

North Eastern Regional Power Committee

Agenda

For

124th OCC Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 8th August, 2016 (Monday)

Venue : "Pala Resort", Cherrapunjee.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 123rd MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 123rd meeting of Operation Sub-committee held on 12th July, 2016 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2016/4556-4591 dated 22nd July, 2016.

The Sub-committee may confirm the minutes of 123rd OCCM of NERPC as no comments/observations were received from the constituents.

ITEMS FOR DISCUSSION

B. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING JULY, 2016

As per the data made available by NERLDC, the grid performance parameters for July, 2016 are given below:

NER PERFORMANCE DURING JULY, 2016

States	Energy Met (MU)		w.r.t. June,16 % inc (+) /dec (-)	Energy Reqr. (MU)		w.r.t. June,16 % inc (+) /dec (-)	% inc (+) /dec (-) of energy reqr vs met. In July, 16
	July-16	June-16		July-16	June-16		
Ar. Pradesh	55.79	54.91	1.60	56.95	56.51	0.78	-2.08
Assam	778.51	822.74	-5.38	814.66	853.96	-4.60	-4.64
Manipur	57.93	57.02	1.60	62.99	58.53	7.62	-8.73
Meghalaya	148.91	141.78	5.03	148.91	141.78	5.03	0.00
Mizoram	40.10	37.75	6.23	41.30	38.58	7.05	-2.99
Nagaland	64.08	58.23	10.05	65.36	59.36	10.11	-2.00
Tripura	114.81 (excluding Bangladesh)	171.46 (including Bangladesh)	-33.04	115.95 (excluding Bangladesh)	173.16 (including Bangladesh)	-33.04	-0.99
Region	1260.13	1172.43	7.48	1306.12	1208.73	8.06	-3.65

Agenda for 124th OCC Meeting to be held on 8th August, 2016

States	Demand Met (MW)		w.r.t. June,16 % inc (+) /dec (-)	Demand in (MW)		w.r.t. June,16 % inc (+) /dec (-)	% inc (+) /dec (-) of Demand vs met. In July, 16
	July-16	June-16		July-16	June-16		
Ar. Pradesh	135	130	3.85	136	131	3.82	-0.74
Assam	1547	1458	6.10	1591	1511	5.29	-2.84
Manipur	141	151	-6.62	141	152	-7.24	0.00
Meghalaya	293	312	-6.09	292	311	-6.11	0.34
Mizoram	79	80	-1.25	80	81	-1.23	-1.27
Nagaland	119	119	0.00	120	119	0.84	-0.84
Tripura	258.00 (excluding Bangladesh)	273 (including Bangladesh)	-5.49	259.00 (excluding Bangladesh)	274.71 (including Bangladesh)	-5.72	-0.39
Region	2391	2475	-3.39	2474	2479	-0.20	-3.47

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

Month---->	July-16	June-16
Total Generation in NER (Gross)	1671.34	1482.58
Total Central Sector Generation (Gross)	1292.75	1147.12
Total State Sector Generation (Gross)	378.58	335.46
Inter-Regional Energy Exchange		
(a) NER-ER	182.10	83.71
(b) ER-NER	79.53	124.81
(c)NER-NR	336.32	132.10
(d)NR-NER	0.00	1.82
© Net Import	-438.89	-89.18

AVERAGE FREQUENCY (Hz)

Month---->	July-16	June-16
	% of Time	% of Time
Below 49.9 Hz	3.87	7.63
Between 49.9 to 50.05 Hz	71.78	74.09
Above 50.05 Hz	24.30	18.28
Average	50.01	49.99
Maximum	50.35	50.37
Minimum	49.69	49.65

C. OLD ITEMS

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

During 124th OCC meeting, the statuses as informed by different beneficiaries are as follows:

SN	Items	Status as given in 124 th OCC Meeting	Status as given in 123 rd OCC Meeting
a. New Projects			
1	Trial operation and CoD of Unit -II of Bongaigoan TPS of NTPC		Completion of construction activities expected by 31.08.2016.

Agenda for 124th OCC Meeting to be held on 8th August, 2016

			Synchronization by end of November. Trial run and CoD expected by 31.03.2017
2	400/220kV, 2x315 MVA ICT of NTPC at Bongaigaon		Commissioning within 31.08.2016. May be done early if NERTS can provide similar bushing.
3	Trial operation and CoD 36MW STG of Monarchak GBPP of NEEPCO		November, 2016 (subject to gas availability)
4	Kameng HEP of NEEPCO two units (2 x 150 MW) Next two units (2x150 MW)		First two units March 2017.
5	Pare HEP of NEEPCO (2 x 55 MW)		June, 2017
6	400 kV D/C Silchar - Melriat line of PGCIL	March'17	Tender Evaluation process is going on.
7	220kV Rangia - Salakati of AEGCL		December, 2016
8	132kV Monarchak – Surjamaninagar D/C of TSECL		October, 2016
9	400/132 kV, 2nd 125 MVA ICT at Pallatana		ICT has reached site, but civil structures not yet complete. Expected commissioning by end of August, 2016.
10	132kV Pasighat – Aalong of Ar. Pradesh		December, 2016
11	132kV Doyang– Wokha		Nagaland- Line construction with bay at Wokha end completed. NEEPCO- Breaker installation done at DHEP bay. Testing to be done by 10.08.2016. DoP, Nagaland also requested

Agenda for 124th OCC Meeting to be held on 8th August, 2016

			POWERGRID to do inspection / testing works. Forum suggested that line be charged from Wokha end as anti-theft measure.
12	220 kV, 20 MVAR Bus Reactor& bay at AGBPP	31.08.16	To be commissioned within 15.08.2016
13	132kV Surjamaninagar Bay at OTPC		Tendering stage.
14	400kV D/C Balipara – Kameng of Ar. Pradesh		December 2016.
15	RHEP 80 MVAR Bus Reactor		Referred to next SCM of CEA.
16	SLDCs (Ar. Pradesh, Manipur, Mizoram, Nagaland)		MAN- Aug'16,MIZ-Sep'16,NAG-handover of building by Dec'16,AP- Work started.
17	400/220 kV 315 MVA ICT-II at Bongaigaon		ALSTOM awarded work.Aug'17
18	220/132 kV, 2x160 MVA ICTs at Balipara		By 31 st August 2017.
19	220/132 kV, 1x160 MVA ICT with GIS Bay at Kopili		By 31 st August 2017.
20	400/132 kV, 1x315 MVA ICT-III at Silchar	Dec'17	
21	Replacement of 2x315 MVA ICTs with 2x500 MVA ICTs at Misa (PG)	Dec'17	-
23	400 kV Silchar – Misa D/C	Under TBCB	
24	1x125 MVAR Bus Reactor at 400 kV Bongaigoan	Dec'17	
25	1x125 MVAR Bus Reactor at 400 kV Balipara	Dec'17	-
26	Bays at Hailakandi	Completion to match with balance portion of 132 kV D/C Silchar – Hailakandi Line	

b. Elements under breakdown/ upgradation			
18	63MVAR Reactor at Byrnihat of Me.PTCL		Forum suggested to MePTCL that winding is to be bought and reactor be repaired at site by selected vendor.
19	Up-gradation of 132 kV Lumshnong-Panchgram line		Line survey work deferred due to bad weather.
20	Switchable line Reactors at 400kV Balipara & Bongaigaon		Balipara - Sept'16 Bongaigaon - Dec'16.
21	PLCC Panels at Loktak end of Loktak – Ningthoukhong 132 kV feeder and Loktak - Rengpang 132 kV feeder		August 2016
22	LILO of 132kV Ranganadi – Nirjuli at Pare of NEEPCO by PGCIL		August 2016
23	LILO of 132kV Ranganadi – Itanagar (Chimpu) at Pare of Ar. Pradesh		March 2017

Concerned constituents may kindly intimate the status.

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

The latest status as informed in 123rd OCC meeting is as follows:

Sl.No.	Name of the line	CT Ratio at either end (current)		CT Ratio at either end (required)		No. Of CTs required		Current Status
		Stn A	Stn B	Stn A	Stn B	Stn A	Stn B	
1	132KV D/C RC Nagar-Agartala-I**	600/1	400/1	800/1	800/1	3 by PGCIL	4 by PGCIL	Mar'2017
2	132KV D/C RC Nagar-Agartala-II**	600/1	400/1	800/1	800/1	3 by PGCIL	4 by PGCIL	Mar'2017

Agenda for 124th OCC Meeting to be held on 8th August, 2016

3	132 KV S/C Jiribam- Aizwal	400/1	400/1	600/1	600/1	3 by PGCIL	4 by PGCIL	Mar'2017
4	132 KV S/C Jiribam- Haflong	400/1	400/1	600/1	600/1	3 by PGCIL	4 by PGCIL	Mar'2017
5	132KV S/C Khandong - Umrangso- Haflong	300/1	400/1	600/1	600/1	3 at Khandong by NEEPCO, 3 at Umrangso by AEGCL	3 at Umrangso by AEGCL, 3 at Haflong by PGCIL	PGCIL - Mar'2017 AEGCL- Mar'2017 NEEPCO- Mar'2017
6	132 KV S/C Loktak - Imphal-II	400/1	600/1	600/1	600/1	3 by NHPC	0	NHPC- to be informed
7	132 KV D/C Doyang - Dimapur	300/1	600/1	300/1	600/1	3 by PGCIL & 6 by NEEPCO	0	PGCIL - March, 2017 NEEPCO- to be informed

Further POWERGRID has proposed that all lines where CT ratio up-gradation is to be done, double jumpering is to be ensured.

The 123rd OCC forum agreed to the proposal of double-jumpering and recommended double jumpering of bay and line for the above elements before the CT upgradation work is completed, so that full capacity of CTs can be utilized for loading the lines. Forum also agreed to include 132kV Doyang-Dimapur I & II for CT Ratio upgradation.

NEEPCO, NHPC, NERTS & NERLDC may kindly intimate the status and members may deliberate.

C.3 Finalization of Operating Procedures of State Grid of NER:

As per clause no 5.1.g of IEGC, detailed operating procedures for each state grid shall be developed and maintained by the respective SLDC.

Latest status of approval of these documents from OCC forum of NERPC is as follow:-

Sl No	Description	Status of approval from OCC forum of NERPC
1	Operating Procedure of Ar. Pradesh 2015	Draft Submitted
2	Operating Procedure of Assam 2015	Submitted
3	Operating Procedure of Manipur 2015	By 31.07.2016 (Manipur to send draft to NERPC)
4	Operating Procedure of Meghalaya 2015	Submitted
5	Operating Procedure of Mizoram 2015	Submitted
6	Operating Procedure of Nagaland 2015	Submitted
7	Operating Procedure of Tripura 2015	By 31.07.2016 (TSECL to send draft to NERPC)

NERLDC/NERPC may kindly update the status.

C.4 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 2016-17 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	Apr16	May16	Jun16	Jul16	Aug16	Sep16
Ar. Pradesh	67	71	68	73	73	73
Assam	775	791	816	872	872	847
Manipur	82	77	76	80	80	80
Meghalaya	170	175	165	175	175	170
Mizoram	42	42	42	45	45	45
Nagaland	65	68	72	77	77	72
Tripura	112	122	122	122	128	122
NER	1313	1346	1361	1424	1450	1409

Name of State	Oct16	Nov16	Dec16	Jan17	Feb17	Mar17
Ar. Pradesh	73	68	68	68	59	74
Assam	816	714	714	714	648	740
Manipur	85	88	95	92	88	90
Meghalaya	185	195	210	220	185	190
Mizoram	46	46	48	48	42	42
Nagaland	74	68	71	69	68	68
Tripura	133	112	122	128	102	128
NER	1412	1291	1328	1339	1192	1332

Availability:

Name of State	Apr16	May16	Jun16	Jul16	Aug16	Sep16
Ar. Pradesh	46	58	82	92	79	74
Assam	483	544	649	737	703	682
Manipur	58	69	85	108	102	99
Meghalaya	100	149	191	250	258	258
Mizoram	38	44	54	63	59	57
Nagaland	42	51	66	83	79	77
Tripura	185	204	204	222	213	208
NER	950	1119	1330	1557	1493	1455

Name of State	Oct16	Nov16	Dec16	Jan17	Feb17	Mar17
Ar. Pradesh	67	52	54	51	45	55
Assam	648	567	580	567	502	564
Manipur	95	81	76	71	61	69
Meghalaya	209	150	138	125	115	123
Mizoram	54	48	44	43	39	45
Nagaland	71	55	54	50	45	50
Tripura	225	211	224	222	190	217
NER	1370	1163	1171	1130	997	1121

In 121st OCC meeting, NERLDC stated that quantum of power against Bangladesh drawal should be reflected in the table either in Tripura drawal figure or separately. Members agreed to that.

In 123rd OCC meeting, as per suggestion by Member Secretary, NERPC it was decided that a comparison of actual vs figures projected in LGBR 2016-17 is to be prepared from now on.

The comparison of the projected figures as per LGBR (2016-17) and actual figures are given below:

Requirement:

Name of State	Jun16(actual)	Jun16(LGBR)	Jul16(actual)	Jul16(LGBR)
Ar. Pradesh	57	68	57	73
Assam	854	816	815	872
Manipur	59	76	63	80
Meghalaya	142	165	149	175
Mizoram	39	42	41	45
Nagaland	59	72	65	77
Tripura	118	122	116	122
NER	1327	1361	1306	1424

Availability:

Name of State	Jun16(actual)	Jun16(LGBR)	Jul16(actual)	Jul16(LGBR)
Ar. Pradesh	55	82	56	92
Assam	823	649	779	737
Manipur	57	85	58	108
Meghalaya	142	191	149	250
Mizoram	38	54	40	63
Nagaland	58	66	64	83
Tripura	116	204	115	222
NER	1288	1330	1260	1557

Members may please discuss.

C.5 Monthly MW requirement & availability of each state of NER:

The following figures were taken from LGBR 2016-17 of NERPC. These figures are to be reviewed.

A. Peak Demand in MW

Name of State	Apr16	May16	Jun16	Jul16	Aug16	Sep16
Ar. Pradesh	142	142	137	137	142	147
Assam	1451	1472	1498	1508	1560	1539
Manipur	168	168	168	163	168	163
Meghalaya	405	405	405	405	400	405
Mizoram	90	90	95	90	90	90
Nagaland	125	125	125	140	140	140
Tripura	270	291	296	296	301	291
NER	2651	2693	2724	2739	2801	2775

Agenda for 124th OCC Meeting to be held on 8th August, 2016

Name of State	Oct16	Nov16	Dec16	Jan17	Feb17	Mar17
Ar. Pradesh	143	132	132	137	137	147
Assam	1513	1508	1518	1456	1352	1466
Manipur	163	179	184	179	179	173
Meghalaya	415	425	430	430	425	420
Mizoram	95	95	101	101	90	95
Nagaland	140	135	135	135	125	125
Tripura	321	275	260	250	250	281
NER	2790	2749	2760	2688	2558	2707

B. Peak Availability in MW

Name of State	Apr16	May16	Jun16	Jul16	Aug16	Sep16
Ar. Pradesh	127	144	195	165	140	138
Assam	1012	1134	1305	1249	1170	1222
Manipur	131	173	184	196	179	181
Meghalaya	257	304	373	433	455	482
Mizoram	83	100	123	117	108	111
Nagaland	109	129	145	142	134	137
Tripura	324	355	369	365	350	357
NER	2043	2340	2695	2675	2534	2627

Name of State	Oct16	Nov16	Dec16	Jan17	Feb17	Mar17
Ar. Pradesh	154	140	129	128	127	179
Assam	1251	1202	1169	1152	1108	1278
Manipur	188	175	147	151	142	188
Meghalaya	442	360	340	312	346	386
Mizoram	117	109	99	98	101	120
Nagaland	142	129	124	122	120	141
Tripura	386	369	373	370	355	392
NER	2681	2484	2381	2331	2298	2682

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

Name of State	Apr16	May16	Jun16	Jul16	Aug16	Sep16
Ar. Pradesh	78	78	75	75	78	81
Assam	943	898	944	950	952	939
Manipur	109	109	109	106	109	106
Meghalaya	223	223	223	223	220	223
Mizoram	59	59	62	59	59	59
Nagaland	75	75	75	84	84	84
Tripura	184	198	201	201	205	198
NER	1670	1639	1689	1698	1706	1689

Name of State	Oct16	Nov16	Dec16	Jan17	Feb17	Mar17
Ar. Pradesh	79	73	73	75	75	81
Assam	983	935	956	932	852	909
Manipur	106	116	120	116	116	112
Meghalaya	228	234	237	237	234	231
Mizoram	62	62	66	66	59	62
Nagaland	84	81	81	81	75	75
Tripura	218	187	177	170	170	191
NER	1760	1687	1708	1677	1581	1661

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

Name of State	Apr16	May16	Jun16	Jul16	Aug16	Sep16
Ar. Pradesh	40	50	99	122	102	100
Assam	734	824	1014	1126	1048	1068
Manipur	65	87	119	168	152	148
Meghalaya	198	230	305	416	428	445
Mizoram	50	61	88	102	93	93
Nagaland	72	84	105	123	115	116
Tripura	362	303	326	345	331	335
NER	1420	1640	2054	2402	2269	2304

Name of State	Oct16	Nov16	Dec16	Jan17	Feb17	Mar17
Ar. Pradesh	81	56	59	57	72	69
Assam	982	927	956	935	927	985
Manipur	132	115	92	84	94	102
Meghalaya	377	295	290	261	303	318
Mizoram	86	75	72	69	78	82
Nagaland	103	89	92	89	93	95
Tripura	343	317	335	329	322	339
NER	2104	1875	1896	1824	1888	1989

In 122nd OCC meeting, S.E.(O) informed that CEA has been requested to incorporate 100 MW Bangladesh drawal in LGBR 2016-17.

It was also noted by the 123rd OCC forum that one additional column may be added to above tables to monitor monthly actual versus forecast to bring in accuracy in the forecast.

A comparison of demand for the month of June and July 2016 is given below:

Name of State	Jun16(act)	Jun16(LGBR)	Jul16(act)	Jul16(LGBR)
Ar. Pradesh	131	137	136	137
Assam	1511	1498	1591	1508
Manipur	152	168	141	163
Meghalaya	311	405	292	405
Mizoram	81	95	80	90
Nagaland	119	125	120	140
Tripura	275	296	259	296
NER	2369	2724	2474	2739

Members may please discuss.

C.6 Furnishing Reactive Power Absorption Data for last one year:

As per Para no. 9.9.1 of Recommendations of Enquiry Committee on Grid Disturbance, the regulatory provisions regarding absorption of reactive power by generating units needs to be implemented.

It is requested that you may please furnish instances when Reactive Power support was provided by Generators for last one year.

The latest Capability Curve of each generator in Soft Copy may also be provided.

In 123rd OCCM, NERLDC informed the following status of furnishing of reactive power absorption data:

AGBPP, AGTPP, Kopili, Khandong	Furnished on Daily basis
BgTPP	Furnished on Monthly basis
Palatana	Provided
Ranganadi	Not furnished/intermittent
Doyang	Not furnished/intermittent
Loktak	Not furnished

NEEPCO representative assured that site personnel will be informed about submitting the necessary data.

NERLDC requested NEEPCO to furnish data from Ranganadi and Doyang HEPs. Also, since AGTCCPP was sending the data to personal email IDs, it is difficult for NERLDC to keep track of data. NEEPCO was requested to use nerldc@yahoo.co.in for sending all reactive power absorption data of generators.

NEEPCO, NHPC may kindly intimate the status.

C.7 Implementation of Automatic Demand Management Scheme (ADMS)

Hon'ble CERC directed vide order in Petition No. 113/MP/2014 on 31.12.15 to submit PERT charts & action plans for Implementation of Automatic Demand Management Scheme (ADMS) by SLDCs of NER and to implement ADMS by 30.06.16 . Hon'ble CERC directed RLDCs to submit the report of status of implementation of Automatic Demand Management Scheme (ADMS) by SLDCs of NER by 31.08.16.

SLDCs of NER are requested to furnish monthly report of status of implementation of Automatic Demand Management Scheme (ADMS) by SLDCs of NER.

In 123rd OCC meeting, SE, SLDC, MeECL informed that representative of M/s SCOPE have done an initial survey for implementation of ADMS. However detailed report has not been provided yet by M/s SCOPE. He requested SE(O),NERPC to ensure submission of survey report by M/s SCOPE so that future course of action may be determined. DoP Mizoram intimated that status for Mizoram is same as Meghalaya. DoP Ar. Pradesh and DoP Nagaland representative informed that vendors are yet to visit for survey work. AGM, SLDC, AEGCL informed that ADMS implementation involves APDCL also, so administrative issues have cropped up. So he requested NERPC to write to MD, AEGCL/APDCL for fruitful resolution.

Manager, NERLDC informed the forum that ADMS implementation status has to be informed to CERC within 15.08.2016. If no information received by NERLDC, then status will be indicated as "Not furnished". So he requested all to provide the status before that.

It is informed that no details have been received so far. All states are requested to provide the latest status if not already provided by 16-08-16.

All concerned utilities, POWERGRID, NERLDC/NERPC may kindly intimate the status.

C.8 Rectification of phase notations in NER grid:

It has been found that PMUs are showing different phasors w.r.t different nodes of same grid. It is suspected that there are change in phase notations in NER grid & connectivity.

During 1st NETeST meeting, the forum advised that mixing of Phases (change in phase reference w.r.t. one utility is sometimes different from another) as reflected by PMU data in regional grid is to be corrected. Forum requested that the same may be taken up OCC forum of NERPC.

During 123rd OCC meeting, Sr. Engineer, NERLDC informed that phase rectification has not been completed and it was further verified when GD-IV occurred on 09.07.2016. The tripping of 400kV Silchar-Azara was reflected as RY fault at Silchar while it was RB at Azara end. The forum requested AEGCL and NERTS to immediately rectifies the issue. NERTS requested AEGCL to co-ordinate and NERTS representative would be available at site on short notice from AEGCL.

NERTS informed AEGCL representative the contact details of their personnel who will go for joint visit to rectify the problem at Azara. AEGCL was requested to fix a date of inspection at the earliest.

NERTS, AEGCL & NERLDC may kindly intimate the status.

C.9 Transformer Tap optimization

System study was conducted by NERLDC considering load, generation and network pattern of May, 2016 during Peak & Off Peak periods. Suggested taps position of important transformers in NER for maintaining bus voltages within permissible limit as well as to minimize system losses have been circulated previously.

In 121st OCC meeting, NERLDC was requested to write to MeECL regarding changing of tap positions as per voltage profile.

In 122nd OCCM, SE, SLDC, Meghalaya informed the forum that request has been received and he would revert back to the forum after due discussion with MePTCL.

DGM(AM), NERTS informed that since tap changing would be done offline, there should be no danger in the operation, and necessary checks like ratio test and continuity checks may be done after tap changing to check healthiness before putting into service. NERLDC informed that similar tap changing has been done in Northern region and the NR grid had been benefitted. Hence, similar exercise should be done for NER to aid in mitigating high voltage conditions. It was agreed that in case SLDC, Meghalaya does not manage to convince MePTCL to perform tap changing at Byrnihat, NERPC may write to MePTCL on behalf of the forum.

In 123rd OCCM, it was decided that NERPC would conduct a joint meeting with NERPC, NERLDC, NERTS & MePTCL regarding importance of tap optimisation at Byrnihat.

NERLDC may please deliberate.

C.10 Issues related to mismatched figures of installed capacity of NER.

The figures of installed capacity of NER by CEA (As on 31.01.16) is not matching with figures of installed capacity of NER prepared by NERLDC based on data provided by SLDCs of NER. Ministry of Power (MOP) had requested NERLDC to resolve this issue.

The installed capacity of NER prepared by CEA and by NERLDC has been circulated.

In 122nd OCCM, NEEPCO representative informed that PG test of STG units of AGTCCPP would be carried out on 15th June 2016 and IC/MCR would be confirmed after that.

During 123rd OCCM, Sr. Manager, NEEPCO informed the forum that though PG test has been successfully completed, detailed calculation has not yet been done. The IC/MCR would be intimated after report is finalized. Regarding the mismatch in case of State sector generating stations it was decided that all SLDCs should refer to CEA report (follow below link) and inform the discrepancies accordingly before next OCCM.
http://cea.nic.in/reports/monthly/generation/2016/May/actual/opm_16.pdf

It was decided that NERPC would take up with CEA to give the station wise breakup of installed capacity, as indicated on CEA website.

NERLDC requested all states / ISGS to ensure that in case their units are decommissioned / Derated, the respective utility may take up with CEA so that installed capacity on CEA website is reflected correctly.

NERLDC/NEEPCO/Utilities may please intimate the status.

C.11 Furnishing of Ramp-Up, Ramp-Down, Technical Minimum of Units :

A meeting of the Sub-Committee on 'Review of 12th Plan and Generation Planning' headed by Member (Planning), CEA was held on 7th March, 2016. During the meeting, CEA projected maximum ramping requirement of 30000-36000 MW/hour for about 60 hours (out of 8760 hours) during 2021-22 in view of increase in solar generation.

It is requested to furnish the unit-wise Ramp-Up, Ramp-Down, Technical minimum of Generating Units.etc based on data provided by manufacturer as per the attached format.

Format for submission of these data mailed to all ISGSof NER & SLDCs of NER on 9th March, 2016. OTPC has already submitted the details.

The status as informed in 123rd OCC is as follows:

Generator	Status
AGBPP, AGTPP	Furnished (as part of Ancillary services)
OTPC	Furnished
Kopili, Khandong	Furnished
BgTPP	Furnished (as part of Ancillary services)

Agenda for 124th OCC Meeting to be held on 8th August, 2016

Ranganadi	NEEPCO unable to provide as manufacturer data not available
Doyang	NEEPCO unable to provide as manufacturer data not available
Loktak	Not furnished

NERLDC requested NEEPCO to collect the data for Ranganadi and Doyang HEPs from manufacturers, and send to NERLDC.

NERLDC may please intimate the status.

C.12 High Voltage in Palatana:

During the month of January'16 -50 % of the time, February'16 -96% of the time& March'16 -61 % of the time the voltage of Palatana 400 kV bus was more than 420 kV. The Palatana Bus reactor was charged for the first time at 14:49 Hrs on 14.03.16. The bus reactor tripped at 16:11 hrs on 15.03.16. Bus Reactor at Palatana is under outage since 16:11 hrs of 15.03.16.

OTPC is requested to inform the status of Bus Reactor at Palatana.

In 122nd OCCM, DGM, OTPC informed that the matter would be pursued with M/s BHEL if there is no response by 15.06.2016.

DGM (SO-I), NERLDC intimated the forum that the voltage at Palatana remains very high (even beyond IEGC band at some times of the day) during most of the day. The reactor at Palatana has been under outage since long time. The reactor was again charged for 1st time on 14:49 hrs on 14/03/16 for a brief interval, and has been under outage since. Delay in bring the reactor is causing unnecessary deterioration of voltage profile at Palatana and nearby areas. The reactor needs to be brought into service at the earliest.

In 123rd OCCM, it was decided that NERPC would apprise MD, OTPC about the situation so that reactor is brought into service at the earliest.

Members may please discuss.

C.13 Pre monsoon activity of transmission elements:

It was observed that number of tripping of transmission elements in NER increased during monsoon period of last year. For minimization of tripping transmission elements in NER, it is requested to complete all activities (like trimming of trees, vegetation issues etc) of transmission elements before monsoon.

In 123rd OCCM, all the utilities agreed to submit report to NERPC at the earliest.

All concerned utilities may please intimate the status.

C.14 Procurement of ERS for NER from PSDF funding:

PSDF Secretariat (NLDC, New Delhi) vide. NLDC-PSDF/NPC-CEA/2016-17/60 dtd. 21st April 2016 has intimated that submission and approval of the schemes is governed in accordance with the guidelines for disbursement of funds from PSDF

Agenda for 124th OCC Meeting to be held on 8th August, 2016 approved by MoP on 18.9.2014. Guidelines are available on <http://psdfindia.in/>. The schemes have to be submitted as per formats prescribed in guidelines.

In 123rd OCCM, DGM(AM), NERTS informed that proposal for management approval for procurement of ERS has been sent to POWERGRID Corporate BDD Group.

NERTS may please intimate the status.

D. NEW ITEMS

D.1 Generation Planning (ongoing and planned outages)

NEEPCO & NHPC 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 planning

The outage of other generating stations may be approved considering the present water levels in reservoirs.

The Committee may discuss and approve the proposed shutdown by Generating Stations as given in Annexure - D.2 below.

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.

DoP, Ar. Pradesh has raised an agenda regarding the unilateral shutdown taken by NERTS of 132kV RHEP-Ziro line from 04.08.2016 to 08.08.2016. The shutdown supposedly was for shifting of conductors from vulnerable tower no. 12 of the said line to an erected ERS. The letter written by EE, SLDC, Ar. Pradesh and POWERGRID communication is attached at **Annexure-D.2 (I)**.

The sub-Committee may kindly discuss and approve the transmission line outages proposed by Constituents for July, 2016 - August, 2016 as enclosed at Annexure- D.2.

D.3 Estimated Transmission Availability Certificate (TAC) for the month of April & May, 2016:

NETC and POWERGRID have submitted the outage data for the month of April & May, 2016. So the attributability of outage of the said elements may please be finalized.

In 123rd OCCM, the attributability of April/May 2016 could not be finalized due to non-submission of outage data within stipulated time. The forum once again advised NETC&POWERGRID to submit data in a time bound manner as decided previously.

Members may please discuss.

D.4 Furnishing of Technical and Commercial data for computation of PoC Charges and Losses for Q3 of 2016-17 (October 2016 - December 2016):

In the 3rd Validation Committee meeting for PoC application period Oct'15-Dec'15, held on 30th September 2015, at NLDC conference Hall, CERC had proposed a methodology for ratification of projected data at RPC form.

In line with the decision in the Validation Committee meeting, Demand and Generation projections w.r.t North Eastern Region constituents as given by Implementing Agency is attached in **Annexure D.4** for ratification of members.

Members may please discuss.

D.5 Assessment of Total Transfer Capability (TTC), Transmission Reliability Margin (TRM) and Available Transfer Capability (ATC) by SLDC on respective Inter-State Transmission Corridor

In 123rd OCCM, S.E(O), NERPC once again requested all the constituents (except Manipur, Nagaland) to submit the laptops with dongles as early as possible. It was emphasized that TTC/ATC calculation cannot be done by the SLDCs unless these laptops are returned to the designated officials. It was decided that by next OCC meeting, Laptop with PSSE Dongle to be returned by all constituents to NERPC for re-allocation to appropriate personnel. NERPC may also write a reminder letter to all constituents to return Laptop with PSSE dongle by next OCCM.

NERLDC had done TTC calculations of State control areas, State subsystems, and Group of Control areas of NER, on behalf of SLDCs of NER for the month of July'2016. The forum advised the SLDCs to submit any comment to NERLDC by 20th July 2016, and to host the TTC/ATC figures in their respective websites after that.

Updated Base Cases have been mailed to all the SLDCs on 05.08.16. All SLDCs are requested to submit the study cases to NERLDC for the month of December'16 by 15th August, 2016.

It was deliberated in 123rd OCC Meeting of NERPC that all constituents except Manipur and Nagaland are to return laptops and dongles issue for system studies to NERPC for redistribution, latest position may be updated.

NERLDC may kindly deliberate on this issue.

D.6 Grid Disturbance (GD-V) in NER on 16.04.16 at 1203 Hrs:

A major disturbance of category GD-V occurred in NER Grid on 16.04.16 at 1203 Hrs. In this connection it was decided in 121st OCC Meeting of NERPC that a Committee is to be formed to analyze the disturbance thoroughly, identify the root causes and suggest corrective measures. It was also proposed in 42nd PCC Meeting of NERPC to constitute an Enquiry Committee for analysis of the above disturbance with independent members.

In 123rd OCCM, it was decided that the Committee to analyze GD-V on 16.04.2016 would be headed by S.E.(O),NERPC and all other members would be co-opted by him as per requirement.

The forum agreed that for cases of GD-IV and GD-V in NER, the events are to be analyzed without any delay to prevent loss of valuable information that may prevent identification of root cause. It was decided that the committee to be headed by SE(O), NERPC would be formed at the earliest with Terms of Reference, so that cases of GD-V in NER on 16.04.16, and GD-IV in NER on 09.07.2016, be brought to conclusion by 31st July 2016.

NERPC may please intimate the status.

D.7 Updated Operating Procedures of NER July 2016:

Draft Operating Procedures of NER, updated to July 2016 has been sent to regional entities of NER, the same is also available in NERLDC website. Power utilities of NER are requested to furnish their comments and suggestions for this document by 30th June'16 as the same has to be finalized by 10th July'16. The document is password protected; password is available with SOII department of NERLDC.

In 122nd OCCM, DGM(SO-I), NERLDC shared the password of Main document and Annexures to Operating Procedure of NER, and requested all entities of NER Grid to give comments for finalization by 10th July, 2016.

In 123rd OCCM, NERLDC asked all constituents to forward any comments, latest by 18th July, so that Operating Procedure can be finalized by 20th July 2016.

NERLDC may please intimate the status.

D.8 Information of Events of Load crash on account of inclement weather conditions:

As per directives of DPE & MoP, Govt. of India, NERLDC have to prepare reports indicating events in the Grid that occurred on account of inclement weather conditions, particularly events involving load crash. For preparation of these reports, the following inputs are required from affected states:

- a. Date and Time-frame of such incidence ii. Affected areas
- b. Reason for load crash iv. Tripping of LT feeders (33 kV / 11 kV level). SLDCs may indicate affected areas if detailed information is not available.
- c. Quantum of load crash and generation loss v. Details of Restoration
- d. Any corrective measures (presently taken / suggested for future)

A sample format which is being used by NERLDC for event reporting had been circulated.

As and when such events occur, SLDCs are requested to inform about the event to NERLDC immediately after the incident and prepare a report as per the above format and send the same to NERLDC at rtsdnerldc@gmail.com and nerldc@yahoo.co.in. It is pertinent to mention here that AEGCL, MePTCL & TSECL are sending the Load crash reports to NERLDC on regular basis.

In 123rd OCCM, AEGCL informed that RHEP generation suddenly comes and it is altering the schedule to a great extent. This is resulting in underdrawal at high frequency resulting in penalty for states. The forum suggested that these instances of sudden generation due to inclement weather should also be included in NERLDC report.

NERLDC informed that load crash report for May, 2016 has been submitted by Assam, Manipur, Mizoram, Meghalaya and Tripura. The forum requested other states to kindly submit the report to NERLDC as and when events of load crash were observed by them.

NERLDC also requested all SLDCs to include the restoration time of these events, so as to enable NERLDC to compute the amount of energy un-served on account of these incidences.

All state utilities, NERLDC may please intimate the status.

D.9 Installation of spare Transformers in NER:

Recently 132/33 kV 10 MVA and 16 MVA Transformers at Nirjuli (PG) have been replaced by 2 nos 50 MVA Transformers. After replacement of the above mentioned transformers, the 10 MVA & 16 MVA Transformers are now Spare Transformers and can be used at other substations. Further in future 220/132 kV 2x50 MVA Transformers at Balipara (PG) will also be replaced by 2x160 MVA Transformers. Members may please deliberate about optimal utilisation of these spare Transformers in NER.

In 123rd OCCM, Sr. Manager NEEPCO informed that NEEPCO is facing capitalization issues for Balipara equipments and decision regarding the handover would be

intimated in due course. Sr. Manager, TSECL requested for the 132/33 kV 10MVA transformer that has been de-commissioned at Nirjuli. Similarly SE, DoP Mizoram requested for the 16MVA transformer. DGM(AM),NERTS clarified that first SCM would have to agree for declaring said assets as regional spare to enable POWERGRID to put up to CERC. Members agreed that SCM needs to be conducted urgently and requested NERPC to take necessary action at the earliest.

CEA vide. 89/5/2016/PSPA-2 dated 02.08.16 has given its "in-principle" approval for declaring the 10 MVA 132/33kV transformer de-commissioned at Nirjuli S/Sn as regional spare. It has also given its "in-principle" approval for use of the spare transformer by TSECL for its Gournagar S/S.

Since classification of asset as regional spare is under the ambit of SCM of CEA and concurrence of CEA in this regard is welcome. However the use of the transformer by a particular constituent is purview of RPC and accordingly members may discuss.

Members may like to discuss.

D.10 Reasons For Demand - Supply Gap And Its Variation:

It was deliberated in the 4th NPC meeting that monthly power supply position prepared & published by CEA based on the data furnished by the states reflected shortages in almost all the states. However, a number of those states intimated adequate availability of power. This meant that the deficit/shortage in such states was actually not the deficit in true sense but demand-supply gap due to reasons other than shortage of power. The other reasons for the demand-supply gap could be inadequate availability of power, transmission constraint, distribution constraint, financial constraint, etc. The reason for demand-supply gap needed to be clearly mentioned to reflect true picture of power supply position in different states and also to invite attention of various agencies including policy makers to the specific problem areas in the power sector for suitable solution.

After deliberation it was decided in the meeting that all the RPCs would advise the states in their respective regions to intimate broad break-up of demand-supply gap due to various reasons, or at least, the main reason(s) for demand-supply gap in each month.

In 123rd OCCM, Manager, NERLDC while presenting the monthly Grid Performance for June-2016 highlighted the glaring contradictions as follows:

- 1) Shortfall figure given by states and corresponding under-drawal from grid.
- 2) Systematic less requisition from ISGS and over-drawal from grid.
- 3) Differences between SEM based data and drawal data as provided by states which is reflected in Daily Report of NERLDC.

AEGCL representative stated that they had been facing problems in load management due to error in SCADA which is thus resulting in overdrawal in reality. The forum felt that this is mainly due to non-reporting of RTUs in AEGCL system and is specific to Assam only. Assam was advised to take care of the issue of under-requisition from ISGS coupled with sustained over-drawal which is a violation of Regulatory stipulations.

Regarding mismatch between SEM data and operational data, DGM(MO),NERLDC suggested that analysis of one week's data can be done to identify the nodes from which wrong readings are provided daily. States were advised to take care while submitting previous day data to NERLDC and as far as possible, source of energy data should be SEM. The forum also suggested the state utilities to provide break-up for shortfall figure so that particular cause may be ascertained.

NERLDC may please deliberate.

D.11 Reactive Power Planning:

In the 4th meeting of NPC, it had been agreed that states should adopt a proactive approach in the matter of reactive power planning, and that the provisions regarding reactive power planning similar to those mandated in the IEGC for the CTU should be included in the respective State Grid codes.

It was informed in the meeting that Sub-Committee of PSDF had forwarded few schemes of capacitor installation by states to respective RPC for approval of RPCs. It was of the view that RPC might be able to justify the requirement of capacitor installation of state.

After detailed deliberation, it was agreed that the proposal of capacitor installation planning by states/entities would be referred to RPCs and to PSDF Sub-Committee routed through RPCs and the proposal would be vetted by the respective RPC.

In 123rd OCCM, EE, Mizoram informed that DPR is being prepared and proposal would be sent after finalization. S.E.(O),NERPC requested other states to kindly estimate requirement and communicate the same.

NERTS also asked states to plan their capacitor requirement taking into account future EHV lines, so that the installation of capacitors does not go waste.

All the utilities may please inform the status.

D.12 Scheme for Storage and Management of Protection System Data Base:

Ramakrishan Task Force Report on Power System Analysis under Contingencies had recommended for creation of data base for relay settings

Quote:

There is also a need for creating and maintaining data base of relay settings. Data regarding settings of relays in their network should be compiled by the CTU and STUs and furnished to the RLDC and SLDC respectively and a copy should also be submitted to RPC for maintaining the data base.

Unquote

ERPC had prepared scheme for above purpose for funding from PSDF. The scheme had been approved by MoP. SRPC submitted the scheme for similar purpose. Other RPCs were also requested to initiate the preparation of above scheme to implement the recommendations of the Ramakrishna Task Force. It was informed that the Ramakrishna task Force report had been accepted by MoP.

NPC advised RPCs to take necessary action for creating and maintaining database of relay setting. RPCs agreed to initiate preparation of the scheme for implementation recommendation of Ramakrishna Task Force.

In 123rd OCCM, S.E.(O),NERPC informed that exercise has already been initiated in this regard and the item may be reviewed periodically in PCC meeting of NERPC. NERPC informed that they will take up the matter with ERPC, and will intimate by next OCC & PCC.

NERPC may please inform the status.

D.13 Status of RE generation in NER:

NLDC is compiling details of renewable power plants in India. NERLDC has mailed all the power utilities regarding furnishing of details of RE Generation in NER. All the power utilities are requested to furnish the details of RE Generators currently under operation and also provide information regarding RE Generators expected to be commissioned in future.

In 123rd OCC the format was circulated by NERLDC for submission of information by SLDCs of NER by 31st July 2016.

NERLDC may please inform the status.

D.14 Furnishing of UFR Report and status of Implementation:

As per recommendation of enquiry Committee, the status of installation of UFR in NER was already circulated earlier. It is gathered that, 18.5 MW quantum is yet to be implemented in Arunachal Pradesh & Manipur.

The 123rd OCC forum decided that monthly report is not being furnished. As per clauses of relevant regulations, and Order of Hon'ble CERC in matter of Petition no. 113/MP/2014, NERLDC and NERPC are mandated to submit status of UFR operation and non-operation to CERC. SLDCs were thus requested to submit UFR operation details (feeder-wise quantum of load relief to be indicated) on monthly basis, and even if no UFR operated in particular month, it should indicated as NIL.

For information & necessary action of members, please.

D.15 Updation of SPS Document of NER Grid:

NERLDC is preparing SPS Document of NER Grid. The draft SPS Document was circulated earlier.

All the concerned utilities are requested to give comments on the document and provide the updated Logic Diagram of SPS by 31st July'16.

In 123rd OCC meeting, OTPC representative informed that on 09.07.2016(GD-IV) SPS-3 did not mal-operate rather it was due improper scheme design. He requested that the matter be discussed in System-Study sub-group. Sr. Engineer, NERLDC did not agree with view of OTPC and informed that as per design of SPS-3, generation at Palatana units to be reduced to 200 MW immediately (within seconds), and requested constituents to review the whole "System Protection & islanding" schemes designed for NER system due to subsequent addition of new Tr. Lines & generation in NER Grid.

The matter of redesigning of SPS would be reviewed in next System Study meeting of NER.

OTPC vide mail dtd. 04.08.16 has written:

"OTPC is repeatedly requesting forum at various platforms(since 117th OCC and 41st PCC meetings held on 7th January 2016) to review this scheme as it was framed considering only ONE Unit of OTPC in operation that time, now both Units of OTPC are in service. OTPC station faced serious on black out leading catastrophic failure of machines twice i.e. on 11th April 2016 and on 9th July 2016 due to SPS-III operation. SPS-III was implemented in January 2016.

In 41st PCC meeting, it was assured that the SPS-III will be reviewed in Systems Study Meeting. But, System Study Meeting is yet not called."

NERPC may please inform the status.

D.17 Furnishing of Black Start Time for Power Plants:

All the power utilities having black start facilities are requested to furnish the time required for Black Start of their Power Plants. These data are required by operators for restoration of Grid after disturbance, scheduling of Power plants etc.

The Power Utilities are also requested to provide the time required to start their generators after Grid power is extended upto their bus.

The 123rd OCC forum requested NERLDC to kindly consult already available data in the form of Ancillary Service etc. and revert back. It was decided that Hydro and Gas stations to give their black start timings, and time required to start their generators after Grid power is extended upto their bus to NERLDC.

AGBPP, AGTPP and BgTPP are furnishing Warm start & Cold start timings as part of Ancillary services data.

NERLDC may please deliberate.

D.18 Load Forecast Error:

At present day-ahead hourly load forecast data on daily basis is being prepared by NERLDC based on the data sent by SLDCs. It has been observed that there is a huge difference between the forecasted load and the actual demand met.

A comparison between the forecasted load and the actual demand met of all the states of NER was circulated earlier.

In 123rd OCC meeting, Sr. Engineer, NERLDC appraised the communication regarding proper load forecasting received from ED, NLDC. It was informed that states have to give 15 min block-wise data by 11:00 Hrs for next day, which would be used by RLDC to develop the 1st line of forecast. The methodology being followed by states for load forecasting was to be discussed and made uniform, so as to prevent wide variations between forecast and actual figures.

Manager, NERLDC informed that states have to give 15 min blockwise data by 23:00 Hrs for next day. At present Mizoram & Meghalaya are furnishing 15 min forecasting

data. He also intimated that the new SCADA has a package for load forecasting which may be explored.

NERLDC may please intimate the status.

D.19 Primary Response of generating units:

Primary Response through governor action is expected to be provided by generating units as per section 5.2 (f) to 5.2 (i) of the Indian Electricity Grid Code (IEGC).

NLDC/RLDCs have been evaluating frequency response of all the regional entities due to large contingency in the system leading to load or generation loss. The Median value of FRC of North Eastern Region was of the order of 50 MW/Hz. From the response observed on 9th June'16 for load throw off of 4000 MW, it is apparent that there are scopes for improving of primary response through governor action.

All the concerned generating utilities are requested to inform the status of implementation of Primary Response at each Generating Units.

As per, CERC approved Procedure for Assessment of Frequency Response Characteristic (FRC) of Control Areas in Indian Power System, all RLDCs are to submit FRC calculation to CERC if loss of load/generation greater than 1000 MW and frequency change of 0.05 Hz occurs in the Grid. Sometimes it has been observed that whatever correction in frequency is required, the same is done within 10secs. Since SCADA data is available after 10secs, these type of incidents are not captured properly. In other words, accurate value of FRC could not be derived from SCADA data due to its inherent design.

Accordingly, all the generating stations are requested to furnish data from DAS (Data Acquisition system) whenever such type of event occurs. If generating stations have not implemented DAS, it is requested to do so at the earliest.

In 123rd OCC meeting, it was decided all generators should intimate the response by their units in the case of 4000 MW load throw-off on 9th June, 2016 at 14:27 Hrs.

As per information furnish by the ISGSs and States only Umiam stage III and IV which have requested for exemption all are having FMGO/RMGO in position. This may please be confirmed by NEEPCO, NTPC and Meghalaya. In case the FGMO/RGMO function is not active the same may put into service immediately and a confirmation may kindly be furnished to NERLDC by 16-08-16.

All generating utilities, NERLDC may please inform the status.

D.20 Dynamic Data of generating units:

As deliberated in 11th System Study Meeting of NERPC, all the generating Units were requested to furnish dynamic data as per the formats circulated in previous meetings. Some of dynamic simulation data from IGSS are available with NERLDC as of now.

NLDC has prepared the Dynamic Model of All India Grid using legacy data. In order to tune the case for North-Eastern Region for performing Stability studies, it is necessary that all generating utilities to furnish the modelling information available with them. If these data are not readily available with them, generating utilities of NER are requested to collect these data from manufacture and send these data to NERLDC.

In 123rd OCC meeting, NERLDC informed the forum that NLDC had prepared Dynamic cases for study, based on legacy data, which may be insufficient for accurate representation of NER Grid generators. The forum advised the generating stations to submit the data whichever is available, and to contact manufacturer regarding data that is not available with them.

For information & necessary action of members.

D.21 Real-Time Energy Assessment System for effective Grid Management-Software by CDAC

CDAC has submitted a proposal for Real-Time Energy Assessment System for effective Grid Management. The Proposed system has majorly three components namely, real-time data acquisition system, real-time energy assessment system and short term load forecasting. This would be very useful for the SLDCs for forecasting the load and to plan the scheduling accordingly. This would also be useful for the users to have online information of the schedule and UI charges, this would help them to schedule and reduce their penalty and thereby contributing to the Grid stability. The project would approximately cost around 2 crores which would also require user contribution.

Members agreed to study the proposal in detail and revert back.

Members may provide their valuable comments.

D.22 Certification of Meghalaya state T/L as ISTS line:

Based on initial studies by MeECL the following lines have been found to cater loads of other states in addition to Meghalaya, so they may be declared as ISTS line:

1. 220kV D/C Misa - Killing
2. 132 kV S/C Agia - Nagalbibra
3. LILO of 400kV D/C Pallatana - Bongaigoan at 400/220kV Killing S/S

The matter was discussed in one of the sub-group meetings and it was suggested that NLDC/NERLDC may conduct studies by WebNet software and inform the members of load flow patterns in 123rd OCC.

During 123rd OCC meeting, Sr. Engineer, NERLDC informed that the study results would be communicated to MeECL/NERPC within 15 days.

NERLDC/MeECL may please intimate the details.

AGENDA ITEMS FROM NERLDC:

D.23 Substation Black out at Balipara, Ranganadi and Part of Arunachal Pradesh:

Khupi area, Ziro area, Lekhi area & Capital area of Arunachal Pradesh and Pavoi, Gohpur & Depota area of Assam were connected with rest of NER Grid through 400 kV Balipara - Bongaigaon I, II & IV lines, 400 kV Balipara -Misa I & II and +/- 800 kV

Biswanath Charali- Agra pole I (Bus Coupler CB of Gohpur, 132 kV Rangia - Sipajhar line & 132 kV Rangia - Rowta line kept open for system requirement and 400 kV Balipara - Bongaigaon III kept open to contain over voltage since 05:55 Hrs on 21.07.16).

At 10:16 Hrs on 21.07.16, 400 kV Balipara - Bongaigaon I, II & IV lines, 400 kV Balipara - Biswanath Charali I, II, III & IV lines, 400 kV Balipara - Misa I & II lines and 400 kV Ranganadi - Biswanath Charali I & II lines tripped. Tripping of all lines resulted in black out Balipara (PG) substation. Relay indications of the above lines as collected by operators are mentioned below:

SN	Elements Tripped	Node	Relay Indication
1	400 kV Balipara - Bongaigaon I	Balipara	DP, ZV, R-E, Over Voltage
		Bongaigaon	DP, ZII, R-E, 370.1 Kms.
2	400 kV Balipara - Bongaigaon II	Balipara	DP, Z V, R-E, Over Voltage
		Bongaigaon	DP, ZII, R-E, 348.1 Kms.
3	400 kV Balipara - Bongaigaon IV	Balipara	DP, ZIV, R-E, 19.31 Kms.
		Bongaigaon	DP, ZII, R-E, 332 Kms.
4	400 kV Balipara - Biswanath Charali I	Balipara	No tripping
		Biswanath Charali	DP, ZII, R-E, 60 Kms.
5	400 kV Balipara - Biswanath Charali II	Balipara	No tripping
		Biswanath Charali	DP, ZII, R-E, 60 Kms.
6	400 kV Balipara - Biswanath Charali III	Balipara	No tripping
		Biswanath Charali	DP, ZII, R-E, 57 Kms.
7	400 kV Balipara - Biswanath Charali 1V	Balipara	No tripping
		Biswanath Charali	DP, ZII, R-E, 57 Kms.
8	400 kV Misa - Balipara I	Misa	DP, ZII, R-E, 120 Kms.
		Balipara	DP, ZIV, R-E
9	400 kV Misa - Balipara II	Misa	DP, ZII, R-E, 120.5 Kms.
		Balipara	DP, ZIV, R-E
10	400 kV Ranganadi - Biswanath Charali 1	Ranganadi	DP, ZII, R-E, 220 Kms.
		Biswanath Charali	No tripping
11	400 kV Ranganadi- Biswanath Charali 1I	Ranganadi	DP, ZII, R-E, 219 Kms.

		Biswanath Charali	No tripping
--	--	-------------------	-------------

Due to tripping of these elements Ziro area, Lekhi area & Capital area of Arunachal Pradesh and Pavoi, Gohpur area of Assam were separated from rest of NER Grid and subsequently collapsed due to load generation mismatch in this area. Power supply to Khupi(AP) and Depota(Assam) also got affected.

Ranganadi Generation Loss was around 330 MW and Load loss was around 114 MW (Arunachal Pradesh- 65 MW & Assam- 49 MW). This event is categorized under GD-II as per CEA Grid standards.

As intimated by POWERGRID, fault was likely in the 400 kV Bus at Balipara and was not cleared by Bus bar protection. This is a near miss major grid disturbance of NER. Detailed report regarding this event is awaited.

For deliberation and necessary action of members.

D.24 Substation Black out at Kumarghat:

At 14:57 Hrs on 31.07.16, 132 kV Badarpur – Kumarghat line, 132 kV AGTPP - Kumarghat line, 132 kV Aizwal - Kumarghat line and 132 kV P K Bari - Kumarghat line tripped. Tripping of all lines at Kumarghat resulted in black out of Kumarghat (PG) substation. Relay indications of the above lines as collected by operators are mentioned below:

Sl No	Element Tripped	Node	Relay Indication
1	132 kV Badarpur - Kumarghat	Badarpur	DP, ZII, B-E, 121.6 Kms.
		Kumarghat	No tripping
2	132 kV AGTPP - Kumarghat	AGTPP	DP, ZII, B-E, 96.83 Kms.
		Kumarghat	DP, ZIV, B-E
3	132 kV Aizwal - Kumarghat	Aizawl	DP, ZII, B-E, 120 Kms.
		Kumarghat	DP, ZIV, B-E
4	132 kV P K Bari - Kumarghat	PK Bari	Already in open condition
		Kumarghat	DP, ZIV, B-E

As intimated by POWERGRID, 20 MVAR B-Phase LA associated with Bus reactor burst led to the bus fault. Detailed report regarding this event is awaited.

For deliberation and necessary action of members specially the preventive maintenance aspect like condition monitoring of equipment.

D.25 Prolonged outage of 132 kV Dimapur (PG) – Dimapur (NG) line and Misa Kopili III:

132 kV Dimapur (PG) – Dimapur (NG) II line is not in service since 18th April 2016. Jumper position of 132 kV Dimapur (PG) – Dimapur (NG) II line has been changed at LILO tower to Kohima station as intimated by POWERGRID & DoP, Nagaland, to feed

Capital area of Nagaland. As a result, 132 kV Dimapur (PG) – Dimapur(NG) I line is heavily loaded during peak hours and also not satisfying N-1 criteria. In addition to the above Misa-Kopili III is also out since 27-5-16 after availing emergency shutdown by NEEPCO thereby restricting evacuation system of KOPILI HEP.

For deliberation and necessary action of members, NEEPCO, POWERGRID and Nagaland are requested to provide the latest status.

D.26 Furnishing of Event Logger Output:

To identify the root cause of an event occurred in the Grid, relay indications, DR Outputs and Event Logger Outputs from all nodes associated are required. As of now, NERLDC and NERPC are not receiving Event Logger Outputs except from few POWERGRID stations. It is requested to all constituents to submit Event Logger Output along relay indication and DR Output within 24 Hrs after an event as mentioned in clause 5.2(R) of IEGC.

For deliberation and necessary action of members.

D.27 Quarterly Operational Feedback by SLDC & NERPC:

NERLDC is furnishing Operational Feedback to CEA and CTU on a quarterly basis as per Clause No. 5.5.2 (a & b) of IEGC.

NERPC and all SLDCs are also requested to submit operational feedback as per clause No. 3.4.b (iv & v) of IEGC for system improvement to CEA and CTU.

D.28 Schedule of Protection Audit by M/s Tractabel in NER Substations:

Ministry of Power, Government of India vide order dated 16-07-2014 has directed POWERGRID to appoint a consultant to conduct an audit to analysis of status of completion for the Recommendations issued by the Enquiry Committee. POWERGRID through international competitive bidding gave the LOA to M/s Tractabel Engineering S. A. Romania. M/s Tractabel Engineering S. A. Romania carried out audit (Task- I) in North Eastern Region during the week from 14.09.15 to 18.09.15.

M/s Tractabel Engineering S. A. Romania will carry out audit (Task- II) in North Eastern Region during the month of Sep'16 as per the following Schedule:

Sl. No.	Voltage (kV)	Name of Substation	Owner	Dates
1	400/220	Misa	POWERGRID	6th, 7th and 8th September '16
2	400/132	Ranganadi	NEEPCO	13th, 14th and 15th September '16

For deliberation and necessary action of members.

D.29 Multiple occurrence of Oscillations at Doyang HEP:

Several cases of Low Frequency oscillations have been observed in NER Grid, starting from 14th July 2016.

The cases of oscillation are depicted below:

14.07.16 from 13:16 Hrs to 13:20 Hrs

15.07.16 from 20:00:30 Hrs to 20:03:00 hrs

16.07.16 from 18:30 Hrs to 18:33 hrs.

17.07.16 from 07:06 Hrs, 07:26 Hrs, 08:06 Hrs, 10:23 Hrs

18.07.16 from 15:56 Hrs to 15:58 Hrs

19.07.16 from 14:55 Hrs to 14:57 Hrs

25.07.16 from (a) 18:00:40 hrs to 18:03:40 hrs, and (b) 18:19:14 hrs to 18:21:42 hrs

8)31.07.16 from 11:16 Hrs to 11:17 Hrs

In all these case of oscillations, the origination seems to be from Doyang HEP, and oscillation lasted for about 2 minutes duration in majority of the cases.

Besides oscillation at Doyang HEP (Intra-plant), the oscillation was also experienced at Loktak HEP, Khandong HEP, RHEP, Palatana (Inter-Plant). It has been observed through controlled increase of generation of DHEP that the oscillation started when ex-bus generation became more than 68 MW. Hence considering the security of the grid, NERLDC requested DHEP to maintain their ex-bus generation at that level only till the problem is resolved .GM, NERLDC vide his letter No. NERLDC/User_Ne/16-17/4193-96 dtd. 20/07/16 has requested to ED (O&M), NEEPCO to check the various sub-system of Doyang and resolve this issue at the earliest. NEEPCO accepted the proposal .The matter of such recurring oscillation is very serious, and may lead to widespread trippings/ disturbance if not controlled properly.

For deliberation and necessary action of members.

D.30 Schedule of generator more than DC :

It has been observed on many occasions that schedule of generators, from where STOA sales are taking place, becomes more than DC due to various reasons like Unit tripping, downward revisions of DC due to less gas supply, reduced inflow etc whereas the STOA sales, of regulated quantum or merchant share, continue to remain at same levels. Since ideally schedule of generators cannot be more than DC, generators are requested to take care of this aspect while entering into transaction of power so that schedule becoming more than DC cannot happen in future.

Members may please discuss on the issue and give their views.

D.31 Cooperation in grid operation:

Grid operation is a team work where all stake holder has to work as a closely knitted entity and appreciate any issue from the team perspective and not to be narcissistic like in the case on 03-08-16 evening peak when POWERGRID wanted ESD of 132 KV Agartala-RC-Nagar Ckt I but couldn't be given immediately even though the situation was alarming and human life could be endangered as SLDC Tripura was not cooperating by way of load shedding to reduce the line flow. Though the shutdown was requested around 06:15 PM, the same could be availed only at 11:30 PM. It is another matter that no unwanted incident has happened but the whole Power System fraternity of NER could be blamed and taken to task if some fatal accident had occurred.

For deliberation and necessary action of members.

AGENDA ITEMS FROM NERTS:

D.32 Diversion of one No. LT Line at Village SOPU to enable LILO connection of Ranganadi-Lekhi line at Pare HEP:

The 132 kV Ranganadi – Lekhi line is to be made LILO at Pareh HEP. Erection of the Tower No. AP-7 of the LILO portion at SOPU Village, has been affected due to presence of one LT Line of DoP, Arunachal Pradesh near the location. The LT line needs to be diverted away from the location by using 3-4 new poles. DoP, Arunachal Pradesh may expedite diversion of the said LT line to enable erection of the tower at Loc Ap-7 and stringing from the Loc 45 of Nirjuli-Lekhi line to AP-7.

NERTS may please deliberate.

AGENDA ITEMS FROM TSECL:

D.33 Change of setting of CT ratio for RCNagar-Agartala-I&II at RC Nagar end:

Both the lines tripped number of times due to improper relay setting. On 03.08.2016 132 kV AGTPP-Agartala line-II tripped on two occasions at 1305 & 1341 Hrs due to overloading after tripping of 132 kV AGTPP-Agartala line-I. The matter has been raised several times from TSECL to enhance the setting & replace the CT from 300/1 to 400/1 at R C Nagar end to avoid such un-necessary tripping. The matter is very serious, require rectification to avoid such events of tripping.

DGM(SO-I),NERLDC has clarified that the CT ratings of AGTPP end are 600-300/1 and present setting is kept at 300/1 whereas CT ratios of Agartala end are 400/1 for both the lines. The present settings at AGTPP is restricting power flow capacity of above lines.

It is therefore requested to please change the CT ratio settings to higher ratio at AGTPP end urgently, which will be beneficial for both Tripura & AGTPP and system as a whole.

TSECL, NEEPCO, NERLDC may please deliberate.

AGENDA ITEMS FROM OTPC:

D.34 Implementation of new SPS for OTPC ICTs:

Once ICT-2 is in service in parallel to ICT-1: This is required for overload protection of one ICT in case of tripping another ICT.

OTPC may please deliberate.

D.35 Consent for URS Scheduling:

At present URS of any ISGS is being scheduled to other beneficiaries after taking consent of the concerned ISGS. This is creating delay in scheduling process. A standing consent from the ISGS station can help in this respect.

As per deliberation of 117th OCC forum Honourable CERC order dated 05.10.2015 against Petition No. 310/MP/2014, regarding scheduling Un-requisitioned Power of

Agenda for 124th OCC Meeting to be held on 8th August, 2016

Sasan Ultra Mega Power Project and direction to Load Despatch Centres to schedule Un-requisitioned Power was discussed.

As per the order consent of the original beneficiary and the new beneficiary shall be submitted by the ISGS intending to avail revision of schedule to the concerned RLDC by mail.

After detailed deliberation, it was agreed that all beneficiary going for under-requisition can give month wise standing consent to the respective ISGS (AGBPP, AGTPP & OTPC) with a copy to NERLDC for rescheduling the URS power to the other beneficiaries for reducing the time taken for implementing the schedule.

The forum also requested NEEPCO that it may please operate NEEPCO control room 24x7.

OTPC may please deliberate.

AGENDA ITEMS FROM NERPC:

D.36 Rectification of GIS switchgear for 132kV Dimapur(PG)-Kohima(NG):

The circuit-breaker of 132kV Dimapur-Kohima had become defective on 16.04.16. DoP Nagaland had been using CB of Dimapur-Dimapur as temporary arrangement. NERTS is requested to rectify the same so that inconvenience is not faced especially during contingencies.

NERTS may please inform the status.

D.37 Availability of URS power details in NERLDC website:

OTPC vide. OTPC/COMML/T-8/2016-17/180 dtd.27.07.2016 has informed that at present it is not known that which beneficiary state has un-requisitioned power as no details about it are available anywhere on the system. Only the consolidated URS available is known to the generator and names of the states un-requisitioning power is sometimes intimated by NERLDC. It is urgently required that the daily state-wise details of URS power be made available NERLDC at its website.

NERLDC may please inform the status.

Any other item:

Date and Venue of next OCC

It is proposed to hold the 125th OCC meeting of NERPC on second week of September, 2016. The date & exact venue will be intimated in due course.



GOVERNMENT OF ARUNACHAL PRADESH
STATE LOAD DESPATCH CENTRE

OFFICE OF THE EXECUTIVE ENGINEER (E) : : SLDC & TRANSMISSION DIVISION-II,
'P'-SECTOR, RAJBHAWAN POWER HOUSE COMPLEX,
DEPARTMENT OF POWER, ITANAGAR – 791 111 (A.P).

☎: 0360-2292151/2292160

Fax No: 0360-2214358

E-mail : sldcitanagar@gmail.com

No. SLDC&TD-II/2016-17/W-25/423-27

Dated, Itanagar the 2nd August' 2016.

To,

The Member Secretary
North East Regional Power Committee
Dong Parmaw, Lapalang
Shillong – 793006 (Meghalaya).

Sub : Unilateral decision of shut down of 132KV Ranganadi – Ziro Transmission line by POWERGRID.

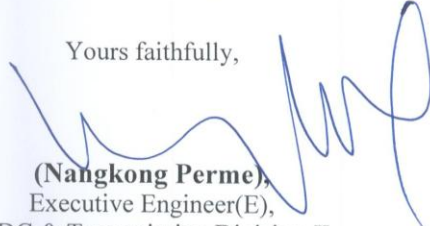
Sir,

The POWERGRID has taken a decision to take shutdown of Ranganadi – Ziro 132 KV transmission line from 4th August 2016 to 8th August 2016 between 8 AM to 5 PM reportedly for Shifting of conductors from vulnerable tower no. 12 of the said transmission line to an erected Emergency Restoration System (ERS). It appears that the decision of POWERGRID is unilateral and without consultation with the beneficiary State, your secretariat, NERLDC or the OCC forum. The decision to take shut down of the transmission line has been communicated to the Deputy Commissioner, Lower Subansiri district, Ziro by the POWERGRID with endorsement to the Deputy Commissioners of various other districts drawing power through the said transmission line.

While appreciating the urgency of the proposed job, the shutdown cannot be termed as emergency one in any case. Such shutdown should be planned and discussed in the OCC first before going to public notification. A copy of the letter notifying the Deputy Commissioners is enclosed herewith for your necessary reference. In this regard I am to inform you that this unilateral decision of the POWERGRID has created panic among the public of the affected district bringing DOP AP and SLDC to avoidable embarrassment.

Therefore the SLDC, Arunachal Pradesh, Itanagar, is viewing this decision of POWERGRID very seriously and decides to place its protest by not giving consent for the shutdown until the issue is discussed in the forthcoming OCC meeting to be held at Cherapunji. With this you are also requested to include this subject as an agenda item of Arunachal Pradesh in the said OCC meeting.

Yours faithfully,



(Nangkong Perme),
Executive Engineer(E),
SLDC & Transmission Division-II,
Department of Power,
Itanagar – 791 111.

No. SLDC&TD-II/2016-17/W-

Dated, Itanagar the _____ August' 2016.

Copy to:-

1. The Chief Engineer (P) TP & MZ / CEZ / WEZ for information please.
2. North East Regional Load Despatch Centre, Dongteith, Lower Nongrah, Lapalang, Shillong – 793006, Meghalaya for information & necessary action.
3. Office copy.


(Nangkong Perme),
Executive Engineer(E),
SLDC & Transmission Division-II,
Department of Power,
Itanagar – 791 111.

POWERGRID CORPORATION OF INDIA LIMITED
132/33kV Ziro Sub-Station, Ziro
Arunachal Pradesh -791120



Ref: NEZR/VULNERABLE LOC/ RZTL/ 545

Dated: 01/08/16

To,
The Deputy Commissioner,
Lower Subansiri District, Ziro (A.P)

Sub: - Shutdown of 132kv Ranganadi-Ziro Transmission Line.

Sir,

Kindly refer to our earlier letter vide ref. no. NEZR/VULNERABLE LOC/ RZTL/530 Dtd 18.07.2016(copy enclosed) in which we have informed regarding emergency shifting of vulnerable tower location no. 12 of 132 kv Ranganadi - Ziro transmission line. In this connection, it is to inform that as part of immediate arrangement to avert disruption of electricity supply, we are by-passing the vulnerable tower no. 12 by use of emergency restoration system(ERS). The erection portion of the ERS has already been completed and the only work that is left to be done is shifting of conductors from affected tower to ERS. For these activities, we need to take shutdown of 132 kv Ranganadi- Ziro transmission line which delivers electricity to all the districts including yours. The shutdown schedule that we have planned for the transmission Line in question is as follows.

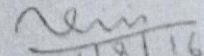
Sl. No.	Name of The transmission Line	Date	Time		Remarks
			From	To	
1.	132kv Ranganadi- Ziro transmission line	04.08.2016	8:00 AM	5:00 PM	Attempt will be to restore line at the end of every working day after 5 PM however in case any work left unfinished, line may not able to charge and line will be shut down continue for next day.
2.	Do	05.08.2016	Do	Do	
3.	Do	06.08.2016	Do	Do	
4.	Do	07.08.2016	Do	Do	
5.	Do	08.08.2016	Do	Do	

Hence, you are requested to kindly co-operate and bear with us for the inconvenience caused during the dates and times as scheduled above.

It is worthwhile to mention that we might extend the shutdown period depending upon the bad weather condition that might hinder our shifting activities.

Thanking you sir,

Yours faithfully,


11/8/16
(Nani Kojin)

Chief Manager, Ziro (A.P.)

Copy To:

1. The Deputy Commissioner, Upper Subansiri, Kra Daadi, Kurung Kumey, West Siang and Papumpare districts (A.P.) for information and cooperation please.

Generation Projection (Oct'16 - Dec'16)

			Generation declared Commercial from 1st Jan '16 to 30th June '16						Generation declared/expected to be declared Commercial from 1st July'16 to 30th Sep'16									
Sl. No.	Entities	Region	Projections based on 3 Years Data	Bus Name	Unit No.	Installed Capacity	Gen. considered	Sub Total	Bus Name	Unit No.	Installed Capacity	Gen. considered	Sub Total	TOTAL	Comments From DICS /Others (if any)	Figure as per Comments/PoC Data	Projected Generation before normalization w.r.t projected All India Peak Demand	
			(MW)			(MW)	(MW)	(MW)			(MW)	(MW)	(MW)	(MW)			(MW)	
1	AGTPP, NEEPCO	NER	91											91	As per NEEPCO	78	78	
2	AGTPP Extn.	NER		AGTPP Extn	1	46	13	13						13		46	46	
3	Doyang, NEEPCO	NER	66											66		54	54	
4	Kopili, NEEPCO	NER	207											207		213	213	
5	Khandong, NEEPCO	NER	58											58		36	36	
6	Ranganadi, NEEPCO	NER	407											407		401	401	
7	AGBPP_Kathalguri	NER	233											233		220	220	
8	TGBP	NER		TGBP	1	65	18	18						18		65	65	
9	Loktak, NHPC	NER	105											105	As per NHPC	105	105	
10	Palatana GBPP	NER	490											490	As per OTPC	529	529	
11	Bongaigaon_NT PC	NER		Bongaigaon_NT PC	1	250	161	161						161			161	
12	Arunachal Pradesh	NER	0											0			0	
13	Assam	NER	344											344			344	
14	Manipur	NER	0											0			0	
15	Meghalaya	NER	229	Meghalaya Power Limited	2	45	29	29						259			259	
16	Nagaland	NER	17											17				17
17	Tripura	NER	105											105				105
18	Mizoram	NER	6											6				6
	TOTAL		2357					221					0	2578				2639

Note:

1. Projections are based on monthly maximum injection in the last 3 years from actual metered data.
2. Generation forecast has been done based on the following criteria
 - (i) If there is an increasing trend then last year average generation has been considered
 - (ii) Otherwise average of past three year average generation has been considered
3. In case of new generators where past data was not available following has been assumed
 - (i) 0.8 plf for hydro generators
 - (ii) 0.7 plf for thermal generators.
 - (iii) 0.3 plf for gas stations
4. In case of the re-organized states of Andhra Pradesh and Telangana Generation is divided in the ratio 53.89% for Telangana and 46.11% for Andhra Pradesh for FY 2012-13 and 2013-14. This is as per letter No.CE/COMML/APPCC/DE-COMML/POC-DATA-15-16/D.No/15 dtd. 09.10.15 as received from APTRANSCO.

DEMAND FORECAST USING PAST 3 YEARS DATA (October 2016 - December 2016)														
	2013-14			2014-15			2015-16			1	2	3	4	Data given by DICs
	Oct-13	Nov-13	Dec-13	Oct-14	Nov-14	Dec-14	Oct-15	Nov-15	Dec-15	2013-14 Average	2014-15 Average	2015-16 Average	Projected Demand for (October 2016 - Dec2016) before normalization	
Arunachal Pradesh	113	120	124	126	116	117	125	118	132	119	120	125	127	
Assam	1,220	1,155	1,065	1,257	1,250	1,204	1,329	1,378	1,312	1,147	1,237	1,340	1,434	
Manipur	111	123	129	134	138	139	146	163	167	121	137	159	177	
Meghalaya	276	298	312	273	338	367	322	335	348	295	326	335	358	
Mizoram	60	65	79	80	80	86	81	89	96	68	82	89	100	
Nagaland	99	96	104	118	115	123	119	120	138	100	119	126	141	
Tripura	250	207	191	266	222	210	269	242	221	216	233	244	259	
N. Eastern Region	2,048	1,966	1,890	2,141	2,125	2,170	2,301	2,352	2,320					

Notes

- Projections are based on the past 3 years' monthly Peak Demand Met data available on the website of CEA
- The above projections are being done for financial year 2016-2017 (Q3) i.e Oct 2016 to Dec 2016
- Projections are being done based on the forecast function available in MS Office Excel
- In case of the re-organized states of Andhra Pradesh and Telangana Maximum Demand is divided in the ratio 53.89% for Telangana and 46.11% for Andhra Pradesh for FY 2012-13 and 2013-14. This is as per letter No.CE/COMML/APPCC/DE-COMML/POC-DATA-15-16/D.No/15 dtd. 09.10.15 as received from APTRANSCO.
- CEA Reports can be accessed from the following links:
http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-12.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-11.pdf
http://www.cea.nic.in/reports/monthly/powersupply/2015/psp_peak-10.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2014_12.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2014_11.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2014_10.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2013_12.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2013_11.pdf
http://www.cea.nic.in/reports/monthly/gm_div_rep/power_supply_position_rep/peak/Peak_2013_10.pdf