

North Eastern Regional Power Committee

MINUTES OF THE 41st PROTECTION COORDINATION SUB-COMMITTEE MEETING OF NERPC

Date : 07/01/2016 (Thursday)
Time : 14:00 hrs
Venue : "Hotel Nandan", Guwahati.

The List of Participants in the 41st PCC Meeting is attached at **Annexure - I**

Shri P.K. Mishra, Member Secretary, NERPC welcomed all the participants to the 41st PCC meeting. He mentioned that some constituents were again absent in the meeting and hence any items pertaining to them will not be able to conclude. He requested members to attend the meetings regularly and also to participate in the meeting for fruitful deliberation.

Thereafter, Member Secretary, NERPC requested Shri B. Lyngkhai, Director/SE(O) to take up the Agenda items.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 40th MEETING OF PROTECTION SUB-COMMITTEE OF NERPC.

SE(O) informed that the minutes of 40th meeting of Protection Sub-committee held on 17th December, 2015 at Guwahati were circulated vide letter No. NERPC/SE (O)/PCC/2015/4520-4555 dated 31st December, 2015.

The Sub-Committee confirmed the minutes of 40th PCCM of NERPC since no comments/observations were received from the constituents.

ITEMS FOR DISCUSSION

A.1 Implementation of 3-Phase Auto Reclosure Scheme of Radially fed 132kV Lines connected to Ranganadi HEP:

At present, the power flows to Nirjuli, Gohpur and Ziro radially from Ranganadi HEP and any transient fault in line causes undesirable outages. Hence, to avoid outages during transient fault it is essential to implement 3- Phase Dead Line charging of following 132kV Lines.

- a) 132kV Ranganadi – Nirjuli Line (Dead Line Charging at RHEP)
- b) 132kV Nirjuli – Gohpur Line (Dead Line Charging at Nirjuli)
- c) 132kV Ranganadi – Ziro Line (Dead Line Charging at RHEP)

During 39th PCC meeting, POWERGRID stated that they will extend help to incorporate 3-phase dead-line charging at RHEP end in EPAC Relay. For this NEEPCO will arrange for S/D with due consent of Arunachal Pradesh and intimate POWERGRID in advance. Meanwhile NEEPCO informed that new relay for Nirjuli & Ziro Line has been ordered and expected delivery is November, 2015 and the same will be installed by NEEPCO at RHEP by December 2015.

During 40th PCC meeting, Sr. Manager (O&M), NEEPCO once again informed the forum that material has already reached at site and installation would be completed by 31/12/2015 as mentioned earlier. He requested NERTS to help them in relay coordination during implementation of the scheme. NERTS agreed.

Deliberation of the sub-Committee

After detailed deliberation it was agreed that shutdown of 132 kV Ranganadi – Lekhi Line and 132 kV Ranganadi - Ziro Line would be accorded on suitable date(s) as decided by 117th OCC with the consent of DoP, AP. Further Assam will support to meet the loads of Arunachal Pradesh during Shut Down through 132kV Gohpur – Nirjuli Line.

The sub-committee noted as above.

Action: NEEPCO & DoP, Ar. Pradesh

A.2 Implementation of 3-phase Auto Reclosure Scheme in all lines associated with Khandong and Kopili HEP:

For reliable operation of Power system it is required to implement 3-Phase Auto Reclosure Scheme in all the 132kV lines associated with Kopili and Khandong HEP of NEEPCO. The lists of such lines are:

- a) 132kV Khandong – Umrangso - Halflong
- b) 132kV Kopili – Khandong #1

During 40th PCC meeting, AEGCL informed the forum that they have already written a letter to SAMA Power to carry out the work through ERL but so far they have not revert back. AEGCL stated that they will take up the matter once again.

The Sub-committee directed that a joint visit for carrier inter-trip signaling check to be conducted by POWERGRID & AEGCL at a suitable date and AEGCL should intimate to POWERGRID & NEEPCO 3 days in advance and the same should be completed before the next PCC meeting.

Deliberation of the sub-Committee

AEGCL informed the forum that PLCC panel is already available at Umrangso, ABB ETL41 (Speech & data) panel will be shifted from Khandong to Umrangso within 15/01/2016. However panel would be commissioned after joint visit with POWERGRID. Further, for 132kV Kopili – Khandong Line NEEPCO informed the forum that Kopili end bay belongs to POWERGRID and Khandong end bay belongs to NEEPCO. Accordingly, job is to be taken up jointly by NEEPCO and POWERGRID.

The sub-committee noted as above.

Action: POWERGRID, NEEPCO & Assam

A.3 Implementation of the recommendations of the Protection Audit:

As per Sl. no 9.1.1 & 9.1.4 of Report on Enquiry Committee on Grid Disturbance in Northern Region on 30th July 2012 and in Northern, Eastern & North-Eastern Region on 31st July 2012, thorough Third Party protection audit needs to be carried out periodically along with independent audit of Fault Recording Instruments.

The status as intimated by NERLDC during the 41st PCC meeting is as given below:

<i>Status of submission of data related to Third Party Protection Audit</i>			
<i>Name of Constituent</i>	<i>As per format of Task Force</i>	<i>As per format of NERPC</i>	<i>Remarks</i>
<i>DoP, Ar. Pradesh</i>	<i>Not submitted</i>	<i>Submitted</i>	<i>Data as per format of Task Force to be submitted by 31.01.2016</i>
<i>AEGCL</i>	<i>Yes (only checklist submitted)</i>	<i>Details of submission as per Annexure</i>	<i>Balance data to be submitted by 31.01.2016</i>
<i>TSECL</i>	<i>Not submitted</i>	<i>Submitted</i>	<i>Data as per format of NERPC for Surajmaninagar &</i>

			<i>Rabindranagar and Data as per Task Force Format for all sub-stations by 31.01.2016</i>
<i>NEEPCO</i>	<i>AGTPP Not submitted as per format</i>	<i>AGTPP Not submitted as per format</i>	<i>Data for AGTPP as per Task Force format & for AGTPP & AGBPP NERPC format to be By 31.01.2016</i>

After detailed deliberation, the Sub-committee had decided that those who have not submitted the data as per format of Task Force in Annexure A.2 (II) & also, as per the format of NERPC in Annexure A.2 (i) for 3rd Party Protection Audit are requested to furnish these data **by 31.01.2016 positively**.

The Sub-committee noted as above.

Action: All remaining utilities as above.

A.4 Status of R&M Implementation of NER from PSDF:

The Sub-committee requested all the constituents to intimate the status of progress to NERPC regularly so that the same could be intimated to CERC.

During 40th PCCM, the Sub-committee requested all constituents to complete the proactive actions like taking Board's approval, floating of NITs, selection of bidders etc., as directed by the Hon'ble CERC.

During the meeting held on 11.12.2015 at Delhi under the Chairmanship CEA, the forum expressed concerned about delay in disbursement of fund and execution of R&M works.

Deliberation in the Meeting:

AEGCL informed the forum that once Tri-partite Agreement is signed LOA would be issued.

Action: All 7 NER States.

A.5 Installation of PLCC Panel and Commissioning of SPAR in Loktak – Ningthoukhong 132kV Feeder (MSPCL):

NHPC informed that keeping in view of Power Evacuation, Loktak – Ningthoukhong 132 kV Feeder (MSPCL) is very essential feeder for Loktak Power Station. Since No PLCC Panel has been installed in this feeder, therefore no SPAR (Single Pole Auto Reclosure) has been installed. It is well known that maximum nature of fault occurred in the feeders are temporary in nature.

In order to increase the reliability of this feeder, MSPCL is requested to install PLCC Panels at the both ends so that necessary SPAR can be commissioned.

During 40th PCC meeting, MSPCL informed the forum that it would not be possible to complete the R&M works within 30/11/2015 and the same will be completed by 31.03.2016.

SE(O), NERPC informed that as per directive of Hon'ble CERC, MSPCL has to complete the R&M associated with Substations of Manipur within November, 2016. He requested MSPCL to adhere to the direction of CERC and complete the R&M works within the stipulated time. MSPCL representatives informed that they will take up the matter with the Competent Authority and inform about the CERC Order accordingly.

Deliberation in the Meeting:

MSPCL informed the forum that R&M will be completed by 31.03.2016.

The Sub-committee noted as above.

Action: MSPCL.

A.6 Implementation of 3-Ph Auto Reclosure in 132 kV Loktak-Jiribam, (PG):

NERTS informed that on every tripping of 132 kV Loktak-Jiribam (PG) line Auto Reclosure is successful from Loktak end but, at Jiribam (PG) end the CB is of gang (3 pole) operated. Accordingly, NHPC may implement 3-Ph Auto Reclosure with check sync at Loktak end with 1.40 sec dead time and Jiribam (PG) end dead line charging with 0.80 sec dead time.

During 37th PCC meeting, NHPC requested that OEM is to be called for relay configuration and testing so that smooth implementation can be carried out.

DGM (AM), NERTS stated that the same work has been carried out by them in many locations and the same will be implemented by themselves.

During 40th PCC meeting, NHPC disagreed for support from POWERGRID. Subsequently, after detailed deliberation it was agreed that representative of POWERGRID will visit LHEP on receipt of official communication from NHPC for implementation of the scheme.

Deliberation in the Meeting:

After detailed deliberation it has been decided that at Jiribam end POWERGRID will adopt 3-Phase AR with Check-sync feature for the time being and Loktak end will adopt SPAR. In the meantime item is to be dropped and reviewed later on.

The Sub-committee noted as above.

Action: POWERGRID.

A.7 Grid Incidences during November, 2015:

The following numbers of Grid Disturbances (GD) occurred during the period w.e.f 1st December, 2015 to 30th December, 2015:-

SI No	Control Area	Grid Disturbance in nos.	
		1 st December, 2015 to 30 th December, 2015	1 st January, 2015 to 30 th December, 2015
1	Palatana	0	7
2	AGBPP	0	1
3	AGTPP	0	8
4	Ranganadi	0	4
5	Kopili	0	2
6	Khandong	0	3
7	Doyang	0	5
8	Loktak	0	10
9	Arunachal Pradesh	3	77
10	Assam	1	77
11	Manipur	4	68
12	Meghalaya	0	52
13	Mizoram	0	14
14	Nagaland	2	35
15	Tripura	0	9

SI No	Category of GD	Grid Disturbance in nos.	
		1 st December, 2015 to 30 th December, 2015	1 st January, 2015 to 30 th December, 2015
1	GD 1	10	238
2	GD 2	0	3
3	GD 3	0	1
4	GD 4	0	1
5	GD 5	0	1
	Total	10	244

This is for information to the members. Remedial actions are to be taken by the concerned power utilities of NER

The Sub-committee noted as above.

A.8 Root cause analysis of tripping in Southern Part of NER on 08.08.2015 and 24.09.2015 & Remedial Measures:

Remedial Measures suggested by sub group members at the meeting held at NERPC on 29.09.15

The islanding scheme of AGTPP with Tripura system is to be reviewed so as to ensure successful islanding in such cases of isolation in NER Grid.

During 38th PCC meeting, the Sub-Committee decided that in addition to the recommendations of the sub-group the following should be implemented ASAP:

1. Modification to SPS-1 at Palatana: Unit-I and II to be put in AND logic so that SPS-1 would operate.

During 40th PCC meeting OTPC informed that the work has already been completed.

DGM (SO-II), NERLDC stated that on 15.12.2015, SPS 1 was triggered when only one module is in operation which is not correct. The SPS 1 should be triggered when both the modules are in service. He requested OTPC to check the scheme and do the necessary logic correction at the earliest.

Deliberation in the Meeting:

DGM(O&M), OTPC suggested that SPS-1 be disabled when one module is not running, meanwhile OTPC would review the scheme and revert back to the forum with suggestions for further modification(if possible). The forum agreed to the proposal. DGM, OTPC also proposed for modification to SPS-3 since now both units are running. It was decided to refer the matter to System Studies sub-group.

The Sub-committee noted as above.

Action: OTPC.

Root Cause Analysis & Remedial Measures by sub group members at the meeting held at NERPC on 18.11.15 regarding Non-Tripping of Azara-Bongaigoan as raised by AEGCL:

Cause: As per information given by POWERGRID, the incidences above are due to high arcing faults.

Remedial Measures:

- a. Explore to increase the resistive reach of Z-2 and Z-3.
- b. DEF characteristics should be IDMT in place of definite time with 1100msec opening time at maximum fault level
- c. Further, Z-3 setting should be 1000msec and necessary co-ordination is required for associated lines.
- d. NERPC Secretariat may extend help wherever necessary Administrative coordination is required for clearance of faults.

During 40th PCC meeting, POWERGRID requested AEGCL to implement Zone 3 setting as per the recommendation of task force. Also DEF delay setting should be 100 ms more than Zone 3 setting with IDMT characteristics. AEGCL proposed for review of Zone 3 setting as recommended by task force. However, POWERGRID opined that there is no scope for review as it is the matter for implementation.

AEGCL insisted for joint meeting for which POWERGRID sought agenda from AEGCL.

The Sub-committee requested NERPC to invite AEGCL during the monthly Sub-committee meeting to discuss about various grid incidences being held every month by NERPC along with above issues of Assam.

Deliberation in the Meeting:

SE(O) informed the forum that the monthly Sub-Committee meeting could not be held in January, 2016, and the same will be conducted before the next PCC meeting and he also requested Assam to give some specific agenda/topic to be discussed so that meeting would be fruitful.

The Sub-committee noted as above.

Action: AEGCL, NERPC.

A.9 Protection System in Tripura, OTPC & POWERGRID System for reliable power supply to Bangladesh:

It is understood that Tripura is going to sell power to Bangladesh through 132 kV Surjamaninagar (TSECL) – Comilla (Bangladesh) D/C lines from December, 2015.

In view of the above, TSECL, OTPC & POWERGRID are requested to provide the status of protection system in their respective substations for providing reliable power supply to Bangladesh.

During 39th PCC meeting, TSECL informed that POWERGRID will take care of all protection system pertaining to 132kV S.M. Nagar to Commilla South.

During 40th PCC meeting, SE(O), NERPC stated that the main concern is the protection within Tripura system. As it is learnt that no primary protection system is in place in many of their important lines and any delayed tripping on their system may affect the power supply to Bangladesh. Further, he stated that the issue was brought to the notice of Tripura in many occasions but no positive response was made from Tripura side. After detailed deliberation, the Sub-committee requested NERPC to write letter to highest authority of Tripura with a copy to MoP in this regard.

Deliberation in the Meeting:

SE(O), NERPC informed the forum that intimation has already been given to Govt. of Tripura, however response in this regard is awaited. The forum viewed seriously the non participation of TSECL representative in PCC meetings of NERPC and requested that this matter be raised in the next TCC/RPC meeting.

The Sub-committee noted as above.

Action: NERPC.

A.10 Protection System in 400kV BTPS Line I&II:

This has reference to the erection/commissioning of differential protection for 400KV BTPS Line1&2 between NTPC and PGCIL substation.

Our preparedness for COD of Unit#1 has already started and would take place any day in January, 2016. Once COD is completed the plant will go for regular generation and the following problems are likely to be faced.

***Unit shutdown if required for establishment of FO link and other related activities may not be available.**

***In absence of line differential protection the reliability of both NTPC Unit and N-E grid of PGCIL may get jeopardized.**

Hence, it is requested that PGCIL may please provide us the following information.

1. The present status of receipt/delivery of three no Alstom make relays. (Model. P543916G6M0760M)
2. The present status of receipt/delivery of FO channel with terminal equipment.
3. The present status of implementation of modified scheme at PGCIL end for Schneider make Micom P543 (NTPC procured).

4. Line shutdown requirement (if applicable) for establishment of FO link for commissioning of the differential scheme.
5. Action plan for establishment of FO channel with terminal equipment and commissioning of differential protection.

Deliberation in the Meeting:

DGM (AM), NERTS informed that Schneider make MICOM relay will be installed in both ends of Circuit-I of 400kV BTPS - Bongaigaon by NTPC and ALSTOM make relay at both ends of Circuit-II of 400kV BTPS – Bongaigaon will be installed by POWERGRID. The forum agreed. It was decided that NTPC and POWERGRID would do the necessary on dates for which shutdown is accorded for Circuit # 1 & 2 as per 117th OCC.

The Sub-committee noted as above.

Action: NTPC, POWERGRID.

A.11 Root cause analysis of tripping during December, 2015:

A. Disturbance in Manipur System:

- a. At **1121 Hrs on 01.12.15**, due to tripping of 132 kV Imphal (PG)- Imphal (MSPCL) I & II lines (**Line 1: Imphal (PG)- Earth Fault, Y-phase & Imphal (MSPCL)- Not Furnished and Line 2: Imphal (PG)- Earth Fault, Y-phase & Imphal (MSPCL)- Not Furnished**), power supply to Capital area of Manipur interrupted.

Load loss: 52 MW in Manipur.

- b. At **1207 Hrs on 10.12.15**, due to tripping of 132 kV Imphal (PG)- Imphal (MSPCL) I & II lines (**Line 1: Imphal (PG)- Earth Fault & Imphal (MSPCL)- Not Furnished and Line 2: Imphal (PG)- Earth Fault & Imphal (MSPCL)- Not Furnished**), power supply to Capital area of Manipur interrupted.

Load loss: 48 MW in Manipur.

- c. At **1340 Hrs on 20.12.15**, due to tripping of 132 kV Loktak – Ningthoukhong (**Loktak- Not furnished and Ningthoukhong- Not furnished**), line power supply to Ningthoukhong area of Manipur interrupted. 132 kV Imphal(PG)-Ningthoukhong line & 132 kV Kakching - Kongba line was kept open for system constraint.

Load loss: 40 MW in Manipur.

- d. At **1456 Hrs on 20.12.15**, due to tripping of 132 kV Loktak – Ningthoukhong (**Loktak- Not furnished and Ningthoukhong- Not furnished**), line power supply to Ningthoukhong area of Manipur interrupted. 132 kV Imphal(PG)-Ningthoukhong line & 132 kV Kakching - Kongba line was kept open for system constraint.

Load loss: 23 MW in Manipur.

Category as per CEA Standards: GD-I

Deliberation in the Meeting:

DGM(SO-II), NERLDC opined that root cause of tripping of these elements is due to vegetation problem. The forum viewed seriously for not furnishing relay flags and requested MSPCL to furnish monthly detailed patrolling report. MSPCL informed the forum that it is expected that trippings would reduce upon completion of R&M works.

The Sub-committee noted as above.

Action: MSPCL.

B. Disturbance in Arunachal Pradesh system:

- a. **At 1346 Hrs on 05.12.15**, 132 kV Ranganadi - Lekhi (**Ranganadi- Not furnished and Lekhi- Not furnished**) line tripped. Due to tripping of this element, Lekhi & Capital area of Arunachal Pradesh separated from rest of NER Grid and subsequently collapsed due to loss of infeed.

Load loss: 40 MW in Arunachal Pradesh

- b. **At 1425 Hrs on 10.12.15**, 132 kV Lekhi - Nirjuli (**Nirjuli- Earth Fault and Lekhi- Not furnished**) line tripped. Due to tripping of this element, Nirjuli area of Arunachal Pradesh separated from rest of NER Grid and subsequently collapsed due to loss of infeed.

Load loss: 14 MW in Arunachal Pradesh

- c. **At 1245 Hrs on 19.12.15**, 132 kV Ranganadi - Ziro (**Ranganadi- DP, Z1, R-Y-E and Ziro- No tripping**) line tripped. Due to tripping of this element, Ziro area of Arunachal Pradesh separated from rest of NER Grid and subsequently collapsed due to loss of infeed.

Load loss: 12 MW in Arunachal Pradesh

Category as per CEA Standards: GD-I

Deliberation in the Meeting:

DGM (AM), NERTS informed the forum that since 132 kV Ranganadi - Nirjuli Line is LILO at Lekhi (with infeed only at RHEP end) Tripping (a) seems to be fault in Ranganadi - Lekhi section only. The forum requested that relay flags may please be provided for analysis. For item (b) DGM (AM), NERTS opined that protection at Nirjuli end might not have operated as Nirjuli is radially fed by RHEP via Lekhi. Further, for necessary conclusion Lekhi end flag information is required. For (c) it is analyzed that its due to fault in line and accordingly POWERGRID should look into the matter for necessary corrective measures.

The Sub-committee noted as above.

Action: NERLDC, DoP Ar. Pradesh, POWERGRID.

C. Disturbance in Nagaland system:

- a. **At 1430 Hrs 03.12.15**, 132 kV Dimapur(PG) - Kohima (**Dimapur(PG)- DP, Z-1, B-E and Kohima-No tripping**) line tripped. Due to tripping of this element, Kohima (Capital) area of Nagaland separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Load loss: 32 MW in Nagaland

Generation Loss: 8 MW in Nagaland (Likimro generation)

- b. **At 0200 Hrs 04.12.15**, 132 kV Dimapur(PG) - Kohima (**Dimapur(PG)- DP, Z-1, B-E and Kohima-No tripping**) line tripped. Due to tripping of this element, Kohima (Capital) area of Nagaland separated from rest of NER Grid and subsequently collapsed due to no source in this area.

Load loss: 21 MW in Nagaland

Generation Loss: 14 MW in Nagaland (Likimro generation)

Category as per CEA Standards: GD-I

Deliberation in the Meeting:

The forum requested DoP Nagaland to provide monthly patrolling (jungle clearance) report

The Sub-committee noted as above.

Action: DoP Nagaland.

D. Tripping of Inter-Regional Lines:

- a. **At 1145 Hrs on 08.12.2015**, Pole-I of +/- 800 kV BiswanthChariali – Agra line tripped.
- b. **At 1628 Hrs on 08.12.2015**, Pole-I of +/- 800 kV BiswanthChariali – Agra line tripped.
- c. **At 1749 Hrs on 14.12.2015**, Pole-I of +/- 800 kV BiswanthChariali – Agra line tripped.
- d. **At 2309 Hrs on 14.12.2015**, Pole-I of +/- 800 kV BiswanthChariali – Agra line tripped.
- e. **At 2249 Hrs on 16.12.2015**, Pole-I of +/- 800 kV BiswanthChariali – Agra line tripped.
- f. **At 2118 Hrs on 18.12.2015**, Pole-I of +/- 800 kV BiswanthChariali – Agra line tripped.

Deliberation in the Meeting:

DGM (AM), NERTS informed that all the above trippings are not due to fault in Line. Most of the blocks are due to cooling problem at Agra End for POWERGRID, NR1 has already taken up with ABB for necessary stabilization.

DGM (SO-II), NERLDC requested the forum to invite Biswanath Chariali HVDC, POWERGRID for resolving the issues related to tripping of elements of Biswanath Chariali HVDC.

The Sub-committee noted as above.

Action: NERTS.

E. Tripping of Generating Units

- a. **At 1753 Hrs on 03.12.2015, Unit # 2 and 3 of Ranganadi HEP tripped due to operation of Bus-Bar Protection at Ranganadi. (Generation Loss = 265 MW)**
- b. **At 1817 Hrs on 13.12.2015, Units # 2, 4, 5 & 8 of AGBPP tripped due to tripping of Gas Compressor-II (Generation Loss = 101 MW)**
- c. **At 0732 Hrs on 15.12.2015, STG-I of Palatana tripped followed by tripping of GTG-I at 0800 Hrs on 15.12.2015. (Generation Loss = 156 MW)**
- d. **At 1050 Hrs on 15.12.2015, Units # 2, 3, 4 of AGBPP tripped due to tripping of Gas Compressor-II (Generation Loss = 90 MW)**
- e. **At 0628 Hrs on 19.12.2015, STG-I of Palatana tripped followed by tripping of GTG-I at 0652 Hrs on 15.12.2015. (Generation Loss = 174 MW)**
- f. **At 0227 Hrs on 18.12.2015, Units # 1, 2, 3, 4, 6, 8 & 9 of AGBPP tripped due to tripping of all Gas Compressors (Generation Loss = 216 MW)**
- g. **At 2310 Hrs on 21.12.2015, Units # 2, 3, 4, 8 of AGBPP tripped due to tripping of Gas Compressor - III (Generation Loss = 122 MW)**

Deliberation in the Meeting:

Members expressed concerned about the tripping of generating units and requested all the concerned utilities above to furnish the exact cause of problem so that the forum can be deliberated in detail.

The Sub-Committee decided that a Special Meeting would be conducted with all the generating entities along with NERLDC and NERPC. The date and venue would be intimated later on.

The Sub-committee noted as above.

Action: Concerned Generating Utilities & NERPC

A.12 Completion of activities within specified time as per directives of CERC vide order in Petition No. 113/MP/2014

As per order in Petition No. 113/MP/2014 of CERC, CERC directed to power utilities and organizations of NER to complete the activities within specified time/submit monthly reports as per provisions of IEGC & Grid Standards of CEA etc. List of actions/activities/reports to be completed within specified time as per directives of CERC vide order in Petition No. 113/MP/2014 attached at - **Annexure II**.

Power utilities and organizations of NER are requested to send monthly status report of activities related to order in Petition No. 113/MP/2014 to NERPC & NERLDC.

During 40th PCC meeting, the sub-committee had requested all power utilities and organizations of NER to comply all provisions of IEGC & Grid Standards of CEA & send monthly status report of activities related to order in Petition No. 113/MP/2014 to NERPC & NERLDC.

Deliberation in the Meeting:

SE(O) requested all utilities to kindly adhere to the recommendations of Hon'ble CERC. NERLDC requested all constituents of NER to submit monthly reports related to compliance of this order of Hon'ble CERC.

The Sub-committee noted as above.

Date and Venue of next PCC

It is proposed to hold the 42nd PCC meeting of NERPC in the second week of February, 2016. The exact venue will be intimated in due course.

The meeting ended with thanks to the chair.

Annexure-I**List of Participants in the 41st PCC Meetings held on 7/01/2016**

SN	Name & Designation	Organization	Contact No.
1.	Sh. N. Perme, EE	Ar. Pradesh	09436288643
2.	Sh. M.K. Bordoloi, CGM, SLDC	Assam	09435203996
3.	Sh. J.K. Baishya, AGM,SLDC	Assam	09435041494
4.	Sh. B.C. Borah, AGM,SLDC	Assam	09435119248
5.	Sh. P. Dutta, AM (Commercial)	Assam	08822693871
6.	Sh. K. Sarma, AGM, AEGCL	Assam	09435013532
7.	Sh. A.N. Dev Choudhury, AGM, APDCL	Assam	09954055295
8.	Sh. A. Bhattacharjee, Dy. Manager, AEGCL	Assam	09435332928
9.	Ms. Laishram Ritu, Manager, SLDC	Manipur	09612882984
10.	Ms. Haobam Memnaobi Chanu, DM,SLDC	Manipur	08131964667
11.	Sh. Javed M. Warjri, AEE, SLDC	Meghalaya	09856012700
12.	Sh. T. Gidon, EE, SLDC	Meghalaya	09774479956
13.	Sh. S.B. Nath, EE, Killing Sub-Station	Meghalaya	09436108836
14.	Sh. A.G. Tham, AE, MRT	Meghalaya	-
	No Representative	Mizoram	-
15.	Sh. A. Jakhalu, EE (Trans.)	Nagaland	09436002696
	No Representative	Tripura	
16.	Sh. Amaresh Mallick, DGM (SO-II)	NERLDC	09436302720
17.	Sh. Anupam Kumar, Sr. Engineer	NERLDC	09436335379
18.	Sh. Abraham Varghese, AGM	NERLDC	09436302725
19.	Sh. B.K. Chakraborty, DGM (E)	NEEPCO	09436309730
20.	Sh. Suranjan Sarkar, Sr. Manager (E/M)	NEEPCO	08974009294
21.	Sh. P. Kanungo, DGM (AM)	PGCIL	09436302823
22.	Sh. S. Chakraborty, Manager	NTPC	09435322541
	No Representative	ENICL	-
	No Representative	NHPC	-
23.	Sh. Thakor Prasad Pandey, DGM (O&M)	OTPC	08794718423
24.	Sh. P.K. Mishra, MS	NERPC	-
25.	Sh. B. Lyngkhai, Director/S.E (O)	NERPC	09436163419
26.	Sh. S. Mukherjee, AD-I/AEE	NERPC	08794277306
27.	Sh. Shaishav Ranjan, AD-II/A.E	NERPC	08794276168

**List of Actions / Activities / Reports to be completed within specified time as per directions of CERC vide order in
Petition No. 113/MP/2014**

Sl.No.	Responsible Entity / Organisation	Actions / Activities / Reports	Timeline	Remarks	Reference
1	Manipur (MSPCL)	Renovation works associated with Substations	1 year from date of issue of order		Pg.19, Sl.No. 17, Para 1, Line 5-6
2	All SEBs, Distribution Licensees, STUs	Furnish periodic inspection report of UFRs			Pg.21, Sl.No. 21, Para 1, Line 1-2
3	All Entities	Make systems compliant with provisions of Grid Code	One month from date of issue of order	Failure to comply may lead to Sec 142 of Act and other provisions of Act for non-compliance to Grid Code	Pg.21, Sl.No.21, Para 1, Line 2-6
4	OTPC	Explain the reason why SPS related to reduction of Palatana generation in the event of tripping of 400 kV Silchar - Byrnihat line was not implemented within April 2014	31-Dec-15		Pg.22, Sl.No.24, Para 1, Line 6-8
5	AEGCL	Implement recommendations of 3rd party protection audit remarks	1 year from date of issue of order		Pg.24, Sl.No.28, Para 1, Line 3-5
6	All Entities	Complete the work identified in 3rd party protection audit to eliminate frequent tripping in intra-state systems	Expeditionary manner		Pg.24-25, Sl.No.29, Para 2, Line 3-6
7	All Entities	Compliance to provision of Grid Code and CEA Grid Standards Regulations			Pg.25, Sl.No.30, Para 1, Line 5-7
8	STU, Distribution Licensee, SLDCs	Put in service all UFR, df/dt, Islanding schemes and load relief are to be ensured as agreed in NERPC forum			Pg.25, Sl.No.31, Para 1, Line 1-3
9	NERLDC and NERPC	Submit report to CERC regarding operation of UFR & df/dt relays below the setting, if any, and adequate relief to be made available by concerned states / utilities		So that action can be initiated against them as per law	Pg.25, Sl.No.31, Para 1, Line 4-7
10	NPC	Review relay settings of UFR and submit report to CERC			Pg.25, Sl.No.32, Para 1, Line 2-4
11	NERPC	Report regarding adequacy of funds requirement from PSDF for rectification of protection deficiency			Pg.26, Sl.No.33(f), Para 1
12	NERPC	Status of protection audit remarks in respect of all constituents of NER to CERC	2 months from date of issue of order		Pg.26, Sl.No.33(g), Para 1
13	All Constituents	Submit status of implementation of Protection Audit remarks to NERPC	PCSC meetings		Pg.26, Sl.No.33(h), Para 1
14	NERPC	Status report to CERC confirming completion of protection audit remarks of NER Constituents	Bi-annual		Pg.27, Sl.No.33(i), Para 1