North Eastern Regional Power Committee

Agenda
For
87th Operation Coordination Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 9th July, 2013 (Tuesday)

Venue : Hotel Grand Starline, Guwahati.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 86th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 86th meeting of Operation Sub-committee held on 9th April, 2013 at Guwahati were circulated vide letter No. NERPC/OP/OCC/2013/3311-38 dated 24th May, 2013.

No observations or comments were received from the constituents. The Sub-committee may confirm minutes of 86th OCCM of NERPC.

ITEMS FOR DISCUSSION

B. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING JUN, 2013

As per the data made available by NERLDC, the grid performance parameters for June, 2013 are given below:

i) **Average frequency** during June, 2013 was 50.08 Hz as compared to 50.06 Hz in May, 2013

ii) **Minimum frequency** in June, 2013 was 49.05 Hz (18.06.13 at 21:19 hrs) as compared to 49.33 Hz recorded in the previous month.

iii) **Maximum frequency** was 50.77 Hz (16.06.13 at 13:29 hrs) as compared to 50.94 Hz recorded in May, 2013.

iv) **System frequency** remained within permissible range of 49.7 Hz to 50.2 Hz for 80.90 % of the time, below 49.7 Hz for 1.62 % and above 50.2 Hz for 17.48 % of the time as compared to 87.32 %, 1.38 % and 11.30 % respectively in the previous month.

v) **Regional peak** demand in June, 2013 was 2101 MW as compared to 1993 MW in May, 2013, an increase of 5.4 % over the previous month.

vi) **Regional peak availability** was 1900 MW as compared to 1810 MW in previous month, an increase of 4.97 % over the previous month.

vii) **Energy requirement** was 1090.91 MUs in June, 2013 compared to 994.01 MUs in May, 2013, an increase of 9.86 % over the previous month.

viii) **Regional energy availability** was 1021.73 MUs compared to 911.40 MUs in the previous month, an increase of 12% over the previous month.

ix) **Rise in demand met** was recorded in Manipur (3%), Assam (1%), Ar. Pradesh (6%), Mizoram (9%) & Tripura (4%) over the previous month.

x) **Drop in demand met** was recorded in Nagaland (4%) Meghalaya (6%) over the previous month viz. May, 2013.

xi) **No Over Voltage** at 400 kV Sub-Station was observed

xii) **No over Voltages** were observed at 220kV & 132 kV S/S.

xiii) **No under Voltages** were observed at 400 kV S/S & 220 kV S/S.

xiv) **No Under voltage** at 132kV S/S was observed.

xv) **Regional Generation & Inter-regional Exchanges** during the month of June, 2013 compared to may, 2013 are given below:

SN	Parameter	June, 2013	May, 2013
REGIONAL GENERATION & INTER – REGIONAL EXCHANGES (in MU)			
1	Total Generation in NER (Gross)	**875.862**	**868.097**
2	Total Central Sector Generation (Gross)	**537.135**	**571.403**
	Total State Sector Generation (Gross)	**338.221**	**296.694**
3	Inter-Regional Energy Exchanges		
	(a) NER - ER	**20.76**	**31.67**
	(b) ER - NER	**187.18**	**93.97**
	(c) Net Import	**166.43**	**62.30**

C. FOLLOW UP ACTION

C.1 Synchronization of Pallatana module -I

During the 86th OCC meeting, the representative of OTPC informed that the machine was desynchronized due to problem of gas contamination and problem associated with valve operation at ONGC end. The matter has been taken up with ONGC for smooth operation of the unit. The machine is expected to be re-synchronized on 8th June, 2013.

NERLDC requested OTPC to communicate their generation schedule 2-3 days in advance so that the necessary co-ordination can be done with constituents of the region for smooth operation of grid.

The committee requested OTPC to submit the detail list of all tests and commissioning activities which have been completed by 25th May, 2013. Further, the tests which are required to be done before commissioning may also be informed with details to NERPC and NERLDC.

OTPC informed that on 15th May, 2013 DLN tuning was completed and only PPA test is left out for which OTPC required 3 days continuous run under full load (350 MW and above). Before PPA test, OTPC would like to run the Unit continuously for two (2) days under full load to ensure stable operation of machine.

Me.ECL informed that their Hydro machines have started their generation and in any case their generation should not be backed down for trail operation of Unit# 1 of OTPC.

Tripura stated that during the test run of Unit# 1 of OTPC, their generation should not be backed down as one unit of Baramura is already under shutdown.

POWERGRID informed that the commissioning schedule of 400 kV Byrnihat-Bongaigan is December, 2013.

MS I/C enquired about frequent tripping of reactor at Palatana end. The representative of OTPC informed that the problem has been resolved by BHEL.

After detailed deliberation the committee decided as follows:

1) OTPC shall be allowed to go for PPA test which requires continuous run for 72 hours under full load (350 MW and above). Also, before PPA test, the Unit may be run for two (2) days under full load to ensure stable operation of machine.
2) There should be no financial implication to other constituents due to backing down of their machines, if required.

3) OTPC should intimate their generation schedule two days in advance to NERLDC/NERPC for proper co-ordination with constituents and OTPC should strictly adhere to their declare schedule for safety of the grid.

Committee may like to discuss about the following issues:

(a) Present status of trial operation of Unit -1 of OTPC at Palatana

(b) Permission from CERC for Extension of injection of infirm power till CoD

(c) Any other issue relating to GBPP of OTPC

(d) The status of following transmission system associated with evacuation of power from generating stations of OTPC at Palatana and of NTPC at Bongaigaon

Byrnihat – Bongaigaon 400kV line
Silchar- Imphal 400kV D/c line and substation at Imphal
Silchar- Melriat 400kV D/c line and substation at Malriat
Mariani – Mokokchung 220kV D/c line

C.2 Independent third party audit of protection system and self-certification in respect of operationalisation of Under Frequency Relay (UFR) and df/dt relay

During the 86th OCC meeting, SE (O) informed that Arunachal Pradesh, Tripura and Mizoram have already finalized their DPR and soft copy has been submitted to NERPC. Assam, Manipur and Nagaland informed that their DPR will be submitted very soon.

All the constituents, except NHPC & POWERGRID, have completed the DPR and submitted to CEA. The copy of DPR has been received in NERPC Secretariat from all state constituents and NEEPCO, except Assam, Mizoram.

Committee may like to discuss the future course of action.

C.3 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 86th OCC meeting, the committee decided that the UFR based load shedding will be as follows:

The 60% of NER's peak load (i.e. about 1800 MW)= 1080 MW. The amount of load shedding for NER could be as follows:

Sl. No.	Stages	Frequency (in Hz)	Amount of Load shedding (in %)	Amount of Load shedding (in MW)
1	Stage-I	49.2	10%	108
2	Stage-II	49.0	10%	108
3	Stage-III	48.8	15%	162
4	Stage-IV	48.6	15%	162
	Total load shedding			**540**

The Sub-committee had decided to refer the matter to TCC. Committee may like to identify the feeders and the quantum of load shedding etc. in respect of each state at different stages so that the same can also be put up to TCC forum.

C.4 Lines under long outages

During the 86th OCC meeting, the issue for restoration of these lines was reviewed by the committee and the status is as follows:

(a) 220kV BTPS – Agia line (one ckt) – Tender has already been opened and order is likely to be placed by April, 2013 and the target for completion of work is January, 2014.

(b) 132kV Mariani – Mokokchung line – during 83rd OCC meeting, AEGCL informed that the line was charged but tripped immediately after charging due to faults in some portion of the lines under Nagaland. During 84th OCC meeting, the representative of Nagaland informed that the work of replacement of some insulators is under progress. After completion of replacement work, the line can be charged. The status could not be updated since there was no representative from Nagaland

(c) 39km of 132kV Rengpang – Jiribam line – Manipur informed that stringing of line is complete and work at termination point near substation is going on; the same will be completed by July, 2013.

(d) 132 kV Dimapur - Dimapur - II line – POWERGRID informed that Nagaland has agreed to the proposals made by them and the issue will be resolved soon. Nagaland representative informed that some local arrangement is being done to charge the Kohima line directly from Dimapur S/S and the work is likely to be completed by April 2013. As soon as the work is over, the problem with 132 kV Dimapur - Dimapur - II line will be resolved in association with POWERGRID. The status could not be updated since there was no representative from Nagaland

The current status may be informed by Nagaland/ Manipur/ POWERGID.

C.5 SPS Scheme for Pallatana:

During 84th OCC meeting and 8th PCC meeting NERLDC gave a presentation on system studies and other related issues pertaining to System Protection Scheme (SPS) associated with following conditions:

Case 1: Tripping of generating unit of OTPC at Palatana

Case 2: Tripping of 400 kV D/C Palatana-Silchar line

Case 3: Tripping of 400 kV Silchar-Byrnihat line.

NERLDC informed that the study was carried out by taking the base case of NER peak and off-peak conditions in July, 2013.

During off-peak hours, the above trippings may not create serious problem. But during peak hours, above trippings may lead to grid disturbance.

As pre-condition, for successful operation of the proposed System Protection Scheme (SPS), the following lines should be kept in open condition for all the three cases mentioned above:

- 132 kV D/C Khliehriat(PG) – Khliehriat(MeECL) lines at Khliehriat(MeECL)
- 132 kV Khliehriat(MeECL) – NEHU line
- 132 kV Khliehriat(MeECL) – NEIGRIHMS line
- 132 kV Pailapool – Jiribam line at Jiribam end

The scheme for all the three cases will be as follows:

Case 1: When Palatana unit trips:

i. When generator at Palatana trips a signal will be generated from trip relay of the unit.

ii. This signal should trip the CB of 132 kV Silchar – Srikona D/C & 132 kV Silchar – Panchgram lines at Silchar.

iii. Subsequent to tripping of 132 kV Silchar – Panchgram line, the CB at Badarpur of 132 kV Badarpur – Panchgram line should be tripped.

iv. After these trippings an instant load of 80 MW will be relieved during off-peak hours & 130 MW will be relieved during peak hours which will prevent the system from cascade tripping

v. Then manual demand disconnection/management should be imposed.

Case 2: <u>When 400 kV Palatana-Silcher (D/C) lines trip</u>

i. When both the ckts of 400 kV Palatana – Silchar lines trip, a signal will be generated from trip relays at Silchar

ii. This signal should trip the C CBs at Silchar end of 132 kV Silchar – Srikona D/C & 132 kV Silchar – Panchgram lines.

iii. Subsequent to tripping of 132 kV Silchar – Panchgram line, the CB at Badarpur end of 132 kV Badarpur – Panchgram line should be tripped.

iv. After these trippings an instant load of 80 MW will be relieved during off-peak hours & 130 MW will be relieved during peak hours which will prevent the system from cascade tripping

v. Then manual demand disconnection/management should be imposed.

Case 3: <u>400 kV Silchar – Byrnihat line</u>

i. When 400 kV Byrnihat – Silchar lines trip, signal will be generated from trip relays at Silchar

ii. This signal should trip CB of GTG/STG of Generating Unit at Palatana. But unit may run in Full Speed No Load (FSNL) condition.

iii. An instant relief of load of 230/130 MW will prevent the system from cascade tripping.

iv. Then manual demand disconnection/management should be imposed

During 85th OCC meeting, POWERGRID informed that necessary action has already been taken at their end and OTPC have to take necessary action at their end for successful implementation of the proposed SPS scheme.

The representative of OTPC informed that BHEL will be consulted to complete the SPS scheme at the earliest. Further, he requested POWERGRID to depute their engineer to Palatana site for assistance.

MS I/C, NERPC informed that the SPS should be in place before trial operation of Unit #1 of OTPC (under full load condition) for safe operation of the grid. However, after implementation, the scheme needs to be discussed /reviewed from time to time for fine tuning and further improvement taking into account various system conditions.

The committee requested OTPC to complete the work at the earliest in consultation with NERLDC, NERTS/POWERGRID. OTPC agreed.

Regarding nomination for system study group, the status as informed in the 85th OCC meeting is given as below:

Ar. Pradesh – Shri Tarik Mize, Executive Engineer.

Assam – Navjit Patir, AEGCL.

Manipur – Shri N. Jasobanta Singh, AE & Shri Th. Bimol Singh, AE

Mizoram- Sh. C.C. Lalrimwala, SDO & Sh. Zoramdina, AE

Meghalaya – Sh. D.J. Lyngdoh, AEE, SLDC & Sh. L. Nongkhlaw, AEE, SLDC

Nagaland- Sh. S. Longkumer, SDO, Sh. H. Assumi, SDO & Sh. C. Walling, SDO

Tripura – Sh. Mrinal Paul, Manager & Sh. Anwesh Choudhury, Manager.

NEEPCO – Sh. Bhaskar Goswami, Sr. Manager.

NERLDC – Sh. A. Mallick, CM & Sh. Anupam Kumar, Engineer

NERTS – Sh. P. Kanungo, DGM & Sh. Supriya Paul, Dy Manager

OTPC – Sh. Tapas Karmakar, Asstt. Manager

NERPC – Sh. Lalrinsanga, EE & Sh. S.M. Jha, EE

IIT, Guwahati - nomination will be taken up by NERPC Secretariat.

Further, the committee requested NERLDC to organize a meeting for System Study group as per their convenience as most of the nominations have been received from the constituents.

During 86th OCC meeting, the representative of OTPC informed that necessary action has already been taken at their end for successful implementation of the proposed SPS pertaining to tripping of generating Unit#1 (Case-I). The auxiliary contact of CB has been wired upto PLCC panel in consultation with POWERGRID.

DGM, NERLDC stated that the backing down of generation manually will not solve the problem the scheme should operate automatically.

EE(O), NERPC informed that the SPS scheme for Case 2 may be reviewed as it may require backing down of generation /tripping of GT/STG of Unit #1 of OTPC.

OTPC requested the forum that the SPS pertaining to other two cases [Case-II & Case-III], requiring automatic tripping of STG/GT of generating Unit#1, needs further discussion. The tripping of STG may lead to reduction of generation to a very low level. Hence detail discussion is required with BHEL, POWERGRID, NERLDC and NERPC before implementation of the SPS for Case II &III.

Meghalaya stated that Leshka HEP has started full generation and since so many Meghalaya lines are kept in open condition for implementation of SPS, NERLDC need to ensure the evacuation of full generation of power of Leshka HEP.

After detailed deliberation, the committee suggested that the system study group need to study the proposal in detail, particularly SPS pertaining to Case-II & III and prepare action plan for implementation of SPS.

Committee may like to discuss the status of implementation of SPS. NERLDC may inform about the status of studies relating to SPS.

C.6 Implementation of Islanding Scheme in NER:

During the 85th OCC meeting, MS I/C, NERPC informed that during the NPC meeting, held at CEA, New Delhi on 15th April, 2013, he had expressed the difficulty in preparation of islanding schemes in NE Region because of very low level of frequency (i.e. 47.9 Hz) proposed for islanding. POSOCO was requested by NPC to extend necessary guidance / assistance to NERPC / NERLDC in formulation of the suitable islanding scheme(s) in that region.

The islanding Scheme proposed by NERLDC was discussed.

The committee enquired about the frequency setting for tripping of the Gas based generating Units covered under the proposed islanding schemes.

Assam representatives informed that the frequency setting for tripping of the Gas based generating Units of NTPS is 48.72 Hz.

NEEPCO informed that the frequency setting for tripping of the Gas based generating Units is generally much higher than proposed islanding frequency i.e. 47.9Hz. The frequencies at which generating Units of AGBPP are likely to trip are 47.5 Hz (for M/s Mitsuibisi make unit) and 48.0 Hz (for M/s BHEL make unit) and that of AGTPP is 48.0 Hz. OTPC informed that frequency setting for tripping of the Gas based generating Units of OTPC is 47.8 Hz (for M/s BHEL make Unit).

After detailed discussion the committee has decided the following frequencies for creation of islands in NER:

Sl. No.	Islanding Scheme	Frequency
1.	Island comprising of generating units of AGBPP, NTPS & LTPS and loads of Upper Assam system & Deomali area [Total Generation: 380-400MW and load: 200-300MW]	48.80 Hz
2.	Island comprising of generating units of AGTPP, generating units at Baramura, Rokhia & Gumati (Hydro) and loads of Tripura system & Dullavcherra area [Total Generation: 150-160MW and load: 110-150MW]	48.20 Hz
3.	Isolation of NER from NEW grid at ER-NER boundary with rest of the generation and load of NER	47.90 Hz

Further, the committee suggested for discussion with ER regarding isolation of NER from NEW grid at ER-NER boundary. All constituents were requested to study the proposal so that the matter can be discussed further for finalization.

During the 86th OCC meeting, the committee requested the system study Group to study the proposed islanding Scheme in detail and discuss in OCC/PCC forum so that further action can be planned for implementation of islanding schemes.

The Committee may like to discuss about the implementation plan. NERLDC may inform about the status of studies relating to Islanding scheme.

C.7 Loadability Enhancement of 132KV Transmission lines

NERLDC has requested POWERGRID, vide their letter No. NERLDC/GM/547 dtd 14.11.2012 for enhancement of loading capacity of the following lines:

a) 132KV S/c Badarpur-Khliehriat Line
b) 132KV S/c Loktak-Jiribam-II Line
c) 132KV S/c Dimapur-Imphal Line
d) 132KV S/c Imphal-Loktak-II Line

NERLDC has stated that enhancement of loading capacity of the above lines is required for higher load dispatch, particularly in the context of evacuation of power from Pallatana GBPP.

Accordingly, POWERGRID has already taken the following actions for increased loadability:

Upgradation of existing CTs

Upgradation of the terminal CTs of 132KV S/C Loktak-Jiribam_II line, 132KV S/C Dimapur-Imphal line is being taken up by POWERGRID for which the required number of CTs of higher capacity (600/1) had already been ordered by POWERGRID & subsequently dispatched from the manufacturer premises in the month of July-12. However, 10Nos. CTs were damaged during transit. The matter has been taken up with the concerned manufacturer for replenishment of the damaged CTs. The new CTs expected to arrive at site by January'13.

During the 85th OCC meeting, POWERGRID informed that the work for enhancement of loading capacity of the above lines will be completed by June, 2013.

NEEPCO informed that the work for enhancement of loading capacity of 132 kV Khandong- Khliehriat –I & 132 kV Khandong - Haflong lines will be completed by Jan, 2014. However, NEEPCO also requested for inclusion of cost of the required CTs in the DPR, likely to be prepared based on findings of protection audit team.

The current status may be informed by NEEPCO and POWERGRID.

Fixing of Additional Jumpers:

Fixing of additional jumpers at Tension Locations of 132KV Dimapur-Imphal line has been completed while that for 132KV Jiribam-Loktak_II line is planned for execution in the month of January-13.

In addition to the above, additional jumpering is now planned to be taken up for 132KV Loktak-Imphal-II & Badarpur-Khliehriat lines in line with NERLDC's observation.

During the 84th OCC meeting, POWERGRID has intimated that fixing of additional jumpers in 132 KV Badarpur – Khliehriat line & 132 KV Loktak – Imphal – II line the order for modified connectors has already been placed by them and the same is likely to be completed by June, 2013.

During the 85th OCC meeting, POWERGRID informed that the fixing of modified connectors is under progress and the work is likely to be completed as per schedule.

POWERGRID may intimate the current status.

C.8 LGBR for 2013 -2014

During the 82nd OCC meeting, the issue of LGBR for 2013 -14 for NE Region has been discussed in detailed and all the constituents have been requested to submit the data for preparation of LGBR at the earliest as per the proforma circulated. The formats have also been made available in the website of NERPC (www.nerpc.nic.in) which covers the outage planning for Generating units as well as important transmission elements in state and central sector.

NERPC Secretariat has finalized the LGBR for 2013-14; the abstract of LGBR is enclosed at **Annexure C.8**.

All the constituents are requested to go through the abstract and give their observations/comments, if any.

The constituents are requested to submit the outage planning for Generating units and important transmission elements, if not submitted so far, so that same can be included in the final LGBR.

C.9 Grid Security Expert System (GSES):

POWERGRID has planned an automated defense plan for all five regions named as Grid Security Expert System (GSES). The Region wise estimated cost based on the feeders identified by POSOCO including IDC shall be as follows:

S.N	Subject	NR	SR	WR	ER	NER	All India
1.	Estimated DPR cost of GSES (in Rs. Crores)	82.59	42.13	124.85	55.42	49.47	354.46
2.	Number of Feeders	1064	763	1502	503	410	4242
3.	Estimated DPR cost of OPGW based communication system (in Rs. Crores)	141.61	368.37	174.24	83.18	80.42	847.82
4.	Length of OPGW	4967	14706	6111	2868	2688	31340
	Total Estimated cost (in Rs. Crores)	224.20	410.50	299.09	138.60	129.89	1202.30

The GSES was discussed in detail in last Special TCC held at Shillong on 9th February, 2013. After detailed deliberation the following decisions of the TCC was conveyed to CERC.

1. All constituents agreed in principle to the technical requirement of the GSES scheme for NER grid.
2. The basic infrastructure at most of Sub-station like circuit breakers, protection relays, etc. are not adequate for implementation of the scheme.
3. There are no full fledged SLDCs in Ar. Pradesh, Manipur, Mizoram and Nagaland.
4. Funding is major concern as NER states are financially weak.
5. The quantum of UFR based load shedding needs to be relooked for NER States.
6. More deliberation on technical and commercial issues is required before formulation/implementation of the scheme.

All constituents had agreed in principle to the technical requirement of the GSES scheme for NER grid, but more deliberation on technical and commercial implication was required before formulation / implementation of the scheme.

During the 86th OCC meeting, MS I/C, NERPC informed that the detailed cost break-up was mailed to all the constituent States of the region and requested all State constituents to examine the details and communicate their comments/feedback to PGCIL with a copy to NERPC so that the necessary action can be taken by POWERGRID and matter can be discussed further in TCC meeting.

The representative of Assam informed that DPR for GSES, wherein the details of the project cost, mode of finance, interest during construction, State wise details of the OPGW lengthwise etc. have been covered, have been examined at their end. As per DPR, the project is to be funded by internal resources and domestic funding. For the project, Equity component of 30% has been proposed to be made available through POWERGRID internal resources and loan component of 70% through domestic funding and the interest rate has been considered as 10.5% per annum. Such high interest rate will impose huge financial burden on the states of NER and the States are already reeling under severe financial crunch. Implementation of this project will only be feasible in NER, if fund is provided in the form of grant/ through POC as is done in case of Transmission tariff. Regarding the OPGW length, representative of Assam informed that this needs to be rechecked and it is also not very clear, whether existing and new OPGW (under execution) have been excluded or not.

The committee requested all State constituents to examine the details corresponding to their states and communicate their comments/feedback to PGCIL and NERPC so that the matter can be discussed further in TCC meeting.

NERPC have mailed once again to all the constituents regarding the break up details & cost of OPGW as received from POWERGRID, but comments have received only from Assam & Tripura till date.

Committee may like to discuss on the issue.

C.10 Funding through NEC /DoNER for following projects:

a) *Expansion and Up-gradation of SCADA/EMS System and setting up new SLDCs of North Eastern Region:*

b) Establishment of OPGW communication link

Earlier Cost Break up was as follows:

Cost break-up of installation of SLDCs in four states:			
Name of State	Building cost (Rs. Crs)	SLDC system cost (Rs. Crs)	Total cost (Rs. Crs)
Arunachal Pradesh	40.37	57.25	97.62
Manipur			42.96
Mizoram			40.62
Nagaland			33.8
Sub Total			215.00
Cost break-up of up gradation of SCADA in following three states:			
Assam			6.14
Meghalaya			6.91
Tripura			6.90
Sub Total			19.95

Present Cost Break up is as follows:

Name of State	Building cost (Rs. Crs)	SLDC system cost (Rs. Crs)		Total cost (Rs. Crs)	As per OBD rate (ready for award)	No. of RTUs
		SCADA/ EMS	Communication System		SCADA/ EMS system	
Cost break-up of installation of SLDCs in four states:						
Arunachal Pradesh	39.47	43.79	14.37	97.63	8.13	21
Manipur	-	32.91	11.62	44.53	6.61	11
Mizoram	14.38	19.93	6.32	40.62	5.85	6
Nagaland	-	22.65	11.15	33.80	7.82	19
Sub Total	53.85	119.27	43.46	216.58		
Cost break-up of up gradation of SCADA in following three states:						
Assam		6.14			5.01	0
Meghalaya		6.91			9.02	5
Tripura		6.90			5.98	25
Sub Total					**48.42**	**87**
NERLDC					**13.63**	
					62.05	

Note 1: The cost breakup of Arunachal Pradesh, Manipur, Mizoram and Nagaland has been taken from DPR made for SLDCs

Note 2: The cost breakup of Assam, Tripura and Meghalaya has been taken from DPR made for upgradation/expansion of SLDCs

Note 3: The procurement process for SCADA/EMS system of all SLDCs has been done together including NERLDC for econimcs of scale

In 13th NERPC meeting, the committee had unanimously decided to submit a resolution, signed by Ministers of Power of NER states, to Ministry of Power, Govt. of India to approach DoNER / NEC for funding of above two schemes (a & b). The matter was discussed in special TCC meeting held at Shillong on 9th February 2013. It was agreed that NERPC will approach Ministry of DoNER and NEC to enquire about the status of funding. NERPC has already taken up the matter with concerned authority of NEC & DoNER. NEC has already informed that they are unable to consider funding of above projects at this stage due to paucity of fund. Confirmation from DoNER is still awaited.

The forum may discuss on how to go ahead with the project if funding is not made available from DoNER or NEC.

Committee may like to discuss.

C.11 Preparation of Crisis Management Plan (CMP) for Cyber Security in Power Sector:

CEA vide letter dated 23.04.2013 has intimated that Secretary (Security), Cabinet Secretariat is taking a meeting shortly to discuss the status of disaster management plan of power sector, which also include the crisis management plan for cyber security in power sector. In addition, several parliament questions and VVIP reference are also being received regarding present status of CMP for cyber security in power sector.

As it was decided in the meeting taken by Member (GO&D), CEA on 9th August, 2011 that the activity of the monitoring of the preparation of CMP for countering the cyber attacks and its implementation including the Mock Drills, Audits etc. by all power utilities on a regular basis may be monitored by RPCs.

During the 86th OCC meeting, the committee requested NERPC Secretariat to explore what type of cyber security is required for NER state constituents and also requested other constituents to submit their details Crisis Management plan for cyber security.

Meanwhile, CEA vide their letter dated 17.06.2013 has intimated that during the meeting taken by Director (OM), Ministry of Power on 05.06.2013 had reviewed the CMP in respect of power back-up arrangement (s) of Indian Railways as below:

"Railways have interacted with CEA and submitted their requirement with respect to the Islanding Schemes being finalized for Northern Region and for other regions. They further requested that the Railways requirement's should also be considered during finalization of Islanding Schemes of other regions for ensuring supply for traction substation as well as important stations. Railways would provide all details to respective RPCs/RLDCs so that the same can be considered during finalization of islanding scheme of the concerned region. The operation of Railways is based on Zones and is not demarcated in line with five electrical regions in the country. Hence, for effective implementation of the islanding schemes, co-ordination between two or more regions may be required".

Railways requested for participation in OCC meetings of all Regional Power Committee. Railways have already started attending the OCC meetings in Northern Region. CEA have directed other RPCS to invite Railways in OCC meetings for discussing the CMP.

The committee may like to discuss.

C.12 Release of day ahead drawal schedule based on actual requisition by Constituents instead of open and full capacity requisition:

During the 86th OCC meeting, NERLDC informed that the requisition based schedule will be implemented in NER very shortly. The tendering for procurement of the software of requisition based scheduling is in progress.

The committee requested NERLDC to prepare the modalities for daily requisition based scheduling and same may be discussed in next OCC meeting. Before final implementation all NER constituents should be aware of the formalities of the scheduling system. NERLDC had agreed for a mock exercise for requisition based scheduling vis-à-vis present system of scheduling.

During 20th CC meeting, NERLDC in its presentation highlighted the following:

- When ABT was implemented in NER in November, 2003, NER Constituents expressed inability to provide station-wise, time block-wise requisition for day ahead scheduling.
- It was agreed to put in place a mechanism where requisition would be equal to entitlement so as to help the States.
- Since then the States in NER have been submitting requisition stating that it is equal to entitlement.

The role of SLDCs in estimating their demand accurately and furnishing requisition on day ahead basis was highlighted in 20th CC meeting. It was also mentioned that SLDCs being apex body within State should start intra-State scheduling to obtain such requisition from DISCOMs. The distribution companies will have to ensure that requisition of power is done considering the most economical and reliable power stations.

During the 20th CC meeting, NERLDC stated that States of NER should start adopting requisition based scheduling and submit time block wise requisition. To start with the system, station-wise requisition for 96 time blocks of a day has to be filled up by each SLDC and mailed to NERLDC. There are nine(9) ISGS in NER. States would have to fill-up 96x9 matrix with requisition of quantum of power for every time block from all ISGS based on the entitlement conveyed by NERLDC. The figures would have to be filled-up in excel sheet and mailed to NERLDC. It was also mentioned that once the new system is introduced, the beneficiaries will have to send requisition (in excel sheet) by e-mail only.

NERLDC representative stated that all seven states should start filling-up the time block-wise requisition and mail to NERLDC. This would be first step of mock exercise. Date and modality for such mock exercise can be discussed in next OCC forum. Once States are geared up through mock exercise, it would be easy to use web based scheduling software of RLDC, which is likely to be in place in 2-3 months for which tendering process is in progress.

On an enquiry from NEEPCO regarding technical minimum, ramp-up rate etc, it was clarified that as per IEGC, RLDC would ensure that schedule would be operationally implementable. For this purpose, Generators should intimate NERLDC the technical minimum level, ramp-up rate, dead band etc of their units/stations.

Tripura representative raised some issues like revision of schedule of ROR stations, modality of real time revision of schedule etc. The committee decided to start with mock exercise for requisition based scheduling and requested SLDCs to go ahead with filling up 96x9 matrix with requisition of quantum of power for every time block and in the process other issues will be addressed as and when such situation is encountered.

NERLDC may kindly intimate the current status.

C.13 Certification of Open Cycle Generation of AGBPP:

The matter is pending with CERC for final decision. The issue was discussed in 85th OCC to find out a suitable method of certifying open cycle operation of gas based combined cycle power plants. The feasibility of scheduling in respect of each module was also discussed and representative from NEEPCO had expressed that it is not feasible to give schedule of generation in respect of each module. The schedule of generation for entire plant can only be given as the gas allocation is being done on the basis of Installed Capacity (not on module basis).

During the hearing of petition of NEEPCO, the representative informed the Commission that it is giving schedule on station-wise basis as per Formats provided by NERLDC. As soon as NERLDC changes the pattern of Formats NEEPCO shall definitely submit schedules on unit/ module basis.

Regarding payments to NEEPCO for certified open cycle period, it may be noted that beneficiaries will have to pay the energy charges for generation made by AGBPP, NEEPCO which was clearly indicated by Hon'ble CERC in recent hearings. Enhanced rates are provided in the tariff regulation for recovering energy charges while generating in open cycle mode. NEEPCO is requested to intimate the difference in energy charges while generating in 1) closed cycle and 2) open cycle.

During the hearing of petition of NEEPCO, Hon'ble CERC advised to settle the issue in RPC forum, and the same is brought for deliberations.

The issue was discussed in 19th CC meeting. During 20th CC meeting, NERLDC circulated a format for declaration of capability of the combined cycle Gas based power plant of NEEPCO at Kathalguri. The format allows module-wise declaration of open cycle and combined cycle capability of the plant. The modality of filling-up the format was explained with an example.

Regarding the past period from April 2009 till date where NERPC has indicated open cycle operation percentage in the monthly REAs, possibility of revising relevant REAs considering certain criteria was discussed so that the concerned beneficiaries may settle the pending issues. However, it was agreed to wait for CERC judgement on the petition filed by NEEPCO on this issue.

However, it was agreed to discuss the matter in next OCC before implementation of the format. The Commercial co-ordination sub-committee also suggested to discuss suggestions of GM division of CEA regarding open cycle operation of Gas based power plants of WR in OCC forum before adoption in NER.

The following points were suggested by GM Division of CEA for certification of open cycle operation of plants in Western Region:

1) GTs/ STs are asked to close down due to low system demand by RLDC or trip out due to high system frequency and subsequently this come on bars on the request of NERLDC.

2) STGs tripped on station fault but back in service within a short time, unless RLDC specifically directs the GT operating in open cycle to close down.

3) STGs are on long outages and instructions for running GTs in open cycle are given by RLDC.

4) Restarting of GTs after tripping during grid disturbances.

5) GTs starts up after annual maintenance and statutory Boiler inspection of WHRB duly approved by REB. Open cycle operation not to be certified for GTs tripping on station fault and shutdown other than for annual maintenance and statutory boiler inspection duly approved by REB.

6) In the start up phase open cycle operation may be certified as per the start up curves of the respective units.

The above methodology may be discussed and adopted for certifying open cycle generation.

C.14 Power drawal at 132 KV Rangia Grid S/S from Bhutan:

During the 86th OCC meeting, MS I/C informed that NERPC has already taken up the matter with ERPC and Bhutan Power Corporation. Further, he informed that Bhutan Power Corporation had agreed to close the Circuit Breaker at their Deothang (Motanga) end of 132kV Rangia- Deothang line for one week for testing the line.

Assam informed that presently the line is charged and Assam is drawing around 25MW during off-peak & 35MW during peak hours to meet the demand in Rangia area. Assam further requested NERPC to take up the matter with Bhutan authority to continue with the present arrangement of interconnection of ER with NER through 132kV Rangia – Deothang (Bhutan) line and for increase of drawal at Rangia to 50MW.

NERPC is also pursuing the matter with CEA, Min. of External Affairs and PTC to make the arrangement as permanent one. It is also proposed to invite the concerned officers of BPC to TCC / NERPC meeting for further discussion on the matter.

The committee may like to discuss.

C.15 Maintenance of Isolators at 79 Tilla S/S:

Tripura informed that maintenance work of 6 nos of isolators at 79 Tilla Grid s/s which are connected with 132 KV R C Nagar L-I & L – II have been pending since a very long time. Power Grid had done only partial maintenance work on 3 (three) isolators out 6 (six). The remaining work of isolators along with Earth switches is very urgent from operational point of view.

POWERGRID agreed to look into the issue and work is expected to be completed by 15th April 2013.

C.16 Installation of Harmonic Filters:

During the 9th NERPC meeting, POWERGRID informed that CPRI has already carried out measurement of harmonics in the portion of NER Grid involving RHEP, Nirjuli S/S and Balipara S/S under different conditions including isolation of ER-NER Grid.

During the 10th NERPC meeting POWERGRID informed that CRPI has submitted offer to them for designing of filters amounting to Rs. 1.75 lacs.

During 12th NERPC Meeting, POWERGRID informed that as per the study of CPRI, the harmonics are generated at Satyam Steel Plant at Banderdewa in Ar. Pradesh. So, the cost of harmonic filters has to be borne by Satyam Steel Plant, Banderdewa and accordingly, Ar. Pradesh has to take up the matter with the consumer.

During 13th NERPC Meeting, Ar. Pradesh informed that they have received the specification and other details of harmonic filters from POWERGRID and they will implement the same within 2-3 months' time i.e., within September / October 2012.

Till now, Satyam Steel Plant, Banderdewa has not installed the Filter which is essential to avoid further stressing of equipments at 132/33 kV Nirjuli (PG) Sub Station.

Committee may like to discuss.

C.17 Frequent Tripping Of 33kV System of DOP, AP at Nirjuli and Ziro:

During 9th TCC and NERPC Meeting the issue was discussed in details and Arunachal Pradesh informed that they have already initiated various measures to reduce no. of faults on 33 KV lines owned by Dept. of Power, Govt. of Arunachal Pradesh.

During 10th TCC and NERPC Meeting POWERGRID again expressed concern for non-reduction of no. of faults in 33kV Feeders. Arunachal Pradesh again assured to take necessary action urgently to reduce no. of faults in their 33kV lines.

During 11th TCC and NERPC Meeting POWERGRID again raised the issue. But, the issue could not be discussed due to non-availability of representatives from Arunachal Pradesh during the meeting and agenda point was deferred for the next meeting.

During 12th TCC and NERPC Meeting POWERGRID again expressed the concern and informed that the tripping of 33kV Feeders at Nirjuli and Ziro is in increasing trend. Accordingly TCC advised NERPC to write a letter to Ar. Pradesh in this regard.

The present status of tripping of 33kV Feeders at Nirjuli and Ziro Sub Station is as below:

(a) Tripping 33kV Feeders at Ziro

SN	Feeder	Tripping (Jan'10–Sep'11)		Tripping (Oct'11 – Jun'13)	
		Nos.	Nos. / Month	Nos.	Nos. / Month
1	Kurung- Kamey	470	24.73	296	14.8
2	Old Ziro Feeder	304	16.00	136	6.8
3	Kimin Feeder	783	38.84	425	21.25

(b) Tripping 33kV Feeders at Nirjuli

SN	Feeder	Tripping (Jan'10–Sep'11)		Tripping (Oct'11 – Jun'13)	
		Nos.	Nos. / Month	Nos.	Nos. / Month
1	AP - 1	109	5.73	153	7.28
2	AP – 2	258	13.57	332	15.80
3	AP - 4	48	2.52	34	1.62

Arunachal Pradesh to take necessary action on priority to reduce no. of faults in 33kV feeders owned by DoP, Govt. of Arunachal Pradesh to avoid further failure of transformers at Nirjuli and Ziro Sub Stations.

Arunachal is requested to arrest frequent tripping.

D. NEW ITEMS

D.1 Operational Statistics for the month of July, 2013

The different proforma for Operational Statistics required for every month are given in Annexure below:

(i) – Schedule Vs Actual Generation & Requirement.

(ii) – Peak Demand: Schedule Vs Actual.

(iii) – Integrated Operation of the system.

(iv) – Details of DC, schedules and injections from Central sector stations, drawal schedules and entitlements of constituents.

(v) – Details of major reservoirs in NER.

Committee may like to discuss the present status.

D.2 State-wise anticipated peak demand/requirement, shortage for July, August, September, October & November, 2013.

The sub-Committee may review the anticipated peak demand/energy requirement and finalize the same for the months of June to Oct, 2013.

S.No.	State	Peak Demand (MW) Jul' 13	Peak Demand (MW) Aug' 13	Peak Demand (MW) Sep' 13	Peak Demand (MW) Oct' 13	Peak Demand (MW) Nov' 13
1	Ar. Pradesh	130	130	130	130	
2	Assam	1300	1300	1350	1350	
3	Manipur	130	130	130	130	
4	Meghalaya	280	280	280	280	
5	Mizoram	90	90	85	85	
6	Nagaland	120	120	120	120	
7	Tripura	250	250	250	260	
	Region	2300	2300	2345	2355	

The sub-Committee may review the anticipated peak availability and finalize the same for the months of July to November, 2013.

S.No.	State	Peak Availability (MW) Jul' 13	Peak Availability (MW) Aug' 13	Peak Availability (MW) Sep' 13	Peak Availability (MW) Oct' 13	Peak Availability (MW) Nov' 13
1	Ar. Pradesh	120	120	120	120	
2	Assam	1000	1050	1130	1100	
3	Manipur	120	110	110	115	
4	Meghalaya	250	250	250	250	
5	Mizoram	75	75	75	75	
6	Nagaland	90	90	110	115	
7	Tripura	185	185	185	190	
	Region	1840	1880	1980	1965	

D.3 Agenda from Me. ECL:

D.4 Metering arrangement for the 132 KV S/C line on double circuit towers at terminating stations at Nangalbibra & Agia.

Me. ECL vide their letter dated 13.06.2013 had informed that the erection work on the 132 KV S/C line on double circuit towers from Nangalbibra to Agia is completed and the line will be shortly ready for transmitting power between Agia & Nangalbibra.

Me. ECL requested to install metering at both ends at the earliest to enable them to commission the above line so as to provide alternative connectivity to the Districts of Meghalaya in Garo Hills and West Khasi Hills as the existing line is very old and unreliable now.

Committee may like to discuss.

D.5 Inclusion of 220 KV Killing – Misa D/C Line & 400 KV LILO at Killing Sub-station:

Me. ECL vide their letter dated 05.06.2013 had requested to consider 220 KV Killing – Misa D/C line as deemed ISTS element taking into account the power exchanges during evacuation of Pallatana generation. They have also furnished the data as per SCADA and from Inter-state energy exchanges as recorded by SEMs at 400 KV & 220 KV links at Killing SS (copy at **Annexure – D.5**). Similar is the case along the 400 KV LILO at Killing SS.

Me. ECL may deliberate further & Committee may like to discuss.

D.6 SLDC Up-gradation & Parallel Communication Scheme:

Me. ECL vide their letter dated 05.06.2013 had requested for an official intimation pertaining to constituent-wise breakup of costs in respect of the SLD Up-gradation Scheme and parallel communication scheme, if envisaged, for optimum utilization of the SLDC Up-gradation scheme. They have intimated that they require this for filing of ARR with the State Regulatory Commission.

Me. ECL may deliberate further & Committee may like to discuss.

D.7 Agenda from TSECL:

D.7.1 Construction of Transmission Line from Surjamaninagar to Silchar via P.K. Bari by PGCIL:

3 Nos. of 400 KV D/C line within and across the state of Tripura is constructed by PGCIL for evacuation of power from Pallatana 726 MW CCGT.

These are:

a. 400 KV D/C line from Pallatana – Silchar- Byrnihat – Bongaigoan
b. 400 KV D/C line from Pallatana to Surjamaninagar (charged at 132 KV)
c. 400 KV D/C line from Silchar to P.K. Bari (to be charged at 132 KV)

Evacuation of power from Pallatana project to NER Grid is solely dependent on 400 KV D/C line from Pallatana to Bongaigoan via Silchar & Byrnihat line. This line passes through deep forest area as well as hilly terrain of high wind zone. Further, the area is also prone to storm & cyclone. As a result the reliability of above line comes under threat particularly during monsoon makiking the evacuation of power from this project vulnerable. Therefore, a reliable, alternative transmission system with higer capability is required to ensure evacuation of power from Pallatana project. Further, the concept of TTC and ATC has called for requirement of capacity augmentation of Pallatana Transmission System.

Since 2 nos. of 400 KV D/C line i.e. Silchar to P.K. Bari & Pallatana to Surjamaninagar are being constructed by PGCIL, the left out middle portion of about 130 KM line from P.K. Bari to Surjamaninagar is essentially required to be constructed by PGCIL for enhancing the transmission capability and reliability of grid connectivity from Pallatana project.

The Committee may discuss for construction of the above missing link by PGCIL as part of ISTS.

Also due to declaration of ATC & TTC, the optimum utilization of generation resources throughout the country is not taking place and as a result it has been observed that some part of the country are remaining with surplus power while the other regions are facing huge power shortage. As far as NER is concerned, the region is hydro pre-dominant and water energy is spilled out sue to non-availability of transmission corridor during monsoon. But beneficiary utilities are

liable to pay all applicable charges (Transmission, Generation & Operation etc.). In addition to the above, handling of periodical/seasonal surplus power from up-coming projects like Pallatana, Bongaigoan, Monarchak and Subansiri will become very critical leading to uncertainty in making due to recovery of generation and transmission charges etc. Therefore, it is required to review the situation for economic & optimum load dispatch & schedule.

However, the Minutes of the meeting to review the inter-state works of Comprehensive Scheme for Strengthening of Transmission System in NER & Sikkim held at Guwahati on 30-10-2012 was decided as below after detailed discussion regarding construction of ***Surajmaninagar-P. K. Bari 400 kV D/C line***

Director (SP&PA), CEA informed that the Surjamaninagar- P. K. Bari 400 kV D/C line (initially op. at 132 kV) was agreed as a part of evacuation system from Monarchak GBPP (NEEPCO) in the standing committee meeting on Power System Planning in NER held on 25-06-2008 to be implemented by TSECL. Subsequently, TSECL has included this line in the scope of works for Comprehensive Scheme for Strengthening of Transmission & Distribution System in NER & Sikkim for the state of Tripura, the DPR for which had been prepared by POWERGRID. The issue of implementation of this line was also discussed with Secretary (Power), Government of Tripura on 14th March, 2012 in his chamber when a team of CEA and POWERGRID visited Tripura to prioritize the scope of works to be covered under tranche-I of the proposed World Bank assistance. ***It was decided to consider the implementation of this line under tranche-II / tranche- III of the World Bank assistance depending upon priority of Tripura. In view of the above, it was agreed that the Surjamaninagar- P. K. Bari 400 kV D/C line (initially op. at 132 kV) along with 400 kV P. K. Bari sub-station may be implemented as an intra-state system.***

D.7.2 Energy Audit & Energy Account Circulation:

Energy Metering System for regional energy accounting are installed & maintained by PGCIL. Energy audit in calibration of Energy Metering Systems has so far been not found conducted and reports not circulated to any constituent/beneficiary. Under ABT regime the accuracy of meter reading and compilation of meter data is very much essential for satisfactorily settlement of commercial issues. It is therefore, proposed to carry out calibration of all energy metering system by CPRI and conduct energy audit by Third Party Agency (TPA).

The Committee may like to discuss

D.7.3 Effective & Gain Full Utilization of NER Surplus Power during Hydro Season:

Tripura informed that firm entitlement of power is not shown in day ahead by hydro generators but schedule is released on the day of operation with much variation. As a result there is wider mismatch between actual drawal and drawal schedule. The surplus power is forced to sale through UI and frequency remained

at 50.2 Hz and above, resulting UI price in most of the time during monsoon. Had there been proper planning of entitlement known on day ahead, the state utility could have properly arrange for either bilateral sale or through exchange. The states are heavily burden with higher energy charge in addition to capacity charge of generating stations, but enable to earn corresponding revenue. Due to such improper utilization of energy revenue earning by state utility, payment on account of power purchase liability is becoming uncertain.

The Committee may like to discuss

D.8 Agenda from POWERGRID:

D.8.1 Signing of Transmission Service Agreement:

The TSA has already been signed by NEEPCO, Mizoram, Arunachal, Manipur, Meghalaya and Nagaland.

During 13th NERPC Meeting, Assam intimated that the matter was under process and they would sign the TSA within two months i.e., within Sept'12. Further Tripura also agreed to sign the TSA. But till now, Assam and Tripura both have not signed the TSA which is mandatory as per CERC norms.

Assam and Tripura are requested to sign the TSA.

D.8.2 Signing of Zero Date for Indemnification Agreement:

The Kameng HEP (4x150 MW) is being implemented by NEEPCO. The original schedule of commissioning of Kameng HEP was Nov.'09, which was subsequently revised to Dec'12. POWERGRID had undertaken construction of transmission line for evacuation of Power from the above project. In Oct'11, NEEPCO has again revised its commissioning schedule to June'16. The implementation work of associated transmission system was slowed down to the maximum extent possible & is now likely to be completed by Mar'14.

The Lower Subansiri HEP (8x250 MW) is being implemented by NHPC. The original Sch. of commissioning of Lower Subansiri HEP was Dec'11, which subsequently revised to Mar'12 / Dec'12 / Mar'13 / Dec'13. The implementation work of associated transmission system being constructed by POWERGRID was slowed down to maximum extent possible & is now likely to be completed by Dec'13. After various meeting, NHPC agreed for Dec'13 as zero date, but signing of Indemnification Agreement is still pending.

NEEPCO & NHPC have yet to sign zero date for Indemnification Agreement despite regular follow-up by POWERGRID.

NEEPCO & NHPC are requested to expedite signing of Indemnification Agreement.

D.9 Agenda from NERLDC:

D.9.1 Telemetry Data/Voice Communication of Bongaigoan TPP:

NERLDC vide their letter dated 05.06.2013 had informed that the 1st Unit of Bongaigoan TPP (3 x 250 MW) of NTPC is expected to be commissioned during May/June, 2014. In this regard, this is to state that before commissioning of the project, the connectivity conditions pertaining to Telemetry Data/Voice Communication systems in terms of clause 4.6.2 of IEGC 2012 read with clause 6(3) of CEA (Technical Standards for connectivity of the Grid) Regulations, 2007 are fully met and the real time data of the said project be made available in the SCADA database of NERLDC along with voice communication systems at the time of commissioning.

NTPC may intimate the status as above.

D.9.2 Draft Operating Procedure Jun13 of NER:

Updated Operating Procedure Jun13 of NER finalized and e-mailed to regional entities of NER and is available in website of NERLDC.

For Information to members.

D.9.3 Monthly MU requirement & availability of each state of NER as per format:

Requirement

Name of State	Jun13	Jul13	Aug13	Sep13	Oct13
Arunachal Pradesh					
Assam					
Manipur					
Meghalaya					
Mizoram					
Nagaland					
Tripura					

Availability

Name of State	Jun13	Jul13	Aug13	Sep13	Oct13
Arunachal Pradesh					
Assam					
Manipur					
Meghalaya					
Mizoram					
Nagaland					
Tripura					

These data required for system study, daily report, computation of TTC-ATC etc.

D.9.4 Accommodation of Palatana generation during high hydro period:

Pallatana generation is expected at any time. Monsoon has also set in and all the reservoirs are in rising trend and all the hydro stations are expected to generate to their full capacity. In such a scenario it might be a very difficult task to accommodate the generation from Pallatana as this might lead to violation of export ATC limit forcing us to back down generation in some stations.

The members may please deliberate the issue and identify stations for backing down of generation.

D.9.5 Furnishing machine data as per format (format available at website of NERLDC)

It was discussed during 69th OCC meeting held on 10.01.12 and subsequent OCC meeting that machine data as per format to be furnished by concerned utilities/SLDCs for the purpose of dynamic study.

Enquiry Committee on Grid Disturbance on 30th July 12 & 31st July 12 recommended that Dynamic Security Assessment are to be carried out periodically.

As per new Manual on Transmission Planning Criteria Jan13 of CEA & Detailed Procedure for Relieving Congestion in Real Time Operation of CERC, stability and related studies for reliability need to be conducted.

At this stage, at least the machine data for unit size 25 MW and above are essentially required. SLDCs and ISGS Stations NEEPCO & NHPC are requested to please furnish machine data as per format (available at our website i.e www.nerldc.org) for stability and related studies for reliability.

The machine data for unit size 25 MW and above may please be furnished by next OCC meeting. If machine data are not available, the same may please be informed by next OCC meeting.

D.9.6 Installation of SEM in Motonga end of Rangia-Motonga line:

For calculation of export & import of power through 132kV Deothang- Rangia transmission line which is treated as one inter-Regional point between ER and NER, it weekly SEM reading of both ends meter are required. Installation of meter in Motonga ends in pending for quite some time.

NERTS, POWERGRID may do the needful.

D.9.7 Non-submission of weekly SEM readings by Deomali (Ar.Pradesh) & Rengpang (Manipur):

Rengpang and Deomali are drawal points of Manipur and Ar. Pradesh respectively. Weekly SEM readings are not being received from these locations (occasional receipt from Motonga) in spite of discussion/decision in CCM.

Manipur / Ar. Pradesh need to take urgent action.

D.9.8 Installation of SEM in new 33 KV Khandong-Umrangsoo feeder/ Installation of one SEM in Kopili 132/33 kV new ICT/ Details of existing 33 KV system in Khandong to review SEM requirement:

In the 20th CCM of NERPC, it has been decided to install a new energy meter at the newly drawn 33 KV feeder from 132 KV Khandong substation of NEEPCO to its Umrangsu 33/ 11 KV Substation thereby separating the colony supply from Umrangsu. This new meter would be the drawl point of APDCL. As per NEEPCO, the existing 33 KV meter at the Umrangsu substation would now record the colony and other consumption of NEEPCO.

NERTS may intimate the course of action.

One SEM may be installed in the new ICT which is meant for Kopili auxiliary consumption.

NERTS may intimate the course of action.

In view of above modifications, it is required to review metering requirement at Khandong/Kopili-II. NEEPCO may submit SLD indicating 132/33 KV ICTs and 33 KV feeders of Khandong to review SEM requirement.

Currently installed meters are as below out of which only NP-5781-A and NP-5776-A are used for accounting.

METER.NO	C.T.RATIO	P.T.RATIO	PLACE OF INSTALLATION OF SEM
NP-5783-A	0025	0300.0000	KHANDONG 33KV STN TRF
NP-5775-A	0050	1200.0000	KHANDONG 132/33KV ICT
NP-6155-A	0200	0300.0000	LV SIDE OF 132/33KV TRF
NP-5776-A	**0025**	**0300.0000**	**KOPILI STG-2 33KV STN TRF**
NP-6154-A	0200	0300.0000	33KV DAMSITE FDR(NEEPCO)
NP-5781-A	**0200**	**0300.0000**	**UMRANGSOO CONSUMPTION**

NERTS may intimate the course of action.

D.9.9 Procurement of SEM/DCD for 2013-14:

NERLDC has worked out requirement of SEM/DCD for 2013-14 which is attached. Matter was discussed in 20th. CCM also and it was decided to place in OCC also.

Members may like to discuss.

D.9.10 Interoperability of DCD for collection of reading from L&T and Elster meters:

As there would be mix of L&T and Elster meters in different locations of NER, it is necessary that same DCD should be able to extract reading from both meters.

NERTS may intimate the course of action.

D.9.11 Return of one no. Energy Meter from Udaipur Sub-station:

TSECL had taken one no. energy meter from POWERGRID on returnable basis which had been installed at Banduwar/Udaipur S/S end for metering drawal by Palatana from TSECL. Now, Palatana-Udaipur 132 KV line is an injection point of Palatana and SEM at Udaipur end may be treated as check meter as per Metering Regulations. The SEM installed is being used for Accounting and may be regularized accordingly.

NERTS and TSECL may please intimate the status.

D.10 Generation Planning (ongoing and planned outages)

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

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

The shutdown proposal for generating elements of NEEPCO is enclosed at **Annexure – D.10.**

Members may like to discuss and approve the proposal by NEEPCO.

D.11 Outage Planning Transmission elements

The sub-Committee may kindly discuss and approve the transmission line outages proposed by POWERGRID/Me.ECL/Assam for July/August, 13 as enclosed at **Annexure- D.11 (i, ii & iii)**.

D.12 Estimated Transmission Availability Certificate (TAC) for the month of June, 2013.

The Estimated Transmission System Availability for the month of June, 2013, furnished by PGCIL, is **99.9604%.** The detail outage data for calculation of Transmission System Availability furnished by PGCIL, is at **Annexure D.10.** NER constituents are requested to kindly communicate their views and observations, if any, by 26th July, 2013 so that Final TAC for the month of June, 2013 may be finalized by NERPC Secretariat.

The Sub-Committee may like to discuss.

D.13 Major grid disturbances in the previous month (June, 2013)

As intimated by NERLDC, there was no major grid disturbance during the month of June, 2013.

Members may kindly note.

D.14 Any other item:

(a) *Procurement* of Netbooks/Laptops instead of DCDs:

During 20th CC meeting, NERTS representative informed that action for procurement of lap tops could not be taken up as details viz. number of laptops, location where laptops are to be provided etc. has not been finalized. In 19th CC meeting, NERTS had agreed to go for lap tops (in place of DCDs) in next round of procurement.

During 20th CC meeting, the representative of Assam suggested that spare DCDs / laptops with required software should be made available along with internet facility in nearby area / at a centralized location to meet any contingency requirement.

The Sub-Committee may like to discuss and finalize the quantities and other issues.

(b) *Concurrence on AMR Project:*

During 20th CC meeting, it was agreed that PGCIL will give detail presentation along with back up arrangement to take care of failure of AMR in next OCC meeting.

The Sub-Committee may like to discuss.

(c) *Replacement of L&T Make Energy Meters:*

62nos. L&T meters are to be replaced by newly delivered meters which will reach POWERGRID Shillong by 25.06.13 and target for replacement is by Aug'13.

During 20th CC meeting, NERTS representative requested that a central coordinator for each state may be nominated as it will be difficult to manage many coordinators (one for every station). It was agreed that nominee from each SLDC will be the central coordinator and he will be responsible for identifying the official(s) for each station within the state. The name of the central coordinator / official is to be submitted in next OCC meeting.

The Sub-Committee may like to discuss.

(d) *Press conference/ press release for highlighting major shutdown of ISGS:*

During 20th CC meeting, APDCL representative stated that on many occasions, due to reduction in availability of Power, as a result of shutdown of generating stations, SLDC used to resort to load shedding which results in public protests. He suggested that NERPC may publish or announce such planned outages so that the consumers are aware of the situation and appreciate the requirement of load management.

The Sub-Committee may like to discuss.

(e) *Reactive Power Planning*

The STU are requested to submit to CEA the reactive power management Schemes in their state in consultation with RPCs.

The Sub-Committee may like to discuss.

(f) *Proper functioning of UFR*

As per decision of NPC, RPCs had to ensure healthiness of UFRs and df/dt relays through regular inspection in a year of about one-third number of total relays installed in their respective region. RPCs had also to furnish the status of healthiness of UFRs and df/dt relays installed in the region to CEA on quarterly basis.

Constituents are requested to inform the status of healthiness of these relays for the quarter ending June 2013 in OCC meeting. So that same can be intimated to CEA.

The Sub-Committee may like to discuss.

(g) *Ring fencing of Load dispatch Centres:*

The separation of SLDC, both financially and administratively, from other activities is desirable with a view to making the State load Despatch Centres independent & impartial.

The constituent states are requested to intimate the status / progress in this direction.

(h) *Suggestion regarding implementation of CEA Regulations:*

Committee may suggest possible methods to ensure the implementation of CEA's regulations.

D.15 Date and Venue of next OCC

It is proposed to hold the 88th OCC meeting of NERPC on second week of August, 2013. As per roaster, Mizoram will be the host for 88th OCC meeting. The exact venue will be intimated in due course.

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