

STATE LOAD DESPATCH CENTRE
OFFICE OF THE CHIEF LOAD DESPATCHER
ODISHA POWER TRANSMISSION CORPORATION LIMITED
GRIDCO Colony, P.O.- Mancheswar Rly. Colony, Bhubaneswar-17, FAX-0674- 2748509
CIN – U40102OR2004SGC007553

No-SGM (PS)-PL-15/2016 / 4600 (43)

Dated: 28.12.2016

From:

The Chief Load Despatcher
SLDC, OPTCL, Bhubaneswar-17.

To:

As per distribution list

Sub: Minutes of 104th PSOC meeting held on 20.12.2016 at PTC, Chandaka, Bhubaneswar

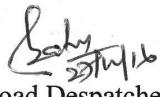
Sir,

Please find enclosed herewith the minutes of 104th Power System Operational Co-ordination meeting held on 20.12.2016 at PTC, Chandaka, Bhubaneswar.

This is for your information & necessary action.

Encl: As above

Yours faithfully;


Chief Load Despatcher,
SLDC, OPTCL

Copy along with enclosures forwarded to the Executive Assistant to CMD, Gridco / OPTCL for kind information of CMD.

Distribution list

1. The Director (Operation), OHPC, Bhubaneswar
2. The CGM (O&M), OPTCL, Bhubaneswar.
3. The CGM (Const.), OPTCL Bhubaneswar.
4. The CGM (RT&C), OPTCL, Bhubaneswar.
5. The CGM (PP), GRIDCO, Bhubaneswar.
6. The CGM (Telecom), OPTCL, Bhubaneswar.
7. The CGM (IT), OPTCL, Bhubaneswar.
8. The Sr. G.M (Const)-I, OPTCL, Bhubaneswar.
9. The Sr. G.M (Const)-II, OPTCL, Sambalpur.
10. The Sr. G.M (CPC), OPTCL, Bhubaneswar.
11. The Sr. G.M (CP), OPTCL, Bhubaneswar.
12. The Sr. G.M. (O&M), Zone-I, Narendrapur.
13. The Sr. G.M.(O&M), Zone-II, Meramundali.
14. The CEO, CESU, Bhubaneswar.
15. The A.O., WESCO Utility, Burla
16. The A.O., NESCO Utility, Balasore
17. The A.O., SOUTHCO Utility, Berhampur.
18. The Member Secretary (GCC), OPTCL.
19. The ED, Power Grid Corporation of India, Bhubaneswar.
20. The Sr. G.M. (El.), BHEP, Balimela
21. The A.G.M. (El.), CHEP, Chiplima
22. The Sr. G.M. (El.), UIHEP, Mukhiguda
23. The Sr. G.M. (El.), RHEP, Rengali
24. The D.G.M. (El.), HHEP, Burla
25. The D.G.M. (El.), UKHEP, Bariniput, Koraput
26. The S.E. (O&M), Machhakund
27. The DGM (Elect.), IbTPS, OPGC, Banharpali.
28. The Vice President (O), IMFA, Choudwar.
29. The D.G.M. (O&M), NTPC (TTPS), Talcher.
30. The AGM (Elect.), JINDAL Stainless Ltd., Duburi
31. The G.M, HINDALCO, Hirakud.
32. The G.M.CPP, NALCO, Angul.
33. The Director, M/s. Jindal Steel & Power Ltd., Angul
34. The AVP-Vedanta Ltd (IPP), Jharsuguda
35. The G.M, Vedanta Ltd (CGP), Jharsuguda.
36. The DGM (Power Distribution), RSP, Rourkela.
37. Joint President, Aditya Aluminium Ltd., Lapanga, Sambalpur
38. The G.M.(Elect.), Bhusan Steel Limited. Meramundali
39. The G.M. (Elect.), Bhusan Power & Steel Ltd, Budhipadar.
40. The G.M.(Elect.), IFFCO Limited.
41. Director & COO, GMR Kamalanga Energy Limited, Satyanagar, Bhubaneswar.
42. The CEO, Bhubaneswar Power Pvt. Ltd, IRC Village, Nayapalli, Bhubaneswar

Odisha Power Transmission Corporation Ltd. Bhubaneswar.

Minutes of 104th PSOC meeting held on 20.12.2016 at PTC, Chandaka, Bhubaneswar

List of participants is at Annexure.

Chief Load Despatcher, SLDC, OPTCL welcomed all the participants to the 104th Power System Operational Coordination meeting and highlighted the system performance during the month of November'2016 and overall power scenario of the State. He also emphasized on the overdraw quantum, made by all the Discoms during the month.

D.G.M. (SS), SLDC took the agenda items for discussion.

The review proceeded as follows:

1: Confirmation of minutes of 103rd PSOC meeting held on 25.11.2016

The minutes of meeting was circulated vide letter No. SGM (PS)-PI-15/2015/4524⁽⁴³⁾ dated 16.12.2016 to all the members and also uploaded in the SLDC website. No comment has been received from any of the members.

Deliberation in the meeting:

Since no comments have been received from the members, the minutes of 103rd PSOC meeting was confirmed.

PART A: List of items

List of items to be discussed in the meeting are given in the subsequent parts

PART B : SYSTEM PERFORMANCE

B1: Review of Grid Performance for the month of November'2016.

(A) Frequency

It was noticed that, during the month of November'16, **71.91** % of times the frequency remained in the IEGC band i.e. 49.90Hz - 50.05Hz in comparison to **71.27** % during the month of October'16. The maximum and minimum System frequency during the month was **50.17 Hz & 49.63 Hz** respectively.

(B) Grid demand

Grid demand for the month of November'16 was reviewed. The average consumption during the month was **2750 MW**. The maximum System demand of **3866 MW** occurred on **01.11.16** at 19:00 Hrs and minimum demand of **2017 MW** occurred on **15.11.16** at 24:00 Hrs.

Deliberation in the meeting

It is observed that the average demand during the month of November' 16 has been decreased by 276 MW while the peak demand was decreased by 129MW from that of October'16. The average energy consumption during the month has been decreased by 145 MW in comparison to November'15. The energy consumption has been decreased due to adverse weather during the month and massive use of LED lamps.

(C) Voltage Profile of important Sub Stations in OPTCL System during the month of Nov'16.

The Voltage profile at different 220 kV buses in OPTCL system during the month of **November'16** was reviewed. The maximum Voltage of **243.52** kV occurred at Jaynagar 220 kV bus while Narendrapur, 220 kV bus has experienced the minimum Voltage of **185.55** kV. Bus Voltages at Samgara and Lapanga could not be incorporated due to non availability of energy meter in those sub-stations.

Deliberation in the meeting:

It is learnt that the CVT at Narendrapur is defective. O&M stated that action has been taken to rectify the CVT. O&M stated that the Voltage profile at Jayanagar 220 kV bus was reviewed. Only 10 times the Voltage have exceeded 240 kV during the month. However, Narendrapur Voltage shall be improved after charging of Atri S/S. CGM (O&M) suggested that SLDC may investigate the reason of VAR injection from Meramundali S/S by random sampling and place in the next meeting. It was decided that SLDC may deliberate the high Voltage problem at Meramundali in the OCC meeting for taking remedial measures by POWERGRID.

[Action: CGM (O&M) / SLDC]

(D) Loading of 220/ 132 kV Auto at 220 kV S/Ss in OPTCL system for the month of November'16.

Auto loading of all 220 kV S/Ss was reviewed. It was noticed that some of the ICTs have not been provided with energy meter.

Deliberation in the meeting:

O&M stated that purchase order for Energy Audit meters will be placed after approval by CMD due to single bid.

[Action: CGM (O&M)]

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

The schedule and actual energy drawal by Discoms for the month of **November'16** was reviewed.

Deliberation in the meeting:

It was noticed that WESCO had overdrawn 13.423MU while CESU, NESCO and Southco had overdrawn 6.726, 2.347 and 6.332 MU respectively.

[Action: All Distribution Utilities / SLDC]

(F) Energy Generation / import during the month of November'16

Energy generation and exchange during the month of November'16 was reviewed. The total quantum of energy drawn from all the generation sources including Central Sector Share and CGP/IPP support during the month was **1979.76** MU.

(G) Drawal of Machhakund Power during the month of November'16

The drawal of Machhakund power during the month of November'16 was **30.673** MU against AP drawal of **32.982** MU.

In the 103rd PSOC meeting CGM (Telecom) stated that RVDU is expected to be commissioned by December'16. CGM (O&M) stated that Machhakund drawal was reduced due to shutdown of transmission elements during the month.

Deliberations in the meeting:

CGM (Telecom) stated that RVDU is expected to be commissioned by 15th January'17. CGM (O&M) stated that Machhakund drawal was reduced due to shutdown of transmission elements during the month. DGM, Jayanagar stated that Machhakund PH is hand tripping feeder at their end due to delay in reducing drawal during peak time. It was decided that Jayanagar may isolate feeders with intimation to SLDC prior to the occurrence of peak period.

[Action: Sr. GM (O&M)-I / OHPC / Southco / Gridco / SLDC]

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

There is no UF Relay operation occurred during the month of November'16 as the frequency had never gone beyond 48.50 Hz.

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

Status of Open Access Applications received and disposed by SLDC during the month was reviewed.

PART C – Issues to be discussed in the 128th OCC meeting of ERPC on 23.12.2016

C.1: 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 desired format. The latest status as updated by OPTCL is as given below:

| Sl No | Name of Constituent | Name of Project | Date of approval from PSDF | Target Date of Completion | Amount Approved (in Rs.) | Amount Drawn till date (in Rs.) | Status as updated in 122 nd meeting |
|-------|---------------------|---|----------------------------|---------------------------|--------------------------|---------------------------------|---|
| 3 | OPTCL | Renovation & Up-gradation of protection and control systems of Sub-stations in the State of Odisha in order to rectify protection related deficiencies. | 11.05.15 | 10.05.17 | 162.5 Cr. | 19.53 Cr. | In 122nd meeting Erection work of the already procured equipment is going on. LOA for eight different types of Testing equipment already placed worth about Rs.4 Cr. Placement of LOA for balance equipment is under process. Updated Total contract awarded = 47.653 crores. Erection work for received equipment is in progress. |

ERPC advised to submit monthly updated report to RPC secretariat.

In the 103rd PSOC meeting, it was decided that SLDC shall prepare the DPR for implementation of ADMS and submit to CGM (O&M) for inclusion in PSDF.

Deliberations in the meeting

GM (O&M) stated that O&M will submit an updated report to ERPC. SLDC stated that DPR in respect of ADMS implementation will be done after finalization of tender documents.

[Action: CGM (O&M) / SLDC]

C.2: Preparation of Load Generation Balance Report (LGBR) of ER for 2017-18.

As per the IEGC under Clause 5.7.4 of Principal Regulations, first amendment in 2012 under sub-Regulation (a), (b), (c) and (d) states that

- a) "The RPC Secretariat shall be primarily responsible for finalization of the Annual Load Generation Balance Report (LGBR) and the annual outage plan for the following financial year by **31st December of each year**. The LGBR shall be prepared by the respective RPC Secretariat for Peak as well as Off-peak scenarios".
- b) "Each SLDC shall submit LGBR for its control area, for Peak as well as Off-Peak scenario, by **31st October** for the next financial year, to respective RPC Secretariat".
- c) "RPC Secretariat shall then come out with draft LGBR and draft outage plan for the next financial year by **30th November** of each year for the regional grid taking"
- d) "The outage plan shall be finalized in consultation with NLDC and RLDCs. The final LGBR after considering comments/observations of the stakeholders shall be prepared by RPC Secretariat by **31st December of each year**. The....."

XXXXXXXXXX

STU

Month wise annual planned outage of transmission systems (Transmission lines 220kV and above/ICTs/Reactors/other elements).

It is therefore requested to please send the above information (as applicable) on or before **31.10.2016** for compilation of data and preparation of **LGBR of ER for the year 2017-18**.

Information should be submitted in the form of soft copy through email (mail ID: rpc.erpc@gov.in / mserpc-power@nic.in).

In the last meeting SLDC stated that the LGBR for the State shall be submitted by 1st Week of November. O&M may explore preparation of Annual outage of transmission elements by 1st week of November'16.

In the 103rd PSOC meeting it was decided that O&M shall explore preparation of Annual outage of transmission elements by 1st week of November'16.

Deliberations in the meeting

GM (O&M) stated that the annual outage proposal has already been sent to ERPC on 19.12.2016.

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.

In 33rd ERPC Meeting, WBPDC and OPTCL agreed to settle the issue bilaterally with JUSNL. JUSNL was advised to resolve the AMC related issues with West Bengal & Odissa. All are requested to inform the development to CERC.

However ERPC advised JUSNL, OPTCL and WBPDC to get the PLCC system restored for both the lines by July 2016 positively.

Subsequently, a special meeting was convened by JUSNL on 11.07.2016 at Ranchi to resolve the issue at the earliest.

In 123rd OCC, OPTCL informed that they received the invoice from BPL and they are charging Rs. 1.8 lacs / year for AMC, which is not reasonable as the AMC charges for 5 years is more than the panel cost of Rs.5.1 lacs.

In 124th OCC, WBPDCCL informed that PLCC panels will be delivered by BPL in September'16.

OPTCL informed that they agreed to the BPL estimate and placing the order.

In 125th OCC, OPTCL informed that the order has been placed for PLCC panels without 5 years AMC.

In the 102nd PSOC meeting CGM (Telecom) stated that M/s BPL had agreed for 50 % advance payment. Accordingly order was placed on 5th October. On 24th October, M/S BPL is asking for 100% advance payment. CGM (O&M) may intimate the same to ERPC. This issue may also be raised in the TCC meeting of ERPC.

In the 103rd PSOC meeting CGM (Telecom) stated that CGM (Telecom) stated that PLCC shall be commissioned by December'2016.

Deliberations in the meeting

CGM (Telecom) stated that waybill has been issued. PLCC is expected to be commissioned at Joda by 15th January'17.

[Action: CGM (Telecom)]

C.4: Status of construction of 400 kV Sterlite-Jharsuguda D/C sections

In the last meeting Gridco stated that a meeting for discussion of Vedanta metering logic will be convened on 1st November'16. CGM (O&M) stated that after joining the 400 kV Vedanta buses substantial quantum of power is flowing to the CTU system. 400 kV Vedanta-Meramundali ckts are under loaded resulting increase in Meramundali bus Voltage. Gridco may pay penalty for VAr injection at High Voltage. Vedanta generator should absorb reactive power as per their capability to avoid high Voltage.

In 34th TCC held on 18.11.16, Vedanta explained the status of construction with a presentation. Vedanta informed that significant progress has been made in last 5 months and the line will be commissioned by March, 2016. Vedanta requested to extend the removal of the LILO till March, 2017 as final commitment.

OPTCL added that since Vedanta has made substantial progress during last 5 months and the dead line for removal of the LILO may be extended till February, 2017.

TCC agreed and advised Vedanta to submit a fresh undertaking in affidavit form to CTU and ERPC stating that the dedicated line will be completed by 28.02.2017 with no further extension. Failing which, CTU/ERLDC is authorized to open the LILO with effect from 01.03.2017.

In the 103rd PSOC meeting, M/s Vedanta stated that they are absorbing reactive power as per their capability.

It is noticed that the real time data indicating generation of Vedanta CGP / IPP & power flow through 400kV lines emanating from Vedanta 400kV bus is not being received at SLDC. Vedanta has to establish communication system with SLDC directly.

Deliberations in the meeting

It was decided that M/s Vedanta Ltd shall request ERLDC to provide data to SLDC up to 31st March'17. By 31st March'17, Vedanta shall establish communication system with SLDC directly.

[Action: Vedanta/ CGM (Telecom) / SLDC]

C.5: 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG), Keonjhar & Pandiabil S/s

PGCIL has already commissioned the 2x315MVA 400/220kV Bolangir S/s by LILoing of 400 kV 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.

In 127th OCC of ERPC, SLDC deliberated the completion schedule of inter-connecting system as follows:

| 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. | Construction of 220 kV Sadeipali-Kesinga portion only is under consideration. Status will be decided in the meeting scheduled on 22.12.16 to be taken by CMD. |
| b. | LILo of one circuit of Katapalli-Sadeipalli 220 kV D/C line at Bolangir S/S. | Charged on 04.05.16 |
| 2. | 400/220 kV Keonjhar S/S. | |
| a. | Keonjhar (PG)-Keonjhar (OPTCL) 220 kV D/C line | By 2017 |
| b. | Keonjhar (PG)-Turumunga (OPTCL) 220 kV D/C Line. | By 2019 |
| 3. | 400/220 kV Pandiabil Grid S/s | |
| a. | Pratapsasan(OPTCL)-Pandiabil (PG) 220 kV D/C line | December 2017 (Work started) |
| b. | LILo of one circuit of Atri-Puri (Samangara) 220 kV D/C line at Pandiabil (PG) | February'2017 |

[Action: CGM (Const) / CGM (O&M)]

C.6: 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 103rd PSOC meeting, IT stated that contract will be awarded by a week time. SLDC has agreed to nominate a person for UAT.

Deliberations in the meeting

IT stated that the license in respect of the L1 bidder has been expired. Memorandum has been placed before the CSC to decide whether contract will be awarded to the L2 bidder.

[Action: CGM (IT)]

C.7: 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 103rd PSOC meeting, O&M stated that two Nos. of Firms have responded. Discussion with the participants is in progress.

Deliberations in the meeting

O&M stated that discussion with the participants is in progress.

[Action: O&M]

C.8: Reporting of Energy generated from renewable resources on daily basis

Government of India has set an ambitious target to achieve 175 GW of renewable generation by year 2022. Renewable energy sources (RES) development division of CEA along with MNRE is continuously monitoring the progress in installation of renewable resources and also collecting actual generation data on monthly basis. However the energy injected from the renewable generating plants into the grid also needs to be monitored on daily basis and incorporated in the reports by NLDC, to determine the correct percentage of energy mix for whole country on any particular day. Thus the renewable generators/ concerned SLDC may furnish following data on daily basis:

a) Grid connected RES whose scheduling and metering is done as regional entity:
Maximum / Time and energy injected (MWh) for the previous day (from the SEM meters on a daily basis till the AMR is commissioned/working)

b) Grid connected RES which is under State purview:

Maximum/Time and energy injected (MWh) for the previous day. Concerned SLDCs to compile station wise / connection point wise energy injected into the state grid and send it RLDC on a daily basis.

The above data may be sent by mail to erldc.cal@gmail.com positively by 01:00hrs of the day in respect of data for the previous day. This is essential as the power supply report has to be sent by early morning hours for the previous day.

It was deliberated that SLDC shall provide the data in respect of the RES connected to grid with dedicated feeder.

In the 103rd meeting, SLDC stated that the Renewable generation sources have been intimated. Reporting of hourly generation will be commenced from 1st December'2016.

Deliberations in the meeting

SLDC stated that reporting has already been started. CGM (PP) stated that a copy of the report may be forwarded to GRIDCO.

[Action: SLDC]

C.9: 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.

A team of officers had visited Gujarat SLDC on 30.08.2016 to observe the implementation of ADMS in their State. It was found that a separate type of RTU known as “**Client RTU**” has to be installed in the grid sub-stations where the pre identified 33kV feeders (to be isolated under ADMS) are located. These are in addition to the existing RTUs. One ADMS server shall be installed at SLDC which will acquire data from SCADA server to compare the over drawal of the State and Discoms and send the signal to the client RTU for isolation of the pre identified 33kV feeders. Since, all these activities are related to SCADA & communication, Telecom wing need to be involved for implementation of the scheme. A team is to be constituted with Telecommunication, SLDC & OPTCL Engineers for this purpose.

One presentation was made by M/s Kirti Telnet, Ahemedabad, the agency provided ADMS solution to Gujarat on 17.10.16 in the Conference Hall of GRIDCO. SLDC shall float tender for this purpose.

In the 103rd meeting, SLDC stated that Technical specification for tendering will be done by 15th December. O&M stated that SLDC may confirm whether separate RTUs are required or not in view of S/S automation scheme taken up by OPTCL.

Deliberations in the meeting

SLDC stated that Technical specifications have already been prepared considering Sub-station automation along with views of Telecom. Tender will be floated by 15th January’17 after finalization of financial terms & conditions.

[Action: SLDC]

C.10: Tie bay of 125MVAR Bus reactor and 400kV Indravati-Indravati and Indravati(PG):

Under outage wef 18/03/16 due to R-Ph pole bursting of Tie CB. Due to non-availability of the tie bay, the Buses are coupled only via the tie bay of 400kV Rengali-Indravati and 400kVIndravati-Jeypore at Indravati and any outage of the lines would result in decoupling of the Buses.

As per the minutes of special meeting convened by Member Secretary, ERPC for resolving O&M issues between OPTCL, OHPC and POWERGRID for lines, bays and equipment held on 17.06.2016, “400kV bays (2nos.) Odisha bays in POWERGRID 400kV Indravati sub-station – POWERGRID will carry out routine O&M for the bays.”

In 125th OCC, Powergrid informed that main CB has some problem which will be taken care by OHPC/OPTCL.

It was deliberated that OPTCL has taken action for installation of breaker & CT. The joint inspection of line is under progress.

In the 102nd meeting CGM (O&M) stated that the installation of tie breaker will be done by November’2016. The 400 kV Indravati-Indravati (PG) line has taken over by OPTCL. Minor maintenance of the bay and associated equipments will be done by the respective Grid owner. However, the cost will be borne by the equipment owner.

In the 103rd PSOC meeting, CGM (O&M) stated that 400 kV Indravati (PH)-Indravati (PG) SC line has already been taken over by O&M. Tender has been floated for transportation of CB.

Deliberations in the meeting

CGM (O&M) stated that Transportation tender has been finalized. Work order will be placed soon.

[Action: CGM (O&M)]

C.11: Operational Load Flow Study for off-peak period (winter lean period)

OCC felt that another set of data may be collected during lean winter for simulation of off-peak load flow scenario. It is proposed that 28th & 29th December, 2016 may be considered for the lean winter period off-peak load flow study & all constituents are requested to provide the relevant data for off-peak load flow study.

In the 127th OCC meeting of ERPC:

PRDC informed that the detailed report of load flow study on data of 26th & 28th August, 2016 will be submitted to ERPC secretariat by next week.

Further for lean off-peak load flow study, OCC finalized the date and time as follows

13.00 Hrs of 28th December, 2016.

02:00-03.00 Hrs of 29th December, 2016

GM, ERLDC informed that the overvoltage phenomenon is predominant in the month of January.

So, the off-peak study may also be carried out for January so that a proper overvoltage scenario can be obtained.

After discussion OCC decided that another study for January, 2017 may also be done apart from the December study.

Deliberations in the meeting

O&M stated that all Grid S/Ss have been intimated to record and forward the data. Telecom may please forward the SCADA data for those days.

[Action: O&M / Telecom]

C.12: Transfer capability determination by the states -- Agenda by NPC

In order to ensure, safe and secure operation of the grid, the states should carry out the power system study for operational planning and power transfer capability through their respective transmission links with the rest of the grid.

It was decided in the NPC meeting that to begin with, power system study for assessment of operational limits / power transfer capability for each state will be done by the concerned RLDC in association with concerned SLDC. Monthly TTC /ATC will be uploaded by the SLDCs at their respective websites and also communicated to concerned RLDC & NLDC subsequently.

In 120th OCC, DVC informed that they are providing the monthly TTC/ATC on their website.

WBSETCL informed that they are calculating the TTC/ATC but their website is under construction.

Bihar and OPTCL agreed to implement.

JUSNL informed that they are unable to compute the TTC/ATC for their state.

OCC advised JUSNL to interact with ERLDC to get acquainted with the ATC/TTC calculation.

In the 127th OCC meeting of ERPC, OCC advised all the SLDCs to calculate ATC / TTC for Dec-16 / Jan-17 and submit it in next OCC meeting.

Deliberations in the meeting

GM, SLDC stated that the ATC/TTC has already been uploaded and being updated in consultation with ERLDC.

[Action: SLDC]

C.13: Mock Black start exercises in Eastern Region

Mock black start exercise in respect of Rengali PH was scheduled to be conducted on during November 2016.

Deliberations in the meeting

SLDC stated that mock black start for Rengali HEP will be done during the month of January'17.

[Action: OHPC / SLDC]

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

Non-compliance of drawal schedule messages issued to Discoms during the month of Nov'16 was reviewed.

Deliberations in the meeting.

It was noticed that WESCO had overdrawn 13.423 MU while CESU, NESCO and Southco had overdrawn 6.726, 2.347 and 6.332 MU respectively. All Distribution Utilities were advised to predict their day ahead drawal accurately to avoid overdraw.

[Action: SLDC / All Discoms]

D.2: Prolonged outage of transmission elements and tentative revival dates

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

| Sl.No | Name of transmission element | Reason of outage | Probable date of revival |
|-------|---|--------------------------------------|--------------------------|
| 1 | 400kV Meramundali-Mendhasal ckt. | Tower Collapse at Loc-180, 181 & 182 | January' 2017 |
| 2 | 400/220kV, 315 MVA ICT-I at Meramundali | Burnt | February'2017 |

[Action: CGM (O&M)]

D.3: 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 | Outdoor commissioning work completed. RTU was locally tested. After replacement of the faulty CVT, data will be integrated. |
| 2 | M/s MSP Mettalicks | PLCC / 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 | M/s 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 | PLCC established and inspection by Telecom Engineers completed. Database has already been prepared by OPTCL. |
| 5 | BPSL | No kV |
| 6 | CONCAST | No kV/Hz. |
| 7 | BSL | No Hz & status data. |
| 8 | JSL | No Bus kV / Hz (for Bus-2) |
| 9 | TSIL | No data |
| 10 | VISA | CB & Status data are not available |
| 11 | Paradeep | Data not available at ERLDC |
| 12 | Bolangir (New) | Data not available at ERLDC |

It was also 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 102nd meeting it was deliberated that CGM (Const) has made a circular to intimate all shutdowns to Telecom wing. CGM (RT&C) has intimated OERC regarding non compliance of data communication facility to SLDC by CGPs. CGM (RT&C) stated that they have already intimated the list of CGPs / Bulk consumers not complying with the provisions of data communication with SLDC.

In the 103rd meeting, SLDC suggested that RT&C wing may approach again to OERC if required through an affidavit.

Deliberations in the meeting

CGM (Telecom) stated that Paradeep-Duburi communication got interrupted due to disconnection of OPGW. One day shutdown of the above line is required for restringing of OPGW. GCC agreed to approach OERC through affidavit.

[CGM (Telecom) / GCC / RT&C]

D.4: Web based drawal / generation scheduling.

SLDC 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 has been forwarded to IT wing.

IT wing presented a demo before SLDC on 19th December 2016. It is decided to make a presentation before all the CGPs on 28.12.2016 at SLDC Conference hall.

Deliberations in the meeting

SLDC requested all CGPs to attend the presentation at SLDC on 28th December'2017. However, the date will be confirmed by SLDC and mailed to all CGPs.

[Action: SLDC / All CGPs / IT]

D.5: 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.

In the 100th PSOC meeting CGM (IT) stated that by end of August'2016 testing of all meters of CESU control area will be completed for billing purpose. SLDC may check August data from both the meters.

In the 103rd PSOC meeting, DGM (IT) stated that data for 75 nos. of grid sub-stations shall be completed by the first week of December 2016. The feedback of SLDC shall be discussed in a joint meeting.

Deliberations in the meeting

DGM (IT) stated that data from 90 No.s of S/Ss will be provided by January'2017. Gridco stated that the events such as PT failure, CT polarity reversal, meter power failure, MD reset, time synchronization etc. are not being incorporated the AMR. It was decided that IT, SLDC and GRIDCO may have a separate meeting to resolve the issue.

[Action SLDC / GRIDCO / IT]

D.6: 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 102nd PSOC meeting, CGM (IT) stated that OPTCL BoD have approved for closure of contract with Infosys. SLDC may submit their new requirement if any, along with the left out works.

In the 103rd PSOC meeting, IT stated that data tender document has been prepared. Some disputes with Infosys are yet to be resolved for which legal opinion has been sought for.

Deliberations in the meeting

CGM (IT) stated that a meeting has been scheduled on 23rd December'17 to discuss the issue. The decisions in the meeting will be communicated to CSC for necessary action.

[Action: CGM (IT)]

D.7: Intimation of planned outage of grid sub-stations to the CGP / Bulk consumers

As reported by the CGP / Bulk consumers that the planned shutdown of grid substations are not being intimated to them in advance resulting interruption of power import / export through open access. Necessary instructions need to be given to all the sub-stations accordingly.

Deliberations in the meeting

It was decided that the procedure to be adopted by O&M while requesting for availing shutdown.

[Action: CGM (O&M)]

D.8: Frequent interruption of SLDC webmail

It is noticed that the email submitted by the Users through SLDC webmail ID is not being received / opened by SLDC. Necessary action needs to be taken for ensuring of mail delivery.

Deliberations in the meeting

IT stated that SLDC webmail is not recognizing other ID and considering as spam. SLDC stated that since data communication is vital for real time operation as well as other activities of SLDC, the existing Yahoo and Rediffmail may be continued till complete functioning of webmail.

[Action: CGM (IT) / SLDC]

D.9: DISCOM Issues

CESU

- (i) The actual drawal for the month of November-16 was 582.671 MU where as the SCADA drawal data received from SLDC was 594.503 MU. There is a difference of 11.832 MU. SLDC may take necessary action for accurate display of drawal data through SCADA. For example actual drawal of CESU on 05.11.2016 at 07:30 Hrs was 855.87 MW and displayed data was 692.76 MW. Also on 20.11.2016 at 02:00 Hrs, the actual drawal data was 570.58 MW against displayed data 667.36 MW.
- (ii) Suspected data at Meramundali, Bidanasi, Paradeep ATs & Balugaon- Chatrapur line.
- (iii) Gridco may intimate the block wise energy received from different sources and sold to different entities for better understanding & transparency.
- (iv) Since open access scheduling is done at SLDC end, DISCOM's CESU open access scheduling & deviation bill calculation / realization may be done at SLDC end keeping open access component from Discom's / CESU overall scheduling & billing fold. Open access charges due from consumers to CESU may be done by SLDC accordingly.
- (v) Allocation of available power in case of shortfall as per the demand ratio of Discoms & not with the fixed ratio as is being practiced at the moment.

Deliberations in the meeting

SLDC stated that CESU may develop the demand estimation logic without depending fully on SCADA data. Both data may be compared to ascertain the error correction factor. The SCADA display data is for monitoring purpose only, which may not match exactly with the meter data. CESU may refer ERLDC site to know the sources and quantum of power block wise scheduled for the State. Open access transactions are being considered separately while scheduling the drawal of CESU. Allocation of power is being done as per the guideline of Hon'ble OERC. Rectification of suspected data is being done by Telecom.

[Action: CESU / Telecom]

NESCO

- (i) Total drawal of Auto and feeders from Sl. No. 01 to 26, displayed on RVDU is not matching with total drawl of NESCO Utility.
- (ii) Provision of storing of drawl data for NESCO Utility on real time basis.
- (iii) Sum of OA schedule given by SLDC on daily basis of a month is no match with final OA schedule given by SLDC of that particular month at the month end.
- (iv) RVDU got failed frequently for more than one day.

Deliberations in the meeting

The issue of data mismatch has already been deliberated above. NESCO representative may come to SLDC for a discussion regarding the other issues.

[Action: NESCO / SLDC]

PART E: OPERATIONAL PLANNING

E.1: Commissioning status of New Transmission elements.

The status of commissioning of new transmission elements deliberated in the meeting 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 June' 2017. |
| 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. Expected by March'2017. |
| 3 | Commissioning of 220 kV Bidanasi-Cuttack line | Idle Charged on 29.11.2016 |
| 4 | Commissioning of 220/132 kV Cuttack S/S | Work in progress and expected to be completed by January' 2017. |
| 5 | Commissioning of 132 kV Baripada (PG)-Jaleswar line | Work has already been started, which will be completed by March 2017. Stringing started. |
| 6 | Commissioning of 220/132 kV Kesinga S/S | Work under progress. Expected by December' 2017. |
| 7 | Construction of 132 kV Baripada (PG)- Baripada 2 nd ckt. | Action initiated. |

The list of Grid S/Ss charged during FY 2017-17 and scheduled to be charged between December'2017 to March'2017 have been reviewed.

Distribution Utilities have to provide their action plan take-off arrangement for these S/Ss.

In the 103rd PSOC meeting CGM (O&M) suggested to adopt required protection standards may be at New Duburi sub-station if not already done. Independent approach to Argul sub-station may also be explored.

AO, WESCO stated that they have estimated the cost involved in the take off arrangement & sent to Government for funding after due approval of District Committee. Take off arrangement for Lapanga shall be done only after ESCROW relaxation. Gisilate feeder shall be taken up from their own funding. Other Discoms may follow the similar procedure.

Deliberations in the meeting

AO, WESCO stated that funding arrangement has been done for Lapanga takeoff arrangement.

[Action: All Discoms/ CGM (Const)]

E.2: Energy Metering at Hydro stations.

Energy meters have already been installed at all hydro stations. Billing for all OHPC stations is being done from the newly installed energy meters.

On completion of the above energy accounting for hydro stations will be taken up by SLDC.

In the 101st PSOC meeting OHPC stated that TTPS feeder meter at Rengali PH is yet to be changed. Sr. G.M. Indravati PH stated that ICT-II meter at Indravati is not recording correctly.

O&M may take necessary action for rectification of the meters at those hydro stations, so that energy accounting for hydro stations will be taken up by SLDC.

In the 103rd PSOC meeting, Sr. G.M., UIHEP stated that PT problem at Indravati will be resolved by January 2017. OHPC also stated that TTPS feeder meter at Rengali PH has again showing error. OHPC may intimate OPTCL for rectification through the supplier.

Deliberations in the meeting

OHPC stated that Rengali PH -TTPS feeder meter is functioning. OHPC may explore for rectification of PT at Indravati PT so that the accounting and system loss calculation will be done by SLDC.

[Action: GRIDCO / OHPC/ SLDC]

E.3: Major Events in the month of November'16

220kV Bidanasi-Cuttack circuit idle charged on 29.11.2016.

[Members may note]

E.4: Important Grid Incidences during the month of November'16.

Important Grid incidents during the month were reviewed. O&M may analyze the incidents for deliberation in the OCC meeting of ERPC.

[Action: O&M]

E.5: Outage of major transmission Elements during the month of November'16. (above 10 hrs).

Outage of major transmission elements above 10 hours during the month was reviewed. Most of the outages are due to Insulator damage.

[Action: O&M]

E.6: High Voltage problem at BPPL 132kV bus (agenda by BPPL)

- 1) After interference of OPTCL O&M, it has been observed that maximum system voltage in Aarati-Chowdwar circuit(LILO at TS ALLOYS switching station) has been reduced by 2kv and remains 143kV when Grid Demand is less(during 22 hrs to 6 hrs). So it is again requested to look into it for further reduction in nominal voltage so that it does not hamper the required/scheduled evacuation during off peak hours.
- 2) It has been observed since, sometimes Voltage limit of Aarati-Chowdwar circuit at LILO 132 kV bus, suddenly raises from 135 to 141 KV during day hours too, it happens when inter - connected 132kV Choudwar -Bidanasi circuit is hand tripped/dis-connected, hence SLDC is requested to ensure the above linked circuit always to be in connected condition.
- 3) It is requested to both the connectivity GRID substation in charges to communicate BPPL's switchyard control room prior starting of any of operational/changeover activities at their end in order to alert BPPL for avoiding any kind of unnecessary unit tripping.
- 4) As per BPPL's request there was a meeting held on 11th November among OPTCL / SLDC / CESU for finalization of metering scheme under existing energy meters on parallel operation of both the connectivity, where all the doubts of all concerned were cleared, However, CESU had taken one week time for clearing the matter. Till date, matter is yet to be resolved from CESU's end. It is requested to interfere further, so that Parallel operation of both the units can be started in order to obtain more system stabilization.

Deliberations in the meeting

M/S BPPL was advised to coordinate with the Choudwar and Bidanasi Grid S/Ss through a meeting to resolve the issue. BPPL may make a presentation before CESU for metering logic.

[Action: BPPL / CESU / O&M]

E.7: Review of Outage Program of State Generators / Transmission elements for the month of Jan'17:

Tentative Outage programme for State Generators for the month of **January'2017** are as follows:

| Sl. | Station | Unit | Period | Remarks |
|-----|-----------------|------|----------------------|---|
| 1 | Burla | # 1 | 01.12.16 to 25.12.16 | Annual Maintenance |
| | | # 2 | 22.07.16 to 31.01.17 | Capital Maintenance |
| | | # 5 | 25.10.16 to continue | Under R,M & U |
| | | # 6 | 16.10.15 to continue | Under R, M & U |
| 2 | Chiplima | # 2 | 06.01.17 to 31.01.17 | Annual Maintenance |
| | | # 3 | 15.10.15 to continue | Under R,M & U |
| 3 | Balimela | # 1 | 05.08.16 to continue | Under R,M & U |
| | | # 8 | 07.11.16 to 28.02.17 | Excitation problem |
| 4 | Rengali | # 2 | 01.01.17 to 31.05.17 | Dismantling of TG runner disc with collar |
| 5 | Upper Kolab | # 2 | 14.12.16 to 13.01.17 | Annual Maintenance |
| 6 | Upper Indravati | # 1 | 19.12.16 to 16.01.17 | Annual Maintenance |

OHPC / SLDC may deliberate.

E.8: Generation Program for the month of January'17.

Generation schedule for the month of January'17 furnished by OHPC are given below.

| Name of Hydro Gen. Station | Generation Programme (MW) | | Reservoir Level as on 01.12.15 | Reservoir Level as on 01.12.16 | MDDL | High Flood Reservoir Level |
|----------------------------|------------------------------------|------------------------------------|--------------------------------|--------------------------------|----------|----------------------------|
| | Jan'17 (1 st fortnight) | Jan'17 (2 nd fortnight) | | | | |
| HPS-I, Burla | 30 | 30 | 625.29ft | 629.23 ft | 590 ft. | 630 ft. |
| HPS-II, Chipilima | 20 | 20 | - | - | - | - |
| Balimela | 150 | 150 | 1501.00 ft | 1506.70 ft | 1440 ft. | 1516 ft. |
| Rengali | 50 | 50 | 118.61 m | 122.90 m | 109.72m | 123.5 m. |
| U.Kolab | 80 | 80 | 855.96 m | 856.34 m | 844 m | 858 m. |
| U. Indravati | 200 | 200 | 634.91 m | 638.90 m | 625m | 642 m |
| MKD (O/D) | 40 | 40 | 2746.05 ft | 2744.80 ft | 2685 ft. | 2750 ft. |
| TOTAL | 570 | 570 | | | | |

Deliberations in the meeting

SLDC stated that the hydro schedule will be finalized after discussion with higher authority. Till such time the Hydro schedule will be as per the schedule of December'2016.

[Action: OHPC / SLDC]

E.9: Anticipated power generation and demand for the month of January'2017.

| Sl. No | Discom | Average | Peak |
|---------------------|---------------------------|-------------|-------------|
| 1 | CESU | 850 | 1150 |
| 2 | WESCO | 800 | 1050 |
| 3 | NESCO | 690 | 850 |
| 4 | SOUTHCO | 360 | 500 |
| 6 | Total | 2700 | 3550 |
| Availability | | | |
| 1 | Hydro | 570 | 1100 |
| 2 | State Thermal | 750 | 750 |
| 3 | IPP, small hydro &RE | 700 | 700 |
| 4 | ISGS share (including OA) | 800 | 900 |
| 5 | CGP support (OA) | 150 | 150 |
| 6 | Total availability | 2970 | 3600 |
| 7 | Surplus / Deficit | 270 | 50 |

[Action: SLDC / Discoms]

PART F: OTHER ISSUES

F.1: Date and Venue of the next (105th) PSOC meeting.

F.2: The meeting ended with Vote of thanks by GM (GO), SLDC.

Annexure

List of participants in the 104th PSOC meeting dated 20.12.2016

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