

# North Eastern Regional Power Committee

## Agenda

### For

### 110<sup>th</sup> OCC Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 17<sup>th</sup> June, 2015 (Wednesday)

Venue : "Hotel Nandan", Guwahati.

#### **A. CONFIRMATION OF MINUTES**

#### **CONFIRMATION OF MINUTES OF 109<sup>th</sup> MEETING OF OPERATION SUB-COMMITTEE OF NERPC.**

The minutes of 109<sup>th</sup> meeting of Operation Sub-committee held on 20<sup>th</sup> May, 2015 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2015/4556-4591 dated 04<sup>th</sup> June, 2015.

*No observations or comments were received from any of the constituents. The Sub-committee may discuss & confirm minutes of 109<sup>th</sup> OCCM of NERPC.*

#### **ITEMS FOR DISCUSSION**

#### **B. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING MAY, 2015**

As per the data made available by NERLDC, the grid performance parameters for May, 2015 are given below:

#### **NER PERFORMANCE DURING MAY, 2015**

States	Energy Met (MU)		w.r.t. Apr,15 % inc (+) /dec (-)	Energy Reqr. (MU)		w.r.t. Apr,15 % inc (+) /dec (-)	% inc (+) /dec (-) of energy reqr vs met. In May, 15
	May-15	Apr-15		May-15	Apr-15		
Ar. Pradesh	37	35	5.7	46	37	24.3	-19.5
Assam	668	582	14.8	710	629	12.8	-5.0
Manipur	60	52	15.4	69	56	23.2	-13.1
Meghalaya	130	129	0.8	130	130	0.0	0.0
Mizoram	37	31	19.4	40	33	21.2	-7.5
Nagaland	61	52	17.3	62	54	14.8	-1.6
Tripura	120	79	17.7	110	86	37.2	9.0
Region	1113	959	13.3	1167	1037	24.1	-4.62%

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States	Demand Met (MW)		w.r.t. Apr, 15 % inc (+) /dec (-)	Demand in (MW)		w.r.t. Apr, 15 % inc (+) /dec (-)	% inc (+) /dec (-) of Demand vs met. In May, 15
	May-15	Apr-15		May-15	Apr-15		
Ar. Pradesh	109	<b>114</b>	-4.4	138	<b>138</b>	0.0	-21.1
Assam	1260	<b>1282</b>	-1.7	1382	<b>1395</b>	-0.9	-8.8
Manipur	153	<b>148</b>	3.4	160	<b>150</b>	6.7	-4.3
Meghalaya	295	<b>312</b>	-5.4	380	<b>400</b>	5.0	-22.2
Mizoram	84	<b>80</b>	5.0	85	<b>85</b>	0.0	-1.1
Nagaland	112	<b>112</b>	0.0	120	<b>120</b>	0.0	-6.6
Tripura	254	<b>238</b>	6.7	270	<b>265</b>	1.88	-5.9
Region	<b>2267</b>	<b>2114</b>	<b>3.4</b>	<b>2535</b>	<b>2220</b>	<b>15.9</b>	<b>-10.5%</b>

**REGIONAL GENERATION & INTER-REGIONAL  
EXCHANGE IN MU**

Month---->	May-15	Apr-15
Total Generation in NER (Gross)	860	773
Total Central Sector Generation (Gross)	570	527
Total State Sector Generation (Gross)	290	246
<b>Inter-Regional Energy Exchange</b>		
(a) NER-ER	6.76	10.63
(b) ER-NER	276.34	244.10
© Net Import	269.58	233.47

**AVERAGE FREQUENCY (Hz)**

Month---->	May-15	Apr-15
	% of Time	% of Time
Below 49.9 Hz	15.82	14.86
Between 49.9 to 50.05 Hz	64.74	60.24
Above 50.05 Hz	19.44	24.9
Average	49.98	49.96
Maximum	50.55	50.55
Minimum	49.55	49.5

From the above table, it is seen that energy requirement met (MU) and energy requirement of the region has increased considerably from the previous month.

**C.1 Status of Generating Units, Transmission Lines in NER:**

During 108<sup>th</sup> OCC meeting, the status as informed by NTPC, NEEPCO and POWERGRID is as follows:

SN	Items	Status as given in 110 <sup>th</sup> OCC Meeting	Status as on 109 <sup>th</sup> OCC
1	Trial operation and CoD of Unit -I of Bongaigoan TPS of NTPC		Expected Date for Synchronization of Unit -# I by 30th June, 2015.  COD is expected by December, 2015

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2	Trial operation and CoD of STG -I & II of AGTPP of NEEPCO		COD for STG – II: End of June, 2015.  COD for STG – I: July/ August, 2015.
3	Trial operation and CoD of Monarchak GBPP of NEEPCO		Connectivity agreement to be signed soon by Tripura.  Tripura informed that with present line, evacuation of power from Monarchak has no problem and the 132 kV Monarchak – Surjamaninagar will be completed by December, 2015.
5	400KV D/C Silchar - Melriat line of PGCIL		December, 2015
6	800KV HVDC Bishwanath Chariali - Agra		

*Concerned constituents may kindly intimate the status.*

**C.2 Details of Installations and self-certification (by STUs and CTUs) in respect of operationalization of Under Frequency Relays (UFRs) in NER systems and additional requirement of UFR and df/dt relays:**

The OCC regularly review the status of UFR based load shedding in the region. The latest status intimated during the 108<sup>th</sup> OCC meeting is given below: -

**Assam, Manipur, Mizoram & Nagaland:** UFRs based load shedding for 220MW & 20MW respectively have been implemented by both the States. However, UFR operation and amount of load relief reports are to be sent to NERLDC regularly. Assam & Nagaland agreed to do the needful and they have started sending regularly.

**Arunachal Pradesh:** EE, SLDC informed that UFRs based load shedding for 20MW have been implemented by them for all stages. Ar. Pradesh had furnished the list of feeders and stated that the report would be sent to NERLDC regularly. SE(O) requested Ar. Pradesh to inform the quantum of load relief in each UFR.

**Meghalaya:** UFRs based load shedding for Stages I, II & III completed. 4th stage implementation process is held up due to law and order problem in Garo Hills. Reports of UFR operations are sent regularly to NERLDC.

**Tripura:** UFRs based load shedding for Stages I & II have been implemented. Tendering is done for Stages III & IV and M/s Alstom is awarded for implementation. It is expected to implement Stages III & IV by May, 2015.

*Concerned constituents may kindly intimate the status.*

### **C.3 CT Ratio of Transmission Lines in NER & Enhancement of Loadability of Lines:**

During 107<sup>th</sup> OCC meeting, DGM, NERLDC informed that the list of feeders for enhancement of loadability and present CT ratio available with them and circulated with OCC minutes. He requested constituents to check the list and update the status pertaining to them and also to intimate about the terminal equipments if the load can carry as per the CT ratio.

During 108<sup>th</sup> OCC meeting, DGM (AM), NERTS stated that in order to comply to NRCE guidelines, constituents have to carry out patrolling on all lines and check the jumpers by using thermo vision instrument and also the terminal end equipments to find out whether the lines could carry the load as per the above guidelines.

After detailed deliberation, the Sub-committee has directed all the constituents to declare the loadability of all the lines pertaining to them and the data should be furnished to NERLDC/NERPC latest by 31.05.2015. Till submission of these data to NERLDC, NERLDC would use load-ability data as per prevailing practice.

*Constituents may kindly intimate the status and members may deliberate.*

### **C.4 Single Line Diagram of Sub-stations, Switching Stations & Power Stations of NER:**

POWERGRID, OTPC, NHPC, NTPC & DoP, Arunachal Pradesh, MSPCL, P&E, Mizoram, MePTCL (**partially**), DoP, Nagaland, TSECL & NEEPCO (**partially**) have furnished.

Single Line Diagrams of some of the nodes of AEGCL have been collected from DPR for rectification of Protection System.

NEEPCO (**Khandong & Khupi**), AEGCL (**Bihaiting, BRPL, Ghoramari, HPC-Jagiroad, HPC-Panchgram, Star Cement & CALCOM**) and MePTCL (**CMCL, Hill Cement, Leshka, Nalari & Sai Prakash**) are requested to furnish Single Line Diagram of nodes as these diagrams are required for system studies, outage coordination etc.

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During 109<sup>th</sup> OCC meeting, NERLDC informed that SLD for Sai Prakash of Me.ECL has been received. Further, SLD of Khandong & Khupi sent by NEEPCO could not be opened; they requested NEEPCO to send once again. The SLD from Manipur was also received by them.

SE(O) requested NERLDC to compile the SLDs of all constituents which was not received by them and furnished to NERPC so that they can write to the concerned constituent to furnish the remaining stations as decided by the Sub-committee. NERLDC agreed.

***NERLDC may kindly intimate the status.***

### **C.5 Latest status of FGMO/RGMO implementation in different generating stations: (Agenda pertains to Generation Wing - Concerned representative from generation division should attend the meeting)**

To update the available record of FGMO/RGMO implementation in NER it is requested that the latest unit-wise status of implementation of FGMO/RGMO in different Central & State sector generating stations may please be furnished to NERLDC at the earliest as per Annexure circulated in earlier minutes.

During 109<sup>th</sup> OCC meeting, DGM (SO-I), NERLDC intimated about the latest CERC Petition No. 84/MP/2015 relating to inadequate operation of FGMO/RGMO. He informed that the Commission has directed all the constituents to file the following details/clarification through Affidavit latest by 12.06.2015:

1. Frequency Response Characteristics (FRC) Report of their respective control areas for poor/negative response from their control areas clearly bringing out the generator wise response in MWs, in percentage of ideal response and scheduled MW during both (14.01.15 & 25.04.15) the frequency excursions for all generators of the state.
2. Seek the reasons from the generators who have shown poor or no response as per their respective grid code/Grid code or negative response to the frequency excursions.

He requested all the constituents to go through the above CERC order and file the affidavit at the earliest.

The Sub-committee requested NERPC to circulate the above CERC Order to all the constituents so that necessary action for filing affidavit to CERC can be taken by their concerned wing within the above stipulated time frame.

Accordingly, NERPC had circulated vide mail dated 26.05.2015 to all the constituents to file an affidavit before the above stipulated date.

***Constituents may kindly intimate the current status.***

**C.6 Submission of list of feeders connected to essential load:**

As per clause no 5.8.c of IEGC, essential loads are to be restored on priority during restoration process.

All constituents have furnished the above data except, Ar. Pradesh & Nagaland.

During 108<sup>th</sup> OCC meeting, Ar. Pradesh & Nagaland have informed that above data would be furnished by 31.05.2015.

***Ar. Pradesh & Nagaland may kindly intimate the current status.***

**C.7 Progress Report of Ongoing Projects:**

Progress reports of ongoing generation and transmission projects of NER need to be communicated to NERLDC by all constituents on monthly basis as per format. The progress of different elements are necessary for incorporation in Operational Feedback and other reports as also for preparation of Base Case for system study in NER. Accordingly, constituents are requested to furnish the progress report of their elements by 10<sup>th</sup> of every month for the previous month.

NERPC vide letter dated 13.02.2015 had written to all concerned constituents followed by reminder letter on 06.05.2015 to furnish the status of ongoing projects to NERLDC at the earliest. Ar. Pradesh had furnished the above information.

During the 109<sup>th</sup> OCC meeting, the sub-committee requested the remaining constituents viz. APGCL, Me. PGCL, Me. PTCL, Nagaland & POWERGRID to furnish the above information at the earliest. Constituents who do not have any ongoing projects may kindly be informed as NIL report.

APGCL had furnished the above data on 26.05.2015

***Me. PGCL, Nagaland & POWERGRID may kindly intimate the status.***

**C.8 Submission of formats for charging/first time synchronization of new elements:**

Information related to charging/first time synchronization of new elements/units is to be furnished to NERLDC (two month in advance). All the activities related to charging/first time synchronization of new elements are to be completed before charging/first time synchronization of new elements. The technical data of the elements are also necessary for preparation of Base Case for system study for NER system.

During the 108<sup>th</sup> OCC meeting, SE(O) informed that nomination from NTPC was received only recently, the above meeting could not be conducted. Now since the complete list of nodal officers is received, NERPC will arrange the meeting at the earliest.

***NERPC may kindly intimate the current status about holding the special meeting comprising of nodal officers of constituents, NERLDC & NERPC as suggested by the Sub-committee.***

**C.9 Assessment of Inter State Total Transfer Capability (TTC), Transmission Reliability Margin (TRM) and Available Transfer Capability (ATC) by SLDC on respective Inter-State Transmission Corridor:**

As per Clause No. 4.1 of 'Detailed Procedure for Relieving Congestion in Real Time Operation', SLDC shall assess TTC, TRM and ATC on it's inter-state transmission corridor considering a mesh intra-state corridor for import or export of power with the Inter-state Transmission system (ISTS).

SLDCs of NER are requested to assess the above on monthly basis, 5 months in advance (eg: TTC/TRM/ATC for the month of November to be calculated by 15th of July), for further assessment of TTC, ATC and TRM of NER –ER corridor by NERLDC and for assessment of TTC / ATC for a group of control areas, individual control areas with the region and state-control-area to state-control-area by NERLDC, if required.

During 108<sup>th</sup> OCC meeting, DGM (SO-II), NERLDC stated that TTC/ATC data are being assessed by them on behalf of constituents and requested them to check the data and give their comments at the earliest. TTC of states under peak & off peak scenarios assessed by NERLDC are as follows:

Import Capability

S N	State	Off-Peak Case		Peak Case	
		Contingency	Total Transfer Capability	Contingency	Total Transfer Capability
1	Arunachal Pradesh	N-1 of 132 kV Rangandi - Ziro S/C	115	N-1 of 132 kV Rangandi - Ziro S/C	115
2	Assam	N-1 of 220/132 kV, 3x100 MVA transformers at Sarusajai	1175	N-1 of 220/132 kV, 3x100 MVA transformers at Sarusajai	1295
3	Manipur	N-1 of 132 kV Imphal (PG) - Imphal D/C	260	N-1 of 132 kV Imphal (PG) - Imphal D/C	260
4	Meghalaya	N-1 of 132 kV Killing-Epip II D/C	250	N-1 of 132 kV Killing-Epip II D/C	250
5	Mizoram	N-1 of 132 kV Aizawl - Zimabawk S/C	37	N-1 of 132 kV Aizawl - Zimabawk S/C	37
6	Nagaland	N-1 of 132 kV Dimapur -Kohima S/C	95	N-1 of 132 kV Dimapur -Kohima S/C	95
7	Tripura	N-1 of 132 kV Palatana - Udaipur S/C	130	N-1 of 132 kV Palatana - Udaipur S/C	126

During 109<sup>th</sup> OCC meeting, the Sub-committee requested all the constituents to go through the above calculation of NERLDC and if they have any discrepancy, they may take up the matter with NERLDC.

***NERLDC may kindly intimate the current status.***

#### **C.10 Requirement of Reactor at Balipara & Bongaigaon:**

After commissioning of 400 kV Balipara – Bongaigaon III & IV lines & 400 kV Bongaigaon – New Siliguri III & IV lines, voltage trend at Ranganadi, Balipara & Bongaigaon significantly increases during off peak hours.

To contain voltage at these nodes within IEGC band, one circuit of 400 kV Balipara – Bongaigaon lines, 400 kV Bongaigaon – New Siliguri lines & 400 kV Ranganadi – Balipara lines are kept open during off peak hours.

It was agreed in 4<sup>th</sup> SCM of NER on 13.12.14 for installation of 125 MVAR Bus Reactors by POWERGRID at Balipara and Bongaigaon.

For immediate solution, Line Reactors of 400 kV Balipara - Bongaigaon I & II at Balipara & Bongaigaon are required to be converted into Bus Reactors.

During 109<sup>th</sup> OCC meeting, Manager (AM), NERTS informed that procurement for switching equipments is under progress and the status and it may take atleast 6 (six) months to complete the above work.

***NERTS, POWERGRID may kindly intimate the current status.***

#### **Installation of Reactor at Ranganadi:**

During 4<sup>th</sup> SS meeting, DGM (SO-II), NERLDC informed that on several occasions NER grid experiencing very high voltage condition during off-peak hours resulting in opening of numbers of 400 kV circuits to contain over voltage especially at RHEP. 400 kV Balipara- RHEP D/C link is operated through single circuit only in most of the time sacrificing reliability of the system. Similar is the condition in other corridors including IR link. To address the problem, conversion of line reactors as Bus reactors for 400 kV Bongaigaon-Balipara D/C line and installation of additional bus reactors at Balipara have been proposed.

In addition to this, one bus reactor of at least 50 MVAR capacity is required to be installed at RHEP so that over voltage problem can be solved

SE(O) informed that communication from NEEPCO on the above issue has been received and after examining thoroughly by them, they have suggested the possibilities which is reproduced as below:

1. **Option-1:-** Possibility for installation of bus reactor at 400 kV/ 132kV switchyard has been examined. As per the preliminary study under present site condition, there is a possibility to accommodate one reactor at 400kV

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switchyard by way of extension of bus towards hill side. However, it will require cutting/ leveling of hillock, providing protection wall, diversion of road, drains, fencing etc.

2. **Option-2:-** RHEP units cannot be run in synchronous condenser mode because provision for the same is not available in the present scheme and lots of modifications including piping works shall be necessitated.
3. **Option-3:-** Loading of bus reactor in Tertiary of ICTs is also not feasible; because those are very old ICTs and had failed also earlier and put in service after repairing.
4. NEEPCO is assisting the grid operator to counter the over voltage problem at RHEP by way of putting the 400 kV line reactor at bus whenever required. However, I would like to inform you that this operation is done through isolators as switching breakers are not available. The then Member Secretary, GM, NERLDC, POWERGRID representatives visited the site in 2007 and was dropped and necessary modification was done at Balipara. The operation through isolators in present scenario involves risks for the operators and detrimental to the equipment like isolators as well. Probably, the present arrangement is not at all advisable.

Sr. Manager, NEEPCO stated that if the forum agrees for option-1 detail study shall be done and cost estimate & work schedule shall be prepared.

After detailed deliberation, Member Secretary suggested NEEPCO to work out the tentative estimate for above cost and intimate in next PCC meeting so that the matter can be taken up for funding from PSDF since the matter is for the benefit of the region. All members agreed to the proposal.

***NEEPCO may kindly intimate the current status.***

#### **C.11 Second In-feed for NER-ER Corridor:**

At present NER Grid is connected to rest of NEWS Grid through only one in-feed i.e. Bongaigaon - Salakati substation. On 23.02.15 at around 1809 Hrs due to tripping of all the outgoing feeders of 400 kV Bongaigaon substation, 220kV Salakati- BTPS D/C lines overloaded and tripped. This resulted into isolation of NER grid from the rest of NEWS Grid and subsequently major part of NER Grid collapsed.

This type of grid disturbances may be avoided if there is more than one in-feed of NER Grid with ER Grid.

At present Bongaigaon Thermal Power Plant (BgTPP) is connected with 400 kV Bongaigaon S/S through 400 kV Bongaigaon – BgTPP D/C lines. Second in-feed of NER Grid with ER Grid may be formed, albeit at the same geographical location, if one circuit each of 400 kV Bongaigaon – Binaguri lines and 400 kV Bongaigaon – Balipara lines terminated to BgTPP in place of Bongaigaon.

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NERLDC pointed out that 2<sup>nd</sup> in-feed at Balipara can also be formed by connecting one circuit each of 400 kV Bongaigaon – Binaguri lines and 400 kV Bongaigaon – Balipara lines bypassing Bongaigaon S/S subject to technical feasibility.

The Sub-committee decided to jointly visit by NERLDC, NERPC, NERTS and NTPC to explore the possibility of creating additional space to incorporate required number of bays for implementation of above scheme. The issue will be discussed in the next OCC meeting.

During 109<sup>th</sup> OCC meeting, SE(O) informed that due to limited of time, the above visit could not take place, but it is now decided that visit would be on 23.05.2015 and the outcome will be intimated in the next OCC meeting.

Accordingly, the joint visit was carried out on 23.05.2015 comprising of NERTS, NERPC & NTPC. The detail layouts have been collected and forwarded to ABB to verify the feasibility for incorporating two (2) numbers additional 400 kV GIS/Hybrid bays at 400 kV Sub-station of NTPC.

***Members may like to discuss.***

### **C.12 Monthly MU requirement & availability of each state of NER as per format:**

The following figures of state wise MU requirement and availability were taken from draft LGBR 2015-16 of NERPC. State wise MU requirement and availability for these months are to be checked. Constituents may kindly verify if the above data are correct.

#### **Requirement:**

<b>Name of State</b>	<b>Jun15</b>	<b>Jul15</b>	<b>Aug15</b>	<b>Sep15</b>	<b>Oct15</b>
Ar. Pradesh	67	67	72	72	72
Assam	730	730	730	720	710
Manipur	75	75	75	75	75
Meghalaya	130	130	140	150	180
Mizoram	40	42	42	42	43
Nagaland	70	75	70	70	72
Tripura	120	120	125	120	130
<b>NER</b>	<b>1232</b>	<b>1239</b>	<b>1254</b>	<b>1249</b>	<b>1282</b>

#### **Availability:**

<b>Name of State</b>	<b>Jun15</b>	<b>Jul15</b>	<b>Aug15</b>	<b>Sep15</b>	<b>Oct15</b>
Ar. Pradesh	68	89	86	74	61
Assam	630	635	640	630	600
Manipur	79	101	101	85	79
Meghalaya	200	250	280	274	260
Mizoram	55	66	65	54	50
Nagaland	50	65	63	64	56
Tripura	186	206	205	192	194
<b>NER</b>	<b>1268</b>	<b>1412</b>	<b>1440</b>	<b>1373</b>	<b>1300</b>

**C.13 Monthly MW requirement & availability of each state of NER:**

The following figures were taken from LGBR 2015-16 of NERPC. These figures are to be reviewed.

**A. Peak Demand in MW**

Name of State	Jun15	Jul15	Aug15	Sep15	Oct15
Ar. Pradesh	133	133	138	143	143
Assam	1439	1469	1510	1480	1455
Manipur	138	143	149	149	154
Meghalaya	400	400	395	400	400
Mizoram	90	90	90	85	85
Nagaland	120	135	130	135	130
Tripura	275	275	275	285	300
<b>NER</b>	<b>2620</b>	<b>2675</b>	<b>2717</b>	<b>2677</b>	<b>2682</b>

**B. Peak Availability in MW**

Name of State	Jun15	Jul15	Aug15	Sep15	Oct15
Ar. Pradesh	149	148	143	145	145
Assam	1164	1151	1113	1164	1210
Manipur	154	162	159	159	160
Meghalaya	387	470	488	488	480
Mizoram	108	113	109	105	105
Nagaland	103	108	104	104	110
Tripura	396/230	403/230	398/230	403/230	403/230
<b>NER</b>	<b>2136</b>	<b>2461</b>	<b>2514</b>	<b>2570</b>	<b>2600</b>

\* Tripura indicates 400/230 if Pallatana available/if not available

**C. Off Peak Demand in MW (08:00 Hrs)**

Name of State	Jun15	Jul15	Aug15	Sep15	Oct15
Ar. Pradesh	73	73	76	72	76
Assam	900	905	920	830	950
Manipur	90	93	97	75	95
Meghalaya	220	220	217	165	226
Mizoram	59	55	55	42	55
Nagaland	72	81	78	70	80
Tripura	197	197	201	202	214
<b>NER</b>	<b>1611</b>	<b>1624</b>	<b>1644</b>	<b>1374</b>	<b>1696</b>

**D. Off Peak Availability in MW (08:00 Hrs)**

Name of State	Jun15	Jul15	Aug15	Sep15	Oct15
Ar. Pradesh	74	110	108	79	76
Assam	1077	1047	1047	900	930
Manipur	103	136	136	97	111
Meghalaya	321	423	440	420	400
Mizoram	75	92	100	55	70
Nagaland	71	96	95	81	71
Tripura	230	230	230	194	240
<b>NER</b>	<b>1951</b>	<b>2134</b>	<b>2156</b>	<b>1626</b>	<b>1898</b>

**D. NEW ITEMS**

**D.1 Generation Planning (ongoing and planned outages)**

NEEPCO/NHPC/OTPC may kindly intimate the availability for hydro stations:

Generating Station	Units running	MW	MU	Reservoir
Khandong				
Kopili				
Kopili-II				
Ranganadi			Subject to inflow	
Doyang				
Loktak				
AGBPP			-	-
AGTPP			-	-

**Hydro generation planning for lean hydro period** - Proper planning is required to utilize the available water for entire high hydro period, say upto October, 2015.

***The Committee may discuss and approve the proposed shutdown by Generating Stations.***

**D.2 Water level and spillage data of Hydro Stations**

Historical data of reservoir level & spillage data of hydro stations are not available with NERLDC. This information is sometimes asked by various authorities. To facilitate in making a database for the same, all concerned are requested to furnish the available information to NERLDC as early as possible.

During 101<sup>st</sup> OCC meeting, DGM, NERLDC informed that the format was sent to all the constituents for necessary submission of data. However, till date no constituents have submitted the data to NERLDC.

During 103<sup>rd</sup> OCC meeting, the Sub-committee once again requested all the constituents to furnish the data as per format given below to NERLDC at the earliest.

**Water level format:**

Year		FRL		MDDL	
Station	Month	Date	Water level	Generation in MU	Water utilized in cumecs

**Water spillage format:**

Year	Station					
Date	Inflow in cumecs	Status of spillage (Spilling/ Not spilling)	Duration		Total	Month
			From (Hrs.)	To (Hrs.)	Hrs.	

During 109<sup>th</sup> OCC meeting, the Sub-committee requested NERLDC to write to all constituents once again with a copy to NERPC asking them to furnish the data as per data available with them to NERLDC at the earliest. The Sub-committee also recommended that they can submit whatever data available with them, if not available they can indicate the same so that NERLDC can take the normal standard data.

***NERLDC may kindly intimate the current status.***

**D.3 Outage Planning Transmission elements**

It was agreed in the 99<sup>th</sup> OCC meeting that shutdown will be availed only after approval is given by the OCC forum. It was also agreed that deferment/revision of outages elements other than already approved in OCC will be henceforth put/displayed in the website of NERPC (**under Operational Activities/OCC Approved shutdown**) as per CERC regulations/ CEA guidelines etc for ensuring smooth & secure grid operation.

**Furnishing request of shut down of the element, which was approved by NERPC, by Indenting Agency (ISTS licensees/STUs/Generating Companies) to NERLDC:** Planned shutdown approved by NERPC shall be considered for implementation by NERLDC on D-3 basis. If an outage is to be availed on say 10<sup>th</sup> of the month, the shutdown availing agency would reconfirm to NERLDC on 7<sup>th</sup> of the month by 10:00 Hr. This practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

***The sub-Committee may kindly discuss and approve the transmission line outages proposed by Constituents for June - July, 2015 as enclosed at Annexure- D.3.***

**D.4 Status of SLDCs in NER:**

The status of setting-up of SLDC as informed by POWERGRID during 109<sup>th</sup> OCC meeting is given below:

SN	Name of State	Status as given in 109 <sup>th</sup> OCC Meeting
1.	Ar. Pradesh	<p>POWERGRID informed that Building is being identified by Ar. Pradesh. However some internal works viz., partition, AC installation etc. are yet to complete.</p> <p>EE, SLDC stated that it would be better for POWERGRID to carry out all the works including partition, AC fitting etc., along with building &amp; equipments and intimate the final cost as it would not be possible for them to carry out minor works separately by them.</p>
2.	Manipur	<p>Building is completed. Commissioning activity is in progress and the SLDC is likely to be completed by July, 2015</p>
3.	Mizoram	<p>Building has been identified, but the same has not been handed to POWERGRID to carry out the work. Requested the forum to take up the matter with highest Authority of Govt. of Mizoram so that the work can be started up.</p> <p>NERPC has already written to Govt. of Mizoram to hand over the building at the earliest. The reply is awaited.</p>
4.	Nagaland	<p>Construction of Building is going on but the progress is very slow. Nagaland has informed that the building is likely to be completed in August, 2015. Requested the forum to take up the matter with highest Authority of Govt. of Nagaland so that the work can be started up.</p> <p>EE, SLDC also endorsed the view of Ar. Pradesh and requested POWERGRID to carry out all the furnishing works including partition, AC fitting etc., along with building &amp; equipments and intimate the final cost. He also requested POWERGRID to have a bilateral discussion and finalize the issue with them.</p> <p>NERPC has already written to Govt. of Nagaland to hand over the building at the earliest. The reply is awaited.</p>

The status of Renovation/up-gradation of SLDC as informed by POWERGRID is given below:

SN	Name of State	Status as given in 109 <sup>th</sup> OCC Meeting
2.	Assam	R&M works is in progress and the scheme is likely to be completed by July, 2015
4.	Tripura	R&M works is in progress and the scheme is likely to be completed by July, 2015
7.	Meghalaya	R&M works is in progress and the scheme is likely to be completed by August, 2015. POWERGRID requested Meghalaya to complete some internal issue regarding to space of room.

*The Sub-committee appreciated the status of development in regard to setting up/up-gradation of SLDCs in NER and noted as above. Manager (AM) requested to take up the matter of taking of all works like fixing of Air Conditioners, Civil works etc in a separate meeting. Member Secretary suggested taking up the matter along with O&M practices meeting.*

In the meantime as suggested by the Sub-committee, NERPC has written a letter to Govt. of Mizoram & Nagaland regarding handing over the building to POWERGRID for completion of SLDC at the earliest.

***POWERGRID may kindly intimate the current status.***

#### **D.5 Updated List of Important Grid Elements of NER, May 2015 (Draft):**

As per Clause No 5.2.c of IEGC, List of Important Grid Elements of NER May 2015 (Draft) prepared. Updated List of Important Grid Elements of NER May 2015 (Draft) was e-mailed to regional entities of NER and also available in NERLDC website. It is requested to furnish data required for finalization of List of Important Grid Elements by 8th May'15 as this document will be finalized by 25th May'15.

The document is password protected. Password may be collected from SOII department of NERLDC.

***Comments have been received only from NEEPCO as on date.***

#### **D.6 Updated Power Maps of NER States, June 2015 (Draft):**

Power maps of NER and States of NER June 2015 has been prepared. Updated Power maps of NER and States of NER June 2015 is e-mailed to regional entities of NER and also available in NERLDC website.

This document will be finalized by 20th June'15. The document is password protected. Password may be collected from SOII department of NERLDC.

***Power utilities of NER are requested to submit comment and suggestion for this document by 15th June, 2015.***

#### **D.7 Updated Operating Procedures of NER July 2015 (Draft)**

Operating Procedures of NER July 2015 has been updated and e-mailed to regional entities of NER and also available in NERLDC website. Power utilities of NER are requested to submit their comment and suggestion for this document by 15<sup>th</sup> July, 2015 as this document has to be finalized by 31<sup>st</sup> July, 2015. The document is password protected and Password is available with SOII department of NERLDC.

***Power utilities of NER are requested to submit comment and suggestion for this document by 15th June, 2015.***

#### **D.8 Nomination of Nodal Officers for Disaster Management:**

All the SLDCs of NER are requested to update the details of Nodal Officer for Disaster Management for onward submission to NLDC

***The Sub-committee requested NERPC to write to all the Heads of SLDCs and Power utilities of NER to furnish the name and contact number of Nodal Officer for above Disaster Management.***

NERPC has written to all the constituents to nominate the nodal officer for Disaster Management as suggested by the Sub-committee, but the reply is awaited.

#### **D.9 Identification of Nodal Officers for Weather related issues:**

POSOCO has recently signed an MOU with IMD through which critical Weather data will be made available to System Operators by IMD. Accordingly SLDCs of NER are requested to identify two nodal officers for weather related issues and furnish the details to NERLDC by 30th June, 2015 for sharing the weather related data. All SLDCs of NER are further requested to finalize the list of stations (including power stations) for which weather parameters are required (nearby city name, district name & state name are to be provided) and to furnish list of officers desiring to avail SMS facility during extreme weather conditions (priority-wise list to be provided at each level with contact details).

***Constituents may kindly nominate the Nodal Officers for above weather related issues.***

**D.10 Power cut/Load Shedding:**

SE(O), informed that CEA has been pressurizing NERPC to furnish the above data urgently. He informed that Chairperson, CEA himself is monitoring these reports to find out simultaneous All India Peak Demand and Demand Met figures. He requested all the constituent States that Hourly Power Cuts and Load shedding-State wise and Region wise may kindly be sent urgently. The format is attached at ***Annexure – D.10.***

In-spite of repeated request to all the constituents only Assam, Meghalaya & Tripura has given the information.

***Remaining constituents may kindly furnish the above data to NERPC at the earliest for onward transmission to CEA/MoP.***

**D.11 Frequent tripping of lines associated with 132 kV Khliehriat-Khliehriat D/C line:**

NERLDC informed that above line tripped on several occasions during the month of May & June, 2015 on Zone-II/Zone-III faults. In some of the occasions 132 kV Khliehriat – Khandong Ckt-I also tripped simultaneously. These trippings caused oscillations in the system and resulted in tripping of Khandong units on few occasions. Oscillations also caused serious problems to the industries located around Khandong as reported by concerned authorities to KHEP management. It is apprehended that the protection systems associated with these lines and upstream are not working properly causing delayed clearing of faults at appropriated nodes. Leshka generation of Meghalaya is also getting affected due to these disturbances.

***Concerned utilities are requested to take corrective actions immediately so that system security can be ensured along with trouble free operation of the grid.***

**D.12 Persistent over voltage at Palatana:**

NERLDC informed that it has been observed that bus voltage at Palatana is persistently remaining above the upper limit of IEGC band which is not desirable from system operation point of view. The 80 MVAR bus reactor installed Palatana has not yet been commissioned. OTPC is requested to take action for early commissioning of the Reactor so that the same can be used for maintaining voltage at desired level.

OTPC is also requested to restore the 125 MVA ICT, which is under long outage, for strengthening connectivity of Tripura system.

***Members may please deliberate.***

**D.13 Suo Motu Revision / Moderation of reservoir based hydro generation in real time during sudden higher generation at RHEP**

During 109<sup>th</sup> OCC meeting Assam & Tripura raised the issue of suo motu revision/moderation of reservoir based hydro stations, where there is no spillage, to resolve the issues related to under drawal.

***Members may please deliberate and finalize the stations where such revisions can be done in real time.***

**D.14 Furnishing Monthly Auxiliary Consumption in MU for Power stations:**

NERLDC informed that various MIS reports on the matter are prepared mainly based upon normative value. To make the reports more practical and accurate all power stations are requested to furnish station-wise monthly Auxiliary Consumption in MU for the previous month by the first working day of the succeeding month.

***Members may please deliberate.***

**D.15 RE integration:**

NERLDC informed that grid integration of infirm renewable energy sources is a major challenge facing the sector today. Hon'ble CERC has come out with draft amendments of IEGC, DSM & REC mechanism. To address this issue, NLDC has prepared questionnaire related to issues of Scheduling, Metering & Settlement followed in each state of NER.

***SLDCs of NER and NEEPCO are requested at the earliest to submit this information as per the above questionnaire.***

**D.16 Estimated Transmission Availability Certificate (TAC) for the month of May, 2015.**

***NETC and POWERGRID, NERTS have submitted TAC data of May, 2015 in the first/second week of June, 2015. This will enable issuance of verification by NERLDC and certification by NERPC on monthly basis within stipulated time frame. Both NETC and NERTS are advised to follow the agreed time schedule in future to avoid accumulation of reports and corresponding delay.***

**Any other item:**

**Date and Venue of next OCC**

It is proposed to hold the 111<sup>st</sup> OCC meeting of NERPC on second week of July, 2015. The date & exact venue will be intimated in due course.

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