North Eastern Regional Power Committee

Agenda
For
95th OCC & 19th PCC Joint Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 12th March, 2014 (Wednesday)

Venue : Hotel Nandan, G.S. Road, Guwahati.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 94th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 94th meeting of Operation Sub-committee held on 18th February, 2014 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2014/7377-7410 dated 26th February, 2014.

CONFIRMATION OF MINUTES OF 18th MEETING OF PROTECTION SUB-COMMITTEE OF NERPC.

The minutes of 18th meeting of Protection Sub-committee held on 18th February, 2014 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2014/7377-7410 dated 26th February, 2014.

No observations or comments were received from the constituents. The Sub-committee may confirm minutes of 94th OCCM & 18th PCCM of NERPC.

ITEMS FOR DISCUSSION

B. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING JAN, 2014

As per the data made available by NERLDC, the grid performance parameters for January, 2014 are given below:

NER PERFORMANCE DURING FEBRUARY, 2014

	Energy Met (MU)			Energy Reqr. (MU)		
States	**Feb-14**	**Jan-14**	**% inc(+)/dec(-)**	**Feb-14**	**Jan-14**	**% inc(+)/dec(-)**
Ar. Pradesh	41.72	**46.93**	-11.1	43.98	**49.51**	-11.2
Assam	506.66	**571.58**	-11.4	547.02	**612.27**	-10.7
Manipur	43.57	**47.89**	-9.0	46.37	**51.71**	-10.3
Meghalaya	130.52	**157.47**	-17.1	146.63	**179.57**	-18.3
Mizoram	36.03	**39.49**	-8.8	37.37	**41.65**	-10.3
Nagaland	43.27	**48.73**	-11.2	45.08	**50.87**	-11.4
Tripura	79.60	**91.62**	-13.1	81.23	**93.00**	-12.7
Region	**881.40**	**1003.7**	-12.2	**947.68**	**1078.59**	-12.1

	Demand Met (MW)			Demand in (MW)		
States	**Feb-14**	**Jan-14**	**% inc(+)/dec(-)**	**Feb-14**	**Jan-14**	**% inc(+)/dec(-)**
Ar. Pradesh	116	116	0.0	119	118	1.2
Assam	1085	1079	0.6	1163	1089	6.7
Manipur	128	129	-0.8	129	129	0.0
Meghalaya	296	330	-10.3	297	343	-13.7
Mizoram	77	82	-5.9	79	84	-5.9
Nagaland	104	106	-1.9	104	107	-2.0
Tripura	206	201	2.5	207	201	3.0
Region	**1929**	**1925**	0.2	**2025**	**2009**	-3.4

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

Month---->	**Feb-14**	**Jan-14**
Total Generation in NER (Gross)	690.96	816.76
Total Central Sector Generation (Gross)	457.48	541.9
Total State Sector Generation (Gross)	233.48	274.86
Inter-Regional Energy Exchange		
(a) NER-ER	17.05	17.26
(b) ER-NER	218.06	221.12
© Net Import	201.01	203.86

AVERAGE FREQUENCY (Hz)

Month---->	**Feb-14**	**Jan-14**
	% of Time	% of Time
Below 49.7 Hz	24.68	0.51
Between 49.7 to 50.2 Hz	69.98	90.06
Above 50.2 Hz	5.34	9.43
Average	50.05	50.03
Maximum	50.71	50.67
Minimum	49.37	49.4

From the above table, it is seen that energy requirement met of the region has decreased considerably.

C.1 Synchronization of Pallatana Module -I

The CoD of Unit # 1 of OTPC was declared on 04.01.2014. Further, it was informed that 2nd Gas Booster Compressor (GBC) has been received from M/s BHEL and the 3rd GBC is still in BHEL's factory at Hyderabad.

During 94th OCC meeting, the constituents were not in favour of shut down of OTPC plant. After detail discussion, the subcommittee agreed for shut down of plant between third week of March 2014 and first week of April 2014 (before Bihu festival) for replacement of filters. GM, OTPC also informed that as per contract, the Performance Guarantee (PG) test has also to be carried out for Unit #1 before the Unit #1 is handed over to OTPC by BHEL and hence cleaning / replacement of filters are to be completed before the PG tests. He further said that trial operation of Unit #2 will be carried out during the shutdown period of Unit#1. As per contract agreement with ONGC, the total quantum of gas to be supplied is 2.650 MMSCMD (for both units) which is sufficient to generate only about 500 to 520MW only. At present ONGC has agreed for supply of 1.8 MMSCMD gas. Hence when Unit # 2 will go for trail operation with full load, the Unit # 1 cannot generate upto its full capacity.

The status of commissioning of second unit of OTPC at Pallatana & Transmission lines reviewed by the Sub-committee iss as follows:

SN	Items	Present status
1	Trial operation of Unit -II of OTPC at Palatana	March 2014 and CoD is expected in June, 2014
2	400KV D/C Silchar - Melriat line	June, 2014
3	400KV D/C Silchar - Imphal line	June, 2014
4	220KV D/C Mariani (New) – Mokokchung	March, 2014
5	400KV D/C Byrnihat-Bongaigaon line	March, 2014 (Byrnihat-Ajara section has been completed)
6	400kV Balipara – Bongaigaon D/C line # 3 & 4 with FSC	March, 2014 [FSC commissioned on 11.01.2014]

The Sub-committee may like to discuss

C.2 SPS scheme for Pallatana

The following four (4) System Protection Scheme (SPS) associated with generating Unit#1 (363.3MW) of OTPC at Palatana has been planned for NER:

Case 1: Tripping of generating unit of OTPC at Palatana

Case 2: Tripping of 400 kV D/C Palatana- Silchar line (with generation from OTPC's plant at Palatana)

Case 3: Tripping of 400 kV Silchar-Byrnihat line (with generation from OTPC's plant at Palatana)

Case 4: Tripping of 400 KV Silchar – Byrnihat line (without generation from OTPC's plant at Palatana)

During 94th OCC meeting, the Sub-committee reviewed the status of implementation of the scheme and the current status is as follows:

Case I & Case IV: Has already been implemented

Case 2-3: GM, OTPC stated that implementation of SPS -2 & 3 mentioned above was discussed in detail and the scheme was finalized in the meeting held with BHEL at Palatana on 17.01.2014. Subsequently some modification has been carried out by BHEL and same will be circulated to all. The commercial offer for implementation of scheme is expected in 10days time and the scheme is will be implemented very soon after completion of procurement process.

OTPC had requested POWERGRID to look into following issues:

(a) SPS at OTPC end should not be modified with commissioning of 2nd Circuit of Silchar _ Bongaigaon 400kV line.

(b) Trip command from two different sources should be available to desynchronize the machine to avoid unwarranted tripping of generating Unit when the generation is more than 200MW. During 93rd OCC meeting, subcommittee had suggested OTPC for getting input from Circuit breakers at both ends of the line (Silchar & Byrnihat) through communication link and to discuss the matter with POWERGRID.

(c) Two out of three logics [i.e inputs from circuit breaker (s), master trip relay (s) etc.] shall be utilized for desynchronisation of Gas Turbines. During 93rd OCC meeting, subcommittee had suggested OTPC to discuss the matter with POWERGRID.

The Sub-committee had expressed concern for delay in implementation of SPS -2 & 3 and requested OTPC to pursue with BHEL for early implementation of the scheme.

The SPS-5, related to tripping of 220kV Misa-Byrnihat D/C line, which was proposed by NERLDC in 93rd OCC meeting, needs to be implemented immediately in view of high tripping rate of these lines. NERTS was requested to examine the proposal.

OTPC / POWERGRID /NERLDC may intimate current status.

C.1 Details of Installations and self-certification (by STUs and CTUs) in respect of operationalisation of Under Frequency Relays (UFRs) in NER systems and additional requirement of UFR and df/dt relays:

During 94th OCC meeting, the Committee reviewed the status of UFR based load shedding as given below:

Ar. Pradesh: EE, SLDC stated that the matter will be taken up with Distribution wing. The committee requested for early identification of feeders for load relief of 20 MW (5 MW in each of 4 stages).

The representative from Ar. Pradesh informed that feeders for UFR based load shedding would be identified and installation of UFRs would be completed very soon. The Sub-committee requested Ar. Pradesh to utilize the existing stand alone UFRs for Stage – I & II of revised UFR based load shedding.

Assam: UFRs based load shedding for 220MWhave been implemented.

Manipur: During 93rd OCC meeting, Manipur had stated that identification of the feeders for the required quantum of UFR based load shedding at different stages will be implemented by January 2014. Status could not be updated as no representative from Manipur was present.

Meghalaya: EE, SLDC stated that due to law and order problem in Garo Hills, one (1) UFR each from NEHU & Nongstoin has been shifted and will be installed at 2x33 KV Mawphlang S/S. The Sub-committee requested Meghalaya to complete the work associated with utilization of the existing standalone UFRs for Stage – I & II of revised UFR based load shedding by February, 2014 and to complete the installation of UFRs for Stage – III &IV by April 2014.

Mizoram: Status could not be updated as no representative from Mizoram was present.

Nagaland: EE, SLDC stated that UFR for stage – III is already in place and installation of UFRs for Stage – I & II will be completed by February, 2014 and installation of UFRs for Stage – IV will be completed by April, 2014.

Tripura: The Sub-committee requested Tripura to complete the work associated with utilization of the existing standalone UFRs for Stage – I & II of revised UFR based load shedding by February, 2014 and to complete the installation of UFRs for Stage – III &IV by April 2014.

All constituent states of the region, except Ar. Pradesh and Manipur, have identified the feeders for UFR based load shedding. The details of UFR based load shedding is given at **Annexure – C.3.**

The Sub-committee requested that installation of UFRs for stage – I&II should be completed by February, 2014 and that for remaining stage – III & IV by April, 2014.

The Sub-committee may now like to know about the status of implementation of UFRs based load shedding in respect of (Meghalaya, Mizoram, Tripura and Nagaland) and discuss about the identification of the feeders, the quantum of UFR based load shedding at different stages and implementation plan of Ar. Pradesh and Manipur.

C.2 Lines under long outages

During the 94th OCC meeting, the issue for restoration of these lines was reviewed by the committee and the status was as follows:

a) 220kV BTPS – Agia line (one ckt) – [Since Nov'97]: Material has already been procured and the target for completion of work is **June, 2014.**

b) 132kV Mariani – Mokokchung line - [Since Apr'02]

During 93rd OCC meeting, SDO, DoP, Nagaland had informed that the work associated with replacement of insulators in the section of line within Nagaland territory has been completed and the line was test charged in January, 2014 from Mokokchung till Langtho (the border point of Nagaland) and now the remaining portion from Langtho – Mariani, which is under the jurisdiction of Assam, has to be completed by Assam. Assam had requested Nagaland to write to their concern Authority regarding charging of the line so that the line can be revived at the earliest. The Sub-committee had requested Nagaland to give a copy of communication to NERPC Secretariat so that the same can be pursued by them with Assam. Nagaland agreed. AGM of Assam had requested Nagaland to check the adequacy of CT ratio at Mokokchong end and had enquired about the test charging voltage level. DGM, POWERGRID had requested Nagaland to check their CT ratio before charging the above line.

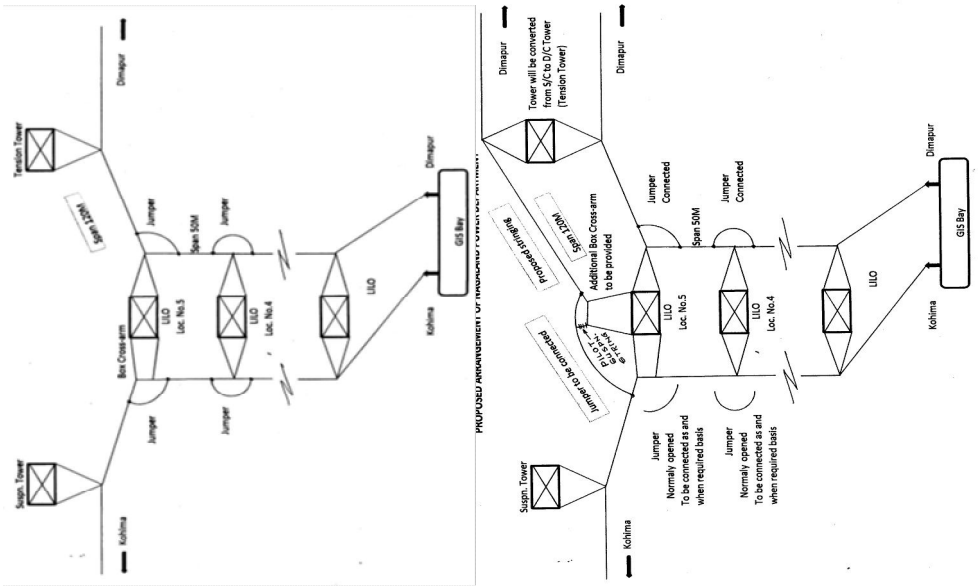
During 94th OCC meeting, the Sub-committee requested Nagaland to contact the concerned officer of Assam at Mariani substation and settle the matter as early as possible.

c) 39km of 132kV Rengpang – Jiribam line – [Since Oct'02]

During 93rd OCC, EE, DoP, Manipur informed that site for relocation of new tower (due to ground clearance problem causeddue to road cutting by BRTF) has been identified and the work is in progress and line would be charged by February, 2014.

During 94th OCC meeting, status could not be updated since no representative from Manipur was present.

d) LILO of 132 kV Dimapur (Nagaland) – Kohima (Nagaland) line at 220/132 kV Dimapur (PGCIL) Substation- [Since Aug'11]:



Before Modification After Modification

During 94th OCC meeting, DGM, POWERGRID had informed that the project proposal for suggested modification (i.e. incorporation of additional Box Cross Arm at Tower Location No. 5), submitted to their corporate office at Gurgaon, is likely to be approved very soon.

During 93rd OCC meeting, the subcommittee had suggested DoP, Nagaland to utilize the LILO arrangement at GIS substation at Dimapur for the connectivity to Kohima. The EE, SLDC, Nagaland informed that the CB of GIS bay tripped on 6th February 2014 while the line was operating through LILO arrangement. The DGM POWERGRID informed that the problem with the CB of GIS bay would be rectified by 20th February 2014 and requested Nagaland to use the LILO arrangement at Dimapur GIS substation of POWERGRID. Nagaland agreed.

POWERGRID/ Nagaland/Manipur may kindly intimate the current status.

C.3 Release of day ahead drawal schedule based on actual requisition by Constituents instead of open and full capacity requisition:

During 91st OCC meeting, DGM, TSECL stated that while NERLDC considered the technical minimum limits of the stations as declared by the generators, they should also consider technical minimum limit / generation capacity of the generating plants of Tripura while requesting for reduction of state generation.

DGM, NERLDC stated that they are honouring the technical minimum capacity declared by ISGS for preparation of schedule. Regarding reduction of state generation in case of contingency, he suggested to adjust generation of different units maintaining individual generation either on lower side or higher side outside the dead bands of units.

During the meeting held on 07.02.2014 at NERLDC, Shillong, the issue was raised again by Tripura. They requested the forum to analyze the common issue faced by generators as well as the beneficiaries so that a clear mechanism can be followed while implementing the requisition. The forum suggested NERPC/NERLDC to look into the matter so that the same can be discussed and finalized.

During 94th OCC meeting, SE (O) informed that issue of technical minimum has been raised by the constituents number of times.

SE (O) highlighted about the deliberations of OCC meeting of WRPC regarding minimum technical level of generation by thermal generating stations in WR and the matter will be deliberated further in next OCC meeting for finalization of technical minimum level for different generating stations of NER in line with other region so that beneficiaries can give their requisition accordingly.

The Committee may like to discuss and finalize the Techno Economic Minimum / technical minimum for generating stations.

C.4 Deviation Settlement issued by CERC:

As decided in the 93rd OCC meeting, NERPC/NERLDC had arranged the meeting regarding deviation settlement issued by CERC on 07.02.2014 at Shillong. During the meeting, NERLDC had highlighted the pros & cons of the above regulation and the committee thanked and appreciated NERLDC for giving the presentation on deviation settlement mechanism.

During 94th OCC meeting, the representative of TSECL informed that in their opinion “Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matter) Regulations, 2014” in its present form is not suitable for small region like NER and accordingly review petition has been filed by TSECL and requested for support of NER constituents for favourable disposal of the petition. The following issues were raised by the beneficiaries and Generating companies of the region during the deliberation:

1. NER is the smallest of all five regions in the country in terms of installed capacity and energy requirement and is different from other regions in number of ways. The maximum demand and energy demand met of the region is about 1300MW (off-peak) – 2200MW (peak) and 32MU - 37MU per day respectively. The maximum demand and energy demand met of small

states like Ar. Pradesh, Manipur, Mizoram and Nagaland is of the order of 70MW-120MW and 1.2MU-1.5MU per day respectively. The geographic location, terrain category and climate & weather condition of states of the region is different from other regions. Unlike other regions, the generating stations of this region are predominantly Gas based or Hydro based, Gas based stations are operating as base load plants and at present there is no coal / lignite based thermal power plant in the region. Working months are very limited. Most of the transmission lines passes through hilly & difficult terrain, dense forest and crosses major rivers like Brahmaputra etc.

2. 132kV network constitute the back bone of transmission system unlike other regions. Most of the 132kV lines are S/C lines, redundancy level is very low and N-1 criteria cannot be applied in many corridors as some of the important links are S/C. The redundancy level and transformation capacity is also inadequate at many substations. The transmission constraints in other region, particularly in ER, restrict the TTC/ATC limit resulting in curtailment of STOA.

3. This is the only region in the country where four states (Ar. Pradesh, Manipur, Mizoram, and Nagaland) are without proper SLDC. It is difficult to monitor grid parameters, over drawal / under drawal without fully functional SLDC.

4. All Gas based power plants of NER have contract agreement with Gas supplying agencies like ONGC / GAIL. The reduction in utilization of quantum of gas supply below a certain level (say 80% or 90%) of the contracted quantum raises contractual issues with the gas supplying agencies and attracts penalty.

5. Due to shortage in supply of required quantum of gas, the full capacity of machine is not being utilized.

6. Over the years the quality of gas supplied by the agencies like ONGC / GAIL has deteriorated. The reduction in calorific value of gas has resulted in increase in requirement of quantum of gas for same output. This has necessitated enhancement of capacity of engine & compressor and in absence of which frequent tripping of Generating Units have been experienced resulting in loss of generation and overdrawal by utilities during that period.

7. During monsoon period / during unexpected heavy rain fall, increase in generation by generators due to sudden inflow in Run of the River (ROR) based hydro stations results in forced under drawal by utilities / beneficiaries. It is pertinent to mention that under such situation the states like Assam, Meghalaya and Tripura are forced to back down their own generation to avoid underdrawal. But small states like Ar. Pradesh, Manipur, Mizoram, and Nagaland have hardly any generation of their own to back down to avoid underdrawal.

8. Sudden load crash, due to disruption of distribution network of the utilities, is a common phenomenon in NER during monsoon period / during unexpected heavy rain fall. Utilities / beneficiaries of NER are forced to go in underdrawal mode and surplus power cannot be sold on Power exchange because of day ahead concept and transmission constraint in evacuation of surplus power outside the region. Moreover, the utilities will have to pay unnecessarily the Capacity Charge for the DC of generators till the revival of the distribution system, which normally takes 2-12 hours depending on severity of damage. In the process the utilities are penalized heavily. Although in four (4) time blocks, the schedule of generation is modified by RLDC, but it is limited to technical minimum declared / specified by generating company.

9. The Unit size of Gas based power plant of NEEPCO is small of the order of 21 MW (GT) / 63.5MW (GT: 33.5MW + ST: 30MW). But the Unit size of Combined Cycle Gas based power plant of OTPC is of order of 363.3MW (GT: 232.39MW + ST: 130.91MW), the biggest gas based generating Unit in the region, which cannot operate in open cycle mode and constitute about 28% of off-peak demand of the region (i.e about 1300MW). The availability and non-availability of such unit affect drastically the drawal pattern of beneficiaries / utilities and leads to deviation from schedule, which would attract penalty to generators / beneficiaries. Similar is the situation in case of Ranganadi HEP with installed capacity of (3x135MW).

10. In the regulations of CERC, there is no mention about techno-economic / techno-commercial minimum generation for the generating stations of Gas / Thermal based power plants. But in general the DC of Generators of gas based power plants is found to be above certain level (techno-economic / techno-commercial minimum) so that PAFM as per CERC norm is achieved and quantum of gas supply do not go below a certain level in order to avoid penalty of gas supply agency (s), even if demand is not there.

Subcommittee suggested that keeping in view the above facts, the TSECL may request Hon'ble commission to look into interest of both generators and Utilities / consumers of NER as far as Regulations of CERC on Deviation settlement Mechanism and related matter is concerned.

Committee may like to review the issue.

C.6 <u>Monthly MU requirement & availability of each state of NER as per format:</u>

The following figures of state wise MU requirement and availability were taken from LGBR 2014-15 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	Mar14	Apr14	May14	Jun14	Jul14
Ar. Pradesh	43.81	59	50	57	61
Assam	538.87	505	605	645	725
Manipur	45.06	36	48	49	59
Meghalaya	168.29	165	165	145	160
Mizoram	38.08	36	36	36	39
Nagaland	46.74	50	56	54	60
Tripura	103.83	100	110	105	120
NER	**984.67**	**951**	**1070**	**1091**	**1224**

Availability:

Name of State	Mar14	Apr14	May14	Jun14	Jul14
Ar. Pradesh	33.17	45	51	62	79
Assam	389.73	435	484	554	666
Manipur	48.00	53	59	66	85
Meghalaya	112.41	147	174	211	279
Mizoram	40.98	35	42	47	56
Nagaland	35.54	39	36	47	58
Tripura	97.09	150	160	164	180
NER	**756.92**	**904**	**1006**	**1151**	**1403**

- *These data required for preparation of various reports.*

Constituents may kindly furnish the data to NERLDC.

D. N E W I T E M S

D.1 Generation Planning (ongoing and planned outages)

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

Khandong – MU
Kopilli – MU
Ranganadi - MU
Doyang – MU
Loktak – MU
Pallatana - MU

Hydro generation planning for lean hydro period - With the onset of winter season, reservoir levels in all the hydro stations have started depleting. Hence proper planning is required to utilize the available water for entire lean hydro period, say upto April, 2014.

The Committee may discuss and approve the proposed shutdown by Generating Stations at **Annexure – D.1**.

D.2 Outage Planning Transmission elements

The sub-Committee may kindly discuss and approve the transmission line outages proposed by Constituents for March - April, 2014 as enclosed at **Annexure- D.2 (A, B & C)**.

The sub-Committee may kindly discuss.

D.3 (A) Power Cut/Restrictions on Industries:

a) All industries are allowed to run their units on all days of week & if they want to avail staggered holiday, then they will have to stagger on notified day only & cannot avail as per their choice.

b) All industries are required to keep their recess timings staggered.

Name of State	Details	Quantum of power cut (MW)	Restriction Timing		Total Energy cut (MUs/day)
			From	To	
	(a) Power restrictions (evening peak hour) on non continuous process HT/LT Industries (b) Load shedding				
	(c) Other information 1. Weekly off 2. Staggering of power supply				

The Sub-Committee may like to discuss.

D.3 (B) Power supply to Agricultural Sector & Rural Sector (Annexure – D.5B):

Name of State	Details	From Date	To Date	Supply Hours per day		
				Max (hrs)	Min (hrs)	Average (hrs)
	3-phase supply (DLF)					
	3-phase supply (Irrigation)					

The Sub-Committee may like to discuss.

D.3 (C) Power supply to Rural Villages:

Name of the State:

Month & Year:

Total Electrified villages			RGGVY villages		Hours of Supply						Energy supplied in Rural Areas during the month (MU)
Total No. of inhabited villages as per 2011 census	No. of inhabited villages Electrified	No. of electrified villages where power supply is provided for minimum 6 Hrs every day during the month	No. of villages electrified under RGGVY	No. of electrified villages under RGGVY where power supply is provided for minimum 6 Hrs. every day during the month	In villages electrified under RGGVY			In Other Villages			
					Min.	Max.	Avg.	Min.	Max.	Avg.	

SE (O) stated that so far no constituents have furnished the above data and once again requested the constituents to furnish the above data every month as the same is to be submitted to CEA & MoP on monthly basis. Assam stated that all the above

information is available with Distribution Company (DISCOM) and requested NERPC to write to them. The same was supported by Meghalaya & Tripura. The Sub-committee requested all the concerned constituent states to forward the information to their respective Distribution Divisions and at the same time NERPC will also pursue the matter with their DISCOMs.

The Sub-Committee may like to discuss.

D.4 LGBR for 2014 - 2015:

The LGBR for 2014 -15 for NE Region is required to be finalized. All the constituents are requested to submit the data for preparation of LGBR at the earliest as per the proforma given at **Annexure – D.4.** The formats include the outage planning for Generating units as well as important transmission elements in state and central sector.

Meanwhile NERPC has prepared the draft LGBR regarding the demand and availability in MWs & MUs for 2014-2015.

Constituents may kindly check the draft LGBR prepared and also requested to submit the above data in the format furnished by NERPC at the earliest.

Constituents are requested to kindly submit the above data in the format furnished by NERPC at the earliest.

D.5 Estimated Transmission Availability Certificate (TAC) for the month of February, 2014.

The Estimated Transmission System Availability for the month of February, 2014, furnished by PGCIL, is **99.9820%.** The detail outage data for calculation of TransmissionSystem Availabilityfurnished by PGCIL, is at **Annexure D.5.** NER constituents are requested to kindly communicate their views and observations, if any, by 27th March, 2014 so that Final TAC for the month of February, 2014 may be finalized by NERPC Secretariat.

The Sub-Committee may like to discuss.

D.6 Grid connectivity to Tawang areas of Ar. Pradesh:

During 94th OCC, EE, SLDC informed that NIT has already been floated for construction of 132 KV S/C line from Khupi-Bomdila-Dirang-Tawang. The committee suggested that Ar. Pradesh should go for construction of D/c line as the ROW problem, forest clearance issues are becoming difficult day by day.

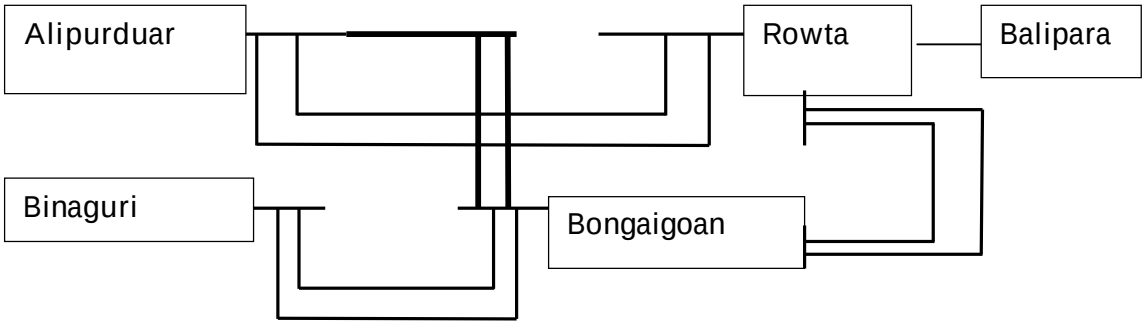
Ar. Pradesh may express their view in this regard.

D.7 Grid strengthening for safe and secure operation of NER grid:

During 93rd OCC meeting following proposal was discussed for safe and secure operation of NER Grid.

More in feed points need to be planned and implemented for improving reliability and security of NER Grid. At present NER Grid is connected to rest of NEW Grid through Bongaigaon and Salakati Sub-Station. As per Master Plan of HEPs in Arunachal Pradesh of CEA, there will be +/- 800 kV HVDC Sub-Station at Rowta and LILO of 400 kV Balipara – Bongaigaon I & II and LILO of 400 kV Balipara – Bongaigaon III & IV will at Rowta. AC part of +/- 800 kV Rowta HVDC S/S along with these LILO arrangements may be programmed for early completion. The 400 kV Rowta – Bongaigaon III & IV may be modified as 400 kV Rowta – Alipurduar D/c and 400 kV Alipurduar - Bonaigaon D/c for creating one more in feed point for NER.

Thus proposed scheme drawing is as follows:



With above modification, NER will have one more connectivity with ER, in case there is any problem (say bus fault) at Bongagoan Sub-station.

The Committee may like to discuss the matter

D.8 Major grid disturbances in the previous month (February, 2014)

As intimated by NERLDC, there was no major grid disturbance during the month of February, 2014 pertaining to NER.

Members may kindly note.

D.9 Any other item:

E. NEW ITEMS

E.1 Standardization of Protection Scheme for Generating stations in NER:

During 13th PCC meeting, the Sub-committee had suggested that Generator protection Philosophy including protection for Generator Transformer (GT), Unit Auxiliary Transformer (UAT), Station Auxiliary Transformer (SAT), Excitation Transformers should also be prepared and had requested all the Central sector and State sector Generating companies in NER (NEEPCO, NHPC, NTPC & OTPC; Assam, Meghalaya, Tripura) to furnish their practices. A draft document was prepared and circulated to all.

During 17th PCC meeting, the subcommittee had reviewed the Protection Philosophy for Generator [Hydro / Thermal (Coal / Gas based) Generator], Generator Transformer (GT), Unit Auxiliary Transformer (UAT), Station Auxiliary Transformer (SAT) / Station Supply Transformer (SST), Excitation Transformer. The Sub-committee had requested NHPC and OTPC to prepare protection philosophy for Generator, GT, UAT & SAT separately for Hydro Power Plants and Gas Based Power Plants respectively taking the help of draft document.

OTPC informed that they will look into the matter and informed accordingly.

The Sub-committee may like to discuss.

E.1 Major Events in North-Eastern Regional Grid during the period February, 2014

NERLDC may kindly intimate any major events/trippings during February, 2014 & Sub-committee may like to discuss.

Date and Venue of next OCC

It is proposed to hold the 96th OCC meeting of NERPC on first week of April, 2014. As per roaster, Mizoram will be the host for 96th OCC meeting. The exact venue will be intimated in due course.

****

Annexure - C. 3

SN	Name of State	Total Quantum of Load Shedding required	Location where URF installed (Feeder's Name)	Stage	Load in each feeder	Quantum of Load shedding (MW) implemented	Additional quantum of load shedding required
1	Ar. Pradesh	**20**	**At Satyam Ispat** (11 KV Banderdewa - Satyam Ispat)	Stage - I (49.2 Hz)		**3.5**	**1.5**
			To be identified	Stage - II (49.0 Hz)		**0**	**5**
			To be identified	Stage - III (48.8 Hz)		**0**	**5**
			To be identified	Stage - IV (48.6 Hz)		**0**	**5**
2	Assam	**220**	**At Gauripur** (132 KV Dhaligoan - Gossaigoan - Gauripur)	**Stage - I (49.2 HZ)**	16	**54.5**	**0**
			At Sipajhar (132 KV Depota - Rowta - Sipajhar)		10		
			At Dhemaji (132 KV Gohpur - Nalkata - Dhemaji)		11		
			At Majuli (132 KV Nalkata - Majuli)		2.5		
			At Baghjap (132 KV Kahilipara - Chandrapur - Baghjap)		15		
			At Diphu (132 KV Samaguri - Sankardev - Diphu)	**Stage - II (49.0 Hz)**	11	**61**	**0**
			At Gohpur (132 KV Samaguri - B. Chariali - Gohpur)		8		
			At Rupai (132 KV Tinsukia - Rupai + AP Load)		17		
			At Jogighopa (132 KV Dhaligoan - Jogighopa)		7		
			At Sankardevnagar (132 KV Samaguri - Sankardevnagar)		18		

SN	Name of State	Total Quantum of Load Shedding required	Location where URF installed (Feeder's Name)	Stage	Load in each feeder	Quantum of Load shedding (MW) implemented	Additional quantum of load shedding required
2	Assam		**At Gossaigoan** (132 KV Dhaligoan - Gossaigoan)	**Stage - III (48.8 Hz)**	7	**59**	**0**
			At Rowta (132 KV Depota - Rowta)		18		
			At Chandrapur (132 KV Kahilipara - Chandrapur)		12		
			At Nalkata (132 KV Gohpur - Nalkata)		11		
			At Bokakhat (132 KV Jorhat - Bokakhat)		11		
			At Sishugram (132 KV Sarusajai - Sishugram)	**Stage - IV (48.6 Hz)**	45	**57**	**0**
			At Ledo (132 KV Tinsukia - Ledo)		12		
3	Manipur	**20**	**At Yurembam** (33 KV Yurembam - Leimakhong)	**Stage - I (49.2 Hz)**		**3**	**2**
			To be identified	**Stage - II (49.0Hz)**		**0**	**5**
			To be identified	**Stage - II (48.8Hz)**		**0**	**5**
			To be identified	**Stage - II (48.6Hz)**		**0**	**5**
SN	**Name of State**	**Total Quantum of Load Shedding required**	**Location where URF installed (Feeder's Name)**	**Stage**	**Load in each feeder**	**Quantum of Load shedding (MW) implemented**	**Additional quantum of load shedding required**

4	Meghalaya	**60**	**At Nangalbibra** (33 KV Mendipathar - Nangalbibra)	**Stage - I** **(49.2 Hz)**	6.5	**15**	**0**
			At Rongkhon (33 KV Garobadha I - Rongkhon)		8.5		
			At Mawphlang (132/33 KV, 20 MVA Transformer)	**Stage - II** **(49.0 Hz)**		**15**	**0**
			At Khliehriat (132/33 KV, 20 MVA Transformer)	**Stage - III** **(48.8 Hz)**	12	**15**	**0**
			At Nongstoin (33 KV Nongstoin - Mairang)		3		
			At Mawlai (33 KV Mawlai - Nongthymmai)	**Stage - IV** **(48.6 Hz)**	7.5	**15**	**0**
			At NEHU (33 KV NEHU - Happy Valley)		7.5		
5	Mizoram	**20**	**At** 132 KV Khawiva (33 KV Khawiva - Sazaikawn)	**Stage - I** **(49.2 Hz)**	2.38	**5.09**	**0**
			At Bukpui (33 KV Bukpui - Chhingchhip)		2.71		
			At Zuangtui (6.3 MVA, 33/11 KV Transformer - I)	**Stage - II** **(49.0 Hz)**	5.31	**5.31**	**0**
			At Zuangtui (6.3 MVA, 33/11 KV Transformer - II)	**Stage - III** **(48.8 Hz)**	4	**5.1**	**0**
			At Tlangnuam (33 KV Tlangnuam - Aibawk)		1.1		
			At Chawnpui (6.3 MVA, 33/11 KV Transformer - I)	**Stage - III** **(48.6 Hz)**	3	**5.2**	**0**
			At Zuangtui (11 KV Zuangtui - Chaltlang)		2.2		
SN	**Name of State**	**Total Quantum**	**Location where URF installed (Feeder's**	**Stage**	**Load in each**	**Quantum of Load**	**Additional**
			At Mokokchung (66 KV Mokokchung - Tuli)	**Stage - I** **(49.2 Hz)**		**6**	**0**

6	Nagaland	**20**	**At** Dimapur (33 KV Dimapur - AP -I)	**Stage - II (49.0 Hz)**		**4.5**	**0**
			At Kohima (132 KV Kohima - Wokha)	**Stage - III (48.8 Hz)**		**5**	**0**
			At Dimapur (33 KV Dimapur - Refferal Hospital)	**Stage - IV (48.6 Hz)**		**4.5**	**0**
7	Tripura	**40**	**At Badharghat** (33 KV Badarghat - Bishalghar)	**Stage - I (49.2 Hz)**	8.5	**11**	**0**
			At Badharghat (33 KV Badarghat - Takarjala)		2.5		
			At 66 KV Rabindra Nagar (33 KV Rabindra Nagar - Melaghar)	**Stage - II (49.0 Hz)**	6.5	**10**	**0**
			At 66 KV Rabindra Nagar (33 KV Rabindra Nagar - Kathalia)		3.5		
			At 79 Tilla (33 KV, 79 Tilla - Mohanpur)	**Stage - III (48.8 Hz)**	7.5	**14.5**	**0**
			At 79 Tilla (33 KV, 79 Tilla - Durjoy Nagar)		7		
			At 79 Tilla (33 KV, 79 Tilla - College Tilla)	**Stage - IV (48.6 Hz)**		**12.5**	**0**

Note: **The inbuilt UFR of existing Numerical Relay at identified locations (at 132 KV level) of Assam, Meghalaya & Tripura can be used for above purpose. Existing UFR can also be shifted to new locations, wherever required.**

In respect of Ar. Pradesh, Manipur, Mizoram & Nagaland: Setting of existing UFR needs to be changed in case they use the same Feeder. (i.e. 48.8 Hz to be set to 49.2 Hz for Stage - I), (48.5 to be set to 49.0 Hz for Stage - II) & (48.2 Hz to 48.8 Hz for Stage - III) Feeder is to be identified at the earliest for remaining quantum of load shedding of other stages of 48.8 Hz & 48.6 Hz.

STATUS OF UFR IMPLEMENTATION IN NER

Stage	Load shed Required	Implemented	To be Implemented
Stage - I (49.2 Hz)	100 MW	98.09	1.91
Stage - II (49.0 Hz)	100 MW	95.8	4.19
Stage - III (48.8 Hz)	100 MW	98.6	1.4
Stage - IV (48.6 Hz)	100 MW	94.2	5.8
TOTAL	400 MW	386.69	13.3

एन एच पी सी लिमिटेड
(भारत सरकार का उद्यम)
NHPC Limited
(A Govt of India Enterprise)

LOKTAK POWER STATION
Komkeirap,Manipur - 795124
Tel No. 03879 261419, Fax 261740
Email: lokhydro@hotmail.com
Certified ISO 14001:2004 &
ISO 9001:2000

NH/LOK/PH/COR-3 **Date: 23/02/2014**

To,

The Member Secretary,
NERPC, Meghalaya State Housing Co-operation Society Ltd,
Nongrim Hills
Shillong-793003

Sub: Agenda for 95th OCC meeting.

Sir,

The preventive annual maintenance program of Loktak Unit-2 is planed w.e.f. 01-04-2014 to30-04-2014. The shut-down programme may kindly be approved during 95th OCC meeting.

This is for your kind information and necessary action please.

Yours faithfully,

23/2/14

(R.C. Singh)
Manager (E)/PHD
Loktak Power Station

Copy to:-

1. The GM (O &M). CO, Faridabad.
2. The CE (I/C), Loktak Power Station, Manipur.
3. The DGM, NERLDC, Shillong

For kind information please.

PROPOSED SHUTDOWN OF ELEMENTS FOR 95TH OCC MEETING

1. Transmission Lines

SL. No.	Name of Transmission Line		Purpose	Areas/Feeders affected
TRANSMISSION LINES				
1	132KV S/C Haflong-Jiribam line	13.03.2014 (8:00 Hrs) to 17.03.2014 (17:00 Hrs) **Cont.SD**	Fot installation of additional tower in the span between loc.175-176 for enhanced ground clearance	132KV S/C Haflong-Jiribam line
2	132KV S/C Badarpur-Jiribam line	19.03.2014 (8:00 Hrs) to 25.03.2014 (17:00 Hrs) **Cont.SD**	For installation of new towers in the span loc.15 to loc.17 & stringing thereof on account of Highway Construction.	132KV S/C Badarpur-Jiribam line
3	132KV S/C Loktak-Imphal-II	18.03.2014 (8:00 Hrs) to 21.03.2014 (17:00 Hrs) **Cont.SD**	for facilitating stringing of 400kV Silchar-Imphal line at power line crossing section	132KV S/C Loktak-Imphal-II
4	400KV D/C Silchar-Byrnihat(NETC) line	27.03.2014 to 30.03.2014(7:00 to 15:00 Hrs)	Re-alignment of the line section between loc.184/0 to loc.185/0 of Silchar-Byrnihat line. The work involves destringing of the existing section 184/0-184A/0-185/0 & restringing thro' new towers.	i) 400KV Silchar-Byrnihat ii)220KV Misa-Byrnihat iii)11KV Sarutari feeder iv) Local LT line v)33KV Satyam-Bimla line of BDSB-1, Norbong S/s v)11KV line BDSB-2, Byrnihat S/s
5	220KV D/C Misa-Byrnihat line	27.03.2014 to 30.03.2014 (7:00 to 15:00 Hrs)		
6	132KV Badarpur-Khliehriat line	31.03.2014(7:00 to 15:00 Hrs)	For replacement of Insulator strings in the section 159-160 with heavy deposit of emissions by Cement Factory nearby.	132KV Badarpur-Khliehriat line
7	220KV Balipara-Samaguri line	27.03.2014 to 31.03.2014(8:00 to 16:00 Hr)	For facilitating stringing on new towers in connection with shifting of line section 22-25(Rly Gauge conversion)	220KV Balipara-Samaguri line
8	220KV Misa-Samaguri-I	21.03.2014(7:00 to 15:00 Hrs)	Replacement of Isolator hanger assembly. Isolators are more than 25 yrs old.	220KV Misa-Samaguri-I
9	220KV Misa-Samaguri-II	22.03.2014(7:00 to 15:00 Hrs)	Replacement of Isolator hanger assembly. Isolators are more than 25 yrs old.	220KV Misa-Samaguri-II
10	220KV Misa-Kopili-III	25.03.2014 to 31.03.2014(8:00 to 16:00 Hr)	Mass Replacement of defective Insulators identified thro' PID.	220KV Misa-Kopili-III
11	220KV D/C Agia-BTPS(AEGCL) line	27.03.2014 to 30.03.2014(8:00 to 16:00)	For facilitating stringing of 400KV Balipara - Bongaigaon line between loc.20/0 & 21/0(power line crossing)	220KV D/C Agia-BTPS(AEGCL) line
12	132KV Agartala-Agartala-II	27.03.2014(8:00 Hr) to 29.03.2014(16:00) **Cont. SD**	For facilitating complete replacement of 3 Sets old/obsolete Isolators at 79Tillah S/s(TSECL).	(i)132KV Agartala-Agartala-II (**Cont. SD**) (ii) 132KV 79 Tilla-Dharmanagar(**Daytime S**D) (iii) ICT- 4,5 & 6 at 79 Tillah S/s (**Day Time SD**)
13	400KV Misa-Balipara-I & II	02.04.2014 to 04.04.2014(8:00 to 15:00)	For destringing of existing earthwire in between the span loc.298 -299 of 220KV Samaguri-Sarusajai line & restringing in diamond configuration for facilitating	400KV Misa-Balipara-I & II

14	220KV Samaguri-Sarusajai-I & II	02.04.2014 to 04.04.2014(8:00 to 15:00)	adequate clearance at power line crossing. **The shutdown was put up for approval in 94th OCCM but was not granted.**	220KV Samaguri-Sarusajai-I & II
15	220KV D/C Salakati-BTPS line	11.03.2014 to 13.03.2014	For facilitating stringing of 400KV Balipara - Bongaigaon quad line between loc.1/1 & 6/0	220KV D/C Salakati-BTPS line
16	132KV Salakati-Gelephug line	07.04.2014 to 09.04.2014(7:00 to 15:00)	For replacement of broken insulator strings damaged due to lightning.	132KV Salakati-Gelephug line
17	132KV Aizawl-Jiribam line	01.04.2014(8:00 to 16:00 Hrs)	Anuual Maintenance Program	132KV Aizawl-Jiribam line
2. SUBSTATIONS				
SN	**Name of Substation**		**Purpose**	
1	**132KV Ziro Substation**			
i	132/33KV, 15MVA ICT	13.03.2014(8:00 Hrs) to 15.03.2014(15:00 Hrs)	For taking out B-ph unit for precautionary checking & putting spare phase in service.	132/33KV, 15MVA ICT
2	**400KV Silchar S/s**			
i	400/132KV, 200MVA ICT-II	17.03.2014 & 18.03.2014(8:00 to 15:00)	For post commissioning statutory inspection/checking by OEM	400/132KV, 200MVA ICT-II
3	**400KV Balipara S/s**			
i	400KV Bongaigaon-I Tie Bay	13.03.2014 to 13.04.2014(Cont. SD)	For facilitating erection works of new Tie bays connected to 400KV Biswanath Chariali-I & II bays.**The shutdown was put up for approval in 94th OCCM but was not granted.**	400KV Bongaigaon-I Tie Bay
ii	400KV Bongaigaon-II Tie Bay	17.03.2014(8:00 to 15:00 Hrs)	AMP	400KV Bongaigaon-II Tie Bay
iii	400/220KV ICT Main Bay	13.03.2014(8:00 to 15:00 Hr)	AMP	ICT shall remain in service thro' Tie bay
iv	400/220KV ICT Tie Bay	14.03.2014(8:00 to 15:00 Hr)	AMP	ICT shall remain in service thro' Main bay
v	400KV Bongaigaon-II Main Bay	15.03.2014(8:00 to 15:00 Hr)	AMP	400KV Bongaigaon-II Main Bay
vi	400KV,50MVAR Ranganadi-1 Reactor bay	18.03.2014(8:00 to 15:00 Hr)	AMP	Ranganadi Line reactor-I
4	**220/132KV Dimapur S/s**			
i	132KV Dimapur(State)-I bay	13.03.2014(8:00 to 15:00 Hr)	For attending Hotspots & replacement of damaged jumpers	132KV Dimapur(PG)-Dimapur(State)-I line
5	**400KV Bongaigaon Substation**			
i	400KV New Siliguri-II Main Bay	15.04.2014(7:00 to 15:00 Hr)	Replacement of existing CTs with overhauled CTs	400KV New Siliguri-II Main Bay
ii	400KV Main Bus-II	29.03.2014 & 31.03.2014 (7:00 to 15:00 Hrs)	For facilitating replacement of existing Twin Strung Bus with Quad Strung Bus in Balipara-I Main Bay.**The shutdown was put up for approval in 94th OCCM but was not granted.**	(i)400KV Balipara-Bongaigaon-I, 80MVAR Bus Reactor-III & IV will remain continuously out from 29.03.14 to 31.03.14.(ii)All other feeders shall remain in service through Main Bus-I

ANNEXURE - I

APPROVED SHUTDOWN OF ELEMENTS 22.01.14 to 15.03.14

SN	Name of Element	Affect on telemetry /SCADA	Mar'14 12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	April'14 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Time
1.TRANSMISSION LINES																																																				
	132KV S/C Haflong-Jiribam line	**Haflong data**																																																		13.03.2014 (8:00 Hrs) to 17.03.2014 (17:00 Hrs)
	132KV S/C Badarpur-Jiribam line	Jiribam data																																																		19.03.2014 (8:00 Hrs) to 25.03.2014 (17:00 Hrs)
	132KV S/C Loktak-Imphal-II	Loktak data																																																		18.03.2014 (8:00 Hrs) to 21.03.2014 (17:00 Hrs)
	400KV D/C Silchar-Byrnihat(NETC) line	No effect																																																		27.03.2014 to 30.03.2014(7:00 to 15:00 Hrs)
	220KV D/C Misa-Byrnihat line	Byrnihat data																																																		27.03.2014 to 30.03.2014 (7:00 to 15:00 Hrs)
	132KV Badarpur-Khliehriat line	No effect																																																		31.03.2014(7:00 to 15:00 Hrs)
	220KV Balipara-Samaguri line	No effect																																																		27.03.2014 to 31.03.2014(8:00 to 16:00 Hr)
	220KV Misa-Samaguri-I	No effect																																																		21.03.2014(7:00 to 15:00 Hrs)
	220KV Misa-Samaguri-II	No effect																																																		22.03.2014(7:00 to 15:00 Hrs)
	220KV Misa-Kopili-III	No effect																																																		25.03.2014 to 31.03.2014(8:00 to 16:00 Hr)
	220KV D/C Agia-BTPS(AEGCL) line	No effect																																																		27.03.2014 to 30.03.2014(8:00 to 16:00)
	132KV Agartala-Agartala-II	No effect																																																		27.03.2014(8:00 Hr) to 29.03.2014(16:00) **Cont. SD**
	400KV Misa-Balipara-I & II	No effect																																																		02.04.2014 to 04.04.2014(8:00 to 15:00)
	220KV Samaguri-Sarusajai-I & II	No effect																																																		02.04.2014 to 04.04.2014(8:00 to 15:00)
	220KV D/C Salakati-BTPS line	No effect																																																		11.03.2014 to 13.03.2014
	132KV Salakati-Gelephug line	No effect																																																		07.04.2014 to 09.04.2014(7:00 to 15:00)
	132KV Aizawl-Jiribam line	No effect																																																		01.04.2014(8:00 to 16:00 Hrs)
	400KV Balipara-Bongaigaon-I	No effect																																																		
2. SUBSTATION																																																			
	132KV Ziro Substation																																																		
	132/33KV, 15MVA ICT	No effect																																																		
	400KV Silchar S/s																																																		
	400/132KV, 200MVA ICT-II	No effect																																																		
	400KV Balipara S/s																																																		
	400KV Bongaigaon-I Tie Bay	No effect																																																		13.03.2014 to 13.04.2014(Cont. SD)
	400KV Bongaigaon-II Tie Bay	No effect																																																		17.03.2014(8:00 to 15:00 Hrs)
	400/220KV ICT Main Bay	No effect																																																		13.03.2014(8:00 to 15:00 Hr)
	400/220KV ICT Tie Bay	No effect																																																		14.03.2014(8:00 to 15:00 Hr)
	400KV Bongaigaon-II Main Bay	No effect																																																		15.03.2014(8:00 to 15:00 Hr)
	400KV,50MVAR Ranganadi-1 Reactor bay	No effect																																																		18.03.2014(8:00 to 15:00 Hr)
	220/132KV Dimapur S/s																																																			
	132KV Dimapur(State)-I bay	No effect																																																		12.03.2014(8:00 to 15:00 Hr)
	400KV Bongaigaon Substation																																																			
	400KV New Siliguri-II Main Bay	No effect																																																		15.04.2014(7:00 to 15:00 Hr)
	400KV Main Bus-II	No effect																																																		29.03.2014 & 31.03.2014 (7:00 to 15:00 Hrs)
	400KV,80MVAR Bus Reactor III & IV	No effect																																																		

: Daytime Shutdown

: Continuous Shutdown

STATE LOAD DESPATCH CENTRE

ASSAM ELECTRICITY GRID CORPORATION LTD.

KAHILIPARA , GUWAHATI – 781019,

Ph: 0361-2387929 , Fax: 0361-2382263

E-mail : sldcaseb@rediffmail.com , website : www.asebsldc.org

From: **AGM, SLDC, Kahilipara**

To: **Member Secretary, NERPC, Shillong**

Copy to: **DGM, SO-I, NERLDC, Shillong**

Message No : 5/3/2014/1320 **Date : 05-03-2014**

Time of origin : 13:20hrs

SUB : Continuous S/D OF 132 KV PAILAPOOL – JIRIBAM Line

A continuous S/D of 132 KV Pailapool-Jiribam line is required from 09:00 hrs of 13/03/2014 to 16:00 hrs of 15/03/2014 for dismantling of old MOCB 132KV breaker and erection of new SF6 breaker at Pailapool S/S. During the S/D period, 132 KV Pailapool S/S will draw power from 132 KV Srikona S/S.

Kindly place above mentioned S/D proposal in the coming OCC meeting to be held on 12th March 2014 for discussion and approval.

Regards

AGM, SLDC

AEGCL , Kahilipara

ABSTRACT OF STATEWISE/SYSTEMWISE/CONSTITUENTWISE PEAK DEMAND- vs- AVAILABILITY IN NORTH EASTERN REGION FOR THE PERIOD FROM APRIL-2014 TO MARCH-2015

(ALL FIGURES IN MW & NET)

SL.NO	P A R T I C U L A R S	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
1	ARUNACHAL PRADESH												
	i) NET MAX DEMAND	134	109	132	121	116	139	136	117	113	114	115	116
	ii) NET POWER AVAILABILITY- Own Source	2	2	2	6	6	6	4	4	2	2	2	2
	- Central Sector	122	129	135	135	134	101	132	127	106	100	97	120
	iii) SURPLUS(+)/DEFICIT(-)	-10	22	5	20	24	-32	0	14	-6	-13	-16	5
2	ASSAM												
	i) NET MAX DEMAND	1265	1355	1410	1440	1480	1400	1380	1435	1450	1380	1235	1380
	ii) NET POWER AVAILABILITY- Own Source	211	211	271	271	271	271	271	211	211	211	211	211
	Central Sector	684	723	750	744	734	657	730	691	623	604	600	658
	iii) SURPLUS(+)/DEFICIT(-)	-370	-422	-390	-426	-476	-472	-379	-533	-616	-565	-424	-512
3	MANIPUR												
	i) NET MAX DEMAND (OWN)	110	135	125	130	130	135	140	135	135	150	135	140
	ii) NET POWER AVAILABILITY- Own Source	5	5	5	5	5	5	5	5	5	5	5	5
	- Central Sector	113	119	133	133	133	117	129	124	110	106	105	116
	iii) SURPLUS(+)/DEFICIT(-)	9	-11	13	8	9	-13	-6	-6	-20	-38	-25	-18
4	MEGHALAYA												
	i) NET MAX DEMAND	355	345	355	335	310	310	335	350	345	390	385	360
	ii) NET POWER AVAILABILITY- Own Source	99	129	170	246	257	252	193	102	89	76	61	55
	Central Sector	194	206	215	214	210	191	210	198	177	171	172	187
	iii) SURPLUS(+)/DEFICIT(-)	-62	-11	30	125	158	133	68	-50	-79	-143	-153	-119
5	MIZORUM												
	i) NET MAX DEMAND	72	78	81	81	81	86	82	86	75	73	73	84
	ii) NET POWER AVAILABILITY- Own Source	14	17	20	25	25	25	20	15	15	14	13	12
	Central Sector	68	71	75	74	74	63	72	69	61	58	58	65
	iii) SURPLUS(+)/DEFICIT(-)	9	10	14	19	18	2	11	-2	1	0	-1	-7
6	NAGALAND												
	i) NET MAX DEMAND	95	100	125	130	115	100	130	110	115	120	110	119
	ii) NET POWER AVAILABILITY- Own Source	9	12	15	20	20	20	15	10	10	9	8	7
	Central Sector	86	71	75	74	74	63	72	69	61	58	58	65
	iii) SURPLUS(+)/DEFICIT(-)	1	-17	-35	-36	-21	-17	-43	-31	-44	-53	-45	-46
7	TRIPURA												
	i) NET MAX DEMAND	215	215	230	225	280	260	310	280	250	240	220	260
	ii) NET POWER AVAILABILITY- Own Source	94	109	109	114	114	114	114	114	109	109	109	109
	Central Sector	175	180	187	186	187	171	183	179	168	164	164	174
	iii) SURPLUS(+)/DEFICIT(-)	54	74	66	76	20	25	-13	13	27	34	53	24
8	NORTH EASTERN REGION												
	i) NET MAX DEMAND	2246	2337	2458	2462	2513	2429	2514	2514	2483	2466	2273	2459
	ii) SIMULTANEOUS MAX.DEMAND	2202	2291	2410	2414	2463	2382	2464	2464	2434	2418	2228	2411
	CONSIDERING 1.02 AS DIVERSITY FACTOR												
	iii) NET POWER AVAILABILITY- Own Source	434	485	592	687	698	693	622	461	441	426	409	401
	Central Sector	1442	1497	1569	1560	1545	1363	1528	1457	1306	1261	1253	1385
	SURPLUS(+)/DEFICIT(-)	-370	-354	-297	-215	-269	-373	-363	-596	-736	-779	-610	-673

POWER GRID CORPORATION OF INDIA LIMITED

OPERATION SERVICE DEPARTMENT, NERTS, SHILLONG

Exception Report of Bus Reactors

MONTH : FEBRUARY-14

Sl. No.	Name of the Element	Outage		Ckt No	Restoration		Duration of Outage and Attributable To						Outage under categories of Deemed Available		Category	Reason of Outage
							POWERGRID		Other Constituents		Sys.Const/Naturalc alamities/ Miltant activities					
		Date	Time		Date	Time	Hrs.	Mns.	Hrs.	Mns.	Hrs.	Mns.	Hrs.	Mns.		
BR_BONGAIGAON (50MVAR)				**# 2**												
1		24/02/2014	07:05		24/02/2014	14:05	00	00	00	00	00	00	07	00	SVRD	H/T for vol. regu. on RLDC instruction
2		24/02/2014	14:05		24/02/2014	22:11	00	00	00	00	00	00	08	06	SVRD	kept open for vol. regu. On RLDC instruction
Sub-Total							00	00	00	00	00	00	15	06		
BR_MISA (50MVAR)																
3		21/02/2014	09:06		21/02/2014	22:02	00	00	00	00	00	00	12	56	SVRD	Kept open as per instruction of NERLDC for containing low voltage
Sub-Total							00	00	00	00	00	00	12	56		
BR_BONGAIGAON(80MVAR)				**#3**												
4		11/02/2014	17:57		11/02/2014	23:35	00	00	00	00	00	00	05	38	SVRD	H/T for vol. regu. on RLDC instruction
5		13/02/2014	17:32		13/02/2014	22:30	00	00	00	00	00	00	04	58	SVRD	H/T for vol. regu. On RLDC instruction
6		14/02/2014	15:48		14/02/2014	22:46	00	00	00	00	00	00	06	58	SVRD	H/T for vol. regu. on RLDC instruction
7		15/02/2014	17:25		15/02/2014	21:46	00	00	00	00	00	00	04	21	SVRD	H/T for vol. regu. on RLDC instruction
8		17/02/2014	18:16		17/02/2014	23:12	00	00	00	00	00	00	04	56	SVRD	H/T for vol. regu. on RLDC instruction
9		18/02/2014	17:48		18/02/2014	22:33	00	00	00	00	00	00	04	45	SVRD	H/T for vol. regu. on RLDC instruction
10		22/02/2014	18:59		22/02/2014	22:30	00	00	00	00	00	00	03	31	SVRD	H/T for vol. regu. on RLDC instruction
11		23/02/2014	18:38		23/02/2014	22:21	00	00	00	00	00	00	03	43	SVRD	H/T for vol. regu. on RLDC instruction
12		28/02/2014	17:50		28/02/2014	22:43	00	00	00	00	00	00	04	53	SVRD	h/T for vol. regu. On RLDC instruction vide code 5794
Sub-Total							00	00	00	00	00	00	43	43		
BR_SILCHAR(63MVAR)				**#1**												
13		12/02/2014	14:42		12/02/2014	22:01	00	00	00	00	00	00	07	19	SVRD	H/T for vol. regu. on RLDC instruction
Sub-Total							00	00	00	00	00	00	07	19		
Grand Total							**00**	**00**	**00**	**00**	**00**	**00**	**79**	**04**		

POWER GRID CORPORATION OF INDIA LIMITED

OPERATION SERVICE DEPARTMENT, NERTS, SHILLONG

Exception Report

MONTH : FEBRUARY-14

Sl. No.	Name of the Element	Ckt No	Outage		Restoration		Duration of Outage and Attributable To								Category	Reason of Outage
							POWERGRID		Other Constituents		Sys.Const/Natural calamities/ Miltant activities		Outage under categories of Deemed Available			
			Date	Time	Date	Time	Hrs.	Mns.	Hrs.	Mns.	Hrs.	Mns.	Hrs.	Mns.		
RCN_AGARTALA		**# 2**														
1			07/02/2014	11:10	07/02/2014	11:20	00	00	00	10	00	00	00	00	OMSU	tripped due to DC problem at Agratala end
2			24/02/2014	11:10	01/03/2014	00:00	00	00	00	00	00	00	108	50	OSPD	SD taken by NEEPCO for CB replacement work at RC Nagar
Sub-Total							00	00	00	10	00	00	108	50		
BADARPUR_KOLASIB																
3			28/02/2014	10:43	28/02/2014	12:44	00	00	00	00	00	00	02	01	SCSD	SD taken for replacement of DPR with new MICOM relay
Sub-Total							00	00	00	00	00	00	02	01		
AIZWAL_KUMARGHAT																
4			20/02/2014	14:47	20/02/2014	14:52	00	00	00	00	00	05	00	00	LNCC	transient tripping due to landslide in betn loc 84-85 from uphill side
5			25/02/2014	07:58	25/02/2014	15:37	00	00	00	00	07	39	00	00	LNCC	SD taken for clearing of vegetation inclining from uphill side at loc 163-67
Sub-Total							00	00	00	00	07	44	00	00		
AIZWAL_ZEMEBAK		**# 2**														
6			12/02/2014	13:35	12/02/2014	13:46	00	00	00	11	00	00	00	00	OMSU	Tripped due to fault in 33KV Mizoram system
7			16/02/2014	21:16	16/02/2014	21:26	00	00	00	10	00	00	00	00	OMSU	Fault in state downstream system
Sub-Total							00	00	00	21	00	00	00	00		
BADARPUR-BADARPUR																
8			26/02/2014	14:34	26/02/2014	15:58	00	00	00	00	00	00	01	24	SCSD	SD taken for replacement of DPR with new MICOM relay
Sub-Total							00	00	00	00	00	00	01	24		
BADARPUR_KUMARGHAT																
9			03/02/2014	14:07	03/02/2014	16:02	00	00	00	00	01	55	00	00	LMAC	ESD taken for clearing of tree cut by villagers in betn loc 338-339
10			26/02/2014	10:04	26/02/2014	12:14	00	00	00	00	00	00	02	10	SCSD	SD taken for replacement of DPR with new MICOM relay
Sub-Total							00	00	00	00	01	55	02	10		
DIMAPUR_IMPHAL																
11			09/02/2014	12:21	09/02/2014	13:54	01	33	00	00	00	00	00	00	OMST	ESD taken for rectification of jumper at loc 232

Sl. No.	Name of the Element / Outage Date	Outage Time	Ckt No / Restoration Date	Restoration Time	Duration of Outage and Attributable To: POWERGRID Hrs.	POWERGRID Mns.	Other Constituents Hrs.	Other Constituents Mns.	Sys.Const/Natural calamities/ Miltant activities Hrs.	Sys.Const/Natural calamities/ Miltant activities Mns.	Outage under categories of Deemed Available Hrs.	Outage under categories of Deemed Available Mns.	Category	Reason of Outage
12	18/02/2014	14:36	18/02/2014	17:30	02	54	00	00	00	00	00	00	OMST	SD takenn for replacement of Hardware(D shakle) in Yph Insulator string
Sub-Total					04	27	00	00	00	00	00	00		
IMPHAL_IMPHAL			**#1**											
13	05/02/2014	10:05	05/02/2014	10:31	00	00	00	26	00	00	00	00	OMSU	Tripped due to fault in 33KV system of Manipur
14	08/02/2014	12:59	08/02/2014	13:37	00	00	00	38	00	00	00	00	OMSU	Tripped vdue to fault in state 33KV system
15	11/02/2014	10:35	11/02/2014	10:58	00	00	00	23	00	00	00	00	OMSU	Tripped due to downstream problem at State end
Sub-Total					00	00	01	27	00	00	00	00		
JIRIBAM_AIZWAL														
16	05/02/2014	14:22	05/02/2014	14:30	00	00	00	00	00	08	00	00	LMAC	transient phase to phase fault intiated by Jhoom burning(195-196)
Sub-Total					00	00	00	00	00	08	00	00		
JIRIBAM_LOKTAK			**# 2**											
17	27/02/2014	14:57	27/02/2014	15:35	00	00	00	38	00	00	00	00	OMSU	SD taken by NHPC for installation of DPR
Sub-Total					00	00	00	38	00	00	00	00		
KHANDONG_KHLIERIAT			**I**											
18	18/02/2014	12:21	18/02/2014	14:20	00	00	00	00	00	00	01	59	SCSD	SD taken for replacement of DPR with new MICOM relay
Sub-Total					00	00	00	00	00	00	01	59		
KHANDONG_KHLIERIAT			**# 2**											
19	19/02/2014	12:40	19/02/2014	15:01	00	00	00	00	00	00	02	21	SCSD	SD taken for replacement of DPR with new MICOM relay
Sub-Total					00	00	00	00	00	00	02	21		
KHLIERIAT_KHLIERIAT														
20	17/02/2014	06:36	17/02/2014	07:30	00	00	00	54	00	00	00	00	OMSU	Tripped due to fault in HEHI-UMIAM line
Sub-Total					00	00	00	54	00	00	00	00		
LOKTAK_IMPHAL			**# 2**											
21	11/02/2014	10:35	11/02/2014	10:43	00	00	00	08	00	00	00	00	OMSU	Tripped due to problem at Imphal state end
22	28/02/2014	11:28	28/02/2014	17:15	00	00	05	47	00	00	00	00	OMSU	SD taken by NHPC for installation of DPR
Sub-Total					00	00	05	55	00	00	00	00		
NIRJULI-RANGANADI														
23	05/02/2014	07:38	05/02/2014	15:42	00	00	08	04	00	00	00	00	OMSU	SD taken by DoP, AP
24	06/02/2014	07:15	06/02/2014	15:28	00	00	08	13	00	00	00	00	OMSU	SD taken by DoP, AP

Sl. No.	Name of the Element / Outage Date	Outage Time	Ckt No / Restoration Date	Restoration Time	Duration of Outage and Attributable To: POWERGRID Hrs.	POWERGRID Mns.	Other Constituents Hrs.	Other Constituents Mns.	Sys.Const/Natural calamities/ Miltant activities Hrs.	Sys.Const/Natural calamities/ Miltant activities Mns.	Outage under categories of Deemed Available Hrs.	Outage under categories of Deemed Available Mns.	Category	Reason of Outage
25	09/02/2014	08:03	01/03/2014	00:00	00	00	471	57	00	00	00	00	OMSU	Shutdown taken by NF Rly for the portion LILO to Niriuli
Sub-Total					00	00	488	14	00	00	00	00		
SILCHAR-BADARPUR-I			**#1**											
26	23/02/2014	12:10	23/02/2014	14:21	00	00	00	00	00	00	02	11	SCSD	SD taken for replacement of DPR with new MICOM relay
Sub-Total					00	00	00	00	00	00	02	11		
SILCHAR-HAILAKANDI			**#1**											
27	03/02/2014	23:43	04/02/2014	10:44	00	00	11	01	00	00	00	00	OMSU	Fault beyond line jurisdiction
Sub-Total					00	00	11	01	00	00	00	00		
BALIPARA_TEZPUR														
28	20/02/2014	07:43	01/03/2014	00:00	00	00	00	00	00	00	208	17	OSPD	SD taken by AEGCL
Sub-Total					00	00	00	00	00	00	208	17		
KATHALGURI_MARIANI(OLD)														
29	12/02/2014	01:12	12/02/2014	01:30	00	18	00	00	00	00	00	00	LEFT	Transient E/F
Sub-Total					00	18	00	00	00	00	00	00		
MISA-KOPILI			**# 1**											
30	01/02/2014	11:39	01/02/2014	11:57	00	00	00	00	00	18	00	00	LMAC	Tripped due to Jhoom burning near Kopili
31	01/02/2014	12:07	01/02/2014	13:02	00	00	00	00	00	55	00	00	LMAC	do
Sub-Total					00	00	00	00	01	13	00	00		
MISA-MARIANI(NEW)														
32	11/02/2014	09:22	20/02/2014	18:17	00	00	00	00	224	55	00	00	LNCC	SD taken in connection with shifting of loc 585,586,587 on Pile
Sub-Total					00	00	00	00	224	55	00	00		
KATHALGURI-MARIANI(NEW)														
33	11/02/2014	09:22	20/02/2014	18:25	00	00	00	00	00	00	225	03	LVRD	H/T for vol. regu. On RLDC instruction
Sub-Total					00	00	00	00	00	00	225	03		
BALIPARA-RANGANADI			**# 2**											
34	28/02/2014	00:05	28/02/2014	06:31	00	00	00	00	00	00	06	26	LVRD	h/T for vol. regu. On RLDC instruction vide code 5781
35	28/02/2014	12:55	28/02/2014	17:15	00	00	00	00	04	20	00	00	LMAC	SD taken for replacement of insulators at loc 30 broken by miscreants
Sub-Total					00	00	00	00	04	20	06	26		
Grand Total					**04**	**45**	**508**	**40**	**240**	**15**	**560**	**42**		