

North Eastern Regional Power Committee

Agenda For

186th OCC Sub-Committee Meeting

Time of meeting : 10:30 Hrs.

Date of meeting : 21st January, 2022 (Friday)

Venue : "NERPC Conference Hall", Shillong.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 185th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 185th meeting of Operation Sub-committee held on 15th December, 2021 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2020/3052-3089 dated 29th December, 2021.

The Sub-committee may confirm the minutes of 185th OCCM of NERPC as no comments/observations were received from the constituents.

ITEMS FOR DISCUSSION

B.1 Implementation of Projects funded from PSDF:

The status as informed in 185th 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) Negotiation ongoing. Award by Jan'22.	Project complete in all respects.	-	LoA placed on 23 rd Sep'21. 30% requisition to be submitted.	-
Nagaland	Completed in all respects. 10% requisition to be sent alongwith UC.	Work completed in all respects. Final 10% disbursed.	-	LoA placed on 23 rd Sep'21.	Lines identified. Under DPR preparation stage.

Agenda of 186th OCC meeting to be held on 21st January, 2022 at Shillong

Mizoram	Completed. 10% remaining claim to be submitted ASAP.	Work completed in all respects. Final 10% to be disbursed by Dec'21	To reply to TESSG queries.	LoA placed on 23 rd Sep'21. 30% requisition to be submitted.	Revised DPR including both 132kV Aizawl-Luangmual and 132kV Khamzawl-Khawiva to be 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 23 rd Sep'21.	Revised DPR for LDP of 132kV Imphal-Yurembam-III to be submitted.
	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.	Work complete in all respects. 50% funds disbursed. Remaining 50% disbursement at the earliest.	Study results to be submitted alongwith DPR	LoA placed on 23 rd Sep'21. 30% requisition to be submitted.	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 - Completed in all respects.	Project complete in all respects.	-	Requisition to be submitted for first tranche	WIP.

Members may please discuss.

B.2 Operational Performance and Grid Discipline during December,2021:

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

NERLDC may please deliberate.

B.3 Generation Planning (ongoing and planned outages)

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

Plants	Reservoirs level in meter	MU content	Present DC (in MU)	No of days as per current generation
Khandong + Kopili stg II			0.368	
Kopili			0	Will be "0" until further intimation.
Doyang			0.183	
Loktak			1.003	

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.4 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.5 Estimated Transmission Availability Certificate (TAC) for the month of October - November, 2021:

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

Members may please discuss.

B.6 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 185th OCCM
AGBPP	after upgradation of DG under R&M
AGTTCCPP	09.04.2019	09.10.2019	Any date as finalized by NERLDC
RHEP	Completed on 30.11.2021
Pare HEP	25.01.2020	25.07.2020	Any date as finalized by NERLDC
Kopili HEP	10.05.2019	NA	NA
Khandong HEP	09.05.2019	09.11.2019	Completed on 09.12.2021
DHEP	12.06.2019	12.12.2019	Any date as finalized by NERLDC
Kameng HEP	Machines not stabilised
Loktak HEP	10.12.2019	10.06.2020	Tentatively on 16.12.2021 after rectification of synchronization trolley at Ningthoukong

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.7 Status of ADMS:

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

Name of the utility	SAT Completion	DoCO
DoP Ar. Pradesh	27-01-2021	01-02-2021
AEGCL/APDCL	07-12-2020	10-03-2021
MSPCL	30-11-2020	To be informed
MePTCL/MePDCL	31-08-2020	04-09-2020
P&ED Mizoram	26-02-2021	Not commissioned. By Feb'22
DoP Nagaland	17-11-2020	Not in service. By Dec'21
TSECL	24-12-2020	To be informed

In 184th OCCM Member Secretary, NERPC requested SLDC Assam, SLDC Meghalaya to analyse the cost benefits of ADMS scheme so that the same may be presented to CERC/CEA.

Members may please discuss.

B.8 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	Pare		180	5	175
Assam	Off-Peak	220/132 kV,160 MVA	Other 220/132 kV, 160 MVA	1500	40	1460
	Peak	ICT at BTPS	ICT at BTPS	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 – Umiam I	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 MVA Dimapur ICT	220/132 kV ,30 MVA Mokokchung ICTs	170	5	165
	Peak			180	5	175
Tripura	Off-Peak	132 kV SM-Nagar (TR) – SM Nagar (ISTS) S/C	132 kV PK-Bari (TR)- PK Bari (ISTS) S/C	310	6	304
	Peak			365	6	359

In previous OCC meeting(s) the following were decided:-

- SLDC Tripura to assess the effect on ATC/TTC on Tripura due to tripping of Monarchak GBPP
- NERLDC to present the ATC/TTC calculation for Tripura with additional Bangladesh load.
- In the event of any major shutdown(approved/emergency) the state periphery ATC/TTC shall be calculated by respective SLDC and communicated to NERLDC

Members may please discuss.

B.9 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.

In 184th OCCM it was decided that the SLDCs shall present the monthly ATC/TTC in the OCC forum.

Members may please discuss.

B.10 Load Forecast Error(RMSE) for NER constituents:

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

States	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
RMSE	8	11	19	14	17	14	11

NERLDC may please deliberate.

B.11 Upgradation of 33kV CTR for Optimal Power Evacuation from 2x50MVA, 400/132/33kV Imphal(PG) Station:

In 185th OCCM it was decided that NERTS and MSPCL shall jointly assess the ground situation with respect to CT rating, line conditions etc. and revert back prior to next meeting.

Members may please discuss.

B.12 Load restriction in Meghalaya Power System due to planned outage of Khandong HEP & Kopili Stg-II:

In Special Meeting on 07th January, 2022 the following were decided:- (i) Meghalaya System shall be operated by opening of 132kV Mawngap-Nongstoin T/L right from the start of Khandong HEP shutdown. (ii) In normal circumstances no load shedding is required and Meghalaya can continue to cater full demand based on present generation scenario. (iii) In event of tripping of any one circuit of 132kV Umiam Stg-I to Umiam Stg-III D/C SLDC Meghalaya shall swiftly shed load till loading of 132kV Umiam Stg-I to Umiam Stg-III S/C is within limit and also increase generation from Umiam Stg-I HEP and Leshka HEP. (iv) The arrangement shall be reviewed in the second week of January, 2022.

Members may please discuss.

B.13 Implementation of Guwahati Islanding Scheme:

In 185th OCC meeting CGM(i/c), NERLDC stated that the revised logic has been prepared keeping in mind the difficulties associated with ramping of BgTPP units. Further he elaborated that unlike previous logic the revised one has 'Load following Generation' logic with flexible load and load management.

AGM, SLDC, AEGCL stated that prima-facie it appears that two units of BgTPP shall always have to be kept in service for ensuring successful operation of the scheme. Due to high tariff of BgTPP in future Assam cannot ensure the scheduling of BgTPP two units at Technical Minimum at all times. AGM, SLDC, AEGCL and DGM, NTPC conveyed in-principle consent to the Revised logic.

After detailed deliberation it was decided that detailed Scheme based on revised logic shall be prepared by NERLDC, SLDC Assam and NERPC. Thereafter BoQ and DPR shall be revised. Further the Agenda was referred to the next CCM for Commercial Approval from APDCL.

Members may please discuss.

AGENDA ITEMS FROM NERPC:

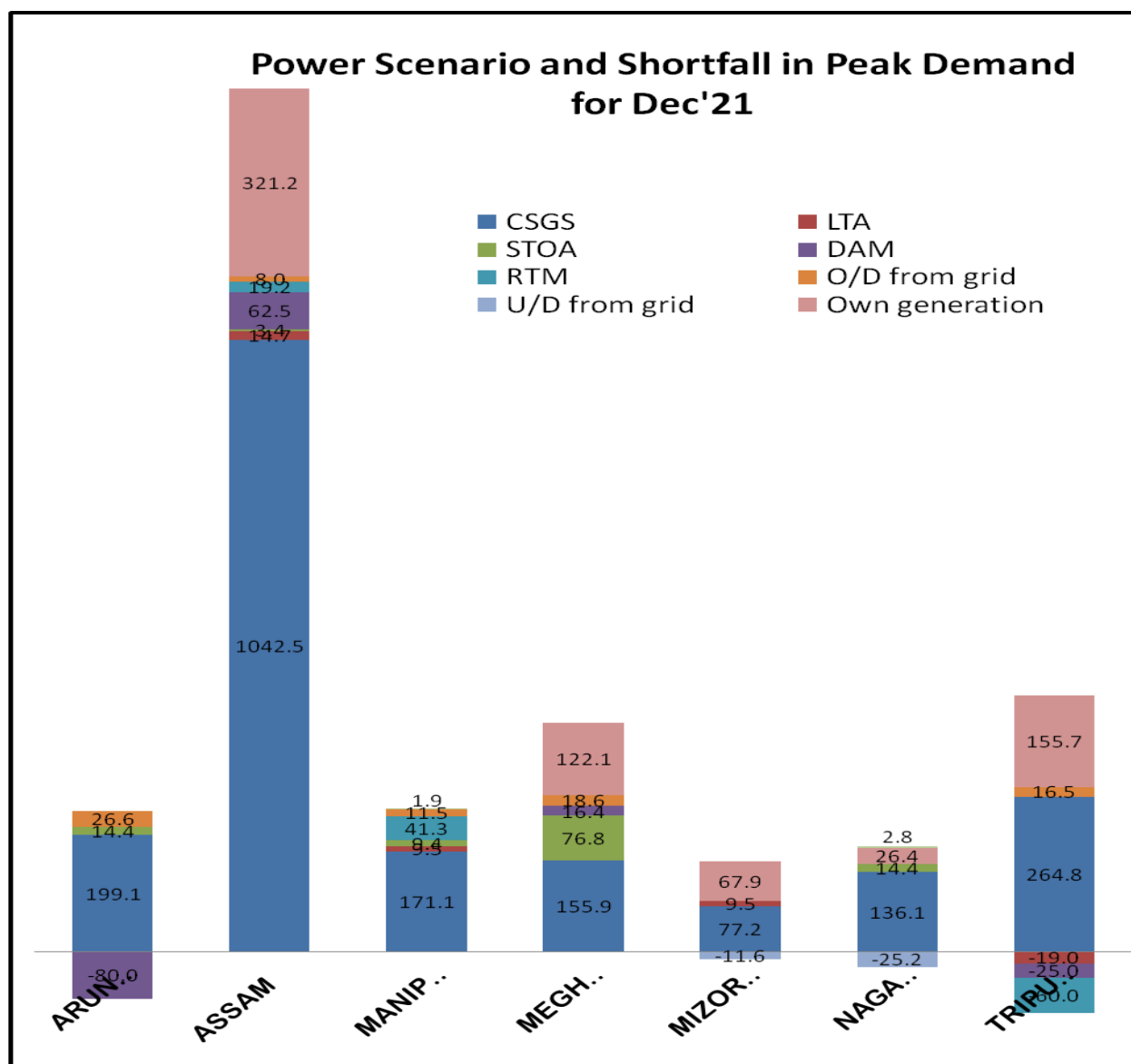
B.14 Planned Outage during the period Mar'22 to Sep'22:

Multiple meetings were conducted by MoP/CEA in Jan'22 to review the power supply situation in the country in 2022 and address any shortfall for the states. In the meeting(s) it was advised to (i) defer the proposed s/d of Palatana GBPP to prevent overlapping with BgTPP shutdown, (ii) return of BgTPP shutdown by April'22 so that all thermal units are in service in May'22. Further RPCs were directed to review shortfall periodically and power arrangement in advance to meet peak demand.

Accordingly the Power Supply Scenario during Peak Demand Met condition for Dec'21 is reflected below:-

Constituents	ARUNACHAL PRADESH	ASSAM	MANIPUR	MEGHALAYA	MIZORAM	NAGALAND	TRIPURA (INCLUDING BANGLADESH)
CSGS	199.1	1042.5	171.1	155.9	77.2	136.1	264.8
LTA	0.0	14.7	9.5	0.0	9.5	0.0	-19.0
STOA	14.4	3.4	9.4	76.8	0.0	14.4	0.0
DAM	-80.0	62.5	0.0	16.4	0.0	0.0	-25.0
RTM	0.0	19.2	41.3	0.0	0.0	0.0	-60.0
O/D from grid	26.6	8.0	11.5	18.6	0.0	0.0	16.5
U/D from grid	0.0	0.0	0.0	0.0	-11.6	-25.2	0.0
Own generation	0.0	321.2	0.0	122.1	67.9	26.4	155.7
Shortfall	0.0	0.0	1.9	0.0	0.0	2.8	0.0

All figs in MW



States	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura
RMSE	8	11	19	14	17	14	11
Forecast Demand (Higher)	157.82	1633.34	291.19	444.47	167.40	176.09	369.63
Forecast Demand (Lower)	134.44	1309.62	198.21	335.30	118.76	132.84	296.37
Actual Demand	146.13	1471.48	244.70	389.89	143.08	154.47	333.00
RMSE Error (in MW)	11.69	161.86	46.49	54.58	24.32	21.63	36.63
RTM+ O/D from grid(in MW)	26.55	27.24	52.80	18.65	0.00	0.00	-43.50
RTM+ O/D from grid as % of RMSE	227.11%	16.83%	113.56%	34.16%	0.00%	0.00%	-118.77%

From the above following points can be observed:-

- Arunachal Pradesh, Manipur and Tripura resorted significantly to Real Time Market and Over-drawal from grid to meet peak demand for much beyond the forecast limits.
- Tripura during Peak Demand Met sold in DAM, RTM and overdrew from the grid
- Shortfall observed only for Manipur and Nagaland

NERPC may please deliberate.

B.15 Charging of 33kV Khupi-Kimi line at 132kV:

The following were decided in the 54th PCC Meeting held on 22.01.2020 at Guwahati:

1. 132kV Khupi-Kimi line charged at 33kV presently, shall be converted to 132kV.
2. 132kV Seppa bay at Khupi to be used for 132kV Khupi-Kimi (Kameng).
3. Insulator, line inspection to be carried out by DoP, Arunachal Pradesh.

NEEPCO vide mail dated 31.08.2020 has expressed willingness to charge the line at 132kV level.

In this respect in addition to the completion of the above works at Sl.No.(1) to (3) the following are also pre-requisites:

- (i) Availability of Distance Protection at both ends
- (ii) Healthiness of PLCC system.

In 177th OCC meeting DGM, NEEPCO informed that presently testing works are being completed as pre-requisite for RIO inspection. Director(O&P), NERPC stated that the Joint Inspection would be completed after the pandemic situation improves and normalcy is restored.

Members may please discuss.

AGENDA ITEMS FROM NERLDC:

B.16 Forthcoming programme for converting 220kV side of Dimapur SS from AIS to GIS:

NERTS is requested to share their detailed plan & schedule for converting 220 kV side of Dimapur SS from AIS to GIS along with required shutdown details.

NERLDC may please deliberate.

B.17 High loading in 132kV Badarpur-Panchgram line during lean hydro season:

It has been observed that due to low availability of generation from Leshka HEP and Khandong HEP, 132 kV Badarpur-Panchgram line is getting loaded near its thermal loading. The loading of 132 kV Badarpur-Panchgram may go beyond thermal rating under N-1 contingency i.e. tripping of one circuit of Umiam stg III -Umiam stg-I DC. The issue can be resolved by early restoration of 132 kV Srikona-Panchgram line and reconductoring of 132 kV Badarpur-Panchgram with HTLS conductor.

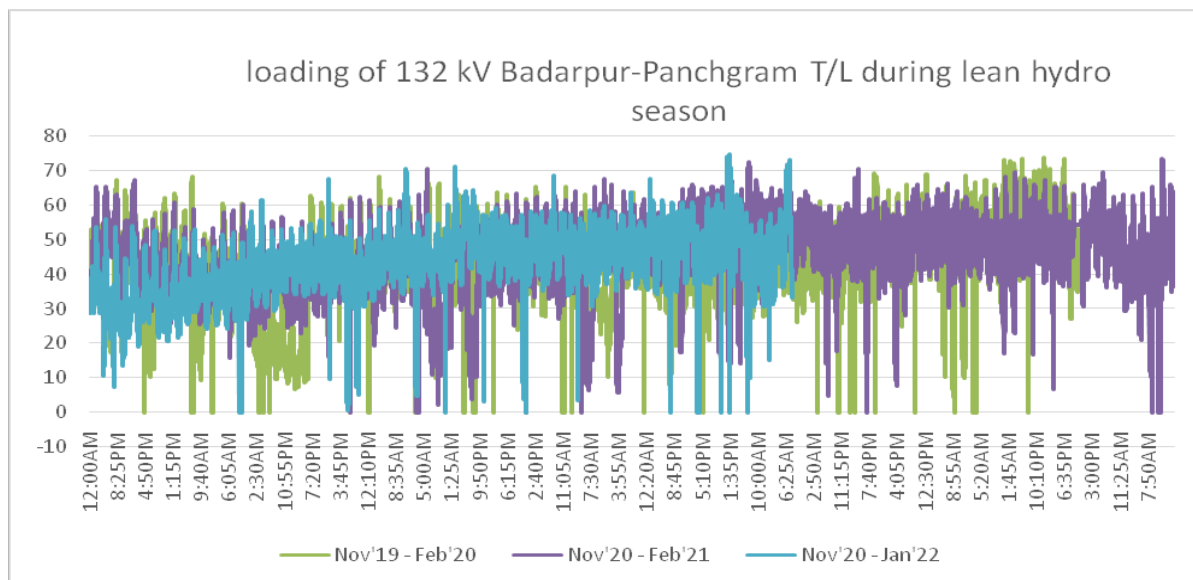


Fig: loading Pattern of 132 kV Badarpur-Panchgram line during lean hydro season

It is proposed for restoration of 132 kV Srikona – Panchgram line or reconductoring of 132 kV Badarpur – Panchgram with HTLS conductor.

NERLDC may please deliberate.

B.18 Black Start and Restoration Procedures of NER:

Black-start and Restoration Procedure of NER Grid 2021 will be published by NERLDC within January 2022. The draft document has already been shared with all stakeholders via e-mail for comments and feedback. Members are requested to forward comments/feedback, if any, by 23rd January 2022.

NERLDC may please deliberate.

B.19 Mismatch of voltage at AGBPP bus:

On 07-Jan-2022, 220 kV Katalguri-Mariani-II could not be synched due to Voltage mismatch on both ends. As gathered from AGBPP, the voltage in Kathalguri was recorded 218.6 kV (as per RTU) while on Mariani bus was 228kV and at Tinsukia (As) end was 233 kV. Such voltage mismatch in adjacent buses is undesirable and hence AGBPP is requested to look into the matter and make sure that all measuring instruments is healthy at AGBPP end.

NERLDC may please deliberate.

AGENDA ITEMS FROM NERTS:

B.20 Shutdown of bay and Transmission lines at Mokokchung Substation:

Under NERSS VIII, Bay extension works for 220/132KV ICT III at Mokokchung SS is in progress. The erection of the GIS is completed and the 132kV side bay is now ready for HV test. In this regard, continuous shutdown of 132kV Bus at Mokokchung for HV testing of new 132kV GIS ICT 3 Bay and Laying of 132kV XLPE Cable from outdoor trench to indoor trenches per the following details:

S.No	Name of Element for SD	Proposed date of SD	Elements Effected
1	132kV GIS Bus	27.01.2021, 08:00Hrs to 28.01.2021, 16:00 Hrs	132kV Mokokchung- Mokokchung(State) I & II and ICT I & II

NERTS may please deliberate.

AGENDA ITEMS FROM OTPC:

B.21 Request to grant permission for revise 132 KV Palatana- Udaipur Transmission Line ZONE-3 Setting from 800 mili second to 300 mili second at Palatana end Distance protection Relay

Disturbances of TSECL Grid took place repeatedly since last 3 years as detailed below resulting in instability in OTPC system rendering it vulnerable to tripping. Kind attention is invited to the fact that our Block-1 & Block-2 had tripped & ran back on several occasions during TSECL Grid disturbances. In view of high frequency of such trippings at 132 KV TSECL Systems, OTPC generators are vulnerable to trippings **in case of over-reach of protection relays as well as activation of under voltage protection.**

The latest disturbance recordings are as follows:

- a. On 18.06.2018 at 11:31:51 Hrs in 132 kV Line-2, tripped due to Zone 3 fault at 76.40km. Initially phase B & C recorded surge in current of magnitude > 1kA. Then all 3 phase currents increased in range of > 1kA. All 3 breaker poles tripped due to Z-3 fault. Voltage reduced in 132kV line 2 to Va =73.8kV, Vb =

56.9kV, $V_c = 55.9\text{kV}$ because of above fault, resulting our Station bus experiencing severe under voltage problem .

- b. On 27.06.2019 at 03:01 hrs. 132kV line- 2 (Palatana-Surajmani Nagar), 132 KV Rokhia Bus, 132 KV Agartala Bus & 132 KV Surajmani Nagar Bus tripped. Led to partial disturbance at Tripura system including load loss at Tripura system. Monarchak, Rokhia & Barmura Generating stations were also tripped during disturbances. OTPC end relay indications are Zone-2, distance-41.62 KM, Ia- 2271A,Ib-332 A & Ic- 754 A & Va- 550.8KV, Vb-73 KV & Vc-72.8KV.
- c. On 28.06.2019 at 05:29 hrs. 132KV Rokhia-Agartala I, 132 KV Rokhia-Agartala II 132 KV Rokhia-Monarchak resulting in bus dead of Rokhia S/S.
- d. On 01.11.2019 at 12:44 Hrs. **132 KV Line-1** got tripped on Zone-1 distance protection, Fault location 2.44 KM @ Y & B Phase. At the same time Station Transformer-2 got tripped on U/V protection.GTG-1 & STG-1 was under shutdown & Unit-2 was in service and generating 355 MW.GBC-1 was in service @ 66520 Sm³/Hr.

After tripping of 132 KV Line-1, EDG-1 came in auto and Unit-2 was saved.

- e. On 10.08.2020 at 19:23 Hrs, **132 KV line-1** breaker at Udaipur end opened to avoid ICTs overloading. ICT-1 & ICT-2 got tripped on earth fault at 19:23:29 Hrs & 19:23:34 Hrs respectively. After opening of Udaipur end breaker it was observed that Breaker Y-phase was drawing 156 Amps whereas R & B phase was drawing Nil current. This delay in opening might have resulted through unbalance current flow through ICT transformer neutral & tripped both ICTs on Earth fault. Total Station Load was 652 MW & both units was saved.
- f. On 01.04.2021 Plant was running normal with total gross load of 333 MW with GTG-1 & STG-1 in service. Unit-2 was in shutdown for GTG-2 rotor replacement work. At 10:40:59 Hrs 132 KV Line-2 power flow suddenly increased to 120 MW from 14 MW. Line-1 power flow was found 24 MW.

ICT-2 power flow shoots to 150 MW from 50 MW & tripped on over current protection (O/C setting : 250 A & current reached to 275 A).

- g. **132KV line-1** & 132 KV line-2 breakers tripped from Udaipur & Agartala S/S end. 132KV switchyard got dead, both Station Transformer breaker tripped on U/V protection. GBC-3 got tripped and due to low fuel pressure GTG-1 run-back started & tripped on “loss of flame” protection and STG-1 tripped due to “STG trip to GTG trip” protection. On **18th August 2021**, Palatana-Udaipur 132KV Line-1 Tripped on Zone Protection with following Events-ZONE-1 with - 2.8KM, OVER CURRENT R Phase - 197.7A.Y Phase -189.6A,B Phase- **10.78 K 132KV.The Vegetation was removed and line taken back in service.**
- h. On **14th July 2021**, Palatana-Udaipur **132 KV line-1** tripped on Zone-2 protection with following events, Ia- 320A,Ib-5060A, IC-545A. Van- 78.5 KV,V bn-34 KV & Vcn-75 KV.

Due to apparent **high fault clearing time**, repeated faults are emanating from Tripura system lead to massive switching surge to the power Transformers at Palatana & as

well as large voltage excursions at Palatana 132 KV bus, thereby endangering our equipment security & station stability at Palatana Plant.

These disturbances are resulting huge financial loss as well as creating lots of operational problems for us and also threatening grid security in NE region. Repeated tripping also put our reputation at stake among the beneficiary states who are constrained to purchase costly power from market thereby increasing their average cost of supply.

OTPC requested the forum to **grant permission for revision of time setting of ZONE 3 in distance protection relay from 800 ms to 300ms** of 132 KV Palatana-Udaipur Transmission Line at Palatana end.

OTPC may please deliberate.

AGENDA ITEMS FROM MeECL

B.22 Certification of Deemed ISTS lines

MeECL 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 185 th OCCM	Latest status
1	132kV Mariani – Mokokchung (out since April'2008)	AEGCL	Estimate prepared. Put up for Govt. approval.	
2	FSC of 400kV Balipara – Bongaigaon-4(out since 02 nd Sep'20)	NERTS	By Apr'22	
3	132kV Roing-Pasighat (charged through ERS tower)	NERTS	By Apr'22**	
4	Kameng Unit-IV (out since 18.08.2021)	NEEPCO	By 16 th Jan'22	
5	220kV Misa-Kopili D/C, 220/132kV ICTs at Kopili, 132kV Khandong –Kopili D/C(out since Oct'19)	NEEPCO/ NERTS	Sep'22	
6	132kV Srikona – Panchgram	AEGCL	LoA issued for Survey and Design. After submission of design, NIT for Supply, Erection to be done.	
7	400kV Imphal – Thoubal-I	MSPCL	To be informed	

and 315MVA 400/132kV ICT at Thoubal			
--	--	--	--

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 184th OCC meeting	Status as informed in 185th OCC meeting
1	132kV Monarchak-Surjamaninagar	TSECL	By Mar'22	
2	PLCC for 132kV Loktak-Ningthoukong and 132kV Loktak-Rengpang(existing lines)	MSPCL	To be intimated	
3	Construction of 2 nd bay at Balipara for 220kV Balipara-Sonabil-2	AEGCL	CRP delivered shortly. By Feb'22.	
4	Upgradation of 132kV Lumshnong – Panchgram line	MePTCL	LoA by Dec'21	
5	Diversion of 132kV Bawktlang-Sihhmui	NERTS	Dec'21	
6	PLCC for 132kV Karong-Kohima. PLCC at Kohima	DoP Nagaland	To be intimated	
7	132kV Loktak-Ningthoukong-II	MSPCL	Delayed due to RoW issues. By July'22	
8	132kV Roing-Chapakhowa	NERTS	By Mar'22	
9	Re-conductoring 220kV BTPS-Salakati D/C	NERTS	By Mar'22	
10	420kV 80MVAR Bus Reactor	NEEPCO	RA done. Spare to be included in Scope of L1.	
11	220kV Killing – Mawngap	NERPSIP	RoW Ribhoi/ East Khasi Hills districts. By Dec'21	
12	220kV Samaguri – Mariani-II	AEGCL	Forest clearance awaited	
13	220kV Mariani(AS) – New Mariani	AEGCL	RIO clearance awaited.	
14	Reconductoring of 132kV Umiam Stg-III to Umiam Stg-I by HTLS	MePTCL	LoA by Dec'21	
15	132/33kV Tezpur S/Sn and 132kV Tezpur-Sonabil	NERPSIP	To be intimated	
16	PLCC/DTPC for 220kV Balipara- Sonabil	AEGCL	By Jan'22	
17	220kV AGBPP –Namsai D/C	TBCB	MoP Notification to be issued.	

18	Upgradation of 132kV Surjamaninagar-Surjamaninagar(ISTS), 132kV Bodhjungnagar-SMNagar, 132kV P.K.Bari-Ambassa, 132kV P.K. Bari-P.K.Bari(ISTS)	TSECL	DPR to be prepared	
----	---	-------	--------------------	--

Members may please update the status.

C.3. 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. No.	ISTS S/s	State	Voltage ratio, Trans. Cap	Down - stream Voltage level (kV)	Unutilised bays	Status of ISTS bay	STU Lines for unutilised bays	Status of Lines	
								Date of Award	Completion schedule
1	New Mariani (PGCIL)	Assam	400/220 kV, 2x500M VA	220	2	Commissioned	New Mariani (POWERGRID) – Diphu (Assam) 220kV D/c line	Not available	Jan 2025 (as per the minutes of 3 rd NERPCTP meeting)
2	New Kohima (TBCB)	Nagaland	400/220 kV, 2x500M VA	220	2	Commissioned	New Kohima (TBCB) – New Kohima (Nagaland) 220kV D/c line	Not available	Uncertain
3	Nangalbibra (TBCB)	Meghalaya	220/132 kV, 2x160M VA	132	2	Under bidding	Nangalbibra (ISTS) – Nangalbibra (MePTCL) 132kV D/c (Single Moose) line	Not available	24 months from the date of SPV Transfer. SPV transfer is expected shortly

AEGCL, MePTCL and DoP Nagaland may please update the status.

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
---------	---------------------	----------------------------------	---------------	---------------------

Agenda of 186th OCC meeting to be held on 21st January, 2022 at Shillong

A	Assam (to be implemented by AEGCL)			
I	Rangia	400/220kV, 2x500MVA	1. EPC Contract Award is Tentatively scheduled in the early half of March'2022. 2. Tender floated for Master Plan and Route Survey and evaluation is in process.	2025 (36 months from the Date of Award)
a)	LILO of both circuits of Bongaigaon – Balipara 400kV D/c line at Rangia	400 kV, D/C	1. EPC Contract Award is Tentatively scheduled in the early half of March'2022. 2. Tender floated for Master Plan and Route Survey and evaluation is in process.	2025 (36 months from the Date of Award)
II	Khumtai	400/220/13 2kV, 2x500MVA + 2x160MVA	Tender for Route Survey and detailed survey of 400 kV Khumtai (AEGCL new) - Biswanath Chariali (PGCIL) D/c line	2026 (36 months from the Date of Award)
a)	Khumtai (AEGCL) – Biswanath Chariali (PG) 400kV D/c line	400kV D/c	Tender for Route Survey and detailed survey of 400 kV Khumtai (AEGCL new) - Biswanath Chariali (PGCIL) D/c line	2026 (36 months from the Date of Award)
III	Upgradation of Gohpur S/s from AIS to GIS	-	1. EPC Contract Award is Tentatively scheduled in the early half of December'2021. 2. PMC Team engaged for AIIB funded project along with E&S Specialist of AEGCL has visited S/S site on 18.06.2021 for initiation of Master Plan work.	2023 (24 months from the Date of Award)
a)	2 no. 132kV GIS line bays at Gohpur for termination of LILO of one circuit of BiswanathChariali – Itanagar 132kV D/c line (line works under ISTS through TCB route)	132kV	1. EPC Contract Award is Tentatively scheduled in the early half of December'2021. 2. PMC Team engaged for AIIB funded project along with E&S Specialist of	2023 (24 months from the Date of Award) Biswanath Chariali –

Sl. No.	Substation/Location	Transformation Capacity/Element	Date of Award	Completion Schedule
			AEGCL has visited S/S site on 18.06.2021 for initiation of Master Plan work.	Itanagar 132kV D/c line (one ckt via Gohpur) has been commissioned. Presently, one ckt is bypassed at Gohpur S/s due to non-availability of bays at Gohpur end.
B	Tripura (to be implemented by TSECL)			
I	Surajmaninagar (TSECL)	400/132kV, 2x315MVA	Not available	12 months from Date of Award
a)	LILO of both circuits of Surajmaninagar (ISTS) – Palatana 400kV D/c line at Surajmaninagar (TSECL) S/s	400kV D/c	Not available	12 months from Date of Award
C	NEEPCO (to be implemented by NEEPCO)			
I	Extension works at Ranganadi HEP end	420kV, 80MVA bus reactor at Ranganadi generation switchyard	Oct-20	Dec-22
II	Extension works at Pare HEP end	-	-	-
a)	Bypassing of LILO of Ranganadi - Naharlagun / Nirjuli at Pare HEP so as to form direct Ranganadi - Naharlagun / Nirjuli 132 kV S/c line	132kV	No work related to Award of project is started	
b)	Re-conductoring of LILO portion at Pare end (of Ranganadi - Naharlagun / Nirjuli 132kV S/c line) with HTLS (HTLS equivalent to ACSR Zebra) along with modification of 132kV bay equipment at Pare HEP	132kV	No work related to Award of project is started	

STUs may please update the status.

C.4 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 – Khliehriat 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 185th OCCM EE, SLDC, MeECL informed that OEM reply is awaited.

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

Status as per 185th OCCM:

Name of the state/utility	Submission of revised UFR list	Implementation of revised settings	Status of mapping
Ar. Pradesh	Submitted	To be done	To be done
Assam	Submitted	To be done	
Manipur	Submitted in 2 nd week of Dec’21	NA	
Meghalaya	Submitted	13 out of 17 feeders completed	
Mizoram	To be submitted	NA	
Nagaland	Submitted	4 out of 8 completed	
Tripura	Submitted	To be done	

SLDCs may please intimate the status.

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

In 185th OCC meeting MePGCL informed that revised DPR is being prepared.

MePGCL may please intimate the status.

C.7. Rectification of DC EF at 132kV SM Nagar S/S:

Severe DC Earth Fault has been observed in both the DC sources due to which several unwarranted tripping has occurred at SM Nagar end. Present DC Voltage is as follows:

DC Source 1: +Ve = 4V, -Ve = -241V, DC Source 2: +Ve = 5V, -Ve = -239V
As such necessary action may be taken for rectification of the same.

In 185th OCC DGM, SLDC, TSECL intimated that 132kV Surjamaninagar-Comilla D/C shutdown will be availed for rectification of E/F

TSECL may please intimate the status.

C.8 Turning ON of SPS for Monarchak GBPP:

In 185th OCC meeting DGM, SLDC, TSECL informed the forum that confirmation/approval for implementation of SPS has been given to NEEPCO. After detailed deliberation it was decided that NEEPCO shall implement the SPS and bring it into service latest by 24th Dec'21.

NEEPCO may please intimate the status.

C.9 Voltage and MVAR issues at 400kV Kameng S/Sn:

In 185th OCC meeting GM, NEEPCO informed that the over-excitation and under-excitation limiter is getting activated at +/-15MVAR due to wrong settings implemented by OEM. He stated that the same shall be rectified by OEM at the earliest.

NEEPCO may please intimate the status.

AGENDA ITEMS FROM NERLDC:

C.10 Rectification of synchronization facility at Ningthoukong S/Sn:

Issues with Synchronization trolley at Ningthoukong substation was discussed in 185th OCC meeting against agenda no. B.7. SLDC Manipur is requested to update the status of rectification of the same.

MSPCL may please intimate the status.

C.11 State-wise updation of Progress of NERPSIP and Comprehensive Schemes:

It is requested to update the progress of the NERPSIP and Comprehensive Schemes as the schemes would improve the reliability of NER grid and improve the power supply position in NER.

POWERGRID may please intimate the status.

Metering agenda

C.12. 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. As deliberated in 184th OCCM, installation/ replacement of SEMs and distribution of DCDs had been almost completed and the details as per record of NERLDC is attached.

As per record received from the sites, DCD at Tinsukia, Sonabil and Deomali are yet to be received whereas as per 185th OCCM, DCDs have already been issued.

Agenda for 186th OCC Meeting to be held on 21st January, 2022

SEM at GTG-1, ST-1 & ST-2 of Palatana are yet to be installed. As per earlier OCC discussions, they need shutdown for replacement of the SEMs and the Forum has requested Palatana to expedite their actions.

NERTS may please intimate the status.

C.13. Procurement of SEM&DCD/laptop for future requirements:

NERTS may intimate the status of procurement of:

(I) Additional 40 nos. of DCD

In 185th OCCM, Forum advised NERTS to expedite the new procurement of 40 nos of DCD, so that there shall not be any shortage for the upcoming projects and to keep the necessary spare.

NERTS may please intimate the status

C.14. Erroneous reading of 132kV Ambassa end of PKBari-Sterlite line:

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. After lots of communications and discussions in OCCM, matter could not be resolved.

In 185th OCCM, TSECL informed the forum that work shall be completed by 15th Dec'21 and detailed report shall be submitted thereafter.

NERLDC may please deliberate.

C.15. Time mismatch between SEMs and ABT SEMs:

The agenda was placed by Palatana GS in 184th OCCM where they informed in the deliberations that several SEMs are having time drift due to which they are facing actual generation mismatch with the schedule. Due to which they are getting penalty in DSM accounting.

In 185th OCCM, the forum advised OTPC to submit the meter numbers and installation location(s) to NERLDC. Subsequently if it is discerned that the said meters are under Central list, then NERTS shall replace the same or OTPC may procure the same.

Accordingly, OTPC has submitted the list and it was found that 2 additional SEMs to be replaced excluding the SEMs replacement details as per agenda '**SEMs to be procured for Sterlite & KMTL on-going projects (50 SEMs)**'. Also, time drift correction of SEM No. NP-9470-A may be done with online support from M/s L&T in coordination with NERTS.

However, it is to be mentioned that in accordance with the Metering Regulations, Licensee has the responsibility to verify the correctness of metered data and furnish the same to various agencies. Therefore, NERLDC is requesting all the Licensees to verify the time drift error on regular basis and send the report to NERLDC along-with weekly SEM data otherwise it is hard to find out the drift error. Also, time drift correction should be carried out on timely basis and should not wait for higher time drift of the meters as it is known to all that only 1minute time drift correction can be done by DCD in a week.

OTPC has submitted the list of meters for replacement (attached at **Annexure-C.15**)

NERTS/OTPC may please intimate the status.

C.16. 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.
2. DCD was handed over to Udaipur substation on 01.01.2021. Priority was given for DCD distribution to Udaipur substation as it is a drawl point of Tripura and Evacuation point of Palatana GS.

In 185th OCCM, it was decided that NERPC shall take up the matter with higher officials of Nagaland and Tripura.

As per NERLDC record, data yet to be received after lots of discussion in OCC Forum and individual communications to the respective licensees/ SLDC.

NERLDC may please deliberate.

Any other item:

Date and Venue of next OCC