

Odisha Power Transmission Corporation Ltd.
Bhubaneswar.



Agenda
for
109th Power System Operational Coordination Meeting

Date: 23.05.2017

Venue: SLDC

Item no. 1: Confirmation of the minutes of the 108th PSOC Meeting held on 24.04.2017

The minutes of meeting was circulated vide letter No. SGM (PS)-PI-15/2016/1687⁽⁴⁵⁾ dated 08.05.2017 to all the members and also uploaded in the SLDC website. No comment has been received from any of the members except OHPC. OHPC pointed out that the views of Hon'ble Commission regarding availing of Machhakund share have not been recorded. Further, OHPC raised the issue of considering OPTCL's main apex meter installed at UIHEP for billing purpose with effect from 1st April, 2017 which was recorded as to be considered from 1st May 2017. Since, views of OERC regarding Machhakund power drawal was not felt necessary for recording & minutes again this has not been recorded. Further, it is recorded that "for all OHPC stations the main meter reading shall be considered for billing purpose from 1st May'2017". Since the apex meter reading of UIHEP could not be taken from 1st April, 2017 as decided in the 106th meeting held on 20.02.17, it was again decided in the 108th PSOC meeting to consider the meter reading with effective from 01st May 2017

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'2017

C.1: Status of projects funded under PSDF scheme

C.2: High Voltage Problem in 400 kV Meramundali grid S/S: Regarding

C.3: Operational Load Flow Study for Off-Peak Period (winter lean period)

C.4: Restoration of PLCC system of important lines

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: Tie bay of 125 MVAR bus-reactor & 400kV Indravati –Indravati PG

C.9: Replacement of old RTU in ER for reporting of RTU/SAS to back up control centre

C.10: Implementation of Automatic Demand Management Scheme (ADMS)

C.11: Mock Black start exercise in Eastern Region

C.12: Pollution mapping for Eastern Region

C.13: Tap position optimization at Jeypore

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

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

D.3: Communication issues

D.4: Web based drawal / generation scheduling.

D.5: Implementation of Automatic Meter Reading for OPTCL-Discom interface points.

D.6: Software for Deviation charge billing.

D.7: RSP Issues

D.8: BPPL Issues

D.9: Furnishing of monthly Generation / Injection data

D.10: 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 April'17

E.4: Important Grid Incidences during the month of April'17.

E.5: Outage of major transmission Elements during the month April'17. (above 10 hrs).

E.6: Review of Outage Program of State Generators for the month of June'2017

E.7: Generation Program for the month of June'2017.

E.8: Formation of Working Group (Hydro Generation).

E.9: Compliance of CEA Regulations for Grid Connectivity of Renewable Energy Sources.

E.10: Furnishing of data for CEA portal

E.11: Anticipated power generation and demand for the month of June'2017.

F.2: Date and Venue of the next (110th) PSOC meeting

PART B: GRID PERFORMANCE

Review of Grid Performance for the month of April'17.

(A) Frequency:

Hourly frequency variation for the month of April'17.

Month	% of time frequency remained				
	<49.00	49.00-49.70	49.70-49.90	49.90-50.05	>50.05
Feb'17	0.00	0.00	7.01	76.35	16.65
Mar'17	0.00	0.01	8.20	72.57	19.22
Apr'17	0.00	0.01	8.23	73.15	18.61

Maximum & Minimum frequency during the month of April'17.

Month	Freq (Hz)	Date	Time
Mar'17	Maximum – 50.16	13.03.17	18:00 Hrs
	Minimum – 49.78	31.03.17	21:00 Hrs
Apr'17	Maximum – 50.16	10.04.17	13:00 Hrs
	Minimum – 49.76	27.04.17	14:15 Hrs

(B) Grid Demand for the month of April'17.

Month	Demand		Maximum Consumption		Maximum Demand			Minimum Demand		
	MU	Avg. (MW)	MU	Date	MW	Date	Time	MW	Date	Time
Mar'17	2361	3173	83.52	28.03.17	4064	29.03.17	21:00	2301	11.03.17	04:00
Apr'17	2493	3463	88.91	27.04.17	4299	26.04.17	24:00	2466	03.04.17	07:00
Apr'16	2328	3233	83.46	26.04.16	4097	27.04.16	21:00	2315	15.04.16	10:00

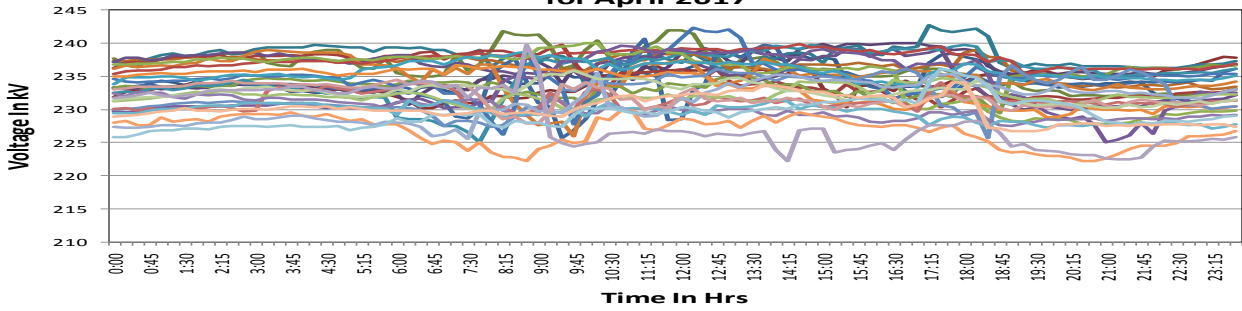
Members may please discuss.

(C) Voltage Profile of 220 kV Buses in OPTCL system for the month of: Apr'17

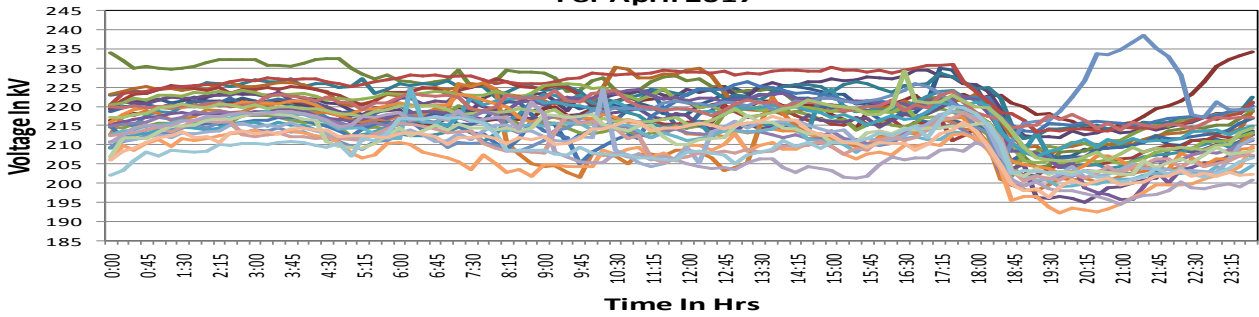
Sl. No	S/s Name	Maximum			Minimum		
		kV	Day	Time	kV	Day	Time
1	Balasure	233.70	19	21:30	213.38	12	14:45
2	Barkote	233.13	19	18:00	225.97	06	19:30
3	Bhadrak	233.24	19	21:00	203.57	22	14:15
4	Bhanjanagar	238.15	1	17:30	216.85	12	18:45
5	Bidanasi	234.97	3	2:45	215.11	28	23:15
6	Bolangir	224.29	9	21:30	198.66	15	11:15
7	Budhipadar	227.12	13	6:15	218.78	22	16:30
8	Chandaka	230.82	19	18:45	205.82	10	18:45
9	Duburi(O)	230.93	3	17:15	218.23	6	21:00
10	Duburi (N)	223.83	22	8:30	208.76	12	14:45
11	Jayanagar	242.65	5	17:15	222.22	24	20:30
12	Joda	234.94	23	17:30	212.98	6	18:30
13	Katapalli	226.55	24	13:45	189.94	12	6:30
14	Laxmipur	239.65	5	17:15	218.00	24	20:30
15	Mendhasal	231.80	19	18:45	208.30	10	18:45
16	Meramundali	228.91	19	21:30	222.56	12	19:15
17	Narendrapur	238.61	19	21:30	192.37	24	19:45
18	Nayagarh	236.76	3	3:00	209.33	9	15:30
19	Paradeep	229.72	3	9:00	209.98	10	20:00
20	Tarkera	231.68	19	17:30	223.95	21	19:15
21	Theruvali	231.16	1	17:30	203.11	24	20:30

The maximum Voltage of **242.65** kV occurred at Jaynagar 220 kV bus while Katapali, and Narendrapur, 220 kV bus have experienced the minimum Voltage of **189.94 and 192.37 kV respectively**. Bus Voltages at Samgara, Lapanga and Cuttack could not be incorporated due to non availability of energy meter in those S/Ss. The 220 kV Voltage profile of Jayanagar and Narendrapur and 400 kV Voltage profile of Meramundali bus during the month of March 2017 is shown.

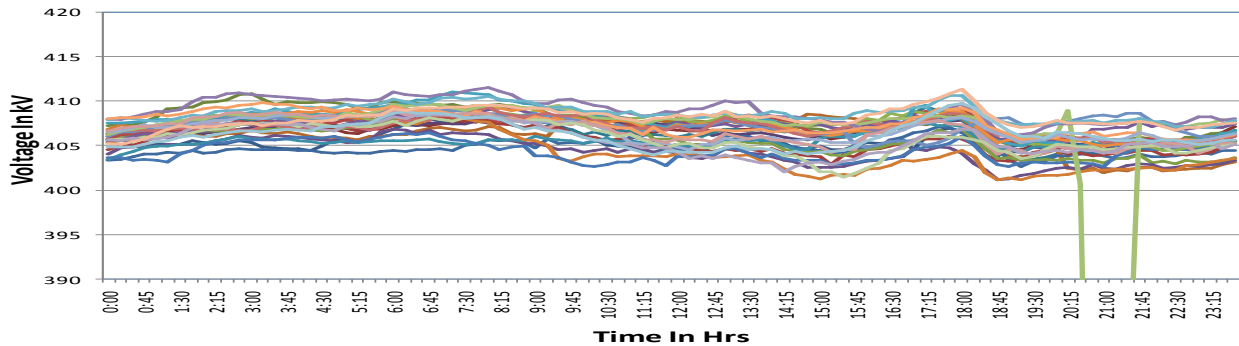
**Jayanagar 220kV Bus Voltage Profile
for April 2017**



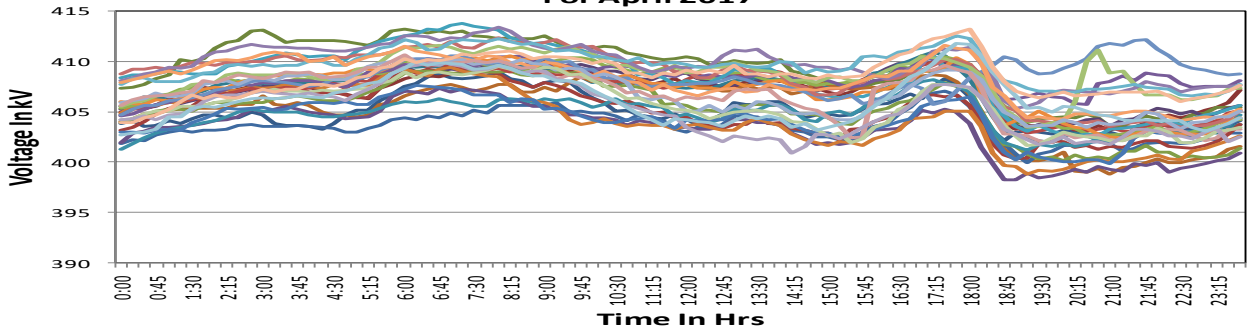
**Narendrapur 220kV Bus Voltage
For April 2017**



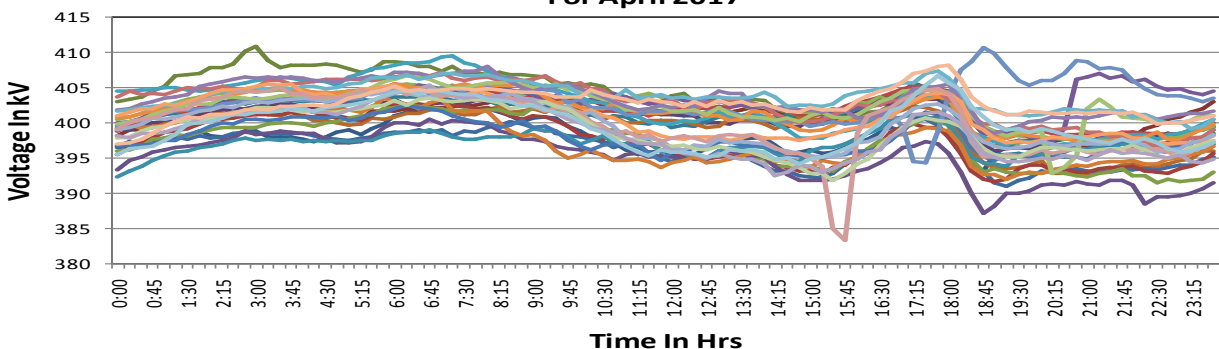
**Meramundali 400kV Bus Voltage
For April 2017**



**Duburi New 400kV Bus Voltage
For April 2017**



**Mendhasal 400kV Bus Voltage
For April 2017**



Members may discuss.

**(D) Loading of 220/ 132 kV Auto at 220 kV S/Ss in OPTCL system for the month of Apr-17
AUTO TRANSFORMER LOADING FOR THE MONTH OF APRIL'2017**

Name of the 220 kV Sub-Station (Feeding Sub-stations/Feeders)	Capacity MVA	Drawal details						REMARKS
		Maximum			Minimum			
		MW	Day	Time	MW	Day	Time	
BALASORE 220/132 KV { Balasore, Birla Tyre(I), Ispat Alloy(I), Jaleswar, Jaleswar(T)}	2x160	131.28	20	20.15	15.32	29	17.3	
		131.36	27	20.15	18.6	25	6.45	
BHADRAK 220/132 KV {Bhadrak area load, Bhadrak(T),Soro, FACOR (I), Dhamra Port}	3x100	74.24	21	14.15	7.6	3	8.15	
		70.88	21	14.15	7.48	3	8.15	
		METER NOT CONNECTED						
BHANJANAGAR 220/132 KV { Bhanjanagar, Aska, Phulbani, Ganjam, Chatrapur}	1x160	103.24	17	18.00	12.28	2	23.00	
	1x160	19.92	19	19.00	10.52	2	23.00	
BIDANASI 220/132 KV {Bidanasi, Khurda }	1x160	NOT AVAILABLE						
	1x100	47.80	29	12.15	7.72	5	17.15	
	1x100	47.80	29	12.15	11.8	6	8.15	
BOLANGIR (SADAIPALLI) 220/132 KV { Bolangir, Patnagarh, Sonepur, Saintala, Khariar, Barpalli }	2x160	141.04	1.00	3:36	13	4	11.3	
		44.16	4.00	10:48	11.28	8	15.30	
BUDHIPADAR 220/132 KV { Jharsuguda, Jharsuguda Tr, Cemco(I), MCL, Sundergarh,Brajarajnagar, Rajgangpur}	2x160	126.44	15	16.15	5.8	6	9.15	
		105.04	7	18.30	7.28	15	8.15	
CHANDAKA 220/132 KV { Chandaka, Bhubaneswar, Nimapada, Ransinghpur, Puri,Kesura, Kaipadar Tr. }	1x100	76.80	26	14.30	33.76	20	07.00	
	1x160	134.56	26	14.30	24.8	19	07.00	
	1x100	69.24	27	14.45	14.24	26	13.00	
	1x160	129.52	26	14.30	23.92	19	07.00	
DUBURI 220/132 KV {Duburi, Bamnipal(I), BRPL, MESCO, Jajpur Road, Kalarangi, Jajpur Town}	3x100	71.32	26	14.00	6.12	3	17.30	Auto-II under shutdown.
		UNDER SHUT DOWN						
		69.08	25	19.30	6.04	13	17.30	
JAYANAGAR 220/132 KV. {Damanjodi(NALCO), Traction S/Ss, Tentulikhunti, Sunabeda, Jayanagar}	1x160	65.04	7	20.45	15.88	18	19.45	
	1x160	64.96	7	20.45	15.88	18	19.45	
JODA 220/132 KV { Joda, Tensa, FAP(I), Bolani(I), Nalda Tr.,Polasponga, *Rairangpur, Bhalulata traction}	3x100	METER NOT INSTALLED						*** - Alternate P/S from Kuchei.
		METER NOT INSTALLED						
		METER NOT INSTALLED						
KATAPALI 220/132 KV {Chipilima,Bargarh, ACC,Sonepur & Katapali area load.}	1x100	39.80	1	16.30	8.32	27	17.30	Supported by Burla & Chipilima power.
	1x100	40.04	1	16.30	8.32	27	17.30	
	1x160	METER NOT INSTALLED						
Lapanga	1x160	NOT AVAILABLE						
	1x160	NOT AVAILABLE						
MERAMUNDALI 220/132 KV {Meramundali Traction, Dhenkanal, Navchrome(I), Hind Metal, Aarti,BRG}	3x100	49.60	21	20.15	8.88	2	15.30	
		38.20	13	21.30	8.84	2	15.30	
		46	21	20.15	8.08	2	15.30	
Mendhasal	1x100	NOT AVAILABLE						
NARENDRAPUR 220/132KV { Narendrapur, NarendrapurTr, Berhampur, Chhatrapur, Ganjam, Balugaon, Digapahandi, Mohana.}	2x160	112.08	18	12.15	20.64	2	23.45	
		103.12	26	20.45	21.32	2	23.45	
	1x100	NOT AVAILABLE						
PARDEEP 220/132 KV { Paradeep, Kendrapada, Pattamundai, Chandikhol, Cuttack, Jagatsinghpur, Phulnakhara}	1x160	95.60	18	19.45	18.24	3	15.00	
	1x100	58.44	18	19.45	10.96	3	15.00	
	1x50	METER NOT AVAILABLE						
TARKERA 220/132 KV { Rourkela, Rourkela Tr.,RSP(I), Chhend , Adhunik Metal, Rajgangpur, OCL(I), Rajgangpur Tr.}	4x100	65.40	8	18.30	28	27	17.30	
		66.60	8	18.30	29.36	27	"17.30	
		65.40	8	18.30	32.92	12	18.15	
		64.92	8	18.30	33.04	12	18.15	
THERUVALLI 220/132 KV. {Theruvalli, IMFAL(I), JK(I), Junagarh, Kesinga,Powmex(I), Rayagada, }	2x100	84.52	25	21.30	14.24	15	17.45	Rayagada & Paralakhemundi can be fed from Machhkund system.
		84.96	15	13.00	25.8	15	17.45	
TTPS 220/132 KV { Chainpal, FCI (I), Angul, MCL Nandira(I), Rairakhole,Boinda,Kamakhyanagar, Kalarangi,Nuapatna, Choudwar }	1x160	63.00	29	14:00	1.00	13	4:00	
	1x160	63.00	29	14:00	1.00	13	4:00	
Atri	2x160	NOT AVAILABLE						
Samangara	1x100	NOT AVAILABLE						
Cuttack	1x160	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 for the month of April'17

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'17	727.397	760.9	789.3	17.2	772.1	11.19
WESCO	April'17	582.740	637.3	689.8	54.24	635.6	-1.702
NESCO	April'17	466.849	493.6	594.8	108.9	485.9	-7.641
SOUTHCO	April'17	289.315	303.1	305.3	0.651	304.6	1.533

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'17

Figures in MU

Month	Thermal (TTPS+IB)	OHPC & MKD	CGP Support	IPP Support	Renewable	ISGS	Total
Apr'17	514.91	581.71	323.53	349.53	17.70	705.86	2493.24
Total	514.91	581.71	323.53	349.53	17.70	705.86	2493.24

(G) (i) Drawal of Machhakund Power

The drawal of Machhakund power during the month of **April'17** are as detailed:

Month	Total Generation		Odisha Drawal		AP Drawal	
	MU	MW	MU	MW	MU	MW
April'17	65.96	91.61	32.32	44.88	30.95	42.98
TOTAL	65.96		32.32		30.95	

In the 108th PSOC meeting, CGM (Telecom) stated that the RVDU is expected to be commissioned by 15th May'17. SGM (O&M)-I stated that if the traction bay at Machhakund PH Switchyard will be equipped and kept idle, the elements are likely to be utilized by Machhakund authority at some other places as replacement when required. As such the bay should be equipped just before commissioning of the proposed 2 X 10 MW Lower Machhakund small hydro station.

(ii) Replacement of Multi Functional Meter (MFM) at Machhakund Power House

The unit wise generation data in respect of #1, #2 & #6 of Machhakund PH are not available on the VPS in the SLDC control Room. This requires replacement of MFM at Machhakund PH. To carry-out the replacement work, shutdown on the above said units is required for half an hour each.

In the 108th PSOC meeting it was decided that, unit Head of Upper Kolab PH shall take up the matter with Machhakund Authority regarding issue of shutdown.

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

(H) Under Frequency Relay operation in OPTCL System during the month of April'17.

Since, the frequency had never gone beyond the lowest setting of UFR, there was no UF Relay operation occurred during the month of **April'17**.

(I) Status of Open Access applications up to the month of April'2017

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'17	21	71	0	29	121	20	71	0	28	119	2
	Total	21	71	0	29	121	20	71	0	28	119	2

PART C – Issues likely to be discussed in the 133rd OCC meeting of ERPC on 26.05.2017**C.1: Status of projects funded under PSDF schemes**

In the PSDF review meeting held on 29.04.16 at New 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 129 th meeting
3	OPTCL	Renovation & Up-gradation of protection and control systems of Sub-stations in the State of Odisha in order to rectify protection related deficiencies.	11.05.15	10.05.17	162.5 Cr.	19.53 Cr.	<i>Total contract awarded for Rs. 67.73 Cr Erection work for received equipment is in progress.</i>

ERPC advised to submit monthly updated report to RPC secretariat.

In the 131st OCC meeting, ERPC advised to furnish the information in the prescribed format (Annexure-B.3 (ii) of OCC agenda) by first week of every month on regular basis to Member Convener, PSDF Project Monitoring Group (AGM, NLDC, POSOCO) with a copy to NPC Division. In the 108th PSOC meeting G.M. (O&M) stated that the information is being sent regularly to ERPC in the prescribed format.

CGM (O&M) may please update.

C.2: High Voltage problem in 400 kV Meramundali grid S/S: Regarding

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

Short term measure

- OPTCL will install 80 MVAR reactor at Meramundali 400kV S/S.
- The Angul-Meramundali Double circuit ties to be opened at both ends.

Long term measure

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

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

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

In 130th OCC, ERLDC presented the study results and informed the following:

- The voltage at Meramundali is increasing during winter season due to low demand at Meramundali, Dubri and Mendhasal and insufficient reactive power support.
- In the present scenario the 765/400 kV Angul S/s is acting like sink of Reactive power for OPTCL system in and around 400kV Meramundali S/s.
- With opening of 400kV Angul-Meramundali line the export of reactive power to the ISTS network is reduced drastically but the voltage at 400kV Meramundali S/s is increasing by 4 kV which may affect the sub-station equipment.
- Further due to outage of one ckt of 400 kV Meramundali- Mendhasal the voltage at Meramundali is on higher side. This line may be restored at the earliest.

In 35th TCC, ERLDC informed that VAR is being generated at OPTCL system and the 765/400 kV Angul S/s is acting like sink of Reactive power for OPTCL system in around 400kV Meramundali S/s. The opening of 400kV Angul-Meramundali line will not be the solution. Further due to outage of one ckt of 400 kV Meramundali- Mendhasal the voltage at Meramundali is on higher side. This line may be restored at the earliest.

OPTCL informed that 400 kV Meramundali- Mendhasal line will be charged on tomorrow and 315 MVA, 400/220kV ICT will be restored by 15th March, 2017.

Powergrid informed that the flexible LILO scheme as approved in 18th SCM was approved in their Board and it is in final stage and the scheme will be implemented by 2018.

TCC opined that the high voltage issue should be reviewed after restoration of 400 kV Meramundali- Mendhasal line and commissioning of 315 MVA, 400/220kV ICT at Meramundali in OCC meeting.

TCC advised all generators in around 400kV Meramundali S/s to absorb VAR up to maximum extent as per the capability curve. TCC also advised OPTCL to plan for proper reactive power compensation at 400kV Meramundali, New Dubri and Mendhasal S/s.

CE, CEA opined that reactive power compensation is part of grid security and it is eligible for PSDF grant. OPTCL may apply for PSDF.

In the 106th PSOC meeting, CGM (PP) stated that the generators connected to Meramundali should absorb VAR as per their capability and scope to arrest VAR injection by the State at higher Voltage. SLDC shall monitor such activity on real time.

In the 107th PSOC meeting, GM (O&M) stated that, the issue was discussed in the meeting convened by CEA on 10.03.2017 at New Delhi. CEA advised to monitor the VAR absorption by the generators connected with Meramundali 400 kV Bus. OPTCL may plan for installation of additional reactor at Meramundali. Isolation of Meramundali-Angul (PG) ckts has very marginal impact on VAR injection. However, after replacement of the ICT at Meramundali by 15th April'2017, the impact of isolation of the above ckts will be monitored.

In the 108th PSOC meeting, CGM (O&M) stated that as per the decision of PCC meeting of ERPC that, Sri A.Banerjea OPTCL is to be deputed to ERLDC for a joint system study to resolve the VAR generation and high Voltage problem at Meramundali S/S.

CGM (O&M) may please deliberate.

C.3: Operational Load Flow Study for Off-Peak Period (Winter Lean Period)

In 128th OCC for lean off-peak load flow study, OCC finalized the date and time as follows

- 13.00 Hrs of 28th December, 2016.
- 02:00 Hrs of 29th December, 2016

In 130th OCC, PRDC informed that they will submit the report by end of March, 2017.

The report is available at ERPC website (www.erpc.gov.in)

Further OCC advised PRDC to carry out another load flow study in the first week of May, 2017 tentatively for 4th and 5th May, 2017 for 19:00 and 20:00 Hrs. Therefore, all utilities have to record data for four instances.

In the 108th PSOC meeting, CGM, SLDC stated that OCC decided to collect said data for 25th and 26th May'2017 in addition to the dates mentioned, as backup. SLDC shall write a letter to O&M in this regard. CGM (O&M) was requested to issue instructions to all field engineers for collection and forwarding the data to his office.

CGM (O&M) may please deliberate.

C.4: Restoration of PLCC system of important lines

In 130th OCC meeting, OPTCL informed that PLCC panels at 220kV Joda end will be commissioned within a week. JUSNL informed that the Ramchandrapur end is ready in all respect for implementation of PLCC.

In 35th TCC, OPTCL informed that PLCC panels at 220kV Joda end will be commissioned by March 2017.

In 131st OCC, WBPDCI informed that shutdown was proposed on 31st March, 2017 to complete the work. OPTCL informed that PLCC panels will be commissioned by March 2017.

In the 107th PSOC meeting CGM (Telecom) stated that PLCC at Joda end will be commissioned on 27th March'2017.

In the 108th PSOC meeting, CGM (Telecom) stated that local test of PLCC was done. Since the line was under shutdown, remote test could not be taken up. After revival of the line towards 2nd week of May'2017, remote test will be done.

CGM (Telecom) may please deliberate.

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 130th OCC of ERPC, SLDC deliberated the completion schedule of inter-connecting system as follows:

Sl.	Name of the transmission line	Completion schedule
1.	2 X 315MVA 400/220kV Bolangir S/s	
a.	LILO of one circuit of Sadeipalli-Kesinga 220 kV D/C line at Bolangir S/S.	Construction of 220 kV Sadeipali-Kesinga portion has started. Expected by June'17
b.	LILO of one circuit of Katapalli-Sadeipalli 220 kV D/C line at Bolangir S/S.	Charged on 04.05.16
2.	400/220 kV Keonjhar S/S.	
a.	Keonjhar (PG)-Keonjhar (OPTCL) 220 kV D/C line	Line is expected by June'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).	Atri – Pandibili charged on 19.05.2017 Pandiabili – Samangara ckt. charged on 20.05.17

In the 108th PSOC meeting, SLDC stated that CGM (Const) may intimate SLDC regarding the modification of Pandiabili connectivity for onward intimation to ERPC.

CGM (Const.) may please deliberate.

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.

CECSC vide letter dated 22.08.15 had furnished their status of the preparation of Crisis Management Plan (CMP) for Cyber attacks in their system.

In the 107th PSOC meeting, CGM (IT) informed that “Crisis management plan” work is awarded to M/s Digital Age Strategies Pvt. Ltd. The said firm has completed the study of Servers and Firewalls at SLDC, Bhubaneswar and back-up SLDC at Meramundali. Presently the data centers of SLDC and GRIDCO are being audited for IT security vulnerability assessment.

SLDC is requested to nominate one officer for attending the Cyber Security training to be held at Bengaluru during 11th to 15th April'2017. Nominations from GRIDCO and OPTCL have since been received. Top management awareness-cum Seminar on the subject shall be organized subsequently.

In the 108th PSOC meeting, IT stated that the Cyber Security training was held at Bengaluru during 11th to 15th April'2017. Regarding the proposed in house training to be held at Bangalore, members suggested to conduct the training at Bhubaneswar, so that all other officers can attend the same. IT requested to spare one room at SLDC building for **Security Operation Center**. SLDC stated that there is no spare room available at present.

CGM (IT) may please deliberate.

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 104th OCC, WBPDCI informed that Bandel TPS is certified with IS 18001. OPTCL vide letter No. TB-SO-MISC-9/2010/1914 dated 20.12.2014 had proposed to go for IS 18001:2007 certification as per direction of CEA.

In the 107th PSOC meeting O&M stated that the proposal will be placed before PSC due to single bid.

In the 108th PSOC meeting, O&M stated that the bid has been cancelled. Negotiation with BIS is under process.

CGM (O&M) may please deliberate.

C.8.Tie bay of 125MVAR Bus reactor and 400kV Indravati-Indravati and Indravati(PG):

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

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

In 129th OCC, OPTCL informed that the CB has reached at the site. The installation work will be completed by February, 2017.

In 131st OCC, OPTCL informed that the work will be completed by end of March, 2017.

In the 107th PSOC meeting, SGM (O&M)-I stated that breaker erection has already started from 22.03.2017.

In the 108th PSOC meeting, SGM (O&M)-I stated that installation of tie breaker has been completed. After receipt of clearance from Siemens, the same will be commissioned.

CGM (O&M) may please deliberate.

C.9: Replacement of old RTU in Eastern Region for reporting of RTU / SAS to back-up control centre

The matter for replacement of old RTU in Eastern Region for reporting to back up control centre has been discussed in a special project review meeting held on 14th February 2017 at ERPC & also on 35th TCC/ERPC meeting held on 24th / 25th February 2017, It was also mentioned that there would not be any service support for the old RTUs from POWERGRID after 15 years of operation period. It was accordingly advised to ERLDC to form a committee with POWERGRID as a nodal agency for assessment of such old RTUs vis-a-vis further action plan on replacement. It was also advised to submit a report in the next TCC/ERPC meeting.

The matter for replacement of old RTU in Eastern Region for reporting to back up control centre has been discussed again in 19th SCADA O&M meeting held at ERLDC, Kolkata on 07th April 2017, wherein nomination of nodal person name from OPTCL, WBSETCL, DVC, BSPTCL, JUSNL, POWERGRID ERTS-1, POWERGRID ERTS-2, ERLDC, MPL & Jorethang has been collected.

Nomination from NTPC all stations including Nabinagar, NHPC all stations, Dikchu, Teesta-III, Chuzachen, JITPL, GMR, Ind Bharat & APNRL are yet to be provided. ERLDC has already issued letter ref no: ERLDC / SCADA O&M / 2017/ dated 11.04.2017 for the same. It is requested to provide the nomination from these stations.

In the 108th PSOC meeting, CGM (Telecom) stated that tender has already been floated for replacement of old RTUs. A meeting is scheduled to be held between OPTCL, POWERGRID and Chemtrol during 1st week of May'17 to decide integration charges.

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

C.10: 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.

The DPR for ADMS has already been approved by BoD, OPTCL. SLDC shall submit the proposal for funding by PSDF for ADMS to O&M wing of OPTCL for further action.

In the 108th PSOC meeting, SLDC stated that filling of format for PSDF and floating of tender is under process. The DPR will be sent to ERPC. CGM (Telecom) stated that SLDC may contact the consultant of PSDF for filling the format. The proposal has already been sent to NLDC to include for funding through PSDF.

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

C.11: Mock Black start exercises in Eastern Region

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

Sl.	Name of HEP	Test-I Completed on	Test-II Completed on
1	Balimela	29.11.16	25.03.2017
2	Upper Indravati	16.07.16	24.03.2017
3	Burla	28.07.16	-

The tentative schedule of black-start exercises for F.Y 2017-18 given by OCC is as follows

Sl no	Name of Hydro Station	Schedule	Tentative Date	Schedule	Tentative Date
		Test-I		Test-II	
1	U.Kolab	Last week of May, 2017		Last Week of January 2018	
3	Rengali	2nd week of June 2017		Last week of November 2017	
4	U. Indarvati	3rd week of June 2017		2nd week of February 2018	
6	Balimela	3rd week of October 2017		1st week of March 2018	
9	Burla	Last Week of June 2017		Last week of February 2018	

In the 108th PSOC meeting, SLDC stated that Black start exercise for Burla is scheduled to be conducted during the month of May'2017. Further, the existing procedure for Burla HEP need to be modified due to shutdown of units at Burla and non-availability of bus splitting arrangement at Burla Switchyard.

OHPC / SLDC may please deliberate.

C.12: Pollution mapping for Eastern Region

Powergrid updated the latest status as follows:

	Scope (no. of locations)	Installed Locations	Number of locations where the results for 1st set of Measurements submitted	No. of locations where the results for 2nd set of Measurements submitted	Number of locations where the results for 3rd set of Measurements submitted	Number of locations where the results for 4 th set of Measurements submitted
OPTCL	164	102	100	90	79	1

Powergrid informed that most of scheduled measurements till fourth set has not been completed yet, it is requested to complete the measurements and submit the results at the earliest.

Powergrid added that they prepared an online format to submit the details of measurements.

Powergrid requested to fill the Google form (<https://goo.gl/6375HJ>) for onward submission of measurements for better analysis of results.

OCC advised all the constituents to complete the measurements as per the schedule.

In the 108th PSOC meeting, O&M stated that the updated report will be sent to ERPC.

CGM (O&M) may please deliberate.

C.13: Tap Position Optimization at Jeypore

Current Tap position at Jeypore ICT is 14. From scatter plot of 400/220 kV Jeypore S/S for the month February it is seen that 80% of time it is remaining in 1st quadrant and 20 % of time in 2nd quadrant. This means most of the time voltage at both 400 and 220 kV level remains above their nominal value and occasionally 400 kV side voltage going below nominal value. But, 220 kV side voltage is always remaining on the higher side. Also it is seen that although 80% of time scatter plot is staying in 1st quadrant but Max voltage is within 420 kV. So if we reduce the Tap position then it will help to reduce 220 kV voltage and further increase 400 kV side voltage which is remaining below 400 kV for 20% of time and within 400 to 420 kV for 80 % of time. So even after tap change 400 kV side voltage will stay mostly within 420 kV and may

occasionally cross 420 kV by a very small margin. We also have reactors at Jeypore and Indravati for controlling high voltage at 400 kV. It is proposed that Tap may set to 12 from 14.

131st OCC advised Powergrid to do the tap changing from 14 to 12.

Powergrid agreed to do the tap changing in off load condition.

In the 108th PSOC meeting, it was deliberated that the Voltage profile at Jayanagar is not improving. SrG.M (O&M)-I may ascertain the tap position at Jeypore (PG)

CGM (O&M) may please 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'17**:

Sl. No	Name of Discom	No. of message issued	Over drawal (MU)	Deviation (%)
1	CESU	1	11.19	1.47
2	WESCO	2	-1.702	0.26
3	NESCO	2	-7.641	1.54
4	SOUTHCO	0	1.533	0.51
	Total	5	3.38	

It is noticed that CESU had overdrawn substantial quantum to the tune of **11.19** MU.

SLDC/ Discoms may please deliberate.

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

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

Sl.No	of transmission element	Reason of outage	Probable date of revival
1	220/132 kV, 100 MVA, Auto- 2 at Duburi	Oil leakage since 24 th October'2016	May'2017
2	132 kV Sunabeda-Damanjodi line	For conversion to DC	Charged on 05.05.17

CGM (O&M) may update the progress.

D.3: Communication issues

Installation of communication equipment by CGPs / Industries.

The status of data communication from CGPs as deliberated in the last meeting is as follows.

Sl.	Name of CGP	Present status
1	M/s IFFCO, Paradeep	Outdoor commissioning work completed. RTU was locally tested. CVT already replaced. Data will be integrated after restoration of OPGW between New Duburi & Paradeep.
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 Ferrotech	PLCC established and inspection by Telecom Engineers completed. Database has already been prepared by OPTCL.
5	CONCAST	No kV/Hz. (Industry is under lock up)
6	VISA	CB & Status data are not available
7	Paradeep	Data not available at ERLDC (Transducers need replacement)

GCC has convened a meeting with all the CGP and EHT consumers on 21st February'2017 to discuss the communication issues. In the 106th PSOC, SGM (Telecom) stated that data from Paradeep S/S will be obtained after availing shutdown of 220 kV Duburi-Paradeep DC line for OPGW stringing.

In the 107th PSOC meeting, GCC stated that the CGPs and EHT consumers have assured to establish communication system within a specified time limit. In case they fail to do so the matter will be placed before the OERC.

In the 108th PSOC meeting, GCC stated that, the minutes of the meeting have already been forwarded to OERC. SLDC stated that the generation of GMR unit connected to the State network is being received. It was decided that CGM (Telecom) will write to GMR for installation of a separate RTU for the said unit.

CGM (Telecom) / GCC / RT&C may deliberate the status

D.4: Web based drawal / generation scheduling.

In the 107th PSOC meeting, CGM (IT) informed that Generators web based scheduling work is completed except for generation of report indicating "Final Generation Schedule" for which SLDC shall furnish the requisite format. SLDC was requested for a report to ascertain the submission of schedule by the CGPs.

It was decided to take a backup of the past web scheduling submissions by the generators and preserve them off line.

It is proposed to Go-Live for Generators web based scheduling w.e.f 1st April'2017. SLDC may issue necessary order.

Due to non-availability of sorting function for Date & Name of CGP under Accept / Edit Generator DC, difficulty is being faced by SLDC to find out the data of a particular CGP for a particular date. Further, the link for final schedule preparation has not been updated in the Web Based Scheduling application. Further, it is suggested by SLDC to take suitable back up of all the old records i.e. the DCs sent by the CGPs previously and clean the application database up to 31st March 2017.

In the 108th PSOC meeting, IT stated that **final report** generation will be completed by April'2017. **Searching and Sorting** of data has been done. The status to indicate whether the CGP has done scheduling or not, will be completed. SLDC may go for parallel run of the program for the month of May and June'17. From 1st July'17 the software will be made operative. SLDC may write a letter in line with the above program.

CGM (IT) / SLDC may update the status

D.5: Implementation of Automatic Meter Reading for OPTCL-Discom interface points.

The work for Automatic Meter Reading (AMR) for all the interface points is in progress.

It was deliberated that that from 1st March onwards the AMR shall be made "Go live". Data will be available after one hour lapses of time.

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

In the 104th PSOC meeting, DGM (IT) stated that, data from 90 Nos of S/Ss will be provided by January'2017. Gridco stated that the events such as PT failure, CT polarity reversal, meter power

failure, MD reset, time synchronization etc. are not being incorporated the AMR. It was decided that IT, SLDC and GRIDCO may have a separate meeting to resolve the issue.

In the 105th PSOC meeting DGM (IT) stated that, data from 100 Nos of S/Ss will be provided by February'17. The issues raised by Gridco will be addressed except Time synchronization and MD reset.

In the 107th PSOC meeting, CGM (IT) stated that AMI-UAT open points viz., (a) "Status Flag" for events and (b) Phaser Diagram issues are resolved by TCS. SLDC and GRIDCO were requested to spare their officers on 24th and 25th March'17 for a final testing and Sign-off. Further if any non-fatal cosmetic issues remain, the same shall be resolved by TCS during support service period. Accordingly, an undertaking shall be obtained by IT from TCS. Hence it is proposed to go for parallel run with effect from 1st April'2017 for a period of six months after testing the software by the UAT team, before going Live. Out of 125 Grid S/Ss, 101 S/Ss reported 100 % data during March 2017.

In the 108th PSOC meeting IT stated that data for 39 Nos out of 41 Nos of CESU interface S/Ss have been completed. SLDC may prepare bill from 1st July with both from AMR and legacy meter data. If there is no difference between both the bills, the software will be made **Go Live**. It was further decided that AMR data will be taken on 1st day and manual data will be taken on 2nd day.

SLDC / IT may update the status.

D.6: Software for Deviation charge billing.

Hon'ble OERC may notify "Intra State Deviation settlement and related matters" Regulation at any time. For implementation of the regulation, required software for Deviation Charge billing need to be developed and tested. CGM (IT) may take necessary steps for development of the software.

In the 106th PSOC meeting CGM (IT) stated that the work will be awarded to TCS after notification of Deviation Mechanism Regulations by OERC. SLDC stated that OERC may not allow time for implementation of the DSM Regulations. As such action may be taken for placing Order.

In the 107th PSOC meeting, SLDC stated that IT may take necessary steps for placing order for the DSM software.

In the 108th PSOC meeting IT stated that TCS will forward their commercial offer by 1st week of May'17.
CGM(IT) / SLDC may please deliberate.

D.7. RSP Issue

Repeated tripping of 220 KV Rourkela PGCIL to Tarkera Grid Substation Feeders 1&2 leading to voltage dips and power system disturbances and subsequent production losses at Rourkela Steel Plant.

RSP / O&M may please deliberate.

D.8. BPPL Issue

1. BPPL has suffered huge Generation loss during April and May -2017 because of shutdown activities taken by O&M on Choudwar –TS Alloys circuit, though TS Alloys – Aarti circuit was opened for evacuation, but due to repeated occurrences of circuit high voltage condition, power evacuation seriously hampered which had forced BPPL to decrease the Generation.
2. Because of evacuation constraints, BPPL had to surrender partly the ongoing STOA MW quantum that was allotted for May 2017 which incurred financial losses from every angle.
3. During the month of April and May (up to 15th), because of repeated Islanding, circuit outage condition, and unit tripped on line fault, under injected quantum is 710 MWH , for which penalty is being imposed on BPPL inviting financial losses and burden.

BPPL / O&M may please deliberate

D.9. Furnishing of monthly Generation / Injection data

It is noticed that the monthly generation / injection data in respect of State Generators & CPPs are not being received by SLDC in time even after a lot of pursue. Since these data are required for preparation of CEA report by 8th day of each month, it is required that all OHPC stations / TTPS/ IbTPs & CGPs should furnish the data by 3rd day of each month positively.

SLDC may deliberate.

D.10. DISCOM Issues

CESU

1. Wide mismatch between actual drawal data and drawal displayed in the SCADA. The mismatch is to the tune of -70 to +120 MW.
2. SLDC should provide the weekly Deviation Bill to CESU for analysis.

CESU/ SLDC / CGM (Telecom) may deliberate.

NESCO

1. Exclusion of OA from daily schedule.
2. Barbil, Bangiriposhi & Rairangpur grid data are to be updated in RVDU.
3. Drawl of all the OA consumers are to be appeared in one minute data.

NESCO / SLDC may deliberate.

PART E: OPERATIONAL PLANNING

E.1: Commissioning status of New Transmission elements.

The status of commissioning of new transmission elements deliberated in the meeting is as follows:

Sl. No	Transmission element details	Present Status
1	Commissioning of 220 kV Jayanagar-Jeypore 2 nd DC line	Work has already been started. Expected to be completed by June' 2017.
2	Commissioning of 400 kV Meramundali-Mendhasal 2 nd 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 June'2017.
3	Commissioning of 220 kV Bidanasi-Cuttack line	Idle Charged on 29.11.2016
4	Commissioning of 220/132 kV Cuttack S/S	Commissioned on 27.03.2017
5	Commissioning of 132 kV Baripada (PG)-Jaleswar line	Work has already been started, which will be completed by May 2017. Stringing started.
6	Commissioning of 220/132 kV Kesinga S/S	Work under progress. Expected by December' 2017.

The list of Grid S/Ss already charged earlier and scheduled to be charged during FY 2016-17 has been placed in the meeting. The Discoms were requested to take necessary action for availing power supply through 33 kV feeders.

Sl. No	Name of S/S	Date of Charging	No of Bays	Name of bays	Remarks
1	Argul	06.05.14	4	1.IIT	
				2.IIT	
				3.NISER	
				4.NISER	
2	Barbil	02.08.14	5	1.Barbil	
				2.Bhadrasahi	
				3.Vacant	
				4.Vacant	
				5.Vacant	

3	Kuchinda	24.11.14	5	1.Kuchinda	
				2.Laikera	
				3.Laida(Proposed)	
				4.Jamankira(proposed)	
				5.Kusumi(proposed)	
4	Nuapada	27.12.14	5	1.Bishra	
				2.Khariar Road	
				3.Vacant	
				4.Vacant	
				5.Vacant	
5	Boud	28.01.15	5	1.Purnacuttack	
				2.Boud	
				3.Badhiapada	
				4.Chatrang(proposed)	
				5.Jampalaka(proposed)	
6	Sarasmal	13.03.15	4	1.Industrial	
				2.Kolabira	
				3.ODSSP(proposed)	
				4.Vacant	
7	Banki	26.03.15	4	1.Banki	
				2.Sunadei	
				3.Vacant	
				4.Vacant	
8	Dabugaon	10.04.15	4	1.Dabugaon	
				2.Papdahandi	
				3.Medina	
				4.Kosamguda	
9	Umerkote	10.04.15	4	1.Umerkote	
				2.Adhikariguda	
				3.Beheda	
				4.Vacant	
10	Konark	29.06.15	4	1.Gop	
				2.Konark	
				3.ODSSP(proposed)	
				4.ODSSP(proposed)	
11	Lapanga	11.08.15	4	1.Vacant	
				2.Vacant	
				3.Vacant	
				4.Vacant	
12	Kalunga	07.09.15	5	1.IDC	
				2.Industrial	
				3.Kalunga	
				4.Mahaveer Ferro	
13	Marshaghai	16.10.15	5	1.Luna	
				2.Mahakalpada	
				3.Lift irrigation(proposed)	
				4.Vacant	
				5.Vacant	
14	Somnathpur	11.12.15	4	1.HIL	
				2.Vacant	

				3.Vacant	
				4.Vacant	
15	Atri	24.02.16	4	1.Vacant	
				2.Vacant	
				3.Vacant	
				4.Vacant	
16	Padampur	24.02.16	5	1.Padampur	
				2.Gaisilat(proposed)	
				3.Paikmal(proposed)	
				4.Melchamunda(prop)	
				5.Vacant	
17	Mania	31.03.16	5	1.Vacant	
				2.Vacant	
				3.Vacant	
				4.Vacant	
				5.Vacant	
18	Puri (Samangara)	30.05.16	5	1.Sriramnagar	
				2.Sriramnagar	
				3.Gabakunda	
				4.Vacant	
				5.Vacant	
19	Bangiriposi	03.10.16	4	1.Bangiriposi	Under progress
				2.Vacant	
				3.Vacant	
				4.Vacant	
20	Infocity-II	23.12.16	5		
21	Khajuriakata	28.03.17	5		33/11 kV S/S under Dindayal Scheme.
22	Chandaka-B	31.03.17	5		33/11 kV Chandaka S/S under ODSSP.
23	Malkangiri	28.03.17	5		Govindapali & Padia S/S const. in progress under ODSSP. (one feeder charged)
24	Bonei	15.04.17	5		
25	Bhogorai	29.03.17	5		

Distribution Utilities are advised to take necessary action for drawal of power from the S/Ss already charged and prepare their action plan for takeoff arrangement.

DISCOMs may deliberate the status

E.2: Energy Metering at Hydro stations.

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

In the 108th PSOC meeting, it was decided that for all OHPC stations the main meter reading shall be considered for billing purpose from 1st May'2017.

SLDC / OHPC / GRIDCO to deliberate the status

E.3: Installation of ABT compliance Energy Meter at Ib TPS feeders & Generators

SLDC shall prepare the schedule and Energy Accounting in respect of IbTPS. It is learnt that the Main meter installed by IbTPS feeders is recording 30 minutes reading while Check meter provided by OPTCL is recording 15 minutes reading. Unless ABT compliance Main and Check energy meters installed in IbTPS feeders & Generators, the energy accounting and PAFM cannot be computed. It is requested OPTCL / IbTPS to provide ABT compliance Main and Check meters in all the 220 kV IbTPS feeders & Generators.

OPTCL / IB TPS may deliberate

E.4: Major Events in the month of April'17

12.04.2017: 220/33kV S/S at Bonai commissioned.

E.5: Important Grid Incidences during the month of April'17.

On 21.04.2017 at 20:17 hrs 400 kV Meramundali-Angul Ckt- II tripped on 'R' ph to E/F, dist-20.6 km, IL1-24.16 kA due to bursting of 'R' ph LA at Meramundali end. Simultaneously 400 kV Meramundali-Angul Ckt-I tripped at Meramundali end only on 'R' ph to E/F, Zn-II, direct trip transfer send, 400 kV Meramundali-Kaniha Ckt tripped at Kaniha end only on Zn-II, 'R' ph, dist-49 km, IL1-7.57 kA, 400 kV Meramundali-Vedanta Ckt-I tripped at Meramundali end on D/P, IL2-0.17 kA, dist-15.8 km, 'R' ph to E/F, direct trip send (at Vedanta-'R' ph current 1.3 kA, Zn-II, dist-100%), 400 kV Meramundali-Vedanta Ckt-II tripped at Meramundali end on D/P, dist-176.6 km, direct trip transfer 'R' ph to 'Y' ph to 'B' ph. send (at Vedanta-'R' ph current 1.5 kA, Zn-II), 400/220 kV, 315 MVA ICT-II at Meramundali tripped on both sides on LBB, O/C, (IL2-2.86 kA on 400 kV side), 400 kV Meramundali-Mendhasal Ckt tripped at Mendhasal end only on D/P, Zn-I, 'R' ph to E/F, direct trip receive channel- I/II.

Members may discuss

E.6: Outage of major transmission Elements during the month of April'17. (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	132KV Bhubaneswar-Phulnakhara Ckt	13.04.17 16:35	14.04.17 08:38	Y-Ph SF-6 breaker limb burst at Phulnakhara S/S.
2	400 kV Meramundali-Angul Ckt.-II	21.04.17 20:17	22.01.17 13:43	'R' ph. LA burst at Meramudali S/s.
3	220 kV Joda-Ramchandrapur Ckt	24.04.17 14:25	26.04.17 22:47	Line patrolling was done but no fault found.
4	132 kV Tarkera Chhend ckt-I	26.04.17 21:09	27.04.17 17:59	Snapping of the B Phase conductor inside Grid S/S, Tarkera.

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

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

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

Sl.	Station	Unit	Period	Remarks
1	Burla	# 2 # 5 # 6 # 7	22.07.16 to 31.05.17 25.10.16 to continue 16.10.15 to continue 21.02.17 to 15.07.17	Capital Maintenance Under R,M & U Under R, M & U GT problem
2	Chiplima	# 1 # 3	15.04.17 to 15.06.17 15.10.15 to continue	Annual Maintenance & bush replacement Under R,M & U
3	Balimela	# 1 # 7	05.08.16 to continue 16.04.17 to 30.06.17	Under R,M & U Generator Stator problem
4	Rengali	# 5	21.03.17 to 10.06.17	Hoist gate problem
5	Upper Kolab	# 3	18.04.17 to 30.06.17	Forced outage due to stator fault

The proposed shutdown program of one of the IbTPS units may be deferred. The shutdown may be taken during the month of August or September'17.

OHPC / TTPS / SLDC may deliberate.

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

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

Name of Hydro Gen. Station	Generation Program (MW)		Reservoir Level as on 01.05.16	Reservoir Level as on 01.05.17	MDDL	High Flood Reservoir Level
	June'17 (1 st fortnight)	June'17 (2 nd fortnight)				
HPS-I, Burla	40	40	609.54 ft	611.69 ft	590 ft.	630 ft.
HPS-II, Chipilima	20	30	-	-	-	-
Balimela	300	250	1477.00 ft	1478.10 ft	1440 ft.	1516 ft.
Rengali	150	150	114.24 mt	119.96 mt	109.72m	123.5 mtr.
U.Kolab	130	120	849.54 mt	851.44 mt	844 mtr	858 mtr.
U. Indravati	210	220	631.76 mt	632.35mt	625mtr	642 mtr
MKD (O/D)	40	40	2724.20 ft	2714.30 ft	2685 ft.	2750 ft.
TOTAL	890	850				

OHPC / SLDC may deliberate & Members may discuss.

E.9: Compliance of CEA Regulations for Grid Connectivity of Renewable Energy Sources.

As per CEA (Technical Standards for connectivity to Grid) Regulations, 2007, dated 21st February 2007, the pertinent clauses 6 (iii) & 6 (iv) (b) of general Connectivity Conditions shall be applicable to all the Generating Projects including the renewable, which are getting connected to the Grid at voltage level of 33kV & above. Subsequently, CEA have notified the CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 dated 30.09.2013. These Regulations are applicable for “Distributed Generation Resources”, which means a Generating Station feeding electricity into the System at voltage level below 33kV. Needless to mention that these Regulations also cover the renewable projects connected to the Distribution Licensee’s System at voltage level of below 33kV. The letter received from CEA is annexed herewith.

All the Distribution / Transmission Licensee may please indicate the status in this regard and the action plan with definite time frame to ensure real time data telemetry from all the grid connected renewable Generators / Plants to SLDC.

In the 108th PSOC meeting it was decided that a SLDC shall convene a meeting between all Renewable projects, Telecom and SLDC to decide the strategy.

SLDC may deliberate the status

E.10: Furnishing of data for CEA portal

As per the decision taken in the meeting convened by Chairman, CEA on dated 17.05.2017 all the SLDCs shall furnish the information sought by CEA in the prescribed formats on daily / monthly basis as applicable. The Format “Proforma-Monthly_c” contains information relating

the generator parameters. OHPC, TTPS, IBTPS and all IPPs (GMR & Vedanta) are required to furnish the data to SLDC in the format enclosed as **Annexure** for necessary action by SLDC.

SLDC may deliberate

E.11: Anticipated power generation and demand for the month of June'2017.

Sl. No	Discom	Average	Peak
1	CESU	1100	1350
2	WESCO	1000	1150
3	NESCO	800	1070
4	SOUTHCO	450	550
6	Total Discom	3350	4120
	System Loss	150	180
		3500	4300
Availability			
1	Hydro	810	1400
2	State Thermal	750	750
3	IPP, small hydro &RE	850	850
4	ISGS share (including OA)	950	1050
5	CGP support (OA)	200	250
6	Total availability	3560	4300
7	Surplus / Deficit	60	Nil

Members may discuss.

PART F: OTHER ISSUES

F.1: Date and Venue of the next (110th) PSOC meeting.

