

Odisha Power Transmission Corporation Ltd.
Bhubaneswar.



Agenda
for
101st Power System Operational Coordination Meeting

Date: 29.09.2016
Venue: Hotel Mayfair, Bhubaneswar

Agenda for 101st PSOC Meeting to be held on 29.09.2016 at Hotel Mayfare, Bhubaneswar

Item no. 1: Confirmation of the minutes of the 100st PSOC Meeting held on 27.08.2016

The minutes of meeting was circulated vide letter No. SGM (PS)-PI-15/2015/3628⁽⁴³⁾ dated 15.09.2016 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 August'2016

C.1: Status of projects funded under PSDF scheme

C.2: Persistent under-generation and inappropriate operational methodologies vis-à-vis Grid requirements in operation of Vedanta, Jharsuguda

C.3: Restoration of PLCC system of important lines

C.4: Commissioning of 400kV Ind Bharat to Jharsuguda D/C

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

C.6: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.

C.7: Certification through BIS as per IS 18001:2007 to all generating/ transmission units.

C.8: Implementation of Automatic Demand Management Scheme (ADMS)

C.9: Tie bay of 125 MVAr bus-reactor & 400kV Indravati –Indravati PG

C.10: Installation of PMU in ER

C.11: 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: Prolonged outage of transmission elements and tentative revival dates

D.4: Communication issues

D.5: Web based drawal / generation scheduling.

D.6: Implementation of Automatic Meter Reading for OPTCL-Discom interface points.

D.7: Software for Deviation charge billing.

D.8: RSP Issue

D.9: Jindal Stainless Ltd. Issue

D.10: Charging of Bangiriposhi grid sub-station

D.11: Power supply to Railway traction from Rayagada grid sub-station

D.12: DISCOM Issues

E.1: Commissioning status of New Transmission elements.

E.2: Energy Metering at Hydro Stations.

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

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

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

E.6: Review of Outage Program of State Generators for the month of September'2016.

E.7: Generation Program for the month of October'16.

E.8: Anticipated power generation and demand for the month of October'2016.

F.1: Date and Venue of the next (102nd) PSOC meeting

PART B: GRID PERFORMANCE

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

(A) Frequency:

Hourly frequency variation for the month of August'16.

Month	% of time frequency remained				
	<49.00	49.00-49.70	49.70-49.90	49.90-50.05	>50.05
June'16	0.00	0.06	11.59	78.29	10.06
July'16	0.00	0.04	6.92	80.09	12.95
Aug'16	0.00	0.04	8.40	77.06	14.49

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

Month	Freq (Hz)	Date	Time
July'16	Maximum – 50.25	02.07.16	08:00 Hrs
	Minimum – 49.78	07.07.16	21:30 Hrs
Aug'16	Maximum – 50.23	10.08.16	13:00 Hrs
	Minimum – 49.76	22.08.16	19:15 Hrs

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

Month	Demand		Maximum Consumption		Maximum Demand			Minimum Demand		
	MU	Avg. (MW)	MU	Date	MW	Date	Time	MW	Date	Time
July'16	2410	3239	81.19	23.07.16	4072	23.07.16	21:00	2609	31.07.16	15:00
Aug'16	2341	3146	81.32	30.08.16	4105	29.08.16	22:00	2307	10.08.16	14:00
Aug'15	2422	3256	82.25	09.08.15	3992	06.08.15	20:00	2558	14.08.15	15:00

Members may please discuss.

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

Sl. No	S/s Name	Maximum			Minimum		
		kV	Day	Time	kV	Day	Time
1	Jayanagar	241.61	03	14:00	221.23	23	14:45
2	Theruvai	238.67	05	09:45	208.65	29	13:30
3	Bhanjanagar	236.48	03	13:30	212.52	27	18:45
4	Chandaka	231.80	10	13:45	199.93	27	18:45
5	Narendrapur	229.09	01	15:45	179.15	23	18:30
6	Joda	242.28	18	06:15	220.72	26	11:45
7	Tarkera	235.78	17	16:45	223.14	29	19:30
8	Bhadrak	236.24	10	13:00	211.36	27	21:15
9	Paradeep	232.84	03	13:45	203.22	29	20:15
10	Budhipadar	233.82	19	14:00	219.27	29	12:15
11	Duburi(O)	237.51	10	14:00	217.71	27	19:15
12	Duburi (N)	227.18	10	13:45	207.49	27	19:00
13	Balasore	235.78	10	13:15	211.82	29	18:45
14	Meramundali	230.47	02	03:00	217.54	29	19:15
15	Bidanasi	237.92	01	13:45	217.02	29	18:45
16	Katapalli	231.45	18	03:15	200.45	25	18:45
17	Nayagarh	232.38	10	13:45	204.43	27	19:00
18	Mendhasal	231.16	10	13:45	200.74	27	18:45
19	Bolangir	229.32	11	12:30	206.05	24	11:45
20	Barkote	236.01	01	05:45	225.22	29	19:00
21	Laxmipur	239.83	05	08:45	218.87	23	14:45

The maximum Voltage of **241.61** kV occurred at Jaynagar 220 kV bus while Narendrapur, 220 kV bus has experienced the minimum Voltage of **179.15** 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 Aug-16
AUTO TRANSFORMER LOADING FOR THE MONTH OF AUGUST'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	56.68	26	10:30	3.88	26	6:30	
	1x160	77.16	26	9:30	4.00	16	7:15	
THERUVALLI 220/132 KV. {Theruvalli, IMFAL(I), JK(I), Junagarh, Kesinga, Powmex(I), Rayagada, }	1x100	82.24	25	8:45	11.16	25	6:00	Rayagada & Paralakhemundi can be fed from Machhkund system.
	1x100	83.08	22	19:00	7.64	25	6:15	
NARENDRAPUR 220/132KV { Narendrapur, NarendrapurTr, Berhampur, Chhatrapur, Ganjam, Balugaon, Digapahandi, Mohana.}	1x160	93.76	31	19:30	14.12	20	14:15	
	1x160	114.48	4	23:15	13.16	20	14:15	
	1x100	NOT AVAILABLE						
BHANJANAGAR 220/132 KV { Bhanjanagar, Aska, Phulbani, Ganjam, Chatrapur}	1x160	106.84	25	7:00	14.64	9	8:00	
	1x160	109.24	9	8:15	25.96	3	13:45	
CHANDAKA 220/132 KV { Chandaka, Bhubaneswar, Nimapada, Ransinghpur, Puri, Kesura, Kaipadar Tr. }	1x100	59.32	23	19:15	26.20	12	9:00	
	1x160	104.52	23	19:30	46.68	12	9:15	
	1x100	65.12	23	19:15	33	2	14:30	
	1x160	100.44	23	0.84722	44.08	12	9:15	
BIDANASI 220/132 KV {Bidanasi, Khurda }	1x160	NOT AVAILABLE						
	1x100	52.20	3	9:15	6.72	6	4:45	
	1x100	39.24	31	18:30	6.84	6	4:45	
TTPS 220/132 KV { Chainpal, FCI (I), Angul, MCL Nandira(I), Rairakhole, Boinda, Kamakhyanager, Kalarangi, Nuapatna, Choudwar }	1x160	42.00	10	10:00				
	1x160	42.00	10	10:00				
MERAMUNDALI 220/132 KV {Meramundali Traction, Dhenkanal, Navchrome(I), Hind Metal, Aarti, BRG}	3x100	43.24	16	19:15	4.2	25	17:30	
		49.28	2	20:45	2.32	25	17:15	
		47.72	2	21:45	1.56	25	18:15	
DUBURI 220/132 KV {Duburi, Bamnipal(I), BRPL, MESCO, Jajpur Road, Kalarangi, Jajpur Town}	3x100	29.88	20	10:00	2.56	29	14:15	Auto-II under shutdown.
		30.12	20	10:00	3.36	29	14:15	
		28.96	20	10:00	2.68	29	14:15	
JODA 220/132 KV { Joda, Tensa, FAP(I), Bolani(I), Nalda Tr., Polasponga, *Rairangpur, Bhalulata traction}	3x100	NOT AVAILABLE						*** - Alternate P/S from Kucheii.
		NOT AVAILABLE						
		NOT AVAILABLE						
BALASORE 220/132 KV { Balasore, Birla Tyre(I), Ispat Alloy(I), Jaleswar, Jaleswar(T)}	2x160	124.36	30	21:15	35.56	11	11:30	
		124.68	30	21:00	35.56	11	11:15	
BUDHIPADAR 220/132 KV { Jharsuguda, Jharsuguda Tr, Cemco(I), MCL, Sundergarh, Brajarajnaragar, Rajgangpur}	2x160	98.28	29	17:15	17.92	19	9:00	
		98.32	29	17:15	31.6	18	17:15	
TARKERA 220/132 KV { Rourkela, Rourkela Tr., RSP(I), Chhend , Adhunik Metal, Rajgangpur, OCL(I), Rajgangpur Tr.}	4x100	39.24	19	20:15	5.32	15	16:00	
		40.04	19	20:15	6.40	15	15:45	
		39.64	19	20:15	5.28	15	18:45	
		39.20	19	20:00	6.48	15	15:45	
KATAPALI 220/132 KV {Chipilima, Bargarh, ACC, Sonapur & Katapali area load.}	1x100	34.52	4	7:00	4.40	5	19:30	Supported by Burla & Chipilima power.
	1x100	35.84	4	6:45	4.32	5	19:15	
	1x160	NOT AVAILABLE						
BHADRAK 220/132 KV {Bhadrak area load, Bhadrak(T), Soro, FACOR (I), Dhamra Port}	3x100	52.36	12	20:45	9.24	31	8:00	
		49.72	12	21:00	8.04	31	7:45	
		NOT AVAILABLE						
PARDEEP 220/132 KV { Paradeep, Kendrapada, Pattamundai, Chandikhol, Cuttack, Jagatsinghpur, Phulnakhara}	1x160	76.48	1	17:30	6.54	1	12:30	
	1x100	116.56	3	20:15	3.60	1	16:45	
	1x50	NOT AVAILABLE						
BOLANGIR (SADAIPALLI) 220/132 KV { Bolangir, Patnagarh, Sonapur, Saintala, Khariar, Barpalli }	2x160	61.52	30.00	19:15	29.88	5	12:00	
		61.28	30.00	19:15	30.20	9	12:15	
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 August'16

Name of DISCOM	Month	Approved Energy Drawal Prorated for the month (MU)	Scheduled Energy (MU)	Actual Energy Drawal (MU)	Open Access Import Schedule (MU)	Net Energy Drawal (MU)	Overdraw (MU)
		1	2	3	4	5=(3-4)	6=(5-2)
CESU	April'16	704.384	745.175	785.466	7.945	777.521	32.346
	May'16	727.863	754.537	769.278	14.893	754.385	-0.152
	June'16	704.384	728.317	760.387	12.791	747.596	19.279
	July'16	727.863	736.383	752.465	13.163	739.302	2.919
	Aug'16	727.863	731.392	749.383	16.214	733.169	1.777
WESCO	April'16	579.452	617.311	657.707	18.777	638.93	21.619
	May'16	598.767	634.558	679.648	25.441	654.207	19.649
	June'16	579.452	643.125	651.414	23.867	627.547	-15.578
	July'16	598.767	629.509	675.567	31.735	643.832	14.323
	Aug'16	598.767	607.205	658.853	43.023	615.83	8.625
NESCO	April'16	447.945	472.674	544.157	70.768	473.389	0.715
	May'16	462.877	447.214	545.786	90.686	455.1	7.886
	June'16	447.945	453.173	568.294	93.911	474.383	21.21
	July'16	462.877	464.223	637.112	160.664	476.448	12.225
	Aug'16	462.877	464.344	565.592	106.664	458.928	-5.416
SOUTHCO	April'16	285.205	285.017	284.863	0.007	284.856	-0.161
	May'16	294.712	287.919	279.859	1.193	278.666	-9.253
	June'16	285.205	269.339	273.405	0.696	272.709	3.37
	July'16	294.712	275.04	285.042	0.196	284.846	9.806
	Aug'16	294.712	281.303	290.572	5.995	284.577	3.274

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 August'16

Source of Power	Energy (MU)
Thermal (TTPS+IB)	519.62
OHPC Stations including Machhkund share	651.50
IPP & CGP Support	525.45
ISGS drawal	644.32
TOTAL	2340.89

(G) Drawal of Machhakund Power

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

Month	Total Generation		Odisha Drawal		AP Drawal	
	MU	MW	MU	MW	MU	MW
April'16	42.784	59.42	19.714	27.38	21.032	29.21
May'16	54.998	73.92	19.860	26.69	33.100	44.48
June'16	52.601	73.06	22.143	30.75	28.162	39.11
July'16	61.250	82.32	27.531	37.00	31.460	42.28
August'16	65.386	87.88	30.816	41.42	31.871	42.84
TOTAL	277.019		120.064		145.625	

In the 100th PSOC meeting it was deliberated that:

The proposal for procurement of RVDU has been approved by CMD. C.G.M (Telecom) may Place purchase order for procurement of RVDU.

High level meeting for discussion of Machhakund issue is yet to be held.

SLDC/ Sr. GM (O&M) -I / CGM (Tel) / OHPC/ Southco Utility may deliberate the status.

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

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

Members may note.

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

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

Sl. No	Month	No of Applications received					No of Applications Disposed					No of App. Rejected
		Intra-State	Inter-State			Total	Intra-State	Inter-State			Total	
			Bilateral		PXI			Bilateral		PXI		
			ST	MT/LT				ST	MT/LT			
1	April'16	7	124	0	25	156	6	124	0	25	156	0
2	May'16	6	67	2	16	91	5	67	2	12	86	5
3	June'16	4	79	0	39	122	3	79	0	26	108	14
4	July'16	4	118	0	35	157	3	118	0	30	151	6
5	Aug'16	8	127	0	23	158	7	127	0	21	155	3
	Total	29	515	2	138	684	24	515	2	114	656	28

PART C – Issues raised in the 125th OCC meeting of ERPC held on 20.09.2016

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.	4.91 Cr.	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. Tender for Sub-station automation will be floated in July-2016.

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

C.2: Persistent under-generation and inappropriate operational methodologies vis-à-vis Grid requirements in operation of Vedanta, Jharsuguda

It has been observed Vedanta is operating in a manner not consistent with Grid requirements by resorting to the following:

- a) Persistent under-generation below schedule.
- b) Shifting of units from CTU Bus to STU Bus in an inappropriate manner, by incorrect declaration regarding reasons for tripping of the units (at CTU side) and hence getting the STOA revised and immediately thereafter re-synchronizing the unit back to the STU side.

The following points hence need to be noted by Vedanta in the process of daily operations:

- i) Vedanta may ensure that there is no deviation from schedule under any circumstances.
No shifting of units from CTU Bus to STU Bus would be allowed in case the same would lead to deviation from the schedule given to Vedanta by ERLDC. Also, for any such shifting/changeover of units from CTU to STU side or vice-versa, prior consent of ERLDC needs to be taken.
- ii) In case any revision of STOA is done for ISTS side units citing unit tripping / forced desynchronization, the unit going out of bar/tripped cannot be re-synchronized back to the STU side.
- iii) As per OERC order, Vedanta U#2 is dedicated to GRIDCO as an IPP while Units#1,3,4 are converted to CGP with exportable surplus. A scrutiny of the actual injections to the ISTS Grid indicates less or at times nil injection to the Grid for significant periods of time.
However, as Vedanta has sold power through Power Exchange during these periods, the schedule cannot be revised leading to under-generation. Considering the above situations, it is essential that Vedanta clearly declares the quantum of exportable surplus(maximum and minimum) stating the smelter loads and the commitments to GRIDCO. This is essential to ensure that the NOC(for ISTS injection) given to Sterlite is not more than the exportable surplus capacity of the CGPs, which if allowed would lead to undesired gaming by Vedanta. Hence, a revision of NOC is required more from the viewpoint of actual available exportable surplus, rather than from the view point of transmission constraints (which is on the greater side).
- iv) Also, after obtaining the smelter loads and the GRIDCO commitments, there is a need of re-assessment of the control area jurisdiction of Vedanta, in case the consumption of exportable surplus by GRIDCO is more than 50%. In case of the affirmative, benefits in terms of keeping both the Buses coupled could be obtained.
- v) Presently, the configuration of bays and the position of the Bus sectionalizer bays at Vedanta switchyard are such that for enabling split Bus mode of operation with CTU and STU side Buses segregated, the following main bays are out of service:
 - Main bay of 400kV Vedanta-Raigarh(Vedanta-Rourkella in same dia with main bay in service)
 - Main bay of 400kV Vedanta-Meramundali-II(Vedanta-Meramundali-I in same dia with main bay in service)

Hence, in case of shutdown/outage of any main or tie bays for the above lines, the inter-regional link of one circuit of 400kV Rourkella-Raigarh goes under outage. Also, in case of outage of 400kV Vedanta-Meramundali-II, Vedanta-Meramundali D/C goes under outage. All of the above pose a threat to Grid security. Accordingly, these are suggested:

- The LILO could be removed positively wef 01/12/16 which would take care of the negative impact of the LILO on reliability of 400kV Rourkella-Raigarh-II(now LILOed at Vedanta).
- Sterlite may explain (with SLD) how after removal of the LILO and keeping the segregation of the CTU and STU Buses, the problem of reliability of 400kV Vedanta-Meramundali D/C could be solved. It needs to be noted that the dedicated lines to Jharsuguda also need to be commissioned with full reliability in a manner such that their complete dia is commissioned. Vedanta may also explain(with the SLD) how they propose to charge the complete dia of 400kV Vedanta-Meramundali D/C by October,16(as proposed in the last OCC meeting) with the present configuration of the Buses remained segregated. However, in case of feasibility i.r.o changeover of control area jurisdiction, the Buses may be kept coupled with metering being done considering Vedanta-Jharsuguda D/c as ISTS interchange tie-lines.

It may be noted that the operational methodologies resorted to by Vedanta could be construed as gaming and in case of persistent inaction, ERLDC may be constrained to file a petition before CERC in this regard.

Instances depicting the above would be presented by ERLDC for discussions/suggestions and for conclusion regarding the corrective actions. Vedanta may reply adequately along with SLD so as to arrive at a conclusion to the problems.

It was decided that Vedanta shall obtain a NoC from Odisha & apply for fresh connectivity with CTU as a CGP.

Vedanta may please deliberate.

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 WBDCL (for Snataldih end) and OPTCL (for Joda end) to complete the PLCC schemes of both the above lines.

In 33rd ERPC Meeting, WBDCL 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 WBDCL 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, WBDCL 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 the 100th PSOC meeting, CGM (Telecom) stated that approval for procurement of panel has already been obtained from CMD, OPTCL. Order will be placed by next week.

It was deliberated in the OCC meeting of ERPC that order has been placed as intimated by CGM (Telecom.).

CGM (Telecom) may please update the status.

C.4: Commissioning of 400 kV Ind-Bharath to Jharsuguda D/C (dedicated line)

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OPTCL informed that MCR test of Ind-Bharath generator was not satisfactory and they will communicate their observations.

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In 124th OCC, Ind-Bharath informed that ROW problem has been resolved and the stringing of the remaining 1 km stretch of dedicated line is in progress. The dedicated line will be commissioned in another one month after necessary testings and Inspectorate's approval of the line & associated bays.

OCC, in line with the ERPC directions decided that the IBEUL will not be allowed to inject any power though LILO of 400 kV D/C Raigarh-Rourkela Ckt-I

Subsequently, GRIDCO vide letter dated 19.08.16 informed that the MCR test of the 350 MW unit #1 of IBEUL has failed for its Name Plate capacity. However, IBEUL may go for de-rating of their unit capacity or repeat trial run as per the provisions of IEGC.

IBEUL vide letter dated 02.09.2016 had declared their unit under COD with **derated capacity of 339.6 MW w.e.f. 19th July, 2016.**

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In the 125th OCC meeting the derated capacity of 339.6 MW was accepted by ERPC with effect from 20.07.2016.

Gridco may please note.

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 124th OCC, OPTCL updated 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.	Only 7 towers left (Severe ROW problem). By Dec, 2016.
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
b.	LILo of one circuit of Atri-Puri (Samangara) 220 kV D/C line at Pandiabil (PG)	December'2016

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

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 100th PSOC meeting, CGM (IT) stated that Techno-commercial bid for appointment of consultant has been opened and under scrutiny. Price bid will be opened during the month of August'2016.

CGM (IT) may please deliberate the status.

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 100th PSOC meeting CGM (O&M) stated that "Expression of Interest" for providing consultancy has been floated.

CGM (O&M) may deliberate the status.

C.8: 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 response to the offer for providing consultancy for implementation of ADMS, two numbers firms have given presentation on dated 03.06.16 at PTC, Chandaka.

Subsequently, one of the above participants has responded to the financial bid which is under scrutiny.

A team of officers of SLDC and Telecom will visit Gujarat to interact regarding implementation of the scheme. Chemtrol has agreed to provide hardware and software for additional cost. In the 99th PSOC meeting it was decided that the Discoms shall identify the 33 kV / 132 kV feeders to be covered under the ADMS by 29th July'16 and intimate to CGM (Telecom) / SLDC, so that the purchase order can be placed.

In the 100th PSOC meeting, all Discoms have ensured to identify 33kV feeders to be integrated to RTU for ADMS.

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.

Only WESCO & NESCO have submitted their identified feeder list.

Members may discuss. Discoms / CGM (Telecom) / SLDC may deliberate.

C.9: 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.

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 the 125th OCC meeting of ERPC, this issue was raised by POWERGRID.

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

C.10: Installation of PMUs in Eastern Region under URTDSM project

In the 125th OCC meeting of ERPC, it was deliberated that POWERGRID has to give the name of the sub-stations of OPTCL where it has been planned for installation of PMU.

POWERGRID / SLDC may please deliberate.

C.11: Mock Black start exercises in Eastern Region

Mock black start exercise in respect of Rengali is to be carried out on 05.10.2016.

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 **August'16**:

Sl. No	Name of Discom	No. of message issued	Over drawal (MU)
1	CESU	13	1.777
2	WESCO	11	8.625
3	NESCO	06	-5.416
4	SOUTHCO	08	3.274
	Total	38	8.260

It is noticed that WESCO had overdrawn to the tune of 8.625 MU followed by SOUTHCO to the tune of 3.274 MU while NESCO has under drawn 5.416 MU. CESU was almost in the schedule.

SLDC/ Discoms may please deliberate.

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

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

In the 100th PSOC meeting Southco stated that the meter at Balimela feeder will be installed within a week time. Metering issue of Balimela and Upper Indravati Colony consumption will be discussed with OHPC.

SOUTHCO / OHPC may update.

D.3: 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	Due to water logging near the locations, revival will take time.

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

D.4: 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.

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

D.5: 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.

In the 99th PSOC meeting CGM (IT) stated that the issues identified by SLDC have been resolved.

In the 100th PSOC meeting, SLDC stated that some issues are still pending to be resolved. CGM (IT) stated that all issues shall be sorted out by end of September'2016. The web based scheduling may be implemented from 1st October'2016.

It is observed that all the issues are yet to be resolved. The scheduling shall be implemented only after resolve of all the issues followed by a demo. IT wing may give a cut-off date in this regard.

CGM (IT) / SLDC may deliberate.

D.6: 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.

Meter data for the previous month need to be received by SLDC on 1st day of the month. M/s TCS may ensure submission of the same.

SLDC / CGM (IT) may deliberate.

D.7: 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 100th PSOC meeting CGM (IT) stated that M/S Infosys contract need to be closed before award of contract to any other Vender. SLDC shall issue a certificate for Infosys activity indicating the items completed.

CGM (IT) may deliberate the status.

D.8: RSP Issues

1. Repeated power disturbances at Tarkera Grid Substation
2. Connectivity permission to connect 1X250 MW generating unit under expansion of CPP II (NSPCL)

RSP may please deliberate.

D.9: Jindal Stainless Issues

Jindal Stainless Limited is undergoing restructuring with separation into three different entities at Jajpur Plant and necessary approval support is required for the smooth operation of plant.

JSL may please deliberate.

D.10: Charging of Bangiriposhi Grid sub-station

Bangiriposhi grid sub-station is ready for charging by making LILO of 132kV Baripada (PG)-Rairangpur ckt. Telecom Wing / O&M may take necessary action for SCADA integration & metering.

CGM (Telecom) / CGM (O&M) may please deliberate.

D.11: Power supply to Railway Traction from Rayagada grid sub-station

In the earlier meeting, it was decided to extend power supply to Railway traction sub-station from Theruvali grid instead of Rayagada as most of the times Rayagada load is being fed from Machhakund PH. Also, there are frequent changeovers of Rayagada to provide matching load for Machhakund share. Due to the above, there may be frequent interruption of power to traction.

CGM (Const.) / CGM (O&M) may please deliberate.

D.12: DISCOM Issues

CESU

A. CESU has identified technical issues relating to early completion of ongoing S/Ss, augmentation of EHT S/S capacity, conversion of S/C line to D/C, bay extension at different S/Ss etc.

B.

- (i) Mismatch of SCADA drawal with the billing meter during August'16.
- (ii) Fixed data indicated on dashboard may be converted to variable for accurate drawal display.
- (iii) Suspected data of ESSAR, BPPL, OPCL, IMFA- I & II
- (iv) Instant implementation of schedule revision.
- (v) Power flow Atri to Narendrapur through 220kV circuit is not being deducted from CESU drawal.
- (vi) Installation of 0.2 accuracy class meters for SCADA.

In the 100th PSOC meeting, it was deliberated that CESU may take up the technical issues with CGM (O&M) / CGM (Const), OPTCL. SLDC stated that the fixed data of 33 kV Inter Discom feeders shall be changed after integration of those 33kV feeders with SCADA. The revision of drawal schedule shall be done as per OGC Regulation.

Further CESU may deliberate in which way the power flow through 220kV feeder is affecting the CESU control area drawal. CESU may also deliberate under which standard 0.2 class accuracy meters shall be used for SCADA.

CGM (O&M) / CGM (Telecom) / SLDC / CESU may please deliberate.

NESCO

1. Instant implementation of downward schedule revision in line with upward revision to know the co-relation between schedule and drawl.
2. In case of shut down of one Auto of a grid, the other Auto reflects no reading.
Ex: On dated 23.09.16, Auto-II of Balasore grid shows no reading while Auto-I being shutdown.

3. Provision of online recording of drawl data for NESCO Utility on real time basis.
4. 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.

SOUTHCO

- A. SOUTHCO has identified technical issues relating to bay extension at different S/Ss, simultaneous tripping of 33kV breakers at load end and grid substation end (33kV Balimela-Malkanagiri ckt.) .
- B.
 - i. Recording of Apex meter reading at grid sub-stations
 - ii. Energy bill is prepared on actual drawal by Gridco and simultaneously Deviation charge is being prepared by SLDC.

GRIDCO / CGM (Telecom) / SLDC may please deliberate.

PART E: OPERATIONAL PLANNING

E.1: Commissioning status of New Transmission elements.

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

Sl. No	Transmission element details	Present Status
1	Commissioning of 220 kV Jayanagar-Jeypore 2 nd DC line	Work has already been started. Expected to be completed by December' 2016.
2	Commissioning of 400 kV Meramundali-Mendhasal 2nd ckt	Line is ready and shall be charged after commissioning of 3 rd ICT at Mendhasal, which is under progress. ICT is at BHEL factory. Expected by March'2017.
3	Commissioning of 220 kV Bidanasi-Cuttack line	Work in progress and expected to be completed by August' 2016.
4	Commissioning of 220/132 kV Cuttack S/S	Work in progress and expected to be completed by August' 2016.
5	Commissioning of 132 kV Baripada (PG)-Jaleswar line	Work has already been started, which will be completed by March 2017.
6	Commissioning of 220/132 kV Kesinga S/S	Work under progress. Expected by December' 2017.

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

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

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 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 100th PSOC meeting, OHPC stated that TTPS feeder meter at Rengali PH is yet to be changed. All check meters at Balimela PH is showing erratic reading.

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.

GRIDCO / OHPC / O&M / SLDC may please deliberate.

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

No report of major event has been received by SLDC.

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

On 17.08.16 at 16:38 hrs all 220 kV feeders emanating from Tarkera Grid S/S tripped due to heavy lightning and thunder.

Members may please discuss.

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

Outage of major transmission elements above 10 hours is as detailed.

Sl No	Transmission lines	Tripping Dt/time	Restoration Dt/time	Reason
1	220 kV Joda-Jindal Ckt	01.08.16 14:51	02.08.16 17:10	'B' ph conductor snapped at Loc. No-424.
2	132 kV Jaynagar-Machhkund Ckt	04.08.16 17:05	05.08.16 12:00	'Y' ph CT jumper snapped at Machhkund end.
3	220 kV Tarkera-Bisra PG Ckt-II	22.08.16 16:58	23.08.16 10:59	Line patrolling was done but no fault found.
4	220 kV Theruvali-U. Kolab-Jaynagar Ckt	28.08.16 15:58	30.08.16 12:49	'B' ph conductor between Loc. No-539 and 540 snapped due to failure of disc insulator at Loc. No-539.
5	220 kV Budhipadar-Korba Ckt-II	28.08.16 19:25	29.09.16 18:23	'B' ph conductor snapped at Loc. No-313

Major outages are due to snapping of conductor.

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

E.6: Review of Outage Program of State Generators / Transmission elements for the month of September'16:

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

Sl.	Station	Unit	Period	Remarks
1	Burla	# 2 # 6	22.07.16 to 31.10.16 17.02.14 to continue	Capital Maintenance Under R, M & U
2	Chiplima	# 3	15.02.14 to continue	TGB problem and started R,M & U
3	Balimela	# 1	31.01.13 to continue	TGB problem Programming for R,M & U
4	Upper Kolab	# 1	11.09.16 to 14.10.16	Stator inter turn fault
5	Upper Indravati	# 5	01.10.16 to 31.10.16	Annual Maintenance
6	TTPS	# 3	18.09.16 to 03.10.16	Boiler overhauling

OHPC / TTPS / SLDC may deliberate.

E.7: Generation Program for the month of October'16.

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

Name of Hydro Gen. Station	Generation Programme (MW)		Reservoir Level as on 01.09.15	Reservoir Level as on 01.09.16	MDDL	High Flood Reservoir Level
	Oct'16 (1 st fortnight)	Oct'16 (2 nd fortnight)				
HPS-I, Burla	150	150	624.95ft	620.29 ft	590 ft.	630 ft.
HPS-II, Chipilima	45	45	-	-	-	-
Balimela	200	200	1484.70 ft	1497.10 ft	1440 ft.	1516 ft.
Rengali	200	200	119.15 mt	121.54 mt	109.72m	123.5 mtr.
U.Kolab	105	105	851.06 mt	854.10 mt	844 mtr	858 mtr.
U. Indravati	250	250	630.86 mt	631.91 mt	625mtr	642 mtr
MKD (O/D)	40	40	2728.50 ft	2737.90 ft	2685 ft.	2750 ft.
TOTAL	990	990				

In the present spilling condition, non-availability of units at Burla HEP result in wastage of water.

OHPC may deliberate & Members may discuss.

E.8: Anticipated power generation and demand for the month of October'2016.

Sl. No	Discom	Average	Peak
1	CESU	1000	1450
2	WESCO	900	1150
3	NESCO	850	1000
4	SOUTHCO	420	500
6	Total	3300	4100
Availability			
1	Hydro	990	1500
2	State Thermal	750	750
3	IPP, small hydro &RE	750	710
4	ISGS share (including OA)	850	1000
5	CGP support (OA)	150	150
6	Total availability	3490	4110
7	Surplus / Deficit	190	10

Members may discuss.

PART F: OTHER ISSUES

F.1: Date and Venue of the next (102nd) PSOC meeting.