

Odisha Power Transmission Corporation Ltd.  
Bhubaneswar.



*Agenda*  
*for*  
97<sup>th</sup> Power System Operational Coordination Meeting

Date: 17.05.2016  
Venue: PTC, Chandaka.

**Agenda for 97<sup>th</sup> PSOC Meeting to be held on 17.05.2016 at PTC, Chandaka**

**Item no. 1: Confirmation of the minutes of the 96<sup>th</sup> PSOC Meeting held on 25.04.2016**

The minutes of meeting was circulated vide letter No. SGM (PS)-PI-15/2015/1319<sup>(43)</sup> dated 07.05.2016 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 April'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: Realization of Revenue loss by OPTCL due to shutdown of EHV lines for diversion work for the railway line & other beneficiaries.
- C.8: Status of emergency Restoration System (ERS) towers for ER Constituents
- C.9: Mock Black start exercise

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

- D.2: Revival of Station transformer for station auxiliary supply at Balimela HEP
- D.3: Reporting of Major Incidents to SLDC.
- D.4: Shutdown of Transmission elements
- D.5: Prolonged outage of transmission elements and tentative revival dates
- D.6: Maintenance of 400 kV Indravati (OHPC)- Indravati (PG) S/C line.
- D.7: Communication issues
- D.8: Web based drawal / generation scheduling.
- D.9: Implementation of Automatic Meter Reading for OPTCL-Discom interface points.
- D.10: Software for Deviation charge billing.
- D.11: DISCOM Issues

E.1: Commissioning status of New Transmission elements.

- E.2: Energy Metering at Hydro Stations.
- E.3: TTPS feeder metering Issue.
- E.4: Major Events in the month of April'16
- E.5: Important Grid Incidences during the month of April'16.
- E.6: Outage of major transmission Elements during the month of April'16. (above 10 hrs).
- E.7: Review of Outage Program of State Generators for the month of June'2016.
- E.8: Generation Program for the month of June'16.
- E.9: Anticipated power generation and demand for the month of June'2016.

F.1: Date and Venue of the next (98<sup>th</sup>) PSOC meeting

## PART B: GRID PERFORMANCE

### Review of Grid Performance for the month of April'16.

#### (A) Frequency:

##### Hourly frequency variation for the month of April'16.

Month	% of time frequency remained				
	<49.00	49.00-49.70	49.70-49.90	<b>49.90-50.05</b>	>50.05
<b>Feb'16</b>	0.00	0.02	11.92	75.09	12.97
<b>Mar'16</b>	0.00	0.02	12.27	73.46	14.25
<b>Apr'16</b>	0.00	0.19	19.59	71.66	8.56

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

Month	Freq (Hz)	Date	Time
<b>March'16</b>	Maximum – 50.17	23.03.16	18:00 Hrs
	Minimum – 49.75	18.03.16	14:30 Hrs
<b>April'16</b>	Maximum – 50.16	21.04.16	13:00 Hrs
	Minimum – 49.73	06.04.16	22:15 Hrs

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

Month	Demand		Maximum Consumption		Maximum Demand			Minimum Demand		
	MU	<b>Avg. (MW)</b>	MU	Date	MW	Date	Time	MW	Date	Time
Mar'16	2403	3230	81.85	23.02.16	4175	12.03.16	21:00	2427	28.03.16	07:00
<b>Apr'16</b>	<b>2328</b>	<b>3233</b>	<b>83.46</b>	<b>26.04.16</b>	<b>4097</b>	<b>27.04.16</b>	<b>21:00</b>	<b>2315</b>	<b>15.04.16</b>	<b>10:00</b>
Apr'15	2158	2997	78.46	20.04.15	3851	10.04.15	21:00	1736	28.04.15	20:00

Members may please discuss.

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

Sl. No	S/s Name	Maximum			Minimum		
		kV	Day	Time	kV	Day	Time
1	Jayanagar	<b>242.88</b>	24	01:30	219.44	17	16:30
2	Theruvalli	235.49	9	19:00	198.60	14	18:45
3	Bhanjanagar	240.40	13	12:45	202.18	14	18:45
4	Chandaka	230.24	29	14:45	200.68	26	14:00
5	Narendrapur	234.28	9	19:00	<b>166.39</b>	7	18:30
6	Joda	237.37	3	8:30	212.36	15	12:30
7	Tarkera	233.18	30	10:00	211.07	19	9:30
8	Bhadrak	231.51	1	17:00	212.98	15	22:30
9	Paradeep	227.30	5	06:45	200.22	12	13:00
10	Budhipadar	233.13	30	19:30	218.58	21	21:00
11	Duburi(O)	232.26	18	17:15	216.38	9	20:30
12	Duburi (N)	224.99	5	06:30	211.30	8	19:15
13	Balasore	231.68	19	07:00	213.56	11	20:30
14	Meramundali	226.37	1	13:15	218.46	15	19:30
15	Bidanasi	233.59	29	13:30	206.40	14	13:45
16	Katapalli	230.99	30	20:00	203.34	21	21:15
17	Nayagarh	237.92	12	14:00	199.06	26	14:00
18	Mendhasal	232.09	29	14:45	202.99	1	17:00
19	Bolangir	233.99	6	10:15	179.38	14	20:15
20	Barkote	233.53	30	09:45	224.87	3	19:30
21	Laxmipur	240.75	23	04:30	210.50	1	17:15

The maximum Voltage of **242.88** kV occurred at Jaynagar 220 kV bus while Narendrapur, 220 kV bus has experienced the minimum Voltage of **166.39** 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 Apr-16

**AUTO TRANSFORMER LOADING FOR THE MONTH OF****APRIL'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	77.36	15	18:15	7.28	15	12:30	
	1x160	77.4	15	19:15	2.12	15	12:15	
THERUVALLI 220/132 KV. {Theruvalli, IMFAL(I), JK(I), Junagarh, Kesinga,Powmex(I), Rayagada, }	1x100	82.6	12	19:45	4.2	27	0:45	Rayagada & Paralakhemundi can be fed from Machhkund system.
	1x100	78.04	12	19:15	4.12	15	12:30	
NARENDRAPUR 220/132KV { Narendrapur, NarendrapurTr, Berhampur, Chhatrapur, Ganjam, Balugaon, Digapahandi, Mohana.}	1x160	115.60	1	20:45	5.64	2	19:00	
	1x160	115.76	9	19:00	4.52	9	19:15	
	1x100	NOT AVAILABLE						
BHANJANAGAR 220/132 KV { Bhanjanagar, Aska, Phulbani, Ganjam, Chatrapur}	1x160	92.48	23	8:00	9.28	1	17:15	
	1x160	80.64	23	8:00	7.36	1	17:15	
CHANDAKA 220/132 KV { Chandaka, Bhubaneswar, Nimapada, Ransinghpur, Puri,Kesura, Kaipadar Tr. }	1x100	74.16	9	22:00	4.20	29	14:30	
	1x160	130.92	9	22:15	7.92	29	14:15	
	1x100	81.08	9	22:15	5.24	26	14:45	
	1x160	125.48	9	22:15	7.28	29	14:30	
BIDANASI 220/132 KV {Bidanasi, Khurda }	1x160	NOT AVAILABLE						
	1x100	53.16	16	11:30	6.40	22	12:15	
	1x100	53.20	16	11:30	7.44	22	12:15	
TTPS 220/132 KV { Chainpal, FCI (I), Angul, MCL Nandira(I), Rairakhole,Boinda,Kamakhyanager, Kalarangi,Nuapatna, Choudwar }	1x160							
	1x160							
MERAMUNDALI 220/132 KV {Meramundali Traction, Dhenkanal, Navchrome(I), Hind Metal, Aarti,BRG}	3x100	38.80	11	20:30	4.28	5	7:15	
		38.04	11	20:30	4.92	5	7:15	
		36.96	11	21:15	3.68	5	8:00	
DUBURI 220/132 KV {Duburi, Bannipal(I), BRPL, MESCO, Jajpur Road, Kalarangi, Jajpur Town}	3x100	57.12	20	20:00	8.6	18	16:00	Auto-II under shutdown.
		59.04	23	12:00	9.08	30	22:00	
		59.64	23	11:45	8.56	27	11:30	
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	118.64	28	20:00	11.04	29	15:30	
		141.6	30	13:30	10.04	19	8:00	
BUDHIPADAR 220/132 KV { Jharsuguda, Jharsuguda Tr, Cemco(I), MCL, Sundergarh,Brajrajnagar, Rajgangpur}	2x160	112.52	20	20:15	53.00	27	6:15	
		129.24	27	15:45	12.28	30	19:15	
TARKERA 220/132 KV { Rourkela, Rourkela Tr.,RSP(I), Chhend , Adhunik Metal, Rajgangpur, OCL(I), Rajgangpur Tr.}	4x100	73.08	1	21:15	3.04	30	20:00	
		74.68	25	19:30	2.60	30	19:45	
		73.44	25	19:30	2.20	19	9:30	
		72.40	1	21:00	2.64	30	19:45	
KATAPALI 220/132 KV {Chipilima,Bargarh, ACC,Sonepur & Katapali area load.}	1x100	37.72	6	11:00	2.24	9	0:15	Supported by Burla & Chipilima power.
	1x100	37.12	6	11:00	2.40	9	0:00	
	1x160	NOT AVAILABLE						
BHADRAK 220/132 KV {Bhadrak area load, Bhadrak(T),Soro, FACOR (I), Dhamra Port}	3x100	51.04	27	12:45	3.44	1	15:30	
		48.00	27	13:30	3.64	1	15:30	
	NOT AVAILABLE							
PARDEEP 220/132 KV { Paradeep, Kendrapada, Pattamundai, Chandikhola, Cuttack, Jagatsinghpur, Phulakhara}	1x160	115.88	8	20:45	13.76	6	7:00	
	1x100	81.16	17	11:45	16.36	5	7:00	
	1x50	NOT AVAILABLE						
BOLANGIR (SADAIPALLI) 220/132 KV { Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli }	2x160	56.60	4.00	19:30	3.00	20	14:45	
		56.36	4.00	19:30	4.80	28	1:00	
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 April'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
WESCO	April'16	579.452	617.311	657.707	18.777	688.930	21.619
NESCO	April'16	447.945	472.674	544.157	70.768	473.181	0.718
SOUTHCO	April'16	285.205	285.017	284.863	0.007	284.856	-0.161

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 April'16**

Source of Power	Energy (MU)
Thermal (TTPS+IB)	530.52
OHPC Stations including Machhkund share	339.69
IPP & CGP Support	662.78
ISGS drawal	794.69
<b>TOTAL</b>	<b>2327.68</b>

**(G) Drawal of Machhakund Power**

The drawal of Machhakund power up to the month of April'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
<b>TOTAL</b>	<b>42.784</b>	<b>59.42</b>	<b>19.714</b>	<b>27.38</b>	<b>21.032</b>	<b>29.21</b>

**In the 96<sup>th</sup> 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.

DGM, (OHPC), Upper Kolab stated that, procurement action have already been taken by Machhakund authority to make the bay functional.

Southco stated that inspection of 33 kV Akhusing –Gumuda feeder is likely to be charged within 10 days.

CGM (Telecom) stated that the offer of M/s Chemtrol has been forwarded to SLDC for views. An amount of Rs.11 lacs shall be the license fee for the RVDU.

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

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

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

**Members may note.**

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

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

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

### PART C – Issues to be raised in 121<sup>th</sup> OCC meeting of ERPC scheduled on 23.05.16

#### 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 119<sup>th</sup> 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 95<sup>th</sup> PSOC, SLDC has invited offer for providing consultancy service to prepare the tender documents for implementation of ADMS in OPTCL system.

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

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

#### **Agenda placed in 7<sup>th</sup> 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 last PSOC meeting, CLD, SLDC stated that SLDC has already invited offer for providing consultancy service to prepare the tender documents for implementation of ADMS in OPTCL system.

Offer for consultancy has already been received from two firms which are yet to be evaluated. Prior to take a decision, it must be ascertained regarding incorporation of automatic load shedding & restoration feature, named "Load Shed Support (LSS)" in distribution system. CGM (Telecom) may take necessary initiative with Powergrid in this regard.

**C.G.M. (Telecom.) may deliberate**

**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 last meeting as detailed.

Sl. No.	Name of the transmission line	Completion schedule
<b>1.</b>	<b>2 X 315MVA 400/220kV Bolangir S/s</b>	
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
<b>2.</b>	<b>400/220 kV Keonjhar S/S.</b>	
a.	Keonjhar (PG)-Keonjhar (OPTCL) 220 kV D/C line	Work order expected to be issued by Feb-16
b.	Keonjhar (PG)-Turumunga (OPTCL) 220 kV D/C Line.	Yet to be awarded
<b>3.</b>	<b>400/220 kV Pandiabil Grid S/s</b>	
a.	Pratapsasan(OPTCL)-Pandiabil (PG) 220 kV D/C line	It will take 1 year for completion.
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

**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)

Subsequently, JUSNL vide letter dated 13.04.2016 has asked for consent of OPTCL and WBPDC for cost estimate details for further needful action.

**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 last meeting, CGM (IT) stated that the draft report has been prepared, which has to be finalized by the consultant. After finalizing the report, a workshop shall be organized by IT.

In the 95<sup>th</sup> PSOC IT representative stated that tendering for consultancy has been done. It may take one month time.

**CGM (IT) may please deliberate the status.**

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

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

In 85<sup>th</sup> 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 95<sup>th</sup> PSOC, O&M stated that BIS, Kolkata have responded to send their offer

**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 114<sup>th</sup> OCC, the house was informed that the formats are available at ERPC website. ([www.erpc.gov.in](http://www.erpc.gov.in))

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

In the 95<sup>th</sup> 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.

**OHPC / OPGC/ TTPS / CGPs may deliberate.**

#### **C.7: Realization of Revenue loss by OPTCL due to shut down of EHV lines for diversion work for the Railway Line and other beneficiaries.**

OPTCL vide letter dated 17.03.2016 intimated that OPTCL has devised a formula with due approval by its Board of Directors and started claiming shut down charges due to shutdown of EHV lines for diversion work for the Railway Line and other beneficiaries. Thus, the same may be claimed by other organization so that this uniform policy can be adopted by all Transmission Utilities.



*In the 120<sup>th</sup> OCC meeting, OPTCL informed that they are yet to start the implementation of the said mechanism. Other constituents informed that they are not claiming any shutdown charges from other utilities however, they need to devise a mechanism.*

*OCC requested all the constituents to communicate their views.*

**CGM (Const.) may please deliberate.**

**C.8: 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.

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

**C.9: Mock Black start exercises in Eastern Region – ERLDC**

It is programmed to carry out the mock black start exercise in respect of Upper Kolab PH during last week of May-2016.

**OHPC / SLDC may deliberate.**

**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 **April'16**:

Sl. No	Name of Discom	No. of message issued	Over drawal (MU)
1	CESU	26	32.346
2	WESCO	13	21.619
3	NESCO	17	0.718
4	SOUTHCO	7	-0.161
	<b>Total</b>	<b>63</b>	<b>54.522</b>

It is noticed that CESU had overdrawn to the tune of 43 MU followed by WESCO to the tune of 13 MU.

**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 96<sup>th</sup> PSOC meeting, OHPC stated that all works at their end have completed. The 33 kV feeder could not be charged due to isolator problem at Balimela Grid S/S of OPTCL. CGM (O&M) advised SGM (O&M)-I to expedite and rectify the isolator problem soon at Gris end.

**SGMO&M)-I may update.**

**D.3: Reporting of major incidents to SLDC.**

On 10.05.2016, 400 kV Meramundali-New Duburi D/C line tripped due to collapse of towers. Since the incident was not reported to SLDC by the field unit of O&M, SLDC could not reply the query of ERLDC. It should be ensured that all such major incidents should be reported to SLDC, soon after its occurrence.

**Members may discuss**

#### **D.4: Shutdown of Transmission elements.**

It is noticed that, permission for shutdown of 400 kV lines are forwarded by officers below the rank of DGM, for which ERLDC is objecting. Shutdown request for such elements should be forwarded by D.G.M level officers. Also, sometimes the senior officers are not aware of the shutdown proposal. All shutdown proposals should be forwarded by the appropriate level officers in consultation with their respective DGM, G.M and Sr. G.M. All O&M field units may be instructed accordingly.

**Members may discuss**

#### **D.5: 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:

<b>Sl.No</b>	<b>Name of transmission element</b>	<b>Reason of outage</b>	<b>Probable date of revival</b>
1	132 kV Jayanagar-Sunabeda line	For conversion to double ckt	May'16.
2	220 kV TTPS-Joda ckt-I	Replacement of conductor	April'2016
3	400kV Meramundali- New Duburi D/C line	Tower collapsed	

Outage of TTPS-Joda ckt-I, limit the operational flexibility.

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

#### **D.6. 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 95<sup>th</sup> PSOC meeting Powergrid stated that since the line and bay at Indravati PG belongs to OPTCL / OHPC they should take up the maintenance work. Director (Commercial ) stated that OHPC may collect the documents pertaining the ownership of the line and ICT at Indravati (OHPC) S/S from Govt. office, as the matter was dealt by the then Indravati Cell of under Electricity-cum –Electrical Projects. OHPC may intimate to OPTCL, the details of the 400 kV SC line. CGM (O&M) stated that let Powergrid maintain the bay at Indravati (PG) and OPTCL the two nos of bays at Mendhasal S/S (Baripada PG and Duburi line) for smooth operation of the system. It was decided that a meeting shall be convened to take a decision in this regard by 15<sup>th</sup> April'16. It was further decided that OPTCL shall provide the breaker pole and Powergrid will take up the restoration work. OHPC shall coordinate.

In the 96<sup>th</sup> PSOC meeting CGM (O&M) stated that a meeting will be convened with Powergrid to discuss the issue during the month of April'2016.

**Powergrid/OHPC / O&M may deliberate the status.**

## D.7: 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. No	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	M/s Vedanta Ltd. (IPP), Jharsuguda	Generators data remains suspect most of the times.

In the 96<sup>th</sup> PSOC It was decided that GCC will intimate the status to O&M in consultation with Telecommunication. O&M shall write the defaulting CGPs to comply the communication issue.

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

## D.8: 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 a 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.

**CGM (IT) / SLDC may deliberate.**

## D.9: 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.

In the last meeting all Discoms have agreed to display the meter data on the dashboard required for analysis purpose.

In the last meeting CGM (IT) stated that from 1<sup>st</sup> 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.

In the 95<sup>th</sup> PSOC IT stated that after receiving report from SLDC the process will be implemented. It was decided in the 96<sup>th</sup> PSOC that SLDC will finalize the checking and sent the report to IT by end of April’2016.

**SLDC / CGM (IT) may deliberate.**

## D.10: 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 95<sup>th</sup> PSOC, IT stated that the proposal for appointment of outside agency for development of the software has been placed before the CMD for approval.

In the last meeting CGM (IT) stated that the proposal for appointment of outside agency for development of the software is pending with the finance wing of OPTCL, after which it will be forwarded to CMD, OPTCL for approval.

**CGM (IT) may deliberate the status**

## D.11: DISCOM Issues

## CESU

A. CESU has advised to all of their SEs/EEs to undertake joint survey for resolve of different issues relating to augmentation of EHT S/S capacity, conversion of S/C line to D/C, bay extension at different S/Ss etc., to (O&M) and Construction wings of OPTCL in line with the discussions made in the technical workshop on “Effective Grid Management” held on 19.04.2016.

B.

- (i) Mismatch of SCADA drawal with the billing meter during April’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) Providing realistic drawal incorporating “correction factor” by SLDC.
- (viii) Expedition of AMR project.
- (ix) Implementation of UI bill instead of deviation charge bill.

**CGM (Telecom) / SLDC / CESU may please deliberate**

## SOUTHCO

- a. RVDU found to be defective since 03.05.2016. Telecom authorities have already been intimated.
- b. Revision of schedule for dated 29.04.2016 of Southco.

**SOUTHCO may deliberate / Members may discuss**

## 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 <sup>nd</sup> DC line	Work has already been started. Expected to be completed by June 2016.
2	Commissioning of 400 kV Meramundali-Mendhasal 2 <sup>nd</sup> ckt	Line is ready and shall be charged after commissioning of 3 <sup>rd</sup> 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 April 2016.
4	Commissioning of 220/132 kV Cuttack S/S	Work in progress and expected to be completed by April 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 September 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	Name of	Action taken by
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No		month 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

WESCO shall take action for diversion of 11 kV lines from Jharusuguda S/S.

**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 96<sup>th</sup> PSOC meeting, OHPC stated that energy meters at Kolab HEP have been rectified. The meter defects at Balimela, Burla and Chipilima have not yet resolved. O&M stated that the matter has already been taken up with the vender and rectification action is being taken.

**GRIDCO / OHPC / SLDC may please deliberate.**

### **E.3: TTPS Feeder Metering Issue.**

In the earlier PSOC meeting, TTPS deliberated that all the meters were tested & calibrated by the STL on 09.10.2015. The 132kV CTs for TTPS-Duburi-1 have been replaced. Further, as per the PPA dated 08.03.1995, the energy meters are to be installed at GT end. Since the meter locations will be shifted to feeders, the corresponding clause in the PPA is required to be amended. Accordingly, the proposal has been sent to the competent authority of NTPC for approval.

TTPS in their letter No.045/GGM/TTPS, Dated. 20.11.2015 addressed to CGM (PP) Gridco pointed out that, as per clause 7(1), 1<sup>st</sup> proviso of CEA (Installation and operation of Energy meters) Regulation, 2006 as amended in 2010 “ for existing stations the location of Main, Check and Standby meters shall not be changed unless permitted by the Authority”.

In the present case, for the first time, energy meters have been installed at the interface points, which should have been installed earlier, without changing the position of the existing meters. As such the regulation as mentioned by TTPS is not applicable. However the existing meters will be treated as standby meters.

In the 93<sup>rd</sup> PSOC meeting, GRIDCO stated that, in response to the letter of GRIDCO, CEA has sought for some information such as location of Main, Check and Standby meters. TTPS was requested to comply those queries. OPTCL may take action for installation of feeder meters.

In the 94<sup>th</sup> PSOC meeting TTPS stated that the reply has already been sent to CEA. DGM (O&M), Meramundali stated that action has been taken for installation of feeder meters at TTPS.

In the 95<sup>th</sup> PSOC, TTPS stated that CEA has asked the signed copy of the reply, which will be sent by TTPS. DGM (O&M), Meramundali stated that installation of panel and meters is expected to be completed by end of April'16.

In the 96<sup>th</sup> PSOC meeting, DGM (O&M), Meramundali stated that installation of panel and meters is expected to be completed by end of April'16. As requested by TTPS, the on line data can be shared to them. Issue of on line time synchronization will be examined.

**GRIDCO / OPTCL/ TTPS / SLDC may please deliberate.**

#### **E.4: Major Events in the month of April'16**

29.04.2016: 132 kV Atri – Argul DC line charged.

#### **E.5: Important Grid Incidences during the month of April'16.**

- (i) On 01.04.2016 at 17:15 hrs 400 kV Mendhasal- Meramundali Ckt tripped at both ends, 400 kV Mendhasal-Baripada PG Ckt tripped at Mendhasal end and 400 kV New Duburi-Mendhasal Ckt tripped at both ends. 220 kV Meramundali-Bhanjanagar Ckt-I tripped at both ends on O/C. On investigation it was found that OPGW earth wire sag between Loc. No-272 and 273.
- (ii) On 03.04.2016 At 17:58 hrs all the 220 kV feeders emanating from Rengali tripped. Total Power failure to 220kV Bus observed Rengali S/S. On investigation it was found 'B' ph CT of 220 kV Tarkera- Rengali Ckt-II burst at Rengali S/S.
- (iii) On 12.04.2016 At 12:43 hrs, due to transient fault in 220 kV Mendhasal-Bidanasi Ckt-II (idle charged), all the 400 kV feeders emanating from Mendhasal S/S i. e. 400 kV Mendhasal-Meramundali Ckt , 400 kV Mendhasal-Baripada PG Ckt and 400 kV New Duburi-Mendhasal Ckt tripped at remote end.
- (iv) On 15.04.16 at 12:23 hrs voltage at Indrvati PH and Jaynagar become zero pulling out all the running units at Balimela PH and U. Kolab PH with power supply failure to Narendrapur, Bhanjanagar, Theruvali and Jaynagar command area.
- (v) On 16.04.16 at 09:55 hrs, 220 kV Bhanjanagar-Meramundali Ckt-II tripped at both ends pulling out 400/220 kV 315 MVA ICT-I & II at Mendhasal.
- (vi) On 19.04.16, at 09:16 hrs 'R' ph CT of 220 kV Bisra PG Ckt-I burst at Tarkera end pulling out 220 kV BisraPG Ckt-II, 220 kV Budhipadar Ckt-I & II, 220 kV Barkote and 220 kV Rengali Ckt-II.
- (vii) On 19.04.16 at 12:33 hrs bus bar protection at Tarkera operated pulling out 220 kV BisraPG Ckt-II, 220 kV Budhipadar Ckt-I & II, 220 kV Barkote and 220 kV RSP Ckt-I & II.
- (viii) On 26.04.2016 at 14:48 hrs 400/220 kV, 315 MVA ICT-I & II at Mendhasal S/S tripped on O/C.
- (ix) On 30.04.2016 at 22:02 hrs, 400 kV Meramundali-Vedanta IPP Ckt-I 'Y' ph LA burst at Meramundali end pulling out all other 400 kV feeders and ICTs at Meramundali. Simultaneously 220 kV Bidanasi Ckt and 220 kV Duburi Ckt-I tripped at Meramundali.

**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 April'16 is as detailed.

Sl No	Transmission lines	Tripping Dt/time	Restorati on Dt/time	Reason
1	132 kV Paradeep-PPL Ckt-I	01.04.16 01:48	02.04.16 17:47	'B' ph conductor snapped at Loc. No-32 and 33.
2	400 kV Meramundali-Mendhasal Ckt	01.04.16 17:15	09.04.16 20:48	OPGW earth wire sagged between Loc. No. 272 and 273.
3	132 kV TTPS-Angul Ckt	01.04.16 20:30	02.04.16 12:46	'R' ph coupling capacitor burst at Angul end.
4	132 kV Jayngar-Tentulikhunti Ckt	03.04.16 00:42	03.04.16 14:14	'R' ph CT burst at Jaynagar S/S.
5	220 kV Tarkera-Rengali Ckt-II	03.04.16 17:58	07.04.06 19:35	'B' ph CT burst at Rengali S/S
6	132 kV Budhipadar-Rajgangpur Ckt	05.04.16 00:35	05.04.16 12:18	Earth wire snapped at Loc. No-256.
7	132 kV Kendrapara-Paradeep Ckt-II	06.04.16 22:04	07.04.16 10:03	'R' ph jumper snapped at Loc. No-274
8	220 kV Theruvali-Bhanjanagar Ckt-I	11.04.16 12:22	12.04.16 06:59	Tree cutting
9	132 kV Chhatrapur-IRE Ckt-II	22.04.16 16:18	23.04.16 10:08	Ground wire snapped at Loc. No-19 & 20
10	132 kV Paradeep-PPL Ckt-I	27.04.16 19:52	28.04.16 10:05	'R' ph CVT burst at PPL end.
11	220 kV Mendhasal-Chandaka Ckt-I	29.04.16 13:30	30.04.16 14:15	'Y' ph conductor snapped at Loc. No-27

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

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

Tentative Outage programme for State Generators for the month of **June'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 # 1 # 2	15.02.14 to continue 16.05.16 to 15.06.16 16.05.16 to 15.06.16	Programming for R, M &U Power Chanel maintenance -do-
3	Balimela	# 1	31.01.13 to continue	TGB problem and started R,M & U
4	Upper Kolab	# 1	29.07.15 to 25.06.16	Capital Maintenance
6	Upper Indravati	# 3	23.11.15 to 30.06.16	Capital Maintenance
7	OPGC	# 2	07.05.16 to 28.05.16	Annual Maintenance & boiler license renewal

**OHPC / SLDC may deliberate.**

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

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

Name of Hydro Gen. Station	Generation Programme (MW)		Reservoir Level as on 01.05.15	Reservoir Level as on 01.05.16	MDDL	High Flood Reservoir Level
	June'16 (1 <sup>st</sup> fortnight)	June'16 (2 <sup>nd</sup> fortnight)				
HPS-I, Burla	25	30	608.83ft	609.54 ft	590 ft.	630 ft.
HPS-II, Chipilima	0	20	-	-	-	-
Balimela	185	185	1489.70 ft	1477.00 ft	1440 ft.	1516 ft.
Rengali	50	50	119.47 mt	114.24 mt	109.72m	123.5 mtr.
U.Kolab	90	90	852.66 mt	849.56 mt	844 mtr	858 mtr.
U. Indravati	155	155	634.62 mt	631.76 mt	625mtr	642 mtr
MKD (O/D)	30	30	2724.20 ft	2721.10 ft	2685 ft.	2750 ft.
<b>TOTAL</b>	<b>535</b>	<b>560</b>				

**OHPC may deliberate & Members may discuss.**

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

Sl. No	Discom	Average	Peak
1	CESU	1000	1350
2	WESCO	960	1200
3	NESCO	800	1000
4	SOUTHCO	400	550
5	OPEN ACCESS	200	200
<b>6</b>	<b>Total</b>	<b>3360</b>	<b>4300</b>
<b>Availability</b>			
1	Hydro	450	970
2	State Thermal	780	780
3	IPP, small hydro &RE	850	800
4	ISGS share (including OA)	1000	1100
5	CGP support (OA)	150	150
6	Banking	160	500
7	Total availability	3390	4300
<b>8</b>	<b>Surplus / Deficit</b>	<b>0</b>	<b>0</b>

**Members may discuss.**

**PART F: OTHER ISSUES**

**F.1: Date and Venue of the next (98<sup>th</sup>) PSOC meeting**