



## AGENDA NOTES FOR 15<sup>th</sup> TCC AND 15<sup>th</sup> NORTH EASTERN REGIONAL POWER COMMITTEE MEETING

### 1. MEETING SCHEDULE

SN	Meeting	Date	Time	Venue
1	TCC	20/08/2015	10:00 Hrs	"Radisson Blu," Guwahati
2	NERPC	21/08/2015	10:00 Hrs	"Radisson Blu," Guwahati

### 2. CONFIRMATION OF THE MINUTES OF 14TH TCC MEETING & 14TH NERPC MEETING

The minutes of the 14<sup>th</sup> TCC and 14<sup>th</sup> 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.

### 3. ARRANGEMENT OF AGENDA OF 15<sup>th</sup> TCC MEETING & 15<sup>th</sup> NERPC MEETING

SN	Description	Category
1	ITEMS FOR DISCUSSION	A
2	ITEMS FOR APPROVAL	B
3	ITEMS FOR INFORMATION	C
4	ISSUES OF NERPC SECRETARIAT	D



**CATEGORY – A: ITEMS FOR DISCUSSION**

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

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.

Arunachal may inform Action Plan.

**TCC Deliberation :**

**NERPC Deliberation :**

**ITEM NO. A.2 : INSTALLATION OF HARMONIC FILTERS - NERPC**

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 88<sup>th</sup> 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.

Ar. Pradesh may kindly intimate the current status.

**TCC Deliberation :**

**NERPC Deliberation :**

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

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

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## (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
<b>Grand Total =</b>		<b>2571</b>	<b>59.79</b>	<b>1468</b>	<b>61.16</b>

## (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
<b>Grand Total =</b>		<b>964</b>	<b>22.41</b>	<b>402</b>	<b>16.75</b>

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.

Corrective measures by Arunachal to reduce Tripping / failure of Transformers may please be intimated.

TCC Deliberation :

NERPC Deliberation :

<b>ITEM NO. A.4</b>	<b>: FREQUENT TRIPPING IN NER, PARTICULARLY IN MANIPUR SYSTEM AND MEGHALAYA SYSTEM IN KHLIEHRIAT AREA - NERPC</b>
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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.

Issue may be discussed for corrective measures to be taken by Meghalaya & Manipur.

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. A.5 : POLLUTION MAPPING FOR NORTH EASTERN REGION - NERPC**

During 14<sup>th</sup> 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.

POWERGRID may update the status.

**TCC Deliberation** :

**NERPC Deliberation** :

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

Setting up of SLDCs in NER was agreed in 14<sup>th</sup> 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.

POWERGRID may intimate the action Plan

**TCC Deliberation** :

**NERPC Deliberation** :



## ITEM NO. A.7 : LINES UNDER LONG OUTAGES – NERLDC

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

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

During 107<sup>th</sup> 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.

The issue may be discussed.

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

During 107<sup>th</sup> 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.

The issue may be discussed for early completion of the above line.

**TCC Deliberation** :

**NERPC Deliberation** :

## ITEM NO. A.8 : COMPLETION OF ATS OF PALATANA IN AP - POWERGRID

ATS of Palatana 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.

**TCC Deliberation** :

**NERPC Deliberation** :



<b>ITEM NO. A.9</b>	<b>: SIGNING OF POWER PURCHASE AGREEMENT (PPA) IN RESPECT OF SUBANSIRI LOWER HE PROJECT (2000MW) IN AR. PRADESH - NHPC</b>
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During 14<sup>th</sup> 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.

Ar. Pradesh may kindly intimate the status of signing of PPA.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. A.10</b>	<b>: SIGNING OF POWER PURCHASE AGREEMENT (PPA) IN RESPECT OF TAWANG - I &amp; II HE PROJECT (1400MW) IN AR. PRADESH - NHPC</b>
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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.

Constituents may kindly intimate the status of signing of PPA.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. A.11</b>	<b>: SIGNING OF BPSA IN RESPECT OF LOKTAK POWER STATION - NHPC</b>
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During 14<sup>th</sup> 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.

Assam, Mizoram & Ar. Pradesh may kindly intimate the status.

**TCC Deliberation** :

**NERPC Deliberation** :

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## ITEM NO. A.12 : OUTSTANDING DUES OF POWERGRID AGAINST NER CONSTITUENTS - POWERGRID

The total outstanding of POWERGRID's NER beneficiaries as on 30.07.15 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	4.15	0.00	0.00	2.71
2	ASEB (Assam)	-0.12	0.00	0.00	0.91	0.79
3	Manipur	-0.19	4.40	0.00	0.00	4.21
4	MeECL (Meghalaya)	-0.28	10.29	0.00	0.00	10.01
5	Mizoram	-0.10	3.94	0.00	0.00	3.84
6	Nagaland	-0.04	0.00	0.00	0.00	-0.04
7	TSECL (Tripura)	0.02	0.00	0.00	0.00	0.02
<b>TOTAL =</b>		<b>-1.16</b>	<b>22.76</b>	<b>0.00</b>	<b>0.97</b>	<b>22.59</b>

The total outstanding as on 30/07/2015 is Rs. **22.59** Crore. Out of total outstanding, it may be seen that outstanding against MeECL is on much higher side amounting to Rs 10.01 Crores which is almost 02 months receivable. MeECL is requested to liquidate the outstanding.

Constituents are requested to clear the outstanding dues immediately.

TCC Deliberation :

NERPC Deliberation :

## ITEM NO. A.13 : OUTSTANDING DUES OF NHPC AGAINST MeECL FOR MORE THAN 60 DAYS - NHPC

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.

NHPC/MeECL may deliberate the status of action taken in this regard.

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. A.14 : OPENING / MAINTAINING OF LETTER OF CREDIT (LC) - NHPC**

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.

<u>BENEFICIARY</u>	<u>REQUISITE AMOUNT</u>	<u>VALIDITY EXPIRED ON</u>
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.

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. A.15 : STATUS OF LETTER OF CREDIT : POWERGRID**

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	1.81	0.00	NA



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2	MEGHALAYA	4.55	0.00	NA
3	TRIPURA	3.89	1.83	14.02.16
4	MANIPUR	2.81	2.13	04.11.15
5	ARUNACHAL PRADESH	2.77	0.00	NA
6	NAGALAND	2.30	2.02	21.03.2016
7	ASSAM	19.96	17.74	26.02.2016

**Sub-Total (NER) = 38.08 23.72**

Constituents may deliberate the action plan.

**TCC Deliberation :**

**NERPC Deliberation :**

<b>ITEM NO. A.16</b>	<b>: 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 - AEGCL</b>
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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.

Issue may be discussed

**TCC Deliberation :**

**NERPC Deliberation :**



<b>ITEM NO. A.17</b>	<b>: REQUIREMENT OF REGIONAL SPARE 100MVA, 220/132KV TRANSFORMER FOR AUGMENTATION OF TRANSFORMATION CAPACITY OF 220/132KV SAMAGURI SUB STATION – AEGCL</b>
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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

Issue may be discussed

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. A.18</b>	<b>: SALE OF UN-REQUISITIONED SURPLUS (URS) POWER OF DISCOMS/BENEFICIARIES BY RESPECTIVE GENERATORS AT POWER EXCHANGE – OTPC</b>
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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 26<sup>th</sup> 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.

Issue may be discussed

**TCC Deliberation** :

**NERPC Deliberation** :

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## ITEM NO. A.19 : DEVIATION CHARGES OUTSTANDING – NERLDC

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
<b>Total =</b>		<b>603013942</b>	<b>-1719837</b>

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.

States may furnish action plan to liquidise outstanding dues

**TCC Deliberation** :

**NERPC Deliberation** :

## ITEM NO. A.20 : NON-PAYMENT OF NERLDC FEES AND CHARGES BILLS – NERLDC

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.

**TCC Deliberation** :

**NERPC Deliberation** :



**CATEGORY – B: ITEMS FOR APPROVAL**

**ITEM NO. B.1 : NER STRENGTHENING SCHEME - CEA**

Following are the details of strengthening schemes of NER approved / revised in the 4<sup>th</sup> Meeting of Standing Committee on Power System Planning in NER held on 13-12-2014 and Joint Standing Committee Meeting on Power System Planning of Eastern and North-Eastern Region held on 03rd Jan 2014 and requires approval of NERPC

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

1. Installation of 2<sup>nd</sup> 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.

**TCC Deliberation :**

**NERPC Deliberation :**

**ITEM NO. B.1.2 : NER STRENGTHENING SCHEME-II (NERSS-II: PART-B)**

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

1. 132kV D/C (Zebra conductor) Biswanath Chariali (PG) – Itanagar (AP) line
2. 400kV D/C (Quad Moose) Silchar (PG) – Misa (POWERGRID) line
3. 400kV D/C (Twin Moose) Imphal (PG) – New Kohima line
4. 400kV D/C (Twin Moose) Surajmaninagar – P.K.Bari line
5. Establishment of 2x315 MVA, 400/132 kV S/S at Surajmaninagar and P.K. Bari each with 4 no. 400 kV line bays, 2x125 MVAR bus reactors and 4 no. 132 kV line bays
6. Establishment of 2x500 MVA, 400/220 kV S/S at New Kohima with 4 no. 400 kV line bays, 2x125 MVAR bus reactors and 4 no. 220 kV line bays

*Note: Bay extension work at POWERGRID Station will be carried out by POWERGRID. However, bay extension work at others station will be carried out through TBCB*

*NERSS-II part B through TBCB would get modified based on decisions of 5<sup>th</sup> SCM on 08-08-2015 at Imphal, Manipur.*



Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

## ITEM NO. B.1.3 : NER STRENGTHENING SCHEME-III (NERSS-III)

1. Installation of 2<sup>nd</sup> 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) 2 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.

**TCC Deliberation** :

**NERPC Deliberation** :

## ITEM NO. B.1.4 : NER STRENGTHENING SCHEME-III (NERSS-IV)

1. Augmentation of Transformers & Reactors
  - (a) Dismantling / Removal of 4x105 MVA, 400/220 kV ICT# at Misa sub-station of POWERGRID and addition of 2x500 MVA, 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.

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

4. Further, during 5th Standing Committee Meeting of CEA on 8th Aug'15 at Imphal members agreed to construct 132kV D/C Line from RC Nagar to PK Bari for reliable evacuation of enhanced generation of RC Nagar.

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.2</b> : <b>ENHANCEMENT OF EXISTING TRANSFORMATION CAPACITY OF 2X200MVA TRANSFORMER AT 400/132/33KV AT SILCHAR S/S - CEA</b>
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The requirement of 3<sup>rd</sup> 400/132/33 kV ICT at Silchar to meet N-1 criteria has been discussed in OCC & PCC Meetings of NERPC. Finally, during 111<sup>th</sup> OCC meeting, the members agreed the requirement and subsequently, discussed in 5<sup>th</sup> Standing Committee Meeting of CEA held on 08.08.2015 at Imphal. Accordingly, during the 5<sup>th</sup> Standing Committee Meeting members agreed to the proposal of installation of 315MVA, 400/132kV Transformer at Silchar Sub Station of POWERGRID.

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :



**ITEM NO. B.3 : INSTALLATION OF BUS REACTOR AT RANGANADI - CEA**

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 5<sup>th</sup> Standing Committee Meeting of CEA held on 08.08.2015 at Imphal.

Accordingly, during the 5<sup>th</sup> 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.

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. B.4 : INSTALLATION OF 31.5 MVAR, 220KV REACTOR AT MOKOKCHUNG SUB STATION OF POWERGRID - CEA**

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

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. B.5 : REQUIREMENT OF ADDITIONAL REGIONAL SPARE TRANSFORMERS & REACTORS - NERPC**

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 5<sup>th</sup> 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. 1 Spare shall be positioned at Nirjuli SS.



3.	400/132/33 kV, 200 MVA, 3-Phase Transformer	1	2 units in 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.

However, members recommended POWERGRID to explore the possibility of diverting spare 315MVA ICT and 63MVAR Reactor taken out of service in other regions for capacity enhancement.

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.6</b>	<b>: PREVENTIVE SHIFTING OF 400KV BALIPARA-RANGANADI #1&amp;2 LINE ALONG THE RIVER DIKONG WITH PILE FOUNDATION TO AVOID THREAT OF COLLAPSE OF LINE EVERY YEAR - POWERGRID</b>
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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.

**TCC Deliberation** :

**NERPC Deliberation** :





<b>ITEM NO. B.7</b>	<b>:</b>	<b>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) – POWERGRID</b>
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The up-gradation of Haflong, Jiribam, Kumarghat and Aizawl sub stations on completion of 25 Years from AIS to GIS/Hybrid was discussed during 96<sup>th</sup> OCC & 20<sup>th</sup> 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.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.8</b>	<b>:</b>	<b>CAPITALIZATION OF VARIOUS WORKS CARRIED OUT DURING TARIFF BLOCK (2009 – 2014) – POWERGRID</b>
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During 96<sup>th</sup> OCC & 20<sup>th</sup> 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 <sub>2</sub> 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 <sup>nd</sup> 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.	2013-14	53.59



SN	Activity	Year of Execution	Expenditure (in Lakhs)
	(h) Salakati-BTPS D/C – 2 nos.		
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 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.).	2012-13	183.20
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.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.9</b>	<b>:</b>	<b>CAPITALIZATION OF VARIOUS WORKS TAKEN UP/TO BE TAKEN UP DURING TARIFF BLOCK (2014-2019) – POWERGRID</b>
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During 96<sup>th</sup> OCC & 20<sup>th</sup> 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

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SN	Activity	Expenditure (in Lakhs)
2	Installation of 220kV Bus Bar Protection Scheme including replacement of 245kV CTs at Dimapur Sub Station as per Regulation	50.00
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.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.10</b>	<b>: PROVISION OF 2ND SOURCE FOR AUXILIARY SUPPLY AT VARIOUS SUBSTATIONS OF POWERGRID IN NER - POWERGRID</b>
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The provision for 2<sup>nd</sup> 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 2<sup>nd</sup> 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 <sup>nd</sup> Source	Remarks
1	Misa	2 <sup>nd</sup> Aux. Trans. in Tertiary	2 <sup>nd</sup> Main Transformer (Existing)
2	Balipara	2 <sup>nd</sup> Aux. Trans. in Tertiary	2 <sup>nd</sup> Main Transformer (Future)
3	Bongaigaon	2 <sup>nd</sup> Aux. Trans. in Tertiary	2 <sup>nd</sup> Main Transformer (Future)
4	Silchar	2 <sup>nd</sup> Aux. Trans. in Tertiary	2 <sup>nd</sup> Main Transformer (Existing)
5	Aizawl	2 <sup>nd</sup> DG Set	State do not have infrastructure

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6	Haflong	2 <sup>nd</sup> DG Set	State do not have infrastructure
7	Nirjuli	2 <sup>nd</sup> DG Set	State do not have infrastructure
8	Ziro	2 <sup>nd</sup> DG Set	State do not have infrastructure
9	Salakati	2 <sup>nd</sup> DG Set	State do not have infrastructure
10	Badarpur	2 <sup>nd</sup> DG Set	State do not have infrastructure
11	Khliehriat	2 <sup>nd</sup> DG Set	State do not have infrastructure

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.11</b>	<b>: MODIFICATION IN SCOPE OF PALLATANA - BONGAIGOAN TRANSMISSION SYSTEM (FOR DELIVERY OF POWER TO MIZORAM) - CEA</b>
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Additional arrangement for delivery of Pallatana GBPP share to Mizoram.

During 4<sup>th</sup> 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.

**TCC Deliberation** :

**NERPC Deliberation** :



**ITEM NO. B.12 : UCC MEETING – NERPC**

During 111st 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.

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. B.13 : REPLACEMENT OF SYNCHRONOUS DIGITAL HIERACHY (SDH) NODES OF ULDC SCHEME – NERPC**

During 21<sup>st</sup> 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 21<sup>st</sup> 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.

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. B.14 : NER EXPANSION PROJECT-REVISION OF LINKS – POWERGRID**

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	<b>Insurmountable ROW issue</b> due to which construction of Sil-PKB 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-Skt-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
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All constituents agreed to the above proposal in 111<sup>th</sup> OCC and requested NERTS/NERPC to put up the proposal in the next TCC/RPC meeting for endorsement.

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.15</b>	<b>: REPLACEMENT OF PDH MULTIPLEXER NODES OF ULDC SCHEME &amp; TERMINAL EQUIPMENT (PDH+SDH) FOR ALL NEW SLDC ENDS &amp; IMPORTANT NODES FOR SLDC CONNECTIVITY - POWERGRID</b>
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During 20<sup>th</sup> & 21<sup>st</sup> 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 111<sup>th</sup> OCC Meeting, all constituents recommended to put up the proposal in the next TCC/RPC meeting for endorsement.

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :



<b>ITEM NO. B.16</b>	<b>:</b>	<b>AUTOMATED METER-DATA READING (AMR) - POWERGRID</b>
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During 6th Metering Meeting, the Sub-committee noted the cost estimate submitted by NERTS, all constituents has agreed for installation of AMR by incorporating the comments on technical specification by NERLDC. Further during 26<sup>th</sup> 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.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.17</b>	<b>:</b>	<b>PROVISION OF ADDITIONAL INTER-STATE 132KV LINK BETWEEN IMPHAL (PG) AND IMPHAL (STATE) - MSPCL</b>
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During 5<sup>th</sup> Standing Committee Meeting of CEA on 8<sup>th</sup> Aug'15 Manipur emphasized the importance of Yurembam (Imphal-State) and Ningthoukhong Sub Station and requested for strengthening of existing two nos. of Imphal (PG) – Imphal (State) Lines. After detailed deliberation 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.

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.18</b>	<b>:</b>	<b>REVISION OF OPGW LINK AGAINST MW VACATION PROJECT - POWERGRID</b>
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The revision of OPGW Links being established to vacate MW Links was discussed during 21<sup>st</sup> 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 – B.18** 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 111<sup>th</sup> OCC Meeting and POWERGRID was suggested for further needful in line with discussion of 21<sup>st</sup> UCC Meeting.

Placed for approval of TCC/NERPC.

**TCC Deliberation** :

**ERPC Deliberation** :



**ITEM NO. B.19 : STANDARDIZATION OF OPGW IN LIEU OF ONE EARTH WIRE IN ALL TRANSMISSION LINES**

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 5<sup>th</sup> Standing Committee Meeting of CEA on 8<sup>th</sup> 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.

**TCC Deliberation :**

**NERPC Deliberation :**

**ITEM NO. B.20 : TUIRIAL TRANSMISSION SYSTEM - CEA**

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 - Sihmui 132kV D/C line at Tuirial HEP (to be implemented by NEEPCO / P&E Deptt, Govt. of Mizoram)

Placed for approval of TCC/NERPC.

**TCC Deliberation :**

**NERPC Deliberation :**





**ITEM NO. B.21 : ESTABLISHMENT OF 400KV D/C LINK NEW KOHIMA - NEW MARIANI - MISA INSTEAD OF EXTENSION OF IMPHAL-NEW KOHIMA 400 KV D/C LINE TO MISA**

During 4<sup>th</sup> Standing Committee Meeting held on 13<sup>th</sup> 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 5<sup>th</sup> 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. Accordingly, following ISTS transmission scheme was agreed:

1. Upgradation of New Mariani substation to 400/220kV, 2x500MVA
2. New Kohima – New Mariani 400kV D/c line
3. Operation of New Mariani – Misa 400kV D/c line (presently charged at 220kV) at 400kV by disconnection of existing LILO from Mariani (AEGCL) S/S.
4. Operation of New Mariani – Kathalguri 400kV D/c line (presently charged at 220kV) at 220kV by disconnection of existing LILO from Mariani (AEGCL) S/S.

Placed for approval of TCC/NERPC.

**TCC Deliberation :**

**NERPC Deliberation :**

**ITEM NO. B.22 : ESTABLISHMENT OF 400/220KV SS AT KHUMTAI (GOLAGHAT DISTRICT) BY CONSTRUCTING 400KV D/C FROM BISHWANATH CHARIALI - AEGCL**

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 5<sup>th</sup> Standing Committee Meeting on 8<sup>th</sup> Aug'15 and it has been decided that POWERGRID will upgrade New Mariani Sub Station from 220kV to 400/220kV with 2X500MVA Transformation Capacity. Accordingly, following scheme would be implemented by AEGCL:

1. New Mariani – Mariani 220kV D/c line (with high capacity Conductor)
2. Termination of Samaguri – Mariani 220kV 2xS/c lines at New Mariani
3. Establishment of 220/132kV, 2x160MVA substation at Khumtai
4. LILO of Samaguri – Mariani 220kV 2xS/c lines at Khumtai

Placed for in-principle approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.23</b> : <b>REQUIREMENT OF 2 NOS. OF 220KV BAY AT MISA 400/220KV SS FOR NEW 220KV D/C LINE, MISA - SANKARDEV NAGAR- AEGCL</b>
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AEGCL has proposed to upgrade existing 132/33kV Shankardeb Nagar to 220/132/33kV Substation as part of power evacuation of Lower Kopili HEP (LKHEP) to be constructed by Assam Power Generation Company Ltd. The power evacuation scheme of LKHEP was already approved by the CEA. Presently Shankardeb Nagar is connected by 132kV D/C line from Samaguri 220/132/33kV Substation and the existing Diphu & M/s. Calcom Cement are radially fed from Shankardeb Nagar. As the entire load is being fed from Samaguri, the 220kV Misa – Samaguri D/C line is often get critically loaded. Since, Shankardeb Nagar is very close (15 km) to Misa 400/220kV Substation, by establishing new 220kV D/C line from Misa to Shankardeb Nagar, the new line will relief the loading of Misa – Samaguri 220kV D/C line in one hand as well as will take care of future growth of Karbi Anglong & part of Nagaon Districts of Central Assam.

Existing load at Shankardeb Nagar 132 kV bus is approximately 60 MW and at the end of the year 2019, the expected load will be more than 85 MW. The estimated cost of the proposed Misa- Shankardeb Nagar D/C line will be Rs. 18.90 Crs and cost of upgradation of Shankardeb Nagar 220kV S/S will be Rs. 78.0 Crs.

The issue was discussed during 5<sup>th</sup> Standing Committee Meeting on 8<sup>th</sup> Aug'15 and it has been decided that Two Nos bays which will become free on upgradation of both circuits of Misa-Mariani line to 400KV, will be utilized for the proposed 220KV D/C Misa- Sankardeva Line of AEGCL.

Placed for in-principle approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :



<b>ITEM NO. B.24</b>	<b>:</b>	<b>CONSTRUCTION OF TWO NOS. OF 400KV LINE BAY AT IMPHAL - MSPCL</b>
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Tremendous load growth is projected for the state of Manipur. To handle the expected load, higher transmission system voltage shall be required. Accordingly MSPCL has taken up the construction of 4x105 MVA, 400/132 kV single phase transformer (one spare) at Thoubal along with the associated 38 Km long 400 kV D/C line with radial connection to Imphal (PG) which was earlier planned to operate at 132 kV voltage level. In the 4th Meeting of Standing Committee on Power System Planning of North Eastern Region held on 13th Dec., 2014, the committee had agreed to the upgradation 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).

The issue was discussed during 5<sup>th</sup> Standing Committee Meeting of CEA on 8<sup>th</sup> Aug'15 and POWERGRID agreed to provide space for 2 nos. of 400kV Bays at Imphal (PG).

Placed for in-principle approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. B.25</b>	<b>:</b>	<b>ESTABLISHMENT OF 400/220KV SS AT SONAPUR IN EASTERN PART OF GUWAHATI - AEGCL</b>
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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 5<sup>th</sup> Standing Committee Meeting of CEA on 8<sup>th</sup> Aug'15 and it was agreed that 400kV Silchar - Byrnihut Line will be made LILO at Sonapur and 400kV Silchar - Azara Line will be made LILO at proposed New Shillong SS.

Placed for in-principle approval of TCC/NERPC.

**TCC Deliberation** :

**NERPC Deliberation** :



**ITEM NO. B.26 : ESTABLISHMENT OF 400/220KV SS AT RANGIA LILO OF ONE CIRCUIT OF 400KV BALIPARA- BONGAIGOAN - AEGCL**

AEGCL vide its letter no. AEGCL/MD/13th Plan/24x7/2015-16/4 dated 30<sup>th</sup> June, 2015 has stated that in the 4<sup>th</sup> 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, 5<sup>th</sup> SCM agreed to the proposal of AEGCL for establishment of a new 2x500 MVA 400 kV S/S at Rangia by LILO of 400kV Balipara-Bongaigaon (Twin Moose) line. 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.

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. B.27 : ALLOCATION FROM AGTPP EXTENSION PROJECT**

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 26<sup>th</sup> 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.

**TCC Deliberation** :

**NERPC Deliberation** :



**ITEM NO. B.28 : DIFFERENT METHODOLOGIES ADOPTED IN VARIOUS ACCOUNTS ISSUED BY NERPC**

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 26<sup>th</sup> 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.

**TCC Deliberation :**

**NERPC Deliberation :**



**CATEGORY – C : ITEMS FOR INFORMATION**

<b>ITEM NO. C.1</b>	<b>:</b>	<b>ADDITIONAL REQUIREMENTS OF OPGW BASED COMMUNICATION SYSTEM FOR CENTRAL SECTOR SUB-STATIONS AND GENERATING STATIONS AND OTHER LARGE GENERATING STATIONS IN NER – POWERGRID</b>
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Installation of OPGW in NER was approved during 14<sup>th</sup> TCC/NERPC Meeting. Accordingly tendering process was taken up by POWERGRID for following quantity:

<b>SN</b>	<b>Sector</b>	<b>OPGW (Km)</b>
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

This is for Kind information

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. C.2</b>	<b>:</b>	<b>ADDITIONAL REQUIREMENT OF OPGW BASED COMMUNICATION SYSTEM IN INTRA-STATE GRID OF MANIPUR – MSPCL</b>
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During 5<sup>th</sup> Standing Committee Meeting of CEA on 8<sup>th</sup> 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

**TCC Deliberation** :

**NERPC Deliberation** :



**ITEM NO. C.3 : SYNCHRONIZATION OF PALLATANA MODULE - I AND MODULE - II - NERPC**

The status of CoD of Gas Based Power Plant (GBPP) of OTPC at Palatana is given below:

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

This is for Kind information

**TCC Deliberation :**

**NERPC Deliberation :**

**ITEM NO. C.4 : REMEDIAL MEASURES TAKEN IN NER AFTER MAJOR GRID DISTURBANCES IN JULY 30-31, 2013 BASED ON RECOMMENDATIONS OF ENQUIRY COMMITTEE - NERPC**

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 14<sup>th</sup> 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 2<sup>nd</sup> 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 PALATANA

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

- **SPS 1** - Tripping of generating unit of OTPC at Palatana
- **SPS 2** - Tripping of 400 kV D/C Palatana- Silchar line (with generation from OTPC's plant at Palatana)
- **SPS 3** - Tripping of 400 kV Silchar-Byrnihat line (with generation from OTPC's plant at Palatana)
- **SPS 4** - Tripping of 400 KV Silchar – Byrnihat line (without generation from OTPC's plant at Palatana)

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

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. C.5</b>	<b>:</b>	<b>RING FENCING OF LOAD DESPATCH CENTRES (LDCS) - NERPC</b>
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During 14<sup>th</sup> 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

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.6 : GRID SECURITY EXPERT SYSTEM (GSES) - NERPC**

During the 14<sup>th</sup> 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

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.7 : STANDARDIZATION OF PROTECTION SCHEME FOR TRANSMISSION SYSTEM IN NER - NERPC**

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

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.8 : FORMATION OF SYSTEM STUDY GROUP IN NER - NERPC**

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

This is for Kind information

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.9 : RANGIA (ASSAM) - MOTONGA (BHUTAN) 132KV TRANSMISSION LINE - NERLDC**

During 14<sup>th</sup> 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

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.10 : SIGNING OF TRANSMISSION SERVICE AGREEMENT - PGCIL**

During 14<sup>th</sup> 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

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.11 : PROPOSAL FOR STUDY TOUR - NERPC**

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

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.12 : COMMISSIONING SCHEDULE OF GENERATION PROJECTS IN NER - NERPC**

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

SN	AGENCY	PROJECT	COMMISSIONING SCHEDULE
1	NHPC	Lower Subansiri	12 <sup>th</sup> 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

**TCC Deliberation** :

**NERPC Deliberation** :



**ITEM NO. C.13 : INSTALLATION OF POLYMER INSULATORS IN NER TRANSMISSION SYSTEM – POWERGRID**

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.

This is for Kind information

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.14 : LIST OF POWERGRID ELEMENTS PLANNED TO BE COMMISSIONED IN NEXT 6 MONTHS – POWERGRID**

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

# NORTH EASTERN REGIONAL POWER COMMITTEE



				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

**TCC Deliberation** :

**NERPC Deliberation** :

### ITEM NO. C.15 : TRANSMISSION LINES OF NETC - NERPC

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

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Based Combined Cycle Power Project at Pallatana, Tripura (GBCCPP) of ONGC Tripura Power Company Ltd.

- (a) 400kV PALATANA-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 112<sup>th</sup> 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) (b) Unit 3 & 4 (2X150MW)	November, 2016 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 Palatana	June 2016

This is for Kind information

**TCC Deliberation** :

**NERPC Deliberation** :

**ITEM NO. C.16 : CONSTRUCTION OF TWO NO. OF 132KV LINE BAYS AT 132KV SWITCHYARD, LEIMATAK OF NHPC – MSPCL**

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. The 132 kV S/C line between Leimatak and



Ningthoukhong was commissioned in 1991 as LILO on Leimatak – Mao via Yurembam 132 kV line, which was subsequently modified as radial line later on. Latest 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. At present whenever state draws demand of 130 MW or above, the flow in the said line from Leimatak side exceeds its SIL and most of the time SLDC, Manipur has tough time to bring down the power flow in the said line to acceptable limit.

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 for which construction of two 132 kV line bays at 132 kV switchyard, Leimatak under NHPC is inevitable.

During the 5<sup>th</sup> Standing Committee Meeting held on 08.08.2015, the issue was deliberated in detail and members requested MSPCL & NHPC to have a joint inspection of space available for 2 nos. of bays. NHPC & MSPCL agreed.

This is for Kind information

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. C.17</b>	<b>:</b>	<b>CONSTRUCTION OF 132KV D/C LINE FROM RUPAI IN ASSAM TO NAMSAI IN ARUNACHAL PRADESH AS INTER-STATE TRANSMISSION LINE BY POWERGRID - ARUNACHAL</b>
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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 5<sup>th</sup> Standing Committee Meeting of CEA on 8<sup>th</sup> Aug'15**

The issue was discussed during 5<sup>th</sup> Standing Committee Meeting of CEA on 8<sup>th</sup> 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

**TCC Deliberation** :

**NERPC Deliberation** :



**CATEGORY – D : ISSUES OF NERPC SECRETARIAT**

**ITEM NO. D.1 : BOARD FUND CONTRIBUTION FOR FY 2013-14**

As per decision of 9<sup>th</sup> 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)

Pending to Board Fund may please be cleared at the earliest

**TCC Deliberation :**

**NERPC Deliberation :**

**ITEM NO. D.2 : AUDITING OF BOARD FUND OF NERPC**

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 10<sup>th</sup> NERPC meeting.

For Kind Information please

**TCC Deliberation :**

**NERPC Deliberation :**

**ITEM NO. D.3 : PROPOSAL FOR PURCHASING OF NEW VEHICLE FOR NERPC SECRETARIAT**

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.

Members may like to discuss and approve.

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. D.4</b>	<b>: OUTSOURCING OF CARE TAKER IN NEW NERPC COMPLEX</b>
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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 NERPC

**TCC Deliberation** :

**NERPC Deliberation** :

<b>ITEM NO. D.5</b>	<b>: TA/DA FOR OFFICERS OF NERPC</b>
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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 NERPC

**TCC Deliberation** :

**NERPC Deliberation** :





## ITEM NO. D.6 : NON - PARTICIPATION BY CONSTITUENTS IN SUB-COMMITTEE MEETINGS OF NERPC

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. Issue may be discussed for regular participation of constituents

**TCC Deliberation** :

**NERPC Deliberation** :

## ITEM NO. D.7 : TRADER MEMBERSHIP

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., to be considered as member of trader for NERPC in FY 2015-2016.

Members may like to discuss on this issue.

**TCC Deliberation** :

**NERPC Deliberation** :

## ANY OTHER ITEMS

Additional issues, if any, may please be discussed

## 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 16<sup>th</sup> TCC/RPC Meetings. POWERGRID has agreed to host the meeting in Goa. The exact date & venue will be intimated later.

**Name of Project: MW REPLACEMENT PROJECT NERTS**

A. Central Sector Links					
S.N.	Name of Line	SUPPLY	ERECTION	Revised Sector	REMARKS
		Revised Route length-KM	Revised Route length-KM		
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 Namsa(PG)-Namsai(APState)-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 throughOPGW.
5.a	LILO Nirjuli Ranganadi &	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(NEEPCO)--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	
9	132kV Nirjuli(PG)-Ranganadi(NEEPCO) ( including LILO at Parey HEP(NEEPCO)	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) - Sihhmui (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		
<b>Under Priority Erection of Following Links (Central Sector) considered where materials are OSM (Diverted /exchange between NR-NER )</b>					
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>B.AEGCL Sector</b>					
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		
<b>Under Priority Erection of Following Links considered(under AEGCL) where materials are OSM( Diverted /exchange between NR-NER )</b>					
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
					km
	<b>MAIN OPGW TOTAL WITHOUT SPARE</b>	<b>1186.35036</b>	<b>1186.35036</b>		
	<b>ADDITION OF SPARE AS PER BOQ ITEM</b>	<b>44</b>	<b>0</b>		(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			
	<b>Grand Totals of OPGW length incl Spare(Apx)</b>	<b>1230.35</b>	<b>1186.35</b>		