



सत्यमेव जयते

Agenda for 201st OCCM, NERPC



Govt. of India
Ministry of Power
North Eastern Regional Power Committee
Shillong

North Eastern Regional Power Committee
Agenda for the
201st Operation Coordination Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 25-04-2023 (Tuesday)

Venue : "Hotel The Lily, Guwahati"

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 200th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 200th meeting of Operation Sub-Committee held on 28th March 2023 at NERPC Conference Hall, Shillong was circulated vide letter No. NERPC/SE (O)/OCC/2021/386-425 dated 13th April, 2023.

The Sub-committee may confirm the minutes of 200th OCCM of NERPC as no comments/observations were received from the constituents.

B. FOLLOW UP AGENDA ITEMS

B.1. Operational Performance and Grid discipline during March, 2023:

NERLDC to present the Operational Performance and Grid Discipline for the month of March, 2023.

The sub-committee may deliberate.

B.2. Generation Planning (ongoing and planned outages)

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

Plants	Reservoir level in meter (as on 20/02/2023)	MU content	Present DC (in MU)	No of days as per current generation
Khandong + Kopilistg II	Under outage and restoration process going on	Under outage and restoration process going on	0	Will be "0" until further intimation.
Kopili	Under outage and restoration process going on	Under outage and restoration process going on	0	Will be "0" until further intimation.
Doyang	311.90	8	0.16	50
Loktak	766.63	16	0.24	67

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

The sub-committee may deliberate.

B.3. Outage Planning Transmission elements

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

Furnishing request of shut down of the element, which was approved by NERPC, by Indenting Agency (ISTS licensees/STUs/Generating Companies) to NERLDC: Planned shutdown approved by NERPC shall be considered for implementation by NERLDC on D-3 basis. If an outage is to be availed on say 10th of the month, the shutdown availing agency would reconfirm to NERLDC on 7th of the month by 10:00 Hr. This

practice is necessary to ensure optimal capacity utilization and the time required for associated system study/coordination by/amongst RLDC/NLDC.

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 deliberate.

B.4. Estimated Transmission Availability Certificate (TAC) for the month of February, 2023:

Transmission Utilities have submitted the outage data for the month of February, 2023. The attributability of outage of the said elements is being finalized by NERLDC & NERPC. The Availability percentage of the transmission elements of ISTS licensees for the month of February, 2023 will be calculated soon:

SN	ISTS Licensee	Availability for Feb'23(%)
1	NETC	-
2	KMTL	-
3	NER-II TL	-
4	PGCIL	-

The sub-committee may deliberate.

B.5. Mock Black Start Exercise:

As per regulation 5.8 (b) of IEGC, mock black start shall be carried out by Users/CTU/STUs at-least once in 6 months.

The previous mock black start & restoration exercise has been conducted at various generating stations in NER on the dates mentioned in the following table:

Status as updated in the 200th OCCM:

Plant Name	Performed On	Due Date	Schedule of Testing as per 200 th OCCM
AGBPP	after upgradation of DG under R&M*
AGTTCCPP	09.04.2019	09.10.2019	Done on 4 th Feb. 2023
PareHEP	25.01.2020	25.07.2020	Done on 15 th Feb. 2023
Kopili HEP	10.05.2019	NA	NA
Kameng HEP	In Lean Hydro season**
Doyang HEP	-	-	Done on 21 st Oct'22

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KopiliStg-II	-	-	Under prolonged shutdown
RHEP	-	-	Done on 28 th Nov'22

*Regarding AGBPP, GM NEEPCO updated that R&M of the plant is under DPR preparation stage only and will be submitted for approval soon. Further, he informed that although the machine (Frame 6) is capable of Black start, there is high power requirement for the Gas compressor which is beyond the capacity of existing DG, hence requirement of new DG with adequate capacity is essential.

**Regarding Kameng HEP, GM, NEEPCO intimated that M/s BHEL has not yet responded to the concerns raised by NEEPCO regarding the changes in circuitry as proposed by M/s BHEL.

Manager, NERLDC presented the next due dates for each of the ISGS stations for Mock Black start exercise in accordance with IEGC. The due dates are as under:

Plant Name	Last testing date	Due date
AGBPP
AGTTCCPP	04.02.2023	04.08.2023
RHEP	28.11.2022	28.05.2023
PareHEP	15.02.2023	15.08.2023
Kopili HEP	10.05.2019	Under prolonged shutdown
Khandong HEP	09.12.2021	Under prolonged shutdown
DHEP	21.10.2022	21.04.2023
Kameng HEP
Loktak HEP	16.12.2021	20.06.2022

NERLDC informed that MBS exercise has to be carried out at Loktak HEP as the due date for testing at Loktak HEP has already passed. The forum advised NHPC to schedule & conduct the MBS exercise in coordination with NERLDC.

The sub-committee may deliberate.

B.6. Status of ADMS:

Status for Automatic Demand Management Scheme in 7 states of NER. The SLDCs informed the latest status as follows:

Name of the utility	SAT Completion	DoCO
DoPar.Pradesh	27-01-2021	Enabled & in-operation
AEGCL/APDCL	07-12-2020	Enabled & in-operation
MSPCL	24-11-2020	Enabled & in-operation
MePTCL/MePDCL	31-08-2020	Enabled & in-operation
P&ED Mizoram	22-02-2021	Enabled & in-operation
DoP Nagaland	17-11-2020	Enabled & in-operation
TSECL	24-12-2020	Enabled for three substations while yet to be enabled for other three substations

As updated in the 200th OCCM:

1. SLDC, TSECL reiterated that ADMS is yet to be installed at the Takerjhala, Bishalgarh and Badarpur substations as some shifting work is involved. Further tripping logic has been modified for the two substations where ADMS is installed.
2. Arunachal Pradesh and Manipur are yet to revise the tripping logic.
3. Assam updated that logic modification related to change in frequency will be done within a week time.

The sub-committee may deliberate.

B.7. Violation of state wise TTC/ATC:

As per POSOCO KPI, NERLDC has to report the violation of import TTC/ATC of NER states in daily, weekly and monthly basis. It has been observed that most of the NER states are not N-1 secure causing violation of TTC/ATC limit although the actual drawl remains within the schedule values. Violation has been observed in case of Assam, Meghalaya, and Tripura states.

The TTC/ATC calculation of States done by NERLDC is as follows:

State	Time Period	N-1 considered	Limiting element	TTC	RM	ATC
Arunachal Pradesh	Off-Peak	132kV Lekhi – Pare	132 kV Pare – Itanagar S/C	195	5	190
	Peak			195	5	190
Assam	Off-Peak	220kV Misa-Samaguri I or II	220 kV Balipara-Sonabil	1730	40	1690
	Peak			1600	40	1560
Manipur	Off-Peak	132kV Imphal MA-Imphal PG Ckt I	132 kV Imphal (MA)-Imphal (PG) II & III	320	5	315
	Peak			320	5	315
Meghalaya	Off-Peak	132 kV Umiam3 – Umiam	132 kV Umiam-Umiam Umiam 1 II	340	10	330
	Peak			260	10	250
Mizoram	Off-Peak	132 kV Melriat-Silchar I ORII	132 kV Aizawl-Luangmual S/C	160	5	155
	Peak			155	5	150
Nagaland	Off-Peak	220/132 kV ,100 MVA Dimapur ICT	220/132 kV ,30 MVA Mokochung ICTs	255	5	250
	Peak			290	5	285
Tripura	Off-Peak	132 kV SM Nagar(ISTS) Budhjungnagar S/C	132 kV SM-Nagar (TR) – SM Nagar (ISTS) S/C	340	6	334
	Peak			315	6	309

In previous OCC meeting(s) it was decided that in the event of any major shutdown(approved/emergency) the state periphery ATC/TTC shall be calculated by respective SLDC and communicated to NERLDC.

As agreed in previous OCCMs, all the states are requested to provide the respective ATC/TTC to NERLDC on monthly basis.

In 200th OCCM NERLDC apprised the forum that all the states except Arunachal Pradesh are providing the ATC/TTC report regularly to NERLDC. Also, NERLDC appreciated that Meghalaya SLDC is doing extensive ATC/TTC study in case of any major shutdown.

The sub-committee may deliberate.

B.8. Issues pertaining to Kopili&Khandong.

A. Load restriction in Meghalaya Power System due to planned outage of Khandong HEP &KopiliStg-II:

Khandong &Khopili Power Stations have been under forced outage due to which there has been vulnerabilities in the Meghalaya Power system.

Decisions as per previous meetings:

(i) Meghalaya System shall be operated by opening of 132kV Mawngap-Nongstoin T/L right from the start of Khandong HEP shutdown. (ii) In normal circumstances no load shedding is required and Meghalaya can continue to cater full demand based on present generation scenario. (iii) In event of tripping of any one circuit of 132kV UmiamStg-I to UmiamStg-III D/C SLDC Meghalaya shall swiftly shed load till loading of 132kV UmiamStg-I to UmiamStg-III S/C is within limit and also increase generation from UmiamStg-I HEP and Leshka HEP. (iv) based on Real Time Condition Mawphlang may be shifted to be fed from Agia side after concurrence of NERLDC, (v) Early restoration of Misa-Kopili-Khandong link by NERTS/NEEPCO.

In 196th OCCM it was highlighted that Meghalaya Power system to operate in bifurcation mode (132kV Mawngap-Nongstoin T/L shall be opened and Nongstoin, Nangalbibra, Tura and Ampati to be fed from Agia) with installation of 20MVAR capacitor banks at 132/33kV NEHU SS till the reconductoring of UmiamstgI-stgIII D/C reconductoring work is done. After the reconductoring, it will shift to closed loop mode wherein maximum of 380MW maximum demand can be met with 107 MW Meghalaya internal generation.

B. Restoration works at Khandong and Kopili substations

Following the discussions in the 189th OCC and in the special meeting held on 27.04.2022 in presence of representatives from NERPC, NERLDC, NEEPCO, NERTS and AEGCL, Khliehriat – Khandong – Umrangshu link was charged as an interim special arrangement.

Khandong

1. One CRP for Khandong-Umrangso feeder at Khandong end is procured and expected to be commissioned by NEEPCO before February 2022.
2. One Temporary KIOSK room has been identified and Cable trenches are under Construction and, cables are being re-routed.
3. For availability of Khandong-Khliehriat line, POWERGRID was requested to install 1(one) BCU based CRP in February-2023. Status of the same may kindly be shared with NEEPCO.
4. NERTS, POWERGRID was requested to ensure the installation of PLCC panel for Khandong – Khliehriat line alongwith FOTE panels for digital and analog data/voice, protection and communication to NERLDC before synchronization of the Khandong Stage-II.
5. AEGCL was requested to provide a PLCC Panel for Khandong-Umrangso line and NEEPCO was to provide the 48V battery bank with charger for PLCC. Status of the same may please be intimated to NEEPCO.

Kopili

1. 48V DC supply for PLCC panels is being undertaken by NEEPCO. PGCIL provided the load requirement of 20A max.

C. Recommissioning of 1X25 MW Khandong Stage-II plant

NEEPCO is planning to re-commission and synchronize 1X25MW Khandong Stage-II unit within this current financial year. Since all the Control & relay panels are submerged and damaged beyond repair during the inundation on 26.03.2022, for successful commissioning of the unit, the Khandong Switch Yard has to be adequately restored within February – 2023 and for reliable evacuation, any of the Khandong-Khliehriat ckt1 or ckt 2 along with 132kV Khandong-Umrangshu line (with full protection system) is required. And for evacuation of 2 units of Kopili, which are poised to come in May'23, either 220kV Misa-Kopili DC or Kopili-Khandong DC is required.

In 200th OCCM following points were discussed

A. Load Restriction on Meghalaya Power system

- i. Regarding Jiribam-Haflong line, DGM NERTS updated that corpus amount has been conveyed by the forest department and NHIDCL has deposited the amount to PGCIL. PGCIL will now deposit the amount to the forest department in next 5days, after which forest department will issue the clearance. After that, clearance for RIO will be applied. Considering all the processes, the line is expected to returnby 15th April 2023.
- ii. Regarding reconductoring of Umiam stg I-stg III, Meghalaya updated that the reconductoring has been completed.
- iii. NERPSIP stated that RoW issue in Mawngap section still persists and the matter is being followed up at the highest level.

B&C. Restoration of Khandong&Kopili substations and Recommissioning of 1x25 MW Khandong stg II:

- i. Regarding PLCC for Khandong-Umrangshu line, AEGCL updated that PLCC panel has reached Umrangshu end. PLCC will also be supplied to Khandong end soon.
- ii. Regarding permanent restoration of Khliehriat-Khandong D/C, DGM NERTS apprised the forum that line part of ckt 1 is ready, however bay of ckt 1 belongs to NEEPCO, so NEEPCO has to make the bay ready in due time. Regarding the ckt II, he apprised that line side work is completed and bay belongs to POWERGRID and some connection changes have to be made in the bay. However, NEEPCO has to complete the SAS and SCADA related works. He also enquired about the readiness of Umrangshu bay at Khandong as the temporary arrangement to charge the Umrangshu line has to be stopped as soon as the Khliehriat-Khandong D/C is restored as per the permanent arrangement.

GM, NEEPCO updated that Umrangshu bay will be ready after the PLCC panels are supplied by AEGCL and added that SAS as well as SCADA related works at Khandong is underway.

Further, DGM NERTS intimated that for bay related works at Khandong, shutdown of the Khliehriat-Khandong-Umrangshu link shall be required for two days. AEGCL raised concern that Outage of the said link will lead to blackout in Haflong and Umrangshu area, hence the outage duration has to be either restricted to one day or day time shutdown be taken.

PGCIL assured to look into the possibility of restricting the shutdown period as suggested by AEGCL.

Regarding Revival schedule of Generating units, GM, NEEPCO updated that dry spinning of Khandong stg II turbine will start at the end of March'23 and the unit is well poised to be recommissioned by 15th April, 2023 subject to completion of permanent restoration of Khandong-Khliehriat D/C by PGCIL. He further added that one unit of Kopili will come by May, 2023 and the 2nd Unit will come by June 2023.

iii. Regarding Evacuation for Kopili:

a. DGM, NERTS updated that for Kopili-khandong D/C, procurement SAS based panel from OEM is involved and the restoration work may go upto September'23.

b. On the question of restoration status of 220kV Misa bays at Kopili, GM NEEPCO updated that bay equipments are ready, but cabling termination work is still left. He further added that restoration of 220/132kV ICTs has to be ensured by the PGCIL at the earliest so that reliable station and auxiliary power supply can be ensured through the 132/33kV SST and SAT.

iv. NERLDC and SLDC Meghalaya raised concern that restoration of Misa-Kopili-Khandong link in totality is essential for ameliorating the power supply scenario in Meghalaya, specially before the onset of next winter season.

The sub-committee may deliberate.

B.9. Implementation of Guwahati Islanding Scheme:

As per Clause 10 of the Central Electricity Authority (Grid Standards), Regulations, 2010: "Islanding Schemes- (1) The Regional Power Committees shall prepare Islanding schemes for separation of systems with a view to save healthy system from total collapse in case of grid disturbance. (2) The Entities shall ensure proper implementation of the Islanding Schemes"

Pursuant to the above regulation NERPC, through an empowered committee, has finalized the Guwahati Islanding scheme and prepared the DPR. The DPR was presented in 23rd NERPC/TCC meeting to get approval for funding through PSDF.

In 196th OCCM, Member Secretary NERPC updated that the finalized DPR was discussed in 23rd NERPC meeting and issue of high cost was flagged. So, re-estimation of project cost will be done at the earliest.

In the 198th OCCM, AEGCL was requested to re-examine the cost estimates in the DPR and intimate the subcommittee.

In the 199th OCCM, AEGCL updated that the substations identified under the Guwahati islanding scheme are mostly devoid of OPGW connectivity with the SLDC and thus OPGW requirement is high. However, other OPGW suppliers are being consulted to reduce the cost implication.

After detailed deliberation, the forum decided that the empowered committee on islanding scheme will reassemble and explore the option of using existing fiber optic links, wherever present (on bandwidth sharing basis) and mull over the ways to reduce total cost of the islanding scheme. The report of the committee will be regularly discussed in the NeTEST meetings.

In the 200th OCCM, Director, NERPC stated that in the 24th NETeST meeting, Assam has informed that there are no OPGW links on existing lines covered under the proposed Guwahati Islanding Scheme.

It was suggested in the meeting that AEGCL may apply for PSDF funding under Reliable communication scheme state sector for installing OPGW and include these lines which are covered in the proposed Islanding scheme.

It was decided that special meeting of the empowered committee members will study in totality and finalize the proposed scheme.

The sub-committee may deliberate.

B.10. Furnishing details of upgraded UFR settings alongwith list of feeders and quantum of load:

Status as updated in the 200th OCC Meeting

Name of the state/utility	Submission of revised UFR list	Implementation of revised settings	Status of mapping
Ar. Pradesh	Submitted	Stg-1 (49.4Hz) implementation in new feeders. UFR to be procured by July'22, implementation to be done by Mar'23	Coordination with M/S GE is ongoing, tentative completion by March'23
		Installation Completed. UFR to be	

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Assam	Submitted	shifted to Samaguri for 132kV Khaloigaon-Samaguri line.	Done
Manipur	Not submitted	No extra shedding required only Stage upward revision to be done. ADMS and UFR feeder segregation to be done for Stage-I by next OCCM	To be done
Meghalaya	Submitted	17 out of 17 feeders completed. Forum requested to share the points with RLDC SCADA	Done
Mizoram	To be submitted	Completed	SCADA display has been made at SLDC but real time data is not reporting. The SCADA display is to be shared with NERLDC.
Nagaland	Submitted	Completed	Completed
Tripura	Submitted	Stage-1(49.4Hz), Stage-2 (49.2Hz), Stage-3(49Hz) require installation of UFR. Stg I UFR installed	Mapping by Feb'23 for P K Bari and Ambassa. For Badarghat(33kV ss), mapping not possible as no RTU available

The sub-committee may deliberate.

B.11. Primary Frequency Response testing plan of remaining units in NER:

Primary Frequency Response Testing of generator units is being carried out in line with the Clauseno.5.2(g) of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.

Schedule as agreed in the 200thOCC meeting:

Region	Station	No.of generators	Suggested Schedule		Duration (days)
			Test Start	Test End	
NER	NEEPCO-	1	26 th July'22	28 th	done

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	Monarchhak			July'22	
NER	NEEPCO-Kameng	1 (by M/s Solvina)	Oct'22	Oct'22	Done on 20 th , 21 st Oct, 2022
NER	OTPC-L Palatana	2 (by M/s Solvina)	Nov'22	Nov'22	To be done*
NER	Doyang-NEEPCO	2 (by M/s Siemens)	Oct'22	Oct'22	4(water level to be sufficient enough to run the units at full capacity)**

*In the 199th OCCM, OTPC intimated that M/s BHEL has raised concern about the standard procedure that in case the change in actual grid frequency opposes the simulated frequency input, the governor action will be unpredictable and might be dangerous also which in turn will compromise the safety of the machine. Consequently, BHEL has proposed for some modification in the software procedure, which will abort the testing procedure when a mismatch is detected. The modified procedure will be tested within 1 month and the machine is expected to be ready for PFR test procedure by the end of June, 2023. OTPC however added that details of the suggested modifications is yet to be received from M/s BHEL and assured that the same shall be provided to NERLDC and NERPC once received from M/s BHEL.

In the **200th OCCM**, NERLDC updated that M/s BHEL has intimated through email about the readiness of the software block (to ensure the safety of the machine) which is to be incorporated in the plant controller. A meeting, to discuss the functionality of the software block and further usage of the same for conducting the PFR test at OTPC as per NLDC approved procedure will be held soon.

**Regarding testing at Doyang HEP, NERLDC highlighted that due to insufficient water at Doyang, conducting PFR testing might not be possible at all for the present season, so testing of other unit of Kameng by M/s Siemens can be mooted. GM, NEEPCO expressed hope that Doyang might get sufficient water for the testing soon and requested the forum to keep the PFR testing schedule at Doyang as per the original plan for the time being. Therefore, it was decided that PFR testing at Doyang HEP will still be explored.

The sub-committee may deliberate.

B.12. Regular furnishing of Patrolling report for all Important Lines to NERLDC/NERPC

There is a requirement of regular and proper maintenance of transmission lines. It is requested to carry out the patrolling activities as per ClNo.23(2), (3) &(4) of CEAGrid

Standards Regulation, 2010 on regular basis and submit the report to NERPC/NERLDC.

It is requested to upload DR, EL& FIR outputs for transmission lines in the NERLDC tripping portal in line with Cl.5.2 R of IEGC 2010 Regulations.

In 200th OCCM, Manager, NERLDC informed that line patrolling reports have not been submitted by SLDCs of Manipur, Mizoram and Tripura. MS, NERPC strongly advised all SLDCs to seriously take-up the matter of regular line patrolling with their respective state utilities and submit the patrolling reports to NERLDC/NERPC on regular basis.

The sub-committee may deliberate.

B.13. Monthly Review of LGBR

PARTICULARS (Peak Demand in MW as per LGBR vs Actual)	Jan-23 (LGBR)	Jan-23 (Actual)	Feb-23 (LGBR)	Feb-23 (Actual)	Mar-23 (LGBR)	Mar-23 (Actual)
Arunachal Pradesh	128.42	166	164.59	159	153.31	172
Assam	1533.00	1643	1550.00	1572	1680.00	1670.32
Manipur	287.00	248	239.00	225	227.00	212.32
Meghalaya	384.00	404	381.00	394	354.00	373.99
Mizoram	132.99	159	143.49	139	119.27	128.82
Nagaland	165.00	139	160.00	148	155.00	156.4
Tripura (exc. Bangladesh)	230.00	247.71	227.80	252	250.00	263.9
NER DEMAND (exc. Bangladesh)	2680.00	2866	2709.00	2801	2686.32	2915

PARTICULARS (Energy Requirement in MU as per LGBR vs Actual)	Jan-23 (LGBR)	Jan-23 (Actual)	Feb-23 (LGBR)	Feb-23 (Actual)	Mar-23 (LGBR)	Mar-23 (Actual)
Arunachal Pradesh	72.81	75.01	65.79	68.87	71.99	77.54
Assam	770.53	814.320	713.23	735.650	862.52	837.76
Manipur	107.70	104.6	88.92	78.24	79.03	81.08
Meghalaya	213.03	223.25	185.66	190.97	191.76	193.22
Mizoram	65.63	65.33	56.55	53.02	55.48	53.45
Nagaland	68.16	65.81	61.70	59.19	66.11	70.54
Tripura (excl. Bangladesh)	110.21	118.43	100.63	108.86	118.05	122.97
NER DEMAND (exc. Bangladesh)	1368.52	1467.423	1264.84	1295.493	1473.94	1437.192

The sub-committee may deliberate.

B.14. Installation of AWS by IMD Guwahati

It was informed in 158th OCCM that RMC, IMD, Guwahati would install Automatic Weather Station (AWS) in NER. As per the proposed list of stations by the

constituents, IMD has surveyed the stations and has mentioned the requirement of NoC for the suitable stations.

NERLDC vide emails dated 10.01.2023 to all the states requested to facilitate for signing of MoU with IMD Guwahati for installation of AWS in NER substations.

In 198th OCCM, NERLDC intimated that modified MoU by IMD has been shared with all the States by e-mail.

Arunachal Pradesh mentioned that the draft MoU has been sent to Government of Arunachal Pradesh for approval. The forum requested all States to sign the MoUs at the earliest.

In 200th OCCM, AEGCL updated that the draft MoU, as finalized by AEGCL, has been sent to IMD, Guwahati in January'23 itself for signing. The later will respond soon.

The sub-committee may deliberate.

B.15. Status of implementation of SPS in Assam Power System:

As per the minutes of Sub-group meeting held on 27.09.22, SPS for load reduction in capital area of Assam power system on tripping of 220 kV Azara-Sarusajai D/C or 220 kV Misa-Samaguri D/C was recommended for safe and reliable operation with the following tripping conditions:

Triggering condition 1: Tripping of 220kV Azara – Sarusajai D/C SPS action: Tripping of 132kV Kahilipara – Kamalpur and 132 kV Sarusajai – Kamakhya lines. For tripping of 132 kV Kahilipara – Kamalpur line, OPGW connectivity between Sarusajai and Kahilipara will be used to send the tripping signal for tripping Kamalpur feeder at Kahilipara.

Triggering condition 2: Tripping of 220kV Misa - Samaguri D/C SPS action: Tripping of 132kV Samaguri-Sankardevnagar Line.

AEGCL may update on the latest status regarding implementation status of the proposed SPS.

In 199th OCCM, NERLDC intimated that a bilateral meeting with SLDC Assam was held on 1st Feb'23 and Assam agreed to the proposed SPS scheme for tripping condition 1 with additional load cutting of 20MW at Narengi S/S.

AEGCL intimated that disconnection of Narengi GSS, trip signal will have to be sent from Kahilipara GSS which is not possible as there is no OPGW connectivity in 132 kV Kahilipara- Narengi line. Hence, SLDC informed that additional 20 MW load

disconnection at Sarusajai / Kahilipara GSS will be explored after consultation with DISCOM.

Regarding tripping condition 2, AEGCL agreed to implement the scheme without any modification and the work will start after obtaining their administrative approval.

In 200th OCCM, AEGCL updated that distribution feeders for disconnection of 20MW at Sarusaji/Kahilipara has been identified and logic is being finalized for tripping condition 1. AEGCL further informed that, in order to implement the SPS, some communication equipment would be required at Kahilipara.

Regarding Tripping condition 2, AEGCL informed that they will implement the same.

The sub-committee may deliberate.

B.16. Installation of 10 MVAR Bus Reactor at 132 kV Meluri S/S for Closed loop formation of Kohima-Meluri-Kiphire-Tuensang-Mokokchung link

132 kV Kohima S/S is presently connected with the rest of the NER grid via 132kV Karong-Kohima line, 132 kV Kohima-Chiephobozou-Wokha-Sanis-Doyang link, 132 kV Dimapur-Kohima line & 132 kV Kohima-Meluri line but Kohima-Meluri-Kiphire-Tuensang-Mokokchung link is generally kept open from Kiphire end. Kohima S/S caters to the load of Capital area of Nagaland Power System; hence the availability of Kohima S/S is very important. However, this area is prone to frequent grid disturbances due to its geographical location.

On 2nd Nov'22 at 13:52 hrs during the visit of Hon'ble President of India, Grid disturbance occurred in Kohima area of Nagaland Power System with a load loss of 19MW and generation loss of 8MW making it a critical situation.

Forming closed loop connection of Kohima-Meluri-Kiphire-Tuensang-Mokokchung will strengthen the connectivity of Kohima S/S and upgradation of 66kV Kiphire-Tuensang-Mokokchung link to 132 kV will enhance the reliability and security of the Capital area of Nagaland Power System. However, high voltage issue at Meluri S/S (upto 145 kV) is observed in the present condition. As per system study, installation of Bus reactor of 10 MVAR capacity at Meluri S/S will resolve the issue. Hence, the Kohima-Meluri-Kiphire-Tuensang-Mokokchung link at 66kV or 132 kV can be kept in closed loop only after installation of 10MVAR Bus Reactor otherwise high voltage condition will persist in Meluri and Kohima S/S.

DoP, Nagaland is requested to install the reactor at 132 kV Meluri S/S for closed loop operation of the above-mentioned link and expedite the upgradation works of the same to 132 kV.

In 196th OCCM the forum had approved for installation of 10MVAR switchable line reactor at Meluri s/s to address high voltage scenario as highlighted by NERLDC and requested Nagaland to complete the upgradation of 66kV Mokochung-Tuensang-Kiphire link to 132kV at the earliest. Also, the matter was referred to CMETS meeting, but CTU pointed out that concerned substations and lines are intra-state elements, so planning related to these elements is beyond its ambit. Therefore, the matter is referred to sub-committee for further deliberation.

In 200th OCCM, DoP Nagaland updated that proposal for installation of Bus Reactor will be proposed for PSDF funding and for upgradation of bay equipments at Mokochung and Kiphire substations, funding will be requested from North Eastern Council (NEC).

Member Secretary, NERPC requested NERPSIP to explore the option of covering the upgradation works under NERPSIP projects. NERPSIP stated that they will look into it.

DoP Nagaland may update

B.17. Regarding construction Power 132KV line for upcoming TATO -I, II and HEO Hydro Electric Power Project.

NEEPCO is all set to start the Project activity of Tato - I, II and Heo H.E Project at Shi Yumi district of Arunachal Pradesh from this financial year. In order to execute the following point may be looked into.

1 Power Evacuation point: NEEPCO shall initially harness 1125 MW from these three projects and two more project namely Naying and Hirong is in pipeline. Therefore, power evacuation point for all the project may be located at Tato-II Power Site.

2 Initially to start the project activity it is required to have 132 KV at Tato Shi Yumi district which will be initially utilized for construction power and after that it can be utilized for power evacuations.

It is understood that there is one 132KV line under construction from Kamba to Mechoka via Tato under the Comprehensive Scheme. One sub-station either at Heo or Tatao I power house can also be planned under that Scheme. Else, the line please

be constructed at a faster pace and NEEPCO can make a LILO at a suitable location at Tato Shi Yumi district to cater the construction power of the said upcoming H. E. Projects in coordination with DoP, Arunachal Pradesh.

In 199th OCCM, GM, NEEPCO requested DoP Ar. Pradesh to set up one substation at Tato II area at Tato under the scope of comprehensive scheme or make a LILO of the Kamba Mechoka line at Tato II so that construction power can be provided for the upcoming HEP projects of NEEPCO in the area.

SE SLDC, DoP Ar. Pradesh apprised the forum that Kamba Mechoka line under the scope of comprehensive scheme will be initially charged at 33kV as load requirement is low in the Mechoka area and suggested that LILO of the line would be a better option. He asked GM NEEPCO to write a request letter to CE (Transmission) DoP Ar. Pradesh for LILO of the line at Tato.

The forum appreciated the need for timely provision of the dedicated feeder for construction power to NEEPCO and exhorted PGCIL Comprehensive Scheme to expedite the commissioning of Kamba-Mechoka line.

In 200th OCCM, GM, NEEPCO apprised the forum that they have written to transmission circle of DoP Arunachal Pradesh and the matter is under deliberation.

The forum urged Comprehensive Scheme to expedite the construction of 132kV Kamba-Mechoka line so that LILO can be made at Tato area on time.

The sub-committee may deliberate.

B.18. RPCs are requested to consider following agenda items in the next OCC/RPCs meeting to popularize and explain the PUSHP portal to the constituents/stakeholders.

PUSHP portal (For Flexibilization of PPA for Optimal Utilization of Resources and Reduction in cost of Power for Consumers) has been launched on 09th March, 2023 by Hon'ble Minister of Power and NRE.

The Portal would be a single window system providing services to diverse domains of all the entities involved and to reallocate and transfer the power in minimum time from one surplus entity to deficit entity. In recent past years, difficulties are observed in meeting the demand and some states do resort to power cuts, especially during April, May, September and October months the crisis is observed while other states have surplus power capacity. The States which have surplus power continue to

bear the fixed charge burden without using it which leads to high cost of power to the consumers. Regional diversity makes some states surplus. Like Peak in Northern region is during summer whereas Peak in Southern region is during winter. Similarly,

there is diversity in the time at which the peak occurs in the States. Such regional diversity in the load demand was not able to address even though the generation capacity is available in the country. The reasons behind were many like one-to-one Power Purchase Agreements, some procedural constraints, non-availability of easy match making arrangements etc.

This portal will provide a platform for optimal utilization of generating capacity and will resolve the above issues. The scheme will not disturb the existing arrangements rather an additional avenue shall be provided to stakeholders for optimal use of generating capacity. The scheme envisages paperless working for temporary allocation/transfer of power from surplus (Seller) entity to deficit (buyer) entity. The benefits of the portal also include Flexibilization of Power Purchase Agreement, Availability of power to DISCOMs, reduction in power cuts, reduction in fixed charge burden on the states having surplus power, Allocation /Transfer of Power at regulated tariff in a minimum time.

Key Benefits of the scheme: -

- i. Flexibilization of Power Purchase Agreement
- ii. Optimal Utilization of Power due to regional diversity and their increased availability.
- iii. Availability of power to DISCOMs improves and reduction in power cuts.
- iv. Meet the power demand of the country especially during the crisis situation in the month of April, May, September and October.
- v. Reduction in fixed charge burden on the states having surplus power.
- vi. Allocation /Transfer of Power at regulated tariff.
- vii. Reallocation of power in minimum time with automated process.
- viii. The scheme envisages a paperless working.
- ix. None of the existing arrangements shall be disturbed, rather an additional avenue has been provided.
- x. The portal envisages temporary allocation/transfer of power; subjected to willingness of seller and Buyer, confirmation of transmission corridor by

concerned agencies and confirmation of payment security on portal by the new Buyer/Gencos before scheduling of such power.

In 200th OCCM, Member Secretary, NERPC briefly explained the benefit of the Scheme and requested all concerned constituents to participate and fully utilize the portal. He also informed that further training or workshop can be organized (if necessary) in the coming days.

The sub-committee may deliberate.

B.19. Preparedness for implementation of Resource Adequacy Framework and requirement of Data

As per the draft resource adequacy guidelines published in September 2022, CEA is required to prepare long term National Resource Adequacy Plan (LT-NRAP). For preparing the LT-NRAP, State-wise information Viz: Demand, Installed Capacity, Generation (both RE and Conventional), Financial data, etc. are required to be furnished (as per the format circulated by NERPC through mail dated 21.03.2022) **(Annexure B.19).**

In 200th OCCM, Member Secretary, NERPC requested all States to furnish the requisite information at the earliest.

The sub-committee may deliberate.

B.20. Annual Maintenance Contract for ADMS:

The “Go Live” dates in ADMS implementation for NER states is as below:

Sl.No.	Name of SLDC	System "Go Live"
1	Meghalaya SLDC	04.09.2020
2	Manipur SLDC	24.11.2020
3	Nagaland SLDC	01.12.2020
4	Arunachal Pradesh SLDC	01.02.2021
5	Mizoram SLDC	01.03.2021
6	Assam SLDC	10.03.2021
7	Tripura SLDC	16.03.2021

It may be mentioned that ADMS scheme is having a three (3) year Warranty Period following which, there is a provision for an Annual Maintenance Contract after the

Warranty Period. Given the regulatory mandate for compliance of ADMS and the benefits of its continued operation, it becomes imperative for a collective Annual Maintenance Contract which among other things would bring about a reduction in the financial involvement vis-à-vis higher rates with separate / individual AMCs. Since the timelines mentioned are spread over a few months only, the SLDCs may deliberate on a collective Annual Maintenance Contract which can be approved (with same terms and conditions immediately on expiry of individual Warranty Periods) given the collective reduced charges and lack of expertise in maintaining the system.

In the 24th NeTeST meeting, all state utilities suggested to go for collective Annual Maintenance Contract and the matter was referred to next OCC meeting for detailed discussion.

In 200th OCCM, Director, NERPC informed that considering the regulatory mandate for compliance of ADMS and the benefits of its continued operation, all the State Utilities have agreed to have a combined AMC for ADMS during the 24th NeTeST meeting for cost effectiveness vis-à-vis individual AMC.

Member Secretary NERPC intimated the forum that AMC of the ADMS, after the warranty period, may not be covered under PSDF funding and States have to pay for the same.

The State Utilities requested NERPC to take up with original vendor M/s Orbit Techsol India Private Limited regarding the matter.

The sub-committee may deliberate.

C. NEW AGENDA ITEMS

Agenda from NEEPCO

C.1. Methodology to determine the of Ex-Bus calculation of 1x25MW Khandong Stage-II Unit after its synchronization to the grid.

1x25MW Khandong Stage-II Unit is expected to be synchronised at the end of this month. At present NEEPCO is in agreement with APDCL for drawing construction power for 4x50MW Kopili P.S and 2x23MW Khandong Power Station R&M activities. This construction power is being drawn through 7.5MVA, 132/33KV Station Supply Transformer installed at Khandong 132KV/33KV SY. The power is being distributed to Kopili PS & Umrangso Colony and Khandong PS construction activity through 33KV lines charged from 33KV PS-I & PS-II Lines and downstream network.

In view of the above, NEEPCO desires to device the methodology for calculation of Ex-Bus calculation after synchronization of the 1x25MW Khandong Stage-II Unit.

The forum may deliberate

Agenda from NERLDC

C.2. Non-operation of SPS for tripping of Umiam Stg II – Stg I D/C:

At around 20:25 Hrs of 01-04-2023, 132 kV Umiam III - Umiam I D/C along with 132 kV Umiam III - Umiam IV ckt I. Multiple Units also tripped as mentioned in the Unit Tripping list below. This led to increase in loading of 132 kV Panchgram - Lumshnong and 132 kV Badarpur - Khleihriat(PG) to 86 MW and 72 MW respectively. Also, Voltage at Khleihriat(PG) bus reached 124 kV. Tripping of any of the aforementioned lines would likely have caused brownout in Garo Hills, East Khasi Hills and Jaintia Hills and might also have led to partial Grid disturbance in the aforementioned areas.

Generating Unit	Reason for tripping
Umiam Stg I Unit 2	Tripped on Overcurrent & Earth fault
Umiam Stg I Unit 3	Tripped on Overcurrent & Earth fault
Umiam Stg II Unit 2	Differential relay optd.
Umiam Stg III Unit 1	Negative Ph. Sequence relay optd.

New Umtru Unit 1	Negative ph. sequence relay optd, GT Overcurrent/Earth fault
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To tackle the same, an SPS scheme was designed to shed load in Mawphlang area of Meghalaya (load shedding of 25 MW). However, the SPS scheme did not operate on the said date as informed by SLDC Meghalaya which could have alleviated the issue of overloading of lines.

This event is a near miss incident which otherwise could have resulted in a major Grid disturbance in NER.

MePTCL&MePGCL is requested to share the reason for non-operation of SPS and its remedial measures taken to forum.

Members may please discuss.

C.3. Frequent Tripping of Monarchak and Rokhia Units:

Below is the list of trippings with reasons for the same:

S.No	Unit	Tripping Date and Time	Revival date and Time	Tripping Indication
1	Rokhia Unit 9	29-03-2023 09:09	29-03-2023 09:30	Earth fault, Stg-II
2	Rokhia Unit 9	31-03-2023 01:11	31-03-2023 01:25	Earth fault, Stg-II
3	Rokhia Unit 9	31-03-2023 01:57	31-03-2023 02:45	Earth fault, Stg-II
4	Rokhia Unit 9	01-04-2023 05:38	01-04-2023 09:51	No indications provided
5	Rokhia Unit 9	03-04-2023 00:13	03-04-2023 00:39	Earth fault, Stg-II
6	Rokhia Unit 9	16-04-2023 13:41	16-04-2023 17:15	Under frequency relay operated
7	Monarchak GTG	29-03-2023 10:37	29-03-2023 15:30	Rotor E/F
8	Monarchak STG	29-03-2023 10:37	29-03-2023 18:10	Due to tripping of GTG
9	Monarchak GTG	31-03-2023 13:35	31-03-2023 18:32	GT tripped due to E/F
10	Monarchak STG	31-03-2023 13:35	31-03-2023 19:52	Due to tripping of GTG

11	Monarchak GTG	06-04-2023 11:13	06-04-2023 12:15	Voltage Jerk
12	Monarchak STG	06-04-2023 11:13	12-04-2023 04:58	Due to tripping of GTG
13	Monarchak GTG	06-04-2023 12:35	11-04-2023 18:52	High exhaust Temperature
14	Monarchak GTG	11-04-2023 22:58	12-04-2023 01:48	Tripped due to issue in Control system
15	Monarchak STG	12-04-2023 06:45	12-04-2023 07:08	LP drum level high
16	Monarchak GTG	15-04-2023 11:11	12-04-2023 19:53	Rotor Earth fault

Such frequent tripping leads to instability in the system. Due to frequent tripping of the aforementioned units, overloading of 132 kV SurajmaniNagar (TE) – SurajmaniNagar (ISTS) was observed in many instances which in turn led to restriction of Bangladesh (Comilla) load.

The tripping of aforementioned units along with outage of 132 kV Agartala – RC Nagar I has led to vulnerability in Tripura system. Moreover, in one instance Planned Shutdown of 132 kV Surajmani Nagar (TS) – Surajmani Nagar (ISTS) was also cancelled in view of grid security.

TSECL & NEEPCO are requested to look into the matter and rectify issues related to aforementioned units and line.

Members may please discuss

C.4. Outage of Important 400 kV bays at OTPC:

- a. 400 kV GT-1 & Silchar 1 Tie Bay at OTPC is under outage from 31/12/2022.
- b. 400 kV GT-2 & 400/132 kV ICT 2 Tie Bay at OTPC is under outage from 10/02/2023

Palatana is requested to furnish the timeline for restoration of the above-mentioned bays for maintaining reliability and security in NER Grid and expedite the same for meeting the increased power demand smoothly in the upcoming months ahead.

Members may please discuss.

C.5. Multiple tripping in Along-Daporijo-Pasighat Corridor of Arunachal Pradesh:

Table underneath shows the list of trippings in the aforementioned corridor:

SL No.	Element Name	Tripping Date & Time	Relay Indication Main(S)	Relay Indication Main(R)
1	132 kV Along - Pasighat Line	26-03-2023 14:43	No Tripping	No indication
2	132 kV Along - Daporijo Line	01-04-2023 17:45	No Tripping	Zone-2, 68.9Km, BY-Phase
3	132 kV Along - Pasighat Line	02-04-2023 17:35	Earth Fault	No Tripping
4	132 kV Roing - Pasighat Line	10-04-2023 21:45	No Tripping	DP, ZI, B-E, FD:50.2 km
5	132 kV Along - Daporijo Line	14-04-2023 10:10	DP, Y-E	DP, ZI, Y-E, FD: 07 kms
6	132 kV Along - Daporijo Line	14-04-2023 20:36	No Tripping	DP, ZI, R-E, FD:1.9 kms
7	132 kV Daporijo - Ziro Line	16-04-2023 15:39	DP, ZI, B-E, 18.58 Kms	No Tripping

Multiple trippings such as the ones shown above has led to poor reliability of power in the radial links of Daporijo-Along-Pasighat-Roing-Tezu-Namsai areas of Arunachal Pradesh.

DoP, AP and NERTS are therefore requested to look into the matter at the earliest to prevent such occurrences in the near future.

Members may please discuss.

C.6. Regarding unprotected feeder at Rokhia Substation:

Multiple disturbances affecting Rokhia&Monarchak generating station from 2020 onwards till now are due to the unprotected feeder at Rokhia Substation. Due to non-availability of protection and switchgear, any fault in the above section leads to

clearing of fault from Agartala & Monarchak which may lead to Blackout of entire Rokhia Plant. As per 55th PCC meeting held in Nov 2020, it was suggested to install circuit breakers at both ends of link feeder along with line differential protection at Rokhia.

As per the minutes of special review meeting for various works in Tripura System held on 19th May'22, DGM, TPGL informed that 4 panels and two CBs procurement for both ends of link feeder is under tendering stage with target completion by Sep'22 and proposal for LDP for the link feeder has been put up for approval. Also, GM, TSECL intimated that it shall be combined alongwith other short lines and DPR shall be prepared shortly.

TSECL to share the updated status for CB procurement and installation of LDP in the link feeder.

Members may please discuss.

C.7. Ensuring Cyber Security Compliance during First Time Charging:

It is seen that many cyber vulnerabilities and non-compliance of Cyber Security measures have been observed in the past causing threat to the security of the Grid.

In line with the CEA (Cyber Security in Power Sector) Guidelines, 2021, undertaking pertaining to compliance related to Cyber Security requirement has been incorporated in the FTC procedure. NERLDC vide email dated 10.04.23 requested all the utilities to adhere to and submit the undertaking to NERLDC prior to first time charging of new elements.

First Time Charging Clearance from NERLDC shall be issued only after receipt of the same.

Members may please discuss.

C.8. Long Outage of 400/220 kV ICT-1 at Byrnihat S/S:

400/220 kV 315 MVA ICT-1 at Byrnihat is under outage since 13:32 Hrs of 02-02-2023 due to SF6 gas leakage in Y-phase line chamber on HV side of said ICT. The Outage of said ICT has decreased reliability of Meghalaya system considerably.

MePTCL is thereby requested to furnish the timeline for restoration of the aforementioned ICT for maintaining reliability and security of Meghalaya system and expedite the same for meeting the increased power demand smoothly in the upcoming months ahead.

Members may please discuss.

Agenda from NERTS

C.9. Upgradation of 132kV Badarpur & 132kV Khlerihat (PG) substations from single main and transfer bus scheme to double main bus scheme by converting from AIS to GIS

Upgradation of 132kV Badarpur & 132kV Khlerihat (POWERGRID) Substations from single main and transfer bus scheme to double main bus scheme by converting from AIS to GIS was approved in 23rd NERPC meeting.

Subsequently agenda was discussed in 16th CMETS of NER wherein the project was approved in NERES XXI with Badarpur & Khlerihat (POWERGRID) S/s as Double Bus GIS.

In this regard, it is to mention here that at 132KV Khlerihat (POWERGRID) Sub Station, the ownership of 132kV Khliehriat (MeECL) # 2 Bay of 132kV Khliehriat (POWERGRID) – Khliehriat (State) # 2 Line lies with MeECL.

As the complete Khlerihat (POWERGRID) Station is to be upgraded to GIS, hence, 132kV Khliehriat (MeECL) # 2 Bay also need to be converted to GIS. Modalities in this regard viz. under ISTS or by MeECL may be deliberated.

Members may please discuss.

C.10. Replacement 400kV & 220kV Circuit Breakers at Misa, Balipara & Bongaigaon S/s in various Transmission System Project under O&M Add cap 2019-24.

Certain elements of 400kV Substations Misa, Balipara & Bongaigaon Substations under Ranganadi Balipara Transmission Line, Kathalguri Transmission Line Project and Doyang Transmission Line Project has already completed 25 Years. Under the said projects the elements were commissioned during the period from 1994 to 1998.

The Circuit Breakers installed in the said stations under DTLP, KTLP & RBTL are of pneumatic operating mechanism which has already become obsolete technology. Presently, the CBs are suffering from wear & tear of operating mechanism / Air compressor etc. This is causing frequent air leakages in Operating Mechanism / Air compressor system etc. for which, forced outage of the CBs are to be taken to attend the trouble. Sometimes, Circuit Breakers are going in lockout also which causes element outage in the process of ratification work. Such situation is detrimental to RELIABLE GRID OPERATION.

Though preventive measures are being adopted regularly like overhauling of operating mechanism / compressor etc. to address such trouble, it has become difficult to ensure reliable availability of the CBs in the system. The detail of such circuit Breakers is as given below: -

Station name	Transmission System	No. of Circuit Breakers	
		220kV	400kV
Balipara	Ranganadi Balipara Transmission Line		02
	Kathalguri Transmission Line Project	04	11
Bongaigaon	Kathalguri Transmission Line Project		03
Misa	Kathalguri Transmission Line Project	01	06
	Doyang Transmission Line Project	03	

It is pertinent to mention here that these CBs have already complete 25 Years of age and become due for replacement under O&M Add Cap. in Tariff Block 2019-24. But, since the trouble observed in recent past the proposal for replacement was not placed earlier in Tariff Block 2019-24 and instead, planned in Tariff Block 2024-29.

Hence, considering the above fact, it is proposed to replace the CBs under O&M Add Cap 2019-24 immediately to overcome the above issues. The approximate cost estimate for the project works out to be INR 13.13 Cr. Including dismantling and spare cost / taxes also. Project wise break up is as given below: -

Sr. No.	Transmission System	Estimate Expenditure (in INR Lakhs)
1.	Ranganadi Balipara Transmission Line	64.28
2.	Kathalguri Transmission Line Project	1165.62
3.	Doyang Transmission Line Project	83.62

	Total	1312.84
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Members may please discuss.

D. ITEMS FOR STATUS

D.1. Implementation of projects funded from PSDF:

The status as informed in 200th OCCM:

State	R&U scheme	ADMS	Capacitor Installation	SAMAST**	Line Differential Protection
Ar. Pradesh	Package-I (Diagnostic tools) Complete in all respects. P-II (for PLCC & communication) Supply completed. Erection WIP. 50% requisition submitted. P-III (Substation equipment) Agreement signed and 10% requisition submitted. Total 90% requisition by Apr'22. Completion by Dec'22. (Approval from TSA and Account opening in 3 months)	Project completed in all respects.	-	30% requisition submitted. Amount not received in the TSA account.	-
Nagaland	Completed in all respects.	Work completed in all respects. UC submitted	-	30% requisition submitted	Lines identified. Under DPR preparation stage.
Mizoram	Final 10% disbursed. UC to be submitted.	Work completed in all respects. Remaining part of final 10% to be disbursed ASAP.	To reply to TESSG queries.	30% requisition submitted.	Revised DPR including both 132kV Aizawl-Luangmualan d 132kV Khamzawl-Khawiva to be submitted.
Manipur	Package-II: completed Package-I: all stations complete except Ningthoukhong. By May'22.	Work completed in all respects. UC submitted in Oct'21.	WIP.	10% disbursed for IT portion, no disbursement for Meter, AMR portion. 20% disbursement	Revised DPR for LDP of 132kV Imphal-Yurembam-III to be submitted by June'22.

				for IT portion after completion of 3 rd milestone. 30% to be disbursed for Meter, AMR portion	
	33kV System Integration with SLDC	In tendering stage			
	Reliable Communications for grid connectivity	In tendering stage			
Tripura	Completed. Final UC submitted on 04 th May'22.	Final 10% requisition submitted.	Not relevant in present scenario with commissioning of ISTS lines. Issue dropped	10% successfully disbursed. 20% fund reversed back from vendor account. Will be resolved soon.	For 132kv 79Tilla-Budhjungnagar line and for Rokhia link LDP at own cost. Tendering undergoing. DPR preparation for rest of the lines
Assam	Work completed except CRP, SAS work in 8 stations which have been retendered and awarded to M/s SIEMENS. Completion by Dec'22	Project completed in all respects.	-	30% funds yet to be fully disbursed. 60% requisition sent.	Lines identified. Under DPR preparation stage.
Meghalaya	MePTCL – completed in all respects. MePGCL – Completed in all respects.	Project completed in all respects.	-	90% works completed. Communication pending.	All works except OPGW done

D.2. Status update of important grid elements under prolonged outage impacting system operation:

Sl. No	Element	Owner	Status as informed in the 200 th OCCM	Latest Status
1	132kV Mariani – Mokokchung (out since April'2008)	AEGCL	Non clearance due to persisting funding issue	
2	132kV Roing-Pasighat (charged through ERS tower)	NERTS	1 st tower by April'23 while 2 nd tower requires tendering, tentative completion by June'23	
3	220kV Misa-Kopili D/C, 220/132kV ICTs at Kopili, 132kV Khandong –Kopili D/C(out since Oct'19)	NEEPCO/ NERTS	Refer to item B.8	
4	132kV Srikona – Panchgram	AEGCL	LOA issued on 18.02.2023, Work in progress, tentative completion within 8 months	
5	400kV Imphal – Thoubal-I and 315MVA 400/132kV ICT at Thoubal	MSPCL	RoW, litigation pending in court.	
6	63MVAR Bus Reactor at Byrnihat to be replaced with 80MVAR Reactor	MePTCL	Coordination issues with the vendor. WIP	
7	LR2- BNC at Balipara ss (50MVAR, 400kV)	PGCIL	Replacement with spare LR, tentatively by the end of March'23	

D.3. Status of commissioning for upcoming projects:

Sl. No	Name of the element	Utility	Status as informed in 200 th OCC meeting	Latest Status
1	132kV Monarchak-Surjamaninagar	TSECL	July'23	
2	PLCC for 132kV Loktak-Ningthoukong and 132kV Loktak-Rengpang(existing lines)	MSPCL	Under R&M by NHPC. July'23	
3	Commissioning of 220kV Balipara-Sonabil-2ckt 2	AEGCL	Auto-recloser integration work is pending at Sonabil end. Assam shall coordinate regarding	

			SIO clearance for portion of the line owned by AEGCL. Forum advised NERTS to apply for FTC for the whole line to NERLDC.	
4	Upgradation of 132kV Lumshnong – Panchgram line	MePTCL	Work has started, tentative completion by June'23	
5	PLCC for 132kV Karong-Kohima. PLCC at Kohima	DoP Nagaland	Awaiting sanction from PSDF	
6	132kV Loktak-Ningthoukhong-II	MSPCL		
7	132kV Roing-Chapakhowa	NERTS	2 foundation pending owing to RoW issues. Vegetation clearance in forest area started, stringing will be completed in 15days.	
8	Re-conductoring 220kV BTPS-Salakati D/C	NERTS	Ckt 2 reconducted and ckt 1 reconductoring underway	
9	420kV 80MVAR Bus Reactor	NEEPCO	Transportation and logistics issue, by Dec'23	
10	220kV Killing – Mawngap	NERPSIP	April'23 subject to resolution of long pending RoWs in Ri-Bhoi and East Khasi Hills district.	
11	220kV Samaguri – Mariani-I	AEGCL	FC for Samaguri-Khumtai section is still awaited.	
12	PLCC/DTPC for 220kV Balipara- Sonabil	AEGCL	WIP to be completed by April'23	
13	220kV AGBPP –Namsai D/C	TBCB	Tentative completion by Oct'25	
14	Upgradation of 132kV Surjamaninagar-Surjamaninagar(ISTS), 132kV Bodhjungnagar-SMNagar, 132kV P.K.Bari-Ambassa, 132kV P.K. Bari-P.K.Bari(ISTS)	TSECL	New tender has been floated for joint venture of PGCIL and STU.	

15	LILO of 132kV Leshka-Khliehriat-I at Mynkre and Mynkre SS and 33kV downstream at Mynkre.	NERPSIP	LILO ready. Substation WIP-April'23.	
16	220kV Tinsukia-Behiating D/C	NERPSIP	WIP-March'23	
17	LILO of 132kV Kamalpur-Kamakhyas& 132kV Kamalpur-Sishugram at Amingaon	NERPSIP	Completed. Ready for charging.	
18	220kV Rangia – Amingaon D/C and 220/132kV 2x160MVA Amingaon S/S	NERPSIP	March'23	
19	132kV Rengpang-Tamenglong and 132/33kV 4x6.67MVA at Tamenglong at Manipur	NERPSIP	March'23	
20	132/33kV 2x20MVA Gamphazol at Manipur	NERPSIP	Test charged in Dec'22	
21	132/33kV West Phaileng S/S at Mizoram	NERPSIP	Ready for charging. Line WIP.	
22	132/33kV 2x12.5MVA Marpara S/S at Mizoram	NERPSIP	March'23	
23	132/33kV 2x12.5MVA Lungsens S/S at Mizoram	NERPSIP	March'23	
24	132kV Lungsens-Chawngte S/C at Mizoram	NERPSIP	Ready for charging.	
25	132kV Chawngte – S.Bungtlang S/S at Mizoram	NERPSIP	March'23	
26	132kV W.Phaileng-Marpara S/C at Mizoram	NERPSIP	March'23 subject to RoW clearance in Pukzing village in Manit district.	
27	220kV Zhadima – Mokokchung at Nagaland	NERPSIP	March'23	
28	LILO of 132kV Wokha – Kohima at 132/33kV New Kohima at Nagaland	NERPSIP	Ready for charging.	
29	132kV Wokha-Zunheboto – Mokokchung at Nagaland	NERPSIP	March'23	

30	132kV Tuengsang – Longleng at Nagaland	NERPSIP	Tuengsang substation upgradation under tendering.	
31	132/33kV Amarpur S/S at Tripura	NERPSIP	March'23	
32	132/33kV Manu(new) S/S at Tripura	NERPSIP	March'23	
33	132kV Dharmanagar-Kailashor	NERPSIP	March'23	
34	132kV Ziro-Yazali and 132/33kV Yazali S/S	POWERGRID-Comprehensive	March'23	
35	132kV Yazali – Palin and 132/33kV Palin S/S	POWERGRID - Comprehensive	No forest clearance achieved. Work under process. Estimated to be completed in 12 months.	
36	132kV Palin- Koloriang and 132/33kV Koloriang S/S	POWERGRID - Comprehensive	No forest clearance achieved. Work under process. Estimated to be completed in 12 months.	
37	132kV Khonsa – Deomali and 132/33kV Khonsa S/S	POWERGRID - Comprehensive	Khonsa substation completed.	
38	132kV Miao – Namsai and 132/33kV Miao S/S	POWERGRID - Comprehensive	Next year i.e 2024	
39	132kV Chimpu – Holongi and 132/33kV Holongi S/S	POWERGRID - Comprehensive	Ready for charging	
40	Lower Subansiri HEP	NHPC	Unit 1 and 2 by June'23	
41	400kV Lower Subansiri-BNC line2	PGCIL	June'23	
42	Conversion of MT to DM at (i)132kV Khliehriat, (ii)132kV Badarpur, (iii)132kV Nirjuli, (iv) 132kV Imphal	NERTS	Nirjuli- March'23 Imphal- April'23 Badarpur &Khliehriat - In tendering stage	
43	Construction of Pare-N.Lakhimpur DC along with LIO at Nirjuli	Sterlite (TBCB)	WIP, shutdown taken	
44	LIO of BNC-Chimpuckt II at Gohpur	Indigrid	Technical work completed. Signing of supplementary-connection agreement remaining	

45	220kV New Shillong-NangalBibra(ISTS 220/132kV) TL	MEPTCL	Survey completed, tendering to start soon	
46	400kV Bongaigaon-Nangalbibra (ISTS) DC (to be charged at 220kV initially)	Sterlite	By Dec'23	

D.4. Status of ISTS expansion scheme in NER:

A. Status of downstream 220kV or 132kV network by STUs from the various commissioned and under-construction ISTS substations in NER

Sl.	ISTS S/s	State	Voltage ratio, Trans. Cap	Down- stream Voltage level (kV)	Unutilized bays	Status of ISTS bay	STU Lines for unutilized bays	Status of Lines(as updated in 200 th OCCM)	
								Date of Award	Completion schedule
1	New Mariani (POWERGRID)	Assam	400/220kV, 2x500MVA	220	2	Commissioned	New Mariani (POWERGRID) – Diphu (Assam) 220kV D/c line	Preliminary survey completed	By Jan'25
2	New Kohima (TBCB)	Nagaland	400/220kV, 2x500MVA	220	2	Commissioned	New Kohima (TBCB) – New Kohima (Nagaland) 220kV D/c line	LoA Feb'2021	Line stringing completed, PLCC works to be completed by Feb'23. For OPGW, PGCIL is requested to Install it.
3	Nangalbibra (TBCB)	Meghalaya	220/132kV, 2x160MVA	132	2	Under construction (Dec'23)	Nangalbibra (ISTS) – Nangalbibra (MePTCL) 132kV D/c (HTLS,800A) Line:about 5km	DPR prepared and survey completed. Approval awaited.	Dec'23

B. Status of 400kV substations and other important elements being implemented by STUs in NER under intra-state schemes to be connected through ISTS

Sl. No.	Substation/Location	Transformation Capacity/Element	Date of Award	Completion Schedule
A	Assam (to be implemented by AEGCL)			
I	Rangia	400/220kV, 2x500MVA	1. EPC Contract Award is Tentatively scheduled in the early half of Dec'2022. 2. Master Plan submitted for approval. 3. Tender under preparation 4. AIB points to be addressed	Dec'2025
a)	LILO of both circuits of Bongaigaon – Balipara 400kV D/c line at Rangia	400 kV, D/C	1. EPC Contract Award is expected by Dec'2022. 2. Tender preparation is completed and is to be reviewed by AIIB	Mar'26 (36 months form date of Award)
II	Khumtai	400/220/132kV, 2x500MVA + 2x160MVA	Survey work to be completed by June'2022. EPC tender to be floated on finalization of fund allotment. 220kV work will be constructed under ongoing AIIB scheme for which contract has already been award to M/S RS infra-PVT tech ltd.	May'2026
a)	Khumtai (AEGCL) – BiswanathChariyali (PG) 400kV D/c line	400kV D/c	Survey work completion by July'22, tender floating after finalization of fund allocation.	220kV LILO part 60% complete. 400kV line by May'2026
III	Upgradation of Gohpur S/s from AIS to GIS	-	1. Notice of Award has been issued on 8 th June 2022 to M/S Sumaja Electro infra-Pvt ltd.	June'2025
a)	2 no. 132kV GIS line bays at Gohpur for termination of LILO of one circuit of BiswanathChariali – Itanagar 132kV D/c line (line works under ISTS through TBCB route)	132kV	1. LoA by Jun'22	June'2025

IV	Upgradation of Sonapur S/s from AIS to GIS	-	1. Contract to be awarded by Jun'23. LoA by Jun'23	June'2026
a)	LILO of 400kV Silchar-Byrnihat at Sonapur	-	1. LoA by Jun'23	June'2026

Sl. No.	Substation/Location	Transformation Capacity/Element	Date of Award	Completion Schedule
B	Tripura (to be implemented by TSECL)			
I	Surajmaninagar (TSECL)	400/132kV, 2x315MVA	JV formation, between PGCIL and STU by Mar'23	12 months from Date of Award
a)	LILO of both circuits of Surajmaninagar (ISTS) – Palatana 400kV D/c line at Surajmaninagar (TSECL) S/s	400kV D/c	All works except 400kV termination at Surajmaninagar (TSECL) by POWERGRID to be done. Balance works under separate contract.	LILO completed for 400kV ckt 2 (by PGCIL) without bay readiness, LILO to be charged, total completion subjected to Sub-station readiness at Surajmaninagar
C	NEEPCO (to be implemented by NEEPCO)			
I	Extension works at Ranganadi HEP end			
a)	420kV 80MVAR Bus Reactor at Ranganadi Generation Switchyard		LOA on 11.01.2022	Dec'23 (Logistics and Transportation issue)
II	Extension works at Pare HEP end			
a)	Bypassing of LILO of Ranganadi - Naharlagun / Nirjuli at Pare HEP so as to form direct Ranganadi-Naharlagun / Nirjuli 132 kV S/c line	132kV	Regarding bypassing of LILO at (a), work has been awarded in Dec, work to be completed in 4 months from LoA, The LILO portion is about 2.2km & the cost	To be completed by NEEPCO by April 2023 i.e. prior to ISTS works i.e. July 2023.

b)	Re-conductoring of LILO portion at Pare end (of Ranganadi - Naharlagun / Nirjuli 132kV S/c line) with HTLS (HTLS equivalent to ACSR Zebra) along with modification of 132kV bay equipment at Pare HEP	132kV	estimates have been received by NEEPCO. Upon approval of the same, work shall be awarded. Expected to be awarded shortly.	
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D.5. Status Review for the Items Referred from previous OCCMs:

SL. No.	Item for Discussion	Status as per 200 th OCCM	Latest Status
1.	Introduction of SPS in Leshka S/Sn of Meghalaya (Agenda No. C4 of 189 th OCCM)	Communication with M/s Hitachi underway	
2.	Voltage and MVAR issues at 400kV Kameng S/Sn (Agenda No. C7 of 189 th OCCM)	Discussion with OEM M/s BHEL is underway	
3.	Difficulty in test synchronization at Ningthoukhong S/Sn (installation of line CVT) (Agenda No. C11. of 189 th OCCM)		
4.	Outage of 400kV Imphal (PG) – Thoubal-I (Agenda B.15 of 184 th OCCM)	RoW, litigation pending in court	
5.	Charging of 33kV Khupi-Kimi line at 132kV: Recommendations of the 187 th OCCM to be implemented: (a) Installation & Commissioning of PLCC and additional Wave Trap with accessories at Khupi (NEEPCO) - By Mar'22 Minutes of 188 th OCC meeting held on 16 th March, 2022 at Guwahati (b) Defective Relays at Khupi end to be repaired (NEEPCO) – By Mar'22 (c) PID testing and replacement of defective insulators (NEEPCO) – By Mar'22	NEEPCO work done, Only OPGW stringing by Comprehensive to be completed by 15 th April	

Agenda for 201st OCC Meeting to be held on 25th April, 2023

	(d) Infringement checking and vegetation clearance (NEEPCO) – By Mar’22 (e) Stringing of OPGW by POWERGRID Comprehensive – By Mar’22 (f) Procurement and installation of Line Differential Relays (NEEPCO) – By Mar’22 (Agenda B.15 of 188 th OCCM)		
6.	Synchronization issue of 220kv AGBPP – Tinsukia 1 & 2 at AGBPP end. (NEEPCO to update the status of CVT procurement and other relevant details.) Item B.24 of 190 th OCCM.	Tender floated in the month of August’2022.	
7.	Grid Disturbance in Dhaligaon area of Assam Power System (C.18 of 191 st OCCM)	Revised estimate submitted to Disaster Risk reduction Works, 2022-2023, yet to be approved	
8.	Tower schedule of 220 KV D/C Transmission line (from Zhadima 400/220 KV GIS Substation to Zhadima 220 KV Substation) (B.18 OF 194 TH OCC)	Will be provided before OPGW installation in N Kohima -Zhadima Line.	
9.	Occurrence of Multiple grid disturbance in Gohpur and radially connected areas of Assam Power System (C.10 of 194 th OCC)	SEMmeters provided by PGCIL, both lines bays commissioned from AEGCL end. AeGCL scope of work done, Sterlite scope of work remaining	
10.	Status of Installation of TLISA in 400kV Silchar-Azara T/L & 400 kV Silchar-Byrnihat T/L (C.12 of 194 th OCCM)	LoA placed, expected completion of the delivery by June’23	
11.	PLCC & protection related issues at 132kV Tipaimukh S/s (C.15 of 194 th OCC) & (C.8 of 197 th OCC)	PLCC engineer to visit the SS. (MSPCL)	
12.	48V System reliability at Pasighat end (C.16 of 194 th OCC)	April’23	
13.	Construction of Anchor tower at location 433 by PGCIL and reconductoring of 220kV Mariani-Mariani SC with Moose conductors(B.16 of 196 th OCCM)	Shutdown taken, WIP	
14.	Early Restoration of Y-pole Circuit Breaker at AGTCCPP for 132 kV	CB spares to be supplied by April’23	

Agenda for 201st OCC Meeting to be held on 25th April, 2023

	Agartala I Line (Agenda C.11 of 198th OCCM)		
15.	Commissioning of 400kV Bus-B at Ranganadi Power Station (C.14 of 192nd OCCM)	In 193rd OCCM, forum requested NEEPCO to put forth agenda for upgradation of 400 kV switchyard to GIS and implementation of 400 kV Bus-B together. Status of the same may be provided by NEEPCO	
16.	Implementation of Bus Bar Protection at 132 kV Kahilipara (AEGCL) Substation (C.8 of 196th OCCM)	AEGCL to update	
17.	Furnishing of data as per Detailed Procedure on interim methodology for estimation of Reserves under CERC (Ancillary Services) Regulations, 2022 (item C.4 of 198th OCCM)	NERLDC thanked SLDC Nagaland for furnishing the data for estimation of reserves. Other NER states assured to provide the data at the earliest. NERLDC mentioned that the states may contact Manager NERLDC for clarifications (if any).	
18.	TLSA installation on 132kV Leshka-Khleihriat DC	DPR prepared, to be submitted by MEPTCL, for PSDF sanction	
19.	Long Outage of 132KV Agartala-RC Nagar-1 since 18.12.2022 due to severe SF6 leakage from CB at RC Nagar end (C.11 of 200th OCCM)	GM, NEEPCO intimated the forum that the OEM, M/s Hitachi has been communicated for procurement of CB spares and it will be supplied by the end of April, 2023.	

E. METERING ITEMS

E.1. Issues regarding SEM Data Processing:

a. Non-receipt of SEM data from 132 kV Pailapool Substation:

Weekly SEM data of 132 kV Pailapool (As) Substation is important for accounting of Assam drawal. However, SEM data from the said substation is not being received.

In 200th OCCM, SLDC AEGCL stated that laptop has been procured and DCD issue rectification is underway.

Status may be reviewed.

b. Non-receipt of SEM data from 132 kV Rengpang (Man) Substation:

Weekly SEM data of 132 kV Rengpang (Man) Substation is important for accounting of Manipur drawal. However, SEM data from the said substation is not being received. Issue with CMRI has been reported by the concerned substation.

Status may be reviewed.

E.2. High Time Drifted SEMs:

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 the same.

Time drift of more than 4 mins observed in the following meters.

S.No	ENTITY	FEEDER NAME	METER NO	TIME DRIFT
1	ASSAM	220 kV TINSUKIA END OF KTG FDR-I	NP-9654-A	Time drift display not functional
2	ASSAM	220 kV TINSUKIA END OF KATHALGURI FDR-II	NP-9658-A	16 mins
3	ASSAM	132 kV UMRANGSOO END OF KHLEIRIAT (PG)	NP-5290-A	16 mins
4	ASSAM	132 kV UMRANGSOO END OF HAFLONG	NE-0019-A	4 mins
5	MIZORAM	132 kV KOLASIB END OF AIZAWL(PG) FDR	NE-0087-A	8 mins
6	POWERGRID	400/132 kV SILCHAR ICT-3 (HV SIDE)	NP-6946-A	33 mins
7	POWERGRID	400 kV BONGAIGAON END OF NTPC_BgTPP-2	NP-9477-A	7 mins

In 200th OCCM, forum advised the utilities to correct the time drift through DCDs wherever possible and replace the SEMs if correction through DCD is not possible.

It is also requested to update status of replacement of SEM for SL. No. 6

Status may be reviewed.

E.3. Non-receipt of Quarterly RPO Compliance details from Arunachal Pradesh & Tripura:

As per MoP RPO Order vide 29th January 2021, POSOCO will maintain data related to compliance of RPOs. In line to that necessary communication had been sent to all SLDCs and we are receiving data on regular basis from all SLDCs except SLDC, Arunachal Pradesh & SLDC, Tripura.

In 199th OCCM, DoP Ar. Pradesh and SLDC Tripura assured the forum that they will start providing the required data regularly to NERLDC. However, data from DoP, Ar. Pradesh is yet to be received by NERLDC and data that has been received from SLDC Tripura is not in accordance with MoP order.

Status may be reviewed.

E.4. Procurement of SEMs for future requirements:

100 no. of SEMs may be procured to take care of future requirement and to maintain spares. Estimation of the requirements is given below:

A. As per record received from CTU (upto schemes approved in 17th CMETS-NER)

Sl. No.	Name of Elements	SEMs reqd.
1	400 kV LOWER SUBANSIRI – BNC 2 x D/C	6
2	132 kV ROING (PG) – CHAPAKHOWA D/C	4
3	400 kV BONGAIGAON (PG) – NANGALBIBRA D/C (initially operated at 220kV)	4
4	132 kV HATSINGHMARI (ASM) – AMPATI (MEG) D/C	4
5	2x160MVA ICTs at 220 kV NAMSAI (PG) SS	4
6	220 kV AGBPP - NAMSAI (PG) D/C	6
7	400/220kV, 2x500MVA ICTs at 400/220/132kV GOGAMUKH	4
8	220/132kV, 2x200MVA ICTs at 400/220/132kV GOGAMUKH	4
9	LILLO of one D/C of 400 kV LOWER SUBANSIRI – BNC 2x D/C at GOGAMUKH	4

Agenda for 201st OCC Meeting to be held on 25th April, 2023

11	132kV GOGAMUKH – GERUKAMUKH (A.P) D/C	4
13	400 kV DIBANG (NHPC) – GOGAMUKH 2xD/C (Quad)	12
14	400 kV GOGAMUKH - BNC D/C	4

Total 60

B. As per Ongoing discussions in OCC Forum

Sl. No.	Name of Elements	SEMs reqd.
1	LOWER SUBANSIRI UNITS & SATs & 132 kV FEEDERS	16
2	Restoration of KHANDONG & KOPILI HEP	23

Total 39

C. As per Minutes of Transmission Planning (NERPC-TP/ NERSCT/ SCSP-NER)

Sl. No.	Name of Elements	SEMs reqd.
1	220 KV NEW KOHIMA - KOHIMA D/C	4
2	220 KV ALIPURDUAR - GOSSAIGAON D/C	2
3	220 KV SALAKATI - GOSSAIGAON D/C	2
4	220 KV DHALIGAON - RANGIA D/C	2
5	220 KV DHALIGAON - SALAKATI D/C	2
6	132 KV RANGIA (ISTS)- RANGIA (ASM) D/C	4
7	132 KV RANGIA (ISTS)- AMINGAON (ASM) D/C	4
8	2x500 MVA 400/220 kV ICTs at RANGIA (ISTS)	4
9	400 KV BALIPARA- RANGIA (ISTS) D/C	2
10	400 KV BONGAIGAON - RANGIA (ISTS) D/C	2
11	400 KV SONAPUR - SILCHAR	2
12	400 KV SONAPUR - KILLING	2
13	400 NEW SHILLONG TOWNSHIP - AZARA	2
14	400 NEW SHILLONG TOWNSHIP - SILCHAR	2
15	220 KV MISA - SHANKARDEB NAGAR D/C	4
16	765 KV KATIHAR - PARBOTIPUR - BORNAGAR D/C	2
17	400 KV ALIPURDUAR - BORNAGAR D/C	2
18	400 KV BONGAIGAON - BORNAGAR D/C	2
19	400 KV BALIPARA- BORNAGAR D/C	2
20	220 KV ALIPURDUAR- AGAMONI D/C	2
21	220 KV BONGAIGAON- AGAMONI D/C	2
22	132 KV KAHILIPARA - KILLING D/C	2
23	400 KV BNC- KHUMTAI D/C	4
24	220 KV NEW MARIANI - DIPHU D/C	4
25	220 KV NANGALBIBRA (ISTS) - NEW SHILLONG D/C	4

Total 66

Total SEM estimated	165
Spare estimation	15
Total SEM required	180
Availability at Storage	80 (appx)
Total SEM to be Procured	100

Annexure B.19

File no. CEA-PL-11/37/1/2018-IRP Division

/121-125

**Government of India
Ministry of Power
Central Electricity Authority**

Sewa Bhawan, RK Puram,
New Delhi, 17th March, 2023

To,

Member Secretaries (All RPCs), CEA

Sub: - Requirement of data from States for implementation of Resource Adequacy Framework- Reg.

Sir,

Ministry of Power has notified the Electricity (Amendment) Rules, 2022, which inter alia, aims to implement Resource Adequacy (RA) Framework to ensure reliable supply of Electricity to the consumers across a broad range of system operating conditions.

As per Rule 16 (i) of the Electricity (Amendment) Rules, 2022 CEA has to issue guidelines for assessment of resource adequacy during the generational and operational planning stages. Accordingly, CEA has prepared draft Resource Adequacy Guidelines, which are currently in approval stage at Ministry of Power. As per the draft Resource Adequacy Guidelines published in September 2022, Central Electricity Authority is supposed to prepare Long Term-National Resource Adequacy Plan (LT-NRAP). For preparing the LT-NRAP State-wise information viz. Demand, Installed Capacity, Generation (both RE and conventional), financial data etc. (As per the attached format) may be required. We have already requested states to furnish the data in the attached format vide email dated 15.03.2022.

In view of the above, it is kindly requested to coordinate with States of your respective regions for timely collection of data pertaining to Resource Adequacy studies.

Yours Sincerely,



(Ammi Ruhama Toppo)

Chief Engineer (IRP)

Enclosure: Data format