. 82/6/2013-SP&PA/483-486 Dated: 10.04.2013 as below:

- (a) Tuirial HEP-Kolasib 132 kV S/C line (Existing, implemented by P&E Deptt., Govt. of Mizoram)
- (b) Tuirial HEP – Sihmuui 132kV D/C line at Tuirial HEP (to be implemented by P&E Deptt, Govt. of Mizoram)

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.24 : ESTABLISHMENT OF 400KV D/C LINK NEW KOHIMA - NEW MARIANI - MISA INSTEAD OF ESTABLISHMENT OF NEW KOHIMA - MISA 400 KV D/C LINE - AGENDA REF. ITEM NO. B.21

During 4th Standing Committee Meeting held on 13th December 2014 at Guwahati, the construction of 400 kV D/C line from Misa to New Kohima was agreed in principle. However, this link would be taken up for construction along with construction of 400 kV sub-station at New Kohima and 400 kV operation of Imphal-New Kohima 400 kV D/C line.

However, during 5th SCM on 8-8-2015 at Imphal, it has been decided that POWERGRID will upgrade New Mariani Sub Station from 220kV to 400/220kV with 2X500MVA Transformation Capacity and connect New Kohima to Misa via New Mariani Sub Station as per NERSS – VI Scheme. **Refer Item No. 04 Para 6.**

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.25 : ESTABLISHMENT OF 400/220KV SS AT KHUMTAI (GOLAGHAT DISTRICT) BY CONSTRUCTING 400KV D/C FROM BISHWANATH CHARIALI – AGENDA REF. ITEM NO. B.22

AEGCL vide above referred letter has stated that presently there is no 400 kV sub-station in the upper Assam. For evacuation of power from Kathalguri gas based generating station of NEEPCO, Kathalguri-Misa 400 kV D/C line (charged at 220 kV) was constructed and one circuit of this line is LILO at Mariani S/S of AEGCL. In the event of low generation at Kathalguri or outage of LILO line upper Assam has to face severe load shedding. AEGCL has proposed establishment of a 2x315 MVA 400/220/132 kV S/S at Khumtai (Golaghat) along with a 400 kV D/C line from Biswanath Chariali 400 kV to Khumtai D/C line with Brahmaputra River crossing. The existing two numbers Samaguri-Mariani 220 kV S/C line would be made LILO at Khumtai S/S.

The issue was discussed during 5th Standing Committee Meeting on 8th Aug'15 and it has been decided that POWERGRID will upgrade New Mariani Sub Station from 220kV to 400/220kV with 2X500MVA Transformation Capacity and AEGCL will establish 220/132kV, 2x160MVA substation at Khumtai for connectivity as per NERSS – VI Scheme. **Refer Item No. 04 Para 6.**

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

<p>A.26 : REQUIREMENT OF 2 NOS. OF 220KV BAY AT MISA 400/220KV SS FOR NEW 220KV D/C LINE, MISA – SANKARDEV NAGAR – AGENDA REF. ITEM NO. B.23</p>

During 5th SCM at Imphal on 8th August 2015, AEGCL has proposed to upgrade existing 132/33kV Shankardeb Nagar to 220/132/33kV S/s as part of power evacuation of Lower Kopili HEP (LKHEP) to be constructed by Assam Power Generation Company Ltd. Presently Sankardev Nagar S/s is connected by 132kV D/C line from Samaguri 220/132/33kV Substation and is feeding industrial load radially. This causes overloading on Misa – Samaguri 220 kV D/C line. This problem can be overcome by constructing Misa-Sankardev Nagar 220 kV D/C line about 15 km. The new 220 kV S/s at Sankardev Nagar will also help in meeting future growth of Karbi-Anglong and part of Nagaon Districts of Central Assam. This would require 2 no. 220 kV bays at Misa.

Accordingly, members agreed to the proposal of AEGCL for 2 no. 220 kV bays at Misa for their Misa-Sankardev Nagar 220 kV D/C line. The 2 no. 220 kV bays will be released at Misa because of 400 kV operation of New Mariani-Misa section of Kathalguri-Misa 400 kV D/C line (op. at 220 kV) could be utilised for Sankardev Nagar S/s. The estimated cost of the proposed Misa- Sankardev Nagar D/C line will be Rs. 18.90 crs and cost of up-gradation of Sankardev Nagar 220kV S/s will be Rs. 78.0 crs.

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.27 : CONSTRUCTION OF TWO NOS. OF 400KV LINE BAY AT IMPHAL – AGENDA REF. ITEM NO. B.24
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During 5th SCM at Imphal on 8th August 2015, MD, MSPCL stated that to meet the growing load demand of Manipur, MSPCL has taken up the construction of 4x105 MVA, 400/132 kV single phase transformer (one spare) at Thoubal along with the Imphal (PG)-Thoubal 400 kV D/C - 38 km line In the previous Standing Committee Meeting, 400 kV operation of Silchar-Imphal (PG) 400 kV D/C line along with up-gradation of 2x50 MVA 132/33 kV Imphal (PG) S/s to 400 kV by addition of 7x105 MVA 400/132 kV single phase transformers (one spare) was agreed. Construction of Imphal (PG)-Thoubal 400 kV D/C line would require 2 no. 400 kV line bays at Imphal (PG) 400 kV S/s.

Members agreed for providing space for 2 no. 400 kV bays at Imphal (PG) and the 400 kV bays would be built by MSPCL

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.28 : ADDITIONAL TRANSMISSION LINE TO EVACUATE ENHANCED GENERATION OF RC NAGAR – 5TH SCM MOM REF. ITEM NO. 23.0
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During 5th SCM at Imphal on 8th August 2015 SE, NERPC has stated that in the previous standing committee meeting, it was decided to re-conductor Agartala GBPP – Agartala S/s (State) 132 kV D/c line – 8 km with high capacity HTLS conductor by

POWERGRID in order to evacuate additional generation of 2x25.5 MW at AGTPP. System studies carried out by NERLDC indicate requirement of new line for safe evacuation of power from 4x21+2x25.5 MW AGTPP. From the studies, it is seen that in the event of outage of Agartala GBPP – Agartala line, critical lines of POWERGRID and TSECL will become highly loaded. To overcome this problem, NERLDC has suggested an additional 132 kV D/C line from AGTPP.

Director, CEA stated that in the previous meeting reconductoring of Agartala GBPP - Agartala (State) 132kV D/c line with high capacity conductor was agreed to evacuate enhance generation of R C Nagar as most of power from Agartala GBPP was flowing towards Agartala.

DGM, POSOCO informed that system studies corresponding to minimum load condition with present network in Tripura indicate overloading on Agartala-Kumarghat 132 kV line and P. K. Bari-Ambasa 132 kV line. Various n-1 contingency conditions has been studied, which indicate the requirement of Agartala-P. K. Bari 132 kV D/C line. Further, the system studies carried out with 100 MW export to Bangladesh also indicate the requirement Agartala to P. K. Bari 132 kV D/C line.

Director, CEA stated that additional 132 kV line from Agartala GBPP would require 2 no. 132 kV line bays at Agartala GBPP and P. K. Bari. NEEPCO and TSECL confirmed the availability of space for 2 no. 132 kV bays at Agartala GBPP generation switchyard and P. K. Bari S/s.

After detailed deliberation, members agreed to for construction of 132 kV D/C line with high capacity HTLS conductor (equivalent to single moose) from AGTPP to P. K. Bari (under TBCB) in addition to reconductoring of Agartala-Agartala 132 kV D/C line (By POWERGRID) as agreed in the previous meeting. The AGTPP – P. K. Bari 132kV D/c line with high capacity HTLS conductor (equivalent to single moose) may be included as a part of NERSS-V scheme.

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.29 : ESTABLISHMENT OF 400/220KV SS AT SONAPUR IN EASTERN PART OF GUWAHATI – AGENDA REF. ITEM NO. B.25

AEGCL vide above referred letter has stated that presently, Guwahati city is fed from 2x315 MVA 400/220 kV S/S at Azara situated in Western part of the city. In order to mitigate the contingency of Azara 400 kV S/S, AEGCL has proposed establishment of a 2x315 MVA 400/220 kV S/S in the Eastern part of the Guwahati by LILO of Silchar-Byrnihat 400 kV line. The LILO portion would be about 20 km. A 220/132 kV 2x100 MVA S/S at Sonapur is under construction with LILO of one circuit of Samaguri – Sarusajai 220kV D/C line and another LILO of one circuit of Karbi Langpi HEP (KLHEP) – Sarusajai 220kV D/C line. The estimated cost of the scheme is about 289.18 cr.

The issue was discussed during 5th Standing Committee Meeting of CEA on 8th Aug'15 and it was agreed that 400kV Silchar – Byrnihut Line will be made LILO at Sonapur (by AEGCL) and 400kV Silchar – Azara Line will be made LILO at proposed New Shillong SS (by MeECL).

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.30 : ESTABLISHMENT OF 400/220KV SS AT RANGIA LILO OF ONE CIRCUIT OF 400KV BALIPARA- BONGAIGOAN – AGENDA REF. ITEM NO. B.26

AEGCL vide its letter no. AEGCL/MD/13th Plan/24x7/2015-16/4 dated 30th June, 2015 has stated that in the 4th SCM of NER, it was agreed that AEGCL would be provided with 2 no. 400 kV bays at Rangia / Rowta 400 kV pooling station and the pooling station would be established depending upon the progress of hydro generating projects in Tawang and Kameng basins in Arunachal Pradesh.

AEGCL has informed that the because of rapid industrialization, the demand in Kamrup district and North bank district is increasing rapidly. AEGCL has proposed establishment of 2x160 MVA 220/132 kV GIS S/S at Amingaon as a part of scope of works for the NERPSIP under tranche- I, which would be connected to Rangia 220 kV through a D/C line. There is only one 220 kV interconnection between Bongaigaon (NTPC) and Rangia.

In order to improve the reliability of power supply to Kamrup and North Bank districts of Assam, 5th SCM agreed to the proposal of AEGCL for establishment of a new 2x500 MVA 400 kV S/S at Rangia by LILO of 400kV D/C Balipara-Bongaigaon (Twin Moose) line along with 2x80 MVAR bus reactors by AEGCL. The proposed 400/220 kV Rangia S/S will feed the existing Rangia and proposed Amingaon 220/132 kV sub-stations.

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.31 : ALLOCATION FROM AGTPP EXTENSION PROJECT – AGENDA REF. ITEM NO. B.27

NEEPCO intimated that allocation given by MoP from STG Unit of AGTPP is different from the GTG Units of the same project. This has created difficulty in real time scheduling as STG Extension and GTG Units are to be treated as different stations. Further CERC will have to fix the AFC for the whole plant, not for the GTG Units and STG Units separately.

During 26th CC Meeting, Member Secretary, NERPC intimated that NERPC Secretariat has already communicated to Ministry of Power requesting same share allocation for GTG Units and STG Units.

Members agreed to refer the issue to TCC/ RPC meeting for making resolution which may be sent to Ministry of Power for needful action.

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

<p>A.32 : DIFFERENT METHODOLOGIES ADOPTED IN VARIOUS ACCOUNTS ISSUED BY NERPC - AGENDA REF. ITEM NO. B.28</p>
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NERPC informed the members that certain methodologies are adopted while issuing various accounts of NERPC as given below: -

1) Pool balancing methodology adopted for Deviation Settlement Account:

Day-wise pool balancing is being done for NER Pool. Only the following components are not adjusted:

- a) Inter-region deviation charges.
- b) Capping arising out of Over-Injection / under drawal
- c) Stations injecting infirm power to the pool

All generating stations and beneficiary states are adjusted accordingly day-wise to balance the deviation pool.

2) The following methods have been adopted while calculating reactive energy accounts of NERPC:-

- a) As per provision of IEGC, state owned lines emanating directly from an ISGS are excluded from the reactive energy accounts.
- b) In case of Reactive Energy Drawal / Injection By Beneficiaries to the Pool:
 - Meter installed at last connecting node to ISTS is considered as first preference.
 - Meter installed at generating station is normally not considered unless there is a problem with other end meter.
- c) In case of Reactive Energy Drawal / between states:
 - Provision of IEGC is followed.

During 26th CC Meeting, NERPC intimated that the above methodologies have been approved in CC Meetings and the same need to be approved from TCC/ RPC forum. Members agreed.

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.33 : ADDITIONAL REQUIREMENTS OF OPGW BASED COMMUNICATION SYSTEM FOR CENTRAL SECTOR SUB-STATIONS AND GENERATING STATIONS AND OTHER LARGE GENERATING STATIONS IN NER - AGENDA REF. ITEM NO. B.29

Installation of OPGW in NER was approved during 14th TCC/NERPC Meeting. Accordingly tendering process was taken up by POWERGRID for following quantity:

<u>SN</u>	<u>Sector</u>	<u>OPGW (Km)</u>
1	Central Sector	1349.00
2	State Sector	611.00
	(a) Manipur	149.00
	(b) Meghalaya	107.00
	(c) Mizoram	59.00
	(d) Nagaland	25.00
	(e) Tripura	271.00

Deliberation of the TCC

The quantity is revised (**List attached Annexure B-29-i**) wrt 14th TCC/RPC with consent from utilities as above and recommended for approval of RPC as follows:

<u>SN</u>	<u>Sector</u>	<u>OPGW (Km)</u>
1	Central Sector	1092.00
2	State Sector	842.00
	(f) Manipur	365.00
	(g) Meghalaya	65.00
	(h) Mizoram	8.00
	(i) Nagaland	83.00
	(j) Tripura	321.00

So far as cost involvement is concerned, investment is to be recovered as per tariff determined by CERC. Further, MSPCL has requested to include another 164 km (in addition to 365km above, Annexure-B-29-ii) for covering their ongoing project. It was also emphasized by forum that during OPGW erection, ROW issue to be addressed by respective states.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

<p>A.34 : INSTALLATION OF POLYMER INSULATORS IN NER TRANSMISSION SYSTEM – AGENDA REF. ITEM NO. C.13</p>
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During 112th OCC meeting, a presentation was made by POWERGRID appraising the NER constituents regarding the NRPC experience of the Polymer Insulator installation/replacement in the NR Grid.

Considering the large number of line trippings due to flashover of insulators in NER Grid, it was agreed by the OCC members that in future all new transmission lines would be built with polymer insulators and also existing disc insulators would be replaced with polymer insulators in phased manner as is being done in the Northern Region for betterment of NER system. Further, it was informed that there will be no extra financial burden to the constituents for replacement of the porcelain insulators with polymer insulators. The NER constituents agreed to allow Shutdowns in phased manner for polymer insulators replacement on existing lines as per real time system conditions.

Placed for in-principle approval of TCC/NERPC.

Deliberation of the TCC:

TCC recommended for in-principle approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.35 : PROPOSAL FOR PURCHASING OF NEW VEHICLE FOR NERPC SECRETARIAT - AGENDA REF. ITEM NO. D.3

NERPC is having only one car (Ambassador of 2001 make) and the vehicle had utilized its life to the full. Of late the vehicle had giving lots of problem and travelling in long journey is not possible at all. Moreover, maintenance cost of the vehicle is increasing from day to day and it is found to be not economical anymore. Govt. of India has also banned procurement of new car. Further, Hindustan Motors (HM) has closed down its manufacturing Plant and the only authorized dealer in Shillong had also closed down. Hence getting of spare parts is very difficult. Officers of NERPC have to visit sub-stations, generating stations of States and Central Utilities and hiring of vehicles for site visit on official tour is un-economical as private taxis charge exorbitant rates, and due to this the officers are unable to visit the sites and number of important site visits and meetings could not be attended outside Shillong and have to be either cancelled or rescheduled at Shillong. Keeping in view the increasing of workload in power sector and to cope up with the day to day work and to run the office efficiently, it is proposed to procure one more vehicle for NERPC Secretariat.

NERPC through its judicious use of the money contributed by the constituents in the Board Fund had saved some money in the Fund. It is therefore proposed to procure one new vehicle from the Board Fund of NERPC with the ceiling amount of Rs. 8 Lakhs for use of NERPC Secretariat in lieu with earlier practice.

Placed for approval of TCC/NERPC

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.36 : OUTSOURCING OF CARE TAKER IN NEW NERPC COMPLEX - AGENDA REF. ITEM NO. D.4

The Office-cum-residential complex of NERPC has been shifted to own complex w.e.f. October, 2014 at Lapalang adjacent to POWERGRID/NERLDC complex. NERPC is running with skeleton staff and some of the staffs have been outsourcing. In order to

do proper maintenance of the Office-cum-residential complex, Guest House, pump house etc., the present staff is not adequate. Further, expenditure from budget allocated from Government is not sufficient. It is therefore requested to allow NERPC to outsource atleast two more staffs with minimum wages rate as per Central Government norms and expenditure will be utilized from the Board Fund of NERPC contributed by the constituents [monthly wage of about Rs. 18,000/- (approx.)]

Placed for approval of TCC/NERPC

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.37 : TA/DA FOR OFFICERS OF NERPC - AGENDA REF. ITEM NO. D.5
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Transferring/Postings of NERPC officers from/to NERPC is occurred frequently from time to time and payments of TA/DA to officers is being affected severely due to limited fund in Traveling Head Fund provided by Govt. As NERPC officers have to visit many places and attend numerous meetings outside and inside the region. Member Secretary may be authorized to pay up to 2 (two) lakhs (ceiling limit) per year from Board Fund against TA/DA of NERPC officers.

Placed for approval of TCC/NERPC

Deliberation of the TCC

TCC recommended for approval of NERPC

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

A.38 : TRADER MEMBERSHIP - AGENDA REF. ITEM NO. D.7
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At present there are two power trading companies (i.e. PTC & NVVN) as permanent members of NERPC as per the approval of NERPC.

CEA vide letter dated 18.05.2015 instructed that M/S Knowledge Infrastructures System Pvt. Ltd., (KISPL) to be considered as member of trader for NERPC in FY 2015-2016.

Deliberation of the TCC

NERPC informed that as per decision of 10th NERPC meeting, PTC & NVVN are permanent members of NERPC. Further, as per CEA letter mentioned above, M/s KISPL has been nominated as trader member of NERPC FY 2015-2016.

CE (GM) stated that as per MoP Notification only one trader member is to be allowed as RPC member. However, other traders can be made as special invitee.

Members opined that since the above members have already been decided by RPC forum, the same has to be endorsed by NERPC members.

Deliberation of the RPC

The RPC recommended to keep both PTC & NVVN as permanent members of NERPC as decided earlier and also include M/S KISPL as trader member of NERPC for FY 2015-2016.

A.39 : CONSTRUCTION POWER BTPS - AGENDA REF. ITEM NO. E.1
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The present Construction Power system (3 MW load was sanctioned to cater the construction load of NTPC (Ref: PEL.121/2008/9 dated 20.02.2009) is being fed from AEGCL 6.6 KV supply which is further stepped up to 11KV and connected to 11 KV overhead line constructed by NTPC. The metering is done by APDCL at 11 KV level.

M/S AEGCL has requested NTPC to make arrangement for alternate source of construction power for ongoing construction activities of Unit #2 and 3.

The best possible proposed alternate solution available with us is to feed Construction Power from 11 KV Switchgear of NTPC Ltd which is charged through Start-up power for which necessary and appropriate commercial metering etc. can be mitigated through the existing metering system at 11 KV level provided by APDCL, MTI Division.

Deliberation of the TCC

The forum agreed to the above proposal. As per regulation CTU has to install SEM at the site for proper accounting purpose by segregating construction power and startup power as they are treated differently.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.

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

**B.1 : T-CONNECTION OF LEKHI & BHALUKPONG SUB-STATION – AGENDA
REF. ITEM NO. A.1**

The T-connection at Lekhi was converted to LILO w.e.f. 29.04.2015. However, the LILO arrangement at Bhalukpong remains pending since long.

Deliberation of the TCC

Representatives from Ar. Pradesh were not present. The Forum decided to communicate to the Govt, of Ar. Pradesh for needful action.

Deliberation of the RPC

The RPC noted as above.

**B.2 : INSTALLATION OF HARMONIC FILTERS – AGENDA REF. ITEM NO.
A.2**

During 13th NERPC Meeting, Ar. Pradesh informed that they have received the specification and other details of harmonic filters from POWERGRID and they will implement the same within 2-3 months' time i.e., within September / October 2012.

The installation of Harmonic Filter took place after prolonged period of 2/3 years and unfortunately, when the same was charged on 10.07.2013, it got burnt immediately. Further, POWERGRID engineer verified the purchase order and challan of the equipment and found that the purchase order is as per the specification of CPRI, however, the challan is not as per the specifications.

During 88th OCC meeting, DoP, Ar. Pradesh informed that the matter has been taken up with Satyam Plant for rectification of the filter within 15 days otherwise, DoP, Ar. Pradesh will disconnect the power supply to the plant.

Deliberation of the TCC

Representatives from Ar. Pradesh were not present. The Forum decided to communicate to the Govt, of Ar. Pradesh for needful action.

Deliberation of the RPC

The RPC noted as above.

B.3 : FREQUENT TRIPPING OF 33 KV SYSTEM OF DOP, ARUNACHAL PRADESH AT NIRJULI AND ZIRO – AGENDA REF. ITEM NO. A.3

The frequent tripping of 33kV system of DoP, Ar. Pradesh is matter of concern. The issue was discussed in 9th, 10th, 11th and 12th TCC meetings. The present status of tripping of 33kV Feeders at Nirjuli and Ziro Sub Station is as below:

(a) No. of Trippings of 33kV Feeders at Ziro

SN	Feeder	Jan'10 – Jul'13		Aug'13 - July'15	
		Total	Pre Month	Total	Pre Month
1	Kurung- Kamey	813	18.90	387	16.12
2	Old Ziro Feeder	462	10.75	254	10.58
3	Kimin Feeder	1296	30.13	827	34.45
Grand Total =		2571	59.79	1468	61.16

(b) No. of Trippings of 33kV Feeders at Nirjuli

SN	Feeder	Jan'10 – Jul'13		Aug'13 - July'15	
		Total	Pre Month	Total	Pre Month
1	AP – 1	267	6.20	77	3.20
2	AP – 2	613	14.25	129	5.37
3	AP – 4	84	1.95	196	8.16
Grand Total =		964	22.41	402	16.75

Necessary action is required to be taken on priority to reduce the no. of faults in 33kV downstream feeders to avoid frequent failure of transformers at Nirjuli and Ziro Sub Stations.

Deliberation of the TCC

Representatives from Ar. Pradesh were not present. The Forum decided to communicate to the Govt, of Ar. Pradesh for needful action.

Deliberation of the RPC

The RPC noted as above.

B.4 : FREQUENT TRIPPING IN NER, PARTICULARLY IN MANIPUR SYSTEM AND MEGHALAYA SYSTEM IN KHLIEHRIAT AREA – AGENDA REF. ITEM NO. A.4

There are nos. of trippings of Grid Lines of NER due non clearance of downstream faults mainly in Manipur and Meghalaya system. The following data may please be refereed.

SN	Control Area	Disturbances (01.01.15 – 30.06.15)	GD1 Disturbance (01.01.15 – 30.06.15)
1	Manipur	40 Nos	140 Nos.
2	Meghalaya	25 Nos.	

The issue may be discussed for immediate rectification of long pending activities to be carried out by Meghalaya & Manipur to reduce frequent tripping.

Deliberation of the TCC:

- (a) Manipur informed that ongoing R&M works of substations will be completed shortly.
- (b) Meghalaya stated that tripping is mainly caused by poor-earthing at Khliehriat. Forum requested Meghalaya to sort out the issues with technical support from POWERGRID. POWERGRID stated that they will look into the matter.
- (c) Further, forum insisted participation of identified members of all constituents regularly in various Sub-committee meeting for time to time analysis of trippings and system improvement.

Deliberation of the RPC

The RPC noted as above.

**B.5 : POLLUTION MAPPING FOR NORTH EASTERN REGION - AGENDA
REF. ITEM NO. A.5**

During 14th TCC Meeting POWERGRID proposed for Pollution mapping of the region to be executed in association with CPRI using approach similar to the one adopted in Northern region. Further, the expected expenditure of Rs. 3 Crores on pollution mapping is to be reimbursed to POWERGRID directly from the beneficiaries as one time reimbursement. However, after detailed discussion, the constituents had requested POWERGRID to bear the burden of one time expenditure of about Rs. 3 crores for NER. POWERGRID had agreed to revert back on this matter.

Deliberation of the TCC

POWERGRID informed that pollution mapping at this stage in NER is not required considering the fact that

- (a) Use of polymer insulator which is much cheaper than porcelain insulator can address the issue of pollution and
- (b) In NER there is hardly any pollution.

Further, it is recommended to drop the agenda.

Deliberation of the RPC

The RPC noted as above and agreed to drop the agenda.

**B.6 : SETTING-UP/UP-GRADATION OF SLDCs IN NER - AGENDA REF.
ITEM NO. A.6**

Setting up of SLDCs in NER was agreed in 14th TCC/NERPC Meeting. Accordingly, job has been taken up by POWERGRID and the present status is as below:

UPGRADATION OF SLDCs

SN	State	Completion Target
1	Assam	30.09.2015
2	Tripura	31.10.2015
3	Meghalaya	31.10.2015
4	NERLDC	30.09.2015

NEW SLDCs

SN	State	Completion Target
5	Manipur	30.11.2015
6	Nagaland	31.03.2016
7	Mizoram	31.03.2016
8	Arunachal	31.12.2015

Immediate action is required for establishment of communication links without which

functioning / benefits of SLDCs will not be completed.

Deliberation of the TCC

PGCIL stated that upgradation of SLDCs (3states) would be completed by Oct'2015.

Manipur SLDC will be ready by Nov'15 with PLCC link revival by MSPCL. Building in respect of Nagaland would be made ready by November'15 & Building of Mizoram by October'15 as informed by respective utility. Regarding Tripura SLDC, POWERGRID informed that SLDC upgradation with existing RTUs will be completed by Sept'15 and requested Tripura to make communication system & sites ready for new RTUs. Tripura requested POWERGRID for completion of up-gradation of SLDC soon.

Deliberation of the RPC

The RPC noted as above.

B.7 : COMPLETION OF ATS OF PALLATANA IN AP - AGENDA REF. ITEM NO. A.8

ATS of Pallatana in Arunachal Pradesh is scheduled for commissioning as follows:

SN	Transmission System	Schedule Commissioning
1	132KV D/C Pasighat-Roing line including associated line bays at Pasighat and 132/33KV Roing Sub Station	September 2015
2	132KV D/C Roing-Tezu line including 132/33KV Tezu Sub Station	December 2015
3	132KV D/C Tezu-Namsai line including 132/33KV Namsai Sub Station	March 2016

Arunachal Pradesh is requested to complete 132KV Along-Pasighat line as well 33KV downstream system at Roing, Tezu & Namsai matching with the above. Ar. Pradesh may update the progress and tentative completion of 132kV Along – Pasighat line.

Deliberation of the TCC

Representatives from Ar. Pradesh were not present. The Forum decided to communicate to the Govt, of Ar. Pradesh for needful action.

Deliberation of the RPC

The RPC noted as above.

B.8 : SIGNING OF POWER PURCHASE AGREEMENT (PPA) IN RESPECT OF SUBANSIRI LOWER HE PROJECT (2000MW) IN AR. PRADESH – AGENDA REF. ITEM NO. A.9

During 14th TCC meeting, The Chief Engineer of NHPC stated that consent of Ar. Pradesh for signing of the Power Purchase Agreement (PPA), submitted vide their letter dated 22-05-2013, was withdrawn vide their letter dated 05-06-2013.

Committee requested NHPC to pursue the matter with Govt. of Ar. Pradesh and the member of TCC of Ar. Pradesh was also requested to ensure that PPA in respect of Lower Subansiri HEP is signed at the earliest.

Deliberation of the TCC

Ar. Pradesh representatives were not present. The forum suggested NHPC to take up the matter with Ar. Pradesh with a copy to NERPC.

Deliberation of the RPC

The RPC noted as above.

B.9 : SIGNING OF POWER PURCHASE AGREEMENT (PPA) IN RESPECT OF TAWANG – I & II HE PROJECT (1400MW) IN AR. PRADESH – AGENDA REF. ITEM NO. A.10

NHPC sent the Draft PPA to Assam, Manipur, Meghalaya, Tripura, & Mizoram on 24.09.2014 for early signing of PPA in respect of Tawang-I (3x200 MW) & II (4x200 MW) H.E. Projects. Modified draft PPA was sent to Arunachal Pradesh sent on 06.07.2015. All concerned beneficiaries are requested to give consent for signing of PPA at the earliest and further decide date for signing such PPA.

Deliberation of the TCC

Signing of PPA by Nagaland & Assam with NHPC has already been tied up. Regarding Manipur, MD, MSPCL assured to take up with concerned authority and inform NHPC within a month with a copy to NERPC. Meghalaya will confirm to NHPC by 7days regarding requirement of power from Tawang. Tripura intimated that the proposal is

under examination by the Government and they will sign it soon. Mizoram informed that approval was being awaited from their finance department and once approval is obtained, they will sign the agreement.

Deliberation of the RPC

The RPC noted as above.

B.10 : SIGNING OF BPSA IN RESPECT OF LOKTAK POWER STATION – AGENDA REF. ITEM NO. A.11
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During 14th TCC meeting, The Chief Engineer of NHPC stated that no significant development has taken place for signing of BPSA in respect of Loktak Power station in spite of regular follow up with APDCL; DoP, Ar. Pradesh and P&E Department of Govt. of Mizoram. The representative of Assam informed that the matter is pending with SERC.

Committee requested members of TCC of Assam, Ar. Pradesh and Mizoram to ensure that BPSA in respect of Loktak Power station is signed at the earliest.

Deliberation of the TCC

NHPC stated that consent for signing of BPSA in respect of Loktak Power Station has been received from Assam. In case of Manipur, MD, MSPCL assured to take up with concerned authority and inform NHPC within a month with a copy to NERPC.

However forum requested all concerned constituents to take necessary action for signing the agreement.

Deliberation of the RPC

The RPC noted as above.

B.11 : OUTSTANDING DUES OF POWERGRID AGAINST NER CONSTITUENTS – AGENDA REF. ITEM NO. A.12
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The total outstanding of POWERGID's NER beneficiaries as on 14.08.15 is as under-

Amount in Rupees Crores

SN	CONSTITUENTS	Outstanding against Non PoC bills	Outstanding against PoC bills	Outstanding more than 60 days	Surcharge	Total Outstanding (including surcharge)
1	Ar. Pradesh	-0.42	6.68	0.00	0.00	6.25
2	ASEB (Assam)	0.04	29.20	0.00	0.91	30.15
3	Manipur	-0.19	5.83	0.15	0.00	5.64
4	MeECL (Meghalaya)	-0.28	14.38	2.81	0.07	15.19
5	Mizoram	-0.05	6.56	1.39	0.00	6.52
6	Nagaland	-0.04	0.00	0.00	0.00	-0.04
7	TSECL (Tripura)	0.02	0.00	0.00	0.00	0.03
TOTAL =		-0.91	62.34	4.36	0.99	63.74

The total outstanding as on 14.08.15 is Rs. **63.74** Crore.

Deliberation of the TCC:

POWERGRID intimated that the total outstanding dues as on 13/8/2015 was Rs 63.73 Cr. He also stated that Meghalaya's outstanding dues (beyond 60 days) were much on higher side at Rs 2.81 Cr. He once again requested all constituents to liquidate their outstanding dues. ED (Commercial), POWERGRID deliberated about priority clearance of outstanding "60days or more" to avoid action as per CERC regulation. Forum also agreed upon and requested all states to take action immediately.

Deliberation of the RPC

The RPC noted as above.

B.12 : OUTSTANDING DUES OF NHPC AGAINST MeECL FOR MORE THAN 60 DAYS – AGENDA REF. ITEM NO. A.13

MeECL, Meghalaya: - As on 10th July 2015, an amount of ₹ 22.20 Crs (Including

surcharge of ₹ 4.89 Crs) is outstanding for more than 60 days. Meghalaya is not liquidating the outstanding dues even after regulation of power w.e.f 23.01.2014. A MOM was signed between MeECL & NHPC on 07.08.2014 and MeECL made a commitment for liquidation of outstanding dues including surcharge in installments but MeECL did not adhere to its commitment.

Due to prolong continuous default by MeECL, NHPC has requested to MOP, GOI for de-allocation of power from Loktak Power Station from MeECL & allocate to some other beneficiary from North Eastern Region.

Deliberation of the TCC:

Meghalaya intimated that the issue of outstanding dues has been taken up with Government of Meghalaya and they assured that payment will be made to NHPC soon.

NHPC reiterated that at least some schedule of payment is to be devised.

Deliberation of the RPC

The RPC noted as above.

**B.13 : OPENING / MAINTAINING OF LETTER OF CREDIT (LC) – AGENDA
REF. ITEM NO. A.14**

NHPC has informed that based on 105% of average monthly billing of preceding 12 months i.e. January 2014 to December 2014 the following beneficiaries were intimated to provide Letter of Credit of requisite amount vide letter dated 28.01.2015. The existing L.Cs have already been expired but the fresh/ renewed L.C of requisite amounts has not been received till date despite regular reminders. Last reminder to all the beneficiaries sent on 07.07.2015.

SN	BENEFICIARY	REQUISITE AMOUNT	VALIDITY EXPIRED ON
1	MeECL	Rs. 1.42 Crs	31.07.2014
2	Arunachal Pradesh	Rs. 0.57 Crs	31.03.2015
3	Mizoram	Rs. 0.57 Crs	24.03.2015
4	MSPDCL	Rs. 2.08 Crs	11.06.2015

MeECL, Meghalaya, Govt. of Arunachal Pradesh, Govt. of Mizoram & MSPDCL,

Manipur may be requested to furnish the Letter of Credit (LC) of requisite amount on top priority.

Deliberation of the TCC

All the constituents agreed to sort out by October, 2015

Deliberation of the RPC

The RPC noted as above.

B.14 : STATUS OF LETTER OF CREDIT – AGENDA REF. ITEM NO. A.15

POWERGRID informed following status of Letters of Credit provided by Beneficiaries towards Payment Security Mechanism as on 04.08.2015:

SN	DIC Name	LC		Validity
		Required	Available	
1	MIZORAM	1.69	1.52	04.05.15
2	MEGHALAYA	4.23	3.44	10.12.13
3	TRIPURA	3.45	1.83	14.02.16
4	MANIPUR	2.40	2.13	11.06.15
5	ARUNACHAL PRADESH	2.40	2.52	31.03.15
6	NAGALAND	2.02	2.02	21.03.2016
7	ASSAM	17.75	17.75	26.03.2016
Sub-Total (NER) =		33.93	31.21	

Deliberation of the TCC

The forum requested all beneficiaries to look into the matter seriously so that LCs is opened/renewed with requisite amount as required by CERC regulation.

All beneficiaries agreed to comply with as per CERC regulation.

Deliberation of the RPC

The RPC noted as above.

B.15 : APPROVAL OF TRANSMISSION TARIFF FOR ATS “ASSET –I: HVDC PORTION AND COMBINED ASSET-II, AC PORTION UNDER NORTH EAST-NORTHERN/WESTERN INTER CONNECTOR PROJECT IN NE-WESTERN/NORTHERN REGION – AGENDA REF. ITEM NO. A.16

Assam informed that all members are aware that the transmission system associated with North East-Northern/Western Interconnector-I Project was conceived connecting the NE Region directly through HVDC network with Northern and Western Region with the aim of evacuation of surplus power from Subansiri Lower HEP and Kameng HEP. Already power from these two projects has been allocated by MOP to NER, North and Western regions. So far need of the NER is concerned the region does not have the requirement of such costly HVDC network. As per original arrangement the investment cost of NER portion transmission network up to Bishwanath Chariali is to be shared by all Beneficiaries of NER as well as outside NER who avails share from these Generating projects and that for the rest portion from Bishwanath Chariali to Agra is to be shared by Northern and Western Regions on 50:50 basis.

Of late the hearing of transmission tariff petition of Power grid on this network is over and the tariff under POC mechanism is to be finalized by CERC. AS per original invest approval the cost of HVDC portion was to be borne by Northern and Western Region for whom the network was conceived and built.

Assam has requested the Forum to deliberate on the issue. POWERGRID may inform whether the PoC mechanism of tariff fixation is to be implemented as per the original investment plan or otherwise.

Deliberation of the TCC

POWERGRID informed that petition for tariff has already been filed in CERC on March 2015 and the tariff will be as per CERC order and sharing as per CERC prevailing guidelines.

Constituents requested POWERGRID to provide the copy of the petition which POWERGRID agreed upon.

TSECL & Assam representative requested to explore possibility of funding of this project from PSDF. Further all constituents requested NERPC to assist constituents at the time of filing of reply/hearing of CERC. However, POWERGRID informed that the

project is going to be commissioned shortly and the funding has already been tied up. Under such circumstance change of funding will not be possible. However, for similar future projects constituents may explore the funding from PSDF fund. Constituents informed that they will approach CERC for PSDF.

Chief Engineer (GM), CEA suggested that all states may put up their views to CERC while submitting reply to the petition/hearing.

Deliberation of the RPC

Chairman, CEA informed that at this stage PSDF funding may not be possible & constituents may take up the matter with CERC as suggested by TCC.

The RPC noted as above

**B.16 : DEVIATION CHARGES OUTSTANDING – AGENDA REF. ITEM NO.
A.19**

Deviation Outstanding status of NER for FY-2015-16 (including Last years O/S) is as shown below:

SN	Constituent	Outstating	
		Payable to pool	Receivable from Pool
1	Ar. Pradesh	43679673	0
2	Assam	262658817	0
3	Manipur	49310082	0
4	Meghalaya	75380329	0
5	Mizoram	40103467	0
6	Nagaland	35242332	0
7	Tripura	92017185	-4
8	Loktak	1	1
9	NEEPCO	-16	0
10	ER	4622068	-1719834
11	OTPC(with u-2)	2	0
12	NTPC	2	0

Total = 603013942 -1719837

From above it can be seen that Assam (Rs. 26.26 Crores), Tripura (Rs. 9.2 Crores), and Meghalaya (Rs. 7.5 Crores) are major defaulters. Such payment default is creating serious constraint in timely settlement of pool account.

Deliberation of the TCC

Concerned constituents were requested to clear their outstanding dues on priority.

Deliberation of the RPC

The RPC noted as above.

<p>B.17 : NON-PAYMENT OF NERLDC FEES AND CHARGES BILLS – AGENDA REF. ITEM NO. A.20</p>

NERLDC is raising the bills on monthly basis on the 1st working day of every month in Terms of the CERC (fees and charges of RLDC and other related matters) Regulation, 2015.

The status of latest outstanding is as below:

ENICL	: Rs. 98,838/- (2 months charges due)
Manipur	: Rs. 15, 56,537/- (2 months charges due)
Mizoram	: Rs. 19, 75,491/- (3 months charges due)

Users are requested to make payment within 7(Seven) days to avail 2 % rebate.

Deliberation of the TCC

Concerned constituents were requested to clear their outstanding dues on priority. All constituents agreed to liquidate the same at the earliest.

Deliberation of the RPC

The RPC noted as above.

<p>B.18 : ADDITIONAL REQUIREMENT OF OPGW BASED COMMUNICATION SYSTEM IN INTRA-STATE GRID OF MANIPUR – AGENDA REF. ITEM NO. C.1</p>
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During 5th Standing Committee Meeting of CEA on 8th Aug'15, Manipur requested

POWERGRID to take up the OPGW connectivity of additional 220 Km and tariff to be recovered as determined by CERC. During deliberation POWERGRID agreed to do the same at the earliest.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.19 : SYNCHRONIZATION OF PALLATANA MODULE – I AND MODULE – II – AGENDA REF. ITEM NO. C.2
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The status of CoD of Gas Based Power Plant (GBPP) of OTPC at Pallatana is given below:

- (a) Module – I : Commissioned on 04.01.2014
- (b) Module – II : Commissioned on 22.03.2015

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.20 : REMEDIAL MEASURES TAKEN IN NER AFTER MAJOR GRID DISTURBANCES IN JULY 30-31, 2013 BASED ON RECOMMENDATIONS OF ENQUIRY COMMITTEE – AGENDA REF. ITEM NO. C.4

Following the major Grid disturbances in July'2012 an Enquiry Committee was constituted by the Ministry of Power under the Chairmanship of Chairperson, CEA to look into the causes of these grid failures and to suggest remedial measures. The committee had suggested number of remedial measures like independent third party protection audit, UFR based load shedding, implementation of SPS and islanding scheme in each region etc. Accordingly following major action has been taken in NER:

1. INDEPENDENT THIRD PARTY AUDIT OF PROTECTION SYSTEM

Based on the deliberation of 14th TCC meeting, the protection audit of the substations / generating stations in NER was carried out in line with CEA/CERC regulations. The Audit of the entire 135 Sub Stations of NER was completed in February, 2013 and Detailed Project Report (DPR) was prepared based on the finding. Further, DPR and cost estimate for R&M works for all the constituents were submitted to CEA/NLDC for necessary funding through PSDF.

The status of funding is as below:

Amount in Rs. Crores

SN	States/ Organizations	Estimated DPR	Sanctioned Amount	Remarks/Status
1.	Ar. Pradesh	33.45	0.00	Under process
2.	AEGCL	382.48	299.37	
4.	Manipur	66.58	0.00	Under process
5.	MePTCL	102.80	69.19	
6.	MePGCL	48.16	0.00	Under process
7.	Mizoram	31.38	0.00	Under process
8.	Nagaland	39.96	39.96	
9.	Tripura	34.26	0.00	Under process

2. UFR BASED LOAD SHEDDING

During 2nd NPC meeting, it has been decided to arrange UFR based load shedding of 400MW in Four Stages (100MW each Stage) at different frequencies during fall and NER has implemented the same.

3. SYSTEM PROTECTION SCHEME (SPS) ASSOCIATED WITH GENERATING UNITS OF OTPC AT PALLATANA

Based on the study following SPSs were decided for Pallatana Generations:

- **SPS 1** - Tripping of generating unit of OTPC at Pallatana
- **SPS 2** - Tripping of 400 kV D/C Pallatana- Silchar line (with generation from OTPC's plant at Pallatana)
- **SPS 3** - Tripping of 400 kV Silchar-Byrnihat line (with generation from OTPC's plant at Pallatana)

- **SPS 4** - Tripping of 400 KV Silchar – Byrnihat line (without generation from OTPC's plant at Pallatana)

All the above SPSs except SPS 2 have already been implemented. SPS 2 will be implemented shortly

4. ISLANDING SCHEME

The implementation of following Islanding scheme at 48.80Hz with 500ms has been decided and implemented by NER:

Scheme I :

Island comprising of generating units of AGBPP (Gas), NTPS (Gas) & LTPS (Gas) and loads of Upper Assam system & Deomali area (Ar. Pradesh)

[Total Generation: 380-400MW and load: 200MW (off peak)-300MW (peak)]

Scheme II :

Island comprising of generating units of AGTPP (Gas), generating units at Baramura (Gas), Rokhia (Gas) & Gumati (Hydro) and loads of Tripura system & Dullavcherra area (Assam)

[Total Generation: 150-160MW and load: 110MW (off-peak)-150MW (peak)]

This is for Kind information

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.21 : RING FENCING OF LOAD DESPATCH CENTRES (LDCS) – AGENDA REF. ITEM NO. C.5

During 14th TCC meeting, the issue of implementation of recommendations of Pradhan Committee for ring fencing of SLDCs (i.e. functional autonomy and incentive schemes etc.) was discussed.

Presently, establishment of SLDCs is under progress for Ar. Pradesh, Manipur,

Mizoram & Nagaland. Further, up-gradation of SLDCs is under progress for Assam, Meghalaya & Tripura is in progress. Once the SLDCs are established the Ring Fencing of SLDCs will be done.

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 : GRID SECURITY EXPERT SYSTEM (GSES) - AGENDA REF. ITEM NO. C.6

During the 14th TCC meeting, the committee decided to review the requirement of GSES after setting of SLDCs in all states for establishment of reliable communication link.

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 : STANDARDIZATION OF PROTECTION SCHEME FOR TRANSMISSION SYSTEM IN NER - AGENDA REF. ITEM NO. C.7
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The standardization of protection scheme has already been done in line with Guidelines issued by CEA and accordingly being implemented in NER.

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 : FORMATION OF SYSTEM STUDY GROUP IN NER – AGENDA REF. ITEM NO. C.8

The System Study Group comprising of members from all constituents of NER has already been formed and functional.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.25 : RANGIA (ASSAM) – MOTONGA (BHUTAN) 132KV TRANSMISSION LINE - AGENDA REF. ITEM NO. C.9

During 14th TCC/NERPC Meeting, GM, NERLDC stated that there was erratic reading of SEM at Rangia, hence requested POWERGRID to install the SEM at Motanga as well as at Rangia ends. The issue has already been resolved.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.26 : SIGNING OF TRANSMISSION SERVICE AGREEMENT - AGENDA REF. ITEM NO. C.10

During 14th TCC meeting, GM, PGCIL informed that signing of TSA with Assam and Tripura is still pending. As on date, signing of TSA with Assam and Tripura has already been done.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.27 : PROPOSAL FOR STUDY TOUR – AGENDA REF. ITEM NO. C.11

The study tour to China was successfully conducted by NERPC w.e.f. 20.04.2014 to 26.04.2014 comprising of 18 participants of 7 NER States, NERPC & NERLDC with an estimated cost of Rs. 34 lakhs (approx).

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.28 : COMMISSIONING SCHEDULE OF GENERATION PROJECTS IN NER - AGENDA REF. ITEM NO. C.12

The proposed dates of commissioning of various Generating Projects in NER are as below:

SN	AGENCY	PROJECT	COMMISSIONING SCHEDULE
1	NHPC	Lower Subansiri	12 th Plan
2	NEEPCO	Kameng HEP	June, 2016
3	NTPC	Bongaigaon TPS	U#1: 12/15, U#2: 3/16, U#3: 12/16
5	NEEPCO	Tuirial HEP	2016-2017
6	NEEPCO	Pare HEP	2015-2016

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.29 : LIST OF POWERGRID ELEMENTS PLANNED TO BE COMMISSIONED IN NEXT 6 MONTHS – AGENDA REF. ITEM NO. C.14

Following transmission elements are planned to be commissioned in forthcoming months:

LIST OF LINES

SN	Name of the Trans line	Length (CKM)	Ant./ Act.	Remarks
1	400KV Balipara – Biswanath Chariyali line	114	Aug'15	Completion matching with HVDC link.
2	LILO of Ranganadi - Balipara 400KV D/C line at Biswanath Chariyali (Pooling Point)	52	Aug'15	Completion matching with HVDC link.
3	132KV D/C Biswanath Chariyali – Biswanath Chariyali (AEGCL) line	25	Aug'15	Line completed. Commissioning matching with HVDC link.
4	132KV S/C Pasighat - Roing line (on D/C)	102	Sep'15	Upstream & downstream systems being executed by Arunachal Pradesh need to be ensured to match the same.
5	132KV S/C Roing - Tezu line (on D/C)	72	Feb'16	Upstream & downstream systems being executed by Arunachal Pradesh need to be ensured to match the same.
6	400KV D/C Surjamaninagar (Tripura) - Indo-Bangladesh Border line (operated at 132KV)	46	Mar'16	Efforts being made to complete by Dec'15
7	±800 Kv Biswanath Chariyali - Agra HVDC Line		Aug'15	Planned for commissioning alongwith Pole-I

LIST OF SUBSTATIONS

SN	Name of Station	Ant./ Act.	Remarks
1	HVDC Rectifier Module at BiswanathChariyali (3000MW)	Pole-I(Aug'15) Pole-II(Mar'16)	
2	220/132 KV Mokokchung S/Stn. (New) (6X10 MVA)	Aug'15	One ICT (3X10 MVA) commissioned in Jul-15. 2 nd ICT anticipated in Aug'15
3	132/33 KV Roing S/Stn (6X10 MVA)	Sep'15	Works under progress. Completion matching with associated lines.
4	132/33 KV Tezu S/Stn (6X10 MVA)	Feb'16	

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.30 : TRANSMISSION LINES OF NETC – AGENDA REF. ITEM NO. C.15

The following is the status of three sections of 400 KV D/C transmission line of North East Transmission Company Ltd., (NETC) for evacuation of power from Gas Based Combined Cycle Power Project at Pallatana, Tripura (GBCCPP) of ONGC Tripura Power Company Ltd.

- (a) 400kV PALLATANA-SILCHAR Line - DOCO on 01.09.2012
- (b) 400kV SILCHAR-BYRNIHAT Line - DOCO on 01.03.2013
- (c) 400kV SILCHAR-AZARA Line - DOCO on 29.06.2014
- (d) 400kV AZARA-BONGAIGAON Line - DOCO on 18.01.2015
- (e) 400kV BYRNIHAT-BONGAIGAON Line - DOCO on 22.02.2015

The Sub-committee also review the status of commissioning of various ongoing projects in NER during OCC Meetings. The status as on last 112th OCC Meeting is as below:

SN	Project	Target Completion
1	Trial operation and CoD of Unit -I of Bongaigoan TPS of NTPC	December 2015
2	400/220kV, 2x315 MVA ICT of NTPC at Bongaigaon	August 2015
3	Trial operation and CoD of STG -I & II of AGTPP of NEEPCO (2 x 25.5 MW)	STG-II: Jul'15 STG-I: Aug'15
4	Trial operation and CoD of Monarchak GBPP of NEEPCO	December 2015
5	Kameng HEP of NEEPCO	
	(a) Unit 1 & 2 (2X150MW)	November, 2016
	(b) Unit 3 & 4 (2X150MW)	April, 2017
6	Pare HEP of NEEPCO (2 x 55 MW)	June 2016
7	400KV D/C Silchar - Melriat line of PGCIL	December 2015
8	800KV HVDC Bishwanath Chariali – Agra of PGCIL	August 2015
9	132kV Rangia - Salakati of AEGCL	
10	132kV Monarchak – Surjamaninagar D/C of TSECL	December 2015
11	400/132 kV, 2nd 125 MVA ICT at Pallatana	June 2016

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.31 : CONSTRUCTION OF TWO NO. OF 132KV LINE BAYS AT 132KV SWITCHYARD, LEIMATAK OF NHPC – AGENDA REF. ITEM NO. C.16

During , 5th SCM at Imphal on 8th August 2015MD, MSPCL stated that Manipur is drawing its allocated share from Central Sector Generating Stations in NER mostly through (i) Imphal (PG) – Imphal (State) and (ii) Leimatak – Ningthoukhong 132 kV lines. Load Flow Study conducted by PGCIL on the request of Manipur Government with a projected load peak demand of 425 MW and additional interstate connectivity of i) Silchar – Imphal (PG) 400 kV D/C line & ii) Imphal (PG) – New Kohima 400 kV D/C

line both charged at 132 kV system voltage, shows 97 MW flowing through Leimatak – Ningthoukhong 132 kV S/C line. Also, whenever Manipur draws about 130 MW or above, the flow in this line exceeds its SIL and most of the time SLDC, Manipur has tough time to bring down the power flow in this line to acceptable limit.

He added that to mitigate the constraint in drawing Manipur's share, Manipur State Power Company Limited has taken up the construction of a new Leimatak – Ningthoukhong 132 kV D/C line (2nd line) for which construction of two 132 kV line bays at 132 kV switchyard, Leimatak under NHPC is required.

Manager, NHPC informed that at present 9 no. 132 kV bays are existing at their Leimatak generating switchyard, which includes 4 no. feeder bays, 3 no. unit bays, one bus coupler bays and one auxiliary bay . There is space constraint at the generating switchyard.

After further discussion, it was decided that a joint survey by NHPC and MSPCL would be carried out to explore the possibility of space at the generating switchyard for accommodating two no. 132 kV bays for Leimatak – Ningthoukhong 132 kV D/C line. If space is found after the joint survey, NHPC would provide space for 2 no. 132 kV bays and the bays would be under the scope of MSPCL.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

<p>B.32 : CONSTRUCTION OF 132KV D/C LINE FROM RUPAI IN ASSAM TO NAMSAI IN ARUNACHAL PRADESH AS INTER-STATE TRANSMISSION LINE BY POWERGRID – AGENDA REF. ITEM NO. C.17</p>
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Several districts like Lower Dibang Valley, Lohit, Anjaw and namsai are sorely dependent on 33 KV Transmission bottleneck to these entire districts for drawing its share of Central Sector Power. Since Assam has already constructed a 132 KV line up to Rupai, construction of a D/C 132 KV line from Rupai to connect the State Transmission system at Namsai shall be beneficial for both the States. This shall

remove the transmission bottleneck and give huge benefit to the consumers of all these districts.

Deliberation of 5th Standing Committee Meeting of CEA on 8th Aug'15

The issue was discussed during 5th Standing Committee Meeting of CEA on 8th Aug'15 and members deferred the agenda and advised Arunachal to complete 132 KV Along-Pasighat Line at the earliest to mitigate the issue.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

<p>B.33 : BOARD FUND CONTRIBUTION FOR FY 2013-14 – AGENDA REF. ITEM NO. D.1</p>
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As per decision of 9th NERPC meeting, Central Utilities and State Utilities of the region are to contribute an amount of Rs. 2 lakhs per annum and Rs. 50000 per annum (w.e.f 2010-2011) respectively to the board fund of NERPC to meet the expenses for hosting various sub-committee meetings and other expenses of Secretariat etc.

The following are the status of pending:

- (a) Assam : Rs. 1,50,000.00 (FY: 2011-12, 2012-13 & 2013-14)
- (b) Manipur : Rs. 50,000.00 (FY: 2013-14)
- (c) Mizoram : Rs. 50,000.00 (FY: 2012-13)
- (d) NVVN : Rs. 4,00,000.00 (FY: 2013-14 & 2014-15)

The above pending amount may please be cleared at the earliest. Letter for contribution for FY 2015-16 has also been sent to all constituents. The same may also be paid as soon as possible.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.34 : AUDITING OF BOARD FUND OF NERPC – AGENDA REF. ITEM NO. D.2

Audit of Board Fund of NERPC was completed for the F.Y from 2011-2012 to 2014-2015 was carried out by Auditing officers from Me. ECL, POWERGRID and NEEPCO as decided in the 10th NERPC meeting.

This is for Kind information

Deliberation of the TCC

The TCC noted as above.

Deliberation of the RPC

The RPC noted as above.

B.35 : NON – PARTICIPATION BY CONSTITUENTS IN SUB- COMMITTEE MEETINGS OF NERPC – AGENDA REF. ITEM NO. D.6

It has been observed that constituent States viz. Ar. Pradesh, Mizoram, Nagaland and of late Tripura were not attending the Sub-committee meetings except OCC of NERPC on many occasions despite the same is being conducted at Guwahati in line with the earlier decision of NERPC for more participation. As a result many important issues often cannot be discussed and resolves in stipulated time frame.

Deliberation of the TCC:

After detailed deliberation TCC recommended for regular participation of identified members (Main & Standby) of all constituents in all sub-committee meetings of NERPC to resolve issues in stipulated time frame.

Deliberation of the RPC

The RPC noted and endorsed the recommendation of TCC.

B.36 : PoC CALCULATION AND ITS EFFECT -- AGENDA REF. ITEM NO. E.3

In the revised calculation of PoC for the first quarter of 2015-16 it is founded that PoC amount for Assam has increased to double as compared to the previous quarter. Assam has raised this serious issue to the forum and to apprise other constituents of the gravity of the situation. Assam also requests the forum to take up the issue with concerned authority so that previous rate prevail till the present issue is resolved.

Deliberation of the TCC

CE (GM), CEA stated that this may be taken up in the Validation Committee Meeting held quarterly.

NVVN informed that the same issue has been raised in WRPC also and the same may be taken up jointly with WRPC.

TCC members noted the issue raised by Assam and decided to appraise in the appropriate forum.

Deliberation of the RPC

The RPC noted as above.

CAT-C: ADDITIONAL ITEM(S) IN 15TH NER POWER COMMITTEE MEETING

C.1 : SUDDEN REVISION OF SCHEDULE DUE TO OUTAGE OF ISGS - TRIPURA

Tripura stated that revision in schedule due to change in DC of generator with only 4 time-blocks notice has resulted in heavy commercial loss to the states as they are committed to day ahead market for which no change in schedule is allowed. Tripura requested the forum to devise a methodology either to give notice of longer period instead of 1hr or sharing of losses of the beneficiary with generating companies.

Deliberation of the RPC

OTPC and NTPC representatives stated that the scheduling procedure in IEGC has been finalized after lot of deliberations and these cannot be decided in this forum. However, in case of plan outages or revival of units after shutdown, prior intimation is possible, but for forced outages it is not possible and we have to abide by the scheduling procedure approved by CERC. Chairperson, CEA stated that the aggrieved party should approach CERC.

The RPC noted the concern of Tripura and suggested Tripura to approach CERC.

CAT-D: RESOLUTIONS TAKEN DURING THE 15TH RPC MEETING

The North Eastern Regional Power Committee (NERPC) unanimously resolved in the 15th NERPC meeting held on 21st August, 2015 at Guwahati as follows:

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

D.1 : COMBINED ALLOCATION FOR AGTPP & AGTPP EXT. OF NEEPCO

As you are aware that NEEPCO had declared CoD of Agartala Gas Turbine Power Plant (AGTPP) STG -#2 of capacity of 25.5 MW from open cycle mode to combined cycle mode of operation; by way of commissioning of Steam Turbine Generator (STG) in order to increase the efficiency.

We would therefore request your good self to intervene into the matter and Share Allocation from STGs (25.5 MW x 2) of ATGPP of NEEPCO should be in line with the existing share allocation of existing 84 MW (%wise) for the benefit of the region.

DATE & VENUE OF THE NEXT MEETING

The next meeting of TCC & NERPC is proposed to be held in January/February, 2016. As per roster, POWERGRID will be the host for the 16th TCC/RPC Meetings. POWERGRID has agreed to host the meeting in Goa. The exact date & venue will be intimated later.

The meeting ended with thanks to the Chair



ANNEXURES

ANNEXURE - I

LIST OF PARTICIPANT IN 15TH TCC MEETING

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
1	ASSAM	R.L. Barua	MD, APDCL
2		J.K. Sarma	CGM , SLDC
3		J.K. Das	GM (HQ)
4		M.K. Adhikary	GM (TRC), APDCL
5		J.K. Baishya	AGM, SLDC
6		S. Goswami	OSD, Govt. of Assam
7		A.N. Dev Choudhury	AGM, APDCL
8		K. Goswami	AGM, APDCL
9		K. Sarma	AGM, AEGCL
10		N. Deb	Asst. Manager (A), APDCL
11	MANIPUR	N. Sarat Singh	MD, MSPCL
12		Ng. Sarat Singh	Executive Director (Tech.)
13		N. Dwijen Singh	Executive Director (G&C)
14		Ng. Birjit Singh	OSD (Trans.)
15		Budha Chandra Sharma	GM (Trans.)
16	MEGHALAYA	E.W. Nongrum	CE (Trans.)
17		T. Passah	CE (Dist.), MePDCL
18		H.F. Shangpliang	EE, MePTCL
19		R. Syiem	SE (T&T)
20		A. Kharpran	ACE (Comml.)
21		R. Majaw	SE (EM)
22		F.E. Kharshiing	SE, SLDC
23		M. Marbaniang	SE (T&T)
24		H.F. Shangpliang	EE (MRT), MePTCL
25	MIZORAM	Lalramliana	CE (RE)
26		Vanlalrema	SE, SLDC
27		Zoramdina	AE, SLDC
28	NAGALAND	K. Miachieo	CE (Power)
29		Khose Sale	SE
30		A. Jakhalu	EE (Trans.)

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
31	TRIPURA	M.K. Choudhury	Director (Tech.)
32		M. Debbarma	Addl. GM (C&SO), TSECL
33		Debabrata Pal	Sr. Manager
34	NEEPCO	Pradeep Kr. Singha	Executive Director
35		Saawarjit Chakravorty	General Manager
36		Paresh Ch. Barman	General Manager
37		Devapriya Choudhury	Dy.General Manager
38		Bhaskar Goswami	Sr.Manager
39	NHPC	Chander Mohan	GM (Comml)
40		Parag Saxena	GM (Comml)
41	NERLDC	T.S. Singh	GM
42		R. Sutradhar	DGM (MO)
43		R. Bishnu	CM
44	POWERGRID	R.K. Singh	ED, NERTS
45		Y.K. Sehgal	ED (CC), Comml
46		P.N. Dixit	GM (CC), AM
47		A. Patir	GM (AM), NERTS
48		Prashant Sharma	GM (CC), Comml
49		Sunil Agrawal	GM (CC), LD&C
50		Prasanta Kanungo	DGM (AM), NERTS
51		Ramchandra	Asstt. GM (CC), CTU
52		Supriya Paul	Manager (AM), NERTS
53	NTPC	Arvind Kumar	Regional ED, (ER-2)
54		Utpal Chakrabarti	CGM, BgTPP
55		Raktim Borgohain	AGM (Comml.)
56		Umesh Ambati	DGM (Comml.)
57		G.K. Kundu	AGM, (EEMG), BgTPP
58		J. Bhattacharyya	AGM (O&M), BgTPP
59	NVVN	P.K. Jena	AGM, (BD)
60		A.K. Srivastava	AGM (Comml.)
61	OTPC	Satyajit Ganguly	MD
62		Arup C. Sarma	DGM

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
63	PTC	Harish Saran	Executive Director
64	CEA	Dinesh Chandra	CE (GM)
65		Ajit Kr. Ray	AD-II
66	NERPC	P.K. Mishra	MS
67		B. Lyngkhoi	Director/SE
68		S.M. Jha	DD/EE
69		S.M. Aimol	DD/EE
70		S. Mukherjee	AD-I
71		Shaishav Ranjan	AD-II
72	SPECIAL INVITEE	Rajesh Mahajan	ED, KISPL

NOTE: NO REPRESENTATIVES FROM AUNACHAL PRADESH

ANNEXURE - II

LIST OF PARTICIPANT IN 15th NERPC MEETING

- | | | |
|----|-----------------------|---|
| 1. | Sh. R. Hussain | Hon'ble Power Minister, Govt. of Assam |
| 2. | Sh. C. Kipili Sangtam | Hon'ble Power Minister, Govt. of Nagaland |
| 3. | Sh. Manik. Dey | Hon'ble Power Minister, Govt. of Tripura |
| 4. | Sh. Major Singh | Chairperson, CEA |
| 5. | Sh. V.B. Pyarelal | Addl. Chief Secretary (Power), Assam |
| 6. | Sh. K.I. Yanger | Secretary (Power), Nagaland |
| 7. | Sh. S.K. Rakesh | Principal Secretary, Tripura |
| 8. | A.G. West Kharkongor | Director (Finance), NEEPCO |

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1	ASSAM	K.V. Eapen	Chairman, APDCL, AEGCL, APGCL
2		R.L. Barua	MD, APDCL
3		J.K. Sarma	CGM , SLDC
4		J.K. Das	GM (HQ)
5		M.K. Adhikary	GM (TRC), APDCL
6		J.K. Baishya	AGM, SLDC
7		S. Goswami	OSD, Govt. of Assam
8		A.N. Dev Choudhury	AGM, APDCL
9		K. Goswami	AGM, APDCL
10		K. Sarma	AGM, AEGCL
11		N. Deb	Asst. Manager (A), APDCL
12	MANIPUR	N. Sarat Singh	MD, MSPCL
13		Ng. Sarat Singh	Executive Director (Tech.)
14		N. Dwijen Singh	Executive Director (G&C)
15		Ng. Birjit Singh	OSD (Trans.)
16		Budha Chandra Sharma	GM (Trans.)
17	MEGHALAYA	C. Kharkrang	Director (Distribution)
18		E.W. Nongrum	CE (Trans.)
19		T. Passah	CE (Dist.), MePDCL
20		H.F. Shangpliang	EE, MePTCL
21		R. Syiem	SE (T&T)

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23		R. Majaw	SE (EM)
24		F.E. Kharshiing	SE, SLDC
25		M. Marbaniang	SE (T&T)
26		H.F. Shangpliang	EE (MRT), MePTCL
27	MIZORAM	Lalramliana	CE (RE)
28		Vanlalrema	SE, SLDC
29		Zoramdina	AE, SLDC
30	NAGALAND	K. Miachieo	CE (Power)
31		Khose Sale	SE
32		A. Jakhalu	EE (Trans.)
33	TRIPURA	S.K. Ray	CMD
34		M.K. Choudhury	Director (Tech.)
35		M. Debbarma	Addl. GM (C&SO), TSECL
36		Debabrata Pal	Sr. Manager
37	NEEPCO	Utpal Moral	Director (Tech)
38		Pradeep Kr. Singha	Executive Director
39		Saawarjit Chakravorty	General Manager
40		Paresh Ch. Barman	General Manager
41		Devapriya Choudhury	Dy.General Manager
42		Bhaskar Goswami	Sr.Manager
43	NHPC	Chander Mohan	GM (Comml)
44		Parag Saxena	GM (Comml)
45	NERLDC	T.S. Singh	GM
46		R. Sutradhar	DGM (MO)
47		R. Bishnu	CM
48	POWERGRID	R.K. Singh	ED, NERTS
49		Y.K. Sehgal	ED (CC), Comml
50		P.N. Dixit	GM (CC), AM
51		A. Patir	GM (AM), NERTS
52		Prashant Sharma	GM (CC), Comml
53		Sunil Agrawal	GM (CC), LD&C

SN	ORGANISATION	NAME (S/SHRI)	DESIGNATION
54		Prasanta Kanungo	DGM (AM), NERTS
55		Ramchandra	Asstt. GM (CC), CTU
56		Supriya Paul	Manager (AM), NERTS
57		Arvind Kumar	Regional ED, (ER-2)
58		Utpal Chakrabarti	CGM, BgTPP
59	NTPC	Raktim Borgohain	AGM (Comml.)
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61		G.K. Kundu	AGM, (EEMG), BgTPP
62		J. Bhattacharyya	AGM (O&M), BgTPP
63	NVVN	P.K. Jena	AGM, (BD)
64		A.K. Srivastava	AGM (Comml.)
65	OTPC	Satyajit Ganguly	MD
66		Arup C. Sarma	DGM
67	PTC	Harish Saran	Executive Director
68	CEA	Dinesh Chandra	CE (GM)
69		Ajit Kr. Ray	AD-II
70		P.K. Mishra	MS
71		B. Lyngkhoi	Director/SE
72	NERPC	S.M. Jha	DD/EE
73		S.M. Aimol	DD/EE
74		S. Mukherjee	AD-I
75		Shaishav Ranjan	AD-II
76	SPECIAL INVITEE	Rajesh Mahajan	ED, KISPL

NOTE: NO REPRESENTATIVES FROM AUNACHAL PRADESH

ANNEXURE-III

**KEYNOTE ADDRESS OF SHRI P. K. MISHRA, IES (CPES)
MEMBER SECRETARY, NERPC ON THE OCCASION OF
THE 15th TCC MEETING OF
THE NORTH EASTERN REGIONAL POWER COMMITTEE
HELD ON 20TH AUGUST, 2015 IN GUWAHATI**

Chairman of TCC & Managing Director, APDCL, Shri R. L. Barua, Shri S. K. Ray, CMD, TSECL, Shri G. K. Das, Managing Director, AEGCL, Shri P.B. Baruah, Managing Director, APGCL, Shri S. Ganguly, MD, OTPC, Shri P. K. Singha, ED (Comml), NEEPCO, Shri M. S. Jyrwa, ED (O&M), NEEPCO, Shri T. S. Singh, GM, 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 15th TCC meeting of NERPC. I would also like to take this opportunity to convey my sincere thanks to NEEPCO for hosting the 15th TCC & 15th NERPC meetings at a short notice and for making excellent arrangement and providing a comfortable stay for the delegates in this serene hotel far away from the madding crowd.

I have joined at NERPC in December last year (2014) and during these eight months (or so) of my tenure in NER; I have understood how complex and difficult are the challenges that we are facing in NER especially 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.

With deep regret, I would like to mention that we have not been able to hold TCC meeting since September 2013 due to various problems and unavoidable circumstances. This 15th TCC meeting therefore has become even more significant since many important issues are pending to be discussed and resolved.

During the past two years, we have seen an increase in capacity addition in the region. Pallatana Gas Project (2x363) MW has been brought into commercial operation: Unit#1 (363MW) in January, 2014 and Unit#2 (363MW) in March 2015. The Transmission system for evacuation of Pallatana Power Plant from Pallatana to

Bongaigaon has also been commissioned successfully. Recently NEEPCO has declared COD of AGTPP Ext of (2x25.1) MW capacity which has been fully allocated to NER constituents. This has helped in improving the generation and availability of power in NER. However it may be noted that extending of power to remote parts of the states are not adequate due to distribution constraints. States should look into the matter seriously so that power is made available to downstream level which is one of the key goals of National Electricity Policy.

Protection is one of the important parts in the system for safe and secure operation of the grid and it is getting completed each year and this issue has to be addressed in priority. NER is now being connected with neighboring countries and the quantum of power supply to neighbouring countries is more likely to increase in future. Therefore, it is very important to have a system that is safe, secured, redundant and reliable.

I would like to mention that the 5th Standing Committee Meeting of NER was conducted by CEA in Imphal on 08/08/2015 and many issues included for today's discussion have already been discussed and resolved. There are also many issues which have been approved in the 4th Standing Committee held on 13/12/2014. Further, a number of issues have been discussed in various subcommittee meetings of NERPC and therefore these issues need to be endorsed by TCC forum before placing for approval in the 15th NERPC meeting tomorrow i.e. 21/08/2015.

I would also like to mention that participation in various subcommittee meetings of NERPC has not been satisfactory due to the absence of members from the states except OCC meeting. I take this opportunity to bring to the notice of the competent authority present here today to look into the matter and to request all of you to send members from your organizations positively so that all the subcommittee meetings of NERPC would bear fruitful outcome.

We at NERPC Secretariat would like to assure you that we will be there to facilitate and assist in whatever we could to bring development of power sector in NER.

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.

<p style="text-align: center;">Presentation in 15th. TCC meeting</p> <p style="text-align: center;">Power System Operation Corporation Ltd North Eastern Regional Load Despatch Centre Shillong</p> <p style="text-align: right;">20.08.2015</p>	<p style="text-align: center;"><u>Coverage</u></p> <p>(i) <u>Some recent Regulatory initiatives</u></p> <p>Indian Electricity Grid Code – Amendment 2014</p> <p>Deviation Settlement Mechanism and related matters Regulations, 2014</p> <p>Continuous trading in Power Exchanges (24 X 7)</p> <p>Ancillary Services - proposed</p> <p>(ii) <u>Performance of NER Utilities</u></p>																																																																																																																		
<p style="text-align: center;">Some recent Regulatory initiatives</p>	<p style="text-align: center;"><u>IEGC amendments</u></p> <p>6.4(6) Maximum inadvertent deviation shall not exceed the limits specified in the DSM Regulations</p> <p>Reversal of sign of deviation from schedule at least once after every twelve time blocks.</p> <p>6.4(10) For ISGS also, <u>Maximum deviation allowed during a time block shall not exceed the limits specified in the Deviation Settlement Mechanism Regulations.</u></p> <p style="text-align: center;"><u>Responsibility : SLDC, ISGS</u></p>																																																																																																																		
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DSM Balance Sheet in NER : 2014-15
 Period - Week 01 (14-19) to Week 52 of 2014-15
 Figures in Crores of ₹

Constituent	DSM Payable (a)	Addl. DSM (b)	Receivable (c)	Net (c) - (a + b)
Ar Pradesh	36.32	5.86	0.35	-41.831
Assam	81.36	15.78	0.14	-96.990
Manipur	7.40	1.01	2.31	-6.094
Meghalaya	4.46	1.99	3.38	-3.064
Mizoram	15.58	0.52	0.00	-16.100
Nagaland	19.67	1.39	0.74	-20.326
Tripura	25.94	6.93	0.05	-32.831
West Bengal	0.16	0.18	1.23	0.896
NERPCs	3.44	3.16	12.91	6.309
ER	26.14	0.00	129.95	103.810
OTPC	4.67	2.64	42.29	34.990
NTPC	0.36	0.00	0.00	-0.362
Total	225.123	39.457	193.348	-71.231

Net Payment: (+) receivable from pool / (-) payable to pool.

Continuous trading in Power Exchange (24x7)

Already implemented in both the Power Exchanges in line with CERC Order dated 8th April, 2015

Continuous trading in Power Exchange

i. The existing products for day ahead contingency and intraday markets would continue to be operated by the exchanges.

1. **Same day Delivery (up to 2400 hours):**
 The trading window open round the clock for delivery same day. Minimum delivery period - 03 hours after contract execution subject to corridor availability).

2. **Next day Delivery (0000- 2400 hours):**
 The trading window opens after declaration of day ahead results and remains open till end of day.

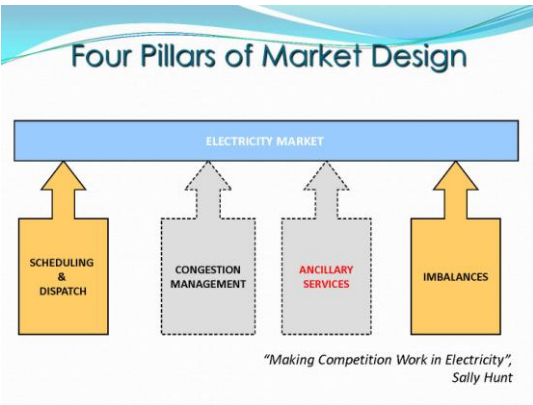
ii. Price discovery mechanism remains as is for the respective products.

Utilities need to avail benefit of this option

Ancillary Services in India

(in draft Regulation stage)

Final Regulation to be notified soon



Ancillary Services

System operator, namely National Load Despatch Centre through the Regional Load Despatch Centres shall be the **nodal agency** for implementation of the ancillary services at the inter-state level

Who would participate : Un-Requisitioned surplus of ISGS stacked in merit order of variable cost will be called by nodal agency in case of certain events in Grid

Calling Ancillary Services

Nodal Agency shall call for Ancillary Services on account of any of the following events:

- Extreme weather forecasts and/or special day;
- Multiple generating unit or transmission line outages;
- Trend of load met;
- Trends of frequency;
- Intimation of any abnormal event such as outage of hydro generating; units due to silt, coal supply blockade etc.;
- Excessive loop flows leading to congestion; and
- Such other events.

Ancillary Services

Despatch and withdrawal instructions : NLDC

Scheduling : Respective RLDC

Regulation Up : **Calling Ancillary service provider to generate**

Regulation Down : **Reduction of generation**

Ancillary Services

Weekly Account by RPC along with DSM Account

Deviation by Ancillary Service provider will be treated as per DSM Regulations.

Payment to Ancillary Service Provider from Pool Account Fund

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Ancillary Services

Expectation from SLDCs

- Block wise daily forecast of demand on day-ahead basis considering all the known factors, historical data, weather forecast data, and outage plan of units / transmission elements.
 - SLDC may submit to RLDC and publish on their websites also.
 - The forecast provided by SLDCs may be integrated into the database for All India/Regional load forecasts.
- Load forecasting is a crucial function of LDCs and essential for reliable operation of power system. It depends on factors like temperature, humidity etc.

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Forecasting and Demand management

5.2(c) Each SLDC shall develop methodologies/mechanisms for daily/ weekly/monthly/yearly demand estimation (MW, MVar and MWh) for operational purposes.

SLDC shall plan demand management measures like load shedding, power cuts, etc. and shall ensure that the same is implemented by the SEB/distribution licensees.

6.4(7) SLDC shall ensure Automatic demand management scheme to ensure that there is no over-drawal.

All actions for early commissioning of Automatic Demand Management Scheme (ADMS) shall be initiated.

SLDC is responsible for forecasting and demand management

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Performance analysis of NER Utilities

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Points:

1. Growth in MW/MU.
2. Participation in market vis-à-vis LTA
3. Effective functioning of SLDCs and their empowerment in line with Pradhan Committee recommendations for the benefit of utilities

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Peak MW drawal from Grid

	2013-14	2014-15	Growth	% Growth
AP	134	137	3	2.2
Assam	958	996	38	4.0
Manipur	129	158	29	22.5
Meghalaya	237	285	48	20.3
Mizoram	87	90	3	3.4
Nagaland	109	119	10	9.2
Tripura	170	175	5	2.9
Region	1583	1727	144	9.1

Annual Energy drawal from Grid in MU

	2013-14	2014-15	Growth	% Growth
AP	578	686	108	18.7
Assam	4842	5372	530	10.9
Manipur	605	735	130	21.5
Meghalaya	763	935	172	22.5
Mizoram	399	435	36	9.0
Nagaland	508	600	92	18.1
Tripura	322	426	104	32.3
Region	8017	9189	1172	14.6

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Participation in Electricity Market

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Market participation by NER States (Non-peak) based on past one year trading data

	Midnight hours (Non-peak) - MW trade							- Sale / + Purchase		Region Net
	AP	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura	Export	Import	
Monsoon	-30	80	-80	-120	-50	-40	-150	-470	80	-390
Lean Water	20	100	-40	100	10	15	-100	-140	245	105

Tripura huge Off-peak surplus throughout the year
 Manipur also off-peak surplus
 Assam Off-peak deficit throughout
 Meghalaya situation reverses completely from Monsoon to Lean water
 400+ MW surplus in Monsoon off peak : needs advance planning

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SLDC empowerment:

- 1. Proper manpower – certification Basic and Specialist level organised by NPTI**
- 2. Adequate compensation**
- 3. SLDC Infrastructure**
- 4. Autonomy – ring fencing**

ANNEXURE-V

**KEYNOTE ADDRESS OF SHRI P.K. MISHRA, IES (CPES)
MEMBER SECRETARY, NERPC
ON THE OCCASION OF THE 15th MEETING
OF
THE NORTH EASTER REGIONAL POWER COMMITTEE
HELD ON 21st AUGUST, 2015 AT GUWAHATI.**

Respected Chairman, NERPC & Hon'ble Power Minister, Govt. of Assam, Shri Hussain Ji, Hon'ble Power Minister, Govt. of Tripura, Shri Dey Ji, Hon'ble Power Minister, Govt. of Nagaland, Shri Sangtam Ji, Shri Major Singh Ji, Chairman, CEA and Shri A.G. West Kharkongor, Director (Finance), NEEPCO and also the Senior officers from NE States, Central Utilities, 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 15th 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. I hope you have a pleasant stay in Guwahati. I am pleased to mention that with the support and consent of Hon'ble Chief Minister of Assam, after the gap of almost three years the NERPC Board meeting is being held today and I hope many important decisions can be taken for the benefit of N.E. Region. I wish that we should have NERPC meeting at least once in six months as per the Conduct of Business Rules adopted by NERPC forum.

It gives me great pleasure in appreciating the pains taken by NEEPCO Limited in hosting this meeting in Guwahati. I, on behalf of NERPC would like to convey our heartfelt gratitude to Shri A.G. West Kharkongor, Director (Finance), NEEPCO and especially his team for helping NERPC in convening the meeting in Guwahati. I am thankful to NEEPCO Ltd for taking good care of all our delegates and for making comfortable arrangement for them.

It is pertinent to state that whereas the execution of new projects and transmission system are of extreme importance and have to be closely monitored, optimum utilization of the existing available operational and transmission capacity are equally important. It is, therefore, imperative that sincere efforts towards reduction of machine and line outages as laid down in IEGC and other guidelines may be

made with a view to avoid wastage of available resources which is not only a loss to the concerned generating agency and the beneficiaries but also tantamount to national loss.

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

- With the generous support by all the constituents, NERPC had shifted to its own office-cum-residential complex at Lapalang, Shillong adjacent to NERTS, POWERGRID & NERLDC Complex w.e.f. November, 2015. NERPC the erstwhile NEREB has been shifted from one rented building to another right from its inception i.e. 1964. This new office building has been well furnished with your support and furnishing of some other works, viz. communication system and conference hall is in the process.
- With sincere effort and continuous monitoring in various sub-committee meetings of NERPC being held every month, important schemes viz. Under Frequency Relay (UFR), Special Protection Scheme (SPS), Islanding scheme, identification of essential feeders for early restoration of the system in the region has been accomplished in all respect as directed by CEA and Ministry of Power.
- Standardization of protection scheme for transmission lines and generating stations has been finalized during sub-committee meetings of NERPC.
- Further, as per the Enquiry Committee constituted by Ministry of Power, Govt. of India - after the major Grid disturbances of July, 2012 - to look into the causes of these grid failures and to avoid such failures in future, independent third party protection audit has been carried out by NERPC. Based on the Protection Audit Reports, CEA and Ministry of Power had agreed to fund the Renovation & Up-gradation of all sub-stations in NER through Power System Development Fund (PSDF). Sanctions for Renovation & Up-gradation of sub-stations have already been given by Ministry of Power to three states i.e. Assam, Meghalaya and Nagaland. For the remaining States, NERPC has been taking it up with Ministry of Power and funding for remaining states will be sanctioned soon.

- Setting up of new SLDCs in four states i.e. Ar. Pradesh, Manipur, Mizoram and Nagaland is in fast progress and they are on the verge of commissioning and this is one of the biggest achievements for our region.
- Commissioning of Pallatana GBPP Module – I was successfully achieved on 01.04.2014 & Module – II on 22.03.2015 and addition of AGTPP STG – II in July, 2015 along with the commissioning of transmission systems viz. 400kV D/C Pallatana – Silchar, Silchar- Byrnihat, Silchar – Azara, Azara - Bongaigoan, Byrnihat – Bongaigoan, Silchar – Imphal etc have greatly addressed the power problems in the region.
- Also with the commissioning of 400kV D/C Binaguri – Bongaigoan and Bongaigoan – Balipara, the ATC/TTC has been enhanced from earlier 500-600MW to 1100 – 1200MW and this has greatly added to the comfort of the region.
- With sincere efforts and persuasion of NERPC, power supply to Mizoram and Ar. Pradesh was restored at a very short period when their tower collapsed and both the State capitals were greatly affected.
- 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.
- Due to persuasion of NERPC, Assam will get an amount of around Rs. 2 Crores & above from ERPC account on energy exported by Assam to Bhutan since April, 2003 through 33kv & 11kV grids. The matter had been heard by Hon’ble CERC on 11.08.2015 and the order will be issued shortly.

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

I once again wish the NEEPCO well and the plenary a grand success.

Thank you very much.

ANNEXURE-VI

**ADDRESS OF SHRI MAJOR SINGH, IES (CPES)
CHAIRPERSON, CEA
ON THE OCCASION OF THE 15th MEETING
OF
THE NORTH EASTER REGIONAL POWER COMMITTEE
HELD ON 21st AUGUST, 2015 AT GUWAHATI.**

Respected Chairman, NERPC & Hon'ble Power Minister, Govt. of Assam, Shri Hussain Ji, Hon'ble Power Minister, Govt. of Tripura, Shri Dey Ji, Hon'ble Power Minister, Govt. of Nagaland, Shri Singtam Ji, Shri A.G. West Kharkongor, Director (Finance), NEEPCO, my colleagues from CEA & NERPC and also the Senior officers from NE States, Central Utilities, ladies and gentlemen, it gives me immense pleasure to be present here amidst you all in this august gathering.

At the outset, I wish to thank the Director (Finance) of NEEPCO Limited and his team for the warm and marvelous arrangement of this 15th NERPC meeting in this beautiful and serene venue of Guwahati.

NE Region is endowed with abundant resources for development of power especially hydro potential. Unfortunately, most of these resources remain untapped. However, of late, Govt. of India has taken a keen initiative to focus on the overall development for NER especially in power sector.

CEA has planned many transmission lines, enhancement of transformation capacity, compensation of over voltages by installing of adequate reactors etc., and most of these schemes have already been discussed and approved in the last Standing Committee held at Imphal on 08.08.2015. These schemes have been put up for approval of NERPC in today's meeting.

The 400kV ring network covering almost 7 NER States will allow the states of NER to draw their entitle share of power and this will greatly benefit the states of NER as redundancy for power supply will be available and it will reduce the interruption time in case of any exigencies. Once reliable power supply is available, industries will automatically be interested to come and set up their plants and this will improve the economy of the state and the region as a whole.

Ministry had constituted Enquiry Committee under the chairmanship of Chairperson, CEA and its recommendations have already been adopted. It's heartening to know that NER has implemented a number of those recommendations. NERPC has been guiding the NER States for technical support to them from time to time and constituents should avail full use of NERPC Secretariat for development of power sector in this region.

The Government of India has operationalized the PSDF scheme last year to facilitate utilization of the accumulated funds. All the state entities have been asked to submit the eligible schemes to the nodal agency for PSDF i.e. NLDC, for improvement of grid security, removal of congestion etc. I may mention that the schemes submitted by NER states are being given priority in examination. Schemes of 3 NER states i.e. Assam, Nagaland & Meghalaya have already been approved by the government and 100% grant sanctioned. Schemes of other 4 states are under advanced stage of approval. I would request the states whose schemes have already been approved, to take further necessary action to get the grant released, and complete the job. I would request other states also to submit the required information or clarification to help in early approval.

CERC is trying its best to bring discipline to the grid from time to time and NERPC/NERLDC should educate and highlight to NER constituents these regulations by conducting workshop/seminar regularly.

I would urge upon the constituents to feel free to approach CEA for any matter relating to power sector, we will extend all the technical support to help the constituents.

Before I conclude, I wish to extend my special thanks to the organizers of the meetings namely, the NEEPCO, NERPC and to all my fellow engineers and participants of Northeast constituents and other organizations for attending this meeting, without which, hosting of such momentous event will not be a success.

I also hope that the deliberations at the meetings will benefit all the NER States in particular and the country in general.

Let us always strive to overcome all shortcomings and work together for a bright future!

Thank you very much.

**SPEECH BY SHRI C. KIPILI SANGTAM
HON'BLE POWER MINISTER, GOVT. OF NAGALAND
ON THE OCCASION OF THE 15th MEETING OF THE
N. E. REGIONAL POWER COMMITTEE
HELD ON 21st AUGUST 2015 AT GUWAHATI**

Chairman NERPC, the Honorable Power Minister of Assam Shri. R. Hussain, my esteemed colleagues- Honorable Power Minister of Power of Tripura, Chairman TCC, Member Secretary NERPC, distinguished delegates from Central Utilities and NER states, Generating Companies, Trading Organizations, Ladies and Gentlemen.

I take this privilege as a member of North East Region Power Committee to say a few words on the occasion of the 15th NERPC meeting, a forum to facilitate stability and smooth operation of integrated power system in the region. With the ambitious program of '**24x7 Power for All**' initiated by Government of India- it is only timely for us to coordinate our effort in assessing our available generation capacity and power availability, required transmission and distribution capacity that has to be in place to achieve the objective. Challenge and resolve of NERPC to that extent is critical.

I am also confident that detailed deliberations and recommendations have been fruitfully exercised in the TCC meeting yesterday, which will benefit all the NER States. That, inter alia, during the Standing Committee Meeting of CEA the 400 kV Ring system to cover all the NER States has been agreed in principle and this will improve the reliability and redundancy of the grid. In order to utilize this trunk line and to make the operational system as per Indian Electricity Grid Code, load anchoring has to be enhanced. However, we should also be concerned that investments made in transmission infrastructure to evacuate power from the region to mainland should not unduly burden the NER states. For instance, the North East- Northern/ Western inter connector Project requires rational commercial consideration.

Even within the region, the drawal requirement of states is often more than the allocated power and therefore the transmission system so created to meet the

drawal requirement of the states fulfills the need of that particular state, however, the charges are shared by all the beneficiaries.

I would also like to mention that setting up of new SLDC in Nagaland is under implementation and I thank POWERGRID for their sincere efforts. However, I would request this forum to look into the communication issue where connectivity of the SLDCs with the various sub-stations should be complete in totality.

Let us extend support to each other in resolving various technical problems and find ways to resolve all outstanding issues. As, a matter of fact, to our advantage, NER is often considered collectivity for all considerations by Government of India. Alone one state may falter and struggle, unity amongst NER States can only take us forward ushering prosperity for the region and to this extent I record my appreciation to NERPC.

In conclusion, I wish to extend my special thanks to the organizers of the meetings- NERPC and NEEPCO, in particular Shri A.G West, CMD I/C, NEEPCO and his team for making all efforts to host such important event making it grand and purposeful.

ANNEXURE-VIII

SPEECH BY SHRI MANIK DEY
HON'BLE POWER MINISTER, RD (PANCHAYAT), TRANSPORT & RURAL
DEVELOPMENT ETC. GOVT. OF TRIPURA
ON THE OCCASION OF THE 15th MEETING OF THE
N. E. REGIONAL POWER COMMITTEE
HELD ON 21st AUGUST 2015 AT GUWAHATI

Chairman NERPC, the Honorable Power Minister of Assam Shri. R. Hussain, my esteemed colleagues- Honorable Power Minister of Power of Nagaland, Officers of Central Power Utilities, Senior Officers of Central and State Governments, Distinguished Guests & Special Invitees, Ladies and Gentlemen.

I like to sincerely thank the NEEPCO for the excellent arrangements they have made for organizing this meeting. I would like to thank both NERPC and NERLDC for providing continued assistance to Tripura in managing day to day power supply in the State. However, today's NERPC meeting is being held after almost 3 years. As a result, many important issues of regional benefit remains unresolved for quite a long time. Hence, I would request all concerned for organizing NERPC a year so that quick decisions can be taken for regional interest.

We are all aware that NERPC is working relentlessly for making NER power system operation reliable, efficient and economic since its information. I hope outcome of today's deliberation will significantly contribute towards efficient and reliable grid operation of this region in coming days. This is essential for meeting our common objective of providing **24x7 Power for all** at affordable price.

Continuous deterioration in the financial health of state power utilities has become a matter of concern. This is primarily due to increasing gap between supply cost and cost realized. State utilities are finding it difficult to recover their cost of supply due to continuous rise in cost of power purchase, fuel, wheeling charges etc.

The proposals of the draft Electricity (Amendment) Bill, 2014 does not address the above issues rather the proposal for separation of carrier & content mostly given emphasis on shifting the responsibility of financial burden of the DISCOMs to the incumbent supply company. The proposal of multiple supply company other than incumbent supply company in a distribution licensee will further deteriorate the

financial health of the incumbent supply licensee (Government Company) and this will lead to free access to the private supply licensee in power supply business.

This bill will cease the rights and power of the State Government and all the distribution utilities will become sick and the State will not have any say in this regard. NERPC forum is therefore requested to strongly protest the bill and take up with Government of India for immediate withdrawal of this bill.

Balancing of demand & supply variation during Monsoon & winter cannot be done being gas based power plants are must run due to MGO (Minimum Guaranteed Off take) clause (90% gas off take).MGO clause of gas contract should be withdrawn for resource optimization. Otherwise burning of costlier gas is taking place in spite of power is available in the market at cheaper price.

Due to sudden increase (117% above) of price of natural gas effective from 01-06-2010, the consumers of the state have got heavy tariff shock as about 93% energy supplied to the consumers are from gas based power projects. At present, the effective impact of hike with respect to May' 2010 price is 255.69% due to linkage of gas price with dollar exchange variations and subsequent price not allow any further increase in price of gas used for power projects to avoid tariff hike.

Besides the above, Government of India is also requested to delink the domestic gas price from dollar exchange rate as gas purchased by State power utilities from GAIL/ONGC is exclusively from local gas reserve fields.

Early completion of 800 KV HVDC from Agra to Biswanath Chariali is very much needed for import and export of power by NER with main land of the country. Since, this line is being constructed as national asset for benefit of all states across the country, capital grant may be provided from Power System Development Fund (PSDF) so that tariff burden can be reduced.

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. This will facilitate NER states to have stable and reliable grid connection.

To facilitate reliable power evacuation through 2nd 400 KV Double Circuit Line from OTPC Pallatana Power Project to Silchar via Purba Kanchan Bari, 2 Nos. 400 KV Sub-station at Surjamaninagar and Silchar to PK bari has already been constructed and

commissioned. So, the left out middle portion i.e PK Bari to Surjamaninagar is only required to be constructed as 2nd 400 KV Double Circuit Line from Pallatana to Silchar. Construction of above proposed 400 KV line and substation through competitive bidding should be expedited for ensuring stable power evacuation from Pallatana at the earliest.

Early commissioning of 2nd ICT (125 MVA) at Pallatana for enhanced drawal at 132 KV System before commencement of radial power supply to Bangladesh is needed. OTPC may be requested to take necessary action to expedite the process.

Grid operation under DSM (Deviation Settlement Mechanism) regime has become very much complex and fully commercial driven. Revision of DC by generation during day of operation has created commercially heavy burden to the states. States are neither able to absorb the excess power nor able to meet the deficit powers due to such revision resulting huge penalty for overdraw nor penalty for injection of surplus power to the grid. Therefore, frequent and intraday DC revision by generator may be reduced for efficient grid operation and survivability of commercial health of the state utility.

Government of India has launched 2(two) schemes namely DDUGJY for rural areas and IPDS for urban areas for providing access of ensuring 24x7 power for all. But, sates appear to be substantially low through DPR covering full scope of works matching the objective of the scheme have already been submitted. Ministry of Power, Government of India may consider sanction of full DPR value.

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 services across the state. Accordingly, extension of the enabling IT System is required to cover entire state irrespective of rural urban divide. Since, this facility has 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.

Finally, I look forward to participating in future deliberation and hope that discussion today would benefit the NE Region.

Thank You.

ANNEXURE-IX

**SPEECH BY SHRI RAKIBUL HUSSAIN
HON'BLE POWER MINISTER, GOVT. OF ASSAM
ON THE OCCASION OF THE 15th MEETING OF THE
N. E. REGIONAL POWER COMMITTEE
HELD ON 21st AUGUST 2015 AT GUWAHATI**

My Colleagues from other North Eastern States, officials of Central and States Government as well as other Central and State organizations, ladies and gentlemen.

It is a great pleasure for me to be in thus august gathering on the occasion of the 15th NERPC meeting and I would like to focus on few issues that I feel are relevant for this forum.

Power Scenario:

In the last couple of years the entire region faced challenges of maintaining the power delivery system in the face of severely reduced hydro – generation. Lack of rains coupled with rising temperature has further compounded the problem. In Assam the peak hour demand has shot to above 1450 MW and the off – peak to more than 1100 MW. The demand as you can see has gone up to great heights but however we have been able to meet up the requirement barring the pockets where the load has to be restricted due to system constraints. This has been largely due to the commissioning of the two unit of Pallatana. The units of NEEPCO viz Kopilli and Khandong have also been performing well than the previous years. Thanks to the Government of Meghalaya for restricting the mining of coal in the upper reaches of the Kopilli River which has reportedly reduced the acidity of the Kopilli water. However I urge upon the utilities operating thermal plants in the region to gear their generations and ensure maximum possible generation. For example Kathalguri, the largest gas station of the state with an installed capacity of 291 MW has not been able to generate to its optimum level even in the peak load hours. We find that the station has not been able to generate more than 220 MW because of various problems including a chronic compressor related one.

I take this opportunity to request the member of the NERPC to collectively take up with hydro carbon producers i.e. OIL/ONGC to increase and accelerate gas supply

to the power generating stations of our region. Further, I also propose monitoring of the gas pressure on-line through the existing SCADA so as to obtain valid information on the availability of gas from time to time to ascertain the quantum of power Kathalguri is able to generate and also to take corrective measures, if any.

Generation:

With expansion of delivery system including completion of village electrification under RGGVY, now Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), and quick capacity addition in generation is the only way out to deal with the power shortages. The Central and State Government should explore all possibilities to harness the still untapped resources of the region either directly by inviting public or private sector agencies who have expertise in generation sector. However we need to be careful in exploiting these natural resources. If large dam are envisaged they must take into account the fragile ecology of the region and address all environmental concerns of the downstream states. All hydro electric projects must also be subjected to stringent safety requirements on account of the delicate seismic nature of the region. They must also be combined with flood control and catchment areas management requirements that meet the concerns of all the affected states. I am again re-iterating the following points as Assam would be the worst affected state due to the Mega Hydel Projects coming up in the upper reaches of the Brahmaputra.

1. It is reported that the Central Electricity Authority has identified
2. Potential for as many as 163 hydel power projects in the upper reaches of the Brahmaputra basin, all in the Arunachal Pradesh. Out of 163, total of 86 hydro power projects have been identified with a total Installed Capacity of 48,167 MW for which certain development has taken place in Arunachal Pradesh in last few years. So far 4 projects with Installed Capacity 5870 MW are being assigned to NHPC/NEEPCO while 74 projects are being allotted to various private agencies with IC 27520 MW. Balance 8 projects are under various stages of investigation by the state of Arunachal Pradesh.

Though most of these projects are slated to be Run – of - the River (ROR) schemes without any storage or flood moderation component, they are all being put on the rivers that flow through the territory of Assam. As a downstream state Assam is not

a party to any of the process of decision making, such as the allotment terms, preparation of DPR, ToR for Environmental Clearance or the findings of EIA etc. Moreover, in the present scenario there is no scope for Assam to raise query on the merits of certain projects on grounds of inadequate and inaccurate information on technical, environmental and social aspects.

All the 163 proposed hydel projects are going to be located from west to east of Arunachal Pradesh embracing Assam completely in the downstream like a huge 'umbrella'. While individual EIA will certainly be carried out on all these proposed projects covering 5-10 km radius, Assam does not know what would be the cumulative impact of these projects in the downstream areas when they are all commissioned in the future.

The Project Authorities in all likelihood would only be looking at development of hydro power projects avoiding flood cushion provisions because that may create submergence in upstream areas. They may not be particularly concerned about the adverse downstream effects or fall out on the people of Assam living in the Brahmaputra valley of these upstream hydel projects.

The Inter Ministerial Group (IMG) set up at the initiative of the Power Ministry should carry out detail comprehensive study including the various geological conditions, whether large dams are safe or whether proper technological input have been incorporated in the structural design of the man made river dams in these areas. We would once again request the Government of India to constitute North East Water Resource Authority (NEWRA) to deal with these issues.

The formula for sharing of free power from such schemes must be reviewed. In-fact all of you know that the public are seriously agitated over the perceived dangers of such dam. All their concerns must be addressed. Further the existing criteria based on submergence of area under the reservoir created by the dam are not enough. Proper weightage must be given to lower riparian states whose ecology and agrarian life is disrupted due to such schemes.

I would request this august gathering to deliberate on this agenda so as to evolve at a common consensus.

New Projects:

I would also like to re-iterate that it is only because of the decision taken by the Government of Assam that the largest thermal generating station of the region at Bongaingaon will be commissioned by NTPC in November. Trail run of the first unit has already been carried out. We would like to request NTPC to commission the remaining two units at the earliest possible time. I am happy to inform all of you that the Lakwa Waste Heat Project of capacity 37.2 MW was commissioned two years back and the Namrup Replacement Project (100MW) is expected to be commissioned by end of this year. Further we have also taken up with the Central Government for giving us the coal linkage for setting up the 660MW Margherita Thermal Project. We hope that Ministry of Power/Ministry of coal will take all necessary steps to allot the coal linkage ground works for 120 MW Lower Kopilli Hydro Electric Project is also on.

We are happy to inform you that the Ministry of Power has allocated 590MW for the states of Nagaland, Manipur & Assam from the Hydel Stations of Bhutan.

So far as Central sector is concerned NHPC and NEEPCO should try to commission their projects in NER within the scheduled commissioning time. In this connection the Kameng HEP (600MW) of NEEPCO and Subansiri HEP (2000MW) of NHPC are crucial for this region as well as for the nation to meet the future load growth.

Facilitation of Resources for Generating Project:

With the steep increase of cost for natural gas-states like Assam and Tripura have had to incur heavy losses. Even other states also have to pay more money to procure from CPSU like Kathalguri Project. Therefore NERPC should take up with the Government of India to facilitate supply of natural gas to projects in North Eastern Region in old APM structured rate. The oil and natural gas resources in Assam and elsewhere can support several small sized power generating stations. These however would be possible only when Ministry of Petroleum, Government of India comes forward to provide the necessary gas linkage. While efforts must be made to maximize production of oil and gas in our oil fields, the National Gas Grid must be extended from the rest of India to include our region. There is also a strong case for taking up a dialogue with the neighbouring countries like Myanmar and

Bangladesh so that available natural gas can be used for power generation in our region.

Transmission

I have been advocating creation of a robust transmission system within the region as well as inter regional links with 90% grant from the Central Government. This is only possible way to accelerate the pace of capacity addition in the region. It may be noted that Power Grid Corporation of India Limited in consultation with CEA has already prepared detailed project reports for development of a comprehensive transmission system with high capacity corridor taking into account all the projects in a particular basin. The NERPSIP (North Eastern Region Power Sector Investment Programme) Project with funding from the World Bank will go a long way in easing the transmission bottleneck of the region. Fragmented development of transmission system entails very high resentment among farmers and landowners as fertile plain land is diverted from agriculture. The objective should be to avoid unnecessary public resentment arising out of land acquisition.

State's Role

As already mentioned, Assam has seen substantial load growth. The rapid load growth projected for coming years require unrelenting efforts towards up-gradation of system capacity and create redundancy. It is a matter of pride, that the transmission system is consistently maintained at an availability of above 985 which is at par with the national standard.

The following lines and sub-stations have been proposed which are of prime importance to the State as well as the NER grid.

1. Establishment of 400/220 KV S/s at rangia LILO of one circuit of 400 KV Balipara-Bongaigoan.
2. Establishment of 400/220 KV S/s at Sonapur in Eastern part of Guwahati.
3. Introduction of 220KV system at Biswanath Charali by installing one number 315 MVA, 400/220 KV transformer and 4 nos 220 KV bay for D/C LILO of on-going Sonabali-Dhemaji/ Silapathar 220 KV D/c line.

Some big Hydro projects are proposed to be set up in NER under JV/IPP Mode. For planning of Associated Transmission System of such projects MOP involves itself

through CEA and Transmission Service Provider(s). In the same way for early harnessing of zero fuel cost water energy MOP may perhaps evolve a tentative share allocation formula for such projects on the basis of Total Yearly Central Plan assistance as an initial bid offer to all the states of the country to final acceptance by respective states. The forum may deliberate and advise the MOP accordingly if it is agreed.

State Load Despatch Center.

As you are all aware in line with Electricity Act 2003 and Gireesh B. Pradhan Committee Report, Ministry of Power Government of India August 2008, formation of SLDC as a scheduling adopted in our country ensures minimum subjectively on the part of LDCs dispatch decisions.

Accordingly, the Indian Electricity Grid Code (IEGC) and State Grid Code issued by CERC and SERC respectively provide the basic framework for operation and ensure minimum subjectively in real time operations.

In this regard, the Government has initiated suitable steps to facilitate the independent functioning of suitable steps to facilitate the independent functioning of the Load Despatch Centers, in line with the Electricity Act 2003 and have already initiated by the Government.

Distribution

It appears to be national phenomenon that the Government as well as Private Sectors are concentrating on Generation while the issues affecting Distribution and Power Delivery System have not been addressed. Most of our states in the region have very pathetic sub-transmission and distribution network. As a result our power demand is highly suppressed while we are yet to reach out every nook and corner of our states. The APDRP in the 10th plan was a boon but we could not avail the scheme in its totality. The R-APDRP is also going to be beneficial but the missing links need to be bridged by additional investment in the Distribution Sector. That is why we must ask the Power Ministry to give a special scheme for our region to build additional sub-transmission and distribution lines along with Distribution Sub-Stations. The NERPC members should also raise a demand to

utilize the Power System Development Fund (PSDF) accumulated in the hands of CERC for implementing this kind of special scheme for our region.

Restructured Accelerated Power Development and Reforms Programme (RAPDRP)

You are all aware that even though we were late starter under part A the Data Center for all the seven states have been completed and have started functioning. For hosting of the data completed and have started functioning. For hosting of the Data Recovery Center the construction of the Common Data Recovery the construction of the Common Data Recovery Center in Agartala is nearing completion.

The following constraints need to be overcome and I request all my colleagues to take up the issues:

1. Release of fund at Ministry of Power, GOI despite submission of utilization certificate.
2. Extension of time period for completion of the scheme is required for conversion of the loan to grant.
3. Frequent outage of BSNL links in IT implementation.

Lastly, I would like to mention that to achieve the target of 24x7 powers for all by 2019 we would require more funds as only 505 of the households so far have been electrified.

I hope the deliberations in the 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 NEEPCO who have taken pains to arrange and host this meeting at Guwahati at such a short notice. I wish you all a great success in this meeting.

**SPEECH OF SHRI O.IBOBI SINGH,
HON'BLE CJIEF MINISTER & I/C OF POWER,
GOVT. OF MANIPUR
ON THE OCCASION OF THE 15th NERPC MEETING
HELD ON 21st AUGUST, 2015 AT GUWAHATI.**

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 present in the 15th 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 Regional issues. I am sure the deliberation on various issues will be helpful in solving the infrastructure constraints, poor transmission and sub-transmission system, inadequate distribution network and problems in generation projects. In other words the deliberations made here would help in removing the hurdles faced in supplying electricity to the consumers in the region.

Geographical isolation of this region has made many issues region specific in nature and we have many challenging tasks ahead to tackle and overcome them. I hope we shall be able to sort out important issues amicably which require special attention of the Government of India for the states of the NER.

Manipur depends entirely on Central Sector Stations for the supply of power. With the commissioning of the ATS 400 D/C line from Silchar to Imphal, the Inter-State transmission constraints have been removed. Further, on our request recently PGCIL conducted Load Flow Study with our projected peak demand of 425 MW. It was noticed that the load flowing through Leimatak- Ningthoukhong 132 KV S/C line was of the order of 97 MW, which is much beyond the capacity of the existing old line. To mitigate the constraint in drawing Manipur's share, Manipur State Power Company Limited has taken up the construction of a new Leimatak-Ningthoukhong 132nd Circuit KV D/C line. For this, construction of two 132 KV

line bays at 132 KV switchyard, Leimatak is inevitable. I do hope that NHPC will agree to construct the line bays at their Leimatak switchyard.

Further, the existing two interstate 132 KV links between Imphal (PG) and Imphal (State) shall not be sufficient to cater to the anticipated load of 319.5 MVA on Yurembam (Imphal-State) Bus. A third 132 KV interstate links between Imphal (PG) and Imphal (State) is required to draw the anticipated load of the State of Manipur. The matter was discussed at the 5th Standing Committee Meeting of CEA held at Imphal on August 8, 2015 and it was decided that Manipur will convert their existing S/C Line to D/C Line with HTLS conductor and POWERGRID will re-conductor their existing S/C line with HTLS conductor. I hope that NERPC would endorse the decision taken by the 5th Standing Committee to enable my State to proceed with the necessary works for strengthening the interstate 132 KV link between Imphal (PG) and Imphal (State).

I also wish to point out that tremendous load growth is projected for the state of Manipur. To transmit the load higher transmission system voltage of 400 KV is being adopted. A new 400 KV sub-station is coming up the Thoubal. For supplying power to this new 400 KV sub-station, it is required to construct two extra sending end 400 KV bays at Imphal (PG). The issue was discussed during the 5th Standing Committee Meeting of CEA on August 8, 2015 and POWERGRID agreed to provide space for two numbers of 400 KV Bays at Imphal (PG). We are thankful to PGCIL for their readiness to provide space for the construction of two extra sending end 400 KV bays at their 400 KV sub-station at Imphal (PG). Further, in view of the increasing peak demand of the State Power-grid may expedite the up-gradation of the present 132 KV sub-station to 7x105 MVA, 400/132 KV sub-station on priority basis.

In the 4th Standing Committee Meeting held at Guwahati on 13th December, 2014, it was agreed to extend Imphal to Kohima 400 Kv D/C line to Misa. But, in the 5th Standing Committee Meeting, it has been decided to link Imphal-New Kohima-Mariani- Misa. It is requested that this line may be taken up on priority basis preferably by adopting TBCB mode so that the entire region may have stability and reliability in the power supply system from the 400 KV D/C ring main system comprising of Misa-Balipara-Bongaigoan-Azara-Byrnihat-Silcvhar-Imphal-New Kohima-Mariani-Misa.

As per 14th TCC/ NERPC Meeting, PGCIL has taken up to establishment of SLDC in Manipur by installing 11 RTUs in the existing 9 nos. & upcoming 2 nos. of 132 KV Nodes. Under Wide Band Expansion Project in NER, PGCIL has taken up OPGW communication link connecting Kohima-Karong-Imphal (State)-Inphal (PG)-Ningthoukhong-Leimatak (NHPC) with 19 km and under North Eastern Regional Power System Improvement Project (NERPSIP), PGCIL is taking up OPGW communication connectivity between Imphal (State) & Yaingangpokpi. In the 5th Standing Committee Meeting held at Imphal on 8th August, 2015, PGCIL has agreed to integrate the 132 KV.

Nodes at Kongba, Kakching, Churachandpur, Rengpang, Jiribam, Chamdel & Hungdung of 220 km into the SLDC, Manipur for full fledged operation of the SLDC in true sense. It is therefore, requested PGCIL to take the work along with the ongoing NER Wide Band Expansion Project simultaneously.

There is a request from Myanmar Government for supplying of 4-5 MW of power. Since Myanmar is our next door neighbor their requirement of power has to be supplied through our lines at the moment. As a good gesture, my earnest request is not to disturb Manipur's share from the Central Sector Stations. Power to be supplied to Myanmar may be allocated separately from the un-allocated share of the Generating Stations. Attention of the Committee is drawn to move Ministry of Power to allocate additional Power without affecting time to time allocation of my state.

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

ANNEXURE-XI

**SPEECH OF SHRI LAL THANZARA,
HON'BLE PARLIAMENT SECRETARY,
POWER & ELECTRICITY DEPARTMENT, GOVT. OF MIZORAM
ON THE OCCASION OF THE 15th NERPC MEETING
HELD ON 21st AUGUST, 2015 AT GUWAHATI.**

I would, at the outset, like to thank Chairman, NERPC for convening the 15th meeting of NERPC to deliberate upon various issues on the power sector in the North Eastern States of India. I also thank NEEPCO for hosting the meeting and for the warm and marvelous arrangement here in the Capital City of Assam, Guwahati.

I am also extending my sincere thanks to NERPC and NERLDC besides others, who have been putting tireless effort and have made significant contributions for the overall improvement of power situation in the North Eastern States of India. I hope and believe that meaningful and fruitful outcome of this meeting's deliberations would supplement the concerted efforts of NERPC Secretariat and NERLDC.

Let me begin with a brief overview of the power situation in my State. Mizoram has been an utterly power deficient State- a fact that has impacted growth. Eighteenth Power Survey puts Mizoram's bulk power requirement at 210MW. As against that, the State's allocated share is just little over 103 MW leaving a wide gap that we are not able to bridge. In fact, the real time power availability is normally 60MW and we are experiencing load/ demand growth at a very fast pace. No wonder therefore, that per capita power consumption is normally and the State's power deficit is supplemented from various Central Sector Generating Stations. As a permanent solution to this perennial problem I would still very strongly suggest taking up of a comprehensive programme for local generation as well as for putting in place an improved distribution system so that quality power is provided to every citizen of this region constantly at an affordable price.

GENERATION:

Mizoram is endowed with many rivers and its huge potential is estimated at 3663 MW as of now, a little over 2% has been harnessed so far. We are constructing 4

(four) nos Small Hydro Projects (SHPs) which will add 9 MW to our present generation capacity of 29.35 MW.

Recently, the Government signed MoU with NEEPCO for implementation of Tuivai HEP (210MW). Early execution and successful implementation of the scheme will inevitably benefit the region immensely.

Further, I would like to urge NEEPCO to speed up the construction of 60 MW Tuirial HEP and commission within this financial year. This will reduce the wide gap of power deficit in Mizoram in particular and the region as a whole. I would like to inform this meeting that apart from the power evacuation line which is constructed, a new **scheme for the second evacuation line is submitted to NEC for funding by the State Government as advised by CEA.**

Our strength lies in the hydro sector and the State has also initiated for implementation of the generation scheme such as **Tuirini HEP- 25 MW** through an external aided fund through DEA, Ministry of Finance and have signed a memorandum of Understanding (MoU) with NEEPCO for execution of **Tuivai HEP- 210 MW.**

Meanwhile, I am pleased to note that both the units of Pallatana Gas Based Thermal Plant has been put into operation, and thus relieved major transmission constraints of NER Grid to a greater extent, which have been particularly experienced in the 132 kV pockets affecting lower Assam, Tripura including Mizoram in the past and the generation constraints as well. I would still like to draw attention of all concerned utilities and request to pay more heed in the stability of Pallatana generation and health of the associated power networks for smooth operation of NER Grid.

TRANSMISSION AND TRANSFORMATION:

During 11th Plan, transmission line of 638.37 kms and 140 MVA was created. Again, during the 12th Plan we are targeting addition of 369 kms and 362.50 MVA to strengthen and augment the networks throughout the State. Besides, project proposal for 74 kms length of 132 kV line (Bairabi to West Phaileng) at an estimated cost of Rs. 45.50 crores is submitted to NEC for funding.

Apart from this, 1st Tranche of NER Power System Improvement Project is being undertaken by MoP through PGCIL in the month of June 2015 for the following works:

- i) 132 kV Transmission Line- 214 kms
- ii) Construction of new 2x12.5 MVA, 132/33 kV S/S- 3(three)nos
- iii) Augmentation of existing Sub- Stations- 1x132 kv S/S) & 4x33 kV S/S.

Similarly, the following works are planned to be taken up in the 20 years perspective transmission plan upto 2035:

- i) 2nd Tranche of NER Power System Improvement Project:
 - a)132 kV S/C transmission line- 285 kms
 - b) Augmentation of 132 kV Sub- Stations- 3nos
- ii) 220 kV D/C transmission line- 116 kms (for evacuation of 210 MW Tuivai HEP)

DISTRIBUTION:

Rajiv Gandhi Grameen Vidyutikaran Yogna (RGGVY) scheme, which covers electrification of 140 un-electrified villages, intensive electrification work at 494 electrified villages, 4 nos of 33 kV Sub-stations and 25123 nos of BPL Service connections has been completed. Implementation of Distribution System Improvement Project under R-APDRP is in progress in 9 (nine) towns of Mizoram at a cost of Rs. 35.12 crores for Part-A and Rs. 240.41 crores for Part-B. In Part-A scheme, only 1 (one) town has been declared 'Go-Live'. Implementation of RAPDRP Part-B scheme is taken up on turnkey basis and works are under progress.

Need Assessment Document (NAD) for DDUGJY covering all eight (8) Districts of Mizoram amounting to Rs. 241.45 crores is prepared and submitted to REC Ltd.

DPR for IPDS is prepared covering 6 non- RAPDRP towns out of total 23 notified towns in Mizoram amounting to Rs. 51.0 crores and submitted to PFC Ltd.,. Preparation of DPR for the remaining towns is in progress.

Preparation of State Specific document for 24x7 Power for All is in progress and required data has already been submitted to the consultant appointed by the Ministry of Power, Govt. of India.

Up-gradation/ Expansion of SLDC of NER:

Urgent necessity of up-gradation/ expansion of SLDC's in NER with the installation of SCADA/ EMS facilities needs no much emphasis and is the need of an hour. This has always been one of the most crucial issues of the past NERPC meetings especially for the four States namely, Mizoram, Nagaland, Arunachal Pradesh and Manipur where SLDC,s are functioning without the State-of-art system.

The up-gradation/ expansion project of SLDC of NER being taken up by POWERGRID is progressing smoothly and getting materialized shortly in Mizoram. This will no doubt, ease and improve the functioning of Load Dispatchers to exercise the powers and discharge the responsibilities for ensuring integrated operation of power system in the State and the region as a whole in line with the relevant Act/ Regulations.

Considering importance of maintaining grid discipline and strengthening the activities of Load Dispatchers in my State, we are preparing a plan for extending SCADA/ EMS facilities to a wider geographical area of the State as the on-going up gradation project does not cover intra-state-locations that are vital to Mizoram.

I am also pleased to highlight the scheme for Renovation and Up-gradation of Protection System of 132 kV Substation submitted to Central Electricity Authority for funding under PSDF is in its final shape. I hope that this will enhance reliability of the existing deteriorated protection system and ensure safe, secured and reliable NER Grid.

I would also like to emphasize the urgency of augmenting the transformation capacity at Srikona (Silchar) by installing additional 1x200 MVA, 400/132 kV ICT to avoid deterioration of power situation in the Southern States of North Eastern Region due to transformation constraints. Meanwhile, I am pleased to note that this issue has been raised in various meetings of NERPC in the recent past and I hope and wish that this meeting will resolve the problems amicably.

Lastly, I look forward to participating in future deliberations and sincerely hope that the discussions in the meeting would benefit the NE region.

Name of Project: MW REPLACEMENT PROJECT NERTS

A. Central Sector Links

S.N.	Name of Line	SUPPLY Revised Route length-KM	ERECTION Revised Route length-KM	Revised Sector	REMARKS
1	Badarpur (PG) Silchar (PG)	19.221	19.221	CS	Change in length after DS prepared
2	Gohpur(AEGCL) Itanagar (PG)	0		CS	Deleted but replaced by S.N.A.8,9,5
3	Mariani (State) Mariani (PG)	1.52	1.52	CS	Length revised after Construction
4	Namsai (PG) Tinsukia(State)---- No line available	0	0	CS	Link is achieved through OPGW/** ADSS over 33kV Namsai (PG)-Namsai (AP State)-Rupai(AEGCL)-60KM to be Separately considered. Offline-& OPGW on 66kV or 132kV Rupai(AEGCL)-Tinsukia(AEGCL)-only
	The above 4 replaced by following 4.a &4.b&10 **			CS	
4.a	Ranganadi Ziro	44.292	44.292	CS	Link is must keeping in no connectivity with Ziro part, Telemetry data of Ziro & Nearby stations are reqd to be monitored
4.b	Balipara Ranganadi LILO part	25.89	25.89	CS	This is required for continuation NKN Link Balipara-Nirjuli(part over Balipara Ranganadi)
5	Itanagar (PG) Itanagar (SLDC) replaced by 5.a) &5.b	0	0	CS	Direct link NA so deleted. UGFO laid by Telecom, Telecom requested that redundancy to be maintained through OPGW.
5.a	LILO Nirjuli Ranaganadi &	5.554	5.554	CS	Ranganadi end to be redundantly connected from Nirjuli
5.b	Nirjuli --Lekhi-Chimpu	13.63	13.63	CS	Chimpu is SLDC location & so connectivity required
6	Badarpur (PG) Kolasib 132	106.759	106.759	CS	Change in length after DS prepared
7	Kolasib Aizawl(PG)	65.73276	65.73276	CS	Change in length after DS prepared
8	Gohpur-Ranganadi(NEPCO)-- achieved through 8.1 &8.2			CS	Back Link and for Main link of Connectivity of Ranganadi. ISGS
8.1	132KV Gohpur(AEGCL)-Nirjuli(PG)-(Part)	12.033	12.033	CS	
8.2	400kV Balipara(PG)-Ranganadi ckt-II(Part)	61.239	61.239	CS	

S.N.	Name of Line	SUPPLY Revised Route length-KM	ERECTION Revised Route length-KM	Revised Sector	REMARKS
9	132kV Nirjuli(PG)-Ranganadi(NEEPSCO) (including LILO at Parey HEP(NEEPSCO)	21.692	21.692	CS	(Nirjuli-Ranga-21.5km, Parey LILO-5km, Future Diversion-2
10	66kV Tinsukia(AEGCL)-Rupai(AEGCL)-[under Namsai-Tinsukia]	24.824	24.824	AEGCL	Part of Tinsukia-Namsai(PG) Link, apx length after survey
11	132Kv S/C Imphal(PG) – Imphal (STATE)	0.769	0.769	CS	uldc & Diff Protectio
12	132kV D/C Silchar(PG)-Srikona(AEGCL)	1.199	1.199	CS	uldc & Diff Protectio
13	132Kv D/C Mokochung(PG) – Mokochung(State)	1.611	1.611	CS	uldc & Diff Protectio
14	132kV D/C Melriat(PG) – Sihmui (State)	6.441	6.441	CS	uldc & Diff Protectio
15	132kV Aizwal(PG)-Melriat(PG)	4.959	4.959	CS	uldc & Diff Protection, Remote Operation
16	400KV BONG-NTPC (BTPS-NTPC)	0		CS	Connectivity of NTPC-GS at BTPS/Salakati
17	132KV NEHU-Khliehriat(Up to Tower No.25)-For redundant connectivity between NERLDC & NEHU	7.532	7.532	CS	Redundant connectivity between NERLDC &SLDC
	sub Total	424.89776	424.89776		
Under Priority Erection of Following Links (Central Sector) considered where materials are OSM(Diverted /exchange between NR-NER)					
19	220KV MISA-SAMAGURI	34.374	34.374		Erection qty amended under priority link in last amendment
20	400KV BTPS-Bongaigaon(Up to NTPC) & Salakati-Bongaigaon-Link over Extension bay Link	4	4	CS	OPGW(3.5KM) laid on 400kVBNG-BTPS(NTPC)-220kVBTPS(AEGCL) instead of original plan of 400kVBNG-220kV SKT-BTPS(AEGCL). Connectivity of Bongaigaon with Salakati over ICT Extension bay(500m) will be included/ taken from spare
21	220KV BTPS-Salakati(PG) replaced by S.N.20	0	0	CS	
22	Dimapur-Dimapur(SLDC)	0.647	0.647	CS	NERLDC requested in UCC meeting vide Letter Ref.NERLDC/UCC/NEULDC_O&M /353-79 Dtd.15.7.13. Point No. 5.E of MOM Dtd.17.05.13-17th UCC meeting
22	Aizwal-Aizwal/Zimabawk(SLDC)	6.719	6.719	CS	
Sub-Total 1		470.63776	470.63776		S.N.19,20,21 diverted from NR project

B.AEGCL Sector

S.N.	Name of Line	SUPPLY Revised Route length-KM	ERECTION Revised Route length-KM	Revised Sector	REMARKS
1	BTPS Agia 220	65.5736	65.5736	AEGCL	Change in length after DS prepared
2	Agia Sarusujai 220	130.481	130.481	AEGCL	No Change
3	Inclusion of 220kV Boko & 400kV Mirja S/S(LILO in Ag-SSJ)	0.5	0.5	AEGCL	No Change
4	Namrup Tinsukia 132	43.571	43.571	AEGCL	Change in length after DS prepared
5	Balipara Gohpur 132	101.124	101.124	AEGCL	Change in length after DS prepared
6	Badarpur (PG) Badarpur (AEGCL)	1.023	1.023	CS	Change in length after DS prepared
7	Jiribam Pailapool 132	12.753	12.753	AEGCL	Change in length after DS prepared
8	Pailapool Srikona 132	33.692	33.692	AEGCL	Change in length after DS prepared
9	Badarpur (AEGCL) -Srikona	19.586	19.586	AEGCL	Change in length after DS prepared
	Sub Total	408.3036	408.3036		
Under Priority Erection of Following Links considered(under AEGCL) where materials are OSM(Diverted / exchange between NR-NER)					
10	132kV Mariani-Lakwa	79.298	79.298		Erection qty amended under priority link in last amendment
11	220kV DC Samaguri-Mariani	169.717	169.717		Replenishment of 5.743km to Jeypore & Erection qty amended under priority link in last amendment-1
12	132kV Namrup-Lakwa()	58.394	58.394		Erection qty amended under priority link in last amendment-1
	Sub-Total 2	715.7126	715.7126		km
			715.7126		km
	MAIN OPGW TOTAL WITHOUT SPARE	1186.35036	1186.35036		
	ADDITION OF SPARE AS PER BOQ ITEM	44	0		(In amendment-2, Spare was separately mentioned in LOA qty only/ not in list of line 'Annx
	SPARE CS NER incl change in RL while erection	30			
	SPARE AEGCL	8			
	SPARE CS NR	6			
	Grand Totals of OPGW length incl Spare(Apx)	1230.35	1186.35		

North Eastern Region Expansion Project- Proposed lines--Approved 15TH TCC, RPC Guwahati - Anx-B-29.I							
Sl No	From	To	KV LEVEL	Owner of tr line	Old Length (km)	Revised Length (km)	Remarks
1	Khandong	Haflong	132	CS	63	63	Live Line
2	Badarpur(PG)	Jiribam (PG)	132	CS	67	67	Live Line
3	Jiribam(PG)	Loktak (NHPC)	132	CS	82	82	Live Line
4	Loktak(NHPC)	Imphal (PG)	132	CS	35	35	Live Line
5	Agartala (PG)	R C Nagar (NEEPCO)	132	CS	8	8	Live Line
6	Dimapur(PG)	Doyang (NEEPCO)	132	CS	93	93	Live Line
7	Doyang(NEEPCO)	Mokokchung (PG/State)	132	CS	30	30	Live Line
8	Mokokchung(PG)	Mokokchung (State)	132	CS	3	3	Live Line
9	Mokokchung(PG)	Maryani(PG)	220	CS	56	56	Live Line
10	Silchar(PG)	Malriat(PG)	400 charged at 132kV	CS	160	160	Live Line
11	Silchar(PG)	Bongaigaon(PG)	400	CS	247	0	Link Removed
12	Surajmaninagar (TSECL)	Pallatana(OTPC)	400 charged at 132kV	CS	35	35	Live Line
13	Mariani(State)	Kathalguri (NEEPCO)	400 charged at 220kV	CS	163	163	Live Line
14	Silchar (PG)	Srikona (AEGCL)	132	CS	3	3	Live Line
15	Bongaigaon (PG-400kV)	Salakati	220	CS	1	1	Live Line
16	Kohima(132KV)	Kohima(220KV)	132	Nagaland	25	25	Live Line
17	Umiam III (D/C)	Umtru	132	Meghalaya	42	0	Link Removed
18	NEHU (S/C)	NEIGHRIMS	132	Meghalaya	9	9	Live Line
19	Khliehriat (PG)	Khliehriat (State) (S/C)	132	Meghalaya	6	6	Live Line
20	Khliehriat(State) (D/C)	Myntdu Leshka-HEP	132	Meghalaya	25	25	Live Line
21	Khliehriat (PG)	Lumshnong (S/C)	132	Meghalaya	25	25	Live Line
22	Silchar (PG)	PK'bari(TSECL)	400 charged at 132kV	TSECL	122	0	Link Removed
23	P.K. Bari (TSECL)	Surajmaninagar (TSECL)	400KV charged at 132kV-Future	TSECL	130	0	Link Removed
24	Agartala (TSECL)	Baramura GTP	132	TSECL	30	30	Live Line
25	Agartala (TSECL)	Surajmaninagar (TSECL)	132	TSECL	20	20	Live Line
26	Surajmaninagar (TSECL)	Badharghat	132 (future)	TSECL	9	9	Off Line/Shut down
27	Surajmaninagar (TSECL)	Gokulnagar	132 (future)	TSECL	15	15	Off Line/Shut down

Minutes of 15th TCC & 15th NERPC Meeting held on 20th & 21st August, 2015 at Guwahati

28	Surajmaninagar (TSECL)	Budhjungnagar	132	TSECL	20	20	Live Line
29	Pallatana(OTPC)	Udaipur(TSECL)	132	TSECL	12	12	Live Line
30	Udaipur(TSECL)	Rokhia GTP	132	TSECL	40	40	Live Line
31	Rokhia GTP	Rabindranagar-66kv	66(future 132)	TSECL	23	23	Off Line/Shut down
32	Udaipur(TSECL)	Gumti HEP	66	TSECL	45	45	Live Line
33	Gumti HEP	Amarpur (TSECL)	66	TSECL	30	30	Live Line
34	Udaipur(TSECL)	Bagafa (TSECL)	66(future 132)	TSECL	25	25	Live Line
35	Bagafa (TSECL)	Belonia(TSECL)	66(future 132)	TSECL	15	15	Off Line/Shut down
36	Bagafa (TSECL)	Satchand (TSECL)	66(future 132)	TSECL	22	22	Off Line/Shut down
37	Satchand(TSECL)	Sabroom(TSECL)	66	TSECL	15	15	Live Line
38	Imphal(PG)	Imhal State	132	Manipur	1	0	Link Removed
39	Loktak(NHPC)	Ningthoukhong (State)	132	Manipur	11	11	Live Line
40	Ningthoukhong (State)	Imphal (State)	132	Manipur	28	0	Link Removed
41	Imphal (State)	Karong	132	Manipur	60	60	Live Line
42	Karong	Kohima	132	Manipur	50	0	Link Removed
43	Mizoram1	Mizoram2	132	Mizoram	59	0	Link Removed
44	Yurembam	Yaingangpokpi	132	Manipur	0	42	Link Added/Live Line/offline
45	Yaingangpokpi	Kongba	132	Manipur	0	32	Link Added/Live Line/offline
46	Kongba	Kakching	132	Manipur	0	45	Link Added/Live Line/offline
47	Kakching	Churachandpur	132	Manipur	0	38	Link Added/Live Line/offline
48	Yaingangpokpi	Hundung	132	Manipur	0	32	Link Added/Live Line/offline
49	Kakching	Chandel	132	Manipur	0	25	Link Added/Live Line/offline
50	Loktak (NHPC)	Rengpang	132	Manipur	0	47	Link Added/Live Line/offline
51	Jiribam	Jiribam	132	Manipur	0	1	Link Added/Live Line/offline
52	Ningthoukhong-	Churachandpur	132	Manipur	0	32	Link Added/Live Line/offline
53	Mirza (Azara)	Byrnihat	400	CS	0	45	Link Added/Live Line/offline
54	Kohima	Wokha	132	Nagaland	0	58	Link Added/Live Line/offline
55	Aizwal(PG)	Zimabawk-	132	Mizora	0	6.5	Link

		II(Zuangtui		m			Added/Live Line/offline
56	Aizwal(PG)	Zimabawk-I(Luangmual)	132	Mizora m	0	1	Link Added/Live Line/offline
57	Silchar	Pallatana	400	CS	0	248	Link Added/Live Line/offline
		Total			1960	1934	(=1933.5≈ 1934.00)km

Note:

1. States will provide SD as required for offline works.
2. During execution practical suitability of adopting 132Kv/220Kv/66kV and offline/online method will be looked in to . Above are indicative only