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CIN – U40102OR2004SGC007553

No-SGM (PS)-PL-15/2016 / 473⁽⁴⁵⁾

Dated: 04.02.2017

From:

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

To:

As per distribution list

Sub: Minutes of 105th PSOC meeting held on 21.01.2017 at PTC, Chandaka, Bhubaneswar

Sir,

Please find enclosed herewith the minutes of 105th Power System Operational Co-ordination meeting held on 21.01.2017 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 (Commercial), GRIDCO, Bhubaneswar
2. The Director (Operation), OHPC, Bhubaneswar
3. The CGM (O&M), OPTCL, Bhubaneswar.
4. The CGM (Const.), OPTCL Bhubaneswar.
5. The CGM (RT&C), OPTCL, Bhubaneswar.
6. The CGM (PP), GRIDCO, Bhubaneswar.
7. The CGM (Telecom), OPTCL, Bhubaneswar.
8. The CGM (IT), OPTCL, Bhubaneswar.
9. The Sr. G.M (Const)-I, OPTCL, Bhubaneswar.
10. The Sr. G.M (Const)-II, OPTCL, Sambalpur.
11. The Sr. G.M (CPC), OPTCL, Bhubaneswar.
12. The Sr. G.M (CP), OPTCL, Bhubaneswar.
13. The Sr. G.M. (O&M), Zone-I, Narendrapur.
14. The Sr. G.M.(O&M), Zone-II, Meramundali.
15. The CEO, CESU, Bhubaneswar.
16. The A.O., WESCO Utility, Burla
17. The A.O., NESCO Utility, Balasore
18. The A.O., SOUTHCO Utility, Berhampur.
19. The Member Secretary (GCC), OPTCL.
20. The ED, Power Grid Corporation of India, Bhubaneswar.
21. The Sr. G.M. (El.), BHEP, Balimela
22. The A.G.M. (El.), CHEP, Chiplima
23. The Sr. G.M. (El.), UIHEP, Mukhiguda
24. The Sr. G.M. (El.), RHEP, Rengali
25. The D.G.M. (El.), HHEP, Burla
26. The D.G.M. (El.), UKHEP, Bariniput, Koraput
27. The S.E. (O&M), Machhakund
28. The DGM (Elect.), IbTPS, OPGC, Banharpali.
29. The Vice President (O), IMFA, Choudwar.
30. The D.G.M. (O&M), NTPC (TTPS), Talcher.
31. The AGM (Elect.), JINDAL Stainless Ltd., Duburi
32. The G.M, HINDALCO, Hirakud.
33. The G.M.CPP, NALCO, Angul.
34. The Director, M/s. Jindal Steel & Power Ltd., Angul
35. The AVP-Vedanta Ltd (IPP), Jharsuguda
36. The G.M, Vedanta Ltd (CGP), Jharsuguda.
37. The DGM (Power Distribution), RSP, Rourkela.
38. Joint President, Aditya Aluminium Ltd., Lapanga, Sambalpur
39. The G.M.(Elect.), Bhusan Steel Limited. Meramundali
40. The G.M. (Elect.), Bhusan Power & Steel Ltd, Budhipadar.
41. The G.M.(Elect.), IFFCO Limited.
42. Director & COO, GMR Kamalanga Energy Limited, Satyanagar, Bhubaneswar.
43. The CEO, Bhubaneswar Power Pvt. Ltd, IRC Village, Nayapalli, Bhubaneswar

Odisha Power Transmission Corporation Ltd. Bhubaneswar.

Minutes of 105th PSOC meeting held on 21.01.2017 at PTC, Chandaka, Bhubaneswar

List of participants is at Annexure.

CGM, SLDC, OPTCL welcomed all the participants to the 105th Power System Operational Coordination meeting and highlighted the system performance during the month of December'2016 and overall power scenario of the State. He also emphasized on the power drawal, 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 104rd PSOC meeting held on 20.12.2016

The minutes of meeting was circulated vide letter No. SGM (PS)-PI-15/2015/4600⁽⁴³⁾ dated 28.12.2016 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 December'2016.

(A) Frequency

It was noticed that, during the month of December'16, **70.61** % of times the frequency remained in the IEGC band i.e. 49.90Hz - 50.05Hz in comparison to **71.91** % during the month of November'16. The maximum and minimum System frequency during the month was **50.15 Hz** & **49.77 Hz** respectively.

(B) Grid demand

Grid demand for the month of December'16 was reviewed. The average consumption during the month was **2695 MW**. The maximum System demand of **3831 MW** occurred on **20.12.16** at 19:00 Hrs and minimum demand of **1967 MW** occurred on **20.12.16** at 15:00 Hrs.

Deliberation in the meeting

It is observed that the average demand during the month of December' 16 has been decreased by 55 MW while the peak demand was decreased by 35MW from that of November'16. The average energy consumption during the month has been decreased by 28 MW in comparison to December'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 **244.10** kV occurred at Jaynagar 220 kV bus while Narendrapur, 220 kV bus has experienced the minimum Voltage of **180.65** 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:

O&M stated that action has been taken to rectify the CVT at Narendrapur. CGM (O&M) suggested to raise the issue of high Voltage at Jayanagar in the ERPC forum. However, Narendrapur Voltage shall be improved after charging of Atri S/S. CGM (O&M) suggested that SLDC may place the voltage profile of Narendrapur and Jayanagar for all the days in the next meeting.

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

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

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

Deliberation in the meeting:

O&M stated that procurement of energy meters has already been approved in the BoD meeting. Purchase order for Energy Audit meters will be placed soon.

[Action: CGM (O&M)]

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

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

Deliberation in the meeting:

It was noticed that CESU had overdrawn 5.902 MU while WESCO had under drawn 12.763 MU. Drawal of NESCO and SOUTHCO are as per the scheduled energy.

[Action: All Distribution Utilities / SLDC]

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

Energy generation and exchange during the month of December'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 **2004.78 MU**.

Deliberations in the meeting

It was suggested by members to indicate the RE generation also.

[Action: SLDC]

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

The drawal of Machhakund power during the month of December'16 was **32.236 MU** against AP drawal of **33.356 MU**.

In the 104th PSOC meeting it was deliberated that the RVDU is expected to be commissioned by 15th January'17. It was decided that Jayanagar may isolate feeders with intimation to SLDC prior to the occurrence of peak period.

Deliberations in the meeting:

CGM (Telecom) stated that RVDU is expected to be commissioned by February'17. CGM (O&M) stated that the traction bay at Machhakund switchyard and associated line shall required for evacuation of power from the proposed 20 MW small hydro station, which is likely to come up in near future. As such the bay is required to be equipped properly.

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

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

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

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

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

PART C – Issues discussed in the 129th OCC meeting of ERPC on 17.01.2017

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.	1. Letter of Award detail submitted to PSDF till date: ₹18.70Cr. 2. Letter of Award detail under process for submission to PSDF till date: ₹49.03Cr. 3. Amount received from PSDF: i. ₹4.92Cr. against LOA submitted under item 1 (i.e,- ₹18.70Cr.) ii. 10% of sanctioned amount. ₹14.67Cr.

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.

In the 129th OCC meeting, ERPC advised to furnish the information in the prescribed format (Annexure-B.3 of OCC agenda) by first week of every month on regular basis to Member Convener, PSDF Project Monitoring Group (AGM, NLDC, POSOCO) with a copy to NPC Division.

In the 104th PSOC meeting SLDC stated that DPR in respect of ADMS implementation will be done after finalization of tender documents.

Deliberations in the meeting

GM (O&M) stated that O&M will submit an updated report to ERPC. It was decided that SLDC shall prepare the DPR in respect of ADMS implementation and placed before the BoD for approval. After approval the same will be proposed for PSDF funding.

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

C.2: Consideration of STU lines as Non-ISTS lines carrying ISTS power

In line with 34th TCC decision, ERPC and ERLDC conducted the load flow study using WebNet software for first three quarters of validated data. Summary of the results for percentage utilization of the transmission line by STU to meet the own demand is given at **Annexure-B.5**.

Balance (100 - utilization of the transmission line by the STU) is the ISTS power flowing through the line.

128th OCC decided that ISTS power flowing through STU lines greater than 50% of the total power as per the WebNet software of the validated data for each quarter will be considered as ISTS line.

Members provisionally agreed to the above decision. OCC advised Member Secretary to have interaction with other RPCs to get acquainted with their decisions in this regard.

OCC advised all the state constituents to submit their comments if any, to ERPC and ERLDC. It was also pointed out that for final decision on the same needs to be taken by CERC and for this constituents are to file petition before CERC.

Deliberations in the meeting

It was decided that a separate meeting will be convened by CGM (RT&C) to ascertain the status of natural ISTS.

[Action: CGM (RT&C) / CGM (O&M)]

C.3: High Voltage problem in 400 kV Meramundali grid S/S: Regarding

GRIDCO vide letter dated 07.01.17 intimated that presently Odisha is going through very high Voltages at 400kV bus of Meramundali, Duburi and Mendhashal grid S/S. The situation is further worsened due to high reactive power flow from Meramundali to Angul pooling sub-station, from Duburi to Meramundali sub-station and from Kuchei to Duburi sub-station. It may be noted that, PGCIL has installed two nos. of 330 MVar Bus reactors at Angul 765kV substation and two nos. of 125 MVAR Bus reactors at Angul 400kV substation, thus resulting high reactive power flow from Meramundali to Angul & Duburi to Meramundali grid S/S. In view of the above OPTCL suggests the following as short term and long term measures to mitigate the high Voltage issue as well as to improve the high reactive power flow situation.

Short term measure

OPTCL will install 80 MVar reactor at Meramundali 400kV S/S.

The Angul-Meramundali Double circuit ties to be opened at both ends.

Long term measure

The Meramundali-Angul Double circuit will be terminated at Meramundali (B).

A letter regarding the above change has already been forwarded to CEA and will be placed in the next Standing Committee meeting of CEA. Meremundali (B) will be a new 400kV substation of OPTCL, approved by CEA and the work order to be issued shortly.

In view of the above and as the high voltage situation is menacing, it is requested to grant permission for the short term measures, mentioned above, to get relief from the high voltage issue and high reactive power flow. The system in the above condition will remain *stable*.

In the 129th OCC meeting of ERPC, Member Secretary assured to take up the matter with Powergrid for taking suitable measures.

Deliberations in the meeting

CGM (PP) stated that ERPC has convened a meeting on 25th January 2017 to discuss the issue. Isolation of Meramundali-Angul (PG) ckts will be examined after discussion in the meeting. O&M may examine installation of additional reactor at Meramundali Grid.

[CGM (O&M) / CGM (PP)]

C.4: Restoration of PLCC system of important lines

In 119th OCC, JUSNL informed that the following:

- a) In 220 KV Chandil –Santaldih line auto-reclosure has been enabled and termination done in PLCC panels at Chandil end but due to non-availability of PLCC panels at Santaldih (WBPDCCL) end the A/R and PLCC scheme could not be activated.
- b) 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 WBPDCCL (for Santaldih end) and OPTCL (for Joda end) to complete the PLCC schemes of both the above lines.

In 34th TCC, WBPDCCL informed that PLCC panels will be delivered by November, 2016 and installation of the panels will be completed by December, 2016.

OPTCL informed that purchase order has been placed to BPL and supply is expected by December, 2016.

In 128th OCC, WBPDCCL informed that PLCC system will be installed by end of December, 2016. OPTCL informed that PLCC panels will be installed by 2nd week of January 2017.

In the 129th OCC meeting of ERPC it was deliberated that the commissioning work shall be completed within 10 days.

Deliberations in the meeting

CGM (Telecom) stated that the PLCC will be commissioned by 1st week of February'17.

[Action: CGM (Telecom)]

C.5: Status of construction of 400 kV Sterlite-Jharsuguda D/C sections

In the 102nd 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.

In the 104th PSOC 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.

Deliberations in the meeting

M/s Vedanta Ltd has assured to establish communication with SLDC by 31st March'17

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

C.6: 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 129th OCC of ERPC, SLDC deliberated the completion schedule of inter-connecting system as follows:
In 129th 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. Expected by March-17
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)	March'2017

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

C.7: 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.

In the 104th PSOC 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.

Deliberations in the meeting

IT stated that the award of work directly to STQC is under examination. The L2 bidder has also been invited for negotiation.

[Action: CGM (IT)]

C.8: 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 104th PSOC meeting O&M stated that discussion with the participants is in progress.

Deliberations in the meeting

O&M stated that price bid will open on 3rd February'2017.

[Action: O&M]

C.9: 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.

Concerned State Utilities /Generating companies are requested to submit data of their respective control areas.

Deliberations in the meeting

GRIDCO stated that the required data is being submitted to ERPC.

[Action: GRIDCO]

C.10: 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.

SLDC, Odisha submitted the ATC/TTC figures for January, 2017.

OCC advised DVC, JUSNL and Odisha to upload ATC/TTC figures along with the constraint details in their website.

Deliberations in the meeting

SLDC stated that the ATC /TTC in respect of State network has been uploaded in SLDC site.

[Action: SLDC]

C.11. 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 400kV Indravati-Jeypore at Indravati and any outage of the lines would result in decoupling of the Buses.

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

In 126th OCC, OPTCL informed that a CB is being shifted from Mendhasal for replacement of the subjected CB. The installation work will be completed by November, 2016.

In 128th OCC, OPTCL informed that the CB is yet to be transported to the site from Mendhasal.

In the 104th PSOC meeting it was deliberated that Transportation tender has been finalized. Work order will be placed soon.

In the 129th OCC meeting of ERPC it was deliberated that the commissioning of breaker shall be completed by 15th February, 2017.

Deliberations in the meeting

CGM (O&M) stated that the work has already been started.

[Action: CGM (O&M)]

C.12: 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 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. SLDC may confirm whether separate RTUs are required or not in view of S/S automation scheme taken up by OPTCL.

In the 104th PSOC 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.

Deliberations in the meeting

SLDC stated that the DPR will be prepared for approval of BoD for PSDF funding.

[Action: SLDC]

C.13: Mock Black start exercises in Eastern Region

Schedule of Mock black start exercise for State Hydro Stations are as tabled.

Sl.	Name of HEP	Completed on	Scheduled
1	U.Kolab	16th July 2016	January 2017
2	Rengali	November 2016	January 2017
3	Upper Indravati	16th July 2016	February 2017
4	Burla	28.07. 2016	February 2017

Deliberations in the meeting

OHPC and SLDC have agreed to conduct Black start exercise as per the schedule.

[Action: SLDC/ OHPC]

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 **December’16** was reviewed.

Deliberations in the meeting.

It was noticed that CESU had overdrawn 5.902 MU while WESCO had under drawn 12.763 MU. Drawl of NESCO and SOUTHCO was as per the scheduled quantum. 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 last 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
3	220 kV Meramundali-Bhanjanagar ckt-I	Conductor replacement	February-2017
4	220 /132 kV, 100 MVA, Auto-3 at Chandaka.	Breaker replacement	

5	220/132 kV, 100 MVA, Auto- 2 at Duburi	Oil leakage since 24 th October'2016	
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[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 PSOC meeting 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.

In the 104th PSOC 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.

Deliberations in the meeting

GCC stated that OERC have asked to submit the status of data communication through SCADA by the Users by 28th February'17. A separate meeting to discuss the issue will be convened for discussion

[Action: 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.

SLDC organized a demo on 27th December'2016 for all the CGPs. As reported by the CGPs, they are facing some problems while using the application. The feedback of CGPs has been forwarded to IT wing for necessary action.

Deliberations in the meeting

CGM (IT) stated that they have resolved the issues which are minor. Scheduling through the software may be done from 1st April'17. SLDC stated that the Discom and generation scheduling may also be included by March'17.

[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 104th PSOC meeting, DGM (IT) stated that, data from 90 Nos 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.

Deliberations in the meeting

DGM (IT) stated that, data from 100 Nos of S/Ss will be provided by February'17. The issues raised by Gridco will be addressed except Time synchronization and MD reset.

[Action: CGM (IT) / SLDC / GRIDCO]

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.

In the 104th PSOC 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.

Deliberations in the meeting

CGM (IT) stated that the work will be awarded to TCS. SLDC has to spare one officer to involve with them.

[Action: SLDC / IT]

D.7: DISCOM Issues

CESU

- (i) There is a wide variation between actual drawal data and SCADA drawal data. For example actual drawal of CESU on 20.12.2016 at 18:45 Hrs was 1079.97 MW and SCADA displayed data was 935.21 MW. Also on 07.12.2016 at 02:45 Hrs, the actual drawal data was 591.11 MW against displayed data 691.22 MW.
- (ii) Request to take action to show 15 minutes block wise correct SCADA data for better day ahead load forecast.

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.

WESCO raised the issue for integration of Lapanga S/S in the SCADA. CGM (Telecom) may take necessary action for the same.

[Action: CESU/ CGM (Telecom)]

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 2016-17 and scheduled to be charged during December'2016 to March'2017 is as tabled.

132 kV Grid S/S charged during FY 2016-17 (till 01.11.16)				
Sl.No	Name of S/S	Date of charging	No. of bays	Name
1	Puri (Samangara)	30.05.2016	5	Sriramnagar
				Sriramnagar
				Gabakunda
				Vacant
				Vacant
2	Bangiriposi	03.10.2016	4	Bangiriposi under progress
				Vacant
				Vacant
				Vacant
132 kV Grid S/S expected to be charged during November'16 to March'17				
1	Infocity-II	23.12.2016	5	
2	Khajuriakata	March'17	5	33/11 kV S/S under Dindayal Scheme.
3	Chandaka-B	March'17	5	33/11 kV Chandaka S/S under ODSSP.

4	Malkangiri	March'17	5	Govindapali & Padia S/S construction in progress under ODSSP
5	Olaver	March'17	5	
6	Patangi	February'17	5	
7	Podagada	March'17	5	
8	Bonei	March'17	5	
9	Kasipur	March'17	5	
10	Bhogorai	March'17	5	
11	R.Udayagiri	March'17	5	
12	Tusara	March'17	5	

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 had suggested the Discoms to estimated the cost involved in the take off arrangement & sent to Government for funding after due approval of District Committee.

In the 104th PSOC meeting, AO, WESCO stated that funding arrangement has been done for Lapanga takeoff arrangement.

Deliberations in the meeting

SOUTHCO stated that they have taken similar step for Govt. funding. Other Discoms were requested to take necessary action.

Action: ALL DISCOMS// CGM (O&M) / 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.

In the 104th PSOC meeting it was suggested that OHPC shall explore rectification of PT at Indravati ICT, so that the energy accounting and computation of system loss for the state network will be done by SLDC.

Deliberations in the meeting

Sr. G.M (Indravati) stated that Alstom Engineer will visit the site by 28th January. By the end of February the CVT is expected to be rectified.

[Action: OHPC]

E.3: Operating procedure for Grid Sub-Stations

It may be examined to prepare operating procedure for each Grid S/S of OPTCL for a ready reference for the users. The procedure has to contain single line diagram, details of feeders of all Voltage level, feeding area of Discom, details of transmission elements, protection scheme and

load profile etc updated from time to time. CGM (O&M) may issue instruction to all the Grid S/Ss accordingly.

Deliberations in the meeting

Members have appreciated the proposal. CGM (O&M) also agreed to take necessary action in this regard.

[Action: O&M]

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

On 23.12.2016, 220 / 33 kV 1st GIS at Info-City-II charged.

On 29.12.2016, 132/33 kV, 20 MVA 3rd Transformer at Sundargarh Grid S/S charged.

[Members may note]

E.5: Important Grid Incidences during the month of December'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.6: Outage of major transmission Elements during the month of DEcember'16. (above 10 hrs).

Outage of major transmission elements above 10 hours during the month was reviewed. The outages are due to LA, PT bursting and Breaker failure.

[Action: O&M]

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

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

Sl.	Station	Unit	Period	Remarks
1	Burla	# 2	22.07.16 to 15.02.17	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 19.01.17	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	# 1	09.01.17 to 08.02.17	Annual Maintenance
5	Upper Kolab	# 2	14.12.16 to 13.01.17	Annual Maintenance
		# 3	20.01.17 to 20.02.17	Annual Maintenance
6	Upper Indravati	# 1	19.12.16 to 19.01.17	Annual Maintenance
		# 2	02.02.17 to 28.02.17	Annual Maintenance

[Action: OHPC / SLDC]

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

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

Name of Hydro Gen. Station	Generation Programme (MW)		Reservoir Level as on 01.01.16	Reservoir Level as on 01.01.17	MDDL	High Flood Reservoir Level
	Feb'17 (1 st fortnight)	Feb'17 (2 nd fortnight)				
HPS-I, Burla	40	40	626.31ft	628.17 ft	590 ft.	630 ft.
HPS-II, Chipilima	30	30	-	-	-	-
Balimela	250	250	1509.30 ft	1503.90 ft	1440 ft.	1516 ft.
Rengali	30	30	121.08 mt	122.52 mt	109.72m	123.5 mtr.
U.Kolab	120	120	856.49 mt	856.39 mt	844 mtr	858 mtr.
U. Indravati	200	200	640.02 mt	639.00 mt	625mtr	642 mtr

MKD (O/D)	40	40	2744.40 ft	2740.50 ft	2685 ft.	2750 ft.
TOTAL	710	710				

Deliberations in the meeting.

SLDC stated that the hydro schedule will be finalized after discussion with higher authority.

[Action: OHPC / SLDC]

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

Sl. No	Discom	Average	Peak
1	CESU	900	1150
2	WESCO	850	1100
3	NESCO	700	900
4	SOUTHCO	400	520
6	Total Discom	2850	3670
	System Loss	110	140
		2960	3810
Availability			
1	Hydro	670	1350
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	3070	3850
7	Surplus / Deficit	110	40

[Action: SLDC / Discoms]

PART F: OTHER ISSUES

F.1: Date and Venue of the next (106th) PSOC meeting.

Deliberations in the meeting

The date and venue of 106th meeting will be intimated to all members.

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

List of participants in the 105th PSOC meeting dated 21.01.2017

105th Power System Operational Co-ordination Committee Meeting

[At 11:00 A.M. on 21.01.2017]

[At PTC, Chandaka, Bhubaneswar]

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