

**MINUTES OF DISCUSSION IN 56th POWER SYSTEM OPERATIONAL COORDINATION  
MEETING HELD AT 11.30 HRS. ON 22.04.2009 AT OPTCL POWER TRAINING CENTRE  
CHANDAKA, BHUBANESWAR**

List of participants enclosed at Annexure-A

No representative from TTPS, OPGC, RSP, HINDALCO, VAL, Bhushan Steel and Machhakund PH has attended the meeting.

The meeting was chaired by Director (Engineering), OPTCL.

Director (Engineering), OPTCL welcomed all the participants to the 56th Power System Operational Coordination meeting.

Sr. G.M (PS) gave a brief overview of system performance such as Voltage & Frequency profile, State maximum & minimum system demand, important events and major incidents occurred in OPTCL system during the month of March 2009.

GM (SLDC) took the agenda items for discussion.

The review proceeded as follows:

**Item No.1-Confirmation of the minutes of 54th PSOC meeting held on 28.02.2009 at PTC, Chandaka, Bhubaneswar.**

Since Members have no comments for the minutes of 55th PSOC meeting, the minutes of the meeting was confirmed.

**Item No. 2- Review of Grid performance for the month of February 2009.**

**Item No. 2 (A) – Frequency**

The one-minute instantaneous System frequency for the month of March'09 was reviewed. It was noticed that 98.57% of times, the frequency remained in the band of 49.0Hz – 50.5Hz (IEGC band) during the month as compared to 97.34% during February'09. The maximum and minimum System frequency during the month of March'2009 was 50.66 Hz and 48.81 Hz respectively. The monthly frequency profile, FVI & Standard Deviation for the month of March' 2009 was reviewed. The frequency profile during the month of March'09 is noticed to be improved in comparison to the month of January'2009.

**Item No. 2 (B) – Grid demand**

Grid demand for the month of March' 2009 was reviewed. The maximum System demand of 3021 MW occurred on 09.03.09 at 20:00 Hrs and minimum demand of 1836 MW occurred on 26.03.09 at 04:00 Hrs. respectively. The hourly demand profile for the month of February'2009 was reviewed. It is observed that, the peak demand during the month was increased by 114 MW during the month of March'2009 in comparison to February' 2009. The grid demand has increased by 247 MU comparing to February 2009 and 97 MU comparing to February 2008.

## **Item No. 2(C) – Voltage Profile of important Sub Stations in OPTCL System.**

The Voltage profile at different 220 kV buses occurred during the month was reviewed.

It is noticed that Narendrapur 220 kV bus has experienced a maximum voltage of 254 kV and minimum Voltage of 188 kV & 190 kV has experienced by Bhadrak and Chandaka 220 kV buses respectively.

### **Deliberation in the meeting**

The maximum Voltage at Narendrapur S/S was due to under loading of transmission lines during off-peak hours. The minimum Voltages at Bhadrak and Chandaka are due to growing demand of these areas. However after connecting Mandhasal ICTs at 400 kV the Voltage level at Chandaka is likely to be improved. A system study is being conducted and will be placed in the next meeting.

Sr.G.M (PS) stated that the low Voltage at Duburi has been intimated to ERLDC and requested to instruct NTPC, Kaniha for increase of excitation several times. However after establishing of 400 kV S/S at Duburi, the low Voltage at Duburi, Balasore & Bhadrak S/Ss will be improved.

He also stated that synchronizing of 200 kV bus-I bus-II at Meramunduli may be examined as already suggested by ERLDC to improve Voltage profile at Duburi Grid.

Director (Engg) stated that the fault level at Meramunduli and Duburi has gone up due to number of generating stations in the area, which may further increase by synchronizing the 220 kV buses at Meramunduli.

CGM (O&M) suggested to operate the tap changer at Meramunduli ICT and increase excitation at NTPC station, Kaniha for improvement of Voltage profile at Duburi Grid.

Director (Engg) stated that since, Duburi is not connected radially, tap changing at Meramunduli ICT may not have any impact on Voltage improvement

It was decided to record the Voltage profile at Meramunduli bus-II, Duburi (O), Duburi(N) and Var drawal by JSL for 7 days during peak period for review and put up in the next meeting.

**[Action : Sr.G.M(PS)]**

CGM (O&M) suggested to isolate one ckt of 220 kV Indravati-Theruvalli line arrest the high Voltage at Narendrapur S/S during off peak period. Sr.G.M (PS) stated that isolating of one ckt of 220 kV Theruvalli and 220 kV Indravati-Theruvalli is being done during off peak period. He also suggested to examine for providing bus reactor at Narendrapur and Theruvalli Grids.

It was decided to conduct a system study by PRDC to ascertain the capacity of reactors required at Narendrapur and Theruvalli Grid to address high Voltage problem in those S/Ss.

**[ Action: CGM (O&M)]**

**Item No. 2 (D) – Energy Generation/ import during the month of February’09**

Energy generated by the State generating stations such as OHPC stations, IbTPS , TTPS (NTPC) and CGP support and import from ISGS station during the month was reviewed.

**Deliberation in the meeting**

CGM (O&M) suggested to furnish the energy generation in the same month of previous year for reference and review.

**It was recorded for future.**

**Item No. 2 (E) – DISCO Drawal during the month of February’09**

The quantum of energy drawn by Discos during the month was reviewed. It is noticed that the cumulative drawal by the Discos up to the month ending March’09 except NESCO have increased substantially in comparison to the ARR approved quantum

**Deliberation in the meeting**

Director (Engg.) suggested for changing the sign of difference in drawals for a better understanding.

**It was recorded for future.**

G.M (SLDC) stated that the extra energy drawn by the Discos have been met from hydro resources, which caused increase in average drawal from hydro stations.

CGM(O&M) suggested to record the 15 minute energy drawal data instead of 30 minute recording at present in the Apex meters provided at the interconnection points as well as OHPC stations for future requirement of Intra State ABT implementation. Accordingly the programming may be done.

It was decided to convene a meeting by CGM (O&M) between Gridco, OHPC, IT, Telecom, O&M and SLDC to discuss the issue and finalize before next meeting.

**[ Action: CGM (O&M)]**

**Item No. 2 (F) – Major Events in the month of February’ 2009**

There are three number of major event recorded during the month.

**Item No. 2 (G) – UFR Operation in OPTCL System in the month of February’ 2009**

There was no UF Relay operation occurred during the month of February’09.

The locations for installation of df/dt Relay in OPTCL system is yet to be finalized.

**Deliberation in the meeting**

C.G.M.(O&M) stated that a meeting to decide the location for installation of df/dt relays has already been held with SLDC. The locations will be finalized soon.

**[Action- C.G.M. (O&M), Sr. G.M (PS)]**

## **Item No. 2 (H) – Important Grid incidents**

Major grid incidents for the month of February' 2009 were reviewed.

## **Item No. 2 (I) – Major Transmission Lines/ Elements Outage during the month of February'09.**

Outage of major Transmission Lines/ Elements during the month of February' 2009 was reviewed. It was noticed that most of the tripping are due to failure of insulators and jumper snapping

### **Deliberation in the meeting**

C.G.M.(O&M) stated that it is proposed to replace all the insulator of the 132 kV Balasore-Jaleswar line. A meeting will be held with NESCO for deciding the shutdown proposal.

**[Action : CGM (O&M)]**

## **Item No. 3 – Drawal of Machhakund Power.**

Power drawal from Macchakund PH during the month of February' 2009 was reviewed. It was noticed that the Machhkund authority are not following the decision, although agreed in the meeting held on 17.02.2009 between APGENCO, OHPC, OPTCL , SLDC and Gridco Ltd.

### **Deliberations in the meeting**

CGM (O&M) stated that drawal of 50% Machhakund generation by matching load on real time basis is not feasible. It may be ascertained whether the agreement has made for 50 % energy drawal on daily/monthly/yearly basis. Machhakund authority may be asked to ensure the quantum by allowing extra drawal during the period as per the agreement.

It was decided that Gridco may take up the issue with APGENCO. In case they fail to fulfill their commitment, the issue may be taken up with CERC.

G.M(GO), SLDC stated that due to injection by Minakshi hydro power station Machhakund drawal is reduced some times due to matching load problem. Minakshi feeder may be connected to BTH system.

Director (Engg) stated that Minakshi have already agreed to shift their connectivity to BTH bus of Jajanagar S/S at their own cost.

**[Action : Sr.G.M. (PP), Gridco]**

**Display of Machhakund drawal** – Accessing of PT secondary terminal of Machhkund feeder at Jajanagar grid.

### Deliberations in the meeting

G.M.(Telecom) stated that PT connection at Jayanagar for Machhakund feeder data has already been done. At present Machhakund drawal is displaying at SLDC

### Installation of new RTU at Machhakund PH:

### Deliberations in the meeting

GM (Telecom) stated that offer for supply of RTU has been received and will be forwarded to OHPC for taking procurement action.

[Action : GM (Telecom)]

### Item No. 4 –Review of Outage Programme of State Generators / Transmission elements for the month of March & April'09 .

Outage programme of EHT lines and S/S for the year 2008-09 is being implemented.

Tentative Outage programme for State Generators for April & May'09 are as follows:

Sl.	Station	Unit	April'09		May'09	
1	Chiplima	# 3	04.11.06 to continue	Abnormal sound in turbine	04.11.06 to continue	Abnormal sound in turbine
2	Burla	# 1 # 5	16.03.09 to Continue 09.04.09 to Continue	Annual Maintenance Annual Maintenance	- 09.04.09 to Continue	- Annual Maintenance
3	Rengali	# 1 #2	18.08.08 to Continue 15.01.09 to 31.05.09	Winding Problem Annual Maintenance	18.08.08 to Continue 15.01.09 to 31.05.09	Winding Problem Annual Maintenance
4	U. Indravati	# 2 # 4	06.04.09 to 05.05.09 -	Annual Maintenance -	06.04.09 to 05.05.09 07.05.09 to 05.06.09	Annual Maintenance Annual Maintenance
5	Balimela	# 3	20.04.09 to 19.05.09	Annual Maintenance	20.04.09 to 19.05.09	Annual Maintenance

### Item No. 5 – Generation Programme for the month of February & March'08

Generation schedule for the month of April & May'09 furnished by OHPC are given below.

Name of Hydro Gen. Station	Generation Programme (MW)		Reservoir Level as on 01.03.09	Reservoir Level as on 01.04.09	MDDL	High Flood Reservoir Level
	April'09	May'09				
HPS, Burla	15+10	15+10	612.67ft	607.50ft	590 ft.	630 ft.
U.Indravati	240	75	632.70mtr	629.86mtr	625mtr	642 mtr
Balimela	80	120	1455.60ft	1447.90ft	1440 ft.	1516 ft.
U.Kolab	60	80	850.03mtr	848.70mtr	844 mtr	858 mtr.
Rengali	25	40	116.09mtr	114.53mtr	109.2mtr	123.5 mtr.
MKD (O/D)	30	30	2732.65ft	2723.90ft	2685 ft.	2750 ft.
<b>TOTAL</b>	<b>460</b>	<b>370</b>				

**Item No. 6 –Progress and Programme of completion of WB & ADB funding / Deposit work / Gridco's own funding Lines & sub-stations.**

**❖ 132kV Burla-Sambalpur LILO at Katapalli.**

**Deliberation in the meeting:**

CGM (Const) stated that the work is in progress and the line is expected to be charged by June 2009.

**❖ 220/132kV Bolangir Grid S/S and 220 kV Katapalli-Bolangir line.**

**Deliberation in the meeting:**

CGM (Const) stated that the work is in progress and the line is expected to be charged by June/July 2009.

**❖ 220/132kV Paradeep Grid S/S .**

**Deliberation in the meeting:**

Director (Engg) stated that the inspection work is under progress. The S/S is expected to be commissioned during April 2009 with 1x100 MVA capacity. Foundation for another auto of 50 MVA has also been completed.

**Item No. –7 Communication issues**

**(I) Integration of NALCO & RSP CGPs with OPTCL –Present status May be intimated.**

**Deliberation in the meeting**

**NALCO:**

GM (Telecom) stated that NALCO has already been intimated to install their own RTU.

NALCO representative stated that they have already taken procurement action for RTU and issued clearance to OPTCL for lifting their RTU.

Director(Engg) stated that on installation of the 1:1 transformer by M/S NALCO the data transfer may be interrupted.

G.M (Telecom) stated that the signal can be bypassed by providing two Nos of CVT on both sides.

He also stated that RSP has not yet procured the required hardware for interfacing.

It was decided to insist RSP for completion of the work soon.

**[Action – RSP, G.M (Telecom)]**

**(II) Installation of communication equipment by CGPs/ Industries.**

**Deliberation in the meeting**

G.M (Telecom) stated that in view of the market recession due to global meltdown, the CGPs are delaying for commissioning of SCADA/PLCC equipments. However the issue is being monitored and the CGPS are constantly insisted to complete the work soon.

### **(III) Non-displaying of data for transmission elements / generating units**

The status of the transmission elements for which the data is not being displayed in the SLDC control room was reviewed.

#### **Deliberation in the meeting**

GM(Telecom) stated that as decided in the last meeting a letter has been made to PGCIL under the signature of Director(Engg) to rectify the problems.

A proposal has been made by PGCIL to integrate the remaining transmission elements in the SCADA system. A decision will be taken soon.

**[Action- G.M (Telecom)]**

### **(V) Display of DISCOM drawal data at SLDC Control Room**

#### **Deliberation in the meeting**

G.M (Telecom) stated that IT wing of OPTCL has taken up the work for collecting the data from all the interconnection points through WAN.

Sr G.M (PS) stated that since major S/Ss are covered in the SCADA, Disco drawal may be displayed by summing the transformer primary drawals of the respective Discos. This will represent an indicative figure up to 80% accuracy. The above proposal may be examined.

**[Action- G.M (Telecom)]**

### **Item No. 8- IT Related issues**

#### **A. MIS Report for EBC data**

##### **Deliberation in the meeting**

CGM (IT) stated that GM (Telecom) has agreed to provide 2 MBPS dedicated line from IT center to SLDC for providing IT server data to SLDC. However till such time he has agreed to provide the EBC data in excel format to SLDC.

**[ Action: AGM (IT)]**

#### **B. Maintenance of SLDC website:**

##### **Deliberation in the meeting**

CGM (IT ) has agreed to amend the P.O for identifying SLDC executive as web coordinator for SLDC website so that, the real time data can be hosted in the site. Sr. G.M (PS) may intimate the name of the executive for SLDC web coordinator.

CGM(O&M) stated that OPTCL web site has to be updated in line with other Transcos like AP. A team of executives are required to be nominated for providing data to OPTCL site.

It was decided that CGM (O&M) shall convene a meeting for detail discussion in this regard.

**[Action – Sr.G.M (PS), CGM (IT)]**

**Item No. 9:** Issues relating to Discos:

**CESU**

Representative of CESU stated that, the capacity of Baligaon, Nuapatna, Dhenkanal and Angul need to be upgraded to cater the growing load requirement of those areas.

CGM (O&M) stated that proposal has already been placed for commissioning of 3<sup>rd</sup> bay in the grid S/Ss for up-gradation of S/S capacity.

Director (Engg) stated that up-gradation at Nuapatna and Balugaon S/Ss will be done on receipt of repaired transformers. Inspection of one 40 MVA transformer for Dhenkanal Grid has already been completed.

Regarding keeping of spares for Rly S/Ss as proposed by CESU, Director (Engg) stated that let the Rly authority keep spare equipments for their own S/S.

Regarding low Voltage problem in CESU area, CGM (O&M) stated that OPTCL is responsible for maintaining Voltage at the Grid S/Ss. CESU can maintain HT/LT Voltage by diversion of loads and operating tap changers

**ICCL Issues:**

ICCL representatives stated that there are frequent black out experienced by ICCL substation due to disturbances at Bidanasi and Choudwar grid S/Ss.

**Deliberation in the meeting**

Sr GM (PS) stated that number of CGPS have been connected between 132 kV Choudwar-Chainpal DC line. As per the operational requirement ICCL and Maheswari are kept connected with Choudwar S/S isolating from Dhenkanal end. Disturbances at Bidanasi and Choudwar are being reflected to ICCL units. CGM (O& M) may review the matter.

**[Action : CGM (O&M)]**

**Item No:11 : The date and venue of 57<sup>th</sup> Operational Coordination meeting shall be intimated soon.**

**Item No: 12.** Members expressed their gratitude to Er B.N.Mahapatra, Sr. G.M (Power System), Er.A.P Mohanty, Sr. G.M (T&D) and Er. C.R Mishra, Sr G.M (PP), who are going to retire from service in the current month on superannuation, for their advice and guidance during their tenure of service. It will take a long time for filling up the void created due to their retirement.

**Sr.G.M. (Power System)**

**ANNEXURE-A****MEMBERS PRESENT**

<b>SL.NO.</b>	<b>NAME</b>	<b>DESIGNATION</b>
1	Sri K.K. Nath	Director (Engineering), OPTCL
2	Sri A.C. Mallick	Director(Commercial), GRIDCO
3	Sri J.P. Das	C.G.M.(O&M), OPTCL
4	Sri N. Dash	C.G.M.(Construction), OPTCL
5	Sri M. Anant Rao	C.G.M.(IT), OPTCL
6	Sri B.N. Mahapatra	Sr.G.M (PS) SLDC, OPTCL.
7	Sri S.C. Mudali	G.M., SLDC, OPTCL
8	Sri R.K. Mahapatra	G.M.(Telecom), OPTCL
9	Sri S.K. Rout	G.M.(Technical), CESU
10	Sri P.K. Pradhan	G.M.(Operation), NESCO
11	Sri A.C. Patra	D.G.M.(Telecom), OPTCL
12	Sri B. R. Mishra	D.G.M.(SLDC), OPTCL
13	Sri D. Das	D.G.M., CESU
14	Sri Dibakar Behera	D.G.M., IMFA
15	Sri B.R. Mishra	D.G.M., SLDC, OPTCL
16	Sr. B. B. Nayak	D.G.M., NALCO
17	Sri Santosh Kumar Das	A.G.M. (SS), SLDC, OPTCL.
18	Sri P. Patra	A.G.M.(IT), OPTCL
19	Sri S.D. Bhanja	A.G.M.(C&RA), NESCO
20	Sri P. Arun Kumar	S.E.(Technical), SOUTHCO
21	Sri P.K. Mishra	Manager, SLDC
22	Sri B. P. Gantayat	Dy. Manager (Elect.), OHPC
23	Sri S.K. Patra	Dy. Manager, WESCO
24	Sri K.K. Mishra	A.M., OPTCL
25	Miss. Banishree Pradhan	A.M., SLDC, OPTCL
26	Mrs. S. Patajoshi	E.A. to Director (Comm.)