

North Eastern Regional Power Committee

Agenda For

162nd OCC Sub-Committee Meeting

Time of meeting : 14:00 Hrs.

Date of meeting : 15th November, 2019 (Friday)

Venue : "Infinity Resorts", Kaziranga.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 161st MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 161st meeting of Operation Sub-committee held on 22nd October, 2019 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2016/4556-4591 dated 11th November, 2019.

The Sub-committee may confirm the minutes of 161st OCCM of NERPC as no comments/observations were received from the constituents.

ACTION TAKEN -ITEMS

B.1. ACTION TAKEN:

1. IMPLEMENTATION OF PROJECTS FUNDED FROM PSDF:

The status as informed in 161st OCC:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST **	Line Differential Protection
Ar. Pradesh	Package-I NOA issued Finance dept concurrence not given. P-II tender to be opened on 22.10.19. thereafter P-III tender will be done. Station-wise status to be updated *	Contract agreement signed. TPA-pending approval of the Finance Department, Govt. of Ar. Pradesh	-	Reply against TESG queries to be sent.	-
Nagaland	All completed except for PLCC. Status submitted as per format, to be checked.	TPA completed, A/c opening by Oct'19	-	Reply against TESG queries to be sent.	Lines identified. Under DPR preparation stage.
Mizoram	Will be submitted by Oct'19.	Permission received from Govt. for opening of account. TPA under consideration	To reply to TESG queries.	To reply to TESG queries.	Lines identified for installation of DPR viz. 132kV Aizawl - Luangmual

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		of govt.			and 132kV Kawmzawl - Khawiva.
Manipur	Oct'19 Status report to be submitted	Contract agreement signed. TPA signed. A/C opening pending.	To reply to TESG queries.	To reply to TESG queries.	Lines identified. LDP for 132kV Imphal-Imphal and 132kV Jiribm-Jiribam proposed. Under DPR preparation stage.
Tripura	Station-wise status to be updated *	Contract agreement signed. Draft TPA with Govt of Tripura. TPA & A/C opening by Nov'19	Study to be carried out in consultation with NERLDC.	To reply to TESG queries.	Lines not yet identified. To be taken up in Sub-group.
Assam	Station wise not submitted. NERPC to write to MD, AEGCL	TPA, A/C opening & Contract agreement Nov'19. Draft TPA under consideration of Govt.	-	Appraisal Committee approved.	Lines identified. Under DPR preparation stage.
Meghalaya	MePTCL Station-wise status updated MePGCL - Station-wise status to be updated	Contract agreement signed, TPA completed and A/C opened. Requisition for first tranche given to PSDF.	-	Appraisal Committee approved.	Tendering in progress

Meghalaya has submitted the station-wise status. The other state utilities are requested to furnish status in similar format, station-wise as per format by first week of every month on regular basis to Member Convener, PSDF Project Monitoring Group (AGM, NLDC, POSOCO) with a copy to NPC & NERPC. The LOAs of R&M Scheme are to be furnished to NERLDC/NERPC regularly. As per deliberation in the previous meetings all the utilities were requested to submit station-wise status of R&U schemes.

States may please intimate the latest status.

2. Long Outage of Important Grid Elements:

Name of the Element	Name of Utility	Status as informed in 161 st OCC	Latest status
63MVAR Reactor at Byrnihat to replace with 80MVAR Reactor	MePTCL	Agreed by NLDC/NPC	
132kV Dimapur - Imphal <i>(out since 25.07.18)</i>	NERTS	NERTS updated the following Status: Foundation: 23/28 Erection: 17/28 Stringing: Yet to start 7 spans RoW Sufficient funds not released by NHIDCL. Also landslide is very frequent. DoP, Nagaland – In case required the tower may be diverted to two more locations. Erection, stringing simultaneously. DoP, Nagaland willing to assist in RoW. Forum decided that a Special Meeting be convened in presence of NHIDCL.	
220kV Sonabil-Samaguri-I	AEGCL	NIT not completed, insulators TS under re-consideration.	
132kV Srikona-Panchgram <i>(out since 14.01.2019)</i>	AEGCL	Survey yet to be completed. Soil testing by Nov'19	
63MVAR L/R for 400kV Palatana-Silchar Ckt-I <i>(out since Apr'19)</i>	OTPC	Waiting for material, expected by Dec'19	

Utilities may please intimate the latest status.

3. Follow up of recommendations of PCC/Sub-group:

SN	Name of element	Actions to be taken	Concerned Utilities	Status as informed in the 161 st OCC Meeting	Latest status
1	132 kV AGTCCPP - Agartala D/C	Installation of Line Differential in 132 kV AGTCCPP - 79 Tilla D/C & Review of impedance setting of both ends as a temporary measure.	NERTS/ NEEPCO	<u>LDR</u> : Bids are under technical evaluation. <u>Impedance Measurement</u> : To be completed by 30.11.19	
2	132kV AGTCCPP- Kumarghat	GPS to be procured and time synchronization of relay to be done	NEEPCO	Dec'19	
3	132kV PKBari- Kumarghat	Installation of Line differential relay	NERTS	<u>LDR</u> : Bids are under technical evaluation. Award by Nov'19	

Utilities may please intimate the latest status.

4. Furnishing of various data for reliable operation of grid:

Sl . N o.	Data reg.	Target deadline	Status as informed in the 161 st OCC Meeting	Latest status
1	Furnishing Technical and Commercial data for computation of PoC Charges and Losses for January to March'20 (Q4 of 2019-20)	15.10.19	Manipur, Assam, Meghalaya, Nagaland submitted. Rest 3 states to be submitted. Tripura by 23.10.2019, Ar.Pradesh- by Oct'19 end, Mizoram – already sent NHPC , NEEPCO to submit	
2	Furnishing details regarding GT Tap Positions of ISGS and other generators. Required for studies related to reactive power capability testing	15.10.19	Kopili HEP, BgTPP, Palatana GBPP submitted. AGBPP, Khandong & DHEP submitted. RHEP & Pare not submitted Data from State Generators also required	

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3	Furnishing Nodewise half hourly data monthly Required for studies pertaining to Real Time Market	By 10 th of the month	Received from Arunachal, Manipur, Mizoram. TSECL will submit by Oct'19. Assam, Meghalaya and Nagaland to submit	

NERLDC may please intimate the latest status.

B.2. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING OCTOBER, 2019

As per the data made available by NERLDC, the grid performance parameters for October, 2019 are given below:

NER PERFORMANCE DURING OCTOBER, 2019

States	Energy Met (MU)		w.r.t. Sep,19 % inc (+) /dec (-)	Energy Reqr. (MU)		w.r.t. Sep,19 % inc (+) /dec (-)	% surplus (+) /shortfall (-) of energy In Oct,19
	Oct-19	Sep-19		Oct-19	Sep-19		
Ar. Pradesh	56.99	57.65	-1.14	57.3	57.96	-1.14	-0.54
Assam	812.59	956.16	-15.02	863.39	1050.84	-17.84	-5.88
Manipur	74.06	72.92	1.56	74.51	73.33	1.61	-0.60
Meghalaya	173.57	164.64	5.42	173.57	164.64	5.42	0.00
Mizoram	66.76	67.38	-0.92	67.14	67.74	-0.89	-0.57
Nagaland	64.98	66.29	-1.98	65.34	66.64	-1.95	-0.55
Tripura	134.74	141.11	-4.51	134.98	141.94	-4.90	-0.18
Region	1383.69	1526.15	-9.33	1436.23	1623.09	-11.51	-3.66

States	Demand Met (MW)		w.r.t. Sep,19 % inc (+) /dec (-)	Demand in (MW)		w.r.t. Sep,19 % inc (+) /dec (-)	% surplus (+) /shortfall (-) of demand In Oct,19
	Oct-19	Sep-19		Oct-19	Sep-19		
Ar. Pradesh	137	152	-9.87	137	152	-9.87	0.00
Assam	1770	1900	-6.84	1770	1980	-10.61	0.00
Manipur	183	182	0.55	197	190	3.68	-7.11
Meghalaya	338	336	0.60	338	336	0.60	0.00
Mizoram	102	91	12.09	102	91	12.09	0.00
Nagaland	148	156	-5.13	150	176	-14.77	-1.33
Tripura	291	298	-2.35	291	303	-3.96	0.00
Region	2878	3070	-6.25	2998	3183	-5.81	-4.00

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

AVERAGE FREQUENCY (Hz)

Month---->	Oct-19	Sep-19	Month---->	Oct-19	Sep-19
Total Generation in NER (Gross)	1529.250	1651.289		% of Time	% of Time
Total Central Sector Generation (Gross)	1061.841	1233.651	Below 49.9 Hz	3.28	4.57
Total State Sector Generation (Gross)	467.409	417.638	Between 49.9 to 50.05 Hz	77.06	75.25
Inter-Regional Energy Exchange			Above 50.05 Hz	19.66	20.18
(a) NER-ER	6.93	19.39	Average	50.01	50.01
(b) ER-NER	350.22	429.01	Maximum	50.31	50.27
(c)NER-NR	371.27	412.35	Minimum	49.67	49.85
(d)NR-NER	0.00	0.00			
© Net Import	-27.98	-2.73			

C. ITEMS- STATUS REVIEW

1. Status of Generating Units, Transmission Lines in NER:

During 161st OCC meeting, the status as informed by different beneficiaries is as follows:

SN	Items	Status as given in 161 st OCC Meeting		Latest status	
		Timeline for completion	Furnishing of detail parameters	Timeline for completion	Furnishing of detail parameters
a. New elements					
1	400/220kV, 315 MVA ICT-1 of NTPC at Bongaigaon	2 months time to reclaim the oil values. By 30.12.2019	Already submitted		
2	Kameng HEP of NEEPCO two units (2 x 150 MW) Next two units (2x150 MW)	Nov'19 or Dec'19	CEA clearance available		
3	132kV Monarchak – Surjamaninagar D/C of TSECL	By Dec'19, tower erected 128/152. 145/152 foundation completed 145/152. stringing 15.5 km completed.	To be submitted to NERLDC.		

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4	220/132 kV, 160MVA ICT-II at Balipara	Accessories and Oil arrived at site. Main unit reached Kisangunj. By Nov'19	To be submitted to NERLDC.		
5	220/132 kV, 1x160 MVA ICT with GIS Bay at Kopili	Test charging shall be delayed due to damage to the Power House and Switchyard after failure of Penstock at Kopili.	To be submitted to NERLDC.		
6	Dedicated 33kV feeder at Khliehriat Substation from Lumshnong.	A date will be fixed by NERPC in consultation with MeECL and NERTS	Not applicable.		
7	220kV Balipara- Sonabil-2	AEGCL- Non availability of terminal equipments at Balipara.	To be submitted to NERLDC.		
8	Bay at Agia S/S for 132kV Agia- Nangalbibra Ckt#II by AEGCL	LOA issued on 27.06.19. Panel not reached site.	To be submitted to NERLDC.		
9	80MVAR B/R at RHEP by NEEPCO	To be taken up in the next SCM.	-		
b. Elements under breakdown/upgradation					
10	Up-gradation of 132 kV Lumshnong- Panchgram line	TESG queries submitted	Not applicable.		
11	PLCC Panels at Loktak end of Loktak - Ningthoukhong 132 kV feeder and Loktak - Rengpang 132 kV feeder	Nov'19. NERPC to write to MD, MSPCL for expediency.	Not applicable.		

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12	Upgradation of 132 kV Bus Bar at Umiam Stg- III to ACSR Zebra	DPR submitted. Other upgradation works to be included in DPR	Not applicable		
13	220/132 kV 30 MVA ICT at Mokokchung	Drawings are under approval. March' 2021	To be submitted to NERLDC		
14	Upgradation of 132kV Yurembam-Karong by MSPCL	Completed (to be dropped).	-		
15	Upgradation of 132kV Lekhi-Chimpu and Lekhi bus by DoP Ar. Pradesh	Mar'2020	-		
16	Upgradation of CT at Lekhi for 132kV Lekhi-Chimpu by DoP Ar. Pradesh	Mar'2020	-		
17	Installation of LDP for 132kV AGTCCPP-Agartala D/C & 132kV PKBari-Kumarghat by NERTS	Bids are under technical evaluation.			
18	Procurement of GPS at AGTCCPP & time synchronization for 132kV AGTCCPP-Kumarghat by NEEPCO	Dec'19	-		
19	Diversion of 132kV Bawktlang-Shihmui	OBD done. Bids are under technical evaluation. LOA by Nov'19.	-		

Concerned constituents may kindly intimate the status.

C.2. Update on Real Time Energy Assessment for Effective Grid Management:

Data availability is given below:

Name of the state /utility	Data Availability (in%)	Issues	Status as updated in the 161st OCCM

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DoP Ar. Pradesh	Not updated	-	Same problems persisting. CDAC to visit critical locations immediately.
Assam	62%	-	
Manipur	80%	(i)Frequent hang of TARA device, resumes reporting upon reboot. (ii) Yurembam end of 132kv of Imphal(PG)-2 fdr, corresponding to SEM NP-8374-A not reporting. (iii) Jiribam 132/133kv ICT(manipur consumption), corresponding to SEM NP-8501-A not reporting	
Meghalaya	0% detailed report to be submitted	after TARA devices are connected the SEMs they hang.	
Mizoram	50%	Luangmual end of 132kV Aizawl(PG) not reporting; Kolasib end of 132kV Badarpur(PG) not reporting	
Nagaland	37.5%	Non-reporting: (i)Kohima end of 132kV Dimapur(PG)-2 (ii)Sanis end of 132kV DHEP (iii)Mokokchung end of Mokokchung(PG)-1 (iv) Mokokchung end of Mokokchung(PG)-2 (v) Mokokchung end of DHEP FDR	
Tripura	12.5%. Network available 24x7. Device fault suspected.	-	

CDAC/SLDCs may please intimate the latest status.

C.3. Ensuring proper functioning of Under Frequency Relays(UFR) & df/dt Relays:

In 7th NPC meeting held on 08.09.17 it was agreed that mock test is good enough to test the healthiness of the UFR & df/dt relays. The frequency of site inspection was proposed to be upto six months. RPC may carry out periodic inspection, in line with provisions of IEGC and furnish inspection reports to NPC.

Deliberations in the previous meetings:-

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- Inspection for Mawphlang completed.
- Inspection for Sankardevnagar, Rangia and Rowta under Assam was completed in April'2019.
- UFR Inspection and Testing for TSECL Stations as well as UFRs under Islanding Scheme No.2 carried out in June'19.

In 160th OCCM, DGM, SLDC, TSECL informed the following status:

UFR details	Status as informed in the 160th OCCM.
For all existing UFR except SMNagar	By Oct'19
UFR at SMNagar	By Sep'19
Additional UFR under Islanding Scheme-II	Status to be updated

- UFR Inspection for Dimapur, Nagaland completed in the third week of September, 2019.
- UFR Inspection for Manipur in Nov'19.

NERPC/TSECL may please inform the status.

C.4. Extended C Band VSAT for power system communications in NER:

In 161st OCCM, NERLDC informed that quotation has been requested from the concerned agency and the cost would be informed in the next OCCM.

NERLDC may please intimate the status.

C.5. DIMAPUR_PG telemetry out since Feb'18.

In 161st OCCM, NERTS informed that Work is in progress. Data already started reporting. Joint validation to be done by 15.11.19.

NERTS may please update the latest status.

C.6 Update on PDMS:

As per deliberation in the previous meeting(s) the following status/decisions:-

- SAT for Assam system completed. Data collection for Meghalaya, Tripura & Mizoram completed.
- Network to be finalised based on the feedback of Operational load flow given by NERLDC
- Data collection & database building to be completed for Arunachal Pradesh and Nagaland.
- Prospective Go Live by Dec'19.

NERPC/PRDC may please update the status.

C.7 Non-availability/ Non-functioning of synchronization facility at numerous stations

As per deliberations in the previous meetings the following is the status for synchronization facility at stations of different utilities:

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- AEGCL – In 161st OCCM, AEGCL agreed to procure Synchronization trolley for 13 locations in Assam
- DoP Ar. Pradesh –Lekhi S/S no Sync check relay is available while for Chimpu relay is available. The procurement for trolley/synchroscope is being initiated and exact date for implementation would be intimated later on. But, they will have Synchronization facility latest by Oct 2019.

AEGCL/DoP Ar. Pradesh may please update the status.

C.8 Phase shift errors in PMU:

The following status was updated by NERTS/AEGCL in the 161st OCCM:

- Bongaigaon - Completed except for New Siliguri-2 feeder.
- Misa - 220 kV Side Completed.
- Dimapur, Mariani, Silchar, Salakati - yet to be started, possible completion by 31.10.19.
- Samaguri sub-station under upgradation under PSDF. Re-connection to the PMU will be done after completion of upgradation work.

NERTS/AEGCL may please update the status.

C. 9 Tentative schedule for Black Start & Restoration Procedure Mock exercise in NER during the year 2019

Status/decisions as per previous meetings:

- LOKTAK shutdown requested on 24th and 25th for commissioning of Bus-A and subsequently Mock Black Start may be done.
- RHEP to be done in lean season
- DOYANG could not be completed due to synchronization problem in 132kV DHEP-Dimapur-I
- AGBPP – Work regarding Segregation of STG auxiliaries has already started. Mock black start schedule shall be given in the next OCCM.

NEEPCO/NHPC/NERLDC may please intimate the status.

C. 10 DVAR and PSS at AGTCCPP:

In 160th OCCM DGM, NEEPCO informed that the GTG-IV is still under S/D due to load coupler problem. M/s ABB visited Plant and did some partial work of DVAR of the Unit. They will again visit in the month of Sept'19 and accordingly NERLDC/NERPC will be informed. NERLDC requested NEEPCO to intimate the action plan for installation of DAVR/PSS in the other units at AGTCCPP.

In 161st OCCM DGM, NEEPCO informed that AGTCCPP has been requesting the vendor i.e. M/s ABB to install DVR & PSS in GTGs one by one, and tentative visit is in Nov'2019.

NEEPCO may please intimate the status.

C. 11 Bus Configuration issues for various sub-stations:

Status as on 161st OCC Meeting:

- 132kV Transfer Bus at Loktak HEP - CEA clearance obtained. Shutdown requested on 24.10.2019 & 25.10.2019.
- 400kV Bus A at RHEP - (i) NEEPCO to procure new 400kV CB for Bus Coupler Bay including mandatory spares.
(ii) NEEPCO to check /ensure the healthiness of all the elements required to take Bus-A into service. Followings bay equipments to be checked:
 - Two sets of Center Break Isolator(Bus Coupler)
 - Four sets of Pantograph isolators
 - One Set CT(Bus Coupler)
 - One set CVT(Bus-A)

In 161st OCCM NEEPCO again requested for shutdown of 400KV Bus Shutdown during the month of Nov'19. If agreed the equipment will be tested for their healthiness.

- 132kV Bus Coupler at Pavo - Bus coupler is in operation. The protection system is yet to be confirmed by Assam

NEEPCO/NHPC/AEGCL may please inform the status.

C. 12 Status of recommendations reg GD-Vs on 03rd & 20th April,2019:

Recommendations	Status as informed in the 161 st OCCM	Latest status
Identification of weak joints for 400kV Palatana-Silchar D/C (Scope NERTS)	Report submitted to NERPC.	
Study for reactive compensation in Tripura System(scope of TSECL)	NERPC vide letter dated 11.10.2019 has written to CMD, TSECL for forthwith submission of data.	
Identification of feeders for additional UFR based load shedding under Islanding Scheme-II(Scope of TSECL)	NERPC vide letter dated 11.10.2019 has written to CMD, TSECL for procurement & installation of UFRs.	
Standalone EL for integration of relay at AGTCPP by Oct'19(Scope of NEEPCO)	By Mar'2020	
All stations to confirm DR downloading facility and it's healthiness at respective stations. A consolidated undertaking by the respective utility in this regard is to be submitted prior to each OCCM.	NEEPCO Relays already receipt at site. Physical verification of the same yet to be done in presence of ABB personnel. Both Generator & line &	

	bus bar protection will be made functional with DR & EL within April'20. NERTS The REL-670 relay at Khandong for Kopili – II feeder is planned to be upgraded by Dec'19.	
NHPC to procure standalone EL for Loktak HEP	Under process exact date of LOA to be confirmed	
Revised SPS-3 scheme offer sought from GE by NERTS	GE to submit detailed break up by 31.10.19.	
Impedance measurement for 400kV Paltana-Silchar D/C, 400kV Silchar-Azara, 400kV Silchar – Byrnihat	Impedance measurement shall be completed by 30.11.19.	
Line parameters to be matched at Silchar, Azara and Byrnihat.	Line parameters matched and reviewed. The reviewed parameters shall be given to Azara by 30.11.19 for implementation.	
NERTS and AEGCL to jointly visit Azara and check exact cause for delay in appearance of voltage input to relay when charged via Tie Breaker	Auto-reclosure operation erratic. Joint visit of NERTS/AEGCL to Azara by Oct'19.	

Concerned utilities may please update the status.

C.13 Tripping of all units of BgTPP:

On 23/05/2019 Units I, II, III of BgTPP tripped at 03:06 hrs, 03:37 hrs, 03:56 hrs respectively. In 158th OCCM NTPC gave a detailed presentation on tripping of the three units on 23.05.2019. The suggested recommendations by NTPC are as follows:

Sl. No.	Recommendation	Status as informed in the 161st OCCM	Latest status
1	Unit -1 unit bus incomer breaker to be restored at the earliest	Completed	

2	Providing alternate cooling water source to compressors	Unit-1 overhead tank connection made, when unit-2 will go under s/d then connection would be completed. S/D planned Apr'2020	
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NTPC may please intimate the status.

C.14 Transformer Tap Optimization Study:

NERLDC has conducted Transformer Tap Optimization studies considering High Hydro Scenario in North Eastern Region. Suggested taps position of important transformers in NER for maintaining bus voltages within permissible limit as well as to minimize system losses was circulated in the 158th OCCM.

In 161st OCCM AGM, SLDC, AEGCL informed that the comments have been sent to NERLDC. Comments from constituents except OPTC and Meghalaya is yet to be received.

NERLDC may please intimate the status.

C.15 Better weather forecasting for power sector by IMD:

Decisions/deliberations in the previous meetings:

- IMD to conduct survey for each of the individual utilities.
- Nodal officers for all the utilities nominated in the 159th OCCM.
- All utilities agreed to install AWR in their stations. All utilities are requested to submit the station list by November 2019.

NERLDC may please intimate the status.

C.16 Requirement of model data for simulation of power system stability and dynamics

NLDC vide letter dated 27th Aug 2019 to NPC and RPCs highlighted the requirement of inclusion of new formats in addition to the existing formats by CTU and STU/SLDCs for collection of data pertaining to dynamic parameters of new generators and other equipment. In case of already connected plants, SLDC/STU may issue the necessary instruction to the concerned generator with modified template and request them to furnish the information latest by Dec 2019.

In 160th OCCM, CGM, NERLDC stated for new elements being commissioned the data may be submitted to NERLDC and for old generators the available data is also to be submitted

NERLDC may please intimate the status.

C.17 Special Protection Scheme at RHEP

Discussion in the subgroup meeting of NERPC held on 07.08.19 as follows:

NERPC informed that as per decision in the 158th OCCM a team visited RHEP on 05.08.19 and suggested the following SPS:

- (i)With tripping of one ICT, one unit of RHEP is to be tripped.

(ii)SPS to be taken into service when all 3 units of RHEP are generating.

NEEPCO requested that tripping of one unit of Pare HEP to be included in the SPS when both units at Pare are generating.

The 160th OCC forum agreed in principle and requested NEEPCO to implement the SPS. In 161st OCCM NEEPCO informed that the scheme is under implementation stage and DPR/TS is being prepared.

NEEPCO may please intimate the status.

C.18 Frequent trippings in Arunachal Pradesh system:

In 159th OCCM Sr.GM(SO-I), NERLDC informed that in the months of June-July'19 frequent trippings were observed in the 132kV RHEP-Ziro-Daporizo-....corridor and lines connected to Lekhi. He requested the intervention of the forum for proper analysis of the same. Director, NERPC stated that participation of DoP Ar. Pradesh in the Sub-group meeting on Protection and PCC is extremely lacklustre. He requested DoP Ar. Pradesh to ensure adequate participation from concerned transmission division in all the meetings.

SE(SO&PSC), DoP Ar. Pradesh stated that there is no cohesiveness in data collection since engineers are scattered and onsite training is required. It was decided that after 15th August, 2019 scheduling of training is to be done, then DoP Ar. Pradesh to send personnel to Nirjuli(POWERGRID) for practical hands-on training. The following officers were nominated for the training:

- >Moli Kamki, AE, DoP Ar.Pradesh
- >Hibu Bama, EE, DoP Ar.Pradesh
- >Duyo Richo, AE, DoP Ar.Pradesh

In 161st OCCM EE, SLDC, DoP Ar. Pradesh informed that official order has been issued to the aforesaid officers to attend the training at Nirjuli Station. Sr.GM(AM), NERTS informed that no executives have attended the training at Nirjuli Station. The forum viewed the matter very seriously and requested NERPC to take up the matter with CE, DoP Ar.Pradesh.

NERTS/DoP Ar. Pradesh may please intimate the status.

C.19 Automatic Generation Control(AGC) in Indian Grid:

Hon'ble Central Electricity Regulatory Commission (CERC) has stipulated the implementation of AGC in Indian Grid.

In 161st OCCM NERLDC informed that the following stations need to have AGC as per the Country wide plan:

BgTPP, AGBPP, Kopili, Loktak, Doyang, Khandong.

Director, NERPC stated that the pilot for BgTPP is in advance stage and only the Communication items are to be installed at plant level. Further, he stated that the matter has been discussed in detail in the 15th NETeST meeting.

NERLDC/NERTS may please intimate the status.

C.20 Running of RHEP Unit in Night time:

In 161st OCCM NERLDC suggested that one unit of RHEP may be run during the night time subject to availability of water. This will avoid opening of 400kV RHEP-BNC line one circuit. It was noted that Technical minimum of RHEP unit is 110 MW. NEEPCO agreed to confirm whether units can be run at a lower load.

NEEPCO may please intimate the status.

C.21 SCED Refund

In 161st OCCM NERLDC informed that as per CERC order 08/SM/2019 dated 28.09.2019; 400Cr is to be distributed on Pan-India basis. The Account details of all the state utilities/Power Departments was requested for smooth transfer of money.

State DISCOMS/NERLDC may please intimate the status.

C. 22 Metering Status Review:

Agenda Description	Status as per 161 st OCCM	Latest status
Distribution of 70 Laptops	NERTS informed that distribution of Laptops have been completed. Free software has been mailed to NERPC official for distribution to the concerns.	
Correction of Meter error: <i>(i) Erratic reading:</i> Ningthoukhong end, Kohima end , Panchgram end <i>(ii) Sign Change:</i> Dimapur I & II state end, Deothang end, Silicon Factory end, Mokokchung end, Kopili end (check meter).	i) NERTS informed that meters have been found ok. Checking of CT/PT is to be done by respective s/s. Respective representatives will co-ordinate with s/s ii) NERTS informed that they will look into the matter	
SEMs to be Procured	NERTS informed that it is under process and gone for financial concurrence.	

Agenda Description	Status as per 161 st OCCM	Latest status
	NIT expected on 1 st week of November.	

NERLDC/NERTS/All STUs may please intimate the status.

D. I T E M S FOR DISCUSSION

D.1 Generation Planning (ongoing and planned outages)

- a. Present per day MU and projected number of days of operation.

Plants	Reservoirs level in meter	MU content	Present DC (in MU)	No of days as per current generation
Khandong + Kopili stg II			0	
Kopili			0	
Doyang			0.31275	
Loktak			0.5	

The outage of other generating stations may be approved considering the present water levels in reservoirs and long term outage of Kopili HEP.

The Committee may discuss and approve the proposed shutdown by Generating Stations as given in Annexure – D.2 which is available in NERPC website.

D.2 Outage Planning Transmission elements

It was agreed in the 99th OCC meeting that shutdown will be availed only after approval is given by the OCC forum. It was also agreed that deferment/revision of outages elements other than already approved in OCC will be henceforth put/displayed in the website of NERPC (**under Operational Activities/OCC Approved shutdown**) as per CERC regulations/ CEA guidelines etc for ensuring smooth & secure grid operation.

Furnishing request of shut down of the element, which was approved by NERPC, by Indenting Agency (ISTS licensees/STUs/Generating Companies) to NERLDC: Planned shutdown approved by NERPC shall be considered for implementation by NERLDC on D-3 basis. If an outage is to be availed on say 10th of the month, the shutdown availing agency would reconfirm to NERLDC on 7th of the month by 10:00 Hr. This practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

It was decided in the previous OCCM that shutdown would be granted from the 1st day of the following calendar month to the 30th/31st day of the same month.

The sub-Committee may kindly discuss and approve the transmission line outages proposed by Constituents for 01st December,2019 to 31st December,2019 which is available in the website of NERPC.

D.3 Estimated Transmission Availability Certificate (TAC) for the month of September,2019 - October,2019:

NETC and POWERGRID have submitted the outage data for the month of September,2019 - October,2019. So the attributability of outage of the said elements may please be finalized.

Members may please discuss.

D.4 Assessment of TTC, TRM & ATC by SLDC on respective Inter-State Transmission Corridor

NERLDC has assessed the state control area wise, state subsystem wise and group of control-area wise TTCs for NER Grid. The study results will be presented during the meeting. SLDCs are requested to check and validate the TTC of their control areas as computed by NERLDC.

Members may please discuss.

D.5 RGMO performance analysis of events

Decisions in the previous meetings:

- NERLDC to scan PMU records for any event prior to 11:55hrs on 05.02.2019 resulting in droop of frequency by more than 0.03 Hz.
- BgTPP Unit #II mechanical problem in Turbine to be rectified.
- BgTPP DAS data to be submitted for event dated 05.06.19.
- For event dated 21.08.2019 DAS data to be submitted by Kopili HEP, Khandong HEP and Palatana GBPP.
- Reasons for non-sustenance of positive generation of Unit -II & III at BgTPP to be furnished.

Members may please discuss.

D. 6 Reactive power capability/injection of generating stations:

Decisions/deliberations in the previous meetings:

- Palatana GBPP - Testing completed. OTPC requested for a joint meeting w.r.t. implementation of tap changing suggestion as per the reactive capability testing results.
- BgTPP - Testing completed on 30th of Sept. Load angle limiter setting to be increased. NTPC is in the process of consultation with OEM.
- AGTCCPP was requested to suggest a date for the testing at their plant.

Members may please discuss.

D.7 3-phase Auto-reclosure for 400kV Silchar-Azara & 400kV Silchar - Byrnihat:

In 161st OCCM NERLDC opined that in view of separation of grid(s), the 3 phase AR may not be implemented. Sr.DGM, NERTS stated that 3-ph AR for the 2 lines may be implemented with dead sync at Azara and Byrnihat and check sync at Silchar. This would address the concern of NERLDC. Further SOTF will act for 3-ph through fault at Azara and Byrnihat.

Director, NERPC informed that the proposal was mooted in view of frequent faults due to back flashover affecting more than 2 phases. The forum requested NERPC to take views of CEA in the matter and referred the item to next OCCM for further discussion.

NERLDC/NERPC may please intimate the status.

D.8 Accurate Load forecasting by SLDCs as per IEGC c1.5.3 for better system operation

RMSE for load forecast of actual data in comparison to that forecasted by the states for the month of September'19 is as follows:

Day	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
Median	14	19	14	29	15	10	14

Forum decided that load forecast error will be monitored in OCC Meeting till the RMSE comes below 5%

In 160th OCCM CGM, NERLDC informed that POSOCO in association with IIT, Guwahati is developing methodology to forecast at the regional level. He requested all SLDCs to be proactive for the same.

Members may please discuss.

D.9 Continuous shutdown of 220 kV Bus Coupler & 4 x 33 MAV 22/132kV ICT-1 along with associated bays w.e.f 06/09/2019 and shifting of 01 set of 220 kV Bus PT w.e.f 02/09/2019.

Under the NERSS VIII, SS01 package , the 220/132 kV Dimapur substation is being upgraded from AIS to GIS including replacement of existing 4x33.33 MVA, 220/132 kV single phase unit transformer by 1 x 160 MVA, 220/132 kV 3-phase unit and addition of 1 No 1x160 MVA, 220/132 kV 3-phase transformer.

The existing 220/132 kV Dimapur substation is a conventional AIS substation having 220 kV bays with double main cum transfer scheme and 132 kV bays with single main and transfer bus schemes. Under the NERSS VIII project, all the existing 220 kV and 132 kV AIS bays shall be changed to GIS bays (Double main bus scheme) in the same existing switchyard by creating space for 220 kV GIS building , 132 kV GIS building and outer Gas Insulated Bushings **after dismantling the existing tower/ beams/ equipment's along with structures. During this upgradation period, both the 220**

kV & 132 kV bays shall be operated on single bus system and only 220 / 132kV 100 MVA ICT 2 shall remain in service. "

As per the proposed up-gradation and dismantling, only 220 KV Bus-A (towards the Transmission line side) will be in service. For construction of 200kV GIS Building and 132kV GIS building following assets at Dimapur substations shall be required to be dismantled.

- (1) 220/132 kV 4 X 33MVA ICT-1
- (2) 200kV ICT – 1 BAY
- (3) 132kV ICT – 1 BAY
- (4) 200kV BUS B
- (5) 200kV BUS COUPLER BAY

The substation layout diagram is attached for further reference.

The existing 220 kV PTs of Bus 1 & 2 are installed where the 220 kV GIS building is proposed to be constructed. As such 1 set of the bus PT is to be shifted to a convenient location towards ICT-2 area.

After shifting of the PT to the new location, dismantling works of the bus coupler bay and ICT-1 bays including the 4x33.33 MVA 1-Phase transformer will commence.

Once the above shutdown is approved, the shutdown shall continue till erection, testing and commissioning of the new GIS system which is February 2021 as per the approved L2 schedule.

Considering the above, It is proposed for Shutdown below mentioned assets under new construction activity related outage:

- b. Continuous Shutdown of BUS A w.e.f 02.09.2019 to 05.09.2019 for shifting of 1 set of 220 kV Bus PT as above.
- c. Continuous Shutdown of the 220kV/132kV 4x 33 MVA ICT – 1, 220 kV Bus coupler and ICT-1 bays (Bay No.203 & 204)w.e.f 06/09/19 till erection, testing and commissioning of the new GIS system.

In 161st OCCM, NERLDC briefly stated the study results: Outage of ICT (N-1) 114kV at Dimapur with DHEP generation, 108kV at Dimapur without DHEP generation

In view of the low voltage at Dimapur node NERLDC suggested for reduction of load or MW constrained SPS at Nagaland. Further it was informed that the study was not done considering availability of 132kV Imphal-Kohima, 132kV Dimapur-Kohima and 132kV Karong-Kohima

EE, SLDC, DoP Nagaland informed that any spare or backup is not there for Nagaland. First shifting of towers from Kohima to Dimapur is required so that 132kV Dimapur-Kohima line is in service and Dimapur may draw from Kohima (2 towers displaced by landslide).

Further Nagaland may be allowed to draw via Imphal-Kohima(by using the erstwhile D-I line) at Dimapur. This is only in case of exigency.

Also Karong-Kohima shutdown may be deferred because Nagaland draws from Manipur in case of exigency.

The forum decided that no SPS is required and the shutdowns may be granted subject to restoration of 132kV Dimapur-Kohima line and return of shutdown after upgradation of 132kV Karong-Kohima (HTLS).

Members may please discuss.

D.10 Outage of lines and ICT at RHEP for replacement of breakers:

All hydraulic CBs at RHEP are to be replaced due to non-availability of spares. Considering the urgency of the work, NEEPCO has already given the order and materials are deemed to be delivered shortly. He requested for the views of the forum keeping in view the power supply condition to Arunachal Pradesh. SE(SO&PSC), DoP Ar. Pradesh stated that 132kV RHEP-Ziro line is the life line for the state and it is not possible to grant shutdown of the line. After detailed deliberation it was decided that NEEPCO would be requested to explore the option of keeping at least one 400/132kV ICT in service and 132kV RHEP-Ziro in service (by means of Transfer Bus and Bus Coupler) at all times.

Members may please discuss.

D.11 Monitoring of Critical Elements affecting the reliability of and security of the Grid

Critical Elements which affect NER/ER TTC/ATC Values and Cause major Grid Disturbance		
SI No	Name of Element	No of tripping during Sep' 19
1	400 kV Bongaigaon - Byrnihat S/C	Count will be presented during the meeting
2	400 kV Bongaigaon - Azara S/C	
3	400 kV Silchar - Azara S/C	
4	400 kV Silchar - Byrnihat S/C	
5	400 kV Palatana - Silchar D/C	
6	400/132 kV, 125 MVA ICT I and II at Palatana	
7	132 kV Palatana - Surajmaninagar S/C	
8	400 kV Balipara - Misa D/C	
9	400/220 kV 1x315 MVA and 1 x 500 MVA ICTs at Misa	
10	132 kV Imphal - Dimapur S/C	
11	132 Khandong - Kopili D/C	

NERLDC may please deliberate.

D.12 Intra State Lines being kept open

Important intrastate lines are being kept open, compromising the reliability of the NER grid. Some of the lines kept open are as follows:

- a. 132kV Rangia- Rowta
- b. 132kV Rangia-Siphajhar
- c. 132kV Sarusajai-Umtru 1, 2
- d. 132kV Kahilipara-Umtru 1, 2

Action plan to mitigate the issues leading to opening the above mentioned lines is to be discussed so that these lines may be kept in service round the clock.

In 161st OCCM AGM, SLDC, AEGCL informed that the 220kV BTPS-Rangia line is not stable, i.e. why the lines kept open so that Bhutan line does not trip.

After detailed deliberation, it was decided that joint Study of Assam and NERLDC would be carried out on 29.10.2019.

Members may please discuss

D.13 Reactivation of SPS -1

The SPS-1 associated with tripping of generation of both Modules of Palatana CCGT (2 x 363.3 MW) is deactivated at present. The same needs to be activated to Avoid Violation of ATC of NER-ER Corridor.

In 161st OCCM it was decided that SPS-1 is to be reviewed at Palatana & Silchar for actual status and then turned on. The forum agreed to take up the matter for implementation in the next OCCM.

Members may please discuss

D.14 Implementation of revised SPS-3 scheme

As per the Minutes of 20th TCC & 20th NER Power Committee Meetings held at Guwahati on 12th Sept., 2019 (Agenda No. D 20), the said SPS is to be discussed again in OCC and it is to be put up in the 21st TCC/RPC Meeting.

The 161st OCC forum agreed to take up the matter for implementation in the next OCCM.

Members may please discuss

D.15 Restoration of Assets damaged at Kopili HEP due to failure of Penstock:

220kV Misa-Kopili ckt I, II, III and 132kV Kopili-Khandong D/C are under outage since 07.10.2019. This is considerably reducing reliability of NER grid.

To finalise action plan for early restoration of the said connectivity, it is proposed to form a senior level task force consisting of members from NERPC, NERLDC & NERTS and convene a meeting of the task force at the earliest.

In 161st OCCM it was decided that Member Secretary, NERPC would constitute committee of NERLDC, NERTS and NERPC so that a concise approach may be devised for quick restoration of the links.

Members may please discuss

D.16 Declaration of High Demand Season and Low Demand Season

In 161st OCCM NERLDC informed that as per latest tariff order High demand season and Low Demand Season is to be determined on a regional basis. Discriminatory Tariff would accordingly be applied from Mar'20. High Demand 3 months, Low Demand 9 months. Off-peak 20hrs and Peak 4hrs. The forum decided to take up the matter for discussion in the next OCCM.

Members may please discuss

AGENDA ITEMS FROM NERLDC

D.17 PSS tuning testing for AGTCCPP and Tuirial

Oscillations have been observed near Agartala on 28.10.2019. Also on 27.10.2019 oscillation was observed on Badarpur PMU. During that period, sufficient MVAR fluctuation was observed in Tuirial Unit-1. Oscillation subsided when Tuirial Unit-1 generation reduced and faded as Unit-1 was withdrawn. Hence PSS tuning test need to be performed in order to check such oscillations.

NERLDC may please deliberate.

D.18 Mobile team for Protection Issues

Engaging a common expert agency for providing services like thorough checking or attending on need basis of protection issues in all the constituents of NER.

NERLDC may please deliberate.

D.19 Shortfall declaration by States

Shortfall data provided by the states will be segregated into shortfall due to less availability and shortfall due to intrastate issues. This data will provide a clear reason of the shortfall in future.

NERLDC may please deliberate.

D.20 Line Reactors to be made switchable

At present, most of the line reactors are not switchable. When the line with reactor is in service, it is not possible for switching operation of the reactor without opening of the line.

It is proposed to make all line reactors switchable.

NERLDC may please deliberate.

D.21 Finalization of Bus Bar Scheme of new nodes and tie connectivity of new elements approved in Standing Committee Meeting

To ensure the reliability in NER Grid Operation, it is proposed that to finalize the Bus Bar Scheme of new nodes and tie connectivity of new elements approved in Standing Committee Meeting, the respective ISTS Licensee shall discuss with a Sub-Committee comprising of members from NERPC, NERLDC and NERTS before commencement of Engineering activities.

For example: 132 kV Melriat, 132 kV Kopili and 132 Mokokchung (PG) has Single Bus Bar Scheme which reduces the reliability of the system. Also, tie Configuration of 400 kV

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Balipara (PG) Substation is not proper. To avoid the same, discussion of the schemes in the proposed Sub-Committee meeting is very crucial.

NERLDC may please deliberate.

D.22 Status of ongoing projects in states

All the SLDCs are requested to intimate status of the ongoing projects on monthly basis.

NERLDC may please deliberate.

D.23 SCADA data of AGBPP

SCADA Data of AGBPP is not available since 07th Oct'2019. AGBPP, being an important generator, its data is vital for system operation and also voltage data is needed for sending VDI Report to Hon'ble CERC.

NERLDC may please deliberate.

D.24 PLCC link issues

(i) Presently, there is no communication link with Deomali. It is proposed to establish PLCC link between Deomali and AGBPP at the earliest for tele-protection and SCADA data. The approved VSAT for Arunachal Pradesh may be kept in Deomali.

(ii)As per visit of Committee ,comprising of members from NERPC, NERLDC, NERTS and P&ED Mizoram, to Kolasib Substation on 30.10.19, it was observed that PCC Link of Badarpur, Tuirial and Bairabi feeders are out of service. The PLCC link is to be restored at the earliest to ensure secure and reliable operation.

NERLDC may please deliberate.

D.25 Ratification of data required for computation of PoC Charges & Losses

Ratification of Technical and Commercial data for computation of PoC Charges and Losses for Jan to March'20 (Q4 of 2019-20) –To be ratified by utilities. PoC data for ratification is attached in **Annexure D.25**

NERLDC may please deliberate.

D.26 Non - Availability of Synchronization Facility at Kolasib

As per visit of Committee ,comprising of members from NERPC, NERLDC, NERTS and P&ED Mizoram, to Kolasib Substation on 30.10.19, it is observed that Synchronization facility is not available at Kolasib. It is very important that all 132 kV level and above Stations are provided with Synchronization facility. Necessary measures may be taken to procure synchronization facility at Kolasib.

NERLDC may please deliberate.

D.27 Upgradation of 33 kV Kameng – Khupi line to 132 kV level

Due to the radial connection of 132 kV Balipara – Tenga – Khupi line, Khupi load has been affected 7 times along with loss of Generation from Dikship HEP during Oct 2019 due to tripping of 132 kV Balipara – Tenga Line.

To avoid black out in Khupi area and loss of Dikshi Generation due to tripping of 132 kV Balipara – Tenga Line, it is proposed to upgrade 33 kV Kameng – Khupi line to 132 kV level.

NERLDC may please deliberate.

D.28 Mock Test for SPS in NER

In order to check the operation of Special Protection Schemes (SPS) as designed, periodic mock exercises of all the SPSs shall be performed. The schedule for each SPS needs to be discussed.

NERLDC may please deliberate.

D.29 Submission of the Annual Load Generation Balance Report (LGBR) for Peak as well as Off-peak scenarios and the Annual outage plan for 2019- 20 by 31.12.19 as per IEGC

As per IEGC, each SLDC shall submit LGBR for its control area, for peak as well as off-peak scenario, by 31st December for the next financial year, to respective RPC Secretariat. The annual plans for managing deficits/surpluses in respective control areas shall clearly be indicated in the LGBR submitted by SLDCs. As per IEGC, all SEBs/STUs, Transmission Licensees, CTU, ISGS, IPPs, MPPs and other generating stations shall provide to the respective RPC Secretariat their proposed outage plan in writing for the next financial year by 31st October of each year. These shall contain identification of each generating unit/transmission line/ICT etc., the preferred date for each outage and its duration and where there is flexibility, the earliest start date and latest finishing date.

NERLDC may please deliberate.

D.30 High DSM outstanding

As per clause 10 of DSM Regulation 2014, the DSM payment by the respective Constituents shall be made within 10 days of issuance of DSM statement by NERPC. In case of default, RLDC may implement clause 25A of Open Access Regulation wherein the respective Constituent will be barred from STOA transactions. Also, addition of penal interest component on outstanding amount may mount higher burden on the Constituents.

The status of DSM outstanding as on 31st October'2019 is indicated below –

Regional Entity	DSM Outstanding
Ar. Pradesh	17.05 Crore
Assam	14.01 Crore
Manipur	10.1 Crore
Nagaland	11.85 crore
Mizoram	11.49 Crore
Tripura	4.71 Crore

It is requested to clear the outstanding DSM payment on immediate basis.

NERLDC may please deliberate.

Metering Agenda

D.31 High SEM Time Drift:

Time drift in SEMs may result in computational errors in Regional energy accounts & Weekly Loss. All constituents in whose premises the meters are installed are required to take corrective action for time correction whenever meter time drift > 1minute and submit weekly compliance report of the same to NERLDC.

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The compliance report of many locations as detailed in **Annexure D.31.a**, are not received by NERLDC and **Annexure D.31.b** provides location details of Drift correction action not being done / weekly SEM data not sent.

NERLDC may please deliberate.

D.32 Meter Errors:

Pair check error observed in following location, CT / PT error suspected.

l) Panchgram end of Lumshnong feeder, Panchgram end reading erratic.

NERLDC may please deliberate.

D.33 Laptop Malfunction at Umtru end:

Metering laptop at Umtru end reported malfunction, SEM data download unsuccessful.

NERLDC may please deliberate.

D.34 Problem in extracting data from Elster Meters at Silchar end

Problem in collecting Elster meter data in Silchar Substation. Whatever meter data is being sent is either old or non-convertible.

NERLDC may please deliberate.

D.35 Urgent Meter Replacement

Three SEMs need to be replaced on urgent basis at the following ends:

1. Mariani (AS) end of Misa
2. Mariani (AS) end of Kathalguri (AGBPP)
3. Mariani (AS) end of 33 kV Changki

NERLDC may please deliberate.

Any other item:

Date and Venue of next OCC

It is proposed to hold the 163rd OCC meeting of NERPC on second week of December, 2019. The date & exact venue will be intimated in due course.

Project NUMBER BY LOCATION		Activity																														Task	Remarks	Category	Milestone Comments																																																																
SN	Name of Milestone	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49					50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100													
125KV Transmission Lines																																																																																																			
125KV Transmission Lines	125KV PASADENA 10-14-18-21-24-27-30-33-36-39-42-45-48-51-54-57-60-63-66-69-72-75-78-81-84-87-90-93-96-99-102-105-108-111-114-117-120-123-126-129-132-135-138-141-144-147-150-153-156-159-162-165-168-171-174-177-180-183-186-189-192-195-198-201-204-207-210-213-216-219-222-225-228-231-234-237-240-243-246-249-252-255-258-261-264-267-270-273-276-279-282-285-288-291-294-297-300-303-306-309-312-315-318-321-324-327-330-333-336-339-342-345-348-351-354-357-360-363-366-369-372-375-378-381-384-387-390-393-396-399-402-405-408-411-414-417-420-423-426-429-432-435-438-441-444-447-450-453-456-459-462-465-468-471-474-477-480-483-486-489-492-495-498-501-504-507-510-513-516-519-522-525-528-531-534-537-540-543-546-549-552-555-558-561-564-567-570-573-576-579-582-585-588-591-594-597-600-603-606-609-612-615-618-621-624-627-630-633-636-639-642-645-648-651-654-657-660-663-666-669-672-675-678-681-684-687-690-693-696-699-702-705-708-711-714-717-720-723-726-729-732-735-738-741-744-747-750-753-756-759-762-765-768-771-774-777-780-783-786-789-792-795-798-801-804-807-810-813-816-819-822-825-828-831-834-837-840-843-846-849-852-855-858-861-864-867-870-873-876-879-882-885-888-891-894-897-900-903-906-909-912-915-918-921-924-927-930-933-936-939-942-945-948-951-954-957-960-963-966-969-972-975-978-981-984-987-990-993-996-999-1002-1005-1008-1011-1014-1017-1020-1023-1026-1029-1032-1035-1038-1041-1044-1047-1050-1053-1056-1059-1062-1065-1068-1071-1074-1077-1080-1083-1086-1089-1092-1095-1098-1101-1104-1107-1110-1113-1116-1119-1122-1125-1128-1131-1134-1137-1140-1143-1146-1149-1152-1155-1158-1161-1164-1167-1170-1173-1176-1179-1182-1185-1188-1191-1194-1197-1200-1203-1206-1209-1212-1215-1218-1221-1224-1227-1230-1233-1236-1239-1242-1245-1248-1251-1254-1257-1260-1263-1266-1269-1272-1275-1278-1281-1284-1287-1290-1293-1296-1299-1302-1305-1308-1311-1314-1317-1320-1323-1326-1329-1332-1335-1338-1341-1344-1347-1350-1353-1356-1359-1362-1365-1368-1371-1374-1377-1380-1383-1386-1389-1392-1395-1398-1401-1404-1407-1410-1413-1416-1419-1422-1425-1428-1431-1434-1437-1440-1443-1446-1449-1452-1455-1458-1461-1464-1467-1470-1473-1476-1479-1482-1485-1488-1491-1494-1497-1500-1503-1506-1509-1512-1515-1518-1521-1524-1527-1530-1533-1536-1539-1542-1545-1548-1551-1554-1557-1560-1563-1566-1569-1572-1575-1578-1581-1584-1587-1590-1593-1596-1599-1602-1605-1608-1611-1614-1617-1620-1623-1626-1629-1632-1635-1638-1641-1644-1647-1650-1653-1656-1659-1662-1665-1668-1671-1674-1677-1680-1683-1686-1689-1692-1695-1698-1701-1704-1707-1710-1713-1716-1719-1722-1725-1728-1731-1734-1737-1740-1743-1746-1749-1752-1755-1758-1761-1764-1767-1770-1773-1776-1779-1782-1785-1788-1791-1794-1797-1800-1803-1806-1809-1812-1815-1818-1821-1824-1827-1830-1833-1836-1839-1842-1845-1848-1851-1854-1857-1860-1863-1866-1869-1872-1875-1878-1881-1884-1887-1890-1893-1896-1899-1902-1905-1908-1911-1914-1917-1920-1923-1926-1929-1932-1935-1938-1941-1944-1947-1950-1953-1956-1959-1962-1965-1968-1971-1974-1977-1980-1983-1986-1989-1992-1995-1998-2001-2004-2007-2010-2013-2016-2019-2022-2025-2028-2031-2034-2037-2040-2043-2046-2049-2052-2055-2058-2061-2064-2067-2070-2073-2076-2079-2082-2085-2088-2091-2094-2097-2100-2103-2106-2109-2112-2115-2118-2121-2124-2127-2130-2133-2136-2139-2142-2145-2148-2151-2154-2157-2160-2163-2166-2169-2172-2175-2178-2181-2184-2187-2190-2193-2196-2199-2202-2205-2208-2211-2214-2217-2220-2223-2226-2229-2232-2235-2238-2241-2244-2247-2250-2253-2256-2259-2262-2265-2268-2271-2274-2277-2280-2283-2286-2289-2292-2295-2298-2301-2304-2307-2310-2313-2316-2319-2322-2325-2328-2331-2334-2337-2340-2343-2346-2349-2352-2355-2358-2361-2364-2367-2370-2373-2376-2379-2382-2385-2388-2391-2394-2397-2400-2403-2406-2409-2412-2415-2418-2421-2424-2427-2430-2433-2436-2439-2442-2445-2448-2451-2454-2457-2460-2463-2466-2469-2472-2475-2478-2481-2484-2487-2490-2493-2496-2499-2502-2505-2508-2511-2514-2517-2520-2523-2526-2529-2532-2535-2538-2541-2544-2547-2550-2553-2556-2559-2562-2565-2568-2571-2574-2577-2580-2583-2586-2589-2592-2595-2598-2601-2604-2607-2610-2613-2616-2619-2622-2625-2628-2631-2634-2637-2640-2643-2646-2649-2652-2655-2658-2661-2664-2667-2670-2673-2676-2679-2682-2685-2688-2691-2694-2697-2700-2703-2706-2709-2712-2715-2718-2721-2724-2727-2730-2733-2736-2739-2742-2745-2748-2751-2754-2757-2760-2763-2766-2769-2772-2775-2778-2781-2784-2787-2790-2793-2796-2799-2802-2805-2808-2811-2814-2817-2820-2823-2826-2829-2832-2835-2838-2841-2844-2847-2850-2853-2856-2859-2862-2865-2868-2871-2874-2877-2880-2883-2886-2889-2892-2895-2898-2901-2904-2907-2910-2913-2916-2919-2922-2925-2928-2931-2934-2937-2940-2943-2946-2949-2952-2955-2958-2961-2964-2967-2970-2973-2976-2979-2982-2985-2988-2991-2994-2997-3000-3003-3006-3009-3012-3015-3018-3021-3024-3027-3030-3033-3036-3039-3042-3045-3048-3051-3054-3057-3060-3063-3066-3069-3072-3075-3078-3081-3084-3087-3090-3093-3096-3099-3102-3105-3108-3111-3114-3117-3120-3123-3126-3129-3132-3135-3138-3141-3144-3147-3150-3153-3156-3159-3162-3165-3168-3171-3174-3177-3180-3183-3186-3189-3192-3195-3198-3201-3204-3207-3210-3213-3216-3219-3222-3225-3228-3231-3234-3237-3240-3243-3246-3249-3252-3255-3258-3261-3264-3267-3270-3273-3276-3279-3282-3285-3288-3291-3294-3297-3300-3303-3306-3309-3312-3315-3318-3321-3324-3327-3330-3333-3336-3339-3342-3345-3348-3351-3354-3357-3360-3363-3366-3369-3372-3375-3378-3381-3384-3387-3390-3393-3396-3399-3402-3405-3408-3411-3414-3417-3420-3423-3426-3429-3432-3435-3438-3441-3444-3447-3450-3453-3456-3459-3462-3465-3468-3471-3474-3477-3480-3483-3486-3489-3492-3495-3498-3501-3504-3507-3510-3513-3516-3519-3522-3525-3528-3531-3534-3537-3540-3543-3546-3549-3552-3555-3558-3561-3564-3567-3570-3573-3576-3579-3582-3585-3588-3591-3594-3597-3600-3603-3606-3609-3612-3615-3618-3621-3624-3627-3630-3633-3636-3639-3642-3645-3648-3651-3654-3657-3660-3663-3666-3669-3672-3675-3678-3681-3684-3687-3690-3693-3696-3699-3702-3705-3708-3711-3714-3717-3720-3723-3726-3729-3732-3735-3738-3741-3744-3747-3750-3753-3756-3759-3762-3765-3768-3771-3774-3777-3780-3783-3786-3789-3792-3795-3798-3801-3804-3807-3810-3813-3816-3819-3822-3825-3828-3831-3834-3837-3840-3843-3846-3849-3852-3855-3858-3861-3864-3867-3870-3873-3876-3879-3882-3885-3888-3891-3894-3897-3900-3903-3906-3909-3912-3915-3918-3921-3924-3927-3930-3933-3936-3939-3942-3945-3948-3951-3954-3957-3960-3963-3966-3969-3972-3975-3978-3981-3984-3987-3990-3993-3996-3999-4002-4005-4008-4011-4014-4017-4020-4023-4026-4029-4032-4035-4038-4041-4044-4047-4050-4053-4056-4059-4062-4065-4068-4071-4074-4077-4080-4083-4086-4089-4092-4095-4098-4101-4104-4107-4110-4113-4116-4119-4122-4125-4128-4131-4134-4137-4140-4143-4146-4149-4152-4155-4158-4161-4164-4167-4170-4173-4176-4179-4182-4185-4188-4191-4194-4197-4200-4203-4206-4209-4212-4215-4218-4221-4224-4227-4230-4233-4236-4239-4242-4245-4248-4251-4254-4257-4260-4263-4266-4269-4272-4275-4278-4281-4284-4287-4290-4293-4296-4299-4302-4305-4308-4311-4314-4317-4320-4323-4326-4329-4332-4335-4338-4341-4344-4347-4350-4353-4356-4359-4362-4365-4368-4371-4374-4377-4380-4383-4386-4389-4392-4395-4398-4401-4404-4407-4410-4413-4416-4419-4422-4425-4428-4431-4434-4437-4440-4443-4446-4449-4452-4455-4458-4461-4464-4467-4470-4473-4476-4479-4482-4485-4488-4491-4494-4497-4500-4503-4506-4509-4512-4515-4518-4521-4524-4527-4530-4533-4536-4539-4542-4545-4548-4551-4554-4557-4560-4563-4566-4569-4572-4575-4578-4581-4584-4587-4590-4593-4596-4599-4602-4605-4608-4611-4614-4617-4620-4623-4626-4629-4632-4635-4638-4641-4644-4647-4650-4653-4656-4659-4662-4665-4668-4671-4674-4677-4680-4683-4686-4689-4692-4695-4698-4701-4704-4707-4710-4713-4716-4719-4722-4725-4728-4731-4734-4737-4740-4743-4746-4749-4752-4755-4758-4761-4764-4767-4770-4773-4776-4779-4782-4785-4788-4791-4794-4797-4800-4803-4806-4809-4812-4815-4818-4821-4824-4827-4830-4833-4836-4839-4842-4845-4848-4851-4854-4857-4860-4863-4866-4869-4872-4875-4878-4881-4884-4887-4890-4893-4896-4899-4902-4905-4908-4911-4914-4917-4920-4923-4926-4929-4932-4935-4938-4941-4944-4947-4950-4953-4956-4959-4962-4965-4968-4971-4974-4977-4980-4983-4986-4989-4992-4995-4998-5001-5004-5007-5010-5013-5016-5019-5022-5025-5028-5031-5034-5037-5040-5043-5046-5049-5052-5055-5058-5061-5064-5067-5070-5073-5076-5079-5082-5085-5088-5091-5094-5097-5100-5103-5106-5109-5112-5115-5118-5121-5124-5127-5130-5133-5136-5139-5142-5145-5148-5151-5154-5157-5160-5163-5166-5169-5172-5175-5178-5181-5184-5187-5190-5193-5196-5199-5202-5205-5208-5211-5214-5217-5220-5223-5226-5229-5232-5235-5238-5241-5244-5247-5250-5253-5256-5259-5262-5265-5268-5271-5274-5277-5280-5283-5286-5289-5292-5295-5298-5301-5304-5307-5310-5313-5316-5319-5322-5325-5328-5331-5334-5337-5340-5343-5346-5349-5352-5355-5358-5361-5364-5367-5370-5373-5376-5379-5382-5385-5388-5391-5394-5397-5400-5403-5406-5409-5412-5415-5418-5421-5424-5427-5430-5433-5436-5439-5442-5445-5448-5451-5454-5457-5460-5463-5466-5469-5472-5475-5478-5481-5484-5487-5490-5493-5496-5499-5502-5505-5508-5511-5514-5517-5520-5523-5526-5529-5532-5535-5538-5541-5544-5547-5550-5553-5556-5559-5562-5565-5568-5571-5574-5577-5580-5583-5586-5589-5592-5595-5598-5601-5604-5607-5610-5613-5616-5619-5622-5625-5628-5631-5634-5637-5640-5643-5646-5649-5652-5655-5658-5661-5664-5667-5670-5673-5676-5679-5682-5685-5688-5691-5694-5697-5700-5703-5706-5709-5712-5715-5718-5721-5724-5727-5730-5733-5736-5739-5742-5745-5748-5751-5754-5757-5760-5763-5766-5769-5772-5775-5778-5781-5784-5787-5790-5793-5796-5799-5802-5805-5808-5811-5814-5817-5820-5823-5826-5829-5832-5835-5838-5841-5844-5847-5850-5853-5856-5859-5862-5865-5868-5871-5874-5877-5880-5883-5886-5889-5892-5895-5898-5901-5904-5907-5910-5913-5916-5919-5922-5925-5928-5931-5934-5937-5940-5943-5946-5949-5952-5955-5958-5961-5964-5967-5970-5973-5976-5979-5982-5985-5988-5991-5994-5997-6000-6003-6006-6009-6012-6015-6018-6021-6024-6027-6030-6033-6036-6039-6042-6045-6048-6051-6054-6057-6060-6063-6066-6069-6072-6075-6078-6081-6084-6087-6090-6093-6096-6099-6102-6105-6108-6111-6114-6117-6120-6123-6126-6129-6132-6135-6138-6141-6144-6147-6150-6153-6156-6159-6162-6165-6168-6171-6174-6177-6180-6183-6186-6189-6192-6195-6198-6201-6204-6207-6210-6213-6216-6219-6222-6225-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Generation Projection (Jan- Mar 2020)

Sl. No.	Entities	Region	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Ratified at 162nd OCCM
1	AGTPP, NEEPCO	NER	As per data given by NEEPCO	135	
2	Doyang, NEEPCO	NER		62	
3	Kopili, NEEPCO	NER		0	
4	Kopili 2, NEEPCO	NER		25	
5	Khandong, NEEPCO	NER		44	
6	Ranganadi, NEEPCO	NER		401	
7	AGBPP_Kathalguri	NER		230	
8	Loktak, NHPC	NER	As per data given by NHPC	105	
9	Palatana GBPP	NER	As per data given by OTPC	680	
10	Bongaigaon_NTPC	NER	Submitted directly to NLDC		

Generation Projection (Jan- Mar 2020)

Generation Projection (Jan- Mar 2020)					
Sl. No.	Entities	Region	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Ratified at 162nd OCCM
11	Pare	NER	As per data given by NEEPCO	110	

Generation Projection (Jan- Mar 2020)

Generation Projection (Jan- Mar 2020)					
Sl. No.	Entities	Region	Comments From DICs /Others (if any)	Figure as per Comments/ PoC Data	Ratified at 162nd OCCM
12	Arunachal Pradesh	NER	Not Submitted		
13	Assam	NER	As per data given by Assam	252	
14	Manipur	NER	No Generation	-	
15	Meghalaya	NER	As per data given by Meghalaya	243	
16	Mizoram	NER	As per data given by Mizoram	68	
17	Nagaland	NER	As per data given by Nagaland	12	
18	Tripura	NER	As per data given by Tripura	178	

DEMAND FORECAST USING PAST 3 YEARS DATA (Jan- Mar 20120)

	Comments	Data given by DICs	For Ratification at 162nd OCCM
Arunachal Pradesh	As per data given by Arunachal Pradesh	156	
Assam	As per data given by Assam	1550	
Manipur	As per data given by Manipur	235	
Meghalaya	As per data given by Meghalaya	384	
Mizoram	As per data given by Mizoram	99	
Nagaland	As per data given by Nagaland	140	
Tripura	As per data given by Tripura	378	

TIME DRIFT REPORT STATUS

SL.NO	PGCIL	STATUS
1	BNC (PG)	REPORT NOT RECEIVED/ACTION NONE
2	BADARPUR (PG)	REPORT NOT RECEIVED/ACTION NONE
3	Silchar(PG)	REPORT NOT RECEIVED/ACTION NONE
4	MARIANI (PG)	REPORT NOT RECEIVED/ACTION NONE
5	HAFLONG (PG)	REPORT NOT RECEIVED/ACTION NONE
6	Mokokchang(PG)	REPORT NOT RECEIVED/ACTION NONE
7	RANGIA (PG)	REPORT NOT RECEIVED/ACTION NONE
8	Aizawl(pg)	REPORT NOT RECEIVED/ACTION NONE
9	SALAKATI(PG)	REPORT NOT RECEIVED/ACTION NONE
10	BONGAGIGAON(pg)	REPORT NOT RECEIVED/ACTION NONE
11	DIMAPUR(pg)	REPORT NOT RECEIVED/ACTION NONE
12	Khliehriat(Pg)	REPORT NOT RECEIVED/ACTION NONE
	ASSAM	
13	DULLAVCHERRA	REPORT NOT RECEIVED
14	NAGALAND(S)	REPORT NOT RECEIVED
15	MIZORAM(S)	REPORT NOT RECEIVED
	TRIPURA	
16	SM NAGAR	REPORT NOT RECEIVED
17	79 TILLA	IRREGULAR
	ARUNACHAL PRADESH	
18	CHIMPU	REPORT NOT RECEIVED
	GENERATION	
19	AGBPP	REPORT NOT RECEIVED
20	DOYANG	REPORT NOT RECEIVED
21	PALATANA	IRREGULAR

Time Drift Corrective Action Not taken

SI. NO.	ENTITY	LOCATION	TIME DRIFT STATUS (MIN)	STATUS
1	ASSAM	AZARA-BONG	-04:14	Meter replaced due to high time drift but due to inaction drift >4
2	ASSAM	AZARA-SIL	-04:41	Meter replaced due to high time drift but due to inaction drift >4
3	ASSAM	DULLAVCHERRA	+02:20	No action taken

Locations not sending weekly SEM data

SI. No.	LOCATION NOT REPORTING	STATUS
1	UDAIPUR	DATA NOT SENT
2	SONABIL	DATA NOT SENT