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Agenda for 204th OCCM

Azadi Ka Amrit Mahotsav

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

North Eastern Regional Power Committee

Agenda for the

204th Operation Coordination Sub-Committee Meeting

Time of meeting : 10:30 Hrs.

Date of meeting : 18-07-2023 (Tuesday)

Venue : "Hotel Royale de' Casa, Guwahati"

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 203rd MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 203rd meeting of Operation Sub-Committee held on 15th June 2023 at Hotel Royale de' Casa, Guwahati was circulated vide letter No. NERPC/SE (O)/OCC/2021/245-287 dated 26th June 2023.

Following comment(s)/observation(s) were received from the constituents-

Agenda item	Utility	Originally recorded in the Minute	Comments
D.5.15 Furnishing of data as per Detailed Procedure on interim methodology for estimation of Reserves under CERC (Ancillary Services) Regulations, 2022(item C.4 pf 198th OCCM)	SLDC Meghalaya	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).	SLDC Meghalaya informed that Meghalaya has also sent the requested data on 2nd March 2023.

The Sub-committee may confirm the minutes of 203rd OCCM of NERPC with above modification/observation.

B. FOLLOW UP AGENDA ITEMS

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

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

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 14/06/2023)	MU content	Present DC (In MU)	No of days as per current generation
Khandong	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	**306.80**	**1**	**0.14**	**20**
Loktak	**766.47**	**8**	**0.018**	**62**

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.

Sub-committee may deliberate

B.3. Outage Planning Transmission elements

It was agreed in the 99thOCC 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.

Sub-committee may deliberate

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

Transmission Utilities have submitted the outage data for the month of May, 2023. The attributability of outage of the said elements is being finalized by NERLDC and NERPC.

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 203rdOCCM

Plant Name	Last testing date	Due date	Schedule of Testing as per 203rdOCCM
AGBPP	……	……	after upgradation of DG under R&M*
AGTTCCPP	04.02.2023	04.08.2023	04.08.2023
RHEP	28.11.2022	28.05.2023	Completed on 30.05.2023
Pare HEP	15.02.2023	15.08.2023	15.08.2023**
Kopili HEP	10.05.2019	Under prolonged shutdown	Under prolonged shutdown
Khandong HEP	09.12.2021	Under prolonged shutdown	Under prolonged shutdown
DHEP	21.10.2022	21.04.2023	Done on 12th May 2023
Kameng HEP	……	……	***

Loktak HEP	16.12.2021	20.06.2022	NHPC will confirm the dates once the water level improves

*Regarding AGBPP, GM, NEEPCO updated that R&M of the plant has been approved and procurement process will start soon.

**Regarding Pare HEP, GM NEEPCO stated that MBS exercise is not possible in High Hydro season.

ED NERLDC informed that the concerned generating utilities need to adhere the IEGC regulation and timely conduct the MBS exercise on respective generating units.

***GM, NEEPCO stated that M/s BHEL is not responding to the repeated request for NEEPCO to resolve the MVAR settings issues of the machine.

Member Secretary, NERPC stated that a letter has been written to the OEM, M/s BHEL to expedite the process. He further stated that the contact persons' details of BHEL will be shared with NEEPCO for further follow-ups.

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
DoP Ar. 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 two substations while yet to be enabled for other three substations

As updated in previous OCC meetings:

DGM, SLDC, TSECL stated that shifting works at the Takerjhala, Bishalgarh and Badarghat substations is completed, however, some issue related to handing over etc remain to be settled. He further informed that ADMS is expected to be installed by August'23.

ED, NERLDC clarified that a report has to be generated at every SLDC when ADMS tripping condition is satisfied, irrespective of tripping of the feeders.

NERLDC informed that Assam, Meghalaya and Mizoram send ADMS reports on event basis. SLDC Nagaland mentioned that reports are being sent on monthly basis.

Further, NERLDC mentioned that during the low frequency event on 15-05-2023 when all India grid frequency touched 49.40 Hz, ADMS operation was expected only from Tripura as among all states of NER only Tripura was overdrawing during the aforementioned event. But as the ADMS is not fully operational in Tripura, the same did not operate. SLDC Tripura mentioned that implementation of ADMS is underway in the state.

In 203rd OCCM, SLDC TSECL informed that ADMS at Takerjhala, Bishalgarh and Badarghat will be installed by August 2023 end or 1st week of September 2023. NERLDC stated that no report has been sent by Tripura till date.

Member secretary NERPC exhorted all the states to provide event wise as well as monthly ADMS report to NERPC and NERLDC

Sub-committee may deliberate

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

At present NERLDC is reporting 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 – Umiam1	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 Mokokchung 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 203rd OCCM, NERLDC stated that SLDC Arunachal Pradesh has not yet submitted any monthly report to NERLDC and SLDC Manipur did not submit for May'23.
Member secretary NERPC exhorted all the states to provide the TTC/ATC reports regularly to NERLDC.

Sub-committee may deliberate

B.8. Issues pertaining to Kopili, Khandong and Meghalaya power system.

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

Khandongm & Kopili Power Stations have been under forced outage due to which there have been vulnerabilities in the Meghalaya Power system. The following lines are critical for removing the vulnerabilities-

- Restoration of Misa-Kopili-Khandong link
- Reconductoring of 132kV Lumshnong-Panchgram line
- Commissioning of 220kV Mawngap-Killing line

Status may be updated

B. Restoration works at Khandong and Kopili substations

Efforts are being taken to restore the following lines on permanent basis-

- 132kV Kopili-Khandong D/C
- 220kV Misa-Kopili line
- 220/132kV ICTs at Kopili SS
- 132kV Khandong Bus A

- 132kV Khandong-KhleihriatCkt 1 bay at Khandong

It is to be noted that 132kV Khandong-KhleihriatCkt 1has been charged through Kopili 2 bay at Khandong till permanent restoration of 132kV Kopili-Khandong D/C line is done.

Status may be updated

C. Recommissioning of 4X50 MW KopiliStage-I plant (2 units)

NEEPCO is planning to re-commission and synchronize two units of Kopili (4x50MW) by July'23, for evacuation of which, either 220kV Misa-Kopili line or Kopili-Khandong D/C is required.

In previous OCC meetings following points were discussed

i) Regarding Mawngap-Killing line, NERPSIP intimated that there is some development in resolution of RoW issue at Nongpoh and erection work will be done in 1st week of June, 2023. Further, the line will be tentatively charged by 1st week of July, 2023.

ii) Regarding restoration of 132kV Khandong-Khleihriatckt 1 bay at khandong, GM, NEEPCO updated that the restoration of bay of 132kV Khandong-KhleihriatCkt 1 will take longer time (more than 1 year). Regarding restoration of Ckt 1, DGM, NERTS proposed to charge the ckt through Kopili 2 bay at Khandong substation till the permanent restoration of 132kV Kopili-Khandong D/C line is done. Forum noted that this shall improve reliability of the corridor and supply of power to Meghalaya and thus the proposal was approved till readiness of Khleihriat-1 bay at Khandong.

iii) Regarding restoration status of 132kV Kopili-Khandong D/C, DGM, NERTS updated that GIS works are underway at Kopili and SAS based panels for the lines are under procurement. He stated that the line will tentatively be charged by September 2023. He further proposed that after restoration of the Kopili-Khandong D/C, the KhliehriatKhandongckt 1, which would have been charged through Kopili 2 bay at Khandong till then, may be connected directly to Kopili-Khandongckt 2 through a bypass arrangement at Khandong S/Y using Bus A, thus making a direct Kopili- Kliehriat link. The arrangement will work till the bay restoration work at Khandong is completed by NEEPCO. NERTS opined that this arrangement will not

only avoid keeping the Khliehriat-Khandongckt 1 idle, but also provide necessary redundancy to the Meghalaya Grid.

iv) Regarding restoration of Khandong Bus A, GM, NEEPCO apprised that the restoration will take a longer time frame (more than one year) as tender has not yet been finalized. He also highlighted that till the restoration of Bus A, the whole Khandong substation will be working with singe bus only, thus redundancy at khandong station will remain compromised.

v) NERLDC and SLDC Meghalaya reiterated that Misa-Kopili-Khandong link must necessarily be revived before the onset of next winter season in Meghalaya to cater safely to the peak demand of Meghalaya.

Status as updated in the 203rd OCCM meeting-

Sl. No	***Element***	***Update provided by respective utilities in 203rd OCCM***
1	***Reconductoring of 132kV Lumshnong line (MePTCL)***	Work In Progress. MePTCL further stated that the line crosses 33/11kV distribution feeders of Assam in few spans (5Km stretch), thus shutdown of these distribution feeders is required for completing the upgradation work. However, shutdown request is pending with APDCL, thus hampering the work. The forum requested MePTCL to explore the option of cabling the spans of distribution feeders in order to avoid long outage of electricity for consumers. MePTCL assured to look into the option and finally stated that the reconductoring work will be completed by August'23 provided the requested shutdowns are granted by APDCL.
2	***Commissioning of 220kV Mawngap-Killing line (NERPSIP)***	RoW issue still persists and 5 erections, 1 foundation and 5km stringing work left. Disbursal of compensation by end of July'23.
3	***132kV Kopili-Khandong D/C***	GIS work (132kV bays) at Kopili underway, order for procuring SAS based panels to be placed soon. To be

	(NERTS)	charged by Sept'23.
4	***220kV Misa-Kopili line (NEEPCO)***	220kV switchyard at Kopili re-commissioning works under process, will be completed before the end of July'23.
5	***220/132kV ICTs at Kopili SS (NERTS)***	SAS based panels under procurement. WIP
6	***132kV Khandong Bus A (NEEPCO)***	Tender floated. Complete restoration may take more than 1 years
7	***132Kv Khleihriat Ckt 1 bay and Kopili 1 bay at Khandong (NEEPCO)***	
8.	***4X50 MW Kopili Stage-I plant (2 units) (NEEPCO)***	Recommissioning is expected by July'23

DGM, NERTS apprised the forum that Khandong-Khliehriat ckt 1 has been charged through Kopili ckt 2 bay at Khandong.

The sub-committee may deliberate.

B.9. Implementation / Review of Islanding Schemes of NER:

A. 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 those lines which are covered in the proposed Islanding scheme.

In 203rd OCCM, AEGCL updated that consultation with different vendors is going on for revising cost estimates. Member Secretary NERPC stated that a physical meeting, comprising of all stakeholders, will be held soon by NERPC.

The sub-committee may deliberate.

B. Review of Tripura Islanding Scheme-

ISLAND AT 48.80 Hz: Island comprising of generating units of AGTPP (Gas), generating units at Baramura (Gas), Rokhia (Gas) & Gumati (Hydro) and loads of Tripura system & Dullavcherra area (Assam).

[Total Generation: 300MW and load: 163MW (off-peak)-240MW (peak)]

The forum may review the status of the scheme

C. Upper Assam Island scheme I-

ISLAND AT 48.70 Hz: Island comprising of generating units of AGBPP (Gas), NTPS (Gas) & LTPS (Gas) and loads of Upper Assam system & Deomali area (Ar. Pradesh). [Total Generation: 380-420MW and load: 280MW (off peak)-357MW (peak)]

The forum may review the status of the scheme

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

Status as updated in 203rd OCCM-

Name of the state/utility	Submission of revised UFR list	Installation of UFRs and Implementation of revised settings	Status of mapping
Ar. Pradesh	Submitted	Stg-1 (49.4Hz) implementation in new feeders. UFRs have been procured and the same have reached the site. Installation to be completed by June'23	Coordination with M/S GE is ongoing. Shifting works underway. Mapping to be done after the work
Assam	Submitted	Installation Completed.	Done. NERLDC intimated that 132 kV Azara – Mirza line has been mapped in UFR SCADA display by Assam in place of 33kV Mirza feeder at Azara sub-station.
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	submitted	Completed	SCADA display has been made at SLDC but real time data is not reporting as no communication link is available for most of the substations where UFRs are installed. The SCADA display is to be shared with NERLDC.
Nagaland	Submitted	Completed, delay removed	Completed
Tripura	Submitted	Stage-1(49.4Hz), Stage-2 (49.2Hz), Stage-3(49Hz) require installation of UFR. Stg I UFR installed but physical verification is yet to be done.	Mapping by May'23 for P K Bari and Ambassa. For Badarghat(33kV SS), mapping not possible as no RTU available

In previous OCC meetings, SLDC Mizoram intimated that visibility of most of the UFR enabled feeders is not available in SLDC SCADA as no RTUs are available at 33kV substations. The forum requested Mizoram to ensure the visibility of UFR enabled feeders connected at 132kV substations, which have RTUs and communication link, in the SCADA at SDLC. Mizoram agreed.

NERPC requested all the state utilities to send monthly UFR reports to NERPC and NERLDC in compliance with IEGC regulations.

Member Secretary NERPC exhorted the States to avail PSDF funding for establishing communication links for 66kV and above substations.

In 202nd OCCM, NERPC suggested that in line with regulation 5.2.n of the IEGC 2010, inspection of UFR of the states should be carried out at the earliest in order to ensure functionality of the same. Further, he suggested that UFR inspection may be clubbed with Protection Audits to save time. The forum agreed to the suggestion.

Further, NERLDC mentioned that Assam, Nagaland and Meghalaya are providing UFR report on monthly basis. Rest of the states are required to submit as per IEGC.

The forum suggested that all SLDCs must send monthly and event basis UFR operation reports to NERLDC and NERPC.

The forum also requested Assam and Meghalaya to correct the UFR SCADA display issues at the earliest.

As per 203rd OCCM,

Regarding installation and functioning of UFRs

i) NERLDC asked Manipur to segregate the feeders identified under ADMS and UFR.

ii) The forum exhorted DoP Arunachal Pradesh to install UFR stg 1 at the earliest.

iii) Tripura assured that they shall provide the UFR installation details to NERLDC/NERPC. SCADA mapping shall be completed in 1-2 months.

iv) NERPC requested NERLDC to make priority wise schedule of UFR Audit in NER.

Regarding Mapping

i) AEGCL updated that mapping of 33kV Mirza feeder at Azara will be done within one week.

ii) NERLDC intimated that mapping issues related to stg I UFR have been completely rectified.

Member Secretary, NERPC, reiterated that all SLDCs must send monthly as well as event basis UFR operation reports to NERLDC and NERPC.

In light of the event occurred on 15th May at 11:52 hrs, the forum requested SLDCs to monitor loading on the UFR feeders and in case of large difference observed between average loading on the line and quantum that was planned for UFR scheme, provide a report to NERPC and NERLDC.

Further, NERPC requested SLDCs to calculate the expected vs actual UFR load shedding data during the low frequency event and same comparison data should be provided to NERPC and NERLDC after each event.

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 203rd OCC meeting:

Region	Station	No. of Generators	Suggested Schedule		Duration (days)
			Test Start	Test End	
NER	OTPCL-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)

i)Regarding PFR testing at Palatana, OTPC intimated that the additional software logic block has been incorporated in Unit I in the machine controller and PFR testing will be conducted for both units in July'23 after completion of Unit-2 logic incorporation.

ii)Regarding PFR testing at Doyang HEP, GM, NEEPCO intimated that the testing will be done after sufficient water level is available.

The sub-committee may deliberate.

B.12. Regular Furnishing of Patrolling Report for all Important lines

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 CEA Grid Standards Regulation,2010on 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 202nd OCCM, NERLDC informed that most of the States are regularly submitting the Patrolling report. However, few States like Arunachal Pradesh, Manipur and Mizoram are still not following the same. 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.

In 203rd OCCM, Member Secretary exhorted all state utilities to undertake regular patrolling of the lines as per existing guidelines and furnish the report to NERPC/NERLDC on monthly basis.

In light of frequent tripping of the 132kV Dimapur-Kohima line, the forum requested DoP Nagaland to carryout intense patrolling of the line and rectify the root cause so

that the line can be stabilized. DoP, Nagaland informed that vegetation clearance has been undertaken and shutdown has been planned to carry out Insulator replacement works.

Sub-committee may deliberate

B.13. Monthly Review of LGBR

PARTICULARS (Peak Demand in MW as per LGBR vs Actual)	Apr-23 (LGBR)	Apr-23 (Actual)	May-23 (LGBR)	May-23 (Actual)	June-23 (LGBR)	June-23 (Actual)
Arunachal Pradesh	153.93	154.980	153.24	165.000	164.32	155.000
Assam	1885.80	2013.100	2210.38	2219.000	2204.20	2307.000
Manipur	208.06	212.700	208.82	193.000	209.04	185.000
Meghalaya	366.18	335.859	353.29	353.000	352.26	333.000
Mizoram	122.72	126.870	121.68	122.000	121.54	125.000
Nagaland	147.66	150.100	153.70	150.000	157.50	167.000
Tripura (exc. Bangladesh)	322.32	337.500	315.12	345.000	318.24	362.000
NER DEMAND (exc. Bangladesh)	3073.35	3332	3271.14	3477	3292.76	3560

PARTICULARS (Energy Requirement in MU as per LGBR vs Actual)	Apr-23 (LGBR)	Apr-23 (Actual)	May-23 (LGBR)	May-23 (Actual)	June-23 (LGBR)	June-23 (Actual)
Arunachal Pradesh	71.30	74.28	79.10	77.13	82.40	82.68
Assam	813.63	913.960	1007.00	1028.950	1021.72	1140.970
Manipur	77.94	75.32	76.99	71.42	79.56	66.38
Meghalaya	175.14	192.69	178.75	194.55	169.95	177.68
Mizoram	53.42	49.06	55.90	50.97	53.87	44.4
Nagaland	70.83	65.83	77.28	75.45	83.43	81.52
Tripura (excl. Bangladesh)	151.41	149.91	147.37	163.74	139.36	150.13
NER DEMAND (exc. Bangladesh)	1413.67	1521.775	1622.39	1662.77	1630.29	1744.375

Sub-committee may deliberate

B.14. 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 Sarusujai 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 203rd OCCM, Regarding Triggering condition 1 (Tripping of 220kV Azara-Sarusajai DC or any one ckt), AEGCL updated that SPS has been implemented for the case of outage of one circuit, and for the case of outage of D/C, SPS will be implemented in two weeks' time.

Regarding Triggering condition 2 (Tripping of 220kV Misa Samaguri DC), AEGCL updated that the matter of freeing up of code 3 or code 4 has been discussed with PLCC team and the team is facing some issues. The forum requested AEGCL to plan a visit of PLCC engineers, in coordination with NERTS, to the Samaguri SS and resolve the matter at the earliest.

Sub-committee may deliberate

B.15. RPCs are requested to consider following agenda in the OCC/RPC meeting(s)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 09thMarch, 2023by 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.

In 201st OCCM, Member Secretary NERPC exhorted the utilities to actively participate on the PUShP portal and avail the benefits provided by it. Also, the forum decided that any utility surrendering power on this platform should inform all other utilities in NE region about the same to help ensuring early requisition of the surrendered power.

In 203rd OCCM, the forum noted that Assam and Mizoram are participating on the PUSHP portal. Other states were urged to follow the same. State utilities requested NERPC to request NPC to organize an online workshop on the portal for further familiarization and clarification.

Sub-committee may deliberate

B.16. 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 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 24thNETeST meeting for cost effectiveness vis-à-vis individual AMC. Member Secretary NERPC stated 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.

In 201st OCCM, all the States requested NERPC to initiate tendering for combined AMC of ADMS for all the states. Director, NERPC suggested that a tendering committee may be formed that will look into tendering and related work of the AMC. The forum agreed and decided that members would be nominated from all States, NERLDC & NERPC and coopted members if necessary.

In 203rd OCCM, the forum noted that nomination details have been received from Assam, Mizoram and Meghalaya only. After detailed discussion the forum strongly urged remaining states and NERLDC to send nomination details at the earliest.

Sub-committee may deliberate

B.17. Declaration of the following lines of Meghalaya as Deemed ISTS lines:

1. 220 KV Killing-Misa D/C line.
2. 132 KV Mendipathar-Agia S/C line
3. 132 KV Nangalbibra-Agia S/C line
4. 132 KV Khliehriat-Khliehriat (PG) line 2

It may be mentioned that 132 KV Umtru-Sarusajai D/C line, 132 KV Umtru-Kahilipara D/C line and 132 KV Lumshnong-Panchgram S/C line had earlier been declared as Deemed ISTS lines. The forum may please deliberate on inclusion of the above lines listed as Sl.no.1 to 4.

In 201st OCCM, MePTCL apprised the forum that the 220kV Killing-Misa D/C line and LILO of400 KV D/C Palatana-Bongaigaon at 400/220 KV Killing S/S as ISTS lines have already been approved as Deemed ISTS line in the 17th TCC/RPC meeting. Member Secretary, NERPC stated that if deemed ISTS line is approved in RPC meeting based on study, State may file petition to Hon'ble CERC citing the relevant portion of the Minutes of the meeting.

Director, NERPC highlighted that after the sharing regulation of 2020, deemed ISTS certification by NERPC has been discontinued and the utility may directly approach implementing agency and CERC for inclusion under PoC tariff. However, for truing up of lines for 2014-19 tariff block, NERPC can consider for according certification as per the relevant regulations, pertaining to the said period. For certification, NERLDC was requested to ascertain the power flow pattern on the line for the relevant period in consultation with NLDC.

Member Secretary, NERPC asked MePTCL to approach the Implementing Agency i.e. NLDC to establish the power flow pattern on the lines in respect of tariff period covered under Sharing Regulations 2020.

In 202nd OCCM, MePTCL intimated that NERLDC has been requested to establish the power flow pattern on the 132kV Nagalabibra-Agia line for the period 2014-19, so that the ISTS status of the line can be verified and presented to Honorable CERC and truing up for the 2014-19 tariff block can be done.

Sr. GM NERLDC stated that the software tool, used for conducting such study, is possessed by NLDC and the study will be conducted in consultation with the same. He further sought clarification from the NERPC about the time frame for which the data on power flow should be submitted. He stated that the quarterly data is available with NERLDC. Forum suggested that study may be based on the data availability with NERLDC i.e. quarterly basis. The quarterly data for utilization of the

lines should be averaged out for the whole year and finally year wise data for the five years (2014-19) can to be submitted.

In 203rd OCCM, NERLDC intimated that the study to ascertain power flow on the 132kV Nagalabibra-Agia line for the period 2014-19 is underway. The forum requested NETC to approach CERC for further clarification on the matter.

Sub-committee may deliberate

B.18. Regarding implementation of Green Energy Open Access Rules,2022

As you might be aware that Green Energy Open Access Rules have been notified by the Ministry of Power (MOP) on 6th June 2022.Subsequently, Grid-India has developed the Green Open Access Registry (GOAR) portal on the Green Energy Open Access Rules, 2022 and the amendment thereof.

Hon'ble Minister of Power has taken a review meeting on 12.05.2023 with present and prospective Green Energy Open Access users to understand the various difficulties associated with green energy open access. Various regulatory aspects are also being monitored in connection with this rule at the highest level. In this regard, the RCM Division, MOP has sought periodic reports regarding the implementation of Green Energy Open Access Rules.

Therefore, All SLDCs are requested to kindly

1. Nominate one nodal person for co-ordination purpose.
2. Share the periodic details as per Annexure-1&Annexure-2:

Timeline for data submission as per Annexure-2 is as follows:

The weekly period will be from Monday to Sunday (say 1 to 7th)

SLDCs to provide the data by next Monday (say 8th)

RLDCs to provide consolidated data to NLDC by Tuesday first half (say 9th)

NLDC will provide the data by Tuesday EOD to Ministry of Power (say 9th)

E-mail communication in this regard has already been sent to all SLDCs on 16th May and 17Th May,2023

Annexure-1

1	**Whether SERC has issued Regulations for Green Energy?**	Yes/ No
2	**Whether OA Regulations amended to provide GEOA to consumers above 100 kW**	Yes/ No/ NA
3	**No. of registered users**	
4	**No. of Green Open Access Applications received in a month**	
5	**No. of applications approved (to be applied within 15 days) in a month**	
6	**Quantum of transactions in a month**	
7	**Green Tariff- Component-wise cost where available**	

Annexure-2

For the period : .....

State Name	Banking Period	Banking Charges	Banking settlement period	Treatment of unutilized energy by RE generator	Quantum of Energy Banked by DISCOM on weekly basis (Mus)

In the 202nd OCCM, the forum requested all state SLDCs to provide details of Nodal officers to NERLDC and also provide the required data in the formats as provided. However, as per NERLDC, Nodal officers' details as well as the said data yet to be received from all state SLDCs.

In 203rd OCCM the forum earnestly requested all state SLDCs to provide details of Nodal officers to NERLDC within one week and also provide the required data in the formats as provided. Further the forum requested NERLDC to conduct a workshop with state SLDCs to explain the format and data which are required under Green Energy Open Access Rules, 2022.

Sub-committee may deliberate

C. NEW AGENDA ITEMS

Agenda from NERPC/CEA

C.1 PSS Tuning

As per the Regulation Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, the AVR of generator of 100MW and above shall include Power system Stabilizer.

In line with regulation, details related to PSS of following generating stations are required.

Sl. No	Generator	PSS tuning status
1.	Kameng (150x4)	
2.	Ranganadi (135x3)	
3.	Palatana (232x2 + 131x2)	
4.	BgTPP (275 x3)	

Sub-committee may deliberate

C.2 Electricity Generation Program for the year 2024-25

While monitoring the generation performance during the current financial year, it has been observed that power utilities are facing the problem of loss of generation due to no / low schedules and losses accounted on other technical and commercial reason. Accordingly, it is requested to pursue with all generating utilities of the Region in your OCC meeting so that the following inputs may kindly be submitted to this office as per the enclosed annexure:

i) Unit-wise yearly generation (with unit-wise monthly breakup) proposed during 2024-25 along with the fuel availability, the anticipated loss of generation on account of various factors such as grid constraint, low schedule/ Reserve shut down due to high cost, coal/lignite quality etc., if any (**Annex- I (point no. 1 to 5**)).

ii) Details of Power Purchase Agreement (PPA) with various Discoms, Trader, States etc, (details may be furnished in MW capacity tied up with each party) for Long, Medium and short term and expected generation for next year (**Annex —I (point no 6)).**

iii) The details of coal linkage from coal agencies and availability of secondary fuel oil/gas/ liquid fuel (**Annex- I (point no 7 (a) and (b)**).

iv) Unit wise cost of generation and rate of sale of power (**Annex — I (point 8)**).

v) Details of unit-wise schedule of planned Maintenance as approved by the respective RPCs (Regional Power Committees), and unit-wise R&M planned to be carried out during 2024-25. The same may also be appropriately considered while furnishing expected generation (**Annex- IIA**).

vi) In addition to above, it is also requested for furnishing details of unit-wise schedule of planned and actual Maintenance during the remaining period of 2023-24 (**Annex- IIB**).

In this regard, it is requested to furnish above mentioned details along with unit wise outage schedule of generating stations of your region for 2024-25 (as approved by Regional Power Committee in excel file format prescribed in **Annex-III**) and month wise, state wise energy requirement for 2024 25 to this division by 31st August, 2023.

Sub-committee may deliberate

Agenda from KMTL

C.3 Regional ERS

It is requested to please consider the proposal to have an exclusive Regional Emergency Restoration System (ERS) for North Eastern Region due to the fact that many areas in the geography are under very vulnerable environment and as seen from past since many years about the recurring flood situation every year in the NE region and thereby causing extensive damage to many important Transmission asset and thereby affecting the power flow.

Please find enclosed herewith the ERS guidelines (**annexure-C.3**) and 192nd OCC Meeting minutes where it was agreed amongst the participating members on the necessity of the same and is reiterated once again to connect the dot for your reference.

Also, we would like to highlight on the cost of purchasing of new ERS which is very high and many of utilities do not have budget for the same, therefore it is very

difficult to purchase it independently. We recommend that the same can be procured under PSDF fund as per ERS guidelines (Attached).

We as a Kohima Mariani Transmission Limited are happy to be offer and act as custodian of regional ERS. We have sufficient space for storage, in case if you agree and we may store the regional ERS at the following location.

Kohima Mariani Transmission Limited,

400/220 KV, GIS Substation, New Kohima, Zhadima. Nagaland.

We are happy to help for preparing the draft report for purchasing of Regional ERS for North Eastern Region.

Request you to please consider the proposal for keeping the Regional ERS in North Eastern Region, which will help many utilities in NE for early restoring of the Transmission Asset.

Sub-committee may deliberate

Agenda from DoP Arunachal Pradesh

C.4 Fulfilment of N-1 condition and ability of Tinsukia to Chapakhowa transmission system to transfer peak demand to Arunachal Pradesh.

In the recent shutdown of Panyor HEP to Ziro 132 KV line on 4th July 2023, Assam had agreed to support only up to 18 MW via Chapakhowa-Roing 132 KV line stating line constraints at that moment. The shutdown was delayed by about 1 and half hours due lack of coordination for FTC of Chapakhowa- Roing line by stakeholders. Actual shutdown took place only at 0952 Hrs. Chapakhowa-Roing was charged at 10:04 Hrs. But Arunachal Pradesh was informed to draw only 14MW against 18 MW promised in the emergency meeting called by NERPC at 15:00 Hrs of 3rd July 2023. Consent of AP was subject to fulfilment of the conditions at the real time.

Due to delay in FTC in the Morning, POWERGRID could not return the shutdown in time. AP continued to draw power from the Chapakhowa side. At 18:32 Hrs. The line tripped reportedly due to jumper burn out in between Tinsukia-Margherita causing widespread black out for long hours in AP and Assam as well. At the time of tripping AP was drawing around 11MW and very much within the limit.

On 6th July, the second day of shutdown sought by the POWERGRID, Tinsukia-Rupai 132KV line was back in service. Despite that, AP was informed by NERLDC and NERPC that combined drawl of power from the entire transmission system between Tinsukia to Chapakhowa was restricted to 65 MW. That was the same capacity of transmission on 4th July when there was an N-1 condition with Tinsukia-Rupai down. AP seriously protested and withdrew the consent for Shutdown. Subsequently, another meeting was convened on 6th July 2023 at 17:30 Hrs. by the NERPC. It was decided to support 18MW and 30 MW in non-peak and peak hours respectively by Assam.

This is the situation where AP is being denied drastically the transmission capacity of 132KV DC Chapakhowa-Roing Transmission line and depriving the entire central and eastern Arunachal Pradesh when N-1 condition arises in Arunachal Pradesh grid. Long felt Chapkhowa-Roing connectivity, Arunachal Pradesh had been fighting tooth and nail turns out to be serving no appreciable purpose in the present circumstances, because of the grid elements that exist between Tinsukia and Chapakhowa in Assam. There seems to be drastically wrong system study.

Matter is hence placed before the Forum to discuss and find:

1. An immediate solution to mitigate the constraints.
2. Immediate system study to enable transfer of total demand of Arunachal Pradesh via Tinsukia- Chapakhowa transmission system even in N-1 condition within that system in Assam for permanent solution

Sub-committee may deliberate

C.5 Stringing of second circuit Pasighat-Roing-Tezu-Namsai 132 kV transmission line of Powergrid and Pashighat new/Napit-Niglok 132kV TL under execution by comprehensive

The existing Pasighat-Roing-Tezu-Namsai 132 kV line is an ISTS transmission system being owned and operated by POWERGRID. The line is presently a Single Circuit on Double Circuit towers.

Roing is being connected with Chapakhowa with Double Circuit 132 kV line, thereby enhancing capacity availability at Roing end. The 132 kV line segment of Pasighat

(Dura)-Napit (Pasighat) is being laid at Double Circuit configuration under Comprehensive Scheme to meet the industrial power demand at Niglok industrial area. However, the intermediate segments of Niglok-Pasighat New (Napit), Pashighat (Dura)-Roing and the other end of Roing-Tezu-Namsai remain at Single Circuit. Therefore, considering the rapidly increasing power demands at Niglok, Namsai and Pasighat areas, and to avail & utilize the enhanced capacity of the Double 132 kV line of Roing-Chapakhowa, it is imperative that the Second Circuit of Niglok-Pasighat New (Napit), Pashighat (Dura)-Roing-Tezu-Namsai transmission line be stringed and made operational at the earliest.

The matter was put up for discussion in 24th TCC/RPC meeting, in which NERLDC was advised to carry out the studies and was put up to sub-committee of NERPC/CMETS.

Sub-committee may deliberate

Agenda from MSPCL

C.6 Stringing of new 132kV SC line on DC tower from Tamenglong to Karong along with associated bays

Over the years, power consumption in and around Tamenglong and Noney district (erstwhile Tamenglong district and bifurcated in 2016) has increased considerably. Power to the area is supplied from 33/11kV substations at Tousem, Tamenglong, Khoupum, Rengpang and Oinamlong which is fed from 1x12.5 MVA, 132/33 kV sub-station at Rengpang. Considering the vastness of the area, few 33/11 kV sub-stations are also being proposed. For a steady and regular power supply and to meet the ever-increasing demand, 132/33 kV substation at Tamenglong is being constructed under NERPSIP by PowerGrid Corporation. The construction of the substation is expected to be completed by July, 2023. However, in order to enhance the reliability of the power supply system in Tamenglong district and to help in completing the vision of MSPCL to form a ring structure of its 132kV substations, an alternate source of supply from 132/33kV Karong which is also connected to the NER Grid is proposed.

Considering the above facts and circumstances, the committee may kindly approve the stringing of new 132kV line from Tamenglong to Karong. The forum may kindly

deliberate the request of MSPCL and approve the proposal for execution with possible funding from PSDF or other funding agencies, in the interest of NER Grid security and smooth supply management of Manipur. The matter was put up for discussion in 24th TCC/RPC meeting, in which it was referred to NERPC sub-committee.

Sub-committee may deliberate

C.7 Stringing of new 132kV SC line on DC tower from Karong to Hundung along with associated bays.

To supply and distribute the rapid increase in demand of power with the electrification of more and more villages in the state, a number of 132kV sub-stations were installed all over the state. In the past few years, the power scenario of Manipur has developed significantly. However, to further improve the power scenario and meet the ever-increasing power demand, MSPCL plans to form a ring structure of its 132kV substations.

132/33kV substations at Karong and Hundung are two existing substations of MSPCL. Hundung is being fed from 132/33kV substations at Yaingangpokpi and Karong is connected to the NER grid via the 132kV Imphal-Kohima line. To help in completing the vision of MSPCL to form a ring structure of its 132kV substations, stringing of new 132kV SC line on DC tower from Karong to Hundung along with associated bays is proposed.

Considering the above facts and circumstances, the committee may kindly approve the stringing of new 132kV line from Karong to Hundung.

The forum may kindly deliberate the request of MSPCL and approve the proposal for execution with possible funding from PSDF or other funding agencies, in the interest of NER Grid security and smooth supply management of Manipur.

The matter was put up for discussion in 24th TCC/RPC meeting, in which it was referred to NERPC sub-committee.

Sub-committee may deliberate

Agenda from NERLDC

C.8 Non operation of 132kV Transfer Bus at 220kV Agia S/S:

An emergency SD of 132 kV Mendipathar bay was requested by SLDC Assam on 05th July of 2023 from 18:00hrs to 20:00 hrs to attend DC failure in BCU panels at Agia S/S. However, as the transfer bus at Agia was inoperable (As per SLDC Assam) the whole line i.e. 132kV Agia - Mendipathar TL was taken to S/D (since the bay could not be transferred through Bus coupler). However, the SD of the said line could have been avoided if the transfer Bus was maintained healthy/operable.

Hence APDCL is requested take necessary action to rectify and maintain the healthiness of Agia transfer Bus at the earliest. Also, may be confirmed if already rectified.

Sub-committee may deliberate

C.9 Ensuring Synchronization facility at Panyor (PHPS) S/S for 132kV Ranganadi – Ziro TL:

During returning of planned S/D of 132 kV Ranganadi-Ziro TL (on account of shifting the TL to ERS tower) on 08-07-2023, delay from Ranganadi end was noticed for E/S opening and isolator closing. The S/D was returned by NERTS at 19:08 Hrs but the power could be extended from Ziro S/S at 20:02 Hrs only (Line was not extended from Ranganadi end as there was generation availability of 401MW during that instance). However, the line could not be synchronized at PHPS as synchronization facility was not available with PHPS for 132kV Ranganadi – Ziro feeder. Later the Line was extended from Ranganadi S/S and finally synchronized at Ziro S/S at 20:23 hrs.

With change in network configuration after commissioning 132kV Chapakhowa – Roing D/C TL, it becomes important for PHPS to have synchronizing facility for Ziro feeder also for safety and security of PHPS generating units.

Sub-committee may deliberate

C.10 Outage of several 132 kV intra-state lines in Manipur Power System

The following intra-state lines in Manipur Power System are still under long outage:

1. 132 kV Ningthoukhong-Churachandpur-2 Line since 11:02 hrs of 15th June 2023
2. 132 kV Churachandpur-Kakching S/C Line since 12:21 hrs of 8th June 2023 on tower collapse
3. 132 kV Churachandpur-Elangkangpokpi S/C Line since 12:21 hrs of 8th June 2023 on tower collapse

Grid Disturbance had occurred on 8th June'23 in Churachandpur area due to tripping of 132 kV Churachandpur- Kakching S/C and 132 kV Churachandpur-Elangkangpokpi S/C lines on account of unavailability of 132 kV Ningthoukhong-Churachandpur D/C.

In the present scenario, 132 kV Churachandpur area of Manipur Power System is only connected with rest of the grid through 132 kV Churachandpur – Ningthoukhong-1 Line, severely impacting the reliability and security of Churachandpur area of Manipur Power System as it is not N-1 complaint.

MSPCL is requested to expedite the restoration of the lines at the earliest to ensure reliable grid operation.

Sub-committee may deliberate

C.11 Upgradation of end bay equipments of HTLS re-conductored lines in NER Grid

Following lines have been reconductored with HTLS conductor in the NER Grid with enhanced ampacity as per HTLS Conductoring.

LINE	Owner	Upgraded Ampacity of line	Present CT Ratio	
			End I	End II
220 kV Alipurduar-Salakati 1 & 2	POWERGRID	1100 A	800/1	800/1
132 kV Jiribam-Loktak line	POWERGRID	600 A	600/1	366/1
220 kV BTPS-Salakati 1 & 2	POWERGRID	1100 A	800/1	800/1

220 kV Sarusajai-Mirza 1 & 2	AEGCL	1200 A	800/1	800/1
132 kV Rokhia-Agartala I & II	TSECL	800 A	600/1	600/1
132 kV Umiam III-Umiam I D/C	MePGCL	875 A	400/1	400/1

However, the re-conductoring feature of the lines could not be utilized fully in present condition as it is being limited by the CT Ratio of the end equipments. Hence, the concerned utilities are requested to upgrade the end bay equipments to facilitate the maximum utilization of HTLS re-conductoring.

Sub-committee may deliberate

C.12 Regarding Railway Traction details of NER

AEGCL vide mail to NERLDC dated 28th Nov'22 had furnished information regarding railway electrification projects in Assam. It was mentioned that a total of 28 nos. of railway traction lines are being constructed out of which five nos. of lines are under operation with a sanction load of 5 MVA per line However, there has been a lot of developments in construction and operation of railway traction lines in the recent times.

AEGCL is requested to furnish the updated Railway Traction details in geographical map format in NER Grid.

Sub-committee may deliberate

C.13 Commissioning Progress of 2nd circuit of 220 kV Mariani-Samaguri Line

After conversion of 220 kV Misa-Mariani (PG) Line and 220 kV Misa-Mariani (AS) Line to 400 kV Misa-Mariani D/C, the Upper Assam System has become vulnerable under N-1 contingency. Frequent generation back down has to be carried out by the real time system operators to secure the system under N-1 contingency under condition of outage of any tie-line which connect the upper Assam system with the All-India Grid. Upper Assam gate-flow is being monitored and necessary back down of gas-based generation carried out to maintain the same.

Early commissioning of 2nd circuit of 220 kV Samaguri-Mariani (AS) Line is necessary to maintain N-1 reliability in Upper Assam Power System and reduce the need for frequent backing down of gas-based generation in Upper Assam System.

As per minutes of 202nd OCCM, SLDC Assam informed that the forest clearance is still wait for 132 kV Samaguri- Khumtai section in 220 kV Samaguri-Mariani (AS) line and it has been pending since 182nd OCCM.

AEGCL is requested to expedite the commissioning and share the latest status for reliable system operation.

Sub-committee may deliberate

C.14 Non-operation of auto recloser in Killing (Byrnihat)-Misa D/C for transient faults

It was observed that Auto-reclosure function in 220 kV Killing-Misa-1 did not operate for transient fault which had occurred on 14th Mar'23. Non-operation of Auto-reclosure in Important Grid Elements of NER is highly undesirable. The issue was referred to Protection Sub Group meeting held on 4th May'23 where it was informed that there was a malfunctioning PLCC which will be rectified soon.

However, the issue is not yet resolved and as per latest information from MePTCL, there is an ongoing PLCC issue at Killing (Byrnihat) Substation, specifically related to a PLCC card problem. MePTCL is requested to expedite the rectification process and resolve the issue at the earliest for reliable system operation.

Sub-committee may deliberate

C.15 Reduced reliability in Byrnihat area of Meghalaya due to long outage of 400/220 kV 315 MVA ICT-1 at Byrnihat

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 ICT-1. During the outage of 220 kV Byrnihat-Misa D/C, the system is not N-1 complaint due to the availability of only 400/220 kV ICT-2. Hence, operating the system under such condition poses great threat to the security and reliability of Meghalaya system.

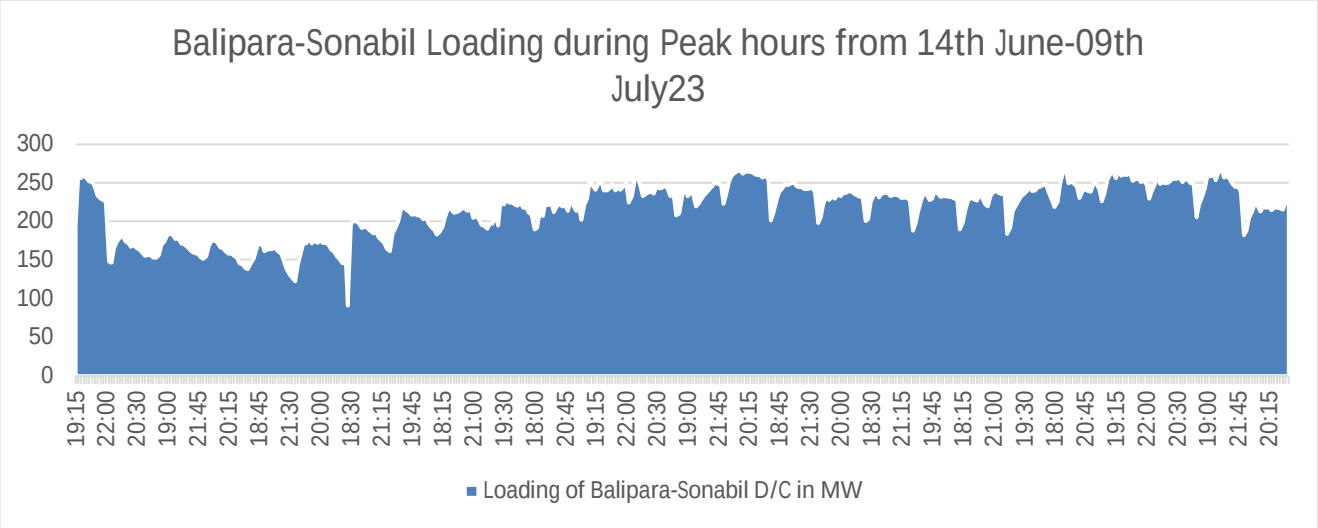
In 201st OCC, MePTCL stated that consultation with the OEM and PGCIL, to rectify the issues related to the ICT, is underway and the same was expected to be restored by 15th May'23.

MePTCL is thereby requested to expedite the restoration of the ICT and share the latest status.

Sub-committee may deliberate

C.16 Non-compliance of N-1 criteria in 220 kV Balipara-Sonabil D/C

During peak hours, the combined loading of 220 kV Balipara-Sonabil D/C exceeds 250 MW. The maximum flow recorded in 220kV Balipara-Sonabil D/C after commissioning of 2nd circuit of 220 kV Balipara-Sonabil line is 268 MW (combined). Study indicates that outage of one circuit of 220 kV Balipara-Sonabil D/C can result in a 90% load shift to the other circuit of 220 kV Balipara-Sonabil D/C. Low generation availability in Assam power system may further increase the loading of 220 kV Balipara-Sonabil D/C. The loading pattern of 220 kV Balipara-Sonabil D/C line from 14-06-2023 to 09-07-2023 during peak hours (18-22 Hrs.) is provided for reference.



Study suggests that opening one 400/220, 315 MVA ICT at Balipara can reduce the loading of 220 kV Balipara-Sonabil line by approximately 50 MW upon tripping of one circuit of 220 kV Balipara-Sonabil D/C.

An SPS (Special Protection Scheme) is therefore recommended as follows:

Triggering: Tripping of any one line of 220 kV Balipara-Sonabil D/C

Action: Opening of any one of 400/220, 2x315 MVA ICTs at Balipara

A system study for relief of Loading of 220 kV Balipara - Sonabil D/C under N-1 contingency has been done and the observation & results are as shared below:

Observation:

After commissioning of 400/220 kV Sonapur S/s, the flow of 220 kV Balipara – Sonabil D/C is reduced by 10 MW in each circuit.

After commissioning of 132 kV Balipara – Misamari D/C for utilization of 220/132 kV ICTs at Balipara, the loading of 220 kV Balipara – Sonabil D/C is reduced by another 40 MW in each circuit.

Results:

1. The commissioning of 400/220 kV Sonapur S/s does not yield much benefit in reducing the loading of 220 kV Balipara – Sonabil D/C.
2. But there is major reduction in loading of 220 kV Balipara – Sonabil D/C after commissioning of 132 kV Balipara – Misamari D/C.
3. But the above two proposals are likely to come after 2026, which would render the 220 kV Balipara – Sonabil D/C unreliable under N-1 contingency of one circuit.
4. *It is therefore proposed for the following:*
    a. *Immediate Measure: SPS for tripping of one ICT of 400/220 kV 2x315 MVA ICTs at Balipara.*
    b. *Long Term Plan: Reconductoring of 220 kV Balipara – Sonabil D/C.*

Sub-committee may deliberate

C.17 NER Operating Procedure:

Draft Operating Procedure for 2023-24 has been prepared as per section 5.1(e) and (f) of IEGC and has mailed to the constituents on 10thJul'23. The final document will be published by 20th July'23. All the constituents are requested to kindly check and provide comments if any by 18th Jul'23.

Sub-committee may deliberate

D. ITEMS FOR STATUS

D.1. Implementation of projects funded from PSDF:

The status as informed in 203rdOCCM:

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 TESG queries.	30% requisition submitted.	Revised DPR including both 132kV Aizawl-Luangmual and 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 for IT portion after completion of 3rd milestone. 30% to be disbursed for Meter, AMR portion	Revised DPR for LDP of 132kV Imphal-Yurembam-III to be submitted by June'22.
	33kV System Integration with SLDC	In tendering stage			
	Reliable Communications for grid connectivity	In tendering stage			
Tripura	Completed. Final UC submitted on 04th 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 8stations 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 up to the 203rd 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	Completion by Nov'23	
3	220kV Misa-Kopili D/C, 220/132kV ICTs at Kopili, 132kV Khandong –Kopili D/C(*out since Oct'19*)	NEEPCO/ NERTS	Item B.8 (Kopili-Khandong by September'23 and Misa-Kopili by July'23)	
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	Work order placed, tentative commissioning by Aug'23	

D.3. Status of commissioning for upcoming projects:

Sl. No	Name of the element	Utility	Status up to the 203rd OCCM	Latest Status
1	132kV Monarchak-Surjamaninagar	TSECL	RoW and Funding issue hampering the progress. To discussed in 24th TCC/RPC meeting	

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	Completed.	
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	Work order Placed, to be commissioned by Nov'23	
6	132kV Loktak-Ningthoukhong-II	MSPCL		
7	132kV Roing-Chapakhowa	NERTS	Stringing completed. RIO clearance under way	
9	420kV 80MVAR Bus Reactor	NEEPCO	Dec'23	
10	220kV Killing – Mawngap	NERPSIP	Refer to item B.8. June'23	
11	220kV Samaguri – Mariani-I	AEGCL	FC for Samaguri-Khumtai section is still awaited.	
12	PLCC/DTPC for 220kV Balipara- Sonabil	AEGCL	Equipment procured, to be commissioned after rectification of SAS	
13	220kV AGBPP –Namsai D/C	TBCB	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	TSECL updated that DPR has been submitted and TESG has approved the same. The work will start as soon as the funds are disbursed.	
15	LILO of 132kV Leshka-Khliehriat-I at Mynkre and Mynkre SS and 33kV downstream at Mynkre.	NERPSIP	June 23	
16	220kV Tinsukia-Behiating D/C	NERPSIP	WIP - June'23 due to ROW	

17	LILO of 132kV Kamalpur-Kamakhya& 132kV Kamalpur-Sishugram at Amingaon	NERPSIP	Completed. Ready for charging.	
18	220kV Rangia – Amingaon D/C and 220/132kV 2x160MVA Amingaon S/S	NERPSIP	June'23 due to ROW	
19	132kV Rengpang-Tamenglong and 132/33kV 4x6.67MVA at Tamenglong at Manipur	NERPSIP	June'23 due to ROW	
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	June'23	
23	132/33kV 2x12.5MVA Lungsen S/S at Mizoram	NERPSIP	June'23	
24	132kV Lungsen-Chawngte S/C at Mizoram	NERPSIP	Ready for charging.	
25	132kV Chawngte – S.Bungtlang S/S at Mizoram	NERPSIP	June'23	
26	132kV W.Phaileng-Marpara S/C at Mizoram	NERPSIP	June'23 subject to RoW clearance in Pukzing village in Mamit district	
27	220kV Zhadima – Mokokchung at Nagaland	NERPSIP	Ckt 1 charged in Mar'23. Other ckt waiting for finalization of MoU	
28	LILO of 132kV Wokha – Kohima at 132/33kV New Kohima (Zhadima) at Nagaland	NERPSIP	Line ready, jumpering not yet done	
29	132kV Wokha-Zunheboto – Mokokchung at Nagaland	NERPSIP	Stringing in 2 or 3 spans left, by June'23	
30	132kV Tuengsang – Longleng at Nagaland	NERPSIP	Line ready, Tuensang substation	

			upgradation under progress	
31	132/33kV Amarpur S/S at Tripura	NERPSIP	June'23	
32	132/33kV Manu(new) S/S at Tripura	NERPSIP	June'23	
33	132kV Dharmanagar-Kailashor	NERPSIP	May'23	
34	132kV Ziro-Yazali and 132/33kV Yazali S/S	POWERGRID-Comprehensive		
35	132kV Yazali – Palin and 132/33kV Palin S/S	POWERGRID - Comprehensive	132kV Yazali - Palin Line - Stage I Forest Clearance Obtained a) 3 foundation work completed. 132/33kV Palin S/s- a) CRB WIP. b) Electrical Works to be started.	
36	132kV Palin- Koloriang and 132/33kV Koloriang S/S	POWERGRID - Comprehensive	132 kV Palin - Koloriang Line - No Forest Clearance Obtained a) Not Yet Charged. 132/33kV Koloriang S/s- a) CRB First Slab (to be completed within this month)	
37	132kV Khonsa – Deomali and 132/33kV Khonsa S/S	POWERGRID - Comprehensive	132 kV Khonsa - Deomali Line - a) Foundation, Erection and Earthing WIP. 71/87 Foundation Complete 50/87 Erection Complete Target for completion: June 2023 132/33kV Khonsa S/s- a) CRB Finishing Work b) Cabling, Foundation, Retaining Wall WIP	
38	132kV Miao – Namsai	POWERGRID -	132kV Miao - Namsai -	

	and 132/33kV Miao S/S	Comprehensive	a) No Work due to ROW issue at Miao. b) No Work due to sand boiling and ROW issue at Namsai. 132/33kV Miao S/s- a) Gravel Spreading b) Water Proofing for exposed area of Transit Camp first Floor c) Testing of Isolators Completed d) Electrification WIP e) Site Levelling WIP.	
39	132kV Chimpu – Holongi and 132/33kV Holongi S/S	POWERGRID - Comprehensive	Ready for charging	
40	Lower Subansiri HEP	NHPC	Dec'23	
41	400kV Lower Subansiri-BNC line2	PGCIL	July'23	
42	Conversion of MT to DM at (i)132kV Khliehriat, (ii)132kV Badarpur, (iii)132kV Nirjuli, (iv) 132kV Imphal	NERTS	Nirjuli - May'23 Imphal – Badarpur &Khlerihat – Cost estimate under preparation by CTUIL	
43	Construction of Pare-N.Lakhimpur DC along with LIO at Nirjuli	Sterlite (TBCB)	To be completed by 10th July subject to grant of shutdown as requetsed	
44	LILO of BNC-Chimpuckt II at Gohpur	Indigrid	DoP Arunachal signed the meeting	
45	220kV New Shillong-NangalBibra(ISTS 220/132kV) TL	MEPTCL	Work order given to PGCIL for survey. PGCIL is yet to submit the survey report	
46	400kV Bongaigaon-Nangalbibra (ISTS) DC (to be charged at 220kV initially)	Sterlite	Dec'23	
47	HTLS reconductoring of 132kV Hailakandi-Dullavcherra	AEGCL	During 23rd TCC RPC meeting, the forum recommended for the upgradation and preparation of DPDR	

			by AEGCL	
48	HTLS reconductoring of 132kV Panchgram-Hailakandi	AEGCL	Included in CEA 2030 Augmentation Scheme	
49	HTLS reconductoring of 132kV Srikona-Pailapool	AEGCL	Included in CEA 2030 Augmentation Scheme	

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 203rdOCCM)	
								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 Nov'23. For OPGW, PGCIL is requested to Install it. Matter referred to 24th TCC/RPC
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. Tendering under finalization	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 byDec'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 8thjune 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/cline(line works underISTSthrough TBCB	132kV	1. LoA by Jun'22	June'2025

	route)			
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 atSurajmaninagar (TSECL) S/s	400kV D/c	All works except 400kV termination at Surjamaninagar(TSECL) by POWERGRID to be done. Balance works under separate contract.	LILO completed for 400kV ckt 2 (by PGCIL) without bay readiness, LILO has been charged.Total completion subjected to Sub-station readiness at Surajmaninagar
C	**NEEPCO (to be implemented by NEEPCO)**			
I	**Extension works at RanganadiHEPend**			
a)	420kV 80MVAR Bus Reactor at Ranganadi Generation Switchyard		LOA on 11.01.2022	Dec'23 (Logistics and Transportation issue)
II	**Extension works at PareHEP end**			
a)	Bypassing of LILO of Ranganadi - Naharlagun / Nirjuli at Pare HEP so as to form direct Ranganadi-Naharlagun /	132kV	Regarding bypassing of LILOat (a), work has been awarded in Dec, work to be completed in 4 months from LoA,	The work is being undertaken by M/s Sterlite. Shutdowns have been availed,

	Nirjuli132 kV S/c line		The LILO portion is about2.2km & the cost estimates have been received byNEEPCO. Work awarded to M/s Sterlite	tentative completion by July'23. Reconductoring of LILO portion is done
b)	Re-conductoring of LILO portion at Pare end (of Ranganadi - Naharlagun / Nirjuli 132kV S/c line) with HTLS (HTLS equivalentto ACSR Zebra) along with modification of 132kVbay equipment at Pare HEP	132kV		

D.5. Status Review for the Items Referred from previous OCCMs:

SL. No.	Item for Discussion	Status as per 203rd OCCM	Latest Status
1.	Introduction of SPS in Leshka S/Sn of Meghalaya (Agenda No. C4 of 189th OCCM)	Communication with M/s Hitachi underway. M/s Hitachi not responding, NERTS to help bridge the communication gap	
2.	Voltage and MVAR issues at 400kV Kameng S/Sn (Agenda No. C7 of 189th OCCM)	Discussion with OEM M/s BHEL is underway. Member Secretary NERPC has written a letter to BHEL in this regard	
3.	Difficulty in test synchronization at Ningthoukhong S/Sn (installation of line CVT) (Agenda No. C11. of 189th OCCM)		
4.	Outage of 400kV Imphal (PG) – Thoubal-I (Agenda B.15 of 184th OCCM)	RoW, litigation pending in court	
5.	Charging of 33kV Khupi-Kimi line at 132kV: Recommendations of the 187th OCCM to be implemented: (a) Installation & Commissioning of PLCC and additional Wave Trap with accessories at Khupi (NEEPCO) - By Mar'22 Minutes of 188th OCC	OPGW link to be ready by end of June. NEEPCO to complete LDP commissioning and vegetation clearance by 15th July 2023.	

	meeting held on 16th 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 (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 188th 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 190th OCCM.	Tender floated in the month of August'2022.	
7.	Grid Disturbance in Dhaligaon area of Assam Power System (C.18 of 191st OCCM)	Work started for replacement and repairing of damaged earthing will start from 2nd week of May.	
8.	Occurrence of Multiple grid disturbance in Gohpur and radially connected areas of Assam Power System (C.10 of 194th OCC)	SEM meters provided by PGCIL, both lines bays commissioned from AEGCL end. AEGCL scope of work done, Sterlite scope of work remaining	
9.	Status of Installation of TLSA in 400kV Silchar-Azara T/L & 400 kV Silchar-Byrnihat T/L (C.12 of 194th OCCM)	i)Supply of 80% of TLSA is completed, rest by the end of June'23 ii)Tendering process for finalization of the implementing agency shall be completed by July'23 iii)Accordingly, a detailed shutdown/work plan will be submitted to OCC forum in August iv)installation shall start in month of September'23	

10.	PLCC & protection related issues at 132kV Tipaimukh S/s (C.15 of 194th OCC) & (C.8 of 197th OCC)	PLCC engineer to visit the SS. (MSPCL)	
11.	48V System reliability at Pasighat end (C.16 of 194th OCC)	June'23	
12.	Construction of Anchor tower at location 433 by PGCIL and reconductoring of 220kV Mariani-Mariani SC with Moose conductors (B.16 of 196th OCCM)	Shutdown not provided.	
13.	Commissioning of 400kV Bus-B at Ranganadi Power Station (C.14 of 192ndOCCM)	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. To be done under R&M of the station, after 2027.	
14.	Implementation of Bus Bar Protection at 132 kV Kahilipara (AEGCL) Substation (C.8 of 196th OCCM)	Estimate submitted for procurement of CT available with core for Bus bar protection.	
15.	Furnishing of data as per Detailed Procedure on interim methodology for estimation of Reserves under CERC (Ancillary Services) Regulations, 2022(item C.4 pf 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).	
16.	TLSA installation on 132kV Leshka-Khleihriat DC	DPR submitted to PSDF secretariat	
17.	400 kV GT-1 &Silchar 1 Tie Bay at OTPC is under outage from 31/12/2022. 400 kV GT-2 & 400/132 kV ICT 2 Tie Bay at OTPC is under outage from 10/02/2023	Faulty LBB relays, under procurement, tentatively restoration by end of Aug'23	
18.	Installation of Line differential protection in Rokhia-N.Rokhia line	CBs for LDP of Rokhia- N. Rokhia line has to be procured. Further, DPR prepared,	

		Tendering process underway.	
19.	Upgradation of 132kV Jiribam-Loktak line. Upgradation of jumper conductor to suitable ampacity and installation of CT of ratio 800/1 at Loktak HEP		
20.	Reconductoring of Umiam stg I stg III, upgradation of CT ratio to 800/1	MePGCL to divert the suitable CT from other substations	
21.	Restoration of tower no. 3 and 12 of LILO of Nirjuli-Dikrong Transmission line to Lekhi Substation (B.23. of 193rd OCCM)	In 193rd OCCM, AE, SLDC Arunachal Pradesh reiterated that restoration work may go up to March'23 subject to receding of water of Dikrong river. Tower locations in spate of floods. Works stalled. Expected completion by March 2024	
22.	Long Outage of 400/220 kV ICT-3 at Byrnihat S/S (B.22. of 202nd OCCM)	Work order placed, to be completed within 45 days if weather permits. (July end)	
23.	Proposal of SPS Scheme to disconnect Bangladesh load on overloading of 132 kV Surajmaninagar (ISTS) - Surajmaninagar(TSECL) line. (C.3 of 202nd OCCM)	Item referred to 24th TCC/RPC meeting	
24.	Upgradation of Tuensang substation to 132kV level, under NERPSIP. (item B.15 of 203rd OCCM)	NERPSIP updated that tender will be awarded by the end of June'23 and the work will be completed in the next one year.	
25.	Commissioning of LILO of one circuit of 132 kV Biswanath Chariali-Itanagar D/C at Gohpur (item C.8 of 203rd OCCM)	M/s Indigrid(NTL) intimated the forum that the supplementary connection agreement has been issued by CTU. The termination works will start soon at Gohpur sub-station and shutdown of 132 kV Biswanath Chariali-Itanagar D/C will be required	

		for 7 days.	
26.	Installation of OPGW on 220kV New Kohima (ISTS)-Zhadima line (item C.10 of 203rd OCCM)	As per 24th TCC meeting NERTS to enter into special arrangement with DoP Nagaland regarding the matter	
27.	Readiness of end bay equipment for re-conductored 220 kV BTPS-Salakati D/C (item C.13 of 203rd OCCM)	DGM, NERTS intimated that Type testing of bay equipment of higher rating, will be conducted by end of June'23 and upgradation work will start by mid-July'23. He further stated that shutdown of each circuit will be required for 15days each.	

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 203rd OCCM, PGCIL informed that rectified DCD has been already dispatched and is in transit.

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. 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	132 kV AGIA END OF NANGALBIBRA	NP-9920-A	6 mins
2	ASSAM	220 kV BTPS-NTPC 1	NP-9647-A	3 mins
3	ASSAM	220 kV BTPS-NTPC 2	NP-5318-A	4 mins

Status may be reviewed.

E.3. Procurement of SEMs for future requirements:

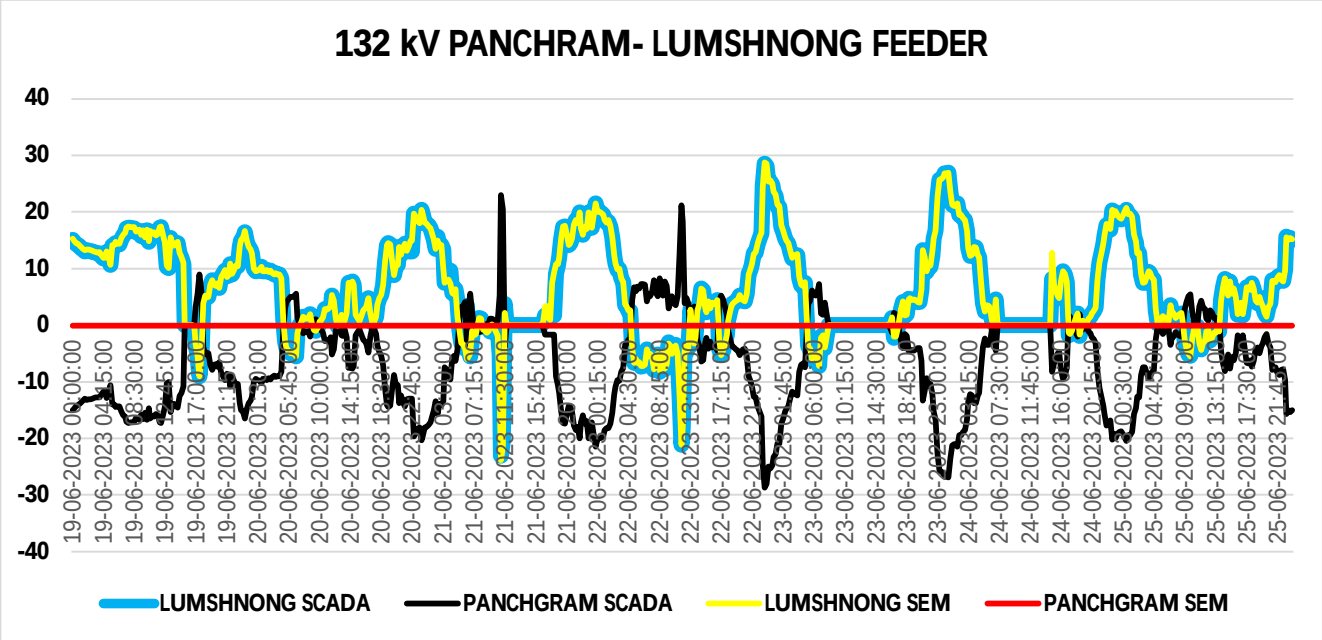
In 202nd OCCM, forum approved the proposal of procurement of 60 SEMs to fulfil the requirement for the upcoming transmission elements.

In 203rd OCCM, CTU informed the forum that procurement of 60 SEMs is in process. The procurement shall be as POWERGRID's standard practice. Required arrangement for meter data downloading shall be taken care during installation of IEMs. As suggested by forum, CTU agreed to make necessary arrangement at site for downloading the meter data with existing DCD during installation period.

Status may be reviewed.

E.4. Erroneous reading of Panchgram end of 132 kV Panchgram-Lumshnong line:

Panchgram end of 132kV Panchgram-Lumshnong line is reading to 0 (Zero) value. SCADA VS SEM plot comparison for the period 19.06.23-25.06.23 is given below.



Sub-committee may deliberate

E.5. Regarding Timely submission of SEM data:

As per the mandate of IEGC and other regulations clause no: 6.4.21 “All concerned entities (in whose premises the special energy meters are installed) shall take weekly meter readings and transmit them to the RLDC by Tuesday noon. The SLDC must ensure that the meter data from all installations within their control area are transmitted to the RLDC within the above schedule."

At present, around 93% of the data from various locations is being received by Tuesday. All regional entities are requested to provide the meter data by Tuesday noon please.

Sub-committee may deliberate

Station name (As per Monthly Generation Report of CEA):----------	Organisation:----------

Unit wise Monthly generation Program for the year 2024-25

Annex-I

1. Contact Details

Sr. no	Name	Designation	email	Phone no.	Fax. no.
1					
2					

2. **Units existing on 31.03.2023**

Month	Unit No.	Capacity (MW)	Date of commissioning	2023-24 generation details (MU)				2024-25 generation details (MU)			Remarks
				Program for 2023-24	Total Anticipated Gen for Aug 23 to March 24 (MU)	Total Anticipated Gen for 2023-24 (MU)	Reason for low generation (if any)	Anticipated maximum Generation capability (MU)	Anticipated Generation (MU)	Reason for variation from Maximum Capability	

3. Units Commissioned during 2023-24

Month	Unit No.	Capacity (MW)	Date of commissioning	2023-24 generation details (MU)				2024-25 generation details (MU)			Remarks
				Program for 2023-24	Total Anticipated Gen for Aug 23 to March 24 (MU)	Total Anticipated Gen for 2023-24 (MU)	Reason for low generation (if any)	Anticipated maximum Generation capability (MU)	Anticipated Generation (MU)	Reason for variation from Maximum Capability	

4. Units likely to be commisioned during 2024-25

Month	Unit No.	Capacity (MW)	Expected date of commissioning	Expected Generation 2024-25 (MU)	Remarks

5. Loss of Generation due to Grid Constraints/ Low schedules /fuel related issues during 2023-24

Transmission Constraints/ power evacuation problems/ low schedule/high fuel cost

S No.	Details of the Constraint	Loss so far (Apr'23-Jul'23)		during 2023-24	
				Anticipated Period of constraint	Anticipated loss of generation (MU)

6. Unitwise PPA details

Unit No.	Capacity (MW)	With DISCOM					With State Trading Cos.						With PTC / other trading cos.						Untied (MW)
		State of Discom	Type of PPA(Base laod or Peak Load)	Quantum (MW)	Duration of PPA		Quantum (MW)	Type of PPA(Base laod or Peak Load)	b/b PPA with Discom (name of Discom)	quantum of b/b PPA in MW	Duration of PPA		Quantum (MW)	Type of PPA(Base laod or Peak Load)	b/b PPA with Discom (name of Discom)	quantum of b/b PPA in MW	Duration of PPA		
					From	To					From	To					From	To	

7(a)Coal Linkage for coal based plants

Month	Unit No	Domestic linkage (MT)	Source	PLF from this coal linkage during the year (%)

7(b)Gas availibility for gas based stations

Unit No.	Varoius sources	Figures in MMSCMD	PLF from this gas availibility during the year (%)

8. Cost of Generation:

Unit No	Cost of Gen. (Paise/kwh)		Rate of Sale of Power (Paise/kwh)
	Fixed Charge	Variable charge	

Annex-IIA

Planned maintenance Schedules including R&M activities

A) R&M of Units likely to be completed during 2023-24 & 2024-25

Station name	Unit No.	Capacity (MW)	R&M Schedule	
			From date	To date

B) Annual Overhaul/ Boiler overhaul

Station name	Unit No.	Capacity (MW)	AOH Schedule	
			From date	To date

C) Capital Overhaul

Station name	Unit No.	Capacity (MW)	COH Schedule	
			From date	To date

D) Other maintenance if not included above such as PG tests (new units) and Boiler inspection

Station name	Unit No.	Capacity (MW)	Schedule		Reason
			From date	To date	

Annex-IIB

Actual and Planned maintenance Schedules including R&M activities

A) **Actual Maintenance Schedule during 2023-24**

Station name	Unit No.	Capacity (MW)	From date	To date	No. of Days	Outage reason

B) **Planned Maintenance Schedule during remaining months of 2023-24**

Station name	Unit No.	Capacity (MW)	From date	To date	No. of Days	Outage reason

Format for unit wise outage schedule of generating stations **Annex-III**

						Outage 1				Outage 2 of same unit				Outage 3 of same unit				Outage 4 of same unit				Outage 5 of same unit			
STATION NAME	UNIT NO.	STATION TYPE	REGION	STATE	ORGANIZATION/ UTILITY	From_Date	To_Date	Outage_Reason	Remarks	From_Date	To_Date	Outage_Reason	Remarks	From_Date	To_Date	Outage_Reason_ID	Remarks	From_Date	To_Date	Outage_Reason_ID	Remarks	From_Date	To_Date	Outage_Reason	Remarks

Note: Please don't leave any cell blank in columns of STATION NAME,UNIT NO.,STATION TYPE,REGION,STATE,UTILITY.

Type text here

Annexure C.3

Annexure-D

प्रदीप कुमार सिन्हा
सचिव
भारत सरकार

PRADEEP K. SINHA
Secretary
Government of India

सत्यमेव जयते

Ministry of Power
Shram Shakti Bhawan
New Delhi - 110001

विद्युत मंत्रालय
श्रम शक्ति भवन
नई दिल्ली–110001
Tele : 23710271/23711316
Fax : 23721487
E-mail : secy-power@nic.in

D.O. No.20/6/2014-OM

05.12.2014

Dear Shri Negi,

As you are aware, India has one of the largest A.C. Synchronous Transmission Grids in the world with more than 3 lakhs circuit kms of 220kV and above lines which form the backbone of the Indian Power System.

2. However, this huge network needs to be operated in a sustained and secure manner, particularly, during the time of natural disasters. Failure to do so leads to severe constraints not only in meeting the power demand but also poses serious problems in maintaining safety and security of the Grid. Difficult situations came to light in the wake of recent natural disasters, such as, floods in J&K and Phailin as well as Hud-Hud cyclone in Odisha and Andhra Pradesh. These disasters caused extensive damage to transmission networks resulting in wide spread disruption of many important transmission links and substations affecting power supply for long periods due to the time taken in restoration.

3. You would appreciate that under such adverse situations, the availability of an effective mechanism for emergent restoration of transmission lines in the shortest possible time is of utmost importance. Immediate and temporary restoration of transmission networks is possible by deploying the "Emergency Restoration Systems (ERS)." Grid Standards notified by the Central Electricity Authority(CEA) stipulate that every Transmission Licensee shall have an arrangement for restoration of transmission lines of at least 220kV and above through the use of ERS. However, presently the States do not possess such ERS infrastructure. Consequently, POWERGRID becomes the last resort whose ERS infrastructure is also limited.

4. Therefore, deployment of adequate ERS infrastructure with the States is necessary. In this connection, CEA had recently convened a meeting of the representatives from State Utilities, CTUs and RPCs to deliberate and review their preparedness to effectively restore transmission networks in times of emergency. Based on the inputs received, an indicative requirement of ERS for States has been assessed which is at Annex-I. Further, CEA has also formulated guidelines for planning, deployment and procurement of such ERS infrastructure (Annex-II).

5. I would, therefore, request you to please issue necessary directives to Transmission Utilities/ Transmission licensees operating in your State to take stock, procure appropriate number of ERS infrastructure and place them at strategic locations. Action taken by the Utilities in this regard may be informed to the CEA and the Ministry of Power, at the earliest.

With regards,

Yours sincerely,

(Pradeep K. Sinha)

Encl : as above

Shri Ramesh Negi
Chief Secretary
Govt of **Arunachal Pradesh**
Itanagar

Dist:- As per list attached.

RIGHT TO INFORMATION

स्वच्छ भारत
एक कदम स्वच्छता की ओर

ANNEX-I

Availability and Proposed Plan for deployment of ERS

Sl. No.	Region	State Utilities / PGCIL	Availability of ERS sets	Additional ERS set to be procured	Remark
I	Northern Region				
	PGCIL	NR1	3	1	
		NR2	1		
	1	Haryana	-	1	
	2	HP	-	1	Hilly terrain
	3	J&K	-	1	-do-
	4	Punjab	-	2	
	5	Rajsthan	-	3	
	6	Uttar Pradesh	-	3	
	7	Uttarakhand	-	1	
	8	Chandigarh	-	-	
	9	Delhi	-	1	DTL is procuring 2 ERS sets
	10	POWERLINKS	2		1 set each is located in NR and ER; each setting having 14 towers of 400 kV
	Total		6	14	
II	Western Region				
	PGCIL	WR1	2	1	
		WR2	2		
	10	Gujarat	-	3	

	11	MP	1	2	
	12	Chhattisgarh	-		
	13	Maharashtra	2	2	
	14	Goa	-	1	
	15	D&NH	-	-	
	16	Daman& Diu	-	-	
	Total		7	9	
III	Southern Region				
	PGCIL	SR1	1	2	
		SR2	1		
	17	AP	-	3	(To be located at Vishakahapatnam, Vijawada, Nellore)
	18	Telengana	-	1	
	19	Karnataka	-	2	
	20	Kerala	-	1	
	21	Tamil Nadu	-	2	
	22	Lakshadweep	-	-	
	23	Puducherry	-	-	
	Total		2	11	
IV	Eastern Region	PGCIL			
	PGCIL	ER1	1	-	
		ER2	2		
	24	Bihar	2	2	
	25	Jharkhand	-	1	
	26	Orissa	3	2(comprising of 12 nos. of 400kV towers which is in the process of procurement)	Existing ERS located at Bhubaneswar, Chatrapur and Budhipada (each with 14 ERS towers)
	27	West Bengal	-	2	
	28	DVC	-	1	

	29	A&N Island	-	-	
	30	Sikkim	-	-	
	Total		8	8	
V	North Eastern Region		-		
	PGCIL	NER	1		
	31	Assam	4	2	
	32	Manipur	-		
	33	Meghalaya	-		
	34	Nagaland	-		
	35	Tripura	-		
	36	Ar. Pradesh	-		
	37	Mizoram	-		
	Total		5	2	
	Total All India		28	44	

Note: POWERGRID has informed that they are procuring 6 additional sets of ERS for different regions.

Strategy adopted

1. The primary criterion for deciding number of ERS to be arranged by a transmission utility has to be the length of transmission line (ckt-kms) at different voltage levels (e.g 220 kV, 400 kV, 765 kV and +/- 500kV HVDC). Other factors to be taken into account while deciding the number of ERS are

   - Importance of the line considering security of Grid
   - Areas prone to tower failure and failure pattern in different areas
   - Command area of the transmission utility and transportability across the command area

2. For any transmission utility, one set of ERS has been planned to cater to failure of towers for transmission line lengths of up to 5000 Ckt. Kms.. Accordingly, two (2) sets of ERS have been planned for transmission line lengths of about 5000 to 10,000 Ckt. Kms. and three (3) sets for more than 10,000 Ckt. Kms and so on.

3. The transmission Utility with line length less than 500 ckt kms (of 400kV lines) may be given option either to procure ERS or have agreement with other transmission utilities for providing ERS on mutually agreed terms, when need arises.

ANNEX-II

GUIDELINES FOR PLANNING, PROCUREMENT AND DEPLOYMENT OF EMERGENCY RESTORATION SYSTEM (ERS)

1. One set of ERS should include all accessories [structures (Aluminum Alloy), polymer insulators & hardware, anchor assembly, guy wires, foundation plates, guy plate, other equipment & fittings, special Tools & Plants required for erection & stringing of ERS and trailer mounted detachable containers (without engine) for storage & transportation of ERS hardware / material etc.] and associated software.

2. One set of ERS shall be capable of restoring few numbers of suspension towers and tension towers of the transmission line corresponding to the highest transmission voltage in operation in the utility with required type of conductors. The same ERS can be used for lower voltage lines as well. The number of suspension, tension towers, insulators and associated hardware etc., to be included under one set of ERS, may be decided by the utilities at the time of procurement depending on their requirement.

3. Proper management of ERS and training of personnel for erection of towers on ERS and use of associated software is essential. A dedicated and specialized erection & commissioning gang, which is properly trained to execute such work, would be required.

4. ERS should be utilized only for emergency purposes and the line should be restored on normal towers as early as possible. It should not be a practice to run transmission line on ERS for a long time instead of shifting to normal towers. Moreover, ERS should not be used in new lines under construction. Otherwise, the very purpose of ERS will be defeated.

5. The deployment of ERS by any transmission utility / licensee should be reported to concerned RLDC and RPC.

6. The transmission utilities may approach Appropriate Commission for approval and initiate procurement process on urgent basis to comply with Grid Standards. Utilities may also approach State Disaster Management Authorities for funding.

7. The funding for procurement of ERS could be considered from PSDF for North Eastern States and a proposal be submitted by Member Secretary, NERPC.

Annex

List of Chief Secretaries of State and UTs

S. No.	State	Name and Address	Telephone/ Fax/Email
1.	Andhra Pradesh	Shri I.Y.R. Krishna Rao Chief Secretary Government of Andhra Pradesh, Secretariat, Hyderabad-500022	Tel: 040-23453620 040-23455340 Fax: 040-040-23453700, 23451133, 23451144
2.	Arunachal Pradesh	Shri Ramesh Negi Chief Secretary & Principal Secretary (Relief & Rehabilitation & Disaster Management) Arunachal Pradesh Civil Secretariat, Government of Arunachal Pradesh, Itanagar- 791 111	Tel: 0360-2212595 Fax: 0360-2212446, 2215719 M: 9436040035
3.	Assam	Shri Jitesh Khosla Chief Secretary Government of Assam, Assam Sachivalaya, Block C, 3rd Floor, Dispur, Guwahati-781006	Tel: 0361-2261120, 2261403 Fax:-0361-2260900
4.	Bihar	Shri Anjani Kumar Singh Chief Secretary Government of Bihar Old Secretariat, Patna-800015	Tel: 0612-2215804 Fax: 0612-2217085
5.	Chattisgarh	Sh. Vivek Kumar Dhand Chief Secretary Government of Chattisgarh, DKS Bhawan, Mantralaya, Raipur-492001	Tel: 0771-2221207/8 Fax: 0771-2221206
6.	Goa	Shri R.K. Srivastava Chief Secretary Govt. of Goa Secretariat Porvorim	Tel: 0832-2419402 Fax: 0832-2415201
7.	Gujarat	Shri D.J. Pandian Chief Secretary Government of Gujarat New Sachivalaya Gandhingar-382010	Tel: 079-23220372, 079-23250301-3 Fax: 079-23250305
8.	Haryana	Shri. P.K. Gupta Chief Secretary Government of Haryana, Room No.-4, 4th floor, Harayana, Civil Secretariat, Sector-1, Chandigarh-160009	Tel: 0172-2740118 Fax: 0172-2740317
9.	Himachal Pradesh	Shri P. Mitra Chief Secretary Government of Himachal Pradesh Secretariat, Shimla- 171002	Tel: 0177-2621022 Fax: 0177-2621813

10.	Jammu & Kashmir	Sh. Mohammad Iqbal Khandey Chief Secretary Government of J &K Jammu Secretariat, Jammu	Tel: 0191-2546773, 2544338 (Jammu) Fax: 0191-2546188
11.	Jharkhand	Shri Sajal Chakrabarty Chief Secretary Government of Jharkhand Secretariat, Ranchi-834004	Tel: 0651-2400240, 2400250 Fax: 0651-2400255
12.	Karnataka	Shri Kaushik Mukherjee Chief Secretary Government of Karnataka 3rd Floor, R. No. 320, Vidhan Sauda, Secretariat, Bangalore-560001	Tel: 080-22252442, 22092476 Fax: 080-22258913
13.	Kerala	Ms E K Bharat Bhushan Chief Secretary Government of Kerala Secretariat, Thiruvananthapuram-695001	Tel: 0471-2333147, 2327376 Fax: 0471-2327176
14.	Madhya Pradesh	Shri Anthony J C Desa Chief Secretary Government of Madhya Pradesh Mantralaya, Vallabh Bhawan, Bhopal-462004	Tel: 0755-2441370, 2441848 Fax: 0755-2441521
15.	Maharashtra dscsoffice @gmail.com	Shri Swadheen S Kshatriya Chief Secretary Government of Maharashtra Mantralaya, Mumbai-400032	Tel: 022-22852626 22025042,22028762 22793762 Fax: 022-22028594
16.	Manipur	Shri P.C. Lawmkunga Chief Secretary Government of Manipur Manipur Secretariat, Imphal-790001	Tel: 0385-2451144, 2450064 Fax: 0385-2452629
17.	Meghalaya	Shri P B O Warjri Chief Secretary Government of Meghalaya,Meghalaya Civil Secretariat, Shillong-793001 Email: barkos.warjri@nic.in	Tel: (O)0364-2224801, 222250, Mob:-9774033922 (R)-0364-2534629 Fax: 0364-2225978
18.	Mizoram	Shri Lalmalsawma Chief Secretary Government of Mizoram, Block C, Civil Secretariat, Aizwal- 796001	Tel: 0389-2322411 Fax: 0389-2322745
19.	Nagaland	Shri M.T. Aier Chief Secretary Government of Nagaland Nagaland Civil Secretariat, Kohima-790001	Tel: 0370-2270082, 2270076 Fax: 0370-2270057
20.	Orissa	Shri Gokul Chandra Pati Chief Secretary Government of Orissa Secretariat, Bhubaneshwar- 751001	Tel: 0674-2534300, 2536700 Fax: 0674-2536660
21.	Punjab	Shri Sarvesh Kaushal Chief Secretary Government of Punjab Punjab Secretariat, Chandigarh-160017	Tel: 0172-2740156, 2740860 Fax: 0172-2742488, 2740936

22.	Rajasthan	Shri C.S. Rajan Chief Secretary Government of Rajasthan Secretariat, Jaipur-302001	Tel: 0141-2227254 Fax: 0141-2227114
23.	Sikkim	Smt. Rinchen Ongmu Chief Secretary Government of Sikkim Secretariat, Gangtok- 737101	Tel: 03592-202315, 204323 (fax) Fax: 03592-222851 03592-204323
24.	Tamil Nadu	Shri. K. Gnanadesikan Chief Secretary Government of Tamil Nadu Secretariat, Chennai-600009	Tel: 044-25671555 Fax: 044-25672304
25.	Tripura	Shri G. Kameswara Rao Chief Secretary Government of Tripura Civil Secretariat, Agaratala-799001	Tel: 0381-2323200, 2324392 Fax: 0381-2324013
26.	Uttar Pradesh	Shri Alok Ranjan Chief Secretary Government of Uttar Pradesh Secretariat, Lucknow-226001	Tel: 0522-2621599 0522-2238212 0522-2238212 Fax: 0522-2239283
27.	Uttarankhand	Shri N. Ravi Shanker Chief Secretary Government of Uttarakhand 4, Subhash Road, Secretariat, Dehradun-248001	Tel: 0135-2712094 0135-2712100, 2712200 Fax: 0135-2712113 0135-2712500
28.	West Bengal	Shri Sanjay Mitra Government of West Bengal Secretariat, Writers Building Kolkata-700001	Tel: 033-22145858 Fax: 033-22144328
29.	Andaman & Nicobar	Sh. Anand Prakash Chief Secretary Secretariat & Administration, Government of Andaman & Nicobar Islands, Port Blair	Tel: 03192-233110, 234087 Fax: 03192-231100, 03192-232656
30.	Chandigarh	Shri K.K. Sharma Advisor to Administrator Union Territory of Chandigarh, Punjab Raj Bhawan, Sector – 6 Chandigarh-160017	Tel: 0172-2740154 Fax: 0172-2740317 0172-2740165
31.	Dadra & Nagar Havelli	Shri Ashish Kundra Administrator Government of Dadra & Nagar Havelli, Secretariat, Silvassa-396230	Tel: 0260-2230700 2642777 Fax: 0260- 2230775 0260-2642702
32.	Daman & Diu	Shri Ashish Kundra Administrator Secretariat Daman, Government of Daman & Diu, Daman & Diu	Tel: 0260-2230770, 2230700 Fax: 0260-2230775

33.	Delhi	Shri D.M. Spolia Chief Secretary Govt of NCT Delhi, Delhi Secretariat, I.P. Estate, New Delhi- 110002	Tel: 011-23392100 Fax: 011-23392102
34.	Lakshadweep	Shri H. Rajesh Prasad Administrator Union Territory of Lakshadweep, Kavaratti, Lakshadweep-682555	Tel: 04896-262255, 262279 Fax: 04896-262184
35.	Puducherry	Shri Chetan B Sanghi Chief Secretary Puducherry Administration, Chief Secretariat, 1 Beach Road, U.T. of Puducherry, Puducherry- 605001	Tel: 0413-2334145 0413-2335512 Fax: 0413-2337575

36. Telangana Dr. Rajiv Sharma,
Chief Secretary,
Govt. of Telangana,
Hyderabad.