



Government of India  
Ministry of Power  
Central Electricity Authority  
System Planning & Project Appraisal Division  
Sewa Bhawan, R. K. Puram, New Delhi-110066  
[ISO: 9001:2008]  
Website: www.cea.nic.in



No. 81/4/2015/SP&PA/1658

Date: 28<sup>th</sup> July, 2015

To,

1	The Member (PS), Central Electricity Authority, Sewa Bhawan, R. K. Puram, New Delhi-110066	8	Engineer-in-Chief Power & Electricity Department, Govt. of Mizoram, Tuikhuahtlang, Aizawl (Mizoram) <b>Fax: 0389-2320862</b>
2	The Member Secretary, North Eastern Regional Power Committee(NERPC), Meghalaya State Housing Finance Co- Operative Society Ltd. Building Nongrim Hills, Shillong (Meghalaya) – 793003 <b>Fax: 0364 – 2520030</b>	9	The Chief Engineer (Power), Electricity Department, Keisampat, Imphal (Manipur) - <b>Fax: 0385 – 2220702</b>
3	The Director (Projects ), Power Grid Corp. of India Ltd., "Saudamini", Plot No. 2, Sector-29, Gurgaon-122001 <b>Fax 0124-2571760/2571932</b>	10	The Chairman-cum-Managing Director, Tripura State Electricity Corporation Limited, Bidyut Bhavan, Banamalipur, Agartala, Tripura. <b>Fax: 0381 – 2319427</b>
4	The Managing Director, Assam Electricity Grid Corporation Limited, Bijulee Bhawan; Paltan Bazar, Guwahati (Assam) – 781001. <b>Fax: 0361 – 2739513 &amp; 0361 – 2739989</b>	11	The Chairman and Managing Director, North Eastern Electric Power Corporation Ltd, Brookland Compound, Lower New Colony, Shillong (Meghalaya) – 793003. <b>Fax: 0364 – 2226417</b>
5	The Chairman-cum-Managing Director, Meghalaya Energy Corporation Limited, Lum Jingshai, Short Round Road, Shillong (Meghalaya) – 793001. <b>Fax: 0364 – 2590355</b>	12	Director (Projects), National Thermal Power Corp. Ltd.(NTPC), NTPC Bhawan, Core-7, Scope Complex, Lodhi Road, New Delhi-110003 <b>Fax 011-24360912</b>
6	The Chief Engineer (Power), Vidyut Bhawan, Department of Power, Zero Point Tinali, Itanagar (Arunachal Pradesh) – 791111. <b>Fax: 0360 – 2217302</b>	13	CEO, POSOCO, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110016. <b>Fax: 011 – 26852747 / 26524525/ 26536901</b>
7	The Chief Engineer, Department of Power, Nagaland, Kohima <b>Fax: 0832 – 2222354</b>		

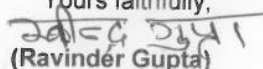
**Sub:** 5<sup>th</sup> Standing Committee Meeting on Power System Planning of North Eastern Region.

Sir,

The agenda of 5<sup>th</sup> Standing Committee Meeting on Power System Planning of North Eastern Region has been uploaded on CEA Website ([www.cea.nic.in](http://www.cea.nic.in)) at the following link –Home page-wing specific document-power systems- Standing Committee Meeting on Power System planning -North Eastern Region).

It is proposed to hold the meeting on 08.08.2015 at 10:00 hrs at "The Classic Hotel, North AOC, P.O. Imphal-795001, Manipur. Contact no. is +91 385244396/69, +91 8415901288.

Kindly make it convenient to attend the meeting.

Yours faithfully,  
  
(Ravinder Gupta)  
Director

## Agenda for 5<sup>th</sup> Standing Committee Meeting on Power System planning of North Eastern Region

### 1.0 Confirmation of the minutes of 4<sup>th</sup> Standing Committee Meeting on Power System planning of North Eastern Region.

1.1 The minutes of the 4<sup>th</sup> meeting of the Standing Committee on Power System Planning held on 13<sup>th</sup> Dec., 2014 at Bhramputra Hotel, Guwahati, Assam were circulated vide CEA letter no. 81/4/2011-SP&PA/2445-57 dated 29<sup>th</sup> Dec., 2014. No comment from any constituent has been received. The minutes may be confirmed.

### 2.0 North Eastern Region Strengthening Scheme (NERSS) – II

2.1 In the previous standing committee meeting, it was decided that part-B of NERSS-II with following scope of works would be implemented through tariff based competitive bidding (TBCB).

#### NERSS-II: Part-B (to be implemented through TBCB Route)

Sl. No.	Transmission System	Line Length (km.)
1	Biswanath Chariyalli (PG) – Itanagar (State) 132 kV D/C (Zebra conductor) • 2 no. of 132 kV line bays at Itanagar S/s	95
2	Silchar (PG) – Misa (PG) 400kV D/C (Quad) line	200
3	Ranganadi HEP – Nirjuli (PG) 132 kV D/C line • 2 no. of 132 kV line bays (GIS) at Ranganadi Switchyard	40
4	Imphal (PG) – New Kohima (State) 400 kV D/C line (to be initially operated at 132 kV) • 2 no. of 132 kV line bays at its New Kohima S/s	150
5*	Surajmaninagar-P. K. Bari 400 kV D/C (initially op. at 132 kV)	130

\* This line was recommended in the 14<sup>th</sup> TCC meeting held on 4<sup>th</sup> Sep, 2013 in Agartala and NERPC members approved the decision of the TCC.

#### Note:

##### CTU to provide:

- 2 no. of 132kV line bays each at Bishwanath Chariyali (PG), Nirjuli (PG) and Imphal (PG) sub-stations
- 2 no. of 400kV line bays each at Silchar (PG) and Misa (PG)
- 80 MVAR bus reactor at Misa (PG) along with GIS bay
- 1x80 MVAR switchable line reactor with GIS bays at Misa end of each circuit of Silchar– Misa 400kV D/C line

##### States to provide:

- 2 no. of 132 kV line bays at their Itanagar S/s of DoP, Arunachal Pradesh (DoP, Ar. Pradesh to provide space for the bays)
- 2 no. of 132 kV line bays (GIS) at Ranganadi Switchyard of NEEPCO (NEEPCO to provide space for the bays)
- 2 no. of 132 kV line bays at New Kohima S/s of DoP, Nagaland (DoP, Nagaland to provide space for the bays)
- 2 no. of 132 kV line bays at Surajmaninagar S/s of TSECL (TSECL to provide space for the bays)

- 2 no. of 132 kV line bays at P. K. Bari S/s of TSECL (TSECL to provide space for the bays)
- 2.2 The above scheme was allocated to RECTPCL as bid process co-ordinator (BPC) on 09-02-2015. The RfQ for the scheme was issued on 23-04-2015. In order to prepare RfP document, RECTPCL has written to various STUs of Arunachal Pradesh, Nagaland, Tripura and NEEPCO to provide necessary data relating to Sub-station equipments etc. on 15-04-2015.
  - 2.3 As per scope indicated in the Gazette, CTU will provide 2 nos. line bays at Biswanath Chariyalli (NER PP) and Department of Power, Arunachal Pradesh will provide space for construction of two no. 132 kV line bays at Itanagar S/S. for the Biswanath Chariyalli (NER PP) – Itanagar (Zebra conductor) 132 kV D/C line. Officials from CEA and RECTPCL visited offices of DoP Arunachal Pradesh on 19.05.2015. A meeting was also convened in CEA on 03-06-2015. During site visit and meeting of RECTPCL & CEA officials with DoP Arunachal Pradesh officials, it was informed that they may provide the land to TSP free of cost, but may not be able to confirm in writing. Even after regular follow up over telephone & reminders, no data/confirmation has been received from DoP, Arunachal Pradesh. As per the requirement of RfP documents, all commercial conditions and technical specifications of existing substation are required to be informed to the bidders in advance, as bays are in the scope of TSP.
  - 2.4 In view of the above, it is requested that DoP, Arunachal Pradesh to provide necessary technical specifications relating to 132 kV equipments at Itanagar S/S and also confirm, whether they will provide land for 2 no. 132 kV bays at Itanagar S/S to TSP free of cost.
  - 2.5 As per the scope indicated in the Gazette, CTU will provide 2 nos. line bays at Nirjuli S/S and NEEPCO will provide space for construction of two no. 132 kV GIS line bays at Ranganadi S/S for the Ranganadi – Nirjuli (Zebra conductor) 132 kV D/C line. Officials from CEA and RECTPCL visited offices of NEEPCO on 21.05.2015. A meeting was also convened in CEA on 03-06-2015. During site visit, it was observed that there is paucity of space at Ranganadi S/S and NEEPCO has already committed available space to DoP, Arunachal Pradesh for construction of line bays of already completed 132 kV D/C Itanagar – Ranganadi line. Team of CEA and RECTPCL explored the possibility for accommodation of all four bays in limited available space and as per discussion with officials of NEEPCO, it is learnt that if DoP, Arunachal Pradesh agrees for construction of their line bays as GIS, then all four bays may be accommodated in the available space. RECTPCL has informed that this issue of construction of GIS bays by DoP, Arunachal Pradesh was discussed with Chief Engineer (P), DoP Arunachal Pradesh over phone and CEA vide letter dated 03.06.2015 has also requested DoP to give their consent for the same, but information / reply has been received so far.
  - 2.6 In view of the above, it is requested that DoP, Arunachal Pradesh may confirm, whether they will make their bays at Ranganadi as GIS or not. If not this line has to be dropped.

- 2.7 Members may discuss these issues.
- 2.8 Members may also discuss the possibility of construction of bays at above sub stations of State departments/utilities by CTU. It is understood that CTU is already constructing various transmission line/substation in the region which includes bays at various substations of State departments/utilities. Construction of above bays by CTU shall expedite the execution of the scheme.
- 3.0 400 kV operation of Palatana-Surajmaninagar-P. K. Bari-Silchar 400 kV D/C line**
- 3.1 In the previous standing committee meeting, in order to improve reliability, it was agreed that the alternate corridor for evacuation of power from Palatana GBPP i.e. Palatana-Surajmaninagar-P. K. Bari-Silchar would be operated at 400 kV. Out of this, Palatana-Surajmaninagar 400 kV D/c is existing and is being operated at 132 kV. 400 kV operation of this section would require 2 no. 400 kV line bays at Palatana and termination at 400 kV from existing 132 kV (to be provided by OPTC). Establishment of 2x200 MVA 400/132 kV sub-station at Surajmaninagar (Under TBCB). P. K. Bari-Silchar 400 kV D/C line (initially operated at 132 kV) is under construction by POWERGRID. 400 kV operation of this section would require 2 no. 400 kV bays at Silchar (by POWERGRID) and establishment of 2x200 MVA 400/132 kV sub-station at P. K. Bari (under TBCB). In the previous meeting, it was decided that Surajmaninagar-P. K. Bari 400 kV D/C line (initially operated at 132 kV) would be implemented under TBCB. Now it is proposed that this line would be directly operated at 400 kV instead of 132 kV as agreed earlier.
- 3.2 New 400 kV substations are required to be constructed at P K Bari and Surajmaninagar. Further, two number bays at Palatana S/s of OTPC are also required to be included in the scope of scheme in addition to up gradation of 8 no. of 220 kV towers to 400 kV towers of Palatana – Surajmaninagar line.
- 3.3 Thus, 400 kV operation of the alternate corridor requires following scope of works:
- i) 2 no. 400 kV line bays at Palatana GBPP along with termination of Palatana-Surajmaninagar 400 kV D/C line (initially op. at 132 kV) at 400 kV (under OPTC)
  - ii) Establishment of 2x200 MVA 400/132 kV S/S at Surajmaninagar with 4 no. 400 kV line bays, 1x125 MVAR bus reactor, 4 no. 132 kV line bays, termination of Palatana-Surajmaninagar 400 kV D/C line (initially op. at 132 kV) at 400 kV (under TBCB)
  - iii) Establishment of 2x200 MVA 400/132 kV S/S at P. K. Bari with 4 no. 400 kV line bays, 1x125 MVAR bus reactor, 4 no. 132 kV line bays, termination of P. K. Bari-Silchar 400 kV D/C line (initially op. at 132 kV) at 400 kV (under TBCB)
  - iv) Construction of Surajmaninagar-P. K. Bari 400 kV D/C line (under TBCB)

- v) 2 no. 400 kV line bays at Silchar along with termination of P. K. Bari-Silchar 400 kV D/C line (initially op. at 132 kV) at 400 kV (under POWERGRID)

3.4 Members may discuss.

#### **4.0 Extension of Imphal-New Kohima 400 kV D/C line to Misa**

4.1 In the previous standing committee meeting, construction of Imphal-New Kohima 400 kV D/C line (initially operated at 132 kV) and construction of New Kohima-Misa 400 kV D/C line to be taken up along with 400 kV operation of Imphal-New Kohima 400 kV D/C line was agreed. The Imphal-New Kohima 400 kV D/C line is to be implemented through TBCB. The 400 kV operation of the above line would require establishment of 400/132 kV sub-stations at New Kohima & Imphal and reconfiguration of the line from 132 kV S/s to 400 kV sub-station. As the line and New Kohima S/S is proposed to be implemented through TBCB, in order to avoid any complication in future, it is proposed that the entire line from Imphal to Misa via New Kohima should be constructed and operated at 400 kV in single stage.

4.2 The 400 kV operation of the line would require following scope of works:

- i) 2 no. 400 kV bays at Imphal (under POWERGRID)
- ii) Establishment of 2x200 MVA 400/132 kV S/S at New Kohima along with 4 no. 400 kV line bays, 1x125 MVar bus reactor, 4 no. 132 kV line bays (under TBCB)
- iii) 2 no. 400 kV line bays at Misa (under POWERGRID)

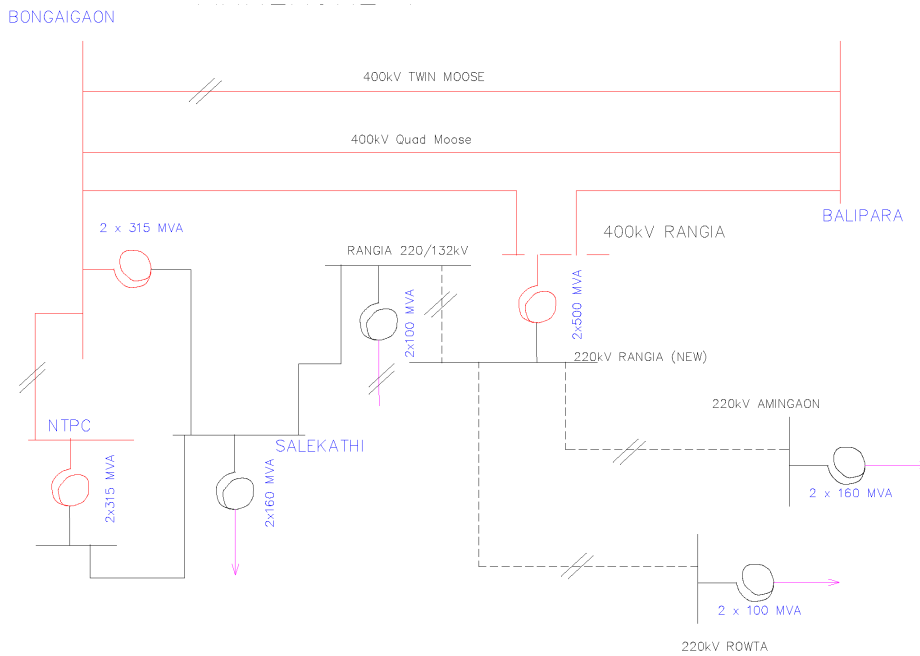
4.3 Members may discuss.

#### **5.0 Establishment of 400/220 kV S/S at Rangia LILO of one circuit of 400 kV Balipara-Bongaigaon - Agenda by AEGCL**

5.1 AEGCL vide its letter no. AEGCL/MD/13<sup>th</sup> 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 Twang & Kameng basins in Arunachal Pradesh.

5.2 AEGCL has informed that the because of rapid industrialisation, 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, 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 Western part of Assam, AEGCL has proposed establishment of a new 2x500 MVA 400 kV S/S at Rangia by LILO of one circuit of Balipara-Bongaigaon 400 kV D/C (Quad) line. The proposed 400/220 kV Rangia S/S will feed the existing Rangia and proposed Amingaon 220/132 kV sub-stations. The estimated cost of the scheme is about Rs.

337.21cr. (The above cost is exclusive of 220kV D/C line to Rowta and up-gradation of existing Rowta 132 kV substation).

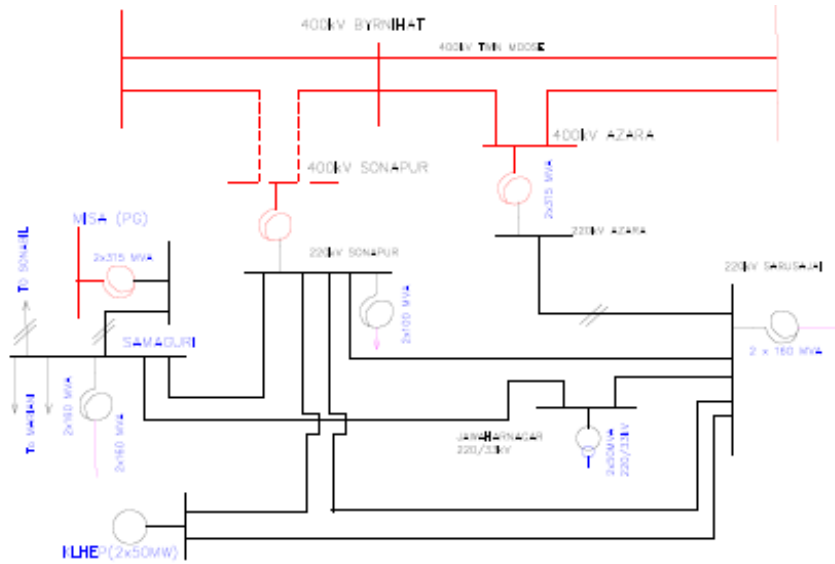


SLD FOR PROPOSED RANGIA 400/220kV

5.3 Members may discuss.

**6.0 Establishment of 400/220 kV S/S at Sonapur in Eastern part of Guwahati - Agenda by AEGCL**

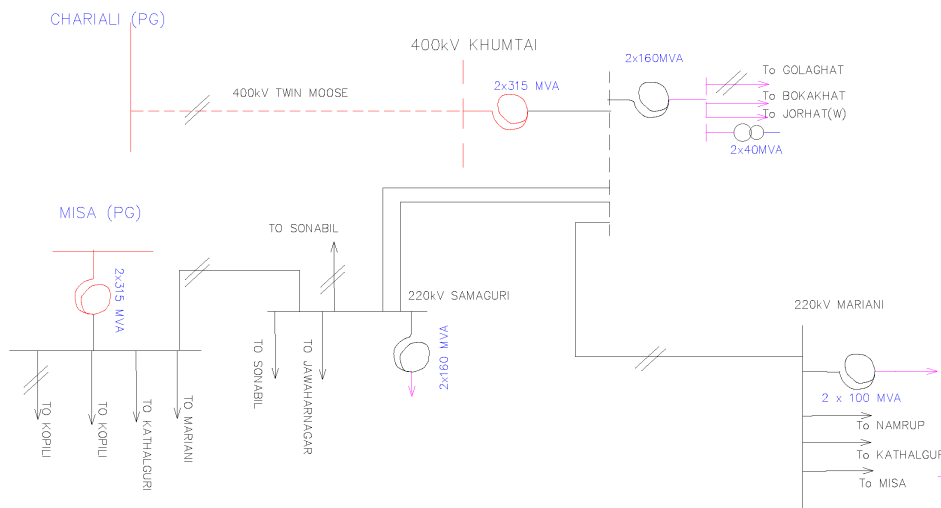
6.1 AEGCL vide above referred letter has stated that presently, Guwahati city is fed from 2x315 MVA 400/220 kV S/S at Azara situated in Western part of the city. In order to mitigate the contingency of Azara 400 kV S/S, AEGCL has proposed establishment of a 2x315 MVA 400/220 kV S/S in the Eastern part 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.



6.2 Members may discuss.

**7.0 Establishment of 400/220 kV S/S at Khumtai (Golaghat district) by constructing 400 kV D/C line from Biswanath Chariali - Agenda by AEGCL**

7.1 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 LILOed at Khumtai S/S. The estimated cost of the scheme is about 473.14 crs. (Cost of proposed 40KM 132kV D/C line from Khumtai to Golaghat and LILO of Jorhat(West) – Bokakhat 132kV S/C line (5.0 KM) are not included).



- 7.2 Members may discuss.
- 8.0 Requirement of 2 nos. of 220 kV Bay at Misa 400/220kV Substation for new 220kV D/C line, Misa – Shankardeb Nagar – Agenda by AEGCL**
- 8.1 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 Karbianglong & part of Nagaon Districts of Central Assam.
- 8.2 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.
- 8.3 Members may discuss.
- 9.0 Proposal for introduction of 220kV system at Biswnath Chariali (PGCIL) by installing one number 315 MVA, 400/220kV Transformer and 4 nos. 220kV Bays for D/C LILO of ongoing Sonabil – Dhemaji/Silapathar 220kV D/C line – Proposal of AEGCL**
- 9.1 AEGCL has informed that presently all the North Bank Districts of Assam is facing acute shortage of power with a restricted demand of 84 MW only. AEGCL has already proposed one 220kV D/C line from Sonabil to Dhemaji / Silapathar, where one section of the proposed line up to Biswnath Chariali, is already in the process of finalisation of bidding. It may be noted that under NERPSIP, one 220/132kV substation at Dhemaji with associate 220kV D/C line from Behiating (New Dibrugarh) with Brahmaputra River Crossing was already approved. Further, AEGCL proposes one 220/33kV substation at Narayanpur with LILO of one circuit of Sonabil – Dhemaji/Silapathar 220kV D/C under its 13<sup>th</sup> Plan. Again, the contract for Survey of Biswanath Chariali to Dhemaji / Silapather is already been awarded this month.
- 9.2 With introduction of 220 kV System at Biswanath Chariali, AEGCL will be able to form a 220kV ring network to it's Brahmaputra valley, which will increase the reliability of intra-state network as well as can cater power to the growing demand of Assam. The approximate cost of introduction of 220kV system at Biswanath Chariali, considering Gas Insulated Type substation will be around Rs. 105 Crs.
- 9.3 Members may discuss.



- 10.0 **Construction of two no. of 132 kV line Bays at 132 kV switchyard, Leimatak of NHPC – Agenda by MSPCL**
- 10.1 MSPCL has informed that presently 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 about 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.
- 10.2 To mitigate the constraint in drawing Manipur's share, Manipur State Power Company Limited has taken up the construction of a new Leimatak – Ningthoukhong 2<sup>nd</sup> Circuit 132 kV D/C line for which construction of two 132 kV line bays at 132 kV switchyard, Leimatak under NHPC is required.
- 10.3 Members may discuss.
- 11.0 **Construction of two nos. of 400 kV line bay at Imphal (PG) – agenda by MSPCL**
- 11.1 MSPCL has informed that 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 interconnection to Imphal (PG). In the 4<sup>th</sup> Meeting of Standing Committee on Power System Planning of North Eastern Region held on 13<sup>th</sup> Dec., 2014, the committee had agreed to the 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). Accordingly, POWERGRID is requested to provide 2 no. 400 kV line bays at Imphal (PG) 400 kV S/S.
- 11.2 Also for providing power supply to Myanmar as desired by GOI, State Government is taking up construction of 2x20 MVA, 132/33 kV S/S at Moreh, which will be linked to 400 kV Thoubal S/S. Hence, the 400 kV D/C linked between Imphal (PG) and Thoubal may be categorized as Inter-State link.
- 11.3 Members may discuss.
- 12.0 **Providing of additional inter-state 132 kV link between Imphal (PG) and Imphal (State)**
- 12.1 MSPCL has informed 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 (2x20 MVA). 132 kV Sub-station at Yaingangpokpi is further

connected to recently completed 132 kV Sub-Station at Hundung (2x12.5 MVA). Again under World Bank funding 2x20 MVA 132/33 kV Sub-Station is being planned at Gamphazol with LILO on Yurembam – Karong 132 kV line. Further additional 1x20 MVA each is being added to the 132 kV Sub-Stations at Yaingangpokpi and Kongba under State Plan and World Bank funding respectively. Hence the total anticipated load on Yurembam 132 kV S/S is estimated as shown below.

Name of 132 kV S/S	Existing Capacity (MVA)	Anticipated capacity within 1/ 2 year (MVA)	Remarks
Yurembam (Imphal-State)	3x3.15	3x3.15	Commissioning of third transformer is in progress
Karong	2x20	2x20	
Yaingangpokpi	2x20	3x20	
Kongba	2x20	3x20	
Hundung	-	2x12.5	Fully completed
Gamphazol	-	2x20	
<b>Total</b>	<b>214.5</b>	<b>319.5</b>	

12.2 The existing two interstate 132 kV links between Imphal (PG) and Imphal (State) shall not be sufficient to cater to the anticipated load on Yurembam (Imphal -State) Bus.

12.3 Members may discuss.

### 13.0 Additional requirement of OPGW based communication system in intrastate Grid of Manipur

13.1 MSPCL has informed that PGCIL on the request of State Government had prepared a DPR in 2011 for establishment of SLDC system in Manipur covering the existing nine 132 kV Sub-Stations and another two upcoming Sub-Stations at Hundung and Chandel. Scope of work among other includes providing of 11 RTUs and laying of 375 km OPGW based communication system.

13.2 As follow up of decision of 14<sup>th</sup> NERPC, PGCIL has taken up the establishment of SLDC in Manipur with the scope of installation of 11 RTUs on tariff to be recovered as determined by CERC, as a part of the existing Commercial Agreement signed between States and PGCIL for ULDC system.

13.3 As per the decision, PGCIL has taken up the work for providing Fibre Optic Communication System in NER under Wide Band Expansion Project covering 149 km for the following links in Manipur.

Imphal (PG)	Imphal (State / Yurembam)	1 Km	
Loktak (NHPC)	Ningthoukhong	10 Km	
Ningthoukhong	Impha l(State / Yurembam)	28 Km	Now, Ningthoukhong line is terminated to Imphal (PG)
Imphal (State / Yurembam)	Karong	60 Km	
Karong	Kohima	50 Km	
	<b>Total</b>	149 km	

- 13.4 The fate of the remaining 262 Km of OPGW covering the following links and (226 km reflected in the existing DPR) is still uncertain and Government of Manipur is in no position to take up the balance work due to poor financial health of the State.

Yurembam (Imphal-State)	Yaingangpokpi	42 km	
Yaingangpokpi	Kongba	32 km	
Kongba	Kakching	45 km	
Kakching	Churachandpur	38 km	
Yaingangpokpi	Hundung	32 km	
Kakching	Chandel	25 km	
Loktak(NHPC)	Rengpang	47 km	
jiribam	Jiribam(PG)	1 km	
		<b>262 km</b>	

- 13.5 However, under NERPSIP Tranche-I, 95 km (**42 km in actual**) of OPGW link are covered as shown hereunder.

Yaingangpokpi	Yurembam (Imphal State)	90 km	<b>42 km in actual</b>
Yurembam(Imphal State)	Impha I(PG)	5 km	Already included in NER wide Band Expansion
		<b>95 km</b>	

- 13.6 Now the following RTU links shall be left without any OPGW connectivity for integration of the Sub-Stations in SLDC, Manipur and shall definitely affect the intrastate grid management with possible cascading effect on the NER Grid.

Yaingangpokpi	Kongba	32 Km	
Kongba	Kakching	45 Km	
Kakching	Churachandpur	38 Km	
Yaingangpokpi	Hundung	32 Km	
Kakching	Chandel	25 Km	
Loktak(NHPC)	Rengpang	47 Km	
jiribam	Jiribam(PG)	1 Km	
		<b>220 Km</b>	

- 13.7 In the interest of Grid Security and proper management of power supply system in Manipur, PGCIL may take up the OPGW connectivity of additional 220 km on tariff to be recovered as determined by CERC and the scope may be incorporated in the existing Commercial Agreement signed between States & PGCIL for ULDC system, more particularly for Manipur.

- 13.8 Members may discuss.