Odisha Power Transmission Corporation Ltd. Bhubaneswar.



Agenda for

100th Power System Operational Coordination Meeting

Date: 27.08.2016

Venue: Hotel Sandy's Tower, Bhubaneswar

Odisha Power Transmission Corporation Ltd. Bhubaneswar.

Agenda for 100th PSOC Meeting to be held on 27.08.2016 at Hotel Sandy's Tower, Bhubaneswar

Item no. 1: Confirmation of the minutes of the 99th PSOC Meeting held on 24.07.2016

The minutes of meeting was circulated vide letter No. SGM (PS)-Pl-15/2015/2318⁽⁴³⁾ dated 09.08.2016 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 July'2016
- C.1: Status of projects funded under PSDF scheme
- C.2: Operational Load Flow study for off-peak period
- C.3: Restoration of PLCC system of important lines
- C.4: 220 kV inter-connecting lines of OPTCL with 400/220 kV Bolangir (PG), Keonjhar & Pandiabil S/s
- C.5: Preparation of crisis management plan for Cyber Security in Power Sector in line with CERT-IN.
- C.6: Certification through BIS as per IS 18001:2007 to all generating/transmission units.
- C.7: Implementation of Automatic Demand Management Scheme (ADMS)
- C.8: 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: Outage planning of transmission elements
- D.9: PAFM for OHPC stations
- D.10: BPPL Issues
- D.11: DISCOM Issues
- E.1: Commissioning status of New Transmission elements.
- E.2: Energy Metering at Hydro Stations.
- E.3: Installation of feeder meter at TTPS.
- E.4: Major Events in the month of July'16
- E.5: Important Grid Incidences during the month of July'16.
- E.6: Outage of major transmission Elements during the month of July'16. (above 10 hrs).
- E.7: Review of Outage Program of State Generators for the month of September'2016.
- E.8: Generation Program for the month of September'16.
- E.9: Anticipated power generation and demand for the month of September'2016.
- F.1: Date and Venue of the next (101st) PSOC meeting

PART B: GRID PERFORMANCE

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

(A) Frequency:

Hourly frequency variation for the month of July'16.

Month	% of time frequency remained							
MOHH	<49.00	49.00-49.70	49.70-49.90	49.90-50.05	>50.05			
May'16	0.00	0.04	10.30	75.53	14.13			
June'16	0.00	0.06	11.59	78.29	10.06			
July'16	0.00	0.04	6.92	80.09	12.95			

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

Month	Freq (Hz)	Date	Time	
June'16	Maximum – 50.17 10.06.16		17:00 Hrs	
	Minimum – 49.70	16.06.16	20:15 Hrs	
July'16	Maximum – 50.25	02.07.16	08:00 Hrs	
	Minimum – 49.78	07.07.16	21:30 Hrs	

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

Month	Dei	mand	Maximum Consumption		Maximum Demand			Minimum Demand		
	MU	Avg.	MU	Date	MW	Date	Time	MW	Date	Time
		(MW)								
June'16	2291	3182	81.26	13.06.16	4052	24.06.16	21:00	2403	01.06.16	18:00
July'16	2410	3239	81.19	23.07.16	4072	23.07.16	21:00	2609	31.07.16	15:00
July'15	2337	3141	79.59	05.06.15	3994	04.07.15	21:00	2431	25.07.15	16:00

Members may please discuss.

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

Sl. No	S/s Name		<u> Iaximum</u>			Minimun	
		kV	Day	Time	kV	Day	Time
1	Jayanagar	243.98	31	12:00	226.66	7	20:30
2	Theruvali	235.96	21	09:00	210.32	14	19:45
3	Bhanjanagar	237.92	31	14:45	216.96	29	19:15
4	Chandaka	233.59	31	14:45	204.49	29	20:45
5	Narendrapur	221.00	10	14:15	182.26	06	21:15
6	Joda	239.24	17	06:15	226.66	28	19:30
7	Tarkera	235.44	17	05:45	227.64	29	19:45
8	Bhadrak	238.38	16	16:30	210.84	21	21:00
9	Paradeep	231.68	31	17:00	203.05	05	18:30
10	Budhipadar	235.96	14	17:00	223.89	29	19:30
11	Duburi(O)	236.48	31	16:45	219.68	21	20:30
12	Duburi (N)	231.40	16	16:30	209.57	21	20:15
13	Balasore	236.24	16	16:45	213.38	21	21:15
14	Meramundali	233.18	11	07:15	220.66	28	19:45
15	Bidanasi	239.36	31	14:45	221.52	11	19:15
16	Katapalli	232.38	06	05:00	217.02	14	16:45
17	Nayagarh	234.86	31	14:45	209.34	29	19:30
18	Mendhasal	234.69	31	14:45	207.32	29	20:45
19	Bolangir	232.20	06	05:45	209.98	22	07:45
20	Barkote	236.24	11	06:00	227.82	20	19:45
21	Laxmipur	241.56	31	13:30	222.10	06	21:30

The maximum Voltage of **243.98** kV occurred at Jaynagar 220 kV bus while Narendrapur, 220 kV bus has experienced the minimum Voltage of **182.26** 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 July-16 AUTO TRANSFORMER LOADING FOR THE MONTH OF JULY'2016

Damasipski/MLCO), Traction SSs, Terthishkinust, Sundeeds, Jayanagard 1x160 83.22 25 19.00 2.6 21 12:15 Terthishkinust, Sundeeds, Jayanagard 1x160 83.22 25 19.00 2.6 21 12:15 Terthishkinust, Sundeeds, Jayanagard 1x160 13.48 13 18.45 7.32 16 15:35 25 26 26 26 27 27 27 28 28 29 29 20 37 2 6 10:45 29 29 29 29 29 29 29 2	Name of the 220 kV Sub-Station	Capacity	Drawal details					REMARKS	
MANABAGA 201132 KV 1100 68.8 25 18.00 5.76 2 10.20	(Feeding Sub-stations/Feeders)			Maximu	m		Minimu	n	1
Damangipd/MALCO), Traction SSs, Terthiblikhudi, Sundbeds, Jayanagad 1x160 68.32 25 19.00 2.6 21 12.15		MVA	MW	Day	Time	MW	Day	Time	
Intelligent 1.5 1.	JAYANAGAR 220/132 KV.	1x160	68.8	25	18:00	5.76	2	10:30	
THERRIVAL LI 22NH 32 KY Lings The transport Lings The transport Lings The transport Lings Li		1x160	68 32	25	19:00	26	21	12:15	1
Titlestrown MF-ALD , RR(I), Lunsageth, Cassinga, Powers(I), Ravagoda, J. 1,100 68 20 13 19.45 1.04 16 15.15 15.15 10.45									
Name		1X100	73.48	13	19:45	7.32	16	15:30	
MAREMORAPUR 220132 NV Initial	1-	1x100	69.20	13	19:45	1.04	16	15:15	
Naterodraguer, Naterodraguer, Bethampur, Charbarguer, Genhampur, Charbarguer, Gamp, Baluganon, Digapashand, Mohana, J. Nat. 100 NOT AVAILABLE		1x160	102 12	7	20:00	37.2	16	10:45	System.
This property Charlespan	{ Narendrapur, NarendrapurTr, Berhampur,								1
State	Chhatrapur, Ganjam, Balugaon,			AILADI	<u> </u> =				-
Bansingagar, Aska, Phulbani, Ganjam, Charlangurj Tx160 84.08 25 19:30 6.48 5 19:45									
1x160		1x160	96.52	25	19:30	7.76	5	19:30	
CHANDIAN A 2201132 KV	Chatrapur	1x160	84.08	25	19:30	6.48	5	19:45]
Ransinghpur, Puni, Kasura, Kaipadar Tr. 1x100 68.24 29 22.30 21.56 3 1.00	CHANDAKA 220/132 KV	1x100	61.88	29	22:30	20.16	3	1:00	
String 10.5.7 29 22.55 3.144 3 1.00	{ Chandaka, Bhubaneswar, Nimapada,	1x160	109.08	29	22:45	36.20	3	1:15	1
Siderlanesi, Khurda 1x160	Ransinghpur, Puri,Kesura, Kaipadar Tr. }	1x100	68.24	29	22:30	21.56	3	1:00]
Tit100 37.16 11 19.15 6.20 5 8.15		1x160				34.44	3	1:00	
Times Time		1x160	NOT AV	AILABL	E				
TIPS 220/132 KV Chaipsal, FCI (0), Angul, MCL Nandira(1), Rariarkhok, Boinda, Kamakhyanagar, Kalarangi, Naupatna, Choudwar) 1x160 51.00 20 22:00	{Bidanasi, Khurda }	1x100	37.16	11	19:15	6.20	_	8:15	
Chainpal, FCI (I), Angul, MCL Nandraid), Railardon, Bordon, Karakrangi, Nuapatna, Choudwar) 1x160 50.00 20 22:00						6.24	5	8:15	
Tax 180 50.00 20 22:00		1x160	51.00	20	22:00				
MERAMUNDALJ 220132 kV State Stat									
S4.08 28 18.45 3.16 16 15.45	Kalarangi,Nuapatna, Choudwar }	1x160	50.00	20	22:00				
S4.08 28 18.45 3.16 16 15.45	MEDANUMBALL GOOGGO LA	0-400	50.40	00	40-45	0.40	40	45-45	
Navchrome(I), Hind Metal, Aarti,BRG 3.04 10 23:00 2		3X100							-
Duburi, Bamnipal(I), BRPL, MESCO, Incompany Inco	Navchrome(I), Hind Metal, Aarti,BRG}		34.00	20	10.45	3.10	16	15.45	1
(Juburi, Barnipal(I), Barnipal(I), BRPL, MESCO, Jajpur Town) 54.20	DUBURI 220/132 KV	3x100	53.64	1	19:45	3.04	10	23:00	Auto-II under shutdown
Jajpur Road, Kalarangi, Jajpur Town} 51.92	{Duburi, Bamnipal(I), BRPL, MESCO,								Tate in ander Gradeown.
NOT AVAILABLE NOT AVAILABL	Jajpur Road, Kalarangi, Jajpur Town}								-
NOT AVAILABLE	IODA COOMOO IOM	0.400				2.90	10	23.00	
NOT AVAILABLE NOT AVAILABL		3X100	NOI AV	AILABL	E				- Alternate P/S from Kuchei.
BALASORE 220/132 KV Balasore, Birla Tyre(I), Ispat Alloy(I), Jaleswar(T) BIBUDHIPADAR 220/132 KV Surgery Su	Tr.,Polasponga, *Rairangpur, Bhalulata		NOT AV	AILABL	E				
Balasore, Birla Tyre(I), Ispat Alloy(I), Jaleswar, Jaleswar(T)	traction}		NOT AV	AILABL	E]
Saleswar, Jaleswar(T) SulDHIPADAR 220/132 KV 93.88 15 5.45 44.92 29 16.45 Warsuguda Jharsuguda Tr, Cemco(I), MCL, Sundergarh, Brajarajnagar, Rajgangpur Rourkela, Rourkela Tr.,RSP(I), Chhend, Adhunik Metal, Rajgangpur, OCL(I), Rajgangpur, CCL(I), Rajgangpur, Tr.] KATAPALI 220/132 KV 11.00 34.28 1 16.15 5.48 20 19.00 KATAPALI 220/132 KV 1x100 34.28 1 16.00 5.36 20 19.00 KATAPALI 220/132 KV 1x100 34.80 1 5.45 3.60 21 13:30 Supported by Burla & Chipilima BHADRAK 220/132 KV 1x100 34.80 1 5.45 3.60 21 13:15 BHADRAK 220/132 KV 1x100 34.80 1 5.45 3.56 5 15:30 Bhadrak area load, Bhadrak(T),Soro, FACOR (I), Dhamra Port) FARDEEP 220/132 KV Paradeep, Kendrapada, Pattamundai, Chandikhol, Cuttack, Jagatsinghpur, Phulnakhara 1x100 69.76 11 20:00 7.44 25 4:00 Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli 1x160 NOT AVAILABLE Mendhasal 1x100 NOT AVAILABLE Mendhasal 1x100 NOT AVAILABLE Mendhasal	BALASORE 220/132 KV	2x160	132.20	13	20:45	54.24	6	12:00	
Sudding			132.12	13	20:30	55.36	6	11:00	1
Supported by Burla & Chipilima Supported by Burla & Chipilima	1 22	2x160	95.72	15	5:45	44 92	29	16:45	
Ax100 68.24 1 16:30 9.72 4 8:00	{ Jharsuguda, Jharsuguda Tr, Cemco(I),	2.100	00.72		0.10	11.52		10.10	
TARKERA 220/132 KV Fourkela Tr., RSP(I), Chhend, Adhunik Metal, Rajgangpur, OCL(I), Raigangpur Tr.]	MCL, Sundergarh,Brajarajnagar,		93.88	15	5:45	44.56	29	16:45]
Rourkela Rourkela Tr.,RSP(I), Chhend Adhunik Metal, Rajgangpur, OCL(II), Rajgangpur, OCL(4v400	60.24	4	16:20	0.72	4	9-00	
Adhunik Metal, Rajgangpur, OCL(I), Rajgangpur Tr.] KATAPALI 220/132 KV [Chipilima,Bargarh, ACC,Sonepur & Katapali area load.} BHADRAK 220/132 KV [Bhadrak area load, Bhadrak(T),Soro, FACOR (I), Dhamra Port} PARDEEP 220/132 KV [A garadeep, Kendrapada, Pattamundai, Chandikhol, Cuttack, Jagatsinghpur, Phulnakhara} BOLANGIR (SADAIPALLI) 220/132 KV [Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli } Lapanga Mendhasal At 100 10:30 5.12 20 19:15 67.56 1 16:00 4.36 21 13:30 Supported by Burla & Chipilima power. 1x100 34.80 1 5:45 3.60 21 13:15 1x100 34.80 1 5:45 3.60 21 13:15 NOT AVAILABLE 1x100 NOT AVAILABLE 1x100 69.64 21 20:45 3.56 5 15:30 64.60 6 21:30 4.08 5 11:00 NOT AVAILABLE NOT AVAILABLE 1x100 69.76 11 20:00 7.44 25 4:00 1x50 NOT AVAILABLE 1x50 NOT AVAILABLE 1x100 NOT AVAILABLE 1x100 NOT AVAILABLE Mendhasal		43 100							-
Table Tabl									1
1x100 34.28 1 6:00 4.36 21 13:30 Supported by Burla & Chipilima Power.	Rajgangpur Tr.]								1
1x100 34.80 1 5.45 3.60 21 13:15	KATAPALI 220/132 KV	1x100		1	6:00		21	13:30	Supported by Burla & Chipilima
1x160 NOT AVAILABLE	{Chipilima,Bargarh, ACC,Sonepur &	1x100	34 80	1	5:45	3 60	21	13:15	power.
Standard Residual Standard Residual R	Katapali area load.}					0.00		10110	-
(Bhadrak area load, Bhadrak(T),Soro, FACOR (I), Dhamra Port} PARDEEP 220/132 KV { Paradeep, Kendrapada, Pattamundai, Chandikhol, Cuttack, Jagatsinghpur, Phulnakhara} BOLANGIR (SADAIPALLI) 220/132 KV { Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli } Lapanga 1x160 113.24 11 20:00 26:36 31 17:00 1x100 69:76 11 20:00 7.44 25 4:00 1x50 NOT AVAILABLE	DUADDAK 220/422 KV					2.56		15:20	
NOT AVAILABLE NOT AVAILABLE		3,100							
PARDEEP 220/132 KV	FACOR (I), Dhamra Port}					4.00	3	11.00	
Table Tabl	PARDEEP 220/132 KV	1x160				26.36	31	17:00	
Phulnakhara	{ Paradeep, Kendrapada, Pattamundai,	1x100	69.76	11	20:00	7.44	25	4:00	1
BOLANGIR (SADAIPALLI) 220/132 KV Evaluation Evaluat	Chandikhol, Cuttack, Jagatsinghpur,	1x50	NOT AV	AILABL	Ė				
{ Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli } 60.36 24.00 19:45 20.32 13 11:30		2v160	60.40	24 00	10-45	20.72	12	11-45	
Column C	{ Bolangir, Patnagarh, Sonepur, Saintala,	ZA 100							
1x160 NOT AVAILABLE Mendhasal 1x100 NOT AVAILABLE	Khariar, Barpalli }		60.36	24.00	19:45	20.32	13	11:30	
Mendhasal 1x100 NOT AVAILABLE	Lapanga	1x160	NOT AV	AILABL	<u>. </u>				
		1x160							
Samangara 1x100 NOT AVAILABLE	Mendhasal								
	Samangara	1x100	NOT AV	AILABL	E				

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 July'16

Name of	Month	Approved	Scheduled	Actual	Open Access	Net Energy	Overdraw
DISCOM		Energy Drawal	Energy	Energy	Import	Drawal	(MU)
		Prorated for the	(MU)	Drawal	Schedule	(MU)	
		month (MU)		(MU)	(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
CESU	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
WESCO	April'16	579.452	617.311	657.707	18.777	638.93	21.619
WESCO	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
	April'16	447.945	472.674	544.157	70.768	473.389	0.715
NESCO	May'16	462.877	447.214	545.786	90.686	455.100	7.886
NESCO	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
SOUTHCO	April'16	285.205	285.017	284.863	0.007	284.856	-0.161
SOUTHED	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

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 July'16

Source of Power	Energy (MU)
Thermal (TTPS+IB)	526.68
OHPC Stations including Machhkund share	476.25
IPP & CGP Support	526.55
ISGS drawal	880.09
TOTAL	2409.57

(G) Drawal of Machhakund Power

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

		1		•			
Month	Total Generation		Odisha l	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	
TOTAL	211.633		89.248		113.754		

In the 99th PSOC meeting it was deliberated that:

In case all units of Machhakund in operation, it is not possible to provide matching load for drawal of States share all the times of the day.

Southco stated that the nearby villages are availing power supply directly from Machhakund PH. Installation of breaker is not feasible at the moment.

SLDC stated that the offer of M/s Chemtrol for installation of RVDU at Jayanagar control room, forwarded by CGM (Telecom), has already been sent to CMD. CLD, SLDC stated that the issue of availing State's share will be discussed in the high level meeting scheduled to be held near future.

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

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

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

Members may note.

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

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

Sl.	Month	No	No of Applications received					No of Applications Disposed				
No		Intra-	- Inter-State		Total	Intra-	Iı	nter-Stat	e	Total	App.	
		State	Bila	teral	PXI		State	Bila	iteral	PXI		Rejected
			ST	MT/				ST	MT/			
				LT					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
	Total	21	388	2	115	526	17	388	2	93	501	25

PART C – Issues raised in the 124th OCC meeting of ERPC to be held on 23.08.2016

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:

SI No	Name of Constituent	Name of Project	Date of approv al from	Target Date of Complet	Amount Approve d (in Rs.)	Amount drawn till date	Status as updated in 122 nd meeting
			PSDF	ion		(in Rs.)	
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: Operational Load Flow Study for Off Peak Period

Under PSDF funded project for Creation of protection database M/s PRDC have carried out an operational load flow study based on peak data of 26.05.2016. The report is available in ERPC website. During discussions on the study a need was felt for a similar study based on Off-peak conditions.

It was decided in the OCC meeting of ERPC that the data in respect of all the substations are to be recorded at 13:00 Hrs on 27.08.2016 & 03:00 Hrs of 28.08.2016 to ERPC. The CGP injection / drawal are also to be recorded. Any up-dation in the transmission network needs to be reported to ERPC / ERLDC. The format in which the data are to be submitted is given below.

Format for collection of Load data for off peak operational Load Flow Study

me	Substation Le	oad details			
cation					
YY) :	•				
5			Flows		
	Bay Type*	Nominal Voltage (kV)	MW	MVAr	
	Bay description	Ray description	Bay description Bay Type* Naminal Voltage (KV)	Bay description Ray Type* Nominal Voltage (kV)	

E	Bus description								
Bus No.	Voltage Level (kV)	VOLTAGE							

Format for collection of Shunt reactor Status for off peak operational Load Flow Study Substation/ Generating station Name Substation/ Generating station Location Date (DD:MM:YY): Time (HRS) : **Shunt reactor Status Bus Reactor** Line Reactor Status (In Connecting line Connecting end (From S/S or To Status (In Voltage Voltage rating (kV) rating (kV) SI No. Connecting S/S bus MVAr rating service/out of SI No. MVAr rating service/out of S/S) service) service) From S/S To S/S

Format for collection of Generation data for off peak operational Load Flow Study

Generator data Generating station details

State								
Gener	Generating station Name							
Gener	Generating station Location							
Date (DD:MM:YY):							
Time (HRS) :							
SI No	Generator name	Owned by	Grid Substation	Unit capacity (MW) x No. of units	Generating Voltage Level	Derated MVA	Power Sen	t Out to Grid (MW)
			Connectivity	X NO. OI UNITS	(kV)		MW	MVAr

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

In 33rd ERPC Meeting, WBPDCL 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 WBPDCL 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 123th 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 cos of Rs.5.1 lacs.

It was decided that cost of panel with one year warranty shall be borne by OPTCL. OPTCL may intimate the commissioning date of the panel to ERPC.

CGM (Telecom) may please update the status.

C.4: 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	Only 7 towers left (Severe
	D/C line at Bolangir S/S.	ROW problem). By Dec, 2016.
b.	LILO of one circuit of Katapalli-Sadeipalli 220 kV	Charged on 04.05.16
	D/C line at Bolangir S/S.	
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	December'2016
	kV D/C line at Pandiabil (PG)	

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

C.5: 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 99th PSOC meeting CGM (IT) stated that the date of tender opening extended up to 29th July'16.

CGM (IT) may please deliberate the status.

C.6: 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 99th PSOC meeting CGM (O&M) stated that BIS have not responded. OPTCL is examining to go for tender.

CGM (O&M) may deliberate the status.

C.7: 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 99^{th} PSOC meeting it was decided that the Discoms shall identify the 33 kV / 132 kV feeders to be covered under the ADMS by 29^{th} July'16 and intimate to CGM (Telecom) / SLDC, so that the purchase order can be placed.

Members may discuss. Discoms / CGM (Telecom) / SLDC may update the status.

C.8: Mock Black start exercises in Eastern Region

As per the schedule, mock black start exercise in respect of Rengali, & Burla are to be carried out during August'16.

OHPC / SLDC may deliberate.

<u>PART-D – Operational Issues</u>

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

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

Sl. No	Name of Discom	No. of message issued	Over drawal (MU)
1	CESU	11	2.919
2	WESCO	05	14.323
3	NESCO	10	12.225
4	SOUTHCO	08	9.806
	Total	34	39.273

It is noticed that WESCO had overdrawn to the tune of 14.323 MU followed by NESCO to the tune of 12.225 MU & SOUTHCO to the tune of 9.806 MU while CESU has over drawn 2.919 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 99th PSOC meeting Southco stated that the meters at Balimela PH will be installed by 31st August2016. CLD, SLDC stated that separate metering arrangement is required for recording of colony consumption at Balimela and Upper Indravati.

SOUTHCO / WESCO / 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	Due to water logging near
		& 182	the locations, revival will
			take time.
2	400kV Meramundali-Vedanta ckt.	Tower Collapse at Loc-34 & 35	July'2016

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	M/s Vedanta Ltd. (IPP),	All data stopped reporting since March 2016
	Jharsuguda	
6	Vedanta(9X 135 MW)	Some CB / Isolators and kV / Hz point yet to be provided. No response.
7	JSPL, Angul	Status not reporting.
8	BPSL	No DATA
9	CONCAST	No kV/Hz.

Sl.	Name of CGP	Present status
10	BSL	No Hz .
11	JSL	No Bus kV
12	ΓSIL	
13	VISA	
14	Paradeep	Data not available at ERLDC
15	Bolangir (New)	Data not available at ERLDC

In the 99th PSOC meeting, Vedanta Ltd stated that data communication system from 9x135 MW units has been revived on 15th June 2016.

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.

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. SLDC may implement the Web based scheduling for GGPs and subsequently for other generators and Discoms.

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 99th PSOC meeting CGM (IT) stated that software for AMR has been developed. The AMR will deliver 15 minute block data. However, the data cannot be utilized in the dashboard for real time monitoring due to mismatch of data pulling time from different locations. Further these data may not be used for ToD billing purpose by Discoms.

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 99th PSOC meeting CGM (IT) stated that M/s TCS will furnish their offer by 27th July2016 for software development.

CGM (IT) may deliberate the status.

D.8: Outage Planning of Transmission elements

It is noticed that "Emergency Shutdown permission request" for transmission elements are being received by SLDC from field units of O&M for the next day. Such shut downs should be treated as planned shutdown. Further shutdown of important transmission elements are being sent by AGM / DGM without the knowledge of GM /CGM. This issue had also been discussed earlier. All field units of O&M may be instructed to distinguish the planned and emergency shutdown. Further shutdown proposal of important transmission elements must be intimated to the higher authority.

CGM (O&M) may deliberate

D.9: PAFM for OHPC Stations

It was decided in the earlier meeting that any discrepancy relating to PAFM for hydro stations shall be intimated to SLDC in the next month. OHPC has requested to revise PAFM of Burla PH for the month of April'2015 after lapses of 16 months.

OHPC may deliberate

D.10: BPPL Issue

- 1) High Voltage during off peak hrs in Aarti-Choudwar ckt lead to tripping of BPPL unit.
- 2) Isolation of 132 kV Choudwar-Bidanasi ckt lead to over Voltage.
- 3) Bidanasi-BPPL-Chandaka circuit has been kept open at Chandaka end, which reduces the flexibility of evacuation. In case of any disturbance at Bidanasi end the unit gets islanded incurring financial loss.
- 4) Line breakers relay set point to be reviewed for both LILO connectivity (Bidanasi-Chandaka as well as Aarati-Chowduar) in order to avoid unnecessary tripping during line fault.
- 5) In spite of all communication that had taken place between SLDC and CESU regarding wheeling of Power to M/s TS Alloys from BPPL, CESU never consider the above transaction on time and releases monthly invoices late regularly, for which BPPL has to face problems in calculating above wheeling of power with TS Alloys and settling electricity duty with Govt. of Odisha.

D.11: 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 May'16.
- (ii) Fixed data indicated on dashboard may be converted to variable for accurate drawal display.
- (iii) Provision of on line recording of drawal data for CESU on real time basis.
- (iv)Gridco to facilitate for realizing the long outstanding dues of CESU from WESCO & NESCO.
- (v) Suspected data of ESSAR, BPPL, OPCL, IMFA- I & II
- (vi) Instant implementation of schedule revision.

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

NESCO

Monthly interruption report of EHT consumers under NESCO Utility may kindly be provided to the Corporate office.

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	Work has already been started. Expected to be
	Jayanagar-Jeypore 2 nd DC line	completed by December' 2016.
2	Commissioning of 400 kV	Line is ready and shall be charged after
	Meramundali-Mendhasal 2nd ckt	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	Work in progress and expected to be completed
	Bidanasi-Cuttack line	by August' 2016.
4	Commissioning of 220/132 kV	Work in progress and expected to be completed
	Cuttack S/S	by August' 2016.
5	Commissioning of 132 kV	Work has already been started, which will be
	Baripada (PG)-Jaleswar line	completed by March 2017.
6	Commissioning of 220/132 kV	Work under progress. Expected by December'
	Kesinga S/S	2017.

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

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

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 99th PSOC meeting, OHPC stated that Meter installed at Rengali PH for TTPS feeder is not functioning properly and need to be replaced. It was decided that O&M shall take necessary action for rectification of energy meter at Rengali PH. OHPC shall take action for PT replacement at Indravati ICT-II.

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

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

E.3: Installation of Feeder meters at TTPS.

Meters in all feeders at TTPS have been commissioned. As decided in the 99th PSOC meeting, Energy Accounting for TTPS (NTPC) will be done by considering the newly installed feeder meters from the next billing cycle

GRIDCO / OPTCL/ TTPS / SLDC may please discuss.

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

No report of major event has been received by SLDC.

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

- 1. On 11.07.16 at 06:21 hrs due to bursting of 'Y' ph LA at Bhusan S/Y, 220 kV Bhusan Ckt-II tripped at Meramundali on 'Y' ph, Zn-I with pulling out of all other 220 kV feeders, Autos and ICTS at Meramundali on operation of bus bar protection.
- 2. On 14.07.16 at 16:33 hrs 220 kV Budhipadar-Tarkera Ckt-I tripped on D/P at both ends. Simultaneously all the 220 kV lines at Budhipadar tripped on bus bar protection. At the same time Auto-I & II at Budhipadar tripped, #1 and 2 at IbTPS tripped and Vedanta unit went to house load.

Members may please discuss.

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

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

Transmission lines	Tripping Date / time	Restoration Date / time	Reason		
220 kV Tarkera-Rengali Ckt-II	02.07.16 11:46	03.07.16 14:45	'R' ph insulator damaged at Loc. No-560 and earth wire snapped.		
220 kV Budhipadar-Tarkera Ckt-I	14.07.16 16:33	15.07.16 11:36	Line patrolling was done but no fault found.		
220 kV Theruvali-Indravati Ckt-II	16.07.16 16:31	18.07.16 17:18	'Y' ph conductor snapped at Loc.		
132 kV BC Mohanty-Bamnipal Ckt	17.07.16 16:58	18.07.16 09:21	'Y' ph conductor snapped at Loc. No-11		
132 kV Kendrapara-Pattamundai Ckt	25.07.16 06:12	26.07.16 11:41	'B' ph insulator puncture at gantry tower of Pattamundai S/S.		

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

E.7: 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	22.07.16 to 31.10.16	Capital Maintenance
		# 6	17.02.14 to continue	Under R, M & U
		# 1	14.08.16 to 25.08.16	Intake gate problem
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	TTPS	# 1	10.09.16 to 24.09.16	Boiler overhauling

OHPC / SLDC may deliberate.

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

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

Name of Hydro Gen.	Generation	Programme	Reservoir	Reservoir	MDDL	High Flood
Station	(M	W)	Level as	Level as		Reservoir
	Sept'16	Sept'16	on	on		Level
	(1st fortnight)	(2 nd fortnight)	01.08.15	01.08.16		
HPS-I, Burla	150	150	608.39ft	609.08 ft	590 ft.	630 ft.
HPS-II, Chipilima	40	40	-	-	-	-
Balimela	200	200	1484.30 ft	1484.40 ft	1440 ft.	1516 ft.
Rengali	200	200	119.92 mt	115.02 mt	109.72m	123.5 mtr.
U.Kolab	110	110	850.79 mt	850.93 mt	844 mtr	858 mtr.
U. Indravati	200	200	630.37 mt	632.88 mt	625mtr	642 mtr
MKD (O/D)	30	30	2725.30 ft	2727.20 ft	2685 ft.	2750 ft.
TOTAL	930	930				

OHPC may deliberate & Members may discuss.

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

Sl. No	Discom	Average	Peak
1	CESU	1050	1450
2	WESCO	900	1150
3	NESCO	850	1000
4	SOUTHCO	420	520
6	Total	3350	4120
Availab	ility		
1	Hydro	930	1550
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	3430	4160
7	Surplus / Deficit	80	40

Members may discuss.

PART F: OTHER ISSUES

F.1: Date and Venue of the next (101st) PSOC meeting.