

North Eastern Regional Power Committee

Agenda

For

111st OCC Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 15th July, 2015 (Wednesday)

Venue : "Hotel Pragati Manor", Guwahati.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 110th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 110th meeting of Operation Sub-committee held on 17th June, 2015 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2015/4556-4591 dated 26th June, 2015.

No observations or comments were received from any of the constituents. The Sub-committee may discuss & confirm minutes of 110th OCCM of NERPC.

ITEMS FOR DISCUSSION

B. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING JUN, 2015

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

NER PERFORMANCE DURING JUNE, 2015

States	Energy Met (MU)		w.r.t. May,15 % inc (+) /dec (-)	Energy Reqr. (MU)		w.r.t. May,15 % inc (+) /dec (-)	% inc (+) /dec (-) of energy reqr vs met. In June, 15
	Jun-15	May-15		Jun-15	May-15		
Ar. Pradesh	37	37	1.4	39	56	-30.8	-5
Assam	687	668	2.8	736	798	-7.7	-7
Manipur	59	60	-1.7	61	69	-11.9	-4
Meghalaya	130	130	-0.6	137	143	-4.6	-5
Mizoram	36	37	-1.7	37	40	-6.7	-3
Nagaland	62	61	0.4	63	62	1.4	-2
Tripura	105	93	12.6	108	118	-8.3	-3
Region	1116	1087	2.6	1181	1287	-8.2	-6%

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
	Jun-15	May-15		Jun-15	May-15		
Ar. Pradesh	108	109	-0.9	110	138	-20.6	2
Assam	1324	1260	5.1	1395	1382	0.9	5
Manipur	147	153	-3.9	149	160	-7.1	1
Meghalaya	295	295	0.0	302	400	-24.6	2
Mizoram	81	84	-3.6	82	85	-4.1	1
Nagaland	120	112	7.1	123	120	2.5	2
Tripura	249	254	-2.0	249	300	-16.9	0
Region	2190	2185	0.2	2356	2573	-8.4	7%

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

Month---->	Jun-15	May-15
Total Generation in NER (Gross)	1095	860
Total Central Sector Generation (Gross)	762	570
Total State Sector Generation (Gross)	334	290
Inter-Regional Energy Exchange		
(a) NER-ER	48.30	6.76
(b) ER-NER	114.83	276.34
© Net Import	66.53	269.58

AVERAGE FREQUENCY (Hz)

Month---->	Jun-15	May-15
	% of Time	% of Time
Below 49.9 Hz	9.2	15.82
Between 49.9 to 50.05 Hz	64.17	64.74
Above 50.05 Hz	26.63	19.44
Average	50.01	49.98
Maximum	50.55	50.55
Minimum	49.56	49.55

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 108th OCC meeting, the status as informed by NTPC, NEEPCO and POWERGRID is as follows:

SN	Items	Status as given in 111st OCC Meeting	Status as on 110 th OCC
1	Trial operation and CoD of Unit -I of Bongaigoan TPS of NTPC		Expected Date for Synchronization of Unit -# I by June, 2015. COD is expected by December, 2015

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2	315 MVA ICT of NTPC at Bongaigaon		July, 2015.
3	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.
4	Trial operation and CoD of Monarchak GBPP of NEEPCO		Metering, telemetry, machine data, Connectivity agreement to be signed soon by Tripura. Synchronization depends upon availability of gas. December, 2015
5	Kameng HEP of NEEPCO		
6	Pare HEP of NEEPCO		
7	400KV D/C Silchar - Melriat line of PGCIL		December, 2015
8	800KV HVDC Bishwanath Chariali - Agra		20 KM stringing is left. June/July, 2015

Concerned constituents may kindly intimate the status.

C.2 CT Ratio of Transmission Lines in NER & Enhancement of Loadability of Lines:

During 107th 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 108th 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.

During 110th OCC meeting, the Sub-committee has requested NERLDC to compile the loadability of all the ISTS lines pertaining in tabular format considering NRCE and the present loading as per NERLDC, CT ratio etc., so that constituents can update their data accordingly. NERLDC agreed.

Constituents/NERLDC may kindly intimate the status and members may deliberate.

C.2(a) Upgradation of CT ratio of 132 kV Gelephu - Salakati line to 600/1 A at Salakati:

NLDC, Bhutan have requested to upgrade CT ratio of 132 kV Gelephu - Salakati line to 600/1 A at Salakati for evacuation of Dagachu power through ER Grid of Bhutan in case of contingency in Western Grid of Bhutan. They have already upgrade CT ratio of 132 kV Gelephu - Salakati line to 600/1 at Gelephu.

NERTS, POWERGRID is requested to upgrade CT ratio of 132 kV Gelephu - Salakati line to 600/1 at Salakati at the earliest.

C.2(b) Load-ability of 132 kV Lumshnong - Panchgram line:

It has been observed from system study that 132 kV Badarpur – Khliehriat line will be highly loaded in case of 700 MW Palatana generation. To reduce the loading of 132 kV Badarpur – Khliehriat line, 132 kV Lumshnong – Panchgram Line is to be connected in loop. However, it has been seen that loading of 132 kV Lumshnong – Panchgram Line will be around 80 MW in case of tripping of 132 kV Badarpur – Khliehriat line. Hence, loading capacity of 132 kV Lumshnong – Panchgram Line is to be enhanced.

The issue was discussed during 98th, 99th, 100th, 101st & 102nd OCC meetings.

The Sub-committee requested to AEGCL and MeECL to take up the necessary action accordingly.

AEGCL & Me. PTCL may kindly inform the latest status.

C.2(c) Enhancement of existing Transformation capacity of 2 x 200MVA at 400/132/33kV at Silchar S/S:

It has been observed that in most of times the loading of 2X200MVA exceeds more than full load capacity of one no. of 200MVA ICT. Under such circumstance, the N-1 Criterion is not fulfilled.

If the loading pattern of ICTs remain at higher side in long term, 3rd ICT will be required for safe, secure & reliable operation of Southern Part of NER.

The issue may be discussed to finalize the requirement of 3rd ICT for further endorsement in RPC.

C.3 Single Line Diagram of Sub-stations, Switching Stations & Power Stations of NER:

During 110th OCC meeting, the Sub-committee requested NERLDC to compile the list of SLDs to be submitted by constituents in tabular format. Accordingly, NERLDC has furnished the latest status of SLDs as given below:

Status of submission of data related to Single Line Diagram of Sub-stations			
Sl No	Name of Constituent	Data Submitted	Remarks
1	<i>DoP, Ar. Pradesh</i>	Yes	
2	<i>AEGCL</i>	Partially	<i>Bihaiting, BRPL, Ghoramari, HPC, Jagiroad, HPC, Panchgram, Star Cement & CALCOM not submitted</i>
3	<i>MSPCL</i>	Yes	
4	<i>MePTCL</i>	Partially	<i>Sai Prakash not submitted</i>
5	<i>P&E Deptt, Mizoram</i>	Yes	
6	<i>DoP, Nagaland</i>	Yes	
7	<i>TSECL</i>	Yes	
8	<i>POWERGRID</i>	Yes	
9	<i>NEEPCO</i>	Partially	<i>Khandong & Khupi not submitted</i>
10	<i>NTPC</i>	Yes	
11	<i>NHPC</i>	Yes	
12	<i>OTPC</i>	Yes	

Constituents may kindly update the status.

C.4 Latest status of FGMO/RGMO implementation in different generating stations:

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 109th 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.

During 110th OCC meeting, Assam, Meghalaya & NEEPCO informed that affidavit had already been filed by them to Hon'ble Commission.

The Sub-committee requested NHPC to file an affidavit to CERC at the earliest. NHPC informed that they will look into the matter and take necessary action soon.

NHPC may kindly intimate the current status.

C.5 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.

During 110th OCC meeting, the Sub-committee requested NERLDC to compile the list of feeders connected to essential load to be submitted by constituents in tabular format. Accordingly, NERLDC has furnished the latest status of SLDs as given below:

<i>Status of submission of data related to list of feeders connected to essential load</i>			
<i>Sl No</i>	<i>Name of Constituent</i>	<i>Data Submitted</i>	<i>Remarks</i>
1	<i>DoP, Arunachal Pradesh</i>	Yes	<i>Arunachal Pradesh shall furnish the essential load in 33 kV level</i>
2	<i>AEGCL</i>	Yes	
3	<i>MSPCL</i>	Yes	<i>Manipur partly furnished furnish the essential load in 33 kV level</i>
4	<i>MePTCL</i>	Yes	
5	<i>P&E Deptt, Mizoram</i>	Yes	<i>Mizoram shall furnish the essential load in 33 kV level</i>
6	<i>DoP, Nagaland</i>	Yes	
7	<i>TSECL</i>	Yes	

Concerned constituents may kindly intimate the current status.

C.6 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 10th of every month for the previous month.

During 110th OCC meeting, the Sub-committee requested NERLDC to compile the list of Progress Report of ongoing projects to be submitted by constituents in tabular format. Accordingly, NERLDC has furnished the latest status as given below:

Status of submission of Progress Report of Ongoing Projects			
Sl No	Name of Constituent	Data Submitted	Remarks
1	DoP, Arunachal Pradesh	Submitted for April & May'15	Details as per format not submitted
2	AEGCL	Submitted for Feb'15	
3	APGCL	Submitted for Mar'15	Status not submitted
4	MSPCL	Submitted for April'15	
5	MePTCL	Submitted for May'15	
6	MePGCL	Not submitted	
7	P&E Deptt, Mizoram	Submitted for Mar'15	
8	DoP, Nagaland	Not submitted	
9	TSECL	Not as per format	April & May'15 to be submitted in format
10	POWERGRID	Not submitted	
11	NEEPCO	Submitted regularly for each month	
12	NTPC	Submitted regularly for each month	
13	NHPC	Not submitted	
14	OTPC	-	Status of 2 nd ICT at Palatana to be submitted

Concerned constituents may kindly intimate the current status.

C.7 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 its 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.

After detailed deliberation during 110th OCC meeting, since there was no progress in the matter, the Sub-committee decided that all constituents should return all the dongles & laptops to NERLDC/NERPC at the earliest so that the same could be handed over to concerned officers who are carrying out the above study and also the new key will be provided by NERLDC/NERPC. The Sub-committee requested NERPC to write a letter to all the constituents to return the above materials at the earliest so that necessary action could be taken by NERLDC. Training to new incumbent will be provided by NERLDC during System Studies (SS) meeting of NERPC.

NERPC vide letter dated 03.07.2015 had written to all the constituents to return the above laptops & dongle and the reply is awaited.

NERLDC/NERPC may kindly intimate the current status.

C.8 Installation of Bus Reactor at Ranganadi:

During 110th OCC meeting, the requirement of bus reactor at Ranganadi had already been decided by the sub-committee. However, NEEPCO has to confirm the availability of space so that the matter can be placed in next RPC for necessary approval and taking up the issue to next Standing Committee meeting of CEA for further study and approval.

NEEPCO may kindly intimate the space above.

C.9 Installation of 2nd 125MVA, 400/132kV ICT at Pallatana:

At present, there is only one no. of 125 MVA, 400/132kV ICT at Pallatana through which Tripura System is connected. The N-1 Criterion of CEA is not fulfilled and in case of outage of the ICT the connectivity with Tripura system gets lost. The issue was deliberated in 110th OCC meeting and the Sub-committee requested OTPC to install one more ICT for redundancy.

Meanwhile, Tripura informed that about 100MW surplus power to Bangladesh is likely to take place by December, 2015. So adequate & reliable power availability at Tripura's bus is immediately needed to be ensured.

The issue may be discussed for taking up to next TCC/NERPC Meeting

C.10 Installation of dedicated auxiliary power supply arrangement at Pallatana.

It has been observed that in various occasions the Generation of Pallatana interrupted due to disturbance in Auxiliary Power Supply taken from Tripura system. OTPC informed that their transformation capacity in existing dedicated auxiliary power supply is limited to 16MVA and so, a part of auxiliary load is connected to Tripura system.

During 110th OCCM, the Sub-committee suggested OTPC to enhance Unit Auxiliary Transformer (UAT) capacity for dedicated station auxiliary power supply arrangement.

Members may like to discuss.

C.11 Conversion of line reactors of 400kV Balipara – Bongaigaon I&II to switchable line Reactors at Balipara & Bongaigoan:

During 110th OCC meeting, DGM (AM), NERTS informed that conversion of line reactor of Balipara-Bongaigaon – I & II to switchable line reactor, the procurement of switching equipments is under progress and it may take atleast 6 (six) months to complete the above work. The tentative date is November, 2015.

For kind information only.

C.12 Second In-feed for NER-ER Corridor:

During 110th OCC meeting, SE(O) informed that the above joint visit of NERPC, POWERGRID and NTPC was carried out on 23.05.2015 and various input were given to ABB to carry out the feasibility of connecting one of the circuits of each 400kV Balipara – Bongaigaon and 400kV Bongaigaon – Siliguri to create second node with ER.

ABB informed that they will carry out site visit shortly to study the feasibility.

POWERGRID, NERPC & NTPC may kindly intimate the current status.

C.13 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:

Name of State	Jul15	Aug15	Sep15	Oct15	Nov15
Ar. Pradesh	67	72	72	72	67
Assam	730	730	720	710	700
Manipur	75	75	75	75	75
Meghalaya	130	140	150	180	190
Mizoram	42	42	42	43	43
Nagaland	75	70	70	72	72
Tripura	120	125	120	130	110
NER	1239	1254	1249	1282	1257

Availability:

Name of State	Jul15	Aug15	Sep15	Oct15	Nov15
Ar. Pradesh	89	86	74	61	50
Assam	635	640	630	600	605
Manipur	101	101	85	79	70
Meghalaya	250	280	274	260	220
Mizoram	66	65	54	50	40
Nagaland	65	63	64	56	60
Tripura	206	205	192	194	190
NER	1412	1440	1373	1300	1235

C.14 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	Jul15	Aug15	Sep15	Oct15	Nov15
Ar. Pradesh	133	138	143	143	128
Assam	1469	1510	1480	1455	1400
Manipur	143	149	149	154	149
Meghalaya	400	395	400	400	410
Mizoram	90	90	85	85	90
Nagaland	135	130	135	130	135
Tripura	275	275	285	300	280
NER	2675	2717	2677	2682	2592

B. Peak Availability in MW

Name of State	Jul15	Aug15	Sep15	Oct15	Nov15
Ar. Pradesh	148	143	145	145	127
Assam	1151	1113	1164	1210	1200
Manipur	162	159	159	160	140
Meghalaya	470	488	488	480	380
Mizoram	113	109	105	105	95
Nagaland	108	104	104	110	100
Tripura	403/230	398/230	403/230	403/230	403/230
NER	2461	2514	2570	2600	2445

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

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

Name of State	Jul15	Aug15	Sep15	Oct15	Nov15
Ar. Pradesh	73	76	72	76	70
Assam	905	920	830	950	900
Manipur	93	97	75	95	97
Meghalaya	220	217	165	226	231
Mizoram	55	55	42	55	59
Nagaland	81	78	70	80	78
Tripura	197	201	202	214	184
NER	1624	1644	1374	1696	1439

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

Name of State	Jul15	Aug15	Sep15	Oct15	Nov15
Ar. Pradesh	110	108	79	76	60
Assam	1047	1047	900	930	850
Manipur	136	136	97	111	95
Meghalaya	423	440	420	400	350
Mizoram	92	100	55	70	65
Nagaland	96	95	81	71	60
Tripura	230	230	194	240	240
NER	2134	2156	1626	1898	1720

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 Outage Planning Transmission elements

It was agreed in the 99th 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 10th of the month, the shutdown availing agency would reconfirm to NERLDC on 7th 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.2.

D.3 Status of SLDCs in NER:

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

SN	Name of State	Status as given in 109 th OCC Meeting
1.	Ar. Pradesh	POWERGRID informed that Building is being identified by Ar. Pradesh. However some internal works viz., partition, AC installation etc. are yet to complete. EE, SLDC stated that it would be better for POWERGRID to carry out all the works including partition, AC fitting etc., along with building & equipments and intimate the final cost as it would not be possible for them to carry out minor works separately by them.
2.	Manipur	Building is completed. Commissioning activity is in progress and the SLDC is likely to be completed by July, 2015
3.	Mizoram	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. NERPC has already written to Govt. of Mizoram to hand over the building at the earliest. The reply is awaited.

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

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

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.

During 110th OCC meeting, Constituents informed the forum that ABB had rejected the AMC contract w.e.f. June, 2015. They felt that since new SLDCs will take time to stabilize, ABB should honor the request of NERLDC and constituents.

After detailed deliberation, the Sub-committee requested NERPC to take up the matter with highest authority of ABB to extend the existing AMC till the new/up-graded SLDCs are in place

POWERGRID may kindly intimate the current status.

D.4 Updated Power Maps of NER June, 2015 (Draft)

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

Power utilities of NER requested to submit comment and suggestion for this document by **25th June, 2015**. This document will be finalized by **30th June, 2015**.

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

Updated Power maps of NER and States of NER June 2015 finalized and uploaded to NERLDC website. The document is password protected. Password may be obtained from SOII department of NERLDC.

For kind information only.

D.5 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 **15th July, 2015** as this document has to be finalized by **31st July, 2015**.

During 110th OCC meeting, the Sub-committee requested all the Power utilities of NER are requested to submit comment and suggestion for this document by 15th July, 2015; else, the same will be finalized by NERLDC accordingly

The document is password protected and Password is available with SOII department of NERLDC.

NERLDC may kindly intimate the current status.

D.6 Nomination of Nodal Officers for Disaster Management:

During 110th OCC meeting, the Sub-committee requested NERLDC to compile the list of Nodal Officer for Disaster Management in tabular format so that necessary action can be taken by the concerned constituents. Accordingly, NERLDC has furnished the latest status as given below:

DISASTER MANAGEMENT - LIST OF CONTACT DETAILS OF NODAL OFFICERS/SECOND IN COMMAND-2015

Region/SLDC	Name	Designation	Tel. Nos.	Mobile No.	Fax No.	E-mail Address
NERLDC						
Nodal Officer	V Kaikhochin	DGM(SL)	0364-2535710	9436302712	0364-2537470	kaikhochin@gmail.com
Second in Command	A Mallick	DGM(SO-2)	0364-2535481	9436302720	0364-2537470	amaresh65@gmail.com

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Arunachal Pradesh SLDC						
Nodal Officer	N. Perme, EE, SLDC			9436288643		sldcitnagar@gmail.com
Second in Command						
Assam/ AEGCL SLDC						
Nodal Officer						
Second in Command						
Manipur SLDC						
Nodal Officer	S. Joykumar Sharma	OSD(Tech)/ SLDC	03852451172 & 03852447278	9612950771	Nil	sldcmanipur@yahoo.com & sldcmanipur@gmail.com
Second in Command						-
Meghalaya/ MeSEB SLDC						
Nodal Officer	Mr. T. Gidon	EE SLDC		9774479956	0364- 2551967	sldc.shg@gmail.com, gidon@rediffmail.com
Second in Command	Mr.R. War	EE (T&T), Division, Umiam		9436103088	0364- 2550020	rupertwar@gmail.com
Mizoram SLDC						
Nodal Officer	Vanlalrema	SE, SLDC		9436140353		sldc_mizoram@rediffmail.com
Second in Command						-
Nagaland SLDC						
Nodal Officer	Er. Atoho Jakhalu	Executive Engineer	03862- 230117	9436002696	03862- 230118	sldc.ngl@gmail.com
Second in Command						-
Tripura SLDC						
Nodal Officer						-
Second in Command						-
NERTS						
Nodal Officer						
NEEPCO						
Nodal Officer						-
Second in Command						-
NHPC						
Nodal Officer						-
Second in Command						-

Agenda for 111st OCC Meeting held on 15th July, 2015

NETC						
Nodal Officer						-
Second in Command						-
NTPC						
Nodal Officer						-
Second in Command						-
POWERGRID						
Nodal Officer						-
Second in Command						-

Concerned constituents may kindly intimate the current status.

D.7 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).

During 110th OCC meeting, the Sub-committee requested NERLDC to compile the list of Nodal Officer for Weather Management in tabular format so that necessary action can be taken by the concerned constituents. Accordingly, NERLDC has furnished the latest status as given below:

Constituent	Name of Nodal Officer	Contact No	Email id:
Ar. Pradesh			
Assam			
Manipur			
Mizoram			
Meghalaya	F.E. Kharshiing, SE, SLDC	09612170657	sldc.shg@gmail.com
	R. Majaw, SE, MRT	09436110871	
Nagaland			
Tripura			

Concerned constituents may kindly update the current status.

D.8 Power cut/Load Shedding:

SE(O), informed that CEA has been pressurizing NERPC to **furnish the above data on monthly basis**. 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.8.***

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.9 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 put in service. OTPC is requested to take action for early operation of the Reactor so that the same can be used for maintaining voltage at desired level.

DGM, OTPC stated that reactor is in healthy condition still they had sent a communication to NERLDC seeking clearance for charging. NERLDC informed that they look into the matter and revert back to OTPC.

Further, OTPC is also requested to restore the 125 MVA ICT, which is under long outage for strengthening connectivity of Tripura system which will help to control voltage to certain extent.

The Sub-committee requested OTPC & NERLDC to resolve the issue for early charging of faulty 125 MVA ICT and 80MVAR reactor.

OTPC & NERLDC may kindly intimate the current status.

D.10 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.

During 110th OCC meeting, the Sub-committee requested NERLDC to compile the list of constituents who have not furnished the above data. Accordingly, NERLDC has furnished the latest status as given below:

Status of submission of Monthly Auxiliary Consumption in MU for Power stations			
Sl No	Name of Constituent	Data Submitted	Remarks
1	AEGCL	Submitted for April & May'15	
2	MePTCL	Submitted for April & May'15	
3	P&E Deptt, Mizoram	Not submitted	
4	DoP, Nagaland	Not submitted	
5	TSECL	Not submitted	
6	NEEPCO	Submitted for April & May'15	
7	NTPC	-	To be submitted from June'15
8	NHPC	Submitted for May'15	To be submitted for April'15
9	OTPC	Submitted for April & May'15	

Concerned constituents may kindly update the status.

D.11 Submission of information related to scheduling, metering & settlement followed in each state of NER required for RE integration:

NERLDC informed that Grid integration of infirm renewable energy sources is a major challenge facing the sector today. Hon'ble CERC has prepared draft amendment 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 these informations as per questionnaire prepared by NLDC.

States/ utilities	Status of Submission	Remarks
Arunachal Pradesh	Yes	Full
Assam	Yes	Partial
Manipur	Yes	Full
Meghalaya	Yes	Full
Mizoram	No	

Nagaland	No	
Tripura	Yes	Partial
NEEPCO		Comments Requested

Concerned constituents may kindly update the status.

D.12 Requirement of additional regional spare Transformers & Reactors:

During 108th OCC Meeting requirement of additional spare Transformers & Reactors in NER against central section transmission system was discussed. Accordingly, critical spares are proposed as below:

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

Members may like to discuss and finalize the quantities.

D.13 Preventive shifting of 400kV towers of 400kV Balipara-Ranganadi #1&2 line along the river Dikrong with pile foundation to avoid threat of collapse of line in every year:

During 110th OCC Meeting DGM (AM), NERTS informed that 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. Action is required to be taken for preventive shifting of balance 10 nos. of 400kV towers along the river to pile and book the same under PoC Mechanism.

After detailed deliberation, the sub-committee agreed and asked POWERGRID to provide details for necessary approval of RPC. Accordingly the detail is provided below:

1. Recently, the Tower Loc. No. 41 (DA+0) of the 400kV D/C Ranganadi - Balipara Transmission line became vulnerable due to erosion of river Dikrong as a result of sudden flash flood. Initially, prior to flash flood the tower was at a distance of about 250 Mtrs from Dikrong river bank until the first week of June'15. However, sudden flash flood in the river Dikrong started eroding the bank towards the tower location and by 10th of June'15, the river had eroded approx. 200 meters of the river bank near Loc. No. 41 reducing the clearance w.r.t. river to 50 meter approx. It was at this stage that temporary bank protection measures in the form of bamboo porcupine packed with sand filled gunny bags has been taken up by site. The river has been found to have changed its course substantially towards the tower Loc. No. 41 with siltation on the opposite bank. As a result of high current & rapid pace of erosion the clearance between the river & the tower has been reduced to 25 Mtr only as on date. Considering this criticality, one of the circuits has already been shifted on ERS as immediate preventive measure. Now, in order to prevent collapse of tower the location is to be shifted to Pile Foundation as a permanent measure.





2. It is to be mentioned that the course of Dikrong River where discharge of Ranganadi Generation is done, changes every year during Monsoon due to Lower River bed depth and higher scouring depth. In fact, every year / alternate year one or two towers become vulnerable and till now, we have already shifted Location No. 42, 43 and 44 to pile. Further, at present, Location No. 45, 58 & 66 is under shifting to pile.

3. Considering unpredictable river course change of Dikrong and importance of 400kV D/C Ranganadi - Balipara Transmission line being sole evacuation path of Ranganadi Generation as well as power supply path to Arunachal Pradesh, it is essential to shift all the balance 10 nos. of 400kV towers along the River Dikrong to Pile foundation as preventive measure. The balance Locations are 39B, 40, 41, 46, 47, 48, 49, 59, 65 & 67. This is in addition to locations 45, 58 & 66 for which construction of pile foundation is in progress.



The issue may be discussed for approval of RPC.

D.14 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:

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.

The Forum may kindly deliberate on the issue and ask Power grid and RLDC/NLDC to highlight whether the POC mechanism of tariff fixation is to be implemented as per the original investment plan or otherwise. If necessary the NERPC may take up the issue with CERC.

D.15 Requirement of new lines for evacuation of power from 4x21+ 2x25.5 MW AGTPP:

It has been observed that many lines of Tripura System & lines of POWERGRID in this area will be highly loaded in case of tripping of any critical line in this area & these lines may trip subsequently resulting total collapse of Tripura System.

Members may please discuss.

Study results carried out by NERLDC is attached in **Annexure-D.15**.

D.16 State Estimator not giving graceful solution and issues with Real Time Contingency (RTCA):

State Estimator is not giving graceful solutions due to poor availability of analog/digital data due to non-reporting of so many RTUs of AEGCL, Tripura and Meghalaya. RTCA is not converging which is very important for on line study of real-time power system. Constituents are requested to take serious actions to improve data availability as the non-reporting RTUs / non-availability of telemetry data are monitored at the highest level.

Members may please discuss.

D.17 Various Report/Data submission by Power Station:

NHPC informed that data and report submitted to NERLDC/ NERPC on regular basis. Previous days it has been seen that various email/ Tele Call received by the Power station from utilities that the report/ data has not been received by them. After investigation it was found that this was mistaken due to presence of so many email ids of the utilities. So it is important that the consolidated data bank is required by the utilities which clearly mention the data bank is required, their frequency, format if applicable and the concern email ids and contact nos. The same may be discussed in the meeting.

Members may like to discuss.

D.18 Estimated Transmission Availability Certificate (TAC) for the month of June, 2015.

NETC and POWERGRID, NERTS have submitted TAC data of June, 2015 in the first/second week of July, 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.

D.19 UCC Meeting:

During the 21st UCC meeting held on 29.12.2014, the forum opined that in view of Up-gradation/Expansion Project of SCADA/EMS to all States in NER having full fledged SLDCs, it is pertinent that NERPC should take the leading role and co-ordinate the UCC meeting like OCC, PCC etc., since various issues are sometimes needed to be resolved at higher level. In this regard, POWERGRID intimated that such meetings were being co-ordinate by NRPC in Northern Region.

Members may kindly discuss for approval of RPC.

D.20 OPGW Link against MW Vacation Project-Revision in names/length of Links:

- a) Microwave links installed under ULDC scheme were vacated as per directive of GOI and OPGW links are established in lieu of MW networks with approval of competent forum. Further, keeping in view urgency of different connectivity requirement (upcoming SLDC, redundancy of NERLDC to SLDC & Connectivity with AP & others etc) in NER & non availability of lines , there have been a few changes & the link paths have been proposed to be revised with in time intimation to UCC forum (relevant page attached). Original 1163km of OPGW supply & 1145km of erection which has been revised now to 1231km supply & 1187 km of erection of OPGW [& 60km ADSS(supply +erection) for 33kV Rupai Namsai] as per actual requirement. The revised names of links considered under MW vacation are attached as **Annexure-D.20**.

[Already discussed in point no. E. - 21ST UCC]

- b) Further, regarding asset segregation, terminal equipment will be the asset of that sector who owns the connected link of OPGW for which equipment has been installed.

Members may kindly discuss for approval of RPC.

D.21 Replacement of SDH nodes of ULDC Scheme:

As already taken up in UCC forum, replacement of SDH equipment of all nodes of ULDC scheme were taken up. To keep uniformity of equipment & common spare generation, the same has been procured under the same LOA as awarded under MW vacation project. Cost Implication-Apx. Rs. 2.30 crore. Forum may agree in principle & booking of the cost in to MW vacation project.

[Already discussed in point no. A, 21ST UCC & 20th, 19th UCC]

Members may kindly discuss for approval of RPC.

D.22 NER expansion project-Revision of Links:

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

S.N.	Names of Links	Link length	Proposed Action	Reason for deletion/Revision	Remarks
1	132kV Silchar P.K.Bari	130km	Deletion	Insurmountable ROW issue due to which construction of Sil-PKB T/L is yet not completed.	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

Forum may agree in principle

D.23 Replacement of PDH Multiplexer nodes of ULDC Scheme & Terminal equipment (PDH+SDH) for all new SLDC ends & important nodes for SLDC connectivity:

The issue was discussed in the 20th & 21st UCC meeting, further recommended and emphasized by UCC Forum, it is proposed for replacement of PDH Multiplexers (FOX515-ABB) equipment for all nodes considered under ULDC scheme. This will also include terminal equipment as mandatorily required for new SLDCs being established in NER.

Forum may agree in principle

Any other item:

Date and Venue of next OCC

It is proposed to hold the 112nd OCC meeting of NERPC on first week of August, 2015. The date & exact venue will be intimated in due course.
