

Odisha Power Transmission Corporation Ltd.
Bhubaneswar.



Agenda
for
98th Power System Operational Coordination Meeting

Date: 11.06.2016
Venue: Pantha Nivas, Chandipur.

Agenda for 98th PSOC Meeting to be held on 11.06.2016 at Pantha Nivas, Chandipur

Item no. 1: Confirmation of the minutes of the 97th PSOC Meeting held on 17.05.2016

The minutes of meeting was circulated vide letter No. SGM (PS)-PI-15/2015/1489⁽⁴⁴⁾ dated 28.05.2016 to all the members and also uploaded in the SLDC website. No comment has been received from any of the members.

Members may offer their comments. If there is no comment, the minutes of the meeting may please be confirmed.

PART A

(List of items to be discussed for which the details are given in the subsequent parts)

- B : Grid Performance for the month of May'2016
- C.1: Implementation of Automatic Demand Management Scheme (ADMS)
C.2: 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG), Keonjhar & Pandiabil S/s
C.3: Restoration of PLCC system of important lines
C.4: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.
C.5: Certification through BIS as per IS 18001:2007 to all generating/ transmission units.
C.6: Dynamic data of Generator Models required in PSSE for Simulations
C.7: Status of emergency Restoration System (ERS) towers for ER Constituents
C.8: Mock Black start exercise
C.9: Status of projects funded under PSDF scheme
C.10: Energy generation data management from renewable energy sources.
C.11: Compilation of data for meeting renewable energy targets.
- D.1: Non-compliance of drawal schedule by DISCOMs
D.2: Revival of Station transformer for station auxiliary supply at Balimela HEP
D.3: Frequent tripping of 220kV Mendhasal-Bhanjanagar ckt on transient fault.
D.4: Prolonged outage of transmission elements and tentative revival dates
D.5: Maintenance of 400 kV Indravati (OHPC)- Indravati (PG) S/C line.
D.6: Communication issues
D.7: Web based drawal / generation scheduling.
D.8: Implementation of Automatic Meter Reading for OPTCL-Discom interface points.
D.9: Software for Deviation charge billing.
D.10: Agenda by BPPL
D.11: Agenda by JSL
D.12: DISCOM Issues
- E.1: Commissioning status of New Transmission elements.
E.2: Energy Metering at Hydro Stations.
E.3: Installation of feeder meter at TTPS.
E.4: Major Events in the month of May'16
E.5: Important Grid Incidences during the month of May'16.
E.6: Outage of major transmission Elements during the month of May'16. (above 10 hrs).
E.7: Review of Outage Program of State Generators for the month of July'2016.
E.8: Generation Program for the month of July'16.
E.9: Anticipated power generation and demand for the month of July'2016.
- F.1: Date and Venue of the next (99th) PSOC meeting

PART B: GRID PERFORMANCE

Review of Grid Performance for the month of May'16.

(A) Frequency:

Hourly frequency variation for the month of May'16.

| Month | % of time frequency remained | | | | |
|---------------|------------------------------|-------------|-------------|--------------------|--------|
| | <49.00 | 49.00-49.70 | 49.70-49.90 | 49.90-50.05 | >50.05 |
| Mar'16 | 0.00 | 0.02 | 12.27 | 73.46 | 14.25 |
| Apr'16 | 0.00 | 0.19 | 19.59 | 71.66 | 8.56 |
| May'16 | 0.00 | 0.04 | 10.30 | 75.53 | 14.13 |

Maximum & Minimum frequency during the month of May'16.

| Month | Freq (Hz) | Date | Time |
|-----------------|-----------------|----------|-----------|
| April'16 | Maximum – 50.16 | 21.04.16 | 13:00 Hrs |
| | Minimum – 49.73 | 06.04.16 | 22:15 Hrs |
| May'16 | Maximum – 50.41 | 18.05.16 | 17:32 Hrs |
| | Minimum – 49.56 | 26.05.16 | 22:12 Hrs |

(B) Grid Demand for the month of May'16.

| Month | Demand | | Maximum Consumption | | Maximum Demand | | | Minimum Demand | | |
|---------------|-------------|------------------|---------------------|-----------------|----------------|-----------------|--------------|----------------|-----------------|--------------|
| | MU | Avg. (MW) | MU | Date | MW | Date | Time | MW | Date | Time |
| Apr'16 | 2328 | 3233 | 83.46 | 26.04.16 | 4097 | 27.04.16 | 21:00 | 2315 | 15.04.16 | 10:00 |
| May'16 | 2329 | 3130 | 81.45 | 18.05.16 | 3965 | 18.05.16 | 20:00 | 1815 | 21.05.16 | 22:00 |
| May'15 | 2290 | 3216 | 81.92 | 16.05.14 | 3755 | 16.05.14 | 20:00 | 2130 | 26.05.14 | 05:00 |

Members may please discuss.

(C) Voltage Profile of 220 kV Buses in OPTCL system for the month of: May'16

| Sl. No | S/s Name | Maximum | | | Minimum | | |
|--------|-------------|---------------|-----|-------|---------------|-----|-------|
| | | kV | Day | Time | kV | Day | Time |
| 1 | Jayanagar | 243.40 | 18 | 12:30 | 220.54 | 22 | 8:15 |
| 2 | Theruvalli | 237.00 | 21 | 21:45 | 207.09 | 7 | 19:15 |
| 3 | Bhanjanagar | 237.23 | 8 | 16:30 | 210.26 | 28 | 19:00 |
| 4 | Chandaka | 231.45 | 25 | 19:30 | 194.73 | 30 | 14:15 |
| 5 | Narendrapur | 232.67 | 25 | 21:30 | 171.12 | 31 | 21:15 |
| 6 | Joda | 237.65 | 15 | 8:30 | 222.03 | 14 | 17:00 |
| 7 | Tarkera | 238.32 | 21 | 19:15 | 225.51 | 2 | 19:45 |
| 8 | Bhadrak | 239.59 | 23 | 21:00 | 199.06 | 13 | 23:45 |
| 9 | Paradeep | 233.70 | 21 | 21:30 | 196.52 | 23 | 17:30 |
| 10 | Budhipadar | 232.61 | 14 | 7:15 | 222.85 | 21 | 16:15 |
| 11 | Duburi(O) | 238.55 | 29 | 1:30 | 197.16 | 23 | 17:30 |
| 12 | Duburi (N) | 238.84 | 25 | 16:30 | 190.69 | 23 | 17:15 |
| 13 | Balasore | 236.94 | 22 | 5:45 | 192.19 | 14 | 00:00 |
| 14 | Meramundali | 229.49 | 8 | 17:45 | 215.29 | 24 | 19:00 |
| 15 | Bidanasi | 235.44 | 6 | 18:00 | 195.02 | 30 | 14:30 |
| 16 | Katapalli | 231.68 | 21 | 19:00 | 192.48 | 17 | 15:45 |
| 17 | Nayagarh | 235.26 | 8 | 16:30 | 202.99 | 26 | 22:45 |
| 18 | Mendhasal | 232.09 | 8 | 17:30 | 196.58 | 30 | 14:15 |
| 19 | Bolangir | 230.59 | 3 | 17:45 | 177.70 | 4 | 16:30 |
| 20 | Barkote | 238.44 | 22 | 5:45 | 226.26 | 25 | 00:00 |
| 21 | Laxmipur | 242.13 | 5 | 2:45 | 217.25 | 9 | 19:00 |

The maximum Voltage of **243.40** kV occurred at Jaynagar 220 kV bus while Narendrapur, 220 kV bus has experienced the minimum Voltage of **171.12** kV. Bus Voltages at Samgara and Lapanga could not be incorporated due to non availability of energy meter in those S/Ss.

Members may discuss.

**(D) Loading of 220/ 132 kV Auto at 220 kV S/Ss in OPTCL system for the month of May-16
AUTO TRANSFORMER LOADING FOR THE MONTH OF MAY'2016**

| Name of the 220 kV Sub-Station (Feeding Sub-stations/Feeders) | Capacity MVA | Drawal details | | | | | | REMARKS |
|--|---------------------|----------------|-------|-------|---------|-----|-------|---|
| | | Maximum | | | Minimum | | | |
| | | MW | Day | Time | MW | Day | Time | |
| JAYANAGAR 220/132 KV. {Damanjodi(NALCO), Traction S/Ss, Tentulikhunti, Sunabeda, Jayanagar} | 1x160 | 86.88 | 25 | 18:45 | 5.40 | 17 | 8:30 | |
| | 1x160 | 88.24 | 25 | 19:45 | 6.76 | 17 | 9:30 | |
| THERUVALLI 220/132 KV. {Theruvalli, IMFAL(I), JK(I), Junagarh, Kesinga,Powmex(I), Rayagada, } | 1x100 | 85.72 | 16 | 20:15 | 6.52 | 4 | 23:30 | Rayagada & Paralakhemundi can be fed from Machhkund system. |
| | 1x100 | 81.16 | 16 | 20:15 | 6.92 | 4 | 23:30 | |
| NARENDRAPUR 220/132KV {Narendrapur, NarendrapurTr, Berhampur, Chhatrapur, Ganjam, Balugaon, Digapahandi, Mohana.} | 1x160 | 85.36 | 2 | 19:45 | 3.68 | 11 | 18:15 | |
| | 1x160 | 90.04 | 2 | 19:45 | 3.92 | 11 | 18:15 | |
| | 1x100 | NOT AVAILABLE | | | | | | |
| BHANJANAGAR 220/132 KV {Bhanjanagar, Aska, Phulbani, Ganjam, Chatrapur} | 1x160 | 99.68 | 21 | 16:00 | 3.68 | 28 | 23:45 | |
| | 1x160 | 87.32 | 21 | 15:30 | 2.92 | 28 | 23:45 | |
| CHANDAKA 220/132 KV { Chandaka, Bhubaneswar, Nimapada, Ransinghpur, Puri,Kesura, Kaipadar Tr. } | 1x100 | 73.12 | 13 | 22:00 | 5.40 | 25 | 15:15 | |
| | 1x160 | 126.44 | 7 | 14:15 | 2.28 | 11 | 13:15 | |
| | 1x100 | 79.88 | 13 | 22:00 | 1.08 | 11 | 13:00 | |
| | 1x160 | 123.26 | 13 | 22:15 | 2.40 | 11 | 13:00 | |
| BIDANASI 220/132 KV {Bidanasi, Khurda } | 1x160 | NOT AVAILABLE | | | | | | |
| | 1x100 | 42.72 | 1 | 0:00 | 4.36 | 29 | 0:45 | |
| | 1x100 | 42.28 | 1 | 0:00 | 4.08 | 29 | 0:45 | |
| TTPS 220/132 KV { Chainpal, FCI (I), Angul, MCL Nandira(I), Rairakhole,Boinda,Kamakhyanagar, Kalarangi,Nuapatna, Choudwar } | 1x160 | | | | | | | |
| | 1x160 | | | | | | | |
| MERAMUNDALI 220/132 kV {Meramundali Traction, Dhenkanal, Navchrome(I), Hind Metal, Aarti,BRG} | 3x100 | 63.88 | 28 | 23:45 | 3.96 | 5 | 20:30 | |
| | | 56.84 | 29 | 19:45 | 4.80 | 19 | 13:30 | |
| | | | | | | | | |
| DUBURI 220/132 KV {Duburi, Bamnupal(I), BRPL, MESCO, Jajpur Road, Kalarangi, Jajpur Town} | 3x100 | 50.6 | 24 | 16:15 | 1.36 | 24 | 0:00 | Auto-II under shutdown. |
| | | 64.52 | 13 | 16:00 | 1.52 | 24 | 0:00 | |
| | | 61.60 | 13 | 16:00 | 1.44 | 10 | 16:45 | |
| JODA 220/132 KV { Joda, Tensa, FAP(I), Bolani(I), Nalda Tr.,Polasponga, *Rairangpur, Bhalulata traction} | 3x100 | NOT AVAILABLE | | | | | | *** - Alternate P/S from Kuchei. |
| | | NOT AVAILABLE | | | | | | |
| | | NOT AVAILABLE | | | | | | |
| BALASORE 220/132 KV { Balasore, Birla Tyre(I), Ispat Alloy(I), Jaleswar, Jaleswar(T)} | 2x160 | 121.24 | 14 | 19:45 | 7.96 | 25 | 16:30 | |
| | | 130.2 | 11 | 10:00 | 7.48 | 25 | 15:45 | |
| BUDHIPADAR 220/132 KV { Jharsuguda, Jharsuguda Tr, Cemco(I), MCL, Sundergarh,Brajarajagar, Rajgangpur} | 2x160 | 104.84 | 17 | 13:45 | 21.12 | 20 | 17:45 | |
| | | 108.28 | 2 | 19:30 | 21.36 | 23 | 16:45 | |
| TARKERA 220/132 KV { Rourkela, Rourkela Tr.,RSP(I), Chhend , Adhunik Metal, Rajgangpur, OCL(I), Rajgangpur Tr.} | 4x100 | 65.16 | 3 | 21:00 | 5.00 | 21 | 19:00 | |
| | | 66.00 | 3 | 20:45 | 7.20 | 10 | 20:45 | |
| | | 65.36 | 3 | 20:45 | 2.72 | 21 | 21:15 | |
| | | 64.64 | 3 | 20:45 | 6.24 | 21 | 19:00 | |
| KATAPALI 220/132 KV {Chipilima,Bargarh, ACC,Sonepur & Katapali area load.} | 1x100 | 40.52 | 30 | 19:45 | 2.52 | 23 | 17:30 | Supported by Burla & Chipilima power. |
| | 1x100 | 56.00 | 15 | 10:00 | 3.84 | 18 | 6:45 | |
| | 1x160 | NOT AVAILABLE | | | | | | |
| BHADRAK 220/132 KV {Bhadrak area load, Bhadrak(T),Soro, FACOR (I), Dhamra Port} | 3x100 | 52.60 | 2 | 12:15 | 1.72 | 4 | 18:30 | |
| | | 50.12 | 2 | 12:15 | 1.56 | 4 | 18:30 | |
| | | NOT AVAILABLE | | | | | | |
| PARDEEP 220/132 KV { Paradeep, Kendrapada, Pattamundai, Chandikhol, Cuttack, Jagatsinghpur, Phulnakhara} | 1x160 | 104.72 | 2 | 19:00 | 6.36 | 25 | 16:30 | |
| | 1x100 | 64.80 | 2 | 19:00 | 3.80 | 25 | 16:30 | |
| | 1x50 | NOT AVAILABLE | | | | | | |
| BOLANGIR (SADAIPALLI) 220/132 KV { Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli } | 2x160 | 119.76 | 12.00 | 19:30 | 16.32 | 21 | 19:00 | |
| | | 117.76 | 12.00 | 19:30 | 16.40 | 21 | 19:00 | |
| Lapanga | 1x160 | NOT AVAILABLE | | | | | | |
| | 1x160 | NOT AVAILABLE | | | | | | |
| Mendhasal | 1x100 | NOT AVAILABLE | | | | | | |
| Samangara | 1x100 | NOT AVAILABLE | | | | | | |

In the last meeting it was deliberated that procurement of meters was under process.
CGM (O&M) may please deliberate the status.

(E) DISCOM Drawal during the month of May'16

| Name of DISCOM | Month | Approved Energy Drawal Prorated for the month (MU) | Scheduled Energy (MU) | Actual Energy Drawal (MU) | Open Access Import Schedule (MU) | Net Energy Drawal (MU) | Overdraw (MU) |
|----------------|----------|--|-----------------------|---------------------------|----------------------------------|------------------------|---------------|
| | | 1 | 2 | 3 | 4 | 5=(3-4) | 6=(5-2) |
| CESU | April'16 | 704.384 | 745.175 | 785.466 | 7.945 | 777.521 | 32.346 |
| | May'16 | 727.863 | 754.537 | 769.278 | 14.893 | 754.385 | -0.152 |
| WESCO | April'16 | 579.452 | 617.311 | 657.707 | 18.777 | 638.93 | 21.619 |
| | May'16 | 598.767 | 634.558 | 679.648 | 25.441 | 654.207 | 19.649 |
| NESCO | April'16 | 447.945 | 472.674 | 544.157 | 70.768 | 473.389 | 0.715 |
| | May'16 | 462.877 | 447.214 | 545.786 | 90.686 | 455.1 | 7.886 |
| SOUTHCO | April'16 | 285.205 | 285.017 | 284.863 | 0.007 | 284.856 | -0.161 |
| | May'16 | 294.712 | 287.919 | 279.859 | 1.193 | 278.666 | -9.253 |

The figures are as per EBC data. Energy drawal by SOUTHCO are excluding of energy consumed by NALCO at Damanjodi and IMFA at Theruvali.

Members may please discuss.

(F) Energy Generation / Import during the month of May'16

| Source of Power | Energy (MU) |
|---|----------------|
| Thermal (TTPS+IB) | 479.24 |
| OHPC Stations including Machhkund share | 322.28 |
| IPP & CGP Support | 647.28 |
| ISGS drawal | 879.93 |
| TOTAL | 2328.73 |

(G) Drawal of Machhakund Power

The drawal of Machhakund power up to the month of **May'16** are as detailed:

| Month | Total Generation | | Odisha Drawal | | AP Drawal | |
|---------------|------------------|---------------|---------------|--------------|---------------|--------------|
| | MU | MW | MU | MW | MU | MW |
| April'16 | 42.784 | 59.42 | 19.714 | 27.38 | 21.032 | 29.21 |
| May'16 | 54.998 | 73.92 | 19.860 | 26.69 | 33.100 | 44.48 |
| TOTAL | 97.782 | 133.34 | 39.574 | 54.07 | 54.132 | 73.69 |

State drawal from Machhakund generation had been reduced due to shut down of 132 kV Rayagada-Akhusing-Mohana line ckt.

In the 97th PSOC meeting it was deliberated that:

- Jayanagar S/S shall monitor Machhakund generation and take the responsibility for drawal of State's share of power to which SLDC had agreed.
- Southco stated that inspection of 33 kV Akhusing –Gumuda feeder has been completed. The feeder will be charged after receive of inspection report.
- CGM (Telecom) had forwarded the offer of M/s Chemtrol for the installation of RVDU at Jayanagar control room to SLDC for views. CLD, SLDC shall forward the proposal to CMD.

SLDC/ CGM (Const) / CGM (Telecom) / OHPC/ Southco Utility may deliberate the status.

(H) Under Frequency Relay operation in OPTCL System during the month of May'16.

Since, the frequency had never gone beyond the lowest setting of UFR, there was no UF Relay operation occurred during the month of **May'16**.

Members may note.

(I) Status of Open Access applications during the month of May'2016

The status of different types of Open Access applications received and disposed by SLDC is as tabled.

| Sl. No | Month | No of Applications received | | | | | No of Applications Disposed | | | | | No of App. Rejected |
|--------|----------|-----------------------------|-------------|-------|-----|-------|-----------------------------|-------------|-------|-----|-------|---------------------|
| | | Intra-State | Inter-State | | | Total | Intra-State | Inter-State | | | Total | |
| | | | Bilateral | | PXI | | | Bilateral | | PXI | | |
| | | | ST | MT/LT | | | | ST | MT/LT | | | |
| 1 | April'16 | 7 | 124 | 0 | 25 | 156 | 6 | 124 | 0 | 25 | 156 | 0 |
| 2 | May'16 | 6 | 67 | 2 | 16 | 91 | 5 | 67 | 2 | 12 | 86 | 3 |

PART C – Issues raised in the 122th OCC meeting of ERPC held on 09.06.2016

C.1: Implementation of Automatic Demand Management Scheme

OPTCL vide mail dated 24.02.2016 pointed that Hon'ble CERC vide their order dated 31.12.2015 passed in Sou-motu Petition No.- 5/SM/2014 in the matter of non-compliance of Regulation 5.4.2 (d) of IEGC directed all Respondents (SLDCs) for implantation of ADMS in their respective control area. CERC have allowed dead line till 30.06.2016 to the Respondent for implementation of ADMS. Failing which they will be liable for action under Section 142 of the Act.

In 119th OCC, advised all the SLDCs to implement the ADMS in their respective control area by 30.06.2016.

Subsequently, on request from DVC & WBSEDCL, ERPC vide letter dated 05.04.2016 requested Powergrid to take up the issue for inclusion of DMS/ADMS application software in the new SCADA system under new ULDC project which would be of great help for the ER constituents in implementing the ADMS system in their respective control area and subsequent compliance of CERC directive

As decided in the 95th PSOC, SLDC has invited offer for providing consultancy service to prepare the tender documents for implementation of ADMS in OPTCL system.

In the 120th OCC meeting, Powergrid informed that it is possible to implement in new SCADA system.

After detailed deliberation, OCC referred the issue to 7th PRM meeting for further course of action.

Agenda placed in 7th PRM meeting held on 09.05.2016

Powergrid vide letter dated 22.04.16 communicated that automatic load shedding & restoration feature, named "Load Shed Support (LSS)", is already provisioned in the supplied new SCADA System for substations above 132 kV and this feature has already been tested / demonstrated for SLDCs of Eastern Region during commissioning stage.

However, the implementation of ADMS at distribution level (below 132kV) may be ensured by respective SLDCS / SEBS.

In the 97th PSOC meeting, CGM (Telecom) stated that 30 Nos. of RTUs have been installed by M/S Chemtrol, in which provision of "Load Shed Support (LSS)" does not exist. OPTCL is processing tender for installation of 60 Nos of RTU for replacement of existing RTUs. The LSS feature shall be incorporated in these RTUs. CLD, SLDC stated that Telecom may raise this issue before ERPC to insist POWERFRID for adding this feature in the RTUs already installed by Chemtrol. However, implementation of ADMS can be carried out with those new RTUs.

In the special PRM meeting held on 07.06.2016 at ERPC, Kolkata, the issue of adding "Load Shed Support (LSS)" feature in the 30nos of newly installed Chemtrols RTU was raised. Powergrid expressed its inability to incorporate the same.

In response to the offer for providing consultancy, two numbers firms have given presentation on dated 03.06.16 at PTC, Chandaka. The evaluation is under process.

Members may discuss.

C.2: 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG), Keonjhar & Pandiabil S/s

PGCIL has already commissioned the 2 X 315MVA 400/220kV Bolangir S/s by LILoing of 400kV Meramandali-Jeypore S/C line and 400/220 kV Keonjhar S/s with an objective of supplying power from ER grid to its adjoining areas in Odisha. The status deliberated in the 97th PSOC meeting as detailed.

| Sl. No. | Name of the transmission line | Completion schedule |
|-----------|--|--|
| 1. | 2 X 315MVA 400/220kV Bolangir S/s | |
| a. | LILo of one circuit of Sadeipalli-Kesinga 220 kV D/C line at Bolangir S/S. | 7 out of 14 completed. Severe ROW problem. Negotiation under progress. |
| b. | LILo of one circuit of Katapalli-Sadeipalli 220 kV D/C line at Bolangir S/S. | Charged on 04.05.2016 |
| 2. | 400/220 kV Keonjhar S/S. | |
| a. | Keonjhar (PG)-Keonjhar (OPTCL) 220 kV D/C line | Work order for 220 kV S/S at Keonjhar and associated lines is under process |
| b. | Keonjhar (PG)-Turumunga (OPTCL) 220 kV D/C Line. | Work will be taken up under JICA scheme. |
| 3. | 400/220 kV Pandiabil Grid S/s | |
| a. | Pratapsasan(OPTCL)-Pandiabil (PG) 220 kV D/C line | Work order placed. |
| b. | LILo of one circuit of Atri-Puri (Samangara) 220 kV D/C line at Pandiabil (PG) | Pandiabili S/S is expected to be completed by July'16. LILo of Atri-Samangra 220 kV line at Pandiabili by July'16. |

Sr. G.M (O&M)-II stated that 220 kV BolangirPG-Bolangir line may be overloaded at any time, as more upcoming loads are expected at Bolangir(N) S/S. To avoid this, commissioning of Kesinga 220 kV S/S and LILo of Bolangir- Kesinga 220 kV line through Bolangir PG is essential.

CGM (Const) / CGM (O&M) may please update the status.

C.3: Restoration of PLCC system of important lines

In 119th OCC, JUSNL informed that the following:

d) In 220 KV Ramchandrapur-Joda line auto-reclosure has been enabled and termination done in PLCC panels at Ramchandrapur end but due to non-availability of PLCC panels at Joda (OPTCL) end the A/R and PLCC scheme could not be implemented.

Further, it was informed that JUSNL is ready to share their standby PLCC panels (BPL make) with WBPDC (for Snataldih end) and OPTCL (for Joda end) to complete the PLCC schemes of both the above lines.

OCC advised WBPDC and OPTCL to accept the JUSNL offer and implement the PLCC scheme at the earliest for both the 220 kV lines.

WBPDC and OPTCL agreed and nominated their coordinators as follows to complete the work:

2) For 220 kV Ramchandrapur-Joda line:

Sh. L. Nayak, GM, OPTCL, M.- 943890780, e-mail: ele.lanayak@optcl.co.in

(ERPC Secretariat has issued a fax message vide no. 138 dated 21.03.2016 to JUSNL for taking up the issue with the above nominated coordinators for restoring the PLCC scheme of both the lines at the earliest.)

OPTCL vide mail dated 16.03.2016 informed the PLCC communication status of the important links under OPTCL as follows:

1. Jeypore(PG)-Jayanagar (Commn. in OPGW exists)
2. Rourkela(PG)-Tarkera (Commn. in OPGW exists)
3. Rengali(PG)-Rengali S/Y (Proposal for Commn. in OPGW is pending)
4. Indravati(PG)-Indravati(PH) (Proposal for Commn. in OPGW pending)
5. Baripada(PG)-Baripada (Tendering in Progress for OPGW)
6. Baripada(PG)-Rairangpur (Tendering in Progress for OPGW)

In the 97th PSOC meeting C.G.M (Telecom) stated that the approved estimate for Sl. 3 & 4 has been sent to CPC for initiating tendering process. Further he added that the BPL make PLCC panel of JUSNL is very old.

In the 122nd OCC meeting, ERPC advised to settle the matter mutually as early as possible. CLD, SLDC stressed on providing maintenance service for BPL equipment by the manufacturer, which is to be explored by JUSNL.

CGM (Telecom) / CGM (O&M) may please update the status.

C.4: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.

The activity of the preparation of Crisis Management Plan for countering the cyber attacks and its implementation including the Mock Drills, audits etc. is being monitored by CEA regularly in line with crisis management plant of Ministry of Power. Power Utilities (including generation, transmission & distribution utilities) of eastern region are to furnish regularly, the updated status to Chief Engineer, Distribution Planning & Development Division, CEA. NTPC communicated their activity of the preparation of Crisis Management Plan for countering the cyber attacks vide letter dated 2nd August, 2013.

In 113th OCC, Member Secretary informed that during interaction with consultants of Grid Study Committee, NLDC agreed that they will plan for conducting workshops on crisis management plan for Cyber Security and few workshops will also be held in Eastern Region.

In the 97th PSOC meeting CGM (IT) stated that tender documents for providing consultancy service are with finance wing of OPTCL. Appointment of Consultant is expected to be done by June'2016.

CGM (IT) may please deliberate the status.

C.5: Certification through BIS as per IS 18001:2007 to all generating/ transmission units.

In 84th OCC meeting all constituents were requested to interact with BIS with intimation to ERPC and get certified as per CEA direction.

In 85th OCC, NTPC informed that NTPC-Farakka has been certified with IS 18001. Other constituents including OHPC requested to interact with BIS with intimation to ERPC and get certified as per CEA direction. The matter is getting reviewed by highest authorities with top priority.

In the 97th PSOC meeting O&M stated that the data required by BIS, Kolkata will be furnished.

CGM (O&M) may deliberate the status.

C.6: Dynamic data of Generator Models required in PSSE for Simulations – ERLDC

To carryout proper simulation studies in PSSE, actual generator parameters are required as incomplete or incorrect modeling of generator may not give valid simulation result. Hence all the generating companies are requested to furnish data for generator, exciter, governor, PSS of their all generating units in the format.

In 114th OCC, the house was informed that the formats are available at ERPC website. (www.erpc.gov.in)

OCC advised all the generating utilities to submit the relevant information as per the format.

In the 95th PSOC meeting, OHPC stated that only 30 % data are available with them. SLDC stated that they may forward the data to ERPC / ERLDC. All other generators including CPPs may furnish their data to ERPC.

In the 97th PSOC meeting, OPGC and OHPC stated that they have submitted the data in respect of their units to ERPC.

In the 122nd OCC meeting of ERPC, ERLDC stated that OPGC, OHPC (Indravati, Burla, Rengali & Upper Kolab) and Vedanta (CGP) have not furnished the data.

OHPC / OPGC/ Vedanta / CGPs may deliberate.

C.7: Status of Emergency Restoration System (ERS Towers) for Eastern Region constituents

The latest status of Emergency Restoration System (ERS towers) as well as the future plan of procurement as informed by OPTCL:

220 kV ERS towers: 42 nos located at Mancheswar, Chatrapur & Budhipadar

400 kV ERS towers: 2 nos located at Mancheswar.

12 nos. of new 400 kV ERS towers have been approved by Board of Director for procurement in the current financial year.

Another 16 nos of 400 kV towers accompanied with 6 sets of T&P are required.

In the OCC meeting, ERPC requested to furnish the expected date of delivery for 12nos. of 400kV ERS towers.

CGM (O&M) may please update the status.

C.8: Mock Black start exercises in Eastern Region – ERLDC

It is deliberated that the mock black start exercise in respect of Upper Kolab PH could not be conducted due to tower collapse of 220kV Upper Kolab-Theruvalli ckt. As per the schedule, mock black start exercise in respect of Rengali, Upper Indravati & Burla are to be carried out during June-16.

OHPC / SLDC may deliberate.

C.9: Status of projects funded under PSDF schemes

In the PSDF review meeting held on 29.04.16 at N. Delhi, it was advised to RPCs to monitor the status of all the projects funded by PSDF. Therefore, constituents are requested to update the status of projects which are being funded by PSDF in the prescribed format.

OCC advised to furnish the status to ERPC on monthly basis by end of the first week of each month.

CGM (O&M) may kindly note.

C.10: Energy Generation data management from Renewable Energy Sources

RES development Division, CEA has been receiving monthly generation details and installed capacity of Renewable Energy Sources from respective SLDCs and other authorized agencies. Some discrepancies have been found in the data as received by CEA and MNRE. Constituents are requested to reconcile/confirmed the correct information at the earliest.

In 120th OCC, all the constituents were advised to submit the data to CEA as per the prescribed format with a copy to ERPC Secretariat.

CGM (PP), Gridco may kindly note.

C.11: Compilation of data for meeting Renewable Energy targets of 175 GW by

2020 -- Reference from MNRE

CEA vide letter dated 29.03.16 has referred Ministry of Power letter no. 23/2/2005-R &R(Vol-XI), dated 22.03.2016 & MNRE letter dated 02.03.2016 regarding compilation of data for meeting Renewable Energy targets of 175 GW by 2020.

In 120th OCC, Concerned State Utilities /Generating companies are requested to submit data of their respective control areas by 1st week of May, 2016.

CGM (PP), Gridco may kindly note.

PART-D – Operational Issues

D.1: Non-compliance of drawal schedule by DISCOMs

Non compliance of drawal schedule messages issued to Discoms during the month of **May'16**:

| Sl. No | Name of Discom | No. of message issued | Over drawal (MU) |
|--------|----------------|-----------------------|------------------|
| 1 | CESU | 13 | -0.152 |
| 2 | WESCO | 7 | 19.649 |
| 3 | NESCO | 9 | 7.886 |
| 4 | SOUTHCO | 3 | -9.253 |
| | Total | 32 | 18.130 |

It is noticed that WESCO had overdrawn to the tune of 19.649 MU followed by NESCO to the tune of 7.886MU, while SOUTHCO has under drawn 9.253 MU & CESU has complied the schedule.

SLDC/ Discoms may please deliberate.

D.2: Revival of Station Transformer for Station Auxiliary supply at Balimela HEP.

It was suggested in earlier meetings for revival of station supply for Balimela HEP from Balimela Grid S/S.

In the 97th PSOC meeting it was decided that Southco Utility may take action for installation of energy meters for 33 kV Balimela HEP feeder.

Southco may update.

D.3: Frequent tripping of 220kV Mendhasal-Bhanjanagar ckt. on transient fault.

It was noticed that 220kV Mendhasal-Bhanjanagar ckt is tripping frequently on transient fault. It is apprehended that the fault may be due to improper earthing of towers, which needs to be checked to avoid such trippings.

CGM (O&M) may please deliberate.

D.4: Prolonged outage of transmission elements and tentative revival dates

The tentative revival dates of transmission elements are updated in the last meeting are as follows:

| Sl.No | Name of transmission element | Reason of outage | Probable date of revival |
|-------|-----------------------------------|--------------------------------------|--------------------------------------|
| 1 | 132 kV Jayanagar-Sunabeda line | For conversion to double ckt | Charged on 6 th June' 16. |
| 2 | 220 kV TTPS-Joda ckt-I | Replacement of conductor | May'2016 |
| 3 | 220 kV U.Kolab-Theruvalli ckt. | Tower Collapse at Loc-483 | |
| 4 | 400kV Meramundali-Mendhasal ckt. | Tower Collapse at Loc-180, 181 & 182 | |
| 5 | 400kV Meramundali-New Duburi ckt. | Tower Collapse at Loc-8/0, 8/1 & 8/2 | |
| 6 | 400kV Meramundali-Vedanta ckt. | Tower Collapse at Loc-34 | |

C.G.M. (O&M) may please update the status.

D.5. Maintenance of 400 kV Indravati (OHPC)- Indravati (PG) S/C line.

Indravati(OHPC)-Indravati(PG) 400 kV S/C line was being maintained by Powergrid since commissioning of the line. At present, Powergrid is insisting OHPC / OPTCL for maintenance of the said line. As per Powergrid's statement, the line and bay at PGCIL end belongs to the then OSEB. A meeting was convened between Powergrid, OPTCL, Gridco and SLDC to resolve the ownership dispute. Powergrid vide their letter dated 19.03.2016, addressed to CGM (O&M) also indicated the same and requested OPTCL to take up the maintenance work. The line was tripped at PG end due to blasting of R-phase CB. OHPC and OPTCL may verify the records and resolve the issue.

In the 97th PSOC meeting CGM (O&M) stated that the meeting with Powergrid could not be held. OPTCL shall convey the meeting again to discuss the issue.

The issue was discussed in the OCC meeting of ERPC. It was decided to hold a meeting between Powergrid, OHPC & OPTCL on 17th June 2016 at Bhubaneswar to resolve all the issues.

Powergrid / OHPC / OPTCL may please note.

D.6: Communication issues

Installation of communication equipment by CGPs / Industries.

The status of data communication from CGPs as deliberated in the last meeting is as follows

| Sl. | Name of CGP | Present status |
|------------|------------------------------------|--|
| 1 | M/s IFFCO, Paradeep | or commissioning work completed. RTU was locally tested. After replacement of the faulty CVT, data will be integrated. |
| 2 | M/s MSP Mettalicks | / RTU installed. Database has already been prepared by OPTCL. Final RTU integration with OPTCL system by the vendor is awaited. |
| 3 | M/s NINL, Duburi | NINL has requested for Scheme, BOQ for PLCC / SCADA, which has been forwarded by OPTCL. No action has been taken by NINL so far. |
| 4 | M/s Rohit Ferro tech | established and inspection by Telecom Engineers completed. Database has already been prepared by OPTCL. |
| 5 | M/s Vedanta Ltd. (IPP), Jharsuguda | ators data remains suspect most of the times. |

It was decided that GCC, OPTCL may file a case before the OERC through RT&C wing of OPTCL against those CGPs not complying the data communication provisions with SLDC.

In the last PSOC meeting, CGM (Telecom.) intimated that the status mentioned above remains same. It was decided that GCC shall convey a special meeting with the defaulting CGPs & industries.

GCC / O&M / RT&C/ C.G.M. (Telecom.) may please deliberate.

D.7: Web based drawal / generation scheduling.

LDC is going to implement web based drawal / generation scheduling for Dist. Utilities and State generating stations including IPPs and CGPs soon.

SLDC had organized training on web based scheduling on 11.05.2016 for all the CGPs connected with OPTCL network. The feedback of the CGPs will be forwarded to IT wing.

Deliberations in the meeting:

In the 97th PSOC meeting, CGM (IT) stated that SLDC shall compile the feedback received from CGPs and sent to IT wing for necessary action.

CGM (IT) / SLDC may deliberate.

D.8: Implementation of Automatic Meter Reading for OPTCL-Discom interface points.

The work for Automatic Meter Reading (AMR) for all the interface points is in progress.

It was deliberated that that from 1st March onwards the AMR shall be made “Go live”. Data will be available after one hour lapses of time.

CGM (IT) stated that AMR data for six types of meters has been mailed to GM (SLDC) for checking and acceptance. Action will be taken after acceptance of the data.

It was decided in the 96th PSOC that SLDC will finalize the checking and sent the report to IT by end of April 2016.

In the 97th PSOC meeting SLDC stated that presently the billing is being done without considering harmonics. IT shall convene a separate meeting with TCS, SLDC & GRIDCO to address the issue.

SLDC / CGM (IT) may deliberate.

D.9: Software for Deviation charge billing.

Hon’ble OERC may notify “Intra State Deviation settlement and related matters” Regulation at any time. For implementation of the regulation, required software for Deviation Charge billing need to be developed and tested. CGM (IT) may take necessary steps for development of the software.

In the 97th PSOC meeting CGM (IT) stated that CMD has already approved the proposal. IT has invited offer from M/s TCS. SLDC suggested to expedite the software development.

CGM (IT) may deliberate the status.

D.10: Agenda by BPPL.

- (i) Due to outage of 132kV Bidanasi-Chandaka and Aarati-Chowduar ckt. evacuation of BPPL generation is being hampered very often causing financial loss.
- (ii) CESU has not considered the open access transaction while preparing the bill for TS Alloys, Athagarh.

BPPL / CESU may deliberate.

D.11: Agenda by JSL.

- (i) Grid disturbances in 400 KV systems on 23rd May and 31st May. Reliability of power system in Duburi command area is essential for power supply continuity to our critical steel making processes and also generators. Necessary preventive measures to be taken to avoid grid supply interruptions.
- (ii) Online G.P.S time synchronization of Interface Meters & Consumer meter will help JSL as an open access entity to match the approved schedules without deviation. It may be appraised about any immediate plan for online GPS time synchronization of APEX meters being taken up by OPTCL.
- (iii) Online display of Interface/Consumer meter data at JSL end will help in identifying any mismatch of sending and receiving end data at the earliest and necessary corrective measures can be taken immediately. Necessary infrastructure required may be explored and allowed for installation.

JSL / OPTCL may deliberate.

D.12: DISCOM Issues

CESU

- A. CESU has identified technical issues relating to augmentation of EHT S/S capacity, conversion of S/C line to D/C, bay extension at different S/Ss etc.
- B.
- (i) Mismatch of SCADA drawal with the billing meter during May'16.
 - (ii) Fixed data indicated on dashboard may be converted to variable for accurate drawal display.
 - (iii) Interruption in RVDU data.
 - (iv) Provision of on line recording of drawal data for CESU on real time basis.
 - (v) Gridco to facilitate for realizing the long outstanding dues of CESU from WESCO & NESCO.
 - (vi) Provision of RVDU at CESU Head quarter.
 - (vii) Implementation of UI bill instead of deviation charge bill.

CGM (Telecom) / SLDC / CESU may please deliberate

WESCO

- (i) Revision of BST bill by deducting power import by solar projects.

In the 97th meeting Director (commercial) stated that WESCO may contact Gridco to resolve the issue.

- (ii) Provision of power drawal by bulk consumers & Open Access transactions in the RVDU.
- (iii) Mismatch between one minute and 15 minute drawal data.

CGM (IT) / SLDC may please deliberate.

PART E: OPERATIONAL PLANNING

E.1: Commissioning status of New Transmission elements.

The status of commissioning of new transmission elements is as follows:

| Sl. No | Transmission element details | Present Status |
|--------|---|---|
| 1 | Commissioning of 220 kV Jayanagar-Jeypore 2 nd DC line | Work has already been started. Expected to be completed by December' 2016. |
| 2 | Commissioning of 400 kV Meramundali-Mendhasal 2nd ckt | Line is ready and shall be charged after commissioning of 3 rd ICT at Mendhasal, which is under progress. ICT is at BHEL factory |
| 3 | Commissioning of 220 kV Bidanasi-Cuttack line | Work in progress and expected to be completed by June' 2016. |
| 4 | Commissioning of 220/132 kV Cuttack S/S | Work in progress and expected to be completed by June' 2016. |
| 5 | Commissioning of 132 kV Baripada (PG)-Jaleswar line | Work has already been started, which will be completed by June 2016. |
| 6 | Commissioning of 220/132 kV Kesinga S/S | Work under progress. Expected by December' 2016. |

Status of Discom's action plan for power drawal from the S/Ss commissioned / expected to be commissioned in near future.

| Sl. | Name of the sub-station | Probable month | Name of | Action taken by |
|-----|-------------------------|----------------|---------|-----------------|
|-----|-------------------------|----------------|---------|-----------------|

| No | | of commissioning | DISCOM | Discoms |
|----|---------------------------------|------------------|---------------|-----------------------------|
| 1 | 132/33kV, 2x20 MVA Khajuriakota | July'16 | CESU | Action being taken |
| 2 | 220/33kV, 2x20 MVA Banei | Dec'17 | WESCO Utility | Stayed by Court. |
| 3 | 132/33kV, 2x20 MVA Udala | Dec-17 | NESCO Utility | Line existing |
| 4 | 132/33 kV, 1x12.5 MVA, Mania | Charged | CESU | 33 kV line not done by CESU |

The draft project proposals during the FY 2018-19 to 2021-22 have been forwarded to all the Distribution utilities. The action plan proposed to be taken for 33 kV take-off arrangements may be forwarded to CGM (Const).

All DISCOMS may update the status / CGM(O&M) & CGM(Const.) may please deliberate.

E.2: Energy Metering at Hydro stations.

Energy meters have already been installed at all hydro stations. Billing for all OHPC stations, except Upper Kolab, is being done from the newly installed energy meters. The energy meters at Upper Kolab are have been rectified in the mean time.

In the last meeting OHPC stated that Upper Kolab and Balimela PH meters are showing error. Mismatch noticed at both ends metering data of Burla-Chipilima Tie line. Rengali-TTPS feeder meter is not functioning. The meter data can be considered for billing purpose only after rectification of all defects. OHPC has already written to CGM (O&M) in this regard. It was decided that O&M shall take up the matter with the vender for rectification of energy meters.

In the 97th PSOC meeting, OHPC stated that energy meters at Balimela, Upper Kolab, Burla & Chiplima HEP have been rectified. The meters at Rengali PH for TTPS feeder need to be replaced. **GRIDCO / OHPC / SLDC may please deliberate.**

E.3: Installation of Feeder meters at TTPS.

As per the decision taken in earlier meetings and after getting approval from CEA, OPTCL has taken up for installation of meters in all feeders connecting TTPS with the STS.

In the 97th PSOC meeting, TTPS stated that installation of feeder meters shall be completed by end of May'2016.

GRIDCO / OPTCL/ TTPS / SLDC may please deliberate the status.

E.4: Major Events in the month of May'16

04.05.2016: 220 kV Katapali-Bolangir ckt made LILO with Bolangir PG.

05.05.2016:165 MW Power plant of Bhushan Steel Ltd. synchronized with OPTCL network

11.05.2016: 2nd 132/33 kV, 20 MVA Tfr commissioned at Boudh S/S.

E.5: Important Grid Incidences during the month of May'16.

1. On 06.05.2016 at 14:13 hrs 400 kV Mendhasal-Baripada PG Ckt and 400 kV New Duburi-Mendhasal Ckt tripped along with ICT-I & II at Mendhasal end.
2. On 10.05.16 at 15:40 hrs, 220 kV Meramundali-BhanjanagarCkt-I tripped at Meramundali on 'B' ph to E/F, dist-4.744 km, 220 kV TTPS Ckt-II tripped at Meramundali on 'B' ph to E/F, dist-8.505 km. At 15:40 hrs 220 kV side ICT-I at Meramundali tripped on O/C.
At 15:43 hrs 400 kV AngulCkt-I tripped on 'B' ph to E/F, 59.4 km., 400 kV AngulCkt-II tripped on 'B' ph to E/F, 6.0 km., 400 kV Vedanta Ckt-I tripped on 'B' ph to E/F, (-2.0 km). 400 kV Meramundali-Vedanta Ckt-II tripped at Vedanta end.
At 15:54 hrs 400 kV New DuburiCkt-II tripped on 'B' ph to E/F, 59.2 km., 400 kV New DuburiCkt-I tripped on 'Y' ph to E/F, 12.5km.
At 16:44 hrs while charging 400 kV New DuburiCkt-I it tripped pulling out other circuits.

3. On 14.05.16 at 15:56 hrs 220 kV TTPS-Joda Ckt- II tripped at both ends pulling out other 220 kV feeders emanating from Joda, from other end. On investigation it was found that 220 kV Joda-TTPS DC line tower tilt at Loc. No-505.
4. On 23.05.16 at 14:58 hrs 400 kV Meramundali- Mendhasal Ckt and 220 kV Meramundali-Duburi Ckt- I &II tripped at Meramundali end on directional O/C.
At 17:20 hrs 400 kV Mendhasal-Meramundali Ckt tripped at Mendhasal on D/P, 'R' ph, E/F, Zn-I, Dist-45 km, back up relay. On investigation it was found that towers at Loc. No 180, 181 and 182 of the same line has been damaged due to strong wind.
At 17:28 hrs 400 kV Mendhasal-Baripada PG Ckt tripped at Mendhasal on D/P, Zn-I, 'B' ph, dist-23.8 km, carrier send.
5. On 25.05.16 at 15:20 hrs 400 kV Baripada PG Ckt, 400 kV New Duburi Ckt, 220 kV Nayagarh tripped at remote end.
6. On 26.05.16 at 04:26 hrs, 400 kV Meramundali-VAL Ckt-II tripped at Meramundali on 'Y' ph, E/F, D/P, dist- 63.2 km , 220 kV Meramundali-Bhanjanagar Ckt-I tripped at Meramundali on 'B' ph to E/F, dist-24.52 km.
7. On 27.05.16 at 16:05 hrs, 400 kV Meramundali-Vedanta Ckt-I tripped at Meramundali on 'B' ph to E/F, D/P, dist-161.9 km. On investigation it was found that tower collapsed at Loc. No34 due to localized whirl wind.
8. On 28.05.16 at 23:30 hrs 132 kV TTPS-Angul Ckt tripped at Angul on D/P, 12.9 km. At 23:39 hrs 132 kV TTPS-OPCL Ckt tripped at both ends (At TTPS-D/P, At OPCL-D/P, dist-16.38 km, Zn-I, 'B' ph) and 132 kV Kamakhyanagar-OPCL Ckt tipped at Kamakhyanagar on E/F. At 23:41 hrs 220 kV Meramundali-Kaniha Ckt-II tripped at Meramundali on 'B' ph, E/F, Zn-I, Dist-5.169 km and 220 kV Meramundali-Bhanjanagar Ckt-I tripped at Meramundali on 'B' ph to E/F, Zn-I, dist-9. 3km. At 23:50 hrs 132 kV Chainpal-Angul Ckt tripped at Chainpal end on E/F, O/C, 'R' ph, 'Y' ph. 132 kV TTPS-Chainpal Ckt-I & II off loaded at TTPS end and power flow was from 132 kV to 220 kV through Auto-I & II. Subsequently all the units at stage –I & II at TTPS tripped.
On investigation it was found that earth wire of 132 kV Chainpal-Angul Ckt snapped between Loc. No.48 and 49.

Members may please discuss.

E.6: Outage of major transmission Elements during the month of May'16. (above 10 hrs).

Outage of major transmission elements above 10 hours during the month of May'16 is as detailed.

| Sl No | Transmission lines | Tripping Dt/time | Restoration Dt/time | Reason |
|-------|-----------------------------------|-------------------|---------------------|--|
| 1 | 132 kV Chhatrapur-Balugaon Ckt | 03.05.16 16:24 | 04.05.16 10:57 | 'R' ph, 'Y' ph, 'B' ph insulator damaged at Loc. No-8. |
| 2 | 220 kV Baripada PG-Balasore Ckt-I | 06.05.16 17:19 | 07.05.16 13:59 | 'R' ph breaker limb punctured at Balasore end. |
| 3 | 132 kV BC Mohanty-Bamnipal Ckt | 09.05.16 17:48 | 10.05.16 18:06 | Earth conductor snapped between Loc. No.-2 to 13 |
| 4 | 220 kV TTPS-Joda Ckt-II | 14.05.16 15:56 | 15.05.16 13:52 | DC line tower tilt at Loc. No-505 |
| 5 | 132 kV Nimapara-Samangara Ckt | 15.05.16 08:32 | 18.05.16 12:27 | 'R' ph insulator damaged at Loc. No12. |
| 6 | 132 kV Theruvali-Rayagada Ckt | 16.05.16 22:48 | 17.05.16 12:07 | Jumper snapped at Loc. No.-43. |
| 7 | 220 kV Paradeep-ESSAR Ckt-II | 18.05.16 12:49 | 19.05.16 04:10 | 'Y' ph insulator damaged at Loc. No.-38 |

C.G.M. (O&M) may please deliberate.

E.7: Review of Outage Program of State Generators / Transmission elements for the month of July'16:

Tentative Outage programme for State Generators for the month of **July'2016** are as follows:

| Sl. | Station | Unit | Period | Remarks |
|-----|-----------------|------|----------------------|--|
| 1 | Burla | # 6 | 17.02.14 to continue | Programming for R, M & U |
| 2 | Chiplima | # 3 | 15.02.14 to continue | TGB problem and started R,M & U |
| 3 | Balimela | # 1 | 31.01.13 to continue | TGB problem Programming for R,M & U |
| 4 | Upper Indravati | # 3 | 23.11.15 to 30.06.16 | Capital Maintenance |

OHPC / SLDC may deliberate.

E.8: Generation Program for the month of July'16.

Generation schedule for the month of July'16 furnished by OHPC are given below.

| Name of Hydro Gen. Station | Generation Programme (MW) | | Reservoir Level as on 01.06.15 | Reservoir Level as on 01.06.16 | MDDL | High Flood Reservoir Level |
|----------------------------|-------------------------------------|-------------------------------------|--------------------------------|--------------------------------|----------|----------------------------|
| | July'16 (1 st fortnight) | July'16 (2 nd fortnight) | | | | |
| HPS-I, Burla | 20 | 20 | 604.23ft | 602.50 ft | 590 ft. | 630 ft. |
| HPS-II, Chipilima | 10 | 10 | - | - | - | - |
| Balimela | 185 | 185 | 1484.70 ft | 1476.60 ft | 1440 ft. | 1516 ft. |
| Rengali | 10 | 10 | 117.21 mt | 111.22 mt | 109.72m | 123.5 mtr. |
| U.Kolab | 100 | 100 | 851.23 mt | 848.14 mt | 844 mtr | 858 mtr. |
| U. Indravati | 200 | 200 | 632.10 mt | 630.66 mt | 625mtr | 642 mtr |
| MKD (O/D) | 30 | 30 | 2718.95 ft | 2716.20 ft | 2685 ft. | 2750 ft. |
| TOTAL | 555 | 555 | | | | |

OHPC may deliberate & Members may discuss.

E.9: Anticipated power generation and demand for the month of July'2016.

| Sl. No | Discom | Average | Peak |
|---------------------|---------------------------|-------------|-------------|
| 1 | CESU | 1000 | 1200 |
| 2 | WESCO | 900 | 1100 |
| 3 | NESCO | 800 | 1000 |
| 4 | SOUTHCO | 400 | 550 |
| 6 | Total | 3100 | 3850 |
| Availability | | | |
| 1 | Hydro | 550 | 1200 |
| 2 | State Thermal | 750 | 750 |
| 3 | IPP, small hydro &RE | 800 | 800 |
| 4 | ISGS share (including OA) | 1000 | 1100 |
| 5 | CGP support (OA) | 150 | 150 |
| 6 | Total availability | 3250 | 4000 |
| 7 | Surplus / Deficit | 150 | 150 |

Members may discuss.

PART F: OTHER ISSUES**F.1: Date and Venue of the next (99th) PSOC meeting**