



भारत सरकार Government of India

विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय
NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya



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No. NERPC/SE (O)/OCC/2015/4556-91

Dated: March 05, 2015

To,

1. Managing Director, AEGCL, Bijuli Bhawan, Guwahati – 781 001
2. Managing Director, APDCL, Bijuli Bhawan, Guwahati – 781 001
3. Managing Director, APGCL, Bijuli Bhawan, Guwahati – 781 001
4. Director (Generation), Me. PGCL, Lumjingshai, Short Round Road, Shillong – 793 001
5. Director (Distribution), Me. ECL, Lumjingshai, Short Round Road, Shillong – 793 001
6. Director(Transmission), Me. PTCL, Lumjingshai, Short Round Road, Shillong – 793 001
7. Managing Director, MSPDCL, Electricity Complex, Keishampat, Imphal – 795 001
8. Managing Director, MSPCL, Electricity Complex, Keishampat, Imphal – 795 001
9. CGM, (LDC), SLDC Complex, AEGCL, Kahilipara, Guwahati-781 019
10. Chief Engineer (WE Zone),Department of Power ,Govt. of Arunachal Pradesh, Itanagar- 791111
11. Chief Engineer (EE Zone),Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
12. Chief Engineer (TP&MZ),Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791111
13. Engineer-in-Chief (P&E), Department of Power, Govt. of Mizoram, Aizawl – 796 001
14. Chief Engineer (P), Department of Power, Govt. of Nagaland, Kohima – 797 001
15. General Manager, TSECL, Agartala – 799 001
16. Group General Manager, NTPC, Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
17. ED, NERTS, PGCIL, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
18. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
19. ED (Commercial), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
20. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad,Haryana-121003
21. GM (Plant), OTPC, Badarghat Complex, Agartala, Tripura - 799014
22. GM, NERLDC, Dongtieh, Lower Nongrah, Lapalang, Shillong -793 006
23. Member Secretary, ERPC, 14 Golf Club Road, Tollygunge, Kolkata-700033
24. Chief Engineer, GM Division, Central Electricity Authority, New Delhi – 110066

Sub: Minutes of the 106th OCC Meeting - Reg.

Sir,

The Minutes of the 106th OCC Meeting of NERPC held on 24.02.2015 at "Hotel Nandan", Guwahati is enclosed for favour of kind information and necessary action please.

Any comments or observations may kindly be communicated at the earliest.

Encl: As above

भवदीय / Yours faithfully,

बी. लिंगखोइ

बि. लिंगखोइ / B. Lyngkhohi

निदेशक / Director/ SE

Copy to:

1. CGM, AEGCL, Bijuli Bhavan, Guwahati - 781001
2. CGM, APGCL, Bijuli Bhavan, Guwahati - 781001
3. CGM, DISCOM, Bijuli Bhavan, Guwahati - 781001
4. Head of SLDC, Me.ECL, Lumjingshai, Short Round Road, Umjarain, Shillong – 793 022
5. Head of SLDC, Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
6. Head of SLDC, Department of Power, Dimapur, Nagaland
7. Head of SLDC, Electricity Department, Govt. of Manipur, Keishampat, Imphal – 795 001
8. Head of SLDC, Department of Power, Govt. of Mizoram, Aizawl – 796 001
9. Head of SLDC, TSECL, Agartala – 799 001
10. Chief Engineer(Elect), Loktak HEP, Vidyut Vihar, Kom Keirap, Manipur- 795124
11. Addl. GM (EED), NTPC Ltd., Bongaigoan Thermal Power Project, P.O. Salakati, Kokrajhar- 783369
12. DGM (C&M), OTPC, 6th Floor, A-Wing, IFCI Tower -61, Nehru Place, New Delhi – 110019.

वी. लिंगराव

निदेशक / Director/ SE

North Eastern Regional Power Committee

MINUTES OF THE 106th OPERATION COORDINATION

SUB-COMMITTEE MEETING OF NERPC

Date : 24/02/2015 (Tuesday)
Time : 10:00 hrs
Venue : "Hotel Nandan", Guwahati.

The List of Participants in the 106th OCC Meeting is attached at **Annexure - I**

Shri P.K. Mishra, Member Secretary, NERPC welcomed all the participants to the 106th OCC meeting. He appreciated the maximum attendance of the members and requested all to continue the same in future for fruitful discussion. He expressed concerned about the major grid disturbance occurred on 23.02.2015 and requested that thorough analysis has to be carried out to find the root cause so that such recurrence can be avoided in future. He requested all the members to actively participate in the discussion for the benefit of the region.

Thereafter, he requested Shri B. Lyngkhoi to take up the agenda items for discussion.

Shri Lyngkhoi informed that as per information received from, NERTS, POWERGRID, around 6 PM on 23.02.2015, the 400kV Binaguri – Bongaigaon # 3 was brought back to service as per normal practice (for peak load) demand. However, during closing of isolator pole heavy arcing occurred and subsequently created an earth fault and 315 MVA ICT tripped which resulted in isolation of NER from ER. Thereafter, Power failure occurred in the rest part of the NER network due to mis-match of Load and Generation. He however, appreciated the forum that due to successful operation of Islanding scheme total black out did not occur as AGBPP, NTPS & LTPS survived and restoration time was saved. He requested all the members to send all the DR, EL etc., if any to NERLDC at the earliest so that thorough analysis can be carried out. Also, NERTS was requested to intimate the forum about the causes of grid disturbance so that the issue can be discussed in thread bear by the enquiry committee set up by NERPC.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 105th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 105th meeting of Operation Sub-committee held on 23rd January, 2015 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2015/3952-3987 dated 6th February, 2015.

SE(O) informed that OTPC vide mail dated 06.02.2015 has informed that Status as on 105th OCC at **Item C.1** is mentioned same as status given in 104th OCC meeting, to be corrected.

NERTS vide mail dated 11.02.2015 has made an observation in Item C.15 as below:

Recorded:

DGM, NERTS informed that recently one 63 MVAR Reactor at Byrnihat has gone faulty and sent for repairing. He suggested that one spare reactor of same capacity which is kept at Balipara can be used till repairing of faulty reactor at Byrnihat is completed. DGM, NERTS also stated that instead of installing 125 MVAR reactors by replacing existing 50 MVAR bus reactors at Balipara & Bongaigaon they can bring reactors of 50/63 MVAR capacities from other regions and install in parallel to existing BRs which will facilitate better management of reactive compensation. The forum agreed to the proposal.

To be Recorded:

DGM, NERTS informed that recently one 63 MVAR Reactor at Byrnihat failed and to be sent to CGL factory at Mumbai for repairing. DGM, NERLDC insisted that reactor at Byrnihat is very much essential to contain high voltage and Meghalaya should take up the matter with NERTS at the earliest. Accordingly, DGM, NERTS suggested that one BHEL Make Reactor of same capacity which has already been repaired and lying at Bhopal Works of BHEL can be spared till repairing of the faulty reactor at Byrnihat by CGL. However, for the purpose the request of Me. PTCL is required and accordingly matter will be referred for management approval.

Also, AEGCL vide mail dated 11.02.2015 has made an observation in Item C.15 that statement made by them has not been recorded in the 105th OCC Minutes and the same has to be recorded as below:

During deliberation AEGCL requested NERPC & POWERGRID to spare 100MVA, 220/132kV Transformer (Regional Spare) from Dimapur Sub Station for Augmentation of transformation capacity of 220/132kV Samaguri Sub Station by installation of same in place on one no. of existing 50MVA Transformer. AEGCL further informed that the replaced 50MVA transformer can be kept as regional spare till they replenish the 100MVA Transformer which is already under procurement.

DGM, NERTS requested AEGCL to go through the process of approval of RPC for procurement of Regional Spare equipment which are against probable breakdown of critical equipment of Regional project. Further, he opined that such equipments are, in any case, not meant for planned Augmentation of State project.

SE (O), NERPC suggested AEGCL to take up the issue in forthcoming RPC Meeting.

The Sub-committee confirmed the minutes of 105th OCCM of NERPC as no other comments/observations were received from the constituents.

I T E M S F O R D I S C U S S I O N

B.1. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING JANUARY, 2015

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

NER PERFORMANCE DURING JANUARY, 2015

States	Energy Met (MU)		% inc(+)/dec(-)	Energy Reqr. (MU)		% inc(+)/dec(-)
	Jan-15	Dec-14		Jan-15	Dec-14	
Ar. Pradesh	53	57	-7.1	65.0	65.0	0.0
Assam	655	567	15.5	690.0	680.0	1.5
Manipur	65	65	0.2	70.0	65.0	7.7
Meghalaya	164	159	3.2	195.0	175.0	11.4
Mizoram	38	39	-1.9	41.0	40.0	2.5
Nagaland	59	44	34.1	60.0	60.0	0.0
Tripura	83	81	2.0	125.0	120.0	4.2
Region	1118	1013	10.4	1246.00	1205.00	3.4

States	Demand Met (MW)		% inc(+)/dec(-)	Demand in (MW)		% inc(+)/dec(-)
	Jan-15	Dec-14		Jan-15	Dec-14	
Ar. Pradesh	120	117	2.8	115	125	-7.9
Assam	1380	1204	14.6	1220	1450	-15.9
Manipur	150	139	7.9	144	140	2.9
Meghalaya	370	367	0.8	343	370	-7.3
Mizoram	90	86	4.7	88	90	-2.2
Nagaland	130	123	5.7	123	125	-1.6
Tripura	245	210	16.7	210	250	-16.0
Region	2455	2170	13.1	2202	2460	-10.5

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

Month---->	Jan-15	Dec-14
Total Generation in NER (Gross)	847	833
Total Central Sector Generation (Gross)	567	555
Total State Sector Generation (Gross)	280	278
Inter-Regional Energy Exchange		
(a) NER-ER	18.40	16.61
(b) ER-NER	327.40	236.90
© Net Import	309.00	220.29

AVERAGE FREQUENCY (Hz)

Month---->	Jan-15	Dec-14
	% of Time	% of Time
Below 49.9 Hz	17.46	23.02
Between 49.9 to 50.05 Hz	53.73	48.96
Above 50.05 Hz	28.81	28.02
Average	50	49.98
Maximum	50.56	50.58
Minimum	49.55	49.54

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

The Summary of Messages issued by NERLDC for the constituents of NER for the Month of January, 2015 is given as below:

Constituents	Deviation Violation Message			Zero crossing Violation Message		
	Alert	Emergency	Total	Alert	Emergency	Total
AP	4	88	92	0	24	24
Assam	13	36	49	0	12	12
Manipur	1	18	19	0	1	1
Meghalaya	0	5	5	0	0	0
Mizoram	3	102	105	0	17	17
Nagaland	5	70	75	0	9	9
Tripura	3	91	94	0	8	8
AGBPP	0	0	0	0	0	0
AGTPP	0	0	0	0	0	0
RHEP	0	0	0	0	0	0
KOPILI	0	0	0	0	0	0
KHANDONG	0	0	0	0	0	0
KOPILI –II	0	0	0	0	0	0
DHEP	0	0	0	0	0	0
LOKTAK	0	0	0	0	0	0
PALATANA	0	0	0	0	0	0

The Sub-committee requested to avoid the deviation and try to maintain within the permissible limit for the safety of the grid.

Further, during presentation it was observed that many States were overdrawal from the grid and this is greatly endangering the safety operation of the system. NERLDC enquired from Ar. Pradesh about the status of the new 132 kV Ranganadi – Nirjuli line since load in state capital is increasing day by day and more over 132 kV Balipara – Khupi line has to open forcefully to avoid overdrawal. NERLDC also enquired from Ar. Pradesh about the status of LILO at Bhalukpong.

EE, SLDC, Ar. Pradesh informed that new 132 kV Ranganadi – Nirjuli line is almost completed except the bays portion. Further, he stated that since Ar. Pradesh is yet to have a full fledged SLDC monitoring the overdrawal is very difficult. Regarding the LILO at Bhalukpong, he informed that the work is in full swing and is likely to be completed in March, 2015.

Sr. Manager, NEEPCO once again reiterated that frequent opening of CBs/Isolators on 132 kV Balipara – Khupi line is not a healthy practice as this will reduce the life span of equipments.

EE, SLDC, Ar. Pradesh requested NEEPCO to provide the concerned person in Kameng HEP so that necessary co-ordination can be worked out to reduce the frequent opening of Balipara – Khupi line. Sr. Manager, NEEPCO agreed and the contact person was given to Ar. Pradesh in the meeting.

DGM, NEEPCO informed the house that it was learnt from BSNL office that major reforms to provide service connection to remote places in NER is in the pipeline as per the instruction of the Govt. of India and Ar. Pradesh should explore this facility so that communication is not disrupted for smooth functioning of their system.

The Sub-committee strongly recommended that LILO at Bhalukpong should be completed by March, 2015 as mentioned and in the meantime necessary curtailment of load at Itanagar has to be ensured so that 3-5 MW power supply to Kameng HEP should be made available all the time to avoid delay in completion of the project.

FOLLOW UP ACTION

C.1 Synchronization of Palatana Module -II/NTPC Unit #1/ATS

The Sub-committee also reviewed the status of commissioning of second unit of OTPC at Palatana, first unit of NTPC at Bongaigaon, Transmission lines of POWERGRID and substation at Azara of Assam. The status as informed by OTPC, NTPC, NEEPCO and POWERGRID is as follows:

SN	Items	Status as given in 105 th OCC Meeting	Status as on 106 th OCC
1	Trial operation and CoD of Unit -II of Palatana	*Status as given below.	*Status as given below.
2	Trial operation and CoD of Unit -I of NTPC at Bongaigoan	Expected Date for Synchronization of Unit - # I by 31 st March, 2015	<ul style="list-style-type: none"> • Expected Date for Synchronization of Unit -# I by 31st March, 2015. • ICT relay testing completed. • Diff relay at their side completed, except at ASEB side. • COD is expected by June, 2015
3	Trial operation and CoD of STG -II of AGTPP	-	Metering, telemetry, machine data, Connectivity agreement completed. STG-II test charged on 13.02.2015
4	Trial operation and CoD of Monarchak GBPP	-	
5	Trial operation of STG -I of AGTPP	-	March, 2015
6	400KV D/C Silchar - Melriat line	June, 2015	June, 2015
7	400KV D/C Silchar - Imphal line	February, 2015	March, 2015
8	220KV D/C Mariani (New) – Mokokchung	February, 2015	March, 2015
9	400KV D/C Byrnihat-Bongaigaon line	Test charged completed on 14 th January, 2015	Completed.

*The detail programme for synchronization of Pallatana Unit - #2 is given below:

As per programme received from BHEL, Unit – 2 WILL RESTART FROM 06.03.2015 followed by trial run from 07.03.2015. This will continue till 21.03.2015 (including of PPA test from 19.03.2015 to 21.03.2015).

POWER BLOCK - 2: TRIAL RUN, RELIABILITY RUN & PPA TEST				
DATE: 03.03.15 Rev - 001				
Sl No	Description	Start	Completion	Remarks
1	Pre discussion on Trial Run between BHEL & OTPC	03.03.15	03.03.15	Held on 03.03.15
2	Box up of HRSG		04.03.15	Installation of Extra Baffle plates completion. By 03.03.05
3	Filling / Signing of all docs. required before start of Trial Run as per Procedure	02.03.15	05.03.15	Protocols-prior to commencement of Trial Operation
4	Readiness of Water system/ Water filling	0	05.03.15	
5	Start of GBC	06.03.15	06.03.15	Start: 15:00 hr
6	Start of GT & Synch	06.03.16	06.03.16	Start: 16:00/ Synch-16:45 hr
7	STG Synch	06.03.17	06.03.17	Synch-22:00 hr
8	Declaration of start of Trial Run	07.03.05	07.03.05	From-00:00 hrs/ 07.03.15
9	Start of 7 days Reliability Run	12.03.15	18.03.14	
10	Start of 3 days PPA Test (Part of Trial Run)	19.03.15	21.03.15	OTPC is to invite their Power Purchase to witness PPA Test
11	Declaration of complete Trial Run		21.03.16	24:00 hrs
12	Joint meeting and record of observations during Trial Run	22.03.15	22.03.15	
13	COD	22.03.15	22.03.15	By OTPC
14	PG Test	15.04.15	22.04.15	
	NOTE:			
1	<i>Trial Run will be at available load</i>			
2	<i>For Reliability run and PPA test, OTPC is to arrange gas/ load for base load. Combined Gas flow of Power Block-1 and 2 should not be more than 110, 000 CM/ Hr to maintain gas quality.</i>			
3	<i>OTPC is to provide Desk Operators during Trial Run free of cost.</i>			
4	<i>OTPC is to arrange Hydrogen with required purity during Trial Run.</i>			
5	<i>Date of Reliability Run and PPA Test can be changed if OTPC desires keeping duration as per contact.</i>			
6	<i>During Trial Run, BHEL- R&D Division will conduct experiment for high dB noise.</i>			
7	<i>PG Test will start from 15th April 2015 and OTPC is to release the unit for preparing the Test.</i>			

The Sub-committee noted as above

C.2 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:

The OCC regularly review the status of UFR based load shedding in the region. The latest status intimated during the 106th OCC meeting is given below: -

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

Manipur: Informed that UFRs based load shedding for all the four stages have been implemented, the feeders name and the exact amount of load relief would be furnished soon. Relays have been tested and reports are sent to NERLDC. UFR operation and amount of load relief reports will be sent to NERLDC regularly.

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

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

Arunachal Pradesh: EE, SLDC informed that UFRs based load shedding for 20MW have been implemented by them for all stages. Ar. Pradesh had furnished the list of feeders and stated that the report would be sent to NERLDC regularly.

Mizoram: EE, SLDC, Mizoram informed that UFR based load shedding for Stages I has been completed. Stage - II is under consideration which may be expected to be implemented by December 2014. Stage - III & IV is likely to be completed by February, 2015. Mizoram is sending the UFR reports regularly for the implemented stages. *Status could not be updated as no representative from Mizoram present.*

SE(O) informed that as per guidelines by CEA its mandatory to inspect at least one third of UFRs in the region during the year. In view of the above, inspection will be carried out in the month of March, 2015. The itinerary will be intimated in due course. The complete UFR list is attached at **Annexure – C.2**

The sub-committee noted as above.

C.3 Lines under long outages

During the 101st OCC meeting, the issue for restoration of these lines was reviewed by the committee and the status was as follows:

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

Manipur representative informed that towers are faulty in locations 90 and 91 due to constructions of railway line and road by Ministry of Railway and BRTF. Compensation for the same is awaited from the 2 parties and repairing work may be completed after 2 months after receipt of the compensations. The line is expected to be restored by October 2014.

During 104th OCC meeting, Manipur representative informed that the work will be completed by end of December, 2014.

Deliberation of the Committee

Since no representative from Manipur was present the status could not be updated.

The Sub-committee requested NERPC to take up the matter once again to the next TCC/RPC meeting.

C.4 CT Ratio of Transmission Lines in NER:

During 102nd OCC meeting, it was decided that CT ratios of transmission lines of NER are to be enhanced for enhancement of transfer capability & reliable grid operation. List of these transmission lines are available in minutes of 102nd OCCM of NERPC. NEEPCO has submitted CT configuration details; it is requested to furnish the adopted CT ratio details.

OTPC and NEEPCO informed that the works pertaining to them have been completed and the same has been sent to NERLDC.

During 104th OCC meeting, DGM, NERTS stated that NERLDC should first study the loadability and quantum of the power flow requires on each line so that concerned utilities can upgrade the required CT for the particular line instead of generalizing the issue. Moreover, NERLDC should clearly specify if the proposed ratings of the CTS are assessed on the basis of metering core or protection core. NERLDC confirmed that the ratios are based on loadability of lines and hence based on metering core.

The Sub-committee requested NERLDC to prepare the fresh list of feeders where loadability of the line is necessary for enhancement along with corresponding CT ratio.

Deliberation of the Committee

SE (O) requested NERLDC to prepare the complete lists of feeders where CTs are to be enhanced along with line loading as per requirement of NERLDC, so that necessary correction can be taken up by the constituents.

The Sub-committee noted.

C.5 Furnishing Geographic Co-ordinates of Nodes of NER Grid:

Power Maps of NER states are being developed by CBIP. To represent nodes of NER Grid in power maps, Co-ordinates of **existing Nodes, Nodes under construction & identified future Nodes** (66 kV & above) of NER Grid are required. Power Utilities of NER are requested to furnish latitude & longitudes of Nodes of NER Grid.

During 101st OCC meeting, NERLDC informed that all the beneficiary states except Manipur have submitted the required information. Now NERLDC informed that NEEPCO (Khupi S/S), POWERGRID (Mariani, Mokokchung, Melriat, Namsai, Tezu & Roing), NHPC (Loktak HEP & Lower Subansiri HEP), OTPC (Palatana GBPP) and NTPC (Bongaigaon TPP) have not furnished these data till date.

During 102nd OCC meeting, Manipur representative stated that they had already sent to GM, NERLDC. Tripura representative submitted to NERLDC during the meeting. NERTS agreed to submit soon. NEEPCO will check and submit. OTPC agreed to submit soon. POWERGRID (Biswanath Chariali, Mariani, Mokokchung, Melriat, Namsai, Tezu & Roing), NHPC (Lower Subhansiri HEP), OTPC (Palatana GBPP) and NTPC (Bongaigaon TPP) have not furnished these data till date.

During 104th OCC meeting, NERLDC informed that Ar. Pradesh, Assam & Meghalaya have not furnished geographical co-ordinates of the nodes as furnished by them.

The above constituents have agreed to furnish the information as per format of NERLDC soon.

During 105th OCC meeting, DGM, NERLDC requested the constituents to refer to **Annexure - C.5** and informed that Ar. Pradesh, Assam & Meghalaya have furnished the information for Pasighat, Barnagar & GVIL Cement S/S respectively. Assam & Meghalaya have agreed to submit other places soon.

Deliberation of the Committee

NERLLDC informed that the above information have been received by them from all the constituents.

The Sub-committee noted as above and the agenda is hereby dropped.

C.6 Single Line Diagram of Sub-stations, Switching Stations & Power Stations of NER:

During 104th OCC meeting, NERLDC informed that NEEPCO, NHPC, Ar. Pradesh, Assam, Manipur, Meghalaya, Nagaland & Tripura have not furnished geographical co-ordinates of the nodes as per **Annexure - C.6**.

Now NERLDC informed that POWERGRID, OTPC, NHPC (except Lower Subansiri), NTPC & DoP, Arunachal Pradesh (except Pasighat), P&E, Mizoram (except Sihmuidi), Me. PTCL (except as per list at **Annexure - C.6**), DoP, Nagaland (except as per list at Annexure IV), TSECL (as per list at **Annexure - C.6**) have furnished. Single Line Diagrams of nodes of AEGCL (except as per list at **Annexure - C.6**) have been collected from DPR for rectification of Protection System. NEEPCO (as per list at **Annexure - C.6**), NHPC (for Lower Subansiri), DoP, Arunachal Pradesh (for Pasighat), AEGCL (as per list at **Annexure - C.6**), MSPCL (as per list at Annexure IV), Me. PTCL (as per list at **Annexure - C.6**), P&E, Mizoram (for Sihmuidi), DoP, Nagaland (as per list at Annexure IV), and TSECL (as per list at **Annexure - C.6**) are requested to furnish Single Line Diagram of nodes as these diagrams are required for system studies, outage coordination etc.

In the meeting it was confirmed that AP has submitted the SLD of Pasighat S/S.

Deliberation of the Committee

The Sub-committee has decided that all the remaining constituents should furnish the information pertaining to them as per list mentioned in Annexure - C.6 by March, 2015 positively.

C.7 Finalization of Annual Load Generation Balanced Report (LGBR) for peak as well as off-peak scenarios and the Annual outage plan for 2015-2016 by 31.12.2014 as per IEGC:

As per IEGC, each SLDC shall submit LGBR for its control area, for peak as well as off-peak scenario, by 31st October for the next financial year, to respective RPC Secretariat. The annual plans for managing deficits/surpluses in respective control areas shall clearly be indicated in the LGBR submitted by SLDCs.

As per IEGC, all SEBs/STUs, Transmission Licensees, CTU, ISGS, IPPs, MPPs and other generating stations shall provide to the respective RPC Secretariat their proposed outage plan in writing for the next financial year by 31st October of each year. These shall contain identification of each generating unit/transmission line/ICT etc., the preferred date for each outage and its duration and where there is flexibility, the earliest start date and latest finishing date.

Deliberation of the Committee

SE (O) informed that draft LGBR for 2015-2016 has been prepared by NERPC. He requested all the constituents to go through the draft LGBR attached at **Annexure – C.7** and give their comments/observations at the earliest so that the same can be finalized by 31.01.2015. He further requested that all the generators and transmission utilities to give their plan shutdown for FY 2015-16.

EE (O) informed that proposed transmission elements and LGBR from constituents have not been received by NERPC.

AGM, LDC, Assam informed that LGBR for FY 2015-16 has already been sent by post to NERPC.

The sub-committee noted as above.

C.8 Latest status of FGMO/RGMO implementation in different generating stations:

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

During 104th OCC meeting, NERLDC highlighted the present status available with them as attached at **Annexure – C.8**, members agreed to send the updated status to NERLDC at the earliest.

Deliberation of the Committee

The Sub-committee has requested all the concerned constituents to update the information as per list mentioned in Annexure – C.8 by March, 2015 positively.

C.9 Submission of list of feeders connected to essential load:

As per clause no 5.8.c of IEGC, essential loads are to be restored on priority during restoration process. Constituents of NER are requested to furnish list of feeders connected to essential load at the earliest to incorporate in next version of Black start & Restoration Procedures of NER.

During 104th OCC Meeting, all SLDCs were requested to prepare restoration procedure in respect of concerned states and intimate essential loads with quantum to be restored on priority to NERLDC at the earliest.

Deliberation of the Committee

NERLDC informed that above list of feeders have been received from Ar. Pradesh, Assam, Meghalaya & Tripura. NERLDC requested the remaining constituents to submit the above information latest by March, 2015.

The sub-committee noted as above.

C.10 Progress Report of Ongoing Project:

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

Currently, only NTPC, NEEPCO and Me. PGCL are furnishing monthly progress report of elements on regular basis.

During 105th OCC meeting, the Sub-committee has requested NERPC to write to all the Heads of Organizations to furnish the above information as per **Annexure – C.10** at the earliest.

Deliberation of the Committee

SE (O) informed that as per decision of the sub-committee, NERPC vide letter dated 13.02.2015 has written to all the constituents to furnish the status of ongoing projects to NERLDC at the earliest.

NERLDC informed that information has now been received from NTPC, NEEPCO, Meghalaya, Assam & OTPC. NERLDC requested the remaining constituents to furnish the same at the earliest.

The sub-committee noted as above.

C.11 Formats for new unit expected to be commissioned within 2 months:

Information related to new units which are expected to be added/ commissioned within next 2 months needs to be furnished to NERLDC by concerned utilities as per format at Annexure below.

The technical data are necessary for preparation of Base Case for system study in NER (NEEPCO is requested to furnish the information/data of AGTPP Unit 5 & 6 and Monarchak Unit I & II) which may be furnished as per **Annexure-C.11 (i) & (ii)**.

During 104th OCC meeting, the Sub-committee requested all those utilities, who are likely to commission their new units/elements within next two months, to apply in the prescribed format **C.11 (i) & (ii)**.

Deliberation of the Committee

Sr. Manager, NEEPCO informed that all the necessary formats have already been furnished to NERLDC.

The Sub-committee noted as above.

C.12 Requisition of ERS:

During 103rd OCC meeting, Assam has intimated that they are planning to procure 8 (eight) numbers of ERS for their transmission networks. The procurement will be funded from PSDF as discussed during the meeting with Member (Power System), CEA on 10.11.2014.

During 105th OCC meeting, SE (O) informed that ERS requisition has been received from all the constituents, but the matter was discussed with Member Secretary I/C, NERPC to procure one set each of ERS (13 elements for one set) for the 7 constituents and one set as spare to be kept in central location. The same has been forwarded to CEA for funding of above 8 ERS from PSDF.

Assam informed that they have come to know that only two (2) ERS has been agreed by CEA to be funded from PSDF.

Member Secretary stated that he will take up the matter with CEA since considering the terrain and geographical conditions it would be futile if only 2 ERS is being agreed for NER. Moreover, it would be very difficult to find the methodology about the locations of keeping these two ERS.

Representative from ENICL enquired if these ERS can also be utilized by transmission agency.

The Sub-committee suggested that it is mandatory for all the transmission utility to have their own set of ERS. However, till they procure, the same may be extended to them in case of any exigency on rent charges.

Deliberation of the Committee

SE(O) informed that CEA vide letter dated 04.02.2015 has intimated that two ERS has been proposed for NER for procurement from PSDF.

Member Secretary stated that NERPC will prepare the proposal to CEA/NLDC so that above ERS can be procured at the earliest.

The Sub-committee noted as above.

C.13 SPAR for Loktak HEP:

NHPC informed that Single Phase Auto-reclosure scheme is going to be installed at Loktak -Jiribam – II and Loktak – Imphal –II feeders in the month of January, 2015. Shutdown of Sub-station at Loktak is required during this time and the exact date will be intimated after getting the date from M/S AREVA (T&D) Ltd.

During 104th OCC meeting, representative from NHPC informed that once M/S AREVA confirms the date of visit, necessary shutdown will be sought for from NERPC and the work is likely to be carried out in January, 2015.

Deliberation of the Committee

NHPC informed that the work has been completed on 20th February, 2015.

The Sub-committee noted as above.

C.14 Requirement of Reactor at Balipara & Bongaigaon:

After commissioning of 400 kV Bongaigaon-New Siliguri III & IV and 400 kV Balipara- Bongaigaon III & IV, persistent high voltage is being observed at Ranganadi for which some 400 kV lines have to be opened to control over-voltage. It is thus proposed to install Bus-reactor at Balipara in order to keep all lines in service. System study is being carried out to assess the requirement of Reactive Compensation which will be circulated in 104th OCC Meeting.

DGM, NERLDC informed that high voltage is observed at Bongaigaon, Balipara & RHEP resulting in opening of 400 kV lines on daily basis to contain over voltage and hence they proposed to install one number 125 MVAR Reactor each at Bongaigaon & Balipara so that opening of lines can be avoided.

During 104th OCC meeting, the Sub-committee requested NERLDC to carry out the system studies to justify the requirement and if necessary the issue can be taken up in the coming Standing Committee meeting.

During the 4th SCM held at Guwahati on 13.12.2014, the issues have been discussed and it was agreed for installation of 125 MVAR Bus Reactors by POWERGRID at Balipara and Bongaigaon.

During 105th OCC meeting, SE (O) informed that during the 4th Standing Committee Meeting held on 13.12.2014, members have agreed for addition 125

MVAR bus reactors by POWERGRID at Balipara and Bongaigaon sub-stations. In case, of space constraints, the same may be installed with GIS bays or in parallel with existing bus reactors.

DGM, NERTS informed that recently one 63 MVAR Reactor at Byrnihat failed and to be sent to CGL factory at Mumbai for repairing. DGM, NERLDC insisted that reactor at Byrnihat is very much essential to contain high voltage and Meghalaya should take up the matter with NERTS at the earliest. Accordingly, DGM, NERTS suggested that one BHEL Make Reactor of same capacity which has already been repaired and lying at Bhopal Works of BHEL can be spared till repairing of the faulty reactor at Byrnihat by CGL. However, for the purpose the request of Me. PTCL is required and accordingly matter will be referred for management approval.

SE, SLDC requested NERPC to write letter to Director, Me.PTCL so that the repaired reactor of POWERGRID at BHEL works can be diverted to Byrnihat immediately for installation and commissioning. NERPC agreed.

During deliberation AEGCL requested NERPC & POWERGRID to spare 100MVA, 220/132kV Transformer (Regional Spare) from Dimapur Sub Station for Augmentation of transformation capacity of 220/132kV Samaguri Sub Station by installation of same in place on one no. of existing 50MVA Transformer. AEGCL further informed that the replaced 50MVA transformer can be kept as regional spare till they replenish the 100MVA Transformer which is already under procurement.

DGM, NERTS requested AEGCL to go through the process of approval of RPC for procurement of Regional Spare equipment which are against probable breakdown of critical equipment of Regional project. Further, he opined that such equipments are, in any case, not meant for planned Augmentation of State project.

SE (O), NERPC suggested AEGCL to take up the issue in forthcoming RPC Meeting.

The Sub-committee requested all the constituents to carry out the DGA test regularly to prevent unnecessary failure of equipments.

Deliberation of the Committee

SE(O) informed that NERPC vide letter dated 13.02.2015 has written to Director, Me. PTCL regarding spare reactor available at Balipara to be utilized by Me.PTCL as suggested by the Sub-committee.

DGM, NERTS informed that matter has already been discussed with Meghalaya and the matter has been resolved bilaterally.

The Sub-committee noted as above.

C.15 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 LGBR 2014-15 of NERPC. Constituents may kindly verify if the above data are correct for April, 2015 only.

Requirement:

Name of State	Feb15	Mar15	Apr15	May15	Jun15
Ar. Pradesh	55	48	66	70	67
Assam	615	570	640	745	790
Manipur	55	51	65	65	75
Meghalaya	175	175	165	170	160
Mizoram	35	40	40	40	40
Nagaland	55	50	60	60	65
Tripura	120	120	115	125	125
NER	1090	1054	1151	1275	1322

Availability:

Name of State	Feb15	Mar15	Apr15	May15	Jun15
Ar. Pradesh	31	40	50	57	68
Assam	385	413	520	554	635
Manipur	47	47	66	69	79
Meghalaya	111	110	146	188	221
Mizoram	31	32	43	49	55
Nagaland	27	31	47	43	51
Tripura	112	150	197	211	212
NER	744	823	1069	1171	1321

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

C.16 Monthly MW requirement & availability of each state of NER:

A. Peak Demand in MW

Name of State	Feb15	Mar15	Apr15	May15	Jun15
Ar. Pradesh	130	120	138	138	133
Assam	1235	1320	1371	1382	1439
Manipur	135	140	132	148	138
Meghalaya	385	360	400	400	400
Mizoram	78	84	85	85	90
Nagaland	120	119	120	120	120
Tripura	235	260	280	300	300
NER	2318	2403	2526	2573	2620

B. Peak Availability in MW

Name of State	Feb15	Mar15	Apr15	May15	Jun15
Ar. Pradesh	101	100	115	126	149
Assam	816	826	961	990	1164
Manipur	105	106	127	129	154
Meghalaya	192	200	266	335	387
Mizoram	71	70	86	92	108
Nagaland	66	64	101	87	103
Tripura	272/230	270/230	374/230	377/230	396/230
NER	1623	1636	2030	2136	2461

*Tripura indicates 272/230 if Pallatana available/if not available

As decided in 96th OCCM, SLDCs are requested to provide the following data:-

A. Off Peak Demand in MW (0800 Hr)

Name of State	Feb15	Mar15	Apr15	May15	Jun15
Ar. Pradesh	72	70			
Assam	766	800			
Manipur	81	80			
Meghalaya	231	232			
Mizoram	51	50			
Nagaland	72	74			
Tripura	153	155			
NER	1426	1461			

B. Off Peak Availability in MW (0800 Hr)

Name of State	Feb15	Mar15	Apr15	May15	Jun15
Ar. Pradesh	100	101			
Assam	796	799			
Manipur	98	97			
Meghalaya	216	220			
Mizoram	69	70			
Nagaland	64	65			
Tripura	150	150	150	150	150
NER	1611	1622	1622		

The Sub-committee noted as above.

D. NEW ITEMS

D.1 Generation Planning (ongoing and planned outages)

The availability of hydro stations of NEEPCO/NHPC are as follows:

Generating Station	Reservoir level as on 23/02/15	MU Content	Present DC MU	No. of days as per current generation
Khandong & Kopili-II	717.90 mts	9.99	0.225	44
Kopili	595.70 mts	(11.3 + 4*9.99) = 51.26	0.27	190
Doyang	312.20 mts	8.5	0.0975	87
Loktak	767.09 mts	34.75	0.21	165

Hydro generation planning for lean hydro period - Proper planning is required to utilize the available water for entire lean hydro period, say up to May, 2015.

The sub-committee discussed and approved the proposed shutdown of NEEPCO and requested them to adhere to the timing and period granted. The shutdown is enclosed at Annexure – D.3.

D.2 Water level and spillage data of hydro stations

Historical data of reservoir level and spillage data of Hydro stations are not available with NERLDC. This information is sometimes asked by various authorities to facilitate in making database for the same. All concerned are requested to furnish the available information to NERLDC as early as possible.

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

NERLDC informed that Assam, NEEPCO & NHPC has furnished the above information but not as per the format given by NERLDC.

Water level format:

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

Water spillage format:

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

Constituents informed that previous data may not be readily available with them, however, present data available will be sent shortly.

Deliberation in the meeting

Constituents informed that water utilized in cumecs is not possible to give unless special meter at tail race is installed to monitor the flow of water.

The Sub-committee once again requested all the constituents to furnish the data as per data available with them to NERLDC at the earliest.

D.3 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.

Deliberation in the meeting

CGM, LDC, Assam highlighted the problem of incidences on 23.02.2015 and stated that due to charging of 400 kV Binaguri Bongaigon -#3 in the peak hour has resulted in major grid disturbance and therefore requested NERLDC to look into the matter and all the shutdown/open circuits of important lines should be charged/closed well before the peak hours. Further, he suggested that NERPC should have the facility of video conferencing so that any important discussions can be made directly and this will help those constituents who are not able to attend the meeting can be discussed online. Also, he informed that in the new SLDC scheme, video conferencing facility will be made available.

SE(O) informed that NERPC has already approached NERLDC to install EPABX, LAN, CCTV, two terminal for monitor the grid and hence, with the above suggestion they will request NERLDC to install the video conferencing facility as well. Further, he informed that some of the agency who took the shutdown did not adhere to the timing and period granted to them and this has created a lot of inconveniences to NERLDC/NERPC.

NERLDC stated that the lines which are opened during off-peak hours due to over voltage are to be brought back in service in peak hours, when voltage remains on lower side, for catering higher load. Similarly lines which were under shutdown are also to be put in service.

The sub-Committee approved the transmission line outages proposed by Constituents for January - February, 2015 is attached at Annexure - D.3. Also the committee has decided that no shutdown will be entertained henceforth unless discuss in OCC meeting, except on emergency basis.

D.4 Automatic Demand Management Scheme (ADMS):

NER states are supposed to implement Automatic Demand Management Schemes in their respective control areas for automatic disconnection of loads in case of exigencies, in line with IEGC stipulations in clause-5.4.2(d). The matter was raised and deliberated in 101st OCC meeting. So far no intimation received from the States regarding the action taken in this respect. A presentation on the subject was supposed to be arranged by NERPC.

During the 105th OCC meeting, the issue has been discussed in detail and the Sub-committee advised constituents to file the petition to Hon'ble CERC stating the difficulties faced by them in implementation of ADMS

Deliberation in the meeting

The Sub-committee once again requested constituents to file the petition to CERC for exemption of above order by stating about the difficulties of implementation of ADMS.

D.5 20th Transmission Planning:

SE (O) NERPC informed that a joint Standing Committee meeting on Power System Planning for all regions was convened by Chairperson, CEA on 22nd September, 2014 at NRPC, New Delhi. In the meeting the 20-year Transmission Perspective Plan (2014-34) for all the five regions were discussed.

He requested that the following information/data is currently required from each State/Utility of each region may kindly be furnished at the earliest.

Sl. No	Plan	By end of 12 th Plan (upto 2017)			By end of 13 th Plan (upto 2022)		
State/Utility:							
1	Peak Demand (MW)						
2	Demand Behaviour (profile for season-wise & Annual)	Summer (Peak & Off-peak)	Monsoon (Peak & Off-peak)	Winter (Peak & Off-peak)	Summer (Peak & Off-peak)	Monsoon (Peak & Off-peak)	Winter (Peak & Off-peak)
3	Generation Project target schedule						
4	Transmission Projects (220 kV & above) target schedule						
5	Transformer Capacity addition (220/132 kV & above) target schedule						

Deliberation in the meeting

SE(O) informed that so far only Assam & Tripura has furnished the above data. He stated that above information is very much necessary for Planning Purposes by CEA & MoP and hence requested all the constituents to furnish the data at the earliest.

NEEPCO & Meghalaya informed that they have submitted directly to CEA. NERPC requested them to forward the same to them.

The Sub-committee has decided that all the concerned constituents should furnish the information as per format mentioned above by March, 2015 positively.

D.6 Low Voltage at Loktak (Manipur) & Mizoram:

During 104th OCC meeting, representative from Loktak informed that low voltage still persist in Loktak sub-station and requested the forum to look into the matter.

The Sub-Committee requested NHPC to install the capacitor bank in order to arrest the low voltage.

Meanwhile, NHPC vide letter dated 30.12.2014 has intimated that still low voltage is persisting. They also mentioned that Loktak power station is trying to feed

maximum MVAR up to the extent of the capability of generator and on 29.12.2014 they have to run their second unit unscheduled to meet the reactive power requirement by injecting maximum MVAR, but after all effort the grid voltage was found to be in order of 90kV or even lower sometimes.

Due to low grid voltage on 30.12.2014, the generating unit tripped on excitation fault and Loktak power station is not able to run the generating unit as per schedule.

Further, NERLDC informed that severe low voltage problem at Imphal (PG), Loktak and nodes of Manipur system has been observed during outage of 132 kV Dimapur – Imphal line or 132 kV Loktak – Jiribam line. It was informed by P&E, Mizoram that low voltage problem at nodes of Mizoram system has also been observed.

It is required to install capacitor banks in 33 kV nodes of Manipur & Mizoram system to improve voltage profile of these nodes. Study results for installation of capacitor banks at nodes of Manipur & Mizoram system are attached at **Annexure-D.6**.

During 105th OCC meeting, NERLDC gave a presentation on the above and it can be clearly seen that very low voltage is prevailing in Aizawl, Lunglei & Loktak. They suggested that necessary capacity bank should be installed at the earliest to maintain the voltage level as per IEGC.

After detailed deliberation, the Sub-committee requested NERPC to write to Mizoram & NHPC to change the transformer tap position accordingly and NERLDC may observe the voltage profile for one-two months and if the problem still persists, the Sub-committee may review again and find out the alternative solution.

Deliberation in the meeting

SE(O) informed that NERPC vide letter dated 13.02.2015 has already written to NHPC & Mizoram to set the tap position at the maximum.

The Sub-committee suggested that since 400kV Silchar- Imphal & Silchar-Melriat are on the verge of charging and expected that the voltage will improve accordingly. Further, NERLDC may monitor the voltage profile in Loktak & Mizoram if the voltage has improved after changing the tap position of transformers.

D.7 Assessment of Inter State Total Transfer Capability (TTC), Transmission Reliability Margin (TRM) and Available Transfer Capability (ATC) by SLDC on respective Inter-State Transmission Corridor:

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

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

SLDCs are requested to send study results for Peak (Export & Import) & Off Peak (Export & Import) along with assumptions in details and 6 nos *.sav case files (Base Case for Peak & Off Peak, Off Peak & Peak Export & Off Peak & Peak Import) to NERLDC by 15th of the month for the fifth month. All India *.sav case files have been sent to SLDCs which may be used while computing TTC, ATC & TRM for their state control area.

During 105th OCC meeting, DGM, NERLDC informed that all SLDCs should conduct study and assess the TTC/TRM/ATC of their own network also for relieving congestion in the grid. He also informed that PSS-E software for carry out the above study were distributed to all constituents and training was also imparted. NER States can do load flow study and in case of any problem they may consult NERLDC or depute their concerned engineer, along with Dongle & Laptop, to NERLDC for study their cases with the assistance of NERLDC Engineers.

After detailed discussion, the Sub-committee requested all SLDCs to send study results for Peak (Export & Import) & Off Peak (Export & Import) along with assumptions in details and 6 nos *.sav case files (Base Case for Peak & Off Peak, Off Peak & Peak Export & Off Peak & Peak Import) to NERLDC by 15th of the month for the fifth month.

Deliberation in the meeting

NERLDC informed that so far no constituents have furnished the above study.

The Sub-committee once again requested all the constituents to submit the study report to NERLDC as mentioned above.

D.9 Restoration Procedure of NER Grid:

DGM, NERLDC informed that the "Restoration Procedure of NER Grid" has been finalized & uploaded in NERLDC website. In this connection a seminar on restoration procedure will be organized by NERLDC in Guwahati on 4th February, 2015. All the SLDCs are requested to give small presentations (10-20 minutes) in the seminar regarding their own system for the knowledge of all other utilities. All the utilities of NER are requested to please nominate at least two participants, for the Seminar, who are associated with the system operation.

Deliberation in the meeting

NERLDC informed that above workshop has been conducted successfully on 04.02.2015 where all the constituents were present. They thanked the constituents for active participation and requested to do so in future for the benefit of the region.

The Sub-committee noted as above.

D.10 Estimated Transmission Availability Certificate (TAC) for the month of January, 2015:

The Estimated Transmission System Availability for the month of January, 2015, furnished by PGCIL, is **99.9820%**. The detail outage data for calculation of Transmission System Availability furnished by PGCIL, was discussed in the meeting. NER constituents are requested to kindly communicate their views and observations, if any, by 28th February 2015 so that Final TAC for the month of January, 2015 may be finalized by NERPC Secretariat.

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

Date & Venue of next OCC meeting

It is proposed to hold the 107th OCC meeting of NERPC on 20th March, 2015. However, the exact date and venue will be intimated in due course.

The meeting ended with thanks to the Chair.

Annexure-I

List of Participants in the 106th OCC Meetings held on 24/02/2015

SN	Name & Designation	Organization	Contact No.
1.	Sh. N. Perme, EE, SLDC	Ar. Pradesh	09436288643
2.	Sh. M.K. Bordoloi, CGM,SLDC	Assam	09435203996
	Sh. A.K. Saikia, DGM,LDC, AEGCL	Assam	09401026118
3.	Sh. J.P. Choudhury, AGM (Com), APDCL	Assam	09954055295
4.	Sh. J.K. Baishya, AGM, LD-Com, AEGCL	Assam	09435041494
5.	Sh. Karuna Sarma, AGM, AEGCL	Assam	09435013532
7.	Sh. B.C. Borah, AGM, SLDC	Assam	09435119248
	Sh. Roza Mahmud, System Analyst	Assam	09859578121
8.	Sh.N. Chakraborty, Asst. Manager	NETC	07896022335
9.	Sh. Th. Bimal Singh, Manager, MSPCL	Manipur	09856245139
	Sh. Roshan Oinam, Manager, MSPCL	Manipur	09863895218
10.	Sh. K. Jila Singh, GM(Com-I), MSPCL	Manipur	09612950028
11.	Sh. F.E. Kharshiing, SE, SLDC	Meghalaya	09863066960
12.	Sh. T. Gidon, EE, SLDC	Meghalaya	09774479956
13.	No Representatives	Mizoram	
14.	No Representatives	Nagaland	
15.	Sh. D. Pal, Sr. Manager	Tripura	09436500244
16.	Sh. Babul Roy, Dy. Manager	NERLDC	09436335377
17.	Sh. Anupam Kumar, Sr. Engineer	NERLDC	09436335379
18.	Sh. B.K. Chakraborty, DGM (E)	NEEPCO	09436309730
19.	Sh. Bhaskar Goswami, Sr. Manager (E/M)	NEEPCO	09436163983
20.	Sh. Deepak Chetia, AM (EMD/O&M)	NTPC	09435325996
21.	Sh. Shaswata Dutta, DGM (O&M)	ENICL	09560300059
22.	Sh. R.C. Singh, Manager (E)	NHPC	09436894889

Annexure - C. 2

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 SMS Smelters (33 KV Lekhi feeders - 3 Nos)	Stage - I (49.2 Hz)		10	0
			At Platinum Alloys (11 KV Lekhi feeders - 3 Nos)	Stage - II (49.0 Hz)		7	0
			At Satyam Ispat Ltd. (33 KV Lekhi feeders - 3 Nos)	Stage - III (48.8 Hz)		5	0
			At Nirjuli feeder (11 KV Lekhi feeder - 1 No.)	Stage - IV (48.6 Hz)		3.5	1.5
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 Baghchap (132 KV Kahilipara - Chandrapur - Baghchap)		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 Jogghopa (132 KV Dhaligoan - Jogghopa)		7		
			At Sankardevnagar (132 KV Samaguri - Sankardevnagar)		18		
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
			At Yaingangpokpi (33 KV Yaingangpokpi - Napetpalli)	Stage - II (49.0Hz)		5	0
			At Kongba (33 KV Kongba - Mongsanglei)	Stage - II (48.8Hz)		4	1
			At Kakching (33 KV Kakching - Wangjing)	Stage - II (48.6Hz)		3	2

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 Mawplang (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
6	Nagaland	20	At Mokokchung (66 KV Mokokchung - Tuli)	Stage - I (49.2 Hz)		6	0
			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	104.59	0
Stage - II (49.0 Hz)	100 MW	107.81	0
Stage - III (48.8 Hz)	100 MW	107.6	0
Stage - IV (48.6 Hz)	100 MW	100.7	0
TOTAL	400 MW	420.7	0

APPROVED SHUTDOWN OF TSECL FOR THE MONTH OF FEB-15 or MAR-15

SN	Name of Element	Feb/15							Mar/15																								Time	Purpose						
		23	24	25	26	27	28	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	31
TRIPURA																																								
A.Names of Lines/Sub-Station																																								
1	132 KV Agartala - Dhalabill	■																																					09:00 to15:00 Hrs	Pre-Monsoon
2	132 KV Kamalpur - Ambassa																																						09:00 to15:00 Hrs	Pre-Monsoon
3	132 KV Kamalpur - Dhalabill																																						09:00 to15:00 Hrs	Pre-Monsoon
4	132 KV Gamaitilla - Ambassa																																						09:00 to15:00 Hrs	Pre-Monsoon
5	132 KV Kamalpur - Dhalabill																																						09:00 to15:00 Hrs	Pre-Monsoon
6	132KV Agartala -Dhalabill																																						09:00 to15:00 Hrs	Pre-Monsoon
7	132 KV P.K Bari - Ambassa																																						09:00 to15:00 Hrs	Pre-Monsoon
8	132 KV Dharmanagar- Churaiibari																																						09:00 to15:00 Hrs	Pre-Monsoon
9	132 KV Kamalpur - Dhalabill																																						09:00 to15:00 Hrs	Pre-Monsoon
10	132KV Rokhia - Agt L- I																																						09:00 to15:00 Hrs	Pre-Monsoon
11	132 KV Agt - Rokhia L- II																																						09:00 to15:00 Hrs	Pre-Monsoon
12	132 KV P.K Bari -Ambassa																																						09:00 to15:00 Hrs	Pre-Monsoon
13	132 KV Gamaitilla - Baramura																																						09:00 to15:00 Hrs	Pre-Monsoon
14	132 KV Rokhia-Monarchak																																						09:00 to15:00 Hrs	Pre-Monsoon
15	132 KV Monarchak - Udalpur																																						09:00 to15:00 Hrs	Pre-Monsoon
16	132 KV Ambassa - P.K Bari																																						09:00 to15:00 Hrs	Pre-Monsoon
17	132 KV P.K Bari - Dharmanagar																																						09:00 to15:00 Hrs	Dharmanagar will receive power from Durllavcherra
18	132kV P.K Bari-Mission Tilla																																						09:00 to15:00 Hrs	For construction of 132kV P.K.Bari-Kanchanpur line

Subject to availability fo 400 kV Palatana-Silchar line

■ Continuous Shutdown

■ Daytime SD