

North Eastern Regional Power Committee
Agenda For

170th OCC Sub-Committee Meeting

Time of meeting : 10:30 Hrs.

Date of meeting : 11th September, 2020 (Friday)

Venue : "NERPC Conference Hall", Shillong.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 169th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 169th meeting of Operation Sub-committee held on 14th August, 2020 at Shillong were circulated vide letter No. NERPC/SE (O)/OCC/2020/3052-3089 dated 28th August, 2020.

NTPC comments regarding item No. D.20.

D.20 Swapping of unit under RSD with on-bar unit:

In 169th OCC meeting GM(O&M)-NTPC highlighted that each swapping entails additional cold startup of the machine, this affects life of the machine.

He requested that Swapping of units may be dropped from the RSD procedure as per prevalent practice in other regions. After it was decided in that meeting that the matter would be taken up in the next OCCM for deliberation. But for poor sound quality NTPC representatives (who were on MS-team) did not hear the point no. **(iv)** where it is written that " present RSD procedure and guidelines as approved by the forum in the 168th OCCM to remain in force till further discussion in next OCCM.

CGM of BgTPP has sent a letter to NERPC on 19.08.2018 describing NTPC's reservation on unit swapping.

The Sub-committee may confirm the minutes of 169th OCCM of NERPC as no other comments/observations were received from the constituents.

ACTION TAKEN -ITEMS

B.1. ACTION TAKEN:

1. IMPLEMENTATION OF PROJECTS FUNDED FROM PSDF:

The status as informed in 169th OCC:

| State | R&U scheme | ADMS | Capacitor Installation | SAMAST** | Line Differential Protection |
|--------------|---|---|-------------------------------|-----------------------|-------------------------------------|
| Ar. Pradesh | Package-I (Diagnostic tools) Materials supplied. P-II (for PLCC & communication) LOA issued. P-III (Substation equipment) Under tendering stage | Requisition for second tranche of 60% submitted in June'20. | - | TESG approval awaited | - |

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|----------|---|--|---|--|---|
| | Work delayed due to COVID situation. Station-wise status to be updated | | | | |
| Nagaland | All completed except for PLCC package. Delayed due to COVID situation. Station-wise status to be updated. | Requisition for second tranche of 60% submitted. Associated documents like CA certificate to be sent. | - | Reply against TESG queries sent except BoD approval. | Lines identified. Under DPR preparation stage. |
| Mizoram | Completed. 10% remaining claim to be submitted ASAP. | 2 nd tranche of 60% funds to be disbursed. Final 10% requisition to be submitted immediately. | To reply to TESG queries. | TESG approval awaited. | Lines identified for installation of DPR viz. 132kV Aizawl - Luangmual and 132kV Kawmwawl - Khawiva. |
| Manipur | Package-II: completed Package-I: WIP Delayed due to COVID situation Station-wise status to be updated. | 60% disbursed. Final 10% requisition to be sent immediately. | PSDF approved. NIT to be floated. | TESG approval awaited. | Lines identified. LDP for 132kV Imphal-Imphal and 132kV Jiribm-Jiribam proposed. Under DPR preparation stage. |
| | 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. Station wise status to be | BoD approval for A/obtained. A/C to be opened by | Study results to be submitted alongwith | TESG approval awaited. | Only single line 132kV 79Tilla to Budhjangn agar. DPR |

| | | | | | |
|-----------|---|--|-----|-----------------------------------|--|
| | updated. | 21 st August. Requisition for first tranche of funds to be sent immediately | DPR | | to be prepared. |
| Assam | LOA issued. WIP, delayed due to COVID situation Station-wise status to be submitted. | First 30% requisition submitted. | - | Under finalization stage for LOA. | Lines identified. Under DPR preparation stage. |
| Meghalaya | MePTCL Completed in all respects** MePGCL – 10% claim to be submitted ASAP. Station-wise status to be updated. | Final tranche of 10% received. | - | Under finalization stage for LOA. | WIP. Delayed due to COVID situation |

All state utilities are requested to furnish latest status station-wise as per format by first week of every month on regular basis to Member Convener, PSDF Project Monitoring Group (AGM, NLDC, POSOCO) with a copy to NPC & NERPC. The LOAs of R&M Scheme are to be furnished to NERLDC/NERPC regularly.

States may please intimate the latest status.

B.2. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING AUGUST, 2020

NERLDC shall present the operational performance for the month of August,2020.

C. ITEMS- STATUS REVIEW

C.1 Auto-reclosure issues at Azara:

In 169th OCCM, the following works were decided to be completed by Aug'20:-

- (i) Checking of PLCC panel wirings at 400kV Azara S/S.
- (ii) Investigating reasons for Channel 1 for 400kV Silchar going into disabled mode at times
- (iii) Thorough testing of carrier communication channel end-to-end for 400kV Silchar-Azara

AEGCL/NERTS may please inform the latest status.

C.2 Restoration of Assets damaged at Kopili HEP due to failure of Penstock:

As per decisions in previous meeting(s):

- (i) Detailed ownership and scope of work finalized in the 168th OCC meeting

(ii) Immediate restoration of one 220kV line, one 132kV line and 160MVA ICT at Kopili S/S via AIS by NERTS.

NERTS may please inform the status.

C.3 Status update of important grid elements under prolonged outage impacting system operation:

| Sl. No | Element | Owner | Status as informed in the 169 th OCCM | Latest status |
|--------|---|-------------------|--|---------------|
| 1 | 63MVAR Reactor at Byrnihat to replace with 80MVAR Reactor | MePTCL | 10% funds received. Tendering in process. | |
| 2 | 132kV Dimapur - Imphal | NERTS | Pending works: 2 nos foundation, 2 nos tower erection, 2 span conductor stringing. By 40 days. | |
| 3 | 220kV Sonabil-Samaguri-I | AEGCL | Sep'20 | |
| 4 | 132kV Srikona-Panchgram | AEGCL | Sep'20 | |
| 5 | 63MVAR L/R for 400kV Palatana-SilcharCkt-I | OTPC | Oct'20 | |
| 6 | 132kV Jiribam – Rengpang | MSPCL | Oct'20 | |
| 7 | 220KV-Agia-BTPS-I | AEGCL | Aug'20 | |
| 8 | 132KV-Pare-Itanagar-1 | Arunachal Pradesh | By 15.10.2020 | |
| 9 | 132KV-Ranganadi-Itanagar-1 | Arunachal Pradesh | By 15.10.2020 | |

Concerned utilities may please inform the status.

C.4 Status of commissioning for Upcoming projects:

As per discussions in the 169th OCCM the status of the following are to be informed:

- (a) 132kV Surjamaninagar-Surjamaninagar D/C and 132kV P.K.Bari-P.K.Bari D/C to be constructed by TSECL.
- (b) 400 kV Palatana – Surjamaninagar (Sertlite) and 400 kV Silchar – P.K bari (Sterlite) D/C by NERTS-POWERGRID.

NERTS/TSECL may please inform the status.

C.5 Tripping of 220kV BTPS-Salakati D/C on 05.08.2020:

In 169th OCCM, CGM(AM), NERTS informed that re-conductoring of 220kV BTPS-Salakati D/C has to be bundled with some other project. He agreed to revert back with exact details in the next OCCM.

NERTS may please inform the status.

D. I T E M S FOR DISCUSSION

D.1 Generation Planning (ongoing and planned outages)

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

| Plants | Reservoirs level in meter | MU content | Present DC (in MU) | No of days as per current generation |
|--------------------------|---------------------------|------------|--------------------|---------------------------------------|
| Khandong + Kopili stg II | | | 0 | |
| Kopili | | | 0 | Will be “0” until further intimation. |
| Doyang | | | 1.172 | |
| Loktak | | | 2.487 | |

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

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

D.2 Outage Planning Transmission elements

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

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

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

The sub-Committee may kindly discuss and approve the transmission line outages proposed by Constituents for 01st October,2020 to 31st October,2020 which is available in the website of NERPC.

D.3 Estimated Transmission Availability Certificate (TAC) for the month of August,2020:

NETC and POWERGRID have submitted the outage data for the month of August, 2020. So the attributability of outage of the said elements may please be finalized.

Members may please discuss.

D.4 Charging of 132kV Sihhmui S/S and related issues:

Decisions as per deliberation in previous meeting(s):

- Present condition of idle charging from Melriat end as anti-theft measure to remain in place. For charging of 132 kV Bays of Melriat – Sihhmui D/C at Sihhmui Substation, 132 kV Sihhmui Bus and 132/33 KV, 12.5 MVA Transformer at Sihhmui Substation, fresh application is to be applied to NERLDC and approval to be obtained.
- NERTS-POWERGRID to apply afresh for charging clearance/First Time Charging and Trial operation certificate for 132kV Melriat-Sihhmui including bays at both ends after obtaining clarification from NERPCTP, CEA.
- NERTS, P&ED Mizoram to inform about the conclusions of their bilateral discussions regarding tariff.

Members may please discuss.

D.5 RGMO analysis for events dated 11th June, 2020

Decisions as per discussions in previous meetings:

- OTPC- Discussions ongoing with OEM for anomaly in unit response.
- NTPC – All three units tuned in July'20.

Members may please discuss.

D.6 Shutdown of OTPC Module-I:

It is proposed to have shutdown of OTPC Palatana Unit-1 in the first week of Oct'20 for 8 days for HRSG-1 license renewal.

In 169th OCCM Sr. Manager, TSECL once again reiterated the request of TSECL to defer the shutdown after Puja if the work cannot be completed in first week of Oct'20 firmly. Sr. Manager, OTPC informed that further consultation would be required with Boiler Inspector. He agreed to revert back in the next OCC meeting.

Members may please discuss.

D.7 Status of NERPSIP, Comprehensive Scheme of Transmission & Distribution System in Arunachal Pradesh & Sikkim and TBCB projects:

The disturbances due to weak connectivity and radial transmission systems of NER grid may be avoided with the completion of various transmission projects which are being implemented in NER under NERPSIP, Comprehensive Scheme of Transmission & Distribution System in Arunachal Pradesh & Sikkim and TBCB projects. Implementation of these projects may be expedited in order to reduce occurrences of these disturbances.

In 169th OCCM, Director(O&P), NERPC informed the forum that POWERGRID-NERPSIP could not attend the meeting due to lockdown measures. He further informed that quarterly report for Comprehensive Scheme i.r.o. Arunachal Pradesh has been received by NERPC. The state utilities unanimously deplored the delay in completion of NERPSIP and Comprehensive Scheme. The forum decided to keep this as an agenda item for subsequent meetings and requested presence of representatives from POWERGRID-NERPSIP in the next OCC Meeting.

Members may please discuss.

D.8 Swapping of unit under RSD with on-bar unit:

In 169th OCCM NTPC informed that each swapping entails additional cold startup of the machine, this affects life of the machine which may lead to early overhauling/replacement of the machine. He requested that Swapping of units may be dropped from the RSD procedure as per prevalent practice in other regions.

The forum also noted the additional cost to the beneficiaries as part of Compensation Mechanism due to additional RSDs.

After detailed deliberation it was decided that(i)NTPC would write to NERPC with a detailed description of the technical difficulties, (ii)Thereafter beneficiary states would submit comments, (iii)matter would be taken up in the next OCCM for deliberation, (iv)present RSD procedure and guidelines as approved by the forum in the 168th OCCM to remain in force till further discussion in next OCCM.

NTPC vide mail dated. 04.09.2020 has informed the following w.r.t. this agenda item:

“This is reference to the guideline issued by NERLDC for taking units under reserve shutdown. In this guideline, NERLDC has also proposed the procedure of swapping of unit under RSD with on-bar unit. However, as a generating station we have few limitations in terms of machine reliability for extra startups.

As per DOP on reserve shut down sl. No. 1.2 thermal plants are designed for around 150 cold start- up. Life of a thermal power plant is considered to be 25 years as per CERC. So, six cold start-ups in a year.

Due to planned overhauling & long forced outage (because of BTL or any other capital equipment outage), average cold start-up per year is around 4 numbers. With 4 cold start-ups, life of boiler/turbine can come to 35 years. So, we can run power plant beyond 25 years of specified life without any capital investment. NERLDC procedure for swapping of unit RSD in a periodic manner will increase the number of cold start-up and this will reduce the life of thermal power plant even below the specified life of 25 years. Each start-up and shut-down is creating excess thermal stress. Apart from thermal stress, oil consumption is a matter of concern for generator and nation w.r.t environment. Also, there will be extra financial burden on beneficiaries.

For each swapping of thermal unit around 60 KL oil is consumed (start-up of one unit & shut down of other unit). Cost of oil for one swapping is around 28 Lakh (Rs46500./KL). For one RSD, generating stations are getting oil compensation of 50 KL of oil. If swapping had been done as per NERLDC procedure there would have been 4 more extra starts and stops of unit in the month of Aug'2020. This 4 swapping would have increased the ECR by 5.12 paise per kWhr in the month of Aug20 (though actual increase in oil cost is 6.15 paise per unit). This will create extra financial burden on beneficiaries.

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Ensuring healthiness of units is the responsibility of generators. There is already laid down procedure by CERC for demonstration of DC by RLDC as per clause 6.4(19) notification no. 3.14 No. L-1/18/2010-CERC dated 28th April 2010.

Considering the above, NTPC is of view that guideline regarding swapping of coal based units may please be dropped.”

Members may please discuss.

D.9 Mapping of NERLDC Tripping portal and PDMS tripping portal:

In 169th OCCM Director(O&P), NERPC informed that as per discussions in the Sub-group meeting held on 10th July,2020 and 11th August, 2020 it has been accepted that a mapping of the existing NERLDC tripping portal and PDMS tripping portal is required. This would enable the full utilization of the PDMS suite and proper audit trail of the analysis/recommendations of all trippings/disturbances in a common database. M/s PRDC representative that as per preliminary discussions with NERLDC API based mapping is being explored with tentative expenditure to the tune of INR 15 lakhs (maximum). NERLDC stated that discussion with M/s Kreate Technologies, who has developed the NERLDC Tripping Portal shall be required to understand requirements from their end. It was agreed that a separate meeting shall be organized between M/s PRDC and M/s Kreate Technologies in presence of NERPC and NERLDC for discussion regarding the requirements and finalizing procedure for implementation of the work.

The forum approved the scheme in-principle and requested NERPC to revert back with the exact details.

Members may please discuss.

AGENDA ITEM FROM NERPC

D.10 Preparation of List of Important Grid Elements:

In the Special Meeting (for improvement of Data Availability) held on 18th August,2020 it was decided that List of Important Grid Elements has to be prepared by NERLDC (for ISTS and important intra-state elements) and by SLDCs (for intra-state elements).

Members may please discuss.

D.11 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.

Members may please discuss.

Metering Agenda

D.12 SEMs to be Procured

In 169th OCCM NERTS informed that 50 out of the total 100SEMs have been received. The balance SEMs alongwith DCDs to reach Misa by Aug'20.

NERTS may please inform the status.

D.13 SEM time drift:

In 169th OCCM NERLDC informed that present SEMs having time drift cannot be corrected manually and have to be replaced. List of 22 SEMs has been provided to POWERGRID for replacement.

NERTS may please inform the status.

D.14 Integration of SEMs with laptop/PC for data downloading:

In 169th OCCM NEEPCO informed that previously a system was in place at Khandong PS for Single Push Data downloading from all SEMs. This was enabled by connecting all SEMs over RS-485 and a dedicated PC. He requested the forum to implement the same for large stations to enable speedier data collection. After detailed deliberation the forum decided the following:

- i. Implementation of RS-485 scheme for data downloading in one station preferably a generating station
- ii. If trial operation is successful then the scheme is to be extended to all stations where SEM quantity is greater than 10.

NERTS was requested to implement the trial at AGBPP.

NERTS may please inform the status.

AGENDA ITEMS FROM NERLDC:

D.15 Processing of Post-OCC shutdown:

POSOCO is in the process of pan India integration of the Shutdown and outage software for which one of the prerequisites is giving D-3 confirmation through the software for all Planned Shutdowns including the shutdowns approved by NERPC after OCC Meeting (Post OCC Shutdown). In line with procedure approved in WRPC forum and being followed in Western Region, it is proposed that in North Eastern Region the following procedure may be followed:

- a. Requesting agency shall request for Post OCC shutdown to NERPC with an intimation to NERLDC by 10:00 hrs of D-5 (D being the day of shutdown).
- b. RLDC shall perform system studies pertaining to the shutdown and shall provide their comments to NERPC by 18:00 hrs of D-5.
- c. NERPC shall approve/reject the shutdown and send the same to NERLDC by 18:00 Hrs of D-4 for further processing of the shutdown.
- d. Thereafter, the requesting agency shall apply D-3 availing request in NERLDC outage software as being done for OCC approved shutdowns.
- e. Rest of the timeline shall be same as being followed for OCC approved shutdowns.

Similar timeline shall also be followed while requesting for postponement of an approved shutdown by the requesting agency to NERPC.

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The above procedure shall help in alignment of procedure for processing of Post OCC shutdown with the procedure of processing of Planned shutdown approved in OCC Meetings as agreed in 88th OCC Meeting of NERPC Forum.

NERLDC may please deliberate.

D.16 Immediate restoration of 220kV Bus-Coupler Bay at Samaguri(AEGCL) & keeping both buses in service at 220kV Sub-stations in Assam power system:

Emergency shutdown of both 220 kV buses at Samaguri S/S was availed by AEGCL on 27.08.20 for restoration of 220 kV elements at Samaguri by bypassing bus coupler. Bypassing was done due to problem in 220 kV bus coupler bay.

Single bus operation of 220 kV Samaguri is affecting the safe and secure operation of the NER grid especially Assam Power System.

Also, Single bus operation is observed in other 220 kV substations of Assam Power system like Mariani (AEGCL), Sarusajai etc.

NERLDC may please deliberate.

D.17 Renewal of Maintenance and Support Contract for PSS/E user licenses:

During the 159th OCCM of NER, NERLDC informed that Maintenance and Support(M&S) Contract for PSS/E User Licenses used by NLDC/RLDCs/SLDCs had expired in 2018 and requested all SLDCs to give their consent for price negotiation by NLDC with M/s Siemens on their behalf.

Accordingly, consent had been received from the SLDCs and the same had been forwarded to NLDC, POSOCO for taking up with M/s Siemens for the price. The price had been negotiated with M/s Siemens. The same had been communicated with the utilities by NERLDC vide letter NERLDC/SO-II/270 dated 02.07.2020.

POSOCO has already procured for 5 RLDCs and 1 NLDC at the negotiated price and hence the updated versions of PSS/E are available with POSOCO.

SLDCs are requested to mention the status of the plan of procurement so that the updated versions are available for all. This would enable smooth system studies for safe and secure operation of the Grid.

NERLDC may please deliberate.

D.18 Early commissioning of 220kV Balipara-Sonabil-2 line:

Construction of 2nd 220 kV bay at Balipara (PG) for termination of one ckt of Balipara – Sonabil/Samaguri D/C was approved in 6th Standing Committee Meeting of NER dated 03.10.2016.

AEGCL is requested to intimate the latest status. Early commissioning of this line would increase the import transfer capability of NER grid.

NERLDC may please deliberate.

Any other item:

Date and Venue of next OCC