

North Eastern Regional Power Committee

Agenda For

101st OCC Sub-Committee Meeting

Time of meeting : 10:00 Hrs.

Date of meeting : 10th September, 2014 (Wednesday)

Venue : "Hotel Nandan", Guwahati.

A. CONFIRMATION OF MINUTES

CONFIRMATION OF MINUTES OF 100th MEETING OF OPERATION SUB-COMMITTEE OF NERPC.

The minutes of 100th meeting of Operation Sub-committee held on 13th August, 2014 at Guwahati were circulated vide letter No. NERPC/SE (O)/OCC/2014/1731-1766 dated 22nd August, 2014.

NERLDC vide mail dated 24.08.2014 has communicated their observation in respect of 100th OCC minutes of the meeting on **Item No. D.4 under TTC** of NER-ER Corridor under N-1 Criteria & enhancement of TRM of NER-ER Corridor as below:

"Import Reliability Margin of NER-ER Corridor will be 300 MW considering SPS based load relief. This is for information to the members of OCCM of NERPC. As per detailed procedure for relieving congestion in real time operation of CERC, Import Reliability Margin of NER-ER Corridor will be taken as 300 MW".

No observations or comments were received from the constituents. The Sub-committee may discuss & confirm minutes of 100th OCCM of NERPC.

ITEMS FOR DISCUSSION

B. OPERATIONAL PERFORMANCE AND GRID DISCIPLINE DURING AUG, 2014

As per the data made available by NERLDC, the grid performance parameters for August, 2014 are given below:

NER PERFORMANCE DURING AUGUST, 2014

| States | Energy Met (MU) | | % inc(+)/dec(-) | Energy Reqr. (MU) | | % inc(+)/dec(-) |
|-------------|-----------------|---------------|-----------------|-------------------|---------------|-----------------|
| | Aug-14 | July-14 | | Aug-14 | July-14 | |
| Ar. Pradesh | 52.96 | 50.54 | 4.8 | 55.21 | 52.23 | 5.7 |
| Assam | 732.62 | 756.43 | -3.1 | 795.61 | 820.21 | -3.0 |
| Manipur | 56.18 | 49.42 | 13.7 | 58.36 | 51.77 | 12.7 |
| Meghalaya | 131.27 | 131.41 | -0.1 | 152.17 | 154.74 | -1.7 |
| Mizoram | 35.42 | 35.85 | -1.2 | 37.08 | 37.59 | -1.3 |
| Nagaland | 53.48 | 49.71 | 7.6 | 55.20 | 51.72 | 6.7 |
| Tripura | 94.98 | 93.31 | 1.8 | 103.81 | 100.68 | 3.1 |
| Region | 1156.93 | 1166.6 | -0.8 | 1257.44 | 1268.9 | -0.9 |

| States | Demand Met (MW) | | % inc(+)/dec(-) | Demand in (MW) | | % inc(+)/dec(-) |
|-------------|-----------------|-------------|-----------------|----------------|-------------|-----------------|
| | Aug-14 | July-14 | | Aug-14 | July-14 | |
| Ar. Pradesh | 116 | 116 | 0.0 | 118 | 118 | 0.0 |
| Assam | 1242 | 1187 | 4.6 | 1379 | 1329 | 3.7 |
| Manipur | 138 | 125 | 10.7 | 141 | 131 | 8.2 |
| Meghalaya | 280 | 297 | -5.7 | 288 | 299 | -3.8 |
| Mizoram | 81 | 82 | -1.7 | 85 | 83 | 2.3 |
| Nagaland | 116 | 117 | -0.9 | 121 | 120 | 0.9 |
| Tripura | 235 | 238 | -1.3 | 240 | 239 | 0.7 |
| Region | 2053 | 1996 | 2.9 | 2356 | 2263 | 4.1 |

REGIONAL GENERATION & INTER-REGIONAL EXCHANGE IN MU

| Month----> | Aug-14 | July-14 |
|---|---------|---------|
| Total Generation in NER (Gross) | 1199.45 | 1139.61 |
| Total Central Sector Generation (Gross) | 831.51 | 795.39 |
| Total State Sector Generation (Gross) | 367.94 | 344.22 |
| Inter-Regional Energy Exchange | | |
| (a) NER-ER | 80.58 | 18.85 |
| (b) ER-NER | 65.61 | 81.81 |
| © Net Import | -14.97 | 198.752 |

AVERAGE FREQUENCY (Hz)

| Month----> | Aug-14 | July-14 |
|-------------------------|-----------|-----------|
| | % of Time | % of Time |
| Below 49.7 Hz | 39.38 | 35.15 |
| Between 49.7 to 50.2 Hz | 48.33 | 49.99 |
| Above 50.2 Hz | 12.29 | 14.86 |
| Average | 49.92 | 49.93 |
| Maximum | 50.34 | 50.36 |
| Minimum | 49.36 | 49.32 |

From the above table, it is seen that energy requirement & requirement met (MU) of the region decreased slightly where as peak met (MW) increased slightly from the previous month.

C.1 Synchronization of Palatana Module -I

The CoD of Unit # 1 of OTPC was declared on 04.01.2014 and 3rd Gas Booster Compressor (GBC) is still in BHEL's factory at Hyderabad. The status is being monitored in subsequent OCC meetings and despite several requests from OTPC, ONGC cannot enhance the amount of supply of gas till date. While monitoring the status of transmission lines associated with evacuation of Pallatana Unit # 1 generation, representative from NETC informed that loop in of one circuit of 400 kV D/C Silchar – Bongaigoan at Byrnihat S/S has been completed, but the line cannot be charged further since bay for loop out of this circuit is yet to be completed by Meghalaya. Further, NETC informed the members that 400 kV Silchar – Azara – II will be completed by June, 2014 and as intimated by Assam that 400kV sub-station is also ready for charging and once this line is completed, Azara-Byrnihat-I will be back charged through loop out circuit of Azara towards Byrnihat. NETC also mentioned that the balance section of Azara-Bongaigoan can be commissioned after 3 (three) months of getting the forest clearance for two locations in Aie valley and in Goalpara Division respectively.

SE (O) informed that during the Regional Planning of Power in NER under the Hon'ble Member, NEC, the issue was requested by NERPC to supply adequate gas to Pallatana of OTPC & Monarchak of NEEPCO for the benefit of the region and accordingly, Adviser (Power), NEC has written to CMD, ONGC requesting them to supply adequate immediately so that plants can generate to the full capacity.

DGM, OTPC informed that the matter has also been followed up by them and ONGC has assured that adequate gas supply will be made available by end of September, 2014.

The status of readiness of commissioning of Pallatana Unit-2 and status of its associated transmission lines as reviewed during 100th OCC meeting is given as below:

| SN | Items | Status as given in 100 th OCC Meeting | Status as on 101 st OCC |
|----|---|---|------------------------------------|
| 1 | Trial operation and CoD of Unit -II of Palatana | Trial run is expected in October, 2014 and CoD is expected in Oct-Nov, 2014 | |
| 2 | 400KV D/C Silchar - Melriat line | March, 2015 | |
| 3 | 400KV D/C Silchar - Imphal line | November, 2014 | |
| 4 | 220KV D/C Mariani (New) – Mokokchung | Sept, 2014 | |
| 5 | 400KV D/C Byrnihat-Bongaigaon line | Byrnihat – Azara section charged on 28.07.2014. Azara-Bongaigaon section is expected by December, 2014 | |

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| | | | |
|---|---|---|--|
| 6 | 400kV Balipara – Bongaigaon D/C line 3 & 4 with FSC | August, 2014 subject to availability of forest clearance for 5.2 kms of the line. | |
| 7 | 400/220 kV sub-station at Azara of Assam | Completed | |

C.2 SPS scheme for Pallatana

The following four (4) System Protection Scheme (SPS) associated with generating Unit#1 (363.3MW) of OTPC at Palatana has been planned for NER:

Case 1: Tripping of generating unit of OTPC at Palatana

Case 2: Tripping of 400 kV D/C Palatana- Silchar line (with generation from OTPC's plant at Palatana)

Case 3: Tripping of 400 kV Silchar-Byrnihat line (with generation from OTPC's plant at Palatana)

Case 4: Tripping of 400 KV Silchar – Byrnihat line (without generation from OTPC's plant at Palatana)

The OCC Sub-committee continuously review the status of implementation of the scheme and the status as intimated in the 99th OCC Meeting is given below:

Case I & Case IV: Already implemented.

Case II & III: GM, OTPC stated that implementation of SPS -2 & 3 mentioned above was discussed in detail and the scheme was finalized in the meeting held with BHEL at Palatana on 17.01.2014. Subsequently some modification has been carried out by BHEL and same will be circulated to all. The offer of BHEL is intimated by OTPC but the required schematic diagram as agreed in the 97th OCC meeting is unavailable.

OTPC had requested POWERGRID to look into following issues:

(a) SPS at OTPC end should not be modified with commissioning of 2nd Circuit of Silchar _ Bongaigaon 400kV line. ***It is agreed in earlier OCC meetings that the SPS associated with Palatana need to be reviewed including enhancement of load shedding and NERLDC was requested accordingly to review the SPS on 99th OCC meeting.***

(b) Trip command from two different sources should be available to desynchronize the machine to avoid unwanted tripping of generating Unit when the generation is more than 200MW. During 93rd OCC meeting, subcommittee had suggested OTPC for getting input from Circuit breakers at both ends of the line (Silchar & Byrnihat) through communication link and to discuss the matter with POWERGRID.

- (c) Two out of three logics [i.e. inputs from circuit breaker (s), master trip relay (s) etc.] shall be utilized for de-synchronization of Gas Turbines. During 93rd OCC meeting, subcommittee had suggested OTPC to discuss the matter with POWERGRID.

Enhancement of quantum of load relief during SPS operation: The matter was deliberated in last OCC meeting and it was decided to convene meeting of identified committee for the review of SPS schemes to ensure higher load relief as well as changes to be incorporated in the schemes in view of changes in network topology. ***Further OTPC informed the house the status of SPS-3 [NERLDC is of the opinion that the elaborate scheme furnished by M/s BHEL may not be necessary and tripping of the identified CB will be serve the purpose.*** In addition the SPS-3 requires to be upgraded to incorporate addition of Silchar-Azara 400 kV line.

The Sub-committee requested to have a sub-group committee meeting on 22.08.2014 at NERLDC, Shillong to discuss for early implementation of the SPS Case II & III as well as other issues of Islanding Scheme etc.

However, GM, OTPC vide mail dated 20.08.2014 has requested to postpone the above meeting after completion of Combustion Inspection work since their engineers are busy with the ongoing work.

The sub-group may like to discuss the issue just after the 101st OCC meeting is over.

C.3 Details of Installations and self-certification (by STUs and CTUs) in respect of operationalisation of Under Frequency Relays (UFRs) in NER systems and additional requirement of UFR and df/dt relays:

The OCC regularly review the status of UFR based load shedding in the region. The following details are confirmed in earlier OCC meetings.

Assam: UFRs based load shedding for 220MW have been implemented.

Nagaland: UFRs based load shedding for 20MW have been implemented.

It was also informed in earlier OCC meeting that UFR operation report in prescribed format on monthly basis is received from Mizoram regularly but other beneficiaries have not sent any information. It was requested that all constituent states of the region to complete the installation of UFRs required for all four stages by July, 2014 end and start furnishing of UFR operation reports to NERPC & NERLDC on monthly basis before OCC meetings.

Implementation of UFR load shedding based on average load as per CERC order in Petition No. 263/MP/2012 on 19.12.13: As per para no 13 of CERC order in Petition No. 263/MP/2012 on 19.12.13:

Quote

We have heard the parties and perused the pleadings. We are in agreement with the petitioner that there is a need to review and estimate the actual load on the feeders and the constituents should consider average load in the feeders for computation of target relief on identified feeders. As sufficient load relief has not been achieved, the respondents are directed to identify more feeders for installation of UFR and df/dt relays and submit the details to SRPC.

Unquote

At present, UFR load shedding based on maximum load is implemented in NER. When UFR based load shedding are required, load of identified feeders are not generally at peak load. As such sufficient load relief will not be achieved for system requirement. NER beneficiaries are accordingly requested to compute average load of identified feeders where UFRs are installed and to identify additional feeders for installation of UFRs to fulfill the target based upon average load.

During 100th OCC meeting, the sub-committee noted that UFRs based load shedding has been implemented for Stages I & II. However, no data have been received during the major grid disturbance which occurred on 25.07.2014. This is a matter of serious concern as neither 'the UFRs operated successfully' nor 'the amount of load relief after UFR operation' can be confirmed. The sub-committee requested all the constituents to furnish the required and relevant data at the earliest so that the issue can be studied by system study group on 22.08.2014. The sub-committee also requested Ar. Pradesh, Manipur, Meghalaya, Mizoram & Tripura to complete the remaining installation of Stage III & IV at the earliest.

The committee may like to discuss.

C.4 Lines under long outages

During the 100th OCC meeting, the issue for restoration of these lines was reviewed by the committee and the status was as follows:

- a) 220kV BTPS – Agia line (one ckt) – [Since Nov'97]: The representative of Assam informed that the work associated with 20 kms of the line (out of 42km) has been completed and the target for completion of rest of the work is July, 2014. AEGCL informed that the work has been completed on 25.07.2014.

The sub-committee noted the same and appreciated AEGCL for the same. With the commissioning of this line ATC/TTC has been enhanced accordingly.

NERLDC may kindly intimate about the status of ATC/TTC after commissioning of the above line.

- b) 132kV Mariani – Mokokchung line - [Since Apr'02]

Representative from AEGCL informed that they have received the assessment from Dept. of Power, Nagaland and accordingly they will resolve the matter bilaterally.

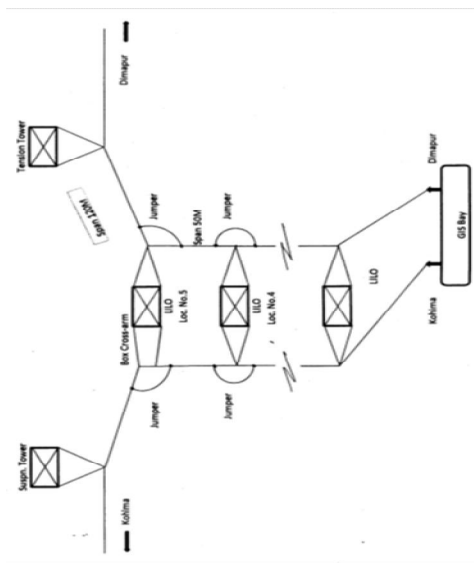
c) 39km of 132kV Rengpang – Jiribam line – [Since Oct'02]

Since no representative from Manipur was present the status could not be updated.

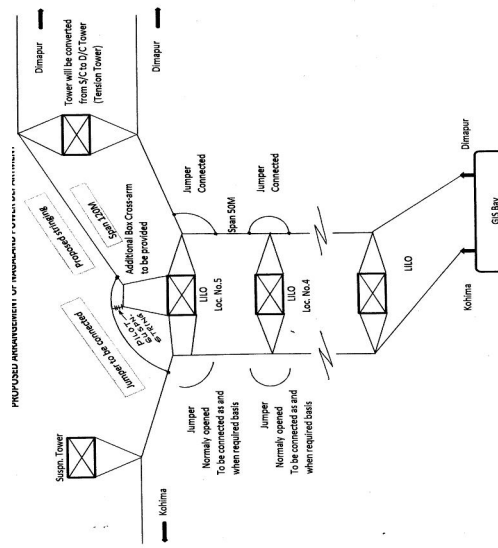
Manipur & Nagaland may like to inform the status.

C.5 LILO of 132 kV Dimapur (Nagaland) - Kohima

LILO of 132 kV Dimapur (Nagaland) – Kohima (Nagaland) line at 220/132 kV Dimapur (PGCIL) Substation- [Since Aug'11]:



Before Modification



After Modification

EE, DoP, Nagaland informed that that the arrangement recommended by POWERGRID is being implemented. The modification work would be completed by August, 2014 and the matter will be intimated in the next OCC.

Nagaland may intimate the latest status.

C.6 CT Ratio of Transmission Lines in NER:

During 99th OCC meeting, NERLDC informed that the details of CTs have been received from Tripura, Meghalaya, Nagaland and Kopili (NEEPCO). Assam has handed over the CT details to NERLDC/NERPC during the meeting. NEEPCO informed that details of CT for the remaining stations have already been sent to NERLDC. NERLDC requested NEEPCO to submit again as they have not received the details. Manipur stated that the details of CT will be furnished soon. The subcommittee requested Manipur & Mizoram to submit the CT details to NERLDC at the earliest.

During 100th OCC meeting, all members were requested to submit the required data at the earliest. The subcommittee requested NERLDC to calculate the loadability of

all the lines with details already available. Further enhancement of CT ratio, if required, may be finalized accordingly.

NERLDC may kindly intimate the current status.

C.7 Furnishing Geographic Co-ordinates of Nodes of NER Grid:

Power Maps of NER states are being developed by CBIP. To represent nodes of NER Grid in power maps, Co-ordinates of **existing Nodes, Nodes under construction & identified future Nodes** (66 kV & above) of NER Grid are required. Power Utilities of NER are requested to furnish latitude & longitudes of Nodes of NER Grid.

All the constituents have agreed to furnish the above data to NERLDC at the earliest. However, no data from any power utility have been received till date except Meghalaya, Ar. Pradesh and Tripura. Assam representative stated in the 99th OCC meeting that they have outsourced the work and the same would be furnished in the next OCC meeting.

The subcommittee requested concerned utilities to furnish the data by June, 2014 & the utilities agreed. Latest status of actions taken may be intimated.

C.8 Up-dated Operating Procedures of NER 2014:

As decided in last OCCM of NERPC, Operating Procedures of NER 2014 in MS Word format & MS Excel format uploaded in NERLDC website and also e-mailed to regional entities of NER to furnish comments/suggestion of this document by 20th September, 2014.

The subcommittee may like to note

C.9 Single Line Diagram of Sub-stations, Switching Stations & Power Stations of NER:

Constituents of NER are requested to furnish Single Line Diagram of Sub-Stations, Switching Stations & Power Stations owned by them at the earliest as these diagrams are required for proper visualization.

Constituents may kindly furnish the information at the earliest.

C.10 Transformer Tap Optimization:

System study was conducted by NERLDC considering load, generation and network pattern of Sept 14 during Peak & Off Peak periods. Suggested taps position of important transformers in NER for maintaining bus voltages within permissible limit as well as to minimize system losses are attached at Annexure I. The settings will be reviewed in March-15 and also as when abnormal voltage profile/loss is observed in NER Grid.

For kind information of member.

C.11 Monthly MU requirement & availability of each state of NER as per format:

The following figures of state wise MU requirement and availability were taken from draft LGBR 2014-15 of NERPC. State wise MU requirement and availability for these months are to be checked. Constituents may kindly verify if the above data are correct.

Requirement:

| Name of State | Sep14 | Oct14 | Nov14 | Dec14 | Jan15 |
|---------------|-------------|-------------|-------------|-------------|-------------|
| Ar. Pradesh | 70 | 70 | 65 | 65 | 65 |
| Assam | 825 | 790 | 660 | 680 | 690 |
| Manipur | 65 | 65 | 65 | 65 | 70 |
| Meghalaya | 145 | 170 | 175 | 175 | 195 |
| Mizoram | 36 | 43 | 43 | 40 | 41 |
| Nagaland | 60 | 65 | 55 | 55 | 60 |
| Tripura | 120 | 120 | 110 | 120 | 125 |
| NER | 1321 | 1323 | 1173 | 1201 | 1246 |

Availability:

| Name of State | Sep14 | Oct14 | Nov14 | Dec14 | Jan15 |
|---------------|-------------|-------------|------------|------------|------------|
| Ar. Pradesh | 69 | 58 | 47 | 43 | 40 |
| Assam | 583 | 534 | 461 | 454 | 439 |
| Manipur | 78 | 72 | 64 | 59 | 56 |
| Meghalaya | 268 | 231 | 158 | 148 | 133 |
| Mizoram | 50 | 46 | 39 | 36 | 36 |
| Nagaland | 56 | 52 | 38 | 34 | 32 |
| Tripura | 148 | 147 | 134 | 138 | 137 |
| NER | 1252 | 1130 | 941 | 914 | 873 |

- *These data required for preparation of various reports.*

Constituents may kindly furnish the data to NERLDC.

C.12 Monthly MW requirement & availability of each state of NER:

The following figures were taken from LGBR 2014-15 of NERPC. These figures are to be reviewed.

A. Peak Demand in MW

| Name of State | Sep14 | Oct14 | Nov14 | Dec14 | Jan15 |
|---------------|-------------|-------------|-------------|-------------|-------------|
| Ar. Pradesh | 139 | 136 | 125 | 125 | 130 |
| Assam | 1350 | 1380 | 1435 | 1450 | 1380 |
| Manipur | 135 | 140 | 135 | 135 | 150 |
| Meghalaya | 310 | 335 | 350 | 345 | 390 |
| Mizoram | 86 | 87 | 90 | 80 | 79 |
| Nagaland | 100 | 140 | 120 | 125 | 130 |
| Tripura | 260 | 310 | 270 | 250 | 245 |
| NER | 2380 | 2528 | 2525 | 2460 | 2455 |

B. Peak Availability in MW

| Name of State | Sep14 | Oct14 | Nov14 | Dec14 | Jan15 |
|---------------|-------------|-------------|-------------|-------------|-------------|
| Ar. Pradesh | 101 | 130 | 120 | 118 | 110 |
| Assam | 1045 | 993 | 874 | 867 | 835 |
| Manipur | 122 | 134 | 115 | 118 | 109 |
| Meghalaya | 401 | 415 | 290 | 276 | 246 |
| Mizoram | 91 | 91 | 80 | 79 | 75 |
| Nagaland | 95 | 86 | 75 | 75 | 70 |
| Tripura | 300 | 295 | 285 | 281 | 275 |
| NER | 2155 | 2145 | 1839 | 1814 | 1719 |

A. Off Peak Demand in MW

| Name of State | Sep14 | Oct14 | Nov14 | Dec14 | Jan15 |
|---------------|-------------|-------------|-------------|-------------|-------------|
| Ar. Pradesh | 77 | 75 | 69 | 69 | 72 |
| Assam | 868 | 856 | 890 | 899 | 856 |
| Manipur | 81 | 84 | 81 | 81 | 90 |
| Meghalaya | 202 | 201 | 210 | 207 | 234 |
| Mizoram | 57 | 57 | 59 | 52 | 51 |
| Nagaland | 72 | 84 | 72 | 75 | 78 |
| Tripura | 175 | 202 | 176 | 163 | 159 |
| NER | 1460 | 1485 | 1555 | 1470 | 1465 |

B. Off Peak Availability in MW

| Name of State | Sep14 | Oct14 | Nov14 | Dec14 | Jan15 |
|---------------|-------------|-------------|-------------|-------------|-------------|
| Ar. Pradesh | 121 | 121 | 115 | 114 | 107 |
| Assam | 903 | 914 | 831 | 835 | 817 |
| Manipur | 114 | 114 | 104 | 105 | 102 |
| Meghalaya | 437 | 390 | 276 | 264 | 240 |
| Mizoram | 89 | 84 | 76 | 76 | 73 |
| Nagaland | 83 | 78 | 70 | 71 | 68 |
| Tripura | 284 | 284 | 279 | 274 | 271 |
| NER | 1955 | 1910 | 1751 | 1740 | 1465 |

D. NEW ITEMS

D.1 Generation Planning (ongoing and planned outages)

NEEPCO/NHPC/OTPC may kindly intimate the availability for hydro stations:

| Generating Station | Units running | MW | MU | Reservoir |
|--------------------|---------------|----|-------------------|-----------|
| Khandong | | | | |
| Kopili | | | | |
| Kopili-II | | | | |
| Ranganadi | | | Subject to inflow | |
| Doyang | | | | |
| Loktak | | | | |
| AGBPP | | | - | - |
| AGTPP | | | - | - |

Hydro Generation Planning: In view of heavy rainfall in the region during August, 2014, NERLDC may kindly intimate the present reservoir level in hydro plants of the region and the planning of generations accordingly.

The Committee may discuss and approve the proposed shutdown by Generating Stations.

D.2 Water level and spillage data of Hydro Stations

Historical data of reservoir level & spillage data of hydro stations are not available with NERLDC. This information is sometimes asked by various authorities. To facilitate in making a database for the same, all concerned are requested to furnish the available information to NERLDC as early as possible.

During 100th OCC meeting, it was learnt that NERLDC has furnish the format to all the constituents for necessary submission of data. Hence constituents may kindly furnish the data to NERLDC at the earliest.

NERLDC may intimate the status.

D.3 Outage Planning Transmission elements

It was agreed in the 99th OCC meeting that shutdown will be availed only after approval is given by the OCC forum. It was also agreed that deferment/revision of outages elements other than already approved in OCC will be henceforth put/displayed in the website of NERPC (**under Operational Activities/OCC**

Approved shutdown) as per CERC regulations/ CEA guidelines etc for ensuring smooth & secure grid operation.

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

Cancellation/Deferment of Shutdown programs approved in OCC forum.

In certain cases, it has been observed that some critical shutdown programs approved in OCC forums are cancelled / deferred by NERLDC on real-time basis at the last moment when extensive mobilization of resources is done at working site. A recent example, shutdown of 132KV Haflong-Jiribam line, which was approved in the 100th OCC forum, was cancelled at the last moment by NERLDC on grounds of non-availability of Pallatana generation. The said shutdown was critical in nature in terms of possibility of collapse of an endangered tower and the same was deliberated in OCC forum prior to its approval. Further, OCC approved shutdown of 132KV Aizawl-Kumarghat line was also cancelled by NERLDC both on the ground of non-availability of Pallatana generation. It is to be mentioned that both the said shutdown were approved in the OCC forum considering non-availability of Pallatana generation.

It is to be submitted to the forum that in case of such sudden deferment/cancellation of approved shutdown, the transmission licensee is compelled to demobilize all resources & a huge time is consumed for subsequent re-mobilization. In the process, undesirable delay in execution of the job takes place & in certain cases, it becomes difficult to complete the job during the current working season itself. Further, in case of critical maintenance, such delay may lead to major breakdown of elements resulting in unmanageable situation.

The sub-Committee may kindly discuss and approve the transmission line outages proposed by Constituents for August - October, 2014 as enclosed at Annexure- D.3

D.4 TTC of NER-ER Corridor under N-1 Criteria & enhancement of TRM of NER-ER Corridor:

Subsequent to the commissioning of Azara S/s and associated transmission lines etc, it has been observed from system study that sensitivity towards BTPS has increased and accordingly the credible contingency for calculation of TTC of NER-ER Corridor under present condition is taken as collapse of tower of 220kV BTPS Salakati line [i.e. N-1-1 Criteria] and the TTC is 780/600 MW during Off-peak/Peak

considering N-1 of Misa ICT also. Further as per detailed procedure for relieving congestion in real time operation of CERC, size of largest generating unit in the control area/ group of control area/Region will be import transmission reliability margin (TRM) of the corridor. Import TRM of NER-ER corridor is presently taken as 50 MW. However now 363 MW of Palatana is largest size of machine in NER Grid and being located in southern part of the region the TRM is directly related to the outage of this unit. Accordingly import TRM of NER-ER corridor needs to be revised; around 300 MW considering SPS based load relief is considered.

During 100th OCC meeting, the forum did not agree to import TRM of NER-ER corridor and revision of 300 MW load relief SPS. The forum requested NERPC Secretariat to take up the matter with NLDC on the matter.

NERLDC further informed that as per detailed procedure for relieving congestion in real time operation of CERC, size of largest generating unit in the control area/ group of control area/Region is import transmission reliability margin (TRM) of the corridor. Installed capacity of Palatana Module 1 which is largest size machine of NER and located in southern part of the region is 363 MW. Import TRM is directly related to the outage of this machine.

Import TRM of NER-ER corridor was revised to 300 MW considering SPS based load relief. However, Import TRM of NER-ER corridor will be 35/50 MW during the period of outage of Module of Palatana.

The sub-Committee may like to discuss.

D.5 Review of Generation Run-back frequency setting of Palatana machines:

It has been observed that Palatana generation starts decreasing when system frequency is more than 50.60 Hz (Generation run back continues till frequency reaches 50.3 Hz). It is requested to review the settings to avoid sharp decrease of generation in case of system isolation resulting collapse of the system.

During 100th OCC meeting, OTPC representative informed that the matter will be taken up by them with the manufacturer and the status would be intimated in the next OCC meeting.

The unit was under shut down w.e.f 20.08.14 to 01.09.14 and it is understood that OTPC carried out several activities in presence of manufacturer's representative.

OTPC may intimate the current status.

D.6 Status/Load ability of 132 kV Lumshnong – Panchgram Line:

Meghalaya informed that since the line is old, loading of above line needs to be fixed at a safe thermal limit. Hence both Assam & Meghalaya may look into the matter for strengthening of the system.

During 98th OCC meeting, Assam informed the members that healthiness of the line has been checked by AEGCL till Panchgram and it was found that the line is very old and cannot be loaded up to 50 MW. Healthiness of the line from Lumshnong end may be confirmed from Me. PTCL.

During 99th OCC meeting, Member Secretary (I/C) informed that the 132kV Lumshnong – Panchgram line is an interstate line benefiting the NER region. Strengthening of this line is essential to increase the loadability of the line beyond 50MW and this will require huge expenditure. He further stated that possibility of funding from PSDF may be explored as per PSDF guidelines.

Member Secretary I/C advised Me.ECL to apply for funding from PSDF by filling in prescribed formats as provided by CEA/NLDC.

During 100th OCC meeting, SE, Me. ECL informed that the DPR for the same is almost ready and the same will be sent to NERPC Secretariat for further action in this regard. But till date no information has been received.

Me. ECL may kindly intimate the current status.

D.7 Status of Construction of:

- 1. 220/132/33 kV sub-station at Sonapur**
- 2. LILO of 132 kV Kahilipara – Umtru Line at Byrnihat.**

During 100th OCC meeting, SE, Me. ECL informed that meeting between Assam & Meghalaya was held on 01.08.2014 and they have decided to resolve bilaterally.

Assam/Meghalaya may kindly intimate the current status.

D.8 Frequent disruption of power supply to Kameng HEP:

It was informed in earlier OCC meetings that, the Department of Power, Govt. of Arunachal Pradesh was allowed to draw power from a Tee-connection at Tipi (near Bhalukpong) from the 132 kV Balipara - Khuppi Transmission Line. The Tee-connection was energized on 31-05-11 and drawal of power was temporarily allowed for two months only within which time the LILO System was supposed to be commissioned. It may be noted that the drawal of power in the 132 kV Balipara - Khuppi Line is monitored from Balipara end and therefore the drawal of power in the said Tee-connection is being accounted.

However, due frequent over-drawal by Department of Power, Govt. of Arunachal Pradesh from the said Tee-connection, 132kV Balipara-Khuppi line is frequently opened from Balipara substation which hampers the construction work of Kameng HEP of NEEPCO.

It was agreed in the 99th OCC meeting that NEEPCO will remove the Tee-Connection in consultation with Ar. Pradesh.

Latest status may be intimated by NEEPCO and committee may like to discuss.

D.9 Commissioning of 315 MVA ICT at NTPC Bongaigaon & also 220 kV BTPS (Assam):

NTPC D/C line for off loading 220kV Salakati-BTPS D/C line – It has been observed that the 220 kV Salakati – BTPS D/C line is getting overloaded during peak hours posing threat to system security. For off-loading the link it is requested to NTPC for taking actions for early commissioning of 315 MVA ICT at NTPC Bongaigaon & also 220 kV BTPS(Assam) – NTPC D/C line for off loading 220kV Salakati-BTPS D/C line. As no representatives from NTPC were present in the 99th OCC meeting, the subcommittee advised NERLDC/NERPC to take up the matter with NTPC for early commissioning of 315 MVA ICT at NTPC Bongaigaon.

During 100th OCC meeting, AGM, NTPC stated that test charging of Bongaigaon ICT is done. 2 bays will be test charged from Balipara end in the 2nd week of September 2014.

NTPC may kindly intimate the status.

D.10 Maintenance of Inter-State and Intra-State Transmission in Ar. Pradesh:

Arunachal Pradesh has 4 segments of EHT transmission lines connected to NER grid at Hoj, Balipara and Kathalguri. Presently they are maintained by POWERGRID, NEEPCO and DOP Arunachal Pradesh as per ownership of the lines. These four segments do not have interconnections of any kind within the territorial jurisdiction of the state of Arunachal Pradesh. As such, at times of line breakdown of any of these segments, maintaining power supply to those areas becomes impossible due to lack of alternate transmission line, throwing the entire area into darkness for quite long causing extreme hardship to basic users and causing huge economical losses to industry and commerce. This is aggravated by multiplicity of agencies engaged in maintaining this system of only about 389 circuit KM within the state. For instance, Hoj-Ziro 132 KV by POWERGRID, Ziro-Daporijo-Aalo 132 KV by DOP Arunachal and Balipara-Bhalukpong-Khupi by NEEPCO. Such kind of present arrangement had caused lots of confusion amongst field level staffs due to difficulty in having an inter-organisational coordination/interaction on day to day basis at the affected areas in real time. In the event of system failures and occurrence of faults in the systems prolonged responsetime and delays in restoration time has been observed due to lack of co-ordination. Such situation had arisen on several occasions in the past and had to leave the faulty line unattended for long time.

A case of such an instance had been reported in 132 KV Balipara-Bhalukpong-Khupi line in the month of June 2014 where the transmission line between Bhalukpong- khupi remained off for about 20 days keeping entire two districts of West Kameng and East Kameng in absolute darkness. The cause was due to damage of Tower No 159 near Ziro Point by landslide on 22nd June 2014. The line is under maintenance by NEEPCO of which the work has been outsourced to M/S Mega Electric reportedly on Annual Maintenance Contract basis.

M/S Mega Electric responsible for all such works is not able to keep up its responsibilities and it is always the DOP Arunachal Pradesh who had to do the

actual work of maintenance looking at the importance and urgency of the issue. During the same month of last year the same line remained faulty for 15 days simply just because petty preventive maintenance as basic as clearance of jungles was not carried out by the agency. In other words, the NEEPCO is not bearing its responsibility of maintaining and upkeep of the line.

In the circumstances and the scenario existing in the state of Arunachal Pradesh, it is proposed to place before the Committee and to discuss and to take a resolution as follows:

1. All 132 KV and above Transmission line functioning as Inter- State connectivity should be transferred to the PGCIL (CTU).
2. All 132 KV and above which are Intra-State shall be transferred to the STU (i.e. Department of Power, Arunachal Pradesh).
3. Henceforth Intra-state systems should not be developed by PGCIL as regional projects unless it is done under a bi-lateral agreement with the concerned state.

Committee may like to discuss.

D.11 Agenda items from TSECL:

D.11.1 Load & Generation planning for Durga Puja:

TSECL: The estimated peak demand of the state during Durga Puja will be 300 MW. Availability from own generation will be about 90MW. The balance 210 MW has to be drawn from the grid. Like previous year TSECL needs support from all NER states, NERLDC, NERPC, PGCIL, OTPC, NEEPCO, and NHPC. TSECL has requested Meghalaya & Mizoram for additional support like previous year for 40MW & 30 MW respectively. Accordingly Open access arrangement is being done apart from bilateral drawal from Mizoram & Meghalaya.

NERLDC: Like previous years it is required to finalize advance planning for Durga Puja Load & generation. For this, demand of states and availability of generators are required for the puja days so that prior actions for tying up imports by states and planning for secure operation of grid can be finalized. All beneficiary states & ISGS are requested to furnish their demand & tentative availability quantum for the period so that operational planning can be finalized by NERLDC in advance.

Committee may like to discuss.

D.11.2 Revision of scheduling is not intimated well in time to SLDC, Tripura.

In the 100th OCC meeting, it was decided that Palatana will go on shutdown from 00:00hrs of 20/08/14 & accordingly NERLDC published the entitlement for the beneficiary. On that basis, TSECL planned their schedule of drawal & injection based on the available generation as notified by NERLDC.

However it has been observed that suddenly at about 11:15hrs on 19/08/14, Palatana has rescheduled its generation from 00:00 hrs to 11:30hrs for 20/08/14 resulting in huge surplus generation in respect of TSECL. As per DSM regulation, TSECL is forced to back down its own generation as well as central sector generation to match with real time operation. Due to sudden change of schedule, huge penalty along with other applicable charges like POC, POSSOCO, Fixed charges etc has to be borne by TSECL while TSECL is no way liable for such act.

Committee may like to discuss.

D.12 Sale of power, under requisition, over drawal & shortfall:

It has been observed that some beneficiaries are under-requisitioning their share from ISGS as well as selling and simultaneously shortfall is also shown. Beneficiaries are requested to clarify the matter i.e. sales/under requisition could take place irrespective of shortages and not necessarily are an indication of surplus. It is further observed that beneficiaries also indicate shortfall even when sufficient import ATC margin was available for purchase of power through STOA. It may however be noted that short fall figures furnished by beneficiaries are part of reports furnished to MOP and other agencies; NERLDC has been asked to clarify the dichotomy. In view of this, beneficiaries are requested to furnish the breakup and nature of shortfall figures so that the same can be appraised to concerned authorities accordingly.

Committee may like to discuss.

D.13 Outage of entire Power Station:

On 28.08.14 at 2129 hrs all the running units of AGBPP tripped due to tripping of station transformer, as intimated by AGBPP control room. It is to mention here that Palatana Block-I was under shut down during that period. Despite of the severity of the issue, detail report has not been issued by AGBPP regarding exact cause of the tripping, which is a violation of grid code. NEEPCO is requested to take proper action for event reporting in line with IEGC for any event. In case the tripping of all the running units is attributable to the failure of the station transformer only, NEEPCO may plan a backup mechanism to avoid repetition of such incidents.

Committee may like to discuss.

D.14 Automatic Demand Management Scheme (ADMS):

Assam stated that the Honorable Commission in its order dated 25.04.2014 in Petition No. SM/005/ 2014 has directed all Officer In Charge of the respondents State Transmission Utilities/ SLDCs to Show cause latest by 15.05.2014, as to why action under Section 142 of the Electricity act 2003 should not be taken against them for non compliance with CERC's direction and the provisions of the Act and the Grid Code with regard to implementation of the Automatic Load Management Scheme.

In this regard a reply was given by Assam to Hon'ble commission that due to non availability of in house expert, the ADMS could not be implemented in Assam. However the other schemes like installation of UFR, Islanding scheme, SPS etc. were intimated to the commission. But the petitioner NLDC in the hearing intimated that the ADMS scheme is basically to restrict the over drawl of power from the system and every State/Distribution Licensees should install ADMS without any delay in order to maintain the security of the grid.

During 98th OCC meeting, SE(O) informed that ADMS was discussed in other RPCs also and stated that none of the States have implemented ADMS fully. However, some states in SR are in the progress of using ToD metering for bulk consumers and tariff is different for different time so as to encourage them to shift part of their overall electricity use from peak demand where the tariff is high. By using this mechanism overdrawl especially during peak hours is reduced. He also mentioned that best way to implement this ADMS is by integrating through SCADA which constituents can explore the possibility. Further, he stated that many new schemes proposed by POWERGRID viz., GSES, WAMS etc., are in the offing but the logic, technology and so on are yet to be fully understood. He requested constituents to send their views to CERC about the difficulties faced by them.

AGM, SLDC, Assam stated that issue has been taken up by them with CERC and they have explained to them about the action taken by Assam like UFR based load shedding and the GSES scheme of POWERGRID etc.,, but the same was not agreed by CERC.

The sub-committee unanimously decided that they will request NLDC or POWERGRID to arrange the seminar in this regard so that the logic, technology, communication facilities etc., need to be understood first before they can proceed further.

However, considering the seriousness of the matter, the constituents may kindly inform the current status & Committee may like to discuss.

D.15 Submission of data/information of transmission elements expected to be added/commissioned within next 2 months to NERLDC:

List of transmission elements which is expected to be added/commissioned within next 2 months is to be informed to NERLDC by concerned transmission utility. All data related to these elements are to be furnished as per formats circulated by NLDC vide letter dated 26.05.14 within stipulated time.

Constituents may kindly furnish the data to NERLDC at the earliest.

D.16 Estimated Transmission Availability Certificate (TAC) for the month of August, 2014.

The Estimated Transmission System Availability for the month of August, 2014, furnished by PGCIL, is **99.9820%**. The detail outage data for calculation of Transmission System Availability furnished by PGCIL, is at **Annexure D.16**. NER constituents are requested to kindly communicate their views and observations, if

any, by 28th September, 2014 so that Final TAC for the month of August, 2014 may be finalized by NERPC Secretariat.

Availability certification of ISTS elements – POWERGRID & NETC submitted outage reports of their lines for certification for the first time for this control period i.e. 2014-19. Being the first certificate to be issued for the control period 2014-19 the same may be thoroughly deliberated by the constituents vis a vis the new tariff regulation so that any inadvertent mistake can be detected & corrected before issuance of certificate by NERPC.

Procedure for calculation of Transmission system availability factor for a month as per CERC Regulation 2014-19.

As per Central Electricity Regulatory Commission (Terms and conditions of Tariff) Regulations, 2014-19 .Transmission System Availability factor for a calendar month (TAFM) w.e.f. 1st April 2014 shall be calculated by the respective transmission licensee, got verified by the concerned RLDC and certified by the Member Secretary, Regional Power Committee of the region concerned separately for each AC and HVDC transmission system.

The important points on the regulation are as follows:

1. For AC System, two trippings per year shall be allowed.
2. After two trippings in a year additional 12 hrs outage shall be considered in addition to the actual outage.
3. In case of outage of a transmission element affecting evacuation of power from a generating station, outage hour shall be multiplied by a factor of 2.
Clarification: whether those transmission elements connected to generators only shall be considered or transmission elements not connected with generator but generation loss occurred due to such trippings. Certification of loss of generation may be certified by NERLDC/NERPC
4. The weightage factor for each category of transmission elements shall be as under:
 - a. For each circuit of AC line- Surge Impedance Loading (SIL) for uncompensated line multiplied by ckt-km.
Clarification: whether transmission elements of mixed conductor type lower SIL shall be considered. Spare ICT/ reactor etc. will not be considered for certification. Line for loop in/loop out lines and contingency scheme actual line length and SIL will be taken.
 - b. For compensated line, Surge Impedance Loading shall be as certified by the Regional Power Committee Secretariat considering the compensation on the line.
Clarification: Reactive compensation is considered irrespective of ownership of the reactive elements on line. For Static VAR Compensator fixed compensation shall be taken in calculation, whereas for TCSC like variable compensation, Average of percentage compensation shall be taken in calculations. For combined (fixed plus variable) compensation, fixed plus average of variable compensation will be considered.

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- c. For shunt compensated line the reduced value of SIL shall be in accordance with the location of the reactor. Similarly, in case of the lines with series compensation the higher SIL shall be taken as per the percentage of compensation.
5. The availability for each category transmission elements shall be calculated based on the weightage factor, total hrs under consideration and non-available hrs for each element of that category. The formulae for calculation of Availability of each category of the transmission elements are as per Appendix-V.
Clarification: If planned maintenance approved in OCC and the transmission licensee failed to avail on that day and availed on some other day what will be the status.
6. The Transmission elements under outage due to following reasons shall be deemed to be available:
 - a. Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the transmission licensee, the Member Secretary, RPC may restrict availability period to that considered by him for the work involved.
 - b. Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the direction of RLDC.
7. Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.
 - a. Outage of elements due to acts of God and force major events beyond the control of the transmission licensee. However, onus of satisfying the Member Secretary, RPC that the element outage was due to aforesaid events and not due to design failure shall rest with the transmission licensee. A reasonable restoration time for the element shall be considered in accordance with Central Electricity Regulatory Commission (Standard of Performance of inner-State transmission licensees) Regulations, 2012 as amended from time to time and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.
Clarification: Tripping due to lightning, thunderstorm and other reason like flood, earthquake etc. NERLDC/NERPC may certify the same.
 - b. Outage caused by grid incident/disturbance not attributable to the transmission licensee, e.g. Faults in substation or bays owned by the other agency causing outage of the transmission licensee's elements and tripping of lines, ICTs, HVDC, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from RLDC while normalizing the system following grid incident/disturbance within reasonable time, the element will be considered not available for the period of outage after issuance of RLDC's direction for restoration.

Some of the following points need to be discussed:

- a. **Generation Outage / Backing Down during outage of transmission element directly not connected to generation:** If in the event of outage of transmission elements which is not directly connected to the generation but affect evacuation of generation should be treated as system constraint pertaining to planning. Hence, in the event of such outage of element the outage hour shall not be multiplied by a factor of 2.
- b. **Outages of element with N-1 Criterion:** The prevailing practice of Transmission Planning by CEA is based on N-1 Criterion. Hence, in the event of outages of directly connected element(s) to the generation where N-1 Criterion is fulfilled, if backing down of Generation is done for any of the following factors the outages of directly connected element(s) should not be multiplied by 2.
 1. Grid Security Purpose OR
 2. Downstream Evacuation Constraints OR
 3. Any Other Purpose
- c. **Outages of element without N-1 Criterion:** The prevailing practice of Transmission Planning by CEA is based on N-1 Criterion. Hence, if the outage of a transmission element directly connected to the generation without N-1 criterion affects the evacuation it should be treated as system constraint and so, such outage of the element not to be multiplied by a factor of 2.
- d. **Additional 12 Hours Outage after two trippings in a year:** Overhead EHV Transmission Lines are exposed to environment and its performance gets affected by various factors viz. ice, snow, rain, wind, dust, smoke, fog etc. which are beyond the control of the operator. Further, other factors like theft, sabotage etc. also influence the performance of Overhead EHV Transmission Lines. Hence, the provision of addition of twelve hours outage period beyond 2 tripping per year is very stringent and needs to be reviewed suitably.
- e. **Outages of Tr. Line without Auto Reclose Scheme at others end:** The Auto Reclose Scheme is used mainly to maintain continuity of supply in the event of transient fault. In power system 80-90% faults are transient in nature. Now, in some of the transmission lines of POWERGRID the ownership of associated bay at one or both end belongs to other constituents. In such lines if Auto Reclosure Scheme is not implemented by the other constituents because of any reasons and if lines stand after tripping without any human intervention the outage and tripping should not be taken into the account of transmission licensee.

Some of the suggestions are given below for further discussion and finalization:

1. The Transmission licensee shall submit the Outage Data pertaining to the preceding month on the first day of the Current month to NERPC & NERLDC.

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Accordingly, the same shall be circulated to all constituents by NERPC along with Agenda for OCC/PCC to be held in the current month.

2. NERLDC shall meanwhile check the Outage data & inform the Transmission Licensee about any changes/incorporations in the outage data by 5th of the Current Month. The requisite incorporations/changes shall be made in the outage data by the Transmission licensee & re-submitted to NERLDC & NERPC prior to OCC/PCC meeting. Any change in the outage code sought by the constituents will be discussed & finalized during the OCC/PCC meeting itself.

PCC & OCC shall intimate the outcome/ decision to NERLDC within a week after the meeting.

3. For cases where loss or backing down of generation is involved, the actual cause shall be analyzed & following factors shall be taken into consideration while deciding whether the outage is attributable to the licensee viz.
 - (i) Whether the line which has tripped is directly connected to the generation,
 - (ii) Whether tripping of generator is unwarranted,
 - (iii) System constraints and
 - (iv) Any other factors.

4. Based on the final outage data for the month as endorsed by the OCC/PCC forum, Calculation of Availability for the previous month shall be carried out by the licensee & submitted to NERPC for certification. The calculation sheet shall also be accompanied by a consolidated statement indicating the number of trippings (element wise) attributable to the licensee for the month in question & cumulative number of trippings attributable to the licensee.

Outage details (after verifying outage duration) of April – June, 2014 pertaining to NERTS and NETC are attached for discussion. Accordingly revised verification will be made by NERLDC for April – June '14.

The Sub-Committee may like to discuss.

Any other item:

Date and Venue of next OCC

It is proposed to hold the 102nd OCC meeting of NERPC on third week of October, 2014. The exact venue will be intimated in due course.

Annexure – D.3 (ii)

The following shut down is required for Pre-Puja Maintenance Work:

| SL | DATE | NAME OF THE LINE | TIME | REMARKS |
|----|----------|---|---------------------------|---------|
| 01 | 13.09.14 | 132 KV Bari Main Bus | 09:00 hrs to 15:00 hrs | |
| 02 | 13.09.14 | 132 KV P K Bari – Mission tilla (Dharmanagar) | 09:00 hrs to 15:00 hrs | |
| 03 | 13.09.14 | 132 KV P K Bari – Gournagar line along with Gournagar Bus. | 09:00 hrs to 15:00 hrs | |
| 04 | 14.09.14 | 132 KV Agartala- Dhalabil line. | 09:00 hrs to 15:00 hrs | |
| 05 | 15.09.14 | 132 KV Dhalabil – Kamalpur line. | 09:00 hrs to 15:00 hrs | |

POWER GRID CORPORATION OF INDIA LIMITED
OPERATION SERVICE DEPARTMENT, NERTS, SHILLONG
Exception Report of Bus Reactors

MONTH : AUGUST-14

| Sl. No. | Name of the Element | | Ckt No | | Duration of Outage and Attributable To | | | | | | Outage under categories of Deemed Available | Category | Reason of Outage | |
|------------------------------|---------------------|-------|-------------|-------|--|------|--------------------|------|---|------|---|----------|------------------|---|
| | Outage | | Restoration | | POWERGRID | | Other Constituents | | Sys.Const/Natural calamities/ Militant activities | | | | | |
| | Date | Time | Date | Time | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | | | | Hrs. |
| BR_SILCHAR(63MVAR) | | | #2 | | | | | | | | | | | |
| 1 | 30-Aug-14 | 17:43 | 31-Aug-14 | 14:03 | 00 | 00 | 00 | 00 | 00 | 00 | 20 | 20 | SVRD | h/T for vol. regu. On RLDC instruction vide code 1416 |
| Sub-Total | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 20 | 20 | | |
| BR_BONGAIGAON(80MVAR) | | | #4 | | | | | | | | | | | |
| 2 | 01-Aug-14 | 0:00 | 01-Sep-14 | 0:00 | 00 | 00 | 00 | 00 | 00 | 00 | 744 | 00 | SVRD | H/T for vol. regu. On RLDC instruction vide code 902 |
| Sub-Total | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 744 | 00 | | |
| BR_BONGAIGAON(80MVAR) | | | #3 | | | | | | | | | | | |
| 3 | 01-Aug-14 | 0:00 | 01-Sep-14 | 0:00 | 00 | 00 | 00 | 00 | 00 | 00 | 744 | 00 | SVRD | h/T for vol. regu. On RLDC instruction vide code 1087 |
| Sub-Total | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 744 | 00 | | |
| Grand Total | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 1508 | 20 | | |

POWER GRID CORPORATION OF INDIA LIMITED
OPERATION SERVICE DEPARTMENT, NERTS, SHILLONG
Exception Report

MONTH: AUGUST-14

| Sl. No. | Name of the Element | | Ckt No | | Duration of Outage and Attributable To | | | | | | Category | Reason of Outage | | | |
|---------------------------|---------------------|-------|-------------|-------|--|------|--------------------|------|---|------|----------|------------------|---|------|--|
| | Outage | | Restoration | | POWERGRID | | Other Constituents | | Sys.Const/Natural calamities/ Militant activities | | | | Outage under categories of Deemed Available | | |
| | Date | Time | Date | Time | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | | | Hrs. | Mns. | |
| RCN_AGARTALA # 1 | | | | | | | | | | | | | | | |
| 1 | 18-Aug-14 | 10:28 | 18-Aug-14 | 14:23 | 00 | 00 | 03 | 55 | 00 | 00 | | 00 | 00 | OMSU | SD taken by 79 Tilla Tripura state |
| Sub-Total | | | | | 00 | 00 | 03 | 55 | 00 | 00 | | 00 | 00 | | |
| RCN_AGARTALA # 2 | | | | | | | | | | | | | | | |
| 2 | 08-Aug-14 | 11:28 | 08-Aug-14 | 11:38 | 00 | 00 | 00 | 10 | 00 | 00 | | 00 | 00 | OMSU | Tripped due to downstream fault in Tripura svstem |
| Sub-Total | | | | | 00 | 00 | 00 | 10 | 00 | 00 | | 00 | 00 | | |
| BADARPUR_KOLASIB | | | | | | | | | | | | | | | |
| 3 | 18-Aug-14 | 8:10 | 18-Aug-14 | 16:53 | 00 | 00 | 00 | 00 | 00 | 00 | | 08 | 43 | LCSD | SD taken for facilitating stringing work of Silchar-PK Bari line |
| 4 | 20-Aug-14 | 11:30 | 20-Aug-14 | 11:49 | 00 | 00 | 00 | 00 | 00 | 19 | | 00 | 00 | SNCC | Bus-bar prtn. Operated due to flashover in switchvard |
| 5 | 24-Aug-14 | 7:30 | 24-Aug-14 | 17:17 | 00 | 00 | 00 | 00 | 00 | 00 | | 09 | 47 | LCSD | SD taken for facilitating stringing work of Silchar-PK Bari line |
| 6 | 25-Aug-14 | 7:34 | 25-Aug-14 | 18:02 | 00 | 00 | 00 | 00 | 00 | 00 | | 10 | 28 | LCSD | do |
| 7 | 26-Aug-14 | 8:05 | 26-Aug-14 | 17:45 | 00 | 00 | 00 | 00 | 00 | 00 | | 09 | 40 | LCSD | do |
| Sub-Total | | | | | 00 | 00 | 00 | 00 | 00 | 19 | | 38 | 38 | | |
| AIZWAL_KUMARGHAT | | | | | | | | | | | | | | | |
| 8 | 01-Aug-14 | 10:00 | 01-Aug-14 | 11:16 | 01 | 16 | 00 | 00 | 00 | 00 | | 00 | 00 | OMST | ESD taken for tightening of jumeprs at loc 156 |
| 9 | 01-Aug-14 | 14:50 | 01-Aug-14 | 16:18 | 00 | 00 | 00 | 00 | 01 | 28 | | 00 | 00 | LMAC | Villager from uphill side cut down tree on line(135-36) |
| 10 | 06-Aug-14 | 18:46 | 06-Aug-14 | 19:04 | 00 | 18 | 00 | 00 | 00 | 00 | | 00 | 00 | OMST | manually opened at Aizawl end |
| Sub-Total | | | | | 01 | 34 | 00 | 00 | 01 | 28 | | 00 | 00 | | |
| AIZWAL_ZEMEBAK # 2 | | | | | | | | | | | | | | | |
| 11 | 06-Aug-14 | 18:46 | 06-Aug-14 | 19:15 | 00 | 29 | 00 | 00 | 00 | 00 | | 00 | 00 | OMST | manually opened at Aizawl end |
| 12 | 27-Aug-14 | 14:15 | 27-Aug-14 | 14:19 | 00 | 00 | 00 | 04 | 00 | 00 | | 00 | 00 | OMSU | tripped due to downstream fault in Mizoram svstem |
| 13 | 28-Aug-14 | 13:59 | 28-Aug-14 | 14:09 | 00 | 00 | 00 | 10 | 00 | 00 | | 00 | 00 | OMSU | do |
| 14 | 28-Aug-14 | 17:30 | 28-Aug-14 | 17:40 | 00 | 00 | 00 | 00 | 00 | 10 | | 00 | 00 | LNCC | Tripped due to heavy lightning |

| Sl. No. | Name of the Element | | Ckt No | | Duration of Outage and Attributable To | | | | | | | | Category | Reason of Outage |
|---------------------------|---------------------|-------|-------------|-------|--|------|--------------------|------|---|------|---|------|----------|---|
| | Outage | | Restoration | | POWERGRID | | Other Constituents | | Sys.Const/Natural calamities/ Militant activities | | Outage under categories of Deemed Available | | | |
| | Date | Time | Date | Time | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | | |
| Sub-Total | | | | | 00 : 29 | | 00 : 14 | | 00: 10 | | 00 : 00 | | | |
| BADARPUR-BADARPUR | | | | | | | | | | | | | | |
| 15 | 20-Aug-14 | 11:30 | 20-Aug-14 | 11:43 | 00 | 00 | 00 | 00 | 00 | 13 | 00 | 00 | SNCC | Bus-bar prtn. Operated due to flashover in switchvard |
| Sub-Total | | | | | 00 : 00 | | 00 : 00 | | 00: 13 | | 00 : 00 | | | |
| BADARPUR_JIRIBAM | | | | | | | | | | | | | | |
| 16 | 20-Aug-14 | 11:30 | 20-Aug-14 | 11:44 | 00 | 00 | 00 | 00 | 00 | 14 | 00 | 00 | SNCC | Bus-bar prtn. Operated due to flashover in switchvard |
| Sub-Total | | | | | 00 : 00 | | 00 : 00 | | 00: 14 | | 00 : 00 | | | |
| BADARPUR_KHLIERIAT | | | | | | | | | | | | | | |
| 17 | 06-Aug-14 | 15:22 | 06-Aug-14 | 17:34 | 00 | 00 | 02 | 12 | 00 | 00 | 00 | 00 | OMSU | Main Bus SD availed by MeECL for rectification work in KHI.T-II hav(state |
| 18 | 20-Aug-14 | 11:30 | 20-Aug-14 | 11:41 | 00 | 00 | 00 | 00 | 00 | 11 | 00 | 00 | SNCC | Bus-bar prtn. Operated due to flashover in switchvard |
| Sub-Total | | | | | 00 : 00 | | 02 : 12 | | 00: 11 | | 00 : 00 | | | |
| BADARPUR_KUMARGHAT | | | | | | | | | | | | | | |
| 19 | 20-Aug-14 | 11:30 | 20-Aug-14 | 12:09 | 00 | 00 | 00 | 00 | 00 | 39 | 00 | 00 | SNCC | Bus-bar prtn. Operated due to flashover in switchvard during rain |
| Sub-Total | | | | | 00 : 00 | | 00 : 00 | | 00: 39 | | 00 : 00 | | | |
| DIMAPUR_IMPHAL | | | | | | | | | | | | | | |
| 20 | 02-Aug-14 | 10:54 | 02-Aug-14 | 11:03 | 00 | 00 | 00 | 00 | 00 | 09 | 00 | 00 | LMAC | Tree cut by villagers in betn loc.464-65 fell upon line |
| 21 | 05-Aug-14 | 14:15 | 05-Aug-14 | 14:33 | 00 | 00 | 00 | 00 | 00 | 18 | 00 | 00 | LNCC | Tripped during lightning |
| 22 | 10-Aug-14 | 13:00 | 10-Aug-14 | 15:35 | 00 | 00 | 00 | 00 | 00 | 00 | 02 | 35 | SCSD | SD taken for testing of Distance Protection Relay |
| 23 | 13-Aug-14 | 4:06 | 13-Aug-14 | 5:59 | 00 | 00 | 01 | 53 | 00 | 00 | 00 | 00 | OMSU | downstream fault in Manipur system |
| 24 | 22-Aug-14 | 16:50 | 22-Aug-14 | 17:02 | 00 | 00 | 00 | 12 | 00 | 00 | 00 | 00 | OMSU | CT blast at Imp(state) substation |
| 25 | 26-Aug-14 | 19:03 | 26-Aug-14 | 19:10 | 00 | 00 | 00 | 00 | 00 | 07 | 00 | 00 | LNCC | Lightning triggered tripping. LA counter incr at Impthal end |
| Sub-Total | | | | | 00 : 00 | | 02 : 05 | | 00: 34 | | 02 : 35 | | | |
| DOYANG_DIMAPUR # 1 | | | | | | | | | | | | | | |
| 26 | 27-Aug-14 | 14:05 | 27-Aug-14 | 14:10 | 00 | 00 | 00 | 00 | 00 | 05 | 00 | 00 | LNCC | Tripped due to lightning. LA counter incr at Dimapur |
| Sub-Total | | | | | 00 : 00 | | 00 : 00 | | 00: 05 | | 00 : 00 | | | |
| DOYANG_DIMAPUR # 2 | | | | | | | | | | | | | | |
| 27 | 17-Aug-14 | 22:30 | 17-Aug-14 | 22:50 | 00 | 00 | 00 | 00 | 00 | 20 | 00 | 00 | LNCC | Tripped during heavy lightning near Doyang end |
| Sub-Total | | | | | 00 : 00 | | 00 : 00 | | 00: 20 | | 00 : 00 | | | |
| IMPHAL_IMPHAL #1 | | | | | | | | | | | | | | |

| Sl. No. | Name of the Element | | Ckt No | | Duration of Outage and Attributable To | | | | | | | | Category | Reason of Outage |
|-----------------------------|---------------------|-------|-------------|-------|--|------|--------------------|------|---|------|---|------|----------|---|
| | Outage | | Restoration | | POWERGRID | | Other Constituents | | Sys.Const/Natural calamities/ Militant activities | | Outage under categories of Deemed Available | | | |
| | Date | Time | Date | Time | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | | |
| 28 | 02-Aug-14 | 14:20 | 02-Aug-14 | 14:29 | 00 | 00 | 00 | 09 | 00 | 00 | 00 | 00 | OMSU | Tripped during charging attempt of a faulty downstream line. State end |
| 29 | 22-Aug-14 | 16:50 | 22-Aug-14 | 17:18 | 00 | 00 | 00 | 28 | 00 | 00 | 00 | 00 | OMSU | CT blast at Imphal state end |
| 30 | 26-Aug-14 | 7:28 | 26-Aug-14 | 7:37 | 00 | 00 | 00 | 09 | 00 | 00 | 00 | 00 | OMSU | MOCB of 33KV feeder blast at Imphal State end |
| 31 | 26-Aug-14 | 17:18 | 26-Aug-14 | 17:46 | 00 | 00 | 00 | 28 | 00 | 00 | 00 | 00 | OMSU | Downstream fault in Manipur system |
| Sub-Total | | | | | 00 | 00 | 01 | 14 | 00 | 00 | 00 | 00 | | |
| JIRIBAM_AIZWAL | | | | | | | | | | | | | | |
| 32 | 02-Aug-14 | 10:13 | 02-Aug-14 | 13:44 | 00 | 00 | 00 | 00 | 03 | 31 | 00 | 00 | LNCC | SD taken for clearing high rise trees leaning towards line after storm |
| 33 | 06-Aug-14 | 18:46 | 06-Aug-14 | 19:03 | 00 | 17 | 00 | 00 | 00 | 00 | 00 | 00 | OMST | manually opened at Aizawl end |
| 34 | 28-Aug-14 | 17:40 | 28-Aug-14 | 17:51 | 00 | 00 | 00 | 00 | 00 | 11 | 00 | 00 | LNCC | Tripped due to heavy lightning, LA counter incr at AZL. |
| Sub-Total | | | | | 00 | 17 | 00 | 00 | 03 | 42 | 00 | 00 | | |
| JIRIBAM_HAFLONG | | | | | | | | | | | | | | |
| 35 | 26-Aug-14 | 12:17 | 26-Aug-14 | 12:28 | 00 | 00 | 00 | 11 | 00 | 00 | 00 | 00 | OMSU | Const. activities by local agencies using high boom crane betn loc 76-77 |
| 36 | 27-Aug-14 | 11:10 | 01-Sep-14 | 0:00 | 00 | 00 | 00 | 00 | 108 | 50 | 00 | 00 | LNCC | SD taken for shifting of loc.203 endangered by landslide |
| Sub-Total | | | | | 00 | 00 | 00 | 11 | 108 | 50 | 00 | 00 | | |
| JIRIBAM_LOKTAK # 2 | | | | | | | | | | | | | | |
| 37 | 04-Aug-14 | 15:19 | 04-Aug-14 | 15:37 | 00 | 00 | 00 | 18 | 00 | 00 | 00 | 00 | OMSU | Tripped on protn against fault in Jiribam-Poilonool line |
| 38 | 16-Aug-14 | 11:33 | 16-Aug-14 | 11:52 | 00 | 00 | 00 | 00 | 00 | 19 | 00 | 00 | LNCC | tripping due to lightning. Delay in charging at I OK end |
| 39 | 23-Aug-14 | 11:49 | 23-Aug-14 | 12:00 | 00 | 00 | 00 | 00 | 00 | 11 | 00 | 00 | LNCC | Tripped due to heavy lightning |
| 40 | 27-Aug-14 | 22:30 | 27-Aug-14 | 22:40 | 00 | 00 | 00 | 10 | 00 | 00 | 00 | 00 | OMSU | Tripped due to downstream fault in Manipur svsystem |
| Sub-Total | | | | | 00 | 00 | 00 | 28 | 00 | 30 | 00 | 00 | | |
| KHANDONG-HAFLONG | | | | | | | | | | | | | | |
| 41 | 03-Aug-14 | 15:41 | 03-Aug-14 | 15:52 | 00 | 00 | 00 | 11 | 00 | 00 | 00 | 00 | OMSU | Fault beyond line jurisdiction |
| Sub-Total | | | | | 00 | 00 | 00 | 11 | 00 | 00 | 00 | 00 | | |
| KHANDONG_KHLIERIAT I | | | | | | | | | | | | | | |
| 42 | 06-Aug-14 | 15:17 | 06-Aug-14 | 17:13 | 00 | 00 | 01 | 56 | 00 | 00 | 00 | 00 | OMSU | Main Bus SD availed by MeECL for rectification work in KHI.T-II bav(state |
| 43 | 11-Aug-14 | 21:24 | 11-Aug-14 | 21:50 | 00 | 00 | 00 | 26 | 00 | 00 | 00 | 00 | OMSU | Fault in Downstream Meghalaya system |
| 44 | 25-Aug-14 | 0:07 | 25-Aug-14 | 0:23 | 00 | 00 | 00 | 00 | 00 | 16 | 00 | 00 | LNCC | Tripped due to heavy lightning |

| Sl. No. | Name of the Element | | Ckt No | | Duration of Outage and Attributable To | | | | | | | | Category | Reason of Outage |
|----------------------------|---------------------|-------|-------------|-------|--|------|--------------------|------|--|------|---|------|----------|--|
| | Outage | | Restoration | | POWERGRID | | Other Constituents | | Sys.Const/Natural calamities/ Miltant activities | | Outage under categories of Deemed Available | | | |
| | Date | Time | Date | Time | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | | |
| 45 | 29-Aug-14 | 23:29 | 30-Aug-14 | 0:05 | 00 | 00 | 00 | 00 | 00 | 36 | 00 | 00 | LNCC | tripped due to lightning |
| Sub-Total | | | | | 00 | 00 | 02 | 22 | 00 | 52 | 00 | 00 | | |
| KHANDONG_KHLIERIAT | | | # 2 | | | | | | | | | | | |
| 46 | 06-Aug-14 | 15:23 | 06-Aug-14 | 17:24 | 00 | 00 | 02 | 01 | 00 | 00 | 00 | 00 | OMSU | Main Bus SD availed by MeECL for rectification work in KHI.T-II hav(state Downstream fault in Meghalaya system |
| 47 | 11-Aug-14 | 21:24 | 11-Aug-14 | 21:50 | 00 | 00 | 00 | 26 | 00 | 00 | 00 | 00 | OMSU | |
| 48 | 29-Aug-14 | 22:25 | 29-Aug-14 | 22:51 | 00 | 00 | 00 | 00 | 00 | 26 | 00 | 00 | LNCC | Tripped due to lightning |
| Sub-Total | | | | | 00 | 00 | 02 | 27 | 00 | 26 | 00 | 00 | | |
| KHANDONG_KOPILI | | | # 1 | | | | | | | | | | | |
| 49 | 03-Aug-14 | 15:41 | 04-Aug-14 | 13:58 | 00 | 00 | 00 | 00 | 22 | 17 | 00 | 00 | LNCC | A tree fell over line condn in the span 21-22 during storm |
| 50 | 29-Aug-14 | 23:29 | 29-Aug-14 | 23:55 | 00 | 00 | 00 | 00 | 00 | 26 | 00 | 00 | LNCC | Tripped during heavy lightning |
| Sub-Total | | | | | 00 | 00 | 00 | 00 | 22 | 43 | 00 | 00 | | |
| KHLIERIAT_KHLIERIAT | | | | | | | | | | | | | | |
| 51 | 06-Aug-14 | 15:17 | 06-Aug-14 | 17:24 | 00 | 00 | 02 | 07 | 00 | 00 | 00 | 00 | OMSU | Main Bus SD availed by MeECL for rectification work in KHI.T-II hav(state Fault in Meghalaya downstream system |
| 52 | 11-Aug-14 | 21:24 | 11-Aug-14 | 21:38 | 00 | 00 | 00 | 14 | 00 | 00 | 00 | 00 | OMSU | |
| 53 | 30-Aug-14 | 10:27 | 30-Aug-14 | 13:03 | 00 | 00 | 02 | 36 | 00 | 00 | 00 | 00 | OMSU | Bus- SD taken by MeECL |
| Sub-Total | | | | | 00 | 00 | 04 | 57 | 00 | 00 | 00 | 00 | | |
| KUMARGHAT_R C NAGAR | | | | | | | | | | | | | | |
| 54 | 20-Aug-14 | 7:30 | 20-Aug-14 | 16:10 | 00 | 00 | 00 | 00 | 00 | 00 | 08 | 40 | LCSD | SD taken for facilitating stringing of Silchar-PK Bari line |
| 55 | 20-Aug-14 | 16:10 | 20-Aug-14 | 17:09 | 00 | 00 | 00 | 59 | 00 | 00 | 00 | 00 | OMSU | Restoration delayed due to Isolator problem at RC Naagar end |
| 56 | 21-Aug-14 | 7:38 | 21-Aug-14 | 16:25 | 00 | 00 | 00 | 00 | 00 | 00 | 08 | 47 | LCSD | For facilitating stringing work of Silchar-PK Bari line |
| 57 | 21-Aug-14 | 16:25 | 21-Aug-14 | 16:57 | 00 | 00 | 00 | 32 | 00 | 00 | 00 | 00 | OMSU | Restoration delayed due to problem at RC Naagar end |
| Sub-Total | | | | | 00 | 00 | 01 | 31 | 00 | 00 | 17 | 27 | | |
| LOKTAK_IMPHAL | | | # 2 | | | | | | | | | | | |
| 58 | 13-Aug-14 | 4:06 | 13-Aug-14 | 5:52 | 00 | 00 | 01 | 46 | 00 | 00 | 00 | 00 | OMSU | downstream fault in Manipur system |
| 59 | 13-Aug-14 | 13:50 | 13-Aug-14 | 16:41 | 02 | 51 | 00 | 00 | 00 | 00 | 00 | 00 | OMST | SD taken for attending hotspot in Yph iumner of Wavetran at Imn end |
| 60 | 22-Aug-14 | 16:50 | 22-Aug-14 | 17:05 | 00 | 00 | 00 | 15 | 00 | 00 | 00 | 00 | OMSU | CT blast at Imphal state end |
| 61 | 29-Aug-14 | 13:19 | 29-Aug-14 | 13:27 | 00 | 00 | 00 | 00 | 00 | 08 | 00 | 00 | LNCC | Tripped during heavy lightning |

| Sl. No. | Name of the Element | | Ckt No | | Duration of Outage and Attributable To | | | | | | | | Category | Reason of Outage |
|--------------------------------|---------------------|-------|-------------|-------|--|------|--------------------|------|---|------|---|------|--|------------------|
| | Outage | | Restoration | | POWERGRID | | Other Constituents | | Sys.Const/Natural calamities/ Militant activities | | Outage under categories of Deemed Available | | | |
| | Date | Time | Date | Time | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | | |
| Sub-Total | | | | | 02 : 51 | | 02 : 01 | | 00: 08 | | 00 : 00 | | | |
| SALAKATI-GELEPHUG | | | | | | | | | | | | | | |
| 62 | 16-Aug-14 | 10:52 | 16-Aug-14 | 12:33 | 01 : 41 | | 00 : 00 | | 00 : 00 | | 00 : 00 | OMST | Line HT due to heavy spark observed in Rph line isolator | |
| Sub-Total | | | | | 01 : 41 | | 00 : 00 | | 00: 00 | | 00 : 00 | | | |
| KOLASIB-AIZAWL | | | | | | | | | | | | | | |
| 63 | 04-Aug-14 | 15:23 | 04-Aug-14 | 15:28 | 00 : 00 | | 00 : 00 | | 00 : 05 | | 00 : 00 | LNCC | Tripped due to lightning | |
| 64 | 06-Aug-14 | 18:46 | 06-Aug-14 | 19:18 | 00 : 32 | | 00 : 00 | | 00 : 00 | | 00 : 00 | OMST | manually opened at Aizawl end | |
| 65 | 28-Aug-14 | 11:59 | 28-Aug-14 | 12:09 | 00 : 10 | | 00 : 00 | | 00 : 00 | | 00 : 00 | LEFT | Transient E/F | |
| 66 | 31-Aug-14 | 16:29 | 31-Aug-14 | 16:52 | 00 : 00 | | 00 : 00 | | 00 : 23 | | 00 : 00 | LNCC | tripped during heavy lightning | |
| Sub-Total | | | | | 00 : 42 | | 00 : 00 | | 00: 28 | | 00 : 00 | | | |
| RANGANADI-ZIRO | | | | | | | | | | | | | | |
| 67 | 24-Aug-14 | 9:46 | 24-Aug-14 | 10:14 | 00 : 00 | | 00 : 00 | | 00 : 28 | | 00 : 00 | LNCC | Tripped due to heavy lightning | |
| Sub-Total | | | | | 00 : 00 | | 00 : 00 | | 00: 28 | | 00 : 00 | | | |
| SILCHAR-BADARPUR-I #1 | | | | | | | | | | | | | | |
| 68 | 20-Aug-14 | 11:30 | 20-Aug-14 | 11:45 | 00 : 00 | | 00 : 00 | | 00 : 15 | | 00 : 00 | SNCC | Bus-bar prtn. Operated due to flashover in switchvard | |
| Sub-Total | | | | | 00 : 00 | | 00 : 00 | | 00: 15 | | 00 : 00 | | | |
| SILCHAR-BADARPUR-II #2 | | | | | | | | | | | | | | |
| 69 | 20-Aug-14 | 11:30 | 20-Aug-14 | 11:46 | 00 : 00 | | 00 : 00 | | 00 : 16 | | 00 : 00 | SNCC | Bus-bar prtn. Operated due to flashover in switchvard | |
| Sub-Total | | | | | 00 : 00 | | 00 : 00 | | 00: 16 | | 00 : 00 | | | |
| BALIPARA_TZPUR | | | | | | | | | | | | | | |
| 70 | 28-Aug-14 | 11:35 | 28-Aug-14 | 11:45 | 00 : 00 | | 00 : 10 | | 00 : 00 | | 00 : 00 | OMSU | Fault beyond line jurisdiction | |
| Sub-Total | | | | | 00 : 00 | | 00 : 10 | | 00: 00 | | 00 : 00 | | | |
| KATHALGURI_MARIANI(OLD) | | | | | | | | | | | | | | |
| 71 | 30-Aug-14 | 15:01 | 30-Aug-14 | 20:01 | 00 : 00 | | 05 : 00 | | 00 : 00 | | 00 : 00 | OMSU | SD taken by NEEPCO | |
| Sub-Total | | | | | 00 : 00 | | 05 : 00 | | 00: 00 | | 00 : 00 | | | |
| MISA_KOPILI # 2 | | | | | | | | | | | | | | |
| 72 | 02-Aug-14 | 15:30 | 02-Aug-14 | 20:00 | 04 : 30 | | 00 : 00 | | 00 : 00 | | 00 : 00 | OMST | SD taken for testing of DPR | |
| Sub-Total | | | | | 04 : 30 | | 00 : 00 | | 00: 00 | | 00 : 00 | | | |
| KATHALGURI-MARIANI(NEW) | | | | | | | | | | | | | | |

| Sl. No. | Name of the Element | | Ckt No | | Duration of Outage and Attributable To | | | | | | | | Category | Reason of Outage |
|----------------------------|---------------------|-------|-------------|-------|--|------|--------------------|------|--|------|---|------|----------|---|
| | Outage | | Restoration | | POWERGRID | | Other Constituents | | Sys.Const/Natural calamities/ Miltant activities | | Outage under categories of Deemed Available | | | |
| | Date | Time | Date | Time | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | Hrs. | Mns. | | |
| 73 | 29-Aug-14 | 12:05 | 30-Aug-14 | 11:41 | 00 | 00 | 23 | 36 | 00 | 00 | 00 | 00 | OMSU | SD taken by NEEPCO |
| Sub-Total | | | | | 00 | 00 | 23 | 36 | 00 | 00 | 00 | 00 | | |
| BALIPARA_BONGAIGAON | | | # 1 | | | | | | | | | | | |
| 74 | 07-Aug-14 | 8:16 | 09-Aug-14 | 17:39 | 00 | 00 | 00 | 00 | 00 | 00 | 57 | 23 | SCSD | SD availed for facilitating re-conductoring of Bus at Bongaigaon for capacity |
| Sub-Total | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 57 | 23 | | |
| BALIPARA_BONGAIGAON | | | # 2 | | | | | | | | | | | |
| 75 | 19-Aug-14 | 8:04 | 19-Aug-14 | 8:24 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 20 | GOMD | HT for facilitating isolation of non-switchable I R |
| 76 | 19-Aug-14 | 15:03 | 19-Aug-14 | 15:22 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 19 | GOMD | HT for facilitating reconnection of non-switchable I R |
| Sub-Total | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 39 | | |
| Grand Total | | | | | 12 | 04 | 52 | 44 | 142 | 51 | 116 | 42 | | |