

**MINUTES OF SYSTEM STUDIES (SS) MEETING**

**Date** : 22/04/2015 (Wednesday)

**Time** : 14:00 hrs

**Venue** : "Hotel Nandan", Guwahati.

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

Member Secretary, NERPC requested Shri B. Lyngkhoi, Director/SE(O) to continue & take up the System Studies Agenda.

SE(O) informed that issue of SPS had been discussed in various OCC/PCC Meetings but could not be resolved and as directed by the Sub-committee the Special meeting was held on 06.04.2015 at Shillong and the status is given below:

**1. Latest status of FGMO/RGMO implementation in different generating stations:**

During Special meeting held on 06.03.2015, SE(O) highlighted the CERC Order which is reproduced as below:

"All generating units, which are synchronized with the grid, irrespective of their ownership, type and size, shall have their governors in normal operation at all times. If any generating unit of over fifty (50) MW size (10 MW for North Eastern Region) is required to be operated without its governor in normal operation, the RLDC shall be immediately advised about the reason and duration of such operation. All governors shall have a droop of between 3% and 6%.

All Generating Units, operating at/up to 100% of their Maximum Continuous Rating (MCR) shall normally be capable of (and shall not in any way be prevented from) instantaneously picking up five per cent (5%) extra load for at least five (5) minutes or within technical limits prescribed by the manufacturer when frequency falls due to a system contingency. The generating units operating at above 100% of their MCR shall be capable of (and shall not be prevented from) going at least up to

105% of their MCR when frequency falls suddenly. Any generating unit of over fifty (50) MW size (10 MW for NER) not complying with the above requirement, shall be kept in operation (synchronized with the Regional grid) only after obtaining the permission of RLDC”.

NERLDC gave the latest status of FGMO/RGMO in the region and the same is attached at **Annexure - II**.

DGM (SO-I) NERLDC stated that as seen from the presentation some of the units are showing status as RGMO/FGMO was implemented but whether the same has been tested to prove that RGMO/FGMO are really operational.

Sr. Manager, NEEPCO informed that unless machines are operating at full capacity they have not tested to find out if the 5% (+/-) picking from 100% of their MCR is possible. He mentioned that Ranganadi & Kopili HEPs are facing such problem while at others stations FGMO/RGMO as indicated in the **Annexure - II** are correct. Sr. Manager, NEEPCO also stated that every hydro machine under their control has critical zone and they cannot be operated beyond certain amount of load as per manufacturer's instruction. This means that the units cannot be run from 0 MW to full load capacity. Under this circumstances implementation of RGMO may not be possible even if the EHG panel is switched over to electronic panel.

Assam & Meghalaya also endorsed the view of NEEPCO.

NERLDC also informed that telemetry data in case of Langpi HEP of Assam & Leshka HEP of Meghalaya have not been received at NERLDC and as per information available RGMO/FGMO were in operational condition. NERLDC requested them to check the telemetry system and make it available at the earliest. Assam & Meghalaya agreed.

After detailed deliberation, the forum requested constituents to file the petition in CERC stating about the problem faced i.r.o RGMO/FGMO by them so that exemption can be granted to them. Further, the forum requested them to intimate the latest status on this issue at the earliest.

**Deliberation of the sub-Committee**

FGMO/RGMO as recorded above would be reviewed by NEEPCO once again before filing petition to CERC. The status would be intimated to NERPC/NERLDC at the earliest.

Assam & Meghalaya may file a petition in CERC pertaining to their generating units as decided in the sub-committee meeting of NERPC.

***The Sub-committee noted as above.***

**2. Review of SPS I, SPS II, SPS III & SPS IV related to Palatana GBPP, OTPC after commissioning of Palatana Module II**

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

**SPS I (implemented w.e.f 14.09.13):**

In case of tripping of Module I of Palatana, OTPC, load will be disconnected by tripping of the following elements:

- 132 kV Silchar- Srikona D/C
- 132 kV Silchar- Panchgram
- 132 kV Badarpur- Panchgram
- 132 kV Silchar-Dullavcherra-Dharmanagar

During Special Meeting held on 06.04.2015, the Sub-committee requested OTPC to carry out the wiring for Module – II in series with Module-I so that the SPS for load relief operates only in case of tripping of both the units.

OTPC agreed to complete the wiring of Module – II by 20.04.2015.

NERLDC was of the view that due to more available generation, drawal of constituents in NER Grid would be high. In case of tripping of both Modules of Pallatana, load disconnection has to be carried out to avoid violation of ATC of NER-ER corridor. Any such violation may result in overloading of lines in Eastern Region leading to cascade tripping effect.

It was observed that during the incidence occurred on 16.04.2015, the above SPS did not operate as planned.

**Deliberation of the sub-Committee**

OTPC informed that SPS I-was implemented by them on 19.04.15 in case of tripping of Module I & Module II. NERLDC informed that SPS I will be reviewed once the plant is generating to full capacity. At present, OTPC is generating around 500 MW.

***The Sub-committee noted as above.***

**SPS II (implemented w.e.f 23.02.15):**

In case of tripping of 400 kV Palatana- Silchar D/C lines (with Module I generation of Palatana, OTPC), load will be disconnected by tripping of the following elements:

- 132 kV Silchar - Srikona D/C
- 132 kV Silchar - Panchgram
- 132 kV Badarpur - Panchgram
- 132 kV Silchar - Dullavcherra - Dharmanagar

And Generation of Palatana, OTPC will be reduced to around 20 MW excluding their auxiliary consumption.

During meeting held on 06.04.2015, the Sub-committee requested OTPC to carry out the wiring for Module – II in same line as was done in case of Module – I.

DGM (SO-I), NERLDC informed that after tripping of 400 kV Silchar – Palatana I & II lines on 23.02.2015, SPS – II did not operate as planned for load relief.

OTPC informed that generation reduction to around 20 MW is not possible and instead it will go to FSNL mode with no generation. Further, they informed that modules can run in FSNL mode for long time and bringing back the machines after resumption of their connectivity is not a problem, only STG may take some time. Further, he informed that stable power supply from Tripura has to be ensured to enable the SPS –II. Also he informed that present station transformer is not adequate for auxiliary power supply to the plant.

The Sub-committee expressed concern about the issue as OTPC stated earlier that Modules of Palatana can bring down to in-house load excluding auxiliary consumption to 20 MW and was recorded in minutes accordingly. The Sub-committee requested OTPC to spell out clearly on this issue in the next OCC meeting so that SPS- II could be made operational as plan.

**Deliberation of the sub-Committee**

NERLDC has requested to trip 400/132 kV, 125 MVA ICT at Palatana immediately after tripping of 400 kV Palatana – Silchar I & II lines for safe , secure and reliable operation of Tripura system.

*After detailed deliberation, the Sub-committee requested OTPC to implement the SPS-II as per system requirement. The Sub-committee also requested OTPC to enhance capacity of station transformer for adequate supply of auxiliary power to the modules at the earliest. Further, the SPS-II would be reviewed again, once the plant is generating full capacity.*

*OTPC agreed to implement the SPS-II, but stated that installation of adequate ICT may take some time.*

**SPS III (implemented w.e.f 23.02.15):**

In case of tripping of 400 kV Silchar - Byrnihat & 400 kV Silchar - Azara lines (with Module I generation of Palatana, OTPC), Generation of Palatana, OTPC will be reduced to around 200 MW.

During meeting held on 06.04.2015, DGM (SO-I), NERLDC stated that in case of tripping of 400 kV Silchar - Byrnihat & 400 kV Silchar - Azara lines (with Module I & II generation of Palatana, OTPC), total Generation of Palatana, OTPC from Module I & II should be reduced to around 200 MW. OTPC agreed to implement the scheme accordingly.

**Deliberation of the sub-Committee**

NERLDC has informed that SPS III was not operated after tripping of 400 kV Silchar – Byrnihat line & 400 kV Silchar – Azara line on 21.04.15. The matter is very serious. It is suspected that SPS III is not yet implemented by OTPC.

OTPC informed that the scheme has already been implemented.

***The Sub-committee noted as above.***

**SPS IV (implemented w.e.f 14.09.13):**

In case of tripping of 400 kV Silchar – Byrnihat & 400 kV Silchar- Azra lines (without generation of Palatana, OTPC), load will disconnected by tripping of the following elements:

- 132 kV Silchar - Srikona D/C
- 132 kV Silchar - Panchgram
- 132 kV Badarpur - Panchgram
- 132 kV Silchar – Dullavcherra - Dharmanagar

**Deliberation of the sub-Committee**

OTPC & POWERGRID informed that above scheme has already been implemented by them.

***The Sub-committee noted as above.***

**3. SPS based load disconnection in case of tripping of 400/220 kV, 315 MVA ICT at Bongaigaon**

In case of tripping of 400 kV Bongaigaon – Azara & 400 kV Bongaigaon –Byrnihat lines, 400/220 kV, 315 MVA ICT at Bongaigaon may be overloaded and tripped at peak hours. In case of tripping of this ICT, Capital area, Dhaligaon area of Assam & Nangalbibra area of Meghalaya & North Bengal & Bhutan system may be collapsed.

To safe, secure & reliable operation of these areas of NER, SPS is to be designed for load disconnection in these areas.

It was decided during last SSM that this issue would be discussed with ERPC so that load relief of 120 MW can be shared by Eastern Region also.

During meeting on 06.04.2015, DGM (SO-I), NERLDC stated that in case of tripping of 400 kV Bongaigaon – Azara & 400 kV Bongaigaon –Byrnihat lines, 220 kV BTPS – Salakati D/C lines may be overloaded and tripped during peak hours. Hence Dhaligaon load of around 120 MW has to be curtailed to maintain loading of 220 kV BTPS – Salakati D/C lines. Further, he stated that such exigency may occur only in extreme case and therefore requested Assam to look into the matter and taking consent of ER for sharing the load is not at all necessary.

Assam agreed for load disconnection in Dhaligaon area. However, the Dhaligaon load needs to be kept in radial mode and Bhutan load through 132 kV Rangia – Deothang S/C must not be affected.

After detailed deliberation, the sub-committee requested Assam & POWERGRID to look into the matter and intimate the status in next OCC meeting.

**Deliberation of the sub-Committee**

***Assam informed that above scheme as suggested is agreeable to them and the same would be implemented by 15.05.2015. NERTS may intimate the status in next meeting. The Sub-committee noted as above.***

**4. SPS based generation reduction of AGTPP in case of tripping of 132 kV AGTPP - Kumarghat line**

It has been observed from study results that after commissioning of Palatana 2nd Module, Monarchak Unit I & II and AGTPP Unit 5 & 6, 132 kV AGTPP - Kumarghat, 132 kV Monarchak - Udaipur, 132 kV Baramura - Teliamura & 132 kV Teliamura-Ambassa lines will be highly loaded.

In case of tripping of 132 kV AGTPP - Kumarghat line, following lines will be overloaded:-

1. 132 kV Monarchak - Udaipur : 72 MW
2. 132 kV Dhalabil - Agartala : 84 MW
3. 132 kV Dhalabil - Kamalpur : 79 MW
4. 132 kV Baramura - Teliamura : 88 MW
5. 132 kV Teliamura - Ambassa : 86 MW
6. 132 kV PK Bari - Kumarghat : 92 MW
7. 132 kV PK Bari - Ambassa : 81 MW
8. 132 kV PK Bari - Kamalpur : 76 MW

During meeting held on 06.04.2015, the Sub-committee recommended the importance of this SPS and requested NEEPCO to implement the above SPS with load relief of 32 MW before commissioning of both STGs.

NEEPCO agreed to implement the SPS within April, 2015.

**Deliberation of the sub-Committee**

***NEEPCO once again informed that above scheme would be implemented within April, 2015.***

***The Sub-committee noted as above.***

**5. SPS at Silchar.**

During meeting held on 06.04.2015, DGM (SO-II), NERLDC informed that Silchar is very important station in Southern Assam part of NER Grid and after termination of 132 kV Silchar - Imphal (PG) D/C lines, loading of 2x200 MVA, 400/132 kV Silchar ICTs has increased and persistent violation of N-1 condition was observed during peak hours. In case of overloading & tripping of any ICTs at Silchar during peak hours, there may be cascade tripping of transmission elements of this part of NER

and grid disturbance may occur in this part of NER. As more 132 kV lines from 132 kV Silchar (PG) substation are expected to connect load centers in Tripura, Mizoram, the loading of Silchar ICTs are expected to increase further.

He suggested to have one more SPS at Silchar and that the current SPS based load shedding associated with SPS related to Palatana unit tripping may be extended to Silchar substation such that load is disconnected automatically in case of tripping of any ICT at Silchar.

The Sub-committee requested NERLDC to carry out the system study and so that the proposed SPS at Silchar can be discussed further.

**Deliberation of the sub-Committee**

DGM (AM), NERTS informed that above scheme would be implemented within May, 2015.

***The Sub-committee noted as above.***

**6. SPS requirement of States**

NER states may review the critical loading within their system and the vulnerability of important load centers[if any] and propose SPS scheme so that the same can be implemented in a coordinated manner under the aegis of NERPC to ensure power supply to important load centers during contingencies and also integrity of NER grid is maintained.

During meeting held on 06.04.2015, DGM (SO-I), NERLDC briefed about the importance of SPS in respect of each state to review the critical loading within their system and the vulnerability of important load centers[if any] and therefore requested constituents to look into the matter for the benefit of the system in NER.

EE, Me.ECL informed that one SPS has been implemented by them on 132 kV Umtru – ICPS I & II. He informed that the current status would be intimated to NERPC/NERLDC at the earliest.

**Deliberation of the sub-Committee**

EE, Me.ECL informed that one SPS has been implemented by them on 132 kV Killing to EPIP – II will be implemented by May, 2015.



***The Sub-committee appreciated Meghalaya and requested other states to plan for implementation of SPS accordingly.***

***The Sub-committee noted as above.***

#### **7. Installation of Reactor at Rangandai HEP.**

DGM (SO-II), NERLDC informed that on several occasions NER grid experiencing very high voltage condition during off-peak hours resulting in opening of numbers of 400 kV circuits to contain over voltage especially at RHEP. 400 kV Balipara-RHEP D/C link is operated through single circuit only in most of the time sacrificing reliability of the system. Similar is the condition in other corridors including IR link. To address the problem, conversion of line reactors as Bus reactors for 400 kV Bongaigaon-Balipara D/C line and installation of additional bus reactors at Balipara have been proposed.

In addition to this, one bus reactor of at least 50 MVAR capacity is required to be installed at RHEP so that over voltage problem can be solved

During meeting on 06.04.2015, SE(O), NERPC informed that the issue regarding installation of reactor at Ranganadi has been discussed in last 107th OCC meeting and the Sub-committee has requested NERPC to write to NEEPCO to enquire about the feasibility to counter the high voltage problem at Ranganadi end.

1. Possibility of installation of Bus Reactor either at 400 kV or 132 kV RHEP Switchyards
2. Possibility of running of machine in synchronous condenser mode during lean hydro period
3. Possibility of installation of Tertiary reactors if Tertiary winding is available in ICTs at RHEP.

#### **Deliberation of the sub-Committee**

SE(O) informed that NERPC has already written to NEEPCO as per request by the Sub-committee on above points the reply is awaited.

It was decided that 50 MVAR Line Reactor of 400 kV Balipara – Ranganadi line is to be taken into Bus Reactor when the line was kept open as high voltage is observing at their end.

*The Sub-committee requested NERPC to write a letter to management of NEEPCO for taking 50 MVAR Line Reactor of 400 kV Balipara – Ranganadi line as Bus Reactor whenever required.*

### 8. Implementation of islanding scheme in NER

During the 94thOCC meeting, the committee had decided the following islanding scheme and associated frequencies levels for creation of islands in NER:

SN	Islanding Scheme	Lines required to be opened	UFR Location	Implementing Agency
1	<p><b>ISLAND AT 48.80 Hz with 5 Sec delay:</b> Island comprising of generating units of AGBPP (Gas), NTPS (Gas) &amp; LTPS (Gas) and loads of Upper Assam system &amp; Deomali area (Ar. Pradesh) <b>[Total Generation: 380-400MW and load: 200MW (off peak)-300MW (peak)]</b></p>	(a) 220 kV New Mariani (PG) – AGBPP	UFR-1 [At New Mariani (PG)]	PGCIL
		(b) 220 kV Mariani – Misa	UFR-2 [At Mariani, Samaguri of AEGCL]	AEGCL
		(c) 220 kV Mariani – Samaguri		
		(d) 132 kV Mokukchung – Mariani		
		(e) 132 kV Dimapur (PG) – Bokajan	UFR-3 [At Dimapur (PG)]	PGCIL
		(f) <b>Generators to be desynchronized for reduction of generation [if Generation &gt; Load in the islanded pocket]</b>		
		(g) De-synchronization / isolation of one GT and one ST from each of two modules of AGBPP, which are in operation, leading to reduction of generation of about 80-90 MW [i.e each module will contribute to reduction of about 40-45 MW (GT:30MW+ST:15MW)].	At AGBPP [UFRs of line bays & Generator to be used]	NEEPCO
		(h) <b>Lines required to be opened for load shedding of 30MW (off-peak) and 50MW (peak) [if load &gt; generation in the islanded pocket]</b>		
		(i) 132kV Tinsukia – Ledo S/C line (at 48.7Hz instantaneous).	UFR [At Tinsukia]	AEGCL

		(j) 66kV Tinsukia – Rupai S/C line (at 48.6Hz instantaneous)		<b>AEGCL</b>
		(k) 132kV Jorhat – Bokakhat line (at 48.5Hz instantaneous)	UFR [At Jorahat / Bokakhat]	<b>AEGCL</b>
2	<b>ISLAND AT 48.50 Hz with 5 Sec delay :</b> Island comprising of generating units of AGTPP (Gas), generating units at Baramura (Gas), Rokhia (Gas) & Gumati (Hydro) and loads of Tripura system & Dullavcherra area (Assam) <b>[Total Generation: 150-160MW and load: 110MW (off-peak) &amp; 170-180MW (peak)]</b>	132 kV Palatana – Udaipur	UFR-1 [At Palatana]	<b>OTPC</b>
		132 kV Palatana – Surjamani Nagar		
		132 kV Silchar – Dullavcherra	UFR-2 [At Silchar]	<b>PGCIL</b>
		132 kV AGTPP – Kumarghat	UFR-3 [At Kumarghat]	<b>PGCIL</b>
132 kV P K Bari – Kumarghat				
3	<b>ISLAND AT 47.90 Hz:</b> Isolation of NER from NEW grid at ER-NER boundary with rest of the generation and load of NER	To be decided after system study		

During meeting held on 06.04.2015, the Sub-committee put in record that because of the successful operation of Islanding – I, restoration of the grid in NER was carried out at the earliest during the major grid incidence occurred on 23.02.2015. However, Islanding scheme –II was not operated.

NERLDC enquired whether associated lines pertaining to Islanding –II tripped and any UFRs operated during the above incidence.

DGM (AM), NERTS informed that on that particular day i.e. 23.02.2015, the 132 kV Silchar-Dullavcherra line was in open condition and the other lines i.e. 132 kV R.C. Nagar – Dullavcherra and 132 kV P.K. Bari line tripped on UFRs. Moreover, he requested NERLDC to check the event through PMU if frequency touches 48.50 Hz and also the duration. He suggested to reset the frequency setting from 48.5 Hz to 48.8 Hz. and the committee agreed to the same.

**Deliberation of the sub-Committee**

***After detailed deliberation, the Sub-committee decided to set both the Islanding Scheme I & II at 48.80 Hz. Necessary action has to be carried out by concerned utilities at the earliest.***

**9. Presentation on Dynamic Simulation**

NERLDC gave a presentation on Dynamic Simulation data using PSSE, the basic data required for performing studies in PSSE and data available with NERLDC at present.

The basic data for Machines, Exciters, Governors, PSS, Excitation Limiters (OEL and UEL) are required for running dynamic simulation in PSSE successfully.

NERLDC is in receipt of some data from ISGS in NER Grid, which is received as per Connection agreement of ISGS with CTU. But the data provided as part of connection agreement did not include all the data required for simulation. NERLDC requested ISGS to co-operate in this regard.

NERLDC also requested states of NER to furnish the data pertaining to dynamic simulation.

**Deliberation of the sub-Committee**

***All constituents agreed.***

**10. Training Program on uses of PSS/E**

NERLDC demonstrated the usage of PSS/E software in the meeting for benefit of all constituents as part of Capacity Building for system studies.

It was stressed upon by NERLDC that using PSS/E software for conducting system studies would be beneficial for all constituents of NER Grid. The need for accurate load-generation forecast as well as intimation regarding changes in power system network to NERLDC was stressed upon.

NERLDC displayed the basic files (SAV and SLD) required for running a load flow solution in PSSE. In network data, NERLDC used to model upto 132 kV LV

network of the region. For purposes like computation of State control area wise TTC, NERLDC is modelling upto 33 kV/11 kV LV level also. NERLDC is emailing to all the constituents those files every month and requested them to check for the network data (like Transformer rating, Transmission lines, Reactors, Capacitors etc.) and send updated files & information regarding new elements to NERLDC. All Constituents agreed.

NERLDC demonstrated the basic load-flow procedure in PSSE, opening the files, making network changes, making load-generation changes, performing simulations and saving appropriately. NERLDC also demonstrated the procedure for computation of Total Transfer Capability (TTC) of NER Grid as well as of state-control areas.

NERLDC displayed the figures for State control area wise Transfer Capability of 7 states of NER Grid.

### **Import Capability**

S N	State	Off-Peak Case		Peak Case	
		Contingency	Total Transfer Capability	Contingency	Total Transfer Capability
1	Arunachal Pradesh	N-1 of 132 kV Rangandi - Ziro S/C	115	N-1 of 132 kV Rangandi - Ziro S/C	115
2	Assam	N-1 of 220/132 kV, 3x100 MVA transformers at Sarusajai	1175	N-1 of 220/132 kV, 3x100 MVA transformers at Sarusajai	1295
3	Manipur	N-1 of 132 kV Imphal (PG) - Imphal D/C	260	N-1 of 132 kV Imphal (PG) - Imphal D/C	260
4	Meghalaya	N-1 of 132 kV Killing-Epip II D/C	250	N-1 of 132 kV Killing-Epip II D/C	250
5	Mizoram	N-1 of 132 kV Aizawl - Zimabawk S/C	37	N-1 of 132 kV Aizawl - Zimabawk S/C	37
6	Nagaland	N-1 of 132 kV Dimapur -Kohima S/C	95	N-1 of 132 kV Dimapur -Kohima S/C	95
7	Tripura	N-1 of 132 kV Palatana - Udaipur S/C	130	N-1 of 132 kV Palatana - Udaipur S/C	126

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**Annexure-I****List of Participants in the System Studies Meetings held on 22/04/2015**

SN	Name & Designation	Organization	Contact No.
	<b>No Representatives</b>	<b>Ar. Pradesh</b>	
1.	Sh. B.C. Borah, AGM, SLDC	Assam	09435119248
2.	Sh. Anup Ch. Sinha, AM	Assam	09706881736
3.	Sh. G.K. Bhuyan, AGM	Assam	09854015601
	<b>No Representatives</b>	<b>Manipur</b>	
4.	Sh. D. J. Lyngdoh, EE (SM), SLDC	Meghalaya	09863063375
5.	Sh. C. W. Chen, AE, SLDC	Meghalaya	09863093311
6.	Sh. Lalduhawma, EE, SLDC	Mizoram	09436144113
7.	Sh. C.C. Lalrimawia, SDO, P&E Dept.	Mizoram	09436155551
8.	Sh. B. Joy. Singh, JE, MRT	Mizoram	09436365776
	<b>No Representatives</b>	<b>Nagaland</b>	
	<b>No Representatives</b>	<b>Tripura</b>	
9.	Sh. P. Kanungo, DGM (AM)	PGCIL	09436302823
10.	Sh. T.S. Singh, GM	NERLDC	09436302717
11.	Sh. A. Mallick, DGM (SO-II)	NERLDC	09436302720
12.	Sh. Rahul Chakrabarti, Sr. Engr. (SO-II)	NERLDC	09402507543
13.	Sh. Tanya Taji, Sr. Manager	NEEPCO	09436042053
	<b>No Representatives</b>	<b>NTPC</b>	
	<b>No Representatives</b>	<b>ENICL</b>	
14.	Sh. Rodik H., Dy. Manager (E)	NHPC	09402277414
15.	Sh. T. Karmakar, Asst. Mgr (Electrical)	OTPC	09435239314
16.	Sh. P.K. Mishra, MS	NERPC	09968380242
17.	Sh. B. Lyngkhai, Director/S.E (O)	NERPC	09436163419
18.	Sh. S.M. Jha, E.E	NERPC	08731845175

**ANNEXURE-II**

**Unit Wise RGMO Status Details (Participating in RGMO)**

SI No	Utility	Power Station to be under RGMO	Hydro/ Thermal	Unit No	Capacity	Declared by Plant		GOVERNOR TYPE		Telemetry Status
						RGMO	FGMO	Electromechanical governor	Electronic governor	
<b>NORTH EASTERN REGION</b>										
1	NEEPCO	RHEP	H	1	135	YES			√	ok
2				2	135	YES			√	ok
3				3	135	YES			√	ok
4		KOPILI	H	1	50	YES			√	ok
5				2	50	YES			√	ok
6				3	50	No	YES	√		ok
7				4	50	No	YES	√		ok
8		KHANDONG	H	1	25	No	YES	√		ok
9				2	25	No	YES	√		ok
10		KOPILI STG-II	H	1	25	No	YES		√	ok
11		DOYANG	H	1	25	YES			√	ok
12				2	25	YES			√	ok
13				3	25	YES			√	ok
14	ASEB	LANGPI	H	1	50	YES			√	Not Available
15				2	50	YES			√	Not Available
16	MeECL	UMIUM STG III	H	1	30	No	YES	√		Ok
17				2	30	No	YES	√		Ok
18		UMIUM STG IV	H	1	30	YES			√	Ok
19				2	30	YES			√	Ok
20		MLHEP	H	1	42	YES			√	Not Available
21				2	42	YES			√	Not Available
<b>NORTH EASTERN REGION-ISGS</b>										
22	NHPC	LOKTAK	H	1	35	No	YES		√	ok
23				2	35	No	YES		√	ok
24				3	35	No			√	ok