North Eastern Regional Power Committee

Agenda For

184th OCC Sub-Committee Meeting

Time of meeting : 10:30 Hrs.

Date of meeting : 26th November, 2021 (Friday)

Venue : "Hotel Nandan", Guwahati.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 183rd MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 183rd meeting of Operation Sub-committee held on 21st October, 2021 at Sohra were circulated vide letter No. NERPC/SE (O)/OCC/2020/3052-3089 dated 03rd November, 2021.

The Sub-committee may confirm the minutes of 183rd OCCM of NERPC with suitable amendments as no other comments/observations were received from the constituents.

ITEMS FOR DISCUSSION

B.1 Implementation of Projects funded from PSDF:

The status as informed in 183rd OCC:

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. P-III (Substation equipment) Submitted to government for tender finalization. LoA by Oct'21.	Work completed in all respects. Final 10% disbursement by Oct'21.	-	LoA placed on 23rd Sep'21.	-
Nagaland	Completed in all respects. 10% requisition to be sent alongwith UC.	Work completed in all respects. Final 10% release in process.	-	LoA placed on 23rd Sep'21.	Lines identified. Under DPR preparation stage.

Mizoram	Completed. 10% remaining claim to be submitted ASAP.	Work completed in all respects. Final 10% to be disbursed.	To reply to TESG queries.	LoA placed on 23rd Sep'21.	DPR submitted.
Manipur	Package-II: completed Package-I: total quantity of material yet to be received at site	Work completed in all respects. Final 10% to be disbursed.	WIP.	LoA placed on 23rd Sep'21.	DPR received.
	33kV System Integration with SLDC	In tendering stage			
	Reliable Communications for grid connectivity	In tendering stage			
Tripura	Work completed. 10% remaining claim to be sent ASAP.	60% funds received. Disbursement Oct'21.	Study results to be submitted alongwith DPR	LoA placed on 23rd Sep'21.	Under DPR preparation stage.
Assam	WIP. 60% amount to be disbursed at the earliest.	Work complete in all respects. 10% to be disbursed after receipt of funds from PSDF.	-	Requisition to be submitted for first tranche	Lines identified. Under DPR preparation stage.
Meghalaya	MePTCL – completed in all respects. MePGCL – UC to be submitted at the earliest**.	Project complete in all respects.	-	Requisition to be submitted for first tranche	WIP. Delayed due to COVID situation

Members may please discuss.

B.3 <u>Operational Performance and Grid Discipline during October,2021:</u>

NERLDC will present the Operational Performance and Grid Discipline in October'2021.

NERLDC may please deliberate.

B.4 Generation Planning (ongoing and planned outages)

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

Plants	Reservoirs level in meter	MU content	Present DC (in MU)	No of days as per current generation
Khandong + Kopili stg II			**1.176**	
Kopili			**0**	Will be "0" until further intimation.
Doyang			**0.568**	
Loktak			**2**	

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

Members may please discuss.

B.5 Outage Planning Transmission elements

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

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

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

Members may please discuss.

B.6 Estimated Transmission Availability Certificate (TAC) for the month of August - September, 2021:

NETC and POWERGRID have submitted the outage data for the month of August, September 2021. So, the attributability of outage of the said elements may please be finalized.

Members may please discuss.

B.7 Mock Black Start Exercise:

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

Plant Name	Performed On	Due Date	Schedule of Testing as per 183rd OCCM
AGBPP	……	……	After installation of DG under R&M
AGTTCCPP	09.04.2019	09.10.2019	Date to be intimated
RHEP	……	……	Date to be intimated
PareHEP	25.01.2020	25.07.2020	Date to be intimated
Kopili HEP	10.05.2019	NA	Date to be intimated
Khandong HEP	09.05.2019	09.11.2019	Date to be intimated
DHEP	12.06.2019	12.12.2019	Date to be intimated
Kameng HEP	……	……	After restoration of two machines
Loktak HEP	10.12.2019	10.06.2020	Date intimated by 15th Nov'21

As per discussion in 177th OCC meeting on 22nd April 2021, schedule of Mock exercise at AGBPP and RHEP was to be finalized by NEEPCO after discussion with OEM. 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. Therefore, mock black start exercises at all the generating stations is due as per dates mentioned in the above table.

Members may please discuss.

B.8 Turning ON of SPS for Monarchak GBPP:

As per discussion in special meeting held on 20/02/2020, SPS devised at Monarchak and tested successfully on 01/05/2021 at 02:42 Hrs when line - 3 (132 KV Monarchak-Rokhia) tripped due to some line fault. SPS was operated, STG was out from grid, GTG not tripped and feeder-4 (132KV Monarchak - Udaipur) also not tripped due to overloading. Logic was devised as discussed and advised in special meeting on 20/02/2020. Total generation setting can be changed as per requirement. SPS is presently in disable condition and waiting the confirmation from SLDC Tripura to implement the SPS. Email containing all the details and logic diagram was sent to SLDC Tripura on 29/07/2021 with request to evaluate, confirm and clear the DC/schedule revision issue.

In 183rd OCC meeting DGM, TSECL informed that logics of the scheme have been agreed and the commercial implications i.e. Open Cycle Certification is pending with the Board of TSECL. Member Secretary i/c, NERPC stipulated deadline of 31.10.2021 for obtaining Board approval for TSECL.

Members may please discuss.

B.9 Status of ADMS:

Status for Automatic Demand Management Scheme in 7 states of NER:

Name of the utility	SAT Completion	DoCO
DoP Ar.Pradesh	To be informed	To be informed
AEGCL/APDCL	07-12-2020	
MSPCL	30-11-2020	
MePTCL/MePDCL	31-08-2020	04-09-2020

P&ED Mizoram	26-02-2021	To be informed
DoP Nagaland	17-11-2020	
TSECL	24-12-2020	

The 183rd OCC forum requested SLDC Assam to present their ADMS scheme in the next OCC meeting.

Members may please discuss.

B.10 Synchronisation issue at AGBPP on 05.10.2021:

On 05.10.2021 there was Planned shutdown of 220kV AGBPP – Maraini(PG) due to which Upper Assam gate flow was maintained around 0MW. The shutdown was returned at 16:46hrs but due to synchronizing issue at AGBPP, the line was charged at 19:00hrs after multiple attempts. During Multiple attempts the line was extended from Mariani(PG) end but failed to synchronize at AGBPP end. During the last attempt the line was extended from AGBPP end and synchronized successfully at Mariani(PG). During this a huge load reduction of around 100MW was done by Assam to maintain Upper Assam Gate Flow.

The forum requested NEEPCO to implement interlock between trolley and line CB for automatic closing at the earliest.

In the visit of the team comprising of members from NERTS, NERLDC & NERPC to AGBPP on 13th Nov'21 the following were observed:

- NEEPCO always charges the line after connecting Synchronisation trolley to CRP.
- Interlock is built in into the Synchronisation logic
- Synchronisation possible for angle less than 10deg at AGBPP while at New Mariani(PG) end it's less than 35deg
- Delay in synchronization is due to CVT/PT error

The team recommended for pair check comparison of CVT and Bus PT at different intervals of time to determine the faulty ph-CVT/CVTs.

Members may please discuss.

B.11 Implementation of Single Phase Auto-Reclosure for 132kV Rangia-Motonga and 132kV Gelephu-Salakati :

It was discussed in 164th OCCM held on 21.01.2020 that the 3 phase GO CB at Salakati and Rangia is to be converted to single Pole CB by NERTS. The same has been implemented at Gelephu and Motanga end by Bhutan. In 6th OCC meeting between India & Bhutan held on 16th March 2021, it was informed by NERTS that the work shall be completed within 3 months.

In 183rd OCCM Chief Manager(AM), NERTS intimated that the Indian portion of 132kV Rangia-Motonga though maintained by POWERGRID the ownership lies with PTC India. Hence after due clearance from PTC India, the SPAR would be implemented tentatively by 3 months. For 132kV Gelephu-Salakati, he informed that CB cannot be fitted in the existing foundation and the works require 4 months for completion.

GM(SO-II), NERLDC stated that BPC is ready to implement TLSA for 132kV Gelephu-Salakati in the Bhutan Section and Indian section should also be fitted with TLSA to reduce the lightning induced tripping esp. back flashover. The forum requested NERTS to explore and revert back at the earliest.

Members may please discuss.

B.12 Establishment of backup SLDC:

With reference to the agenda B1 of 20th NeTEST meeting, SLDC, AEGCL is planning to establish backup SLDC along with up gradation of SCADA/EMS at the existing control center. In the connection with SCADA/EMS up gradation at the existing control center a draft DPR has been circulated by NERLDC. In that draft DPR, equipment needed for SCADA/EMS has been considered for two control center. But the cost involved against equipment needed for communication network up gradation and civil infrastructure for establishing the backup control center has not been considered in that draft DPR for PSDF funding.

In 183rd OCCM AGM, SLDC, AEGCL requested the intervention of forum so that the Establishment of Backup SLDC be funded from suitable scheme. Further he requested guidance for inclusion of Civil Cost in DPR.

The forum welcomed the initiative and requested NERPC to discuss the matter with MoP/CEA/CTU/NLDC regarding provision of inclusion of communication network up-gradation and civil infrastructure for establishing the backup control center in draft DPR for PSDF funding. The same shall be discussed in the next OCCM.

Members may please discuss.

AGENDA ITEMS FROM NERLDC:

B.13 Ring formation of 132kV Jiribam-Rengpang-Loktak of Manipur Power System:

132 kV Jiribam-Rengpang-Loktak is to be kept in loop for ensuring the reliability of Rengpang area of Manipur Power System.132 kV Jiribam-Rengpang was charged on 26th Oct'21 after long outage and Rengpang load was fed from 132 kV Jiribam (PG)-Jiribam-Rengpang line by keeping 132 kV Loktak-Rengpang in open condition. However, in the present grid condition, 132 kV Jiribam-Rengpang is kept open and Rengpang is connected to grid via 132 kV Loktak-Rengpang link.

MSPCL is requested to intimate schedule of completion of the ring of Rengpang system at the earliest for ensuring reliability of Rengpang areas of Manipur System.

NERLDC may please deliberate.

B.14 N-1 reliability of Zuangtui Area of Mizoram System:

132 kV Melriat (PG)-Zuangtui line carries a load of about 70 MW and on tripping of this line overloading is observed in 132 kV Aizawl (PG)-Luangmual line, thus not satisfying N-1 reliability criterion.

A meeting was conducted on 22nd February,2021 by CEA with SLDC Mizoram and NERLDC to discuss the probable solutions to resolve the overloading issues where NERLDC had proposed the implementation of another 132 kV Melriat (PG)-Zuangtui line and 132 kV Aizawl (PG)-Melriat (MZ) line to increase the reliability of Zuangtui and Lungmual area and address the overloadingof 132 kV Aizawl (PG)-Luangmual.

P&ED, Mizoram is requested to explore the feasibility of the aforementioned solute ion for ensuring reliability and security of Mizoram System.

NERLDC may please deliberate.

B.15 Outage of 400kV Imphal(PG) – Thoubal-I:

400 kV Thoubal S/S of Manipur along with 400 kV Imphal (PG)-Thoubal D/C were first time charged on 18th Oct'21, becoming first state owned 400 kV Substation of Manipur. However, 400 kV Imphal (PG)-Thoubal I had tripped on 21st Oct'21 at 13:32 hrs on Distance Protection and it was informed that vegetation clearance is pending due to issues related to Right-of-Way (ROW).

MSPCL is requested to look into the matter on priority basis and restore the line at the earliest.

NERLDC may please deliberate.

B.16 Status update of commissioning of 220kV Mariani(PG) – Mariani(AS) and 220kV Mariani – Samaguri-II:

Commissioning of 220 kV Mariani (PG)-Mariani (AS) S/C&220kV Mariani-Samaguri Ckt-II are very important for reliable power evacuation from generating stations in Upper Assam area. Since, in case of outage of either 220 kV Mariani-Samaguri(AS)-I or 220 kV AGBPP-Mariani (PG), the Upper Assam System becomes vulnerable and generation backdown is required to ensure N-1 reliability of Upper Assam Power System.

Moreover, with the winter season approaching, the lesser demand and higher generation trend will lead to further difficulty in maintaining the actual gate flow within the flow limit (presently 210 MW) in the Upper Assam area.

Hence, AEGCL is requested to share the latest progress status of commissioning of the mentioned lines for ensuring reliability of Upper Assam System.

NERLDC may please deliberate.

B.17 Violation of state wise TTC/ATC:

As per POSOCO KPI, NERLDC has to report the violation of import TTC/ATC of NER states in daily,weekly and monthly basis. It has been observed that most of the NER states are not N-1 secure causing violation of TTC/ATC limit although the actual drawal 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	180	5	175
	Peak			180	5	175
Assam	Off-Peak	220/132 kV,160 MVA ICT at BTPS	Other 220/132 kV, 160 MVA ICT at BTPS	1500	40	1460
	Peak			1580	40	1540
Manipur	Off-Peak	132kV Imphal MA-Imphal PG Ckt I	132 kV Imphal (MA)-Imphal (PG) II & III	210	5	205
	Peak			220	5	215
Meghalaya	Off-Peak	132 kV Umiam3 – Umiam1	132 kV Umiam-Umiam Umiam 1 II	230	10	220
	Peak			250	10	240
Mizoram	Off-Peak	132 kV Melriat-Silchar I	132 kV Aizawl Luangmual S/C	148	5	143

	Peak	ORII		152	5	148
Nagaland	Off-Peak	220/132 kV ,100	220/132 kV ,30	170	5	165
	Peak	MVA Dimapur ICT	MVA Mokokchung ICTs	180	5	175
Tripura	Off-Peak	132 kV SM-Nagar (TR) –	132 kV PK-Bari (TR)- PK	310	6	304
	Peak	SM Nagar (ISTS) S/C	Bari (ISTS) S/C	365	6	359

Hence, all the NER states are requested to explore possibilities of addressing this issue like planning of new corridors, augmentation of existing network, restricting the scheduled drawl within the TTC/ATC limit etc.

NERLDC may please deliberate.

B.18 Timely submission of Node-wise load and Unit wise generation data for Computation of NER TTC:

Node-wise load and Unit-wise generation data is required from all the utilities of NER for declaration of Regional TTC/ATC by RLDC three months in ahead in accordance with Clause No. 3.2 and 3.3 of Measures to relieve Congestion in Real-Time of CERC Regulations,2009. It has been observed that Arunachal Pradesh and Tripura are not submitting the data continuously since the last few months.

Hence, all the NER utilities are requested to timely submit the data so that the NER-ER TTC/ATC can be computed with reliable load -generation data.

NERLDC may please deliberate.

B.19 High voltage issue at Ranganadi during night hours with the onset of winter season:

With the onset of winter season, the MU declaration of the RHEP has come down drastically. The units of RHEP are scheduled in the peak hours only, as to meet the peak demand of NER. As such all the units of RHEP are generally taken out of the grid in the late-night hours. With none of the RHEP units are available in the grid and low demand of the region, adequate VAr compensation of the grid is not taken place resulting in high voltage scenario in 400kV nodes specially at Ranganadi. Hence early commissioning of the 80MVAr Bus Reactor at Ranganadi has become important for the grid.

NERLDC may please deliberate.

B.20 Load Forecast Errror(RMSE) for NER constituents:

The median of Load Forecast Error in % (RMSE) for the NER states for Oct'21 is as follows:

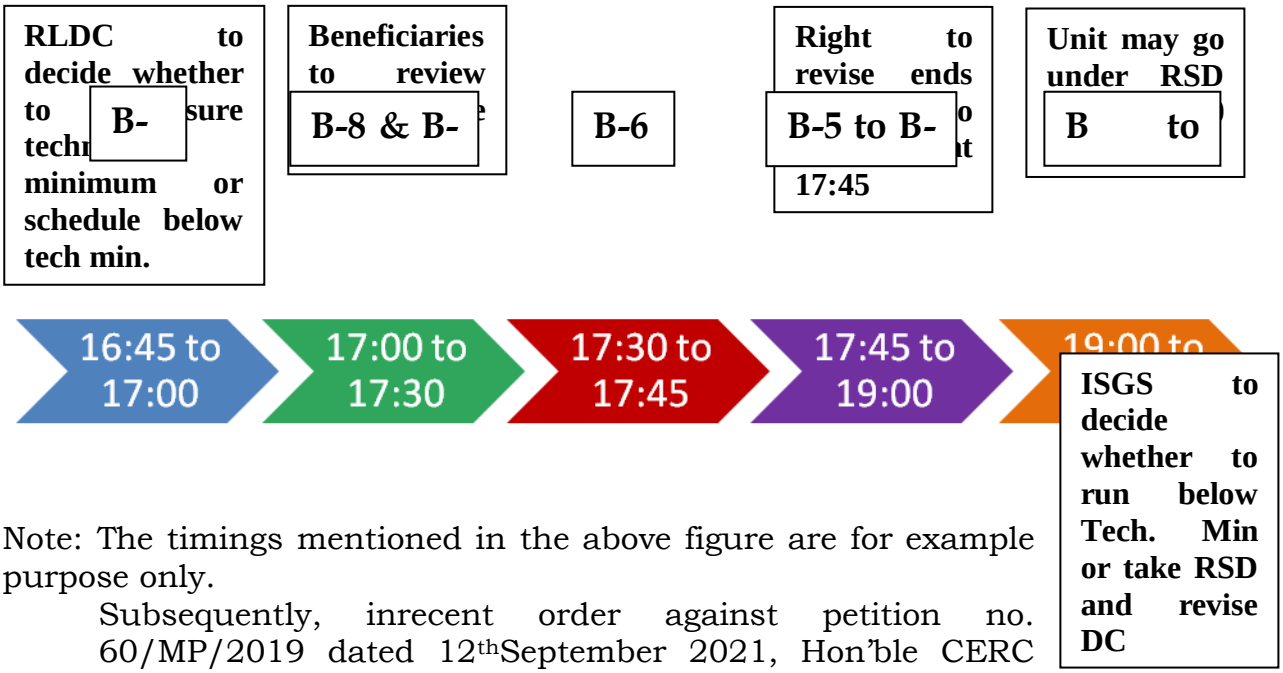
States	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
RMSE	12.5	11	10	21	17	10.5	12

NERLDC may please deliberate.

B.21 Guidelines for RSD:

The median of Load Forecast Error in % (RMSE) for the NER states for Oct'21 is as follows:

In 168th OCC Meeting held on 20th July 2020, the following guidelines for RSD of ISGS thermal in NER were approved and presently in practice:



Note: The timings mentioned in the above figure are for example purpose only.

Subsequently, inrecent order against petition no. 60/MP/2019 dated 12thSeptember 2021, Hon'ble CERC has given guidelines regarding RSD and suo-motu scheduling by RLDCs in case of schedule of generators going below their technical minimum level.

Consequently, it is proposed that the present practice of suo-motu scheduling for providing technical minimum schedule to generating stations by NERLDC may be continued with an antecedentstep i.e.ISGS generating stations will inform their respective beneficiaries and NERLDC regarding their schedule going below technical minimum via email prior to B-9 time block for review of corresponding requisition by beneficiaries.

NERLDC may please deliberate.

AGENDA ITEMS FROM MSPCL

B.22 Upgradation of 33kV CTR for Optimal Power Evacuation from 2x50MVA, 400/132/33kV Imphal(PG) Station:

Under System Strengthening Scheme of Pallatana and Bongaigaon Generation Plants, 2x50 MVA, 132/33 kV power transformers were installed in Imphal (PG) Sub-station. For optimal use of the installed capacity, MSPCL have constructed a 33 kV Multi circuit lines on Tower (4-Circuits) with Panther Conductor connecting to a separate 33 kV Bus at Yurembam(State) with moose conductor to draw around 80 MW.

However, the aspiration of MSPCL cannot be fulfilled due to installation of 33 kV CTs of ratio 300/1 amp which have drawal capacity of 15 MW approx. per feeder with anticipated overall drawal of 60 MW maximum from this 2x50 MVA132/33 kV Sub-station.

At a time, when some feeders are outaged, then the other feeders need to be loaded upto 20/25 MW which is not possible now due to limitation of CT. Hence the very purpose of installing 2x50 MVA is defeated. In fact, at present, one feeder supplying Core Imphal is connected at radial mode and it is expected the load growth in the feeder may go upto 20/25 MW in the coming peak winter and we may be constrained to resort

to load shedding, which is not acceptable for the state as we have declared 24x7 power supply at least for Imphal.

MSPCL vide letter No. 14/6(PGCI)/GM(PD)/2019-MSPCL/1480-82 dated September 22,2021 has requested the Executive Director, NERTS, Power Grid Corporation of India Ltd to take up prompt action for upgradation of the 33kV CT ratio from 300/1 amp to 600/1 amp.

PGCIL is therefore requested once again to pay special attention to the up-gradation of the 33kV CT ratio from 300/1 amp to 600/1 amp at the earliest for optimal power evacuation from 2x50 MVA, 400/132/33 KV Imphal (PG) Sub-station.

MSPCL may please deliberate.

AGENDA ITEMS FROM NEEPCO

B.23 Relaxation in regulations required for operation of Pare Power station:

Pare HEP was originally envisaged as Run of the River Scheme by CEA/CWC in the year 1978 forming a part of the Panyor - Pare Basin Development. As a result, Dikrong basin is being utilized by developing Pare HEP as a run of the river project. Run of river scheme is generally considered as sub optimal design to control flood and irrigation. The benefits of irrigation, flood control etc. for Pare Hydro Electric Project are well accounted in the basin development through the planned downstream Doimukh Storage Project.

Pare Hydro Electric Plant is located very near to densely populated areas and downstream Pare River runs through areas like Doimukh town & Nirjuli. Despite all the best efforts some untoward incidents in Pare River downstream of Pare Hydro Electric Project has been noticed. To prevent such unfortunate incidents social awareness via public address announcement and board casting awareness messages in different mediums is being carried out by Project authorities. Also, there is an Early warning system and siren to alarm caution or evacuate the river bank during water release into the river.

As per NERLDC operation procedure, scheduled revision to be made for 7th block and overloading can be done only when there is spillage. As our Pare HEP is in the downstream of RHEP and catchment volume of Pare HEP is relatively less as it is designed to utilized as run of river with small pondage. Due to which RWL increasing trend is very abrupt when RHEP is at full load or inflow of Pare River is high. The 6 blocks gap (from revision block to schedule block) is enough to increase RWL near to FRL. Also, NERLDC generally don't allow overloading of units till there is spillage. It is also to be noted that during Pare HEP dam spillage, generally RHEP runs at full load, at this condition frequency tends to be higher and for higher grid frequency in RGMO mode our machine loading decreases automatically below set point which further decrease the water consumption of units.

Therefore, considering Pare HEP being run of river with small pondage and regulations of NERLDC, it has become considerably tough to prevent water release through radial gate opening. This is not only wastage of national renewable resources but also uncontrolled release of impounded water hit the livelihood of downstream people.

We have seen that different power plants from different locations of our nation opted for exemption of regulations in the line of vintage plants or for other different constraints.

Therefore, competent authority may pursue the matter for some relaxation in regulations in the line with constraints of Pare HEP.

The following relaxations may consider especially for Pare HEP:

1. Six (6) blocks gap may be reduced to 3-4 blocks.
2. Allowing to overload units before spillage to prevent Radial gate opening.
3. Allowing to turn off RGMO mode to prevent Radial Gate opening.

MSPCL may please deliberate.

C. ITEMS FOR STATUS

C.1. Status update of important grid elements under prolonged outage impacting system operation:

Sl. No	Element	Owner	Status as informed in the 183rd OCCM	Latest status
1	132kV Mariani – Mokokchung (*out since April'2008*)	AEGCL	Inspection for 132kV Mariani-Longtho to be completed and Estimate by Oct'21	
2	FSC of 400kV Balipara – Bongaigaon-4(*out since 02nd Sep'20*)	NERTS	LoA placed. Completion by Apr'22	
3	132kV Roing-Pasighat (*charged through ERS tower*	NERTS	2/32 piles completed. By Mar'22	
5	Kameng Unit-III (*out since 29.07.2021*)	NEEPCO	OEM to visit site	
6	Kameng Unit-IV (*out since 18.08.2021*)	NEEPCO	OEM to visit site	
7	Kopili Stg-II-25MW (*out since 01.09.2020*)	NEEPCO	By 1st week of Nov'21	
8	220kV Misa-Kopili D/C, 220/132kV ICTs at Kopili, 132kV Khandong –Kopili D/C(*out since Oct'19*)	NEEPCO/ NERTS	-	

Members may please update the status.

C.2. Status of commissioning for upcoming projects:

Sl. No	Name of the element	Utility	Status as informed in 183rd OCC meeting	Latest status
1	132kV Monarchak-Surjamaninagar	TSECL	3/15 tower foundation completed.	

2	PLCC for 132kV Loktak-Ningthoukong and 132kV Loktak-Rengpang(existing lines)	MSPCL	To be intimated.	
3	Construction of 2nd bay at Balipara for 220kV Balipara-Sonabil-2	AEGCL	By Feb'22	
4	132kV Agia-Nangalbibra-II	MePTCL	PTCC clearance awaited.	
5	Upgradation of 132kV Lumshnong – Panchgram line	MePTCL	NIT by Oct'21. OPGW not included.	
6	Diversion of 132kV Bawktlang-Sihhmui	NERTS	By Jan'22	
7	PLCC for 132kV Karong-Kohima	MSPCL	By Jan'22	
8	132kV Loktak-Ningthoukong-II	MSPCL	Delayed due to RoW issues. By July'22	
9	132kV Roing-Chapakhowa	NERTS	Retendering done. By Dec'21	
10	132kV Rupai-Chapakhowa & Chapakhowa S/Sn	POWERGRID	Charged on 04.08.2021	
11	Re-conductoring 220kV BTPS-Salakati D/C	NERTS	By Mar'22	
12	420kV 80MVAR Bus Reactor	NEEPCO	Bid Evaluation on-going. LoA by 15th Nov'21.	
13	220kV Killing - Mawngap	NERPSIP	RoW Ribhoi/ East Khasi Hills districts. By Dec'21	
14	220kV Samaguri – Mariani-I	AEGCL	Forest department clearance awaited.	
15	220kV Mariani(AS) – New Mariani	AEGCL	Stay arrangement made. By Nov'21.	
16	400kV Imphal-Thoubal & 400kV Thoubal S/Sn	MSPCL	Charged on 18.10.2021**	
17	Reconductoring of 132kV Umiam Stg-III to Umiam Stg-I by HTLS	MePTCL	NIT by Oct'21	

Members may please update the status.

C.3 Introduction of SPS in Leshka S/Sn of Meghalaya:

Proposal to set up a SPS to limit the generation of Leshka on the account of tripping of one circuit of 132 kV Leshka – Khleihriat D/C. NERPC stated that under NERPSIP 132kV Leshka-Khliehriat-II will be LILOed at 132/33kV Mynkre S/Sn. However, even after LILO of Leshka-Khliehriat-II at Mynkre, full generation of Leshka cannot be safely evacuated via the other circuit in case of N-1 contingency.

In 183rd OCCM SE, MePGCL informed that MePGCL is in discussion with OEM M/s ANDRIZ for determining the ramp down rate which is essential in designing the logic.

MePGCL may please intimate the status.

C.4 Third Party Protection Audit:

AEGCL requests for Third Party Protection Audit of its stations, so that AEGCL may plan for Renovation and Upgradation of the same.

In 183rd OCCM Member Secretary i/c, NERPC elaborated the Audit Plan for Assam Sub-stations. He stated that teams shall be formed with officials from NERLDC, NERPC and NERTS/NEEPCO. In nearby stations of NEEPCO, NEEPCO shall be part of Audit Team and provide logistics. For remaining stations NERTS shall be part of Audit Team and provide the logistics. Also, members of Audit Team shall be drawn from the neighbouring states. He assured that the Audit shall commence from November'21 and slated for completion by Jan'22.

NERPC/AEGCL may please intimate the status.

C.5 Implementation of revised setting of Automatic Under Frequency Load Shedding in NER:

In the 19th NERPC Meeting held on 28th& 29th Nov'18, it was approved to revise the stages of the operation of UFR from existing frequency band of 49.2 – 48.6 Hz (100MW) to 49.4 – 48.8Hz (170MW) in four stages viz., 49.4 Hz, 49.2 Hz, 49.0 Hz, 48.8 Hz and the constituents agreed for the implementation of revised band of frequency and quantum of load shedding during the 148th OCC Meeting.

As per the minutes of 174th OCCM, all the states were asked to identify the feeders for additional installation of UFRs and review the existing locations of UFR installations with respect to frequency and connectivity. It was also requested from the states to share the detailed plan for UFR installation. However, only Assam and Nagaland had shared their updated UFR plan as per 176th OCCM.

Hence, all the states are requested to expedite the implementation of revised UFR settings and share their respective updated UFR plan.

In 183rd OCCM DoP Ar. Pradesh committed that the detailed revised list will be submitted by 15-11-2021 and SLDC Meghalaya to submit by 22-10-2021.

SLDCs may please intimate the status.

C.6. R&U of Protection System (Phase-II) of MePGCL:

In 183rd OCC meeting SE, MePGCL informed that after MeECL Board Approval, MePGCL shall place the proposal for PSDF funding.

MePGCL may please intimate the status.

Metering agenda

C.7. SEMs to be procured for Sterlite and KMTL ongoing projects:

NERTS confirmed over mail regarding receipt of 50 Nos. SEM and 10 Nos. DCD at Misa Substation on 23.03.2021. NERLDC prepared a list of 30 nos. SEM and 07 nos. DCD on priority basis and sent to NERTS via mail on 29.04.21. Therefore, currently a total of 20 nos. SEM and 6 nos. DCD is in stock as spare (considering 3 nos. DCD as spare from earlier 20 nos. DCD procurement and 3 nos. from the present DCD procurement of 10 nos.).

(A). Pending list of SEM replacement/new installation is given below for discussion:

Table: 1st Priority SEMs to be replaced/newly installed considering 20 Nos. as spare

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	FEEDER NAME	REMARKS	NERTS STATUS	STATUS AS PER COMMUNICTION RECEIVED FROM SITE
1	ASSAM	SONABIL	SONABIL END OF 220 kV BALIPARA-1 FDR	SEM OUT OF ORDER	Meter collected on 17.08.2021 and to be installed	METER NOT YET INSTALLED
2	OTPC	PALATANA	PALATANA ST-1	MALFUNCTION	Meters collected on 09.09.2021 and handed over on 15.09.2021	Meters will be replaced after availing shut down of the feeders
3	OTPC	PALATANA	PALATANA ST-2	MALFUNCTION		
4	OTPC	PALATANA	PALATANA END OF 400 KV SILCHAR-2 FEEDER	MALFUNCTION		
5	OTPC	PALATANA	PALATANA GT-1	MALFUNCTION		
6	POWERGRID	JIRIBAM	JIRIBAM_PG TRF FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER	Meters available at the sites, to be installed soon	METER NOT YET INSTALLED
7	POWERGRID	IMPHAL	IMPHAL TRF 1 FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER		METER NOT YET INSTALLED
8	POWERGRID	IMPHAL	IMPHAL TRF 2 FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER		METER NOT YET INSTALLED

From the above, 22 out of 30 SEMs completed (and details attached in Annexure **C.7-A**) for review of the constituents.

(B). Pending list of DCD distribution is given below for discussion:

Table: 1st Priority DCD distribution considering 3 Nos. as spare

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	NERTS Status as on Date
1	ASSAM	TINSUKIA	To be handed over
2	Ar. PRADESH	TENGA	To be handed over
3	Ar. PRADESH	DEOMALI	To be handed over

From the above, 7 out of 10 DCDs distributed, and details attached as **Annexure C.7(B)** for review of the constituents.
NERTS is also requested to update about spare of SEMs and DCDs.

NERTS may please intimate the status.

C.8. Procurement of SEM&DCD/laptop for future requirements:

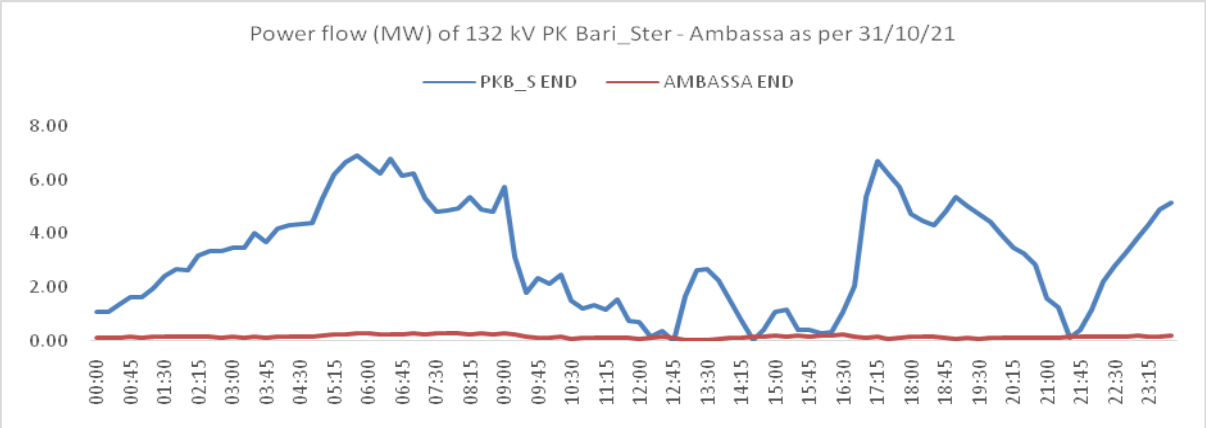
NERTS may intimate the status of procurement of:

(I) 125 nos. SEMs and 15 nos. CMRIs
(II) Additional 40 nos. of DCD

In 181st OCCM, NERTS informed that 15 Number of DCDs will be procured by NERTS by first week of Sept, 2021.

NERTS may please intimate the status

C.9. Erroneous reading of 132kV Ambassa end of PKBari-Sterlite line:



Based on round of discussions in previous OCCMs, Ambassa (TSECL) end of 132 kV Ambassa- PK Bari Sterlite line meter (Type-B) procured by Sterlite and certified by CTU installed on 28.06.21. But the data received after installation of the meter found close to 0 (zero) reading.

Matter has been communicated over mail and phone several times, but no corrective action has been taken so far. Installation of that meter, though not procured by CTU was decided by the Forum based on the importance of requirement of that meter for energy accounting.
In 183rd OCCM, NERTS informed that they had visited Ambassa and wiring have been checked and corrected.

Status may be reviewed(As per NERLDC observation, SEM still reads close to zero reading).

NERLDC may please deliberate.

C.10. Time mismatch between SEMs and ABT SEMs:

OTPC Main and check SEMs used for commercial purpose are L&T make, stand alone and sealed, the meters are battery supported (No GPS time), Our ABT SEMs are Schneider make and GPS synchronized.

OTPC plant is managing and monitoring SG on real time through ABT system. On analysis of previous few week DSM data it was observed that there is difference in Average Generation of ABT data vs SCM data which is causing Deviation though the AG is as per SG in ABT data. Mainly under injection penalty and over injection penalty i.e. as per ABT data no over injection/Under injection violation recorded however on DSM data over injection/Under injection violation recorded for few blocks.

NERLDC may suggest to explore possibility to synchronize OTPC Main and check SEMs and ABT SEMs.

In 183rd OCC meeting it was decided that NERTS would assist OTPC in synchronizing the Main & Check SEMs with the ABT SEMs. CM, NERTS stated that they shall visit Palatana for checking the time drift by 15-11-2021.

NERTS/OTPC may please intimate the status.

C.11. Regarding non-receipt of SEM data:

1. DCD was handed over to SLDC Nagaland in June 2021 for Sanis substation. Priority was given for DCD distribution to Sanis substation as it is a drawal point of Nagaland and Evacuation point of Doyang GS. But NERLDC yet to receive weekly SEM data from Sanis SS.

2. DCD was handed over to Udaipur substation on 01.01.2021. But weekly SEM data was not sent to NERLDC due to absence of Desktop DCD downloading software at Udaipur Substation. The matter was resolved by NERTS in coordination with M/s L&T on 10.09.2021. But even after that, weekly meter data is yet to be received by NERLDC. Priority was given for DCD distribution to Udaipur substation as it is a drawal point of Tripura and Evacuation point of Palatana GS.

Non-receiving of weekly SEM data communicated several times to respective SLDCs and Substations.

NERLDC may please deliberate.

C.12. Regarding non-receipt of SEM data from Motonga(Bhutan) end of 132kV Rangia line:

NERLDC has not received SEM data from Motanga (Bhutan) end of 132kV Rangia line since the beginning of Covid-19 pandemic. As intimated by Rangia NERTS office, they are unable to get Motanga data due to entry restriction by Bhutan. This line is trans-national line and energy accounting is of utmost importance and availability of both side SEM data is vital.

NERLDC may please deliberate.

D. ADDITIONAL AGENDA

D.1. Shutdown of Bay and Transmission lines at Dimapur Sub-station:

Under the NERSS VIII, SS01 package awarded to M/s Shandong Taikai and M/s Godrej and Boyce, the 220/132 kV Dimapur substation is being upgraded from AIS to GIS Substation.

Work Progress :

1. GIS building for 132kV and 220kV are completed.

2. Erection of 132kV GIS Modules including filling of SF6 gas at rated pressure already done. Erection of 160MVA ICT-1 and 2 including hot oil circulation already done.

3. Erection of Bus duct for 132kV elements (132kV Doyang-1and 2, Imphal, Bokajan, Dimapur-1, ICT-1and 2 including charging of SF6 gas at rated pressure already done.

4. Erection of 220kV modules already done including erection of 220kV duct for ICT-1 and 2.Erection of bus duct for Misa-1 and 2 not yet done due shut down issue.

5. Integration of BB Protection with existing GIS Bays WIP since 21.11.2021.

6. Application for CHARGING clearance from RIO and RLDC already submitted.

7. UPGRADATION OF 132kV Bays will follow subject to approval of SHUT DOWN.

Now, following shut down schedule for 132kV line elements under Dimapur S/S for upgradation of 132KVAIS to GIS is required. Necessary approval is required for onward activities as per schedule.

A. FOR HV TESTING OF 132KV ELEMENTS:

Option-1:

On 26.11.2021, 27.11.2021, 28.11.2021 : Night time shut down of 132kV Dimapur-Dimapur-1, 132kV Dimapur-Bokajan, 132kV Imphal-Dimapur, 132kV Doyang-1 & 2 from 22:00 Hrs. to 06:00 Hrs daily.

Option-2 : The best possible ways and means-

There are clearance problem between GIB bushing and existing conductor dropping of 132kV Doyang-2, 132kV Imphal and 132kV Bokajan line. However, 132kV Doyang-1 and 132kV Dimapur-1 is free from clearance problem. Service of 132kV Doyang-1 and 132kV Dimapur-1 shall remain without shut down during the period of HV test. However, shut down of 132kV Bokajan for 02 hours time is required to re-align the dropping to keep away from GIB bushing to facilitate normal service with T-connection with 132kV Dimapur-1. The service of 132kV Doyang-1 may be utilized for evening hour generation of Doyang Hydro.

We request for night time shut down of 132kV Doyang-2 and 132kV Imphal for HV test on 26.11.2021, 27.11.2021 and 28.11.2021 from 22:00Hrs to 06:00 daily. Day time shut down of 132kV Bokajan+132kV Dimapur-1 is requested for 02 hours from 07:00 Hrs to 09:00 Hrs on 26.11.2021 to re-align the conductor dropping of 132kV Bokajan for electrical clearance for HV test. Both 132kV Bokajan and 132kV Dimapur shall resume for normal service with T-connection after 09:00Hrs on 26.11.2021.

Normal system will prevail on 29.11.2021 and 30.11.2021 in 132kV elements.

B.FOR GIS UPGRADATION WORK :

3. 01.12.2021 : 132kV Dimapur-Dimapur-1 from 07:00Hrs to 16:00 hours for upgradation to GIS. 132kV Bokajan shall remain with 132kV Dimapur-1 GIS through T-connection. Bay end of 132kV Bokajan may be utilized for upgradation work by opening line jumpers of 132kV Bokajan.

4. 02.12.2021, 03.12.2021, 04.12.2021,05.12.2021 : 132kV Imphal Line from 07:00Hrs on 02.12.2021 to 16:00Hrs on 05.12.2021.

5. 06.12.2021,07.12.2021,08.12.2021,09.12.2021: 132kV Doyang-1 from 07:00Hrs on 06.12.2021 to 16:00Hrs on 09.12.2021

6. 10.12.2021, 11.12.2021, 12.12.2021, 13.12.2021: 132kV Doyang-2 from 07:00Hrs on 10.12.2021 to 16:00Hrs on 13.12.2021.

7. 14.12.2021 : 132kV Bokajan from 07:00Hrs on 14.12.2021 to 16:00Hrs on 14.12.2021. 132kV Dimapur-1 GIS will remain off with 132kV Bokajan. After removing the T-connections, the service of 132kV Dimapur-1 will resume from 09:00Hrs on 14.12.2021.

NERTS may please deliberate.

D.2. <u>Shutdown of 132kV GIS Bus at Mokokchung Sub-station:</u>

Under NERSS VIII, Bay extension works for 220/132KV ICT III is in progress. The erection of the GIS is completed and the 132kV side bay is now ready for coupling with the existing 132kV Bus. In this regard, continuous shutdown of 132kV Bus at Mokokchung for Bus coupling activity of existing 132kV Bus with New 132kV side ICT III bay as per the following details:

S.No	Name of Element for SD	Proposed date of SD	Elements Effected
1	132kV GIS Bus	27.11.2021, 23:00Hrs to 28.11.2021, 06:00 Hrs	132kV Mokokchung-Mokokchung(State) I & II and 132kV sides of ICT I & II

NERTS may please deliberate.

D.3 <u>132kV Main Bus of Aizawl SS and Temporary Jumpering of 132kV Aizawl-Melriat TL with 132kV Aizawl-Lungmual TL:</u>

Temporary Jumpering of 132kV Aizawl-Melriat TL (6.7km) with 132kV Aizawl-Lungmual TL (0.8km) at Dead-End tower of Aizawl SS to avail Continuous shutdown of 132kV Main Bus of Aizawl SS from 28.11.2021 07:00 Hrs to 29.11.2021 11:00Hrs for FOR CARRYING OUT HV TESTING OF NEWLY CONSTRUCTED GIS BAYS at Aizwal Substation.

NERTS may please deliberate.

<u>Any other item</u>:

<u>Date and Venue of next OCC</u>

Annexure-C.7(A)

(I). List of completed SEM replacement/new installation:

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	NEW METER NO	FEEDER NAME	REMARKS
1	ASSAM	HAFLONG	NE-0026-A	HAFLONG (AS) END OF HAFLONG PG	Installation completed on 27.06.2021
2	MIZORAM	ZUANGTUI	NE-0001-A	ZUANTUI END OF 132 kV MELRIAT	Installation completed on 05.11.2021
3	MIZORAM	LUNGMUAL	NE-0024-A	LUNGMUAL END OF 132 kV AIZAWL	
4	POWERGRID	NIRJULI	NE-0011-A	NIRJULI_PG TRF 1 HV SIDE	Installation completed on 18.08.2021
5	POWERGRID	NIRJULI	NE-0025-A	NIRJULI_PG TRF 2 HV SIDE	Installation completed on 20.08.2021
6	POWERGRID	MOKOKCHANG	NE-0012-A	MOKOK(PG) END OF MOKOK(NL) FDR-1	Installation completed on 08.11.2021
7	POWERGRID	MOKOKCHANG	NE-0021-A	MOKOK(PG) END OF MOKOK(NL) FDR-2	
8	POWERGRID	SILCHAR	NE-0050-A	400/132 kV SILCHAR ICT-1 HV SIDE	Installation completed on 10.10.2021.
9	POWERGRID	SILCHAR	NE-0049-A	400/132 kV SILCHAR ICT-2 HV SIDE	
10	POWERGRID	SILCHAR	NE-0007-A	SILCHAR END OF 400 KV IMPHAL-1	
11	POWERGRID	SILCHAR	NE-0040-A	SILCHAR END OF 400 KV IMPHAL-2	
12	POWERGRID	SILCHAR	NE-0030-A	SILCHAR(PG) END OF 400kV PALATANA -1	
13	POWERGRID	SILCHAR	NE-0042-A	SILCHAR(PG) END OF 400kV PALATANA -2	
14	POWERGRID	MISA	NE-0022-A	MISA END OF 220kV MARIANI(PG)	Installation completed on 08.11.2021
15	POWERGRID	MISA	NE-0006-A	MISA END OF 220kV DIMAPUR FDR -1	
16	POWERGRID	MISA	NE-0023-A	MISA END OF 220kV DIMAPUR FDR -2	
17	POWERGRID	MISA	NE-0004-A	MISA 400/220kV 315MVA ICT-I (LV SIDE)	
18	POWERGRID	MISA	NE-0008-A	MISA 400/220kV 315MVA ICT-II (LV SIDE)	
19	POWERGRID	MARIANI	NE - 0046-A	MARIANI(PG) END OF 220 KV MOKOK-1	Installation completed on 10.10.2021
20	POWERGRID	MARIANI	NP - 9911-A	MARIANI(PG) END OF 220 KV MOKOK-2	
21	POWERGRID	MARIANI		MARIANI(PG) END OF 220kV MISA FDR	Line is discontinued after upgardation to 400 kV
22	POWERGRID	MARIANI	NE - 0034-A	MARIANI(PG) END OF 220 KV KATHALGURI	Installation completed on

					10.10.2021

Annexure-C.7(B)

(II). List of completed DCD distribution:

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	NERTS Status as on Date	NERLDC REMARKS
1	ASSAM	DULLAVCHERA	Issued on 20.02.2021	Confirmed
2	MEGHALAYA	BYRNIHAT	Issued on 23.07.2021	Confirmed
3	ASSAM	UMRANGSOO (UMR)	Issued on 10.08.2021	Confirmed
4	NAGALAND	SANIS	Issued on 29.06.2021	Confirmed
5	MIZORAM	SIHMUI	Handed over on 06.11.2021	Confirmed
6	MANIPUR	THOUBAL	Handed Over on 07.09.2021	Confirmed
7	MANIPUR	TIPAIMUKH		Confirmed