MINUTES OF DISCUSSION IN 51st POWER SYSTEM OPERATIONAL COORDINATION MEETING HELD AT 11.30 HRS. ON 31.10.2008 AT OPTCL POWER TRAINING CENTRE CHANDAKA, BHUBANESWAR

List of participants enclosed at Annexure-A

No representative from WESCO and Machhakund PH has attended the meeting.

Sr.G.M.(PS) welcomed all the participants to the 51st Power System Operational Co-ordination meeting.

Sr. G.M (PS) gave a brief overview of system performance such as Voltage & Frequency profile, State maximum & minimum system demand, important events in OPTCL system and major incidents occurred in OPTCL system during the month of September 2008.

Thereafter, GM (SLDC) took the agenda items for discussion.

The review proceeded as follows:

Item No.1-Confirmation of the minutes of 50^{th} PSOC meeting held on 30.09.2008 at PTC, Chandaka, Bhubaneswar .

Since Members have no comments for the minutes of 50th PSOC meeting, the minutes of the meeting was confirmed.

Item No. 2- Review of Grid performance for the month of September 2008.

2 (A) - Frequency

The one-minute instantaneous System frequency for the month of September'08 was reviewed. It was noticed that 83.87 % of times the frequency remained in the band of 49.0Hz - 50.5Hz (IEGC Band) during the month as compared to 94.45 % during August'08. The maximum and minimum System frequency during the month of September'2008 was 50.54 Hz and 48.58 Hz respectively. The monthly frequency profile, FVI & Standard Deviation for the month of September' 2008 was reviewed. The frequency profile was observed to be detoriated in comparison to the month of August'2008.

2 (B) - Grid demand

Grid demand for the month of September' 2008 was reviewed. The maximum and minimum System demand of 2995 MW occurred on 29.09.2008 at 20:00 Hrs & 1302 MW occurred on 17.09.08 at 14:00 Hrs. respectively. The hourly demand profile for the month of September' 2008 was reviewed. It is observed that, the maximum demand has increased during the month of September' 2008 in comparison to August' 2008 and the minimum demand has decreased.

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

The maximum and minimum Bus Voltage at major 220 kV buses occurred during the month of September 2008 was reviewed. It is noticed that the maximum voltage occurred at 220 kV Narendrapur S/S, was 253 kV. The minimum voltage of 180 kV occurred at Chandaka S/s. The maximum Voltage at Narendrapur S/S was due to under loading of transmission lines during off-peak hours.

Deliberation in the meeting

Director (Engg.) advised that Narendrapur may be asked to report the duration of persistence of high voltage during the month.

Item No. 2 (D) - Major Events in the month of September' 2008

11.09.08- At 13:57 hrs, 2nd 135 MW unit of M/S Vedanta Aluminium Ltd, Jharsuguda was synchronized with OPTCL system.

Deliberation in the meeting

Sr.G.M. (OHPC) wanted to know the evacuation system made for Vedanta power as per discussion at OCC meeting held at Patna.

Director (Engg), OPTCL stated that M/S PRDC, Bangalore have been entrusted to study and prepare the transmission planning for OPTCL system.

Item No. 2 (E) - UFR Operation in OPTCL System in the month of September' 2008

As system frequency remain above 48.5 Hz, UF Relay were not supposed to be operated during the month but frequent mal-operation of UFR relays installed at Sambalpur, Jajpur -Road and Duburi Grid Sub-station have been noticed. The relays installed in the above Substations were operating in case of disturbances other then under frequency.

Deliberation in the meeting

CGM (O&M) stated that UF relays at Sambalpur S/s tested and found ok. It is apprehended that the relay might be operated at low frequency at the time of islanding at Burla command area. He also stated that the defective relay at Bargarh s/s will be replaced within 10 days.

Item No. 2 (F) - Important Grid incidents

Major grid incidents for the month of September' 2008 were reviewed.

Deliberation in the meeting

Director (Engg.) stated that frequent lightning at Meramunduli sub station is noticed.

CGM (O&M) stated that provision of surge arrester at suitable tower location along the line need to be examined, which will minimize the lightening effect to the substation equipment.

Item No. 3 – Drawal of Machhakund Power.

The power drawal from Macchakund PH during the month of September' 2008 was reviewed.

Deliberations in the meeting

Sr.G.M (PS) stated that at low generation it is not possible to provide the matching feeder load to draw the Machhkund power.

It was decided that GRIDCO shall move a proposal for drawal of 50% share of power on annual basis.

Sr.G.M.(PP) stated that this will be incorporated in the revised PPA.

Director (Engineering) stated that at present the feeders are kept through isolator arrangement only. At Jayanagar Grid S/s. Action need to be taken for supply of Machhkund power through breaker arrangement.

It was decided the above matter will be discussed separately.

Telecom representative stated that a separate set of PT/CVT will be required at Jayanagar S/s to monitor the Machhkund drawal at different condition.

Director (Engineering) stated that G.M (Telecom) may put up the proposal for procurement of new PT/CVT.

Item No. 4 -Review of Outage Programme of State Generators / Transmission elements for the month of October & November'08.

Outage programme of EHT lines and S/S for the year 2008-09 has been finalized and intimated to all concerned.

Tentative outage programme for State Generators for October & November'08 are as follows:

| Sl. | Station | Unit | October'08 | | November'08 | |
|-----|--------------|------|-------------|----------------|-------------|----------------|
| 1 | Chiplima | | 04.11.06 to | Abnormal | 04.11.06 to | Abnormal sound |
| | | # 3 | continue | sound in | continue | in turbine |
| | | π 3 | | turbine | | |
| 2 | Balimela | # 1 | 25.07.08 to | RLA Study | 25.07.08 to | RLA Study |
| | | | 30.09.08 | | 10.11.08e | |
| | | | 21.08.08 to | RLA Study | - | - |
| | | # 2 | 04.10.08 | | | |
| | | | - | - | 17.11.08 to | A/M |
| 3 | Rengali | # 1 | 18.08.08 to | Winding | 18.08.08 to | Winding |
| | | | Continue | Problem | Continue | Problem |
| | | # 5 | 05.10.08 to | Stator Earth | 05.10.08 to | Stator Earth |
| | | πυ | 14.11.08 | Fault | 14.11.08 | Fault |
| 4 | U.Kolab | - | - | - | - | - |
| 5 | U. Indravati | # 1 | - | - | 16.11.08 to | A/M |
| | | | | | 17.12.08 | |
| 6 | Burla | # 4 | - | - | 05.11.08 to | A/M |
| | | | | | 02.12.08 | |
| 7 | IbTPS | # 1 | - | - | 01.11.08 to | Annual |
| | | | | | 15.11.08 | Overhauling |
| 8 | TTPS | # 2 | 18.08.08 to | Renewal of | - | - |
| | | | 04.10.08 | Boiler License | | |

Deliberation

Sr.G.M.(PS) stated that OHPC has reduced the schedule for second fortnight which will increase the demand supply gap further.

ICCL representative stated that due to present market scenario the consumption by the Steel industries will be reduced which may decrease the demand supply gap.

Item No. 5 – Generation Programme for the month of October & November'08

The generation schedule (Average) for the month of October & November'08 are as follows.

| Name of Hydro Gen. Station | Generation Programme (MW) | | |
|----------------------------|---------------------------|---------------------------|---------------------------|
| | Oct'08 | Nov'08 | |
| | | 1 st fortnight | 2 nd fortnight |
| HPS, Burla | 150+20 | 70+20 | 50+20 |
| U.Indravati | 250 | 350 | 100 |
| Balimela | 100 | 80 | 120 |
| U.Kolab | 80 | 80 | 40 |
| Rengali | 150 | 100 | 40 |
| MKD (O/D) | 45 | 45 | 45 |
| TOTAL | 795 | 745 | 415 |

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

* 220 kV Duburi-Paradeep line.

Deliberation in the meeting:

Director (Engg) stated that, the line has already been completed and kept under antitheft charging. The S/S will be charged on receipt of the transformers by the end of December 2008.

♦ Charging of 220kV Indravati – Theruvali 4th ckt.

Deliberation in the meeting:

Sr.G.M (OHPC) stated that the line is ready for inspection by Electrical Inspector. It is expected to be charged by 5th of November 2008.

* 132kV Burla-Sambalpur LILO at Katapalli.

Deliberation in the meeting:

The work of the above line will be expected to be completed by February'09.

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

Deliberation in the meeting:

All works of the line and S/S is expected to be completed by June 2009.

❖ 220kV Budhipadar-IbTPS 3rd Ckt.

Deliberation in the meeting:

The above line is expected to be charged by 1st week of November'08.

Item No. -7 Communication issues

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

Deliberation in the meeting

NALCO representative stated that the RTU installed at NALCO may be retained. NALCO is willing to pay the cost of the RTU.

Director (Engg) stated that NALCO may place a request letter to OPTCL in this regard. On receipt of the said letter, action will be taken for procurement of a new RTU and realize the cost from NALCO.

[Action – NALCO, G.M (Telecom)]

(ii) Installation of communication equipment by CGPs/ Industries.

Deliberation in the meeting

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

| Sl. No | Name of transmission element | Action taken / present status |
|-----------|--|---|
| 1 | 220 kV Indravati-Theruvali ckt-III | The line is not included in the scope of work. However transducer for the line have been installed. AREVA representative will be visiting on 10 th November for commissioning of the same. |
| 2 | 400 kV Indravati-Indravati PG | The meter is not indicating correct data at Indravati end. OHPC representative stated to give in writing for necessary action. G.M (Telecom) agreed to do so. |
| 3 | 132 kV Baripada-Kalabadia line | M/S AREVA had attended the site but could not able to detect the defect. |
| 4 | 220/132 kV Auto –I & II at Joda | AREVA representative is scheduled to visit the spot on 17 th & 18 th November'08. |
| 5 | 220/132 kV Auto –IV at Tarkera | Not included in the scope of work. Action is being taken for display of data using spare bay available in the Tarkera RTU. |
| 6 | In correct data at Bidanasi Auto-I & | AREVA representative had visited the site but could no able to trace the problem |
| 7 | In correct data at Theruvali Auto I&II | AREVA representative have not yet visited the site |

C.G.M.(O&M) stated that AREVA may be asked to send their experienced staff to check and rectify the defects and if they failed to rectify the same, they may be asked to refund the AMC charges.

Regarding keeping of spare RTUs at some exchange point S/ss to get uninterrupted data for ISGS drawal, Director (Engg.) agreed to procure 5no.s RTU to keep at standby at the above locations. He suggested that G.M.(Telecom) shall give the proposals on top priority basis.

SLDC representative stated that data of 220 kV Bhadrak is yet to be displayed at the control room.

Telecom representative stated that at 220kV Bhadrak S/s one RTU is available. The same has to be upgraded to collect 220kV data.

Item No. 8- Issues relating to Discos:

CESU

CESU representative wanted to know the status of installation of new power transformers at Dhenkanal and Angul S/S.

Deliberation in the meeting

Director (Engg.) stated that tender has already been floated for procurement of transformers for Dhenkanal S/s. For Anugul S/s tendering is yet to be done.

Regarding low Voltage problem at Chandaka area, Director (Engg) stated that 400/220 kV ICTs at Mendhasal have been commissioned on 21st October 2008. It is expected that the Voltage profile at Chandaka commend area will be improved.

CESU representative stated that at present Kaipadar(T) S/s is being fed from Khurda Grid S/s causing voltage fluctuation at Khurda command area. Since the industrial consumers are complaining for voltage fluctuation, it may be examined for shifting of Kaipadar load to Chandaka Grid.

Director (Engg.) stated that after commissioning of the 4th Auto at Chandaka S/s, the Kaipadar load will be extended to Chandaka.

SOUTHCO

SOUTHCO representative stated that at present Sorada area load is being fed from Bhanjanagra S/s during day time and fom Aska S/S during night time. The Voltage profile at Surada is remaining low.

Deliberation in the meeting

Director (Engg.) stated that the procurement of transformer for Bhanjanagar S/s is under process.

Director (Engg) wanted to know the action taken by Discos for elimination of 11 kV systems from the grid.

Director (Engg.) stated that in the house committee meeting it was decided to establish 132kV S/s at Baliguda.

SOUTHCO representative stated that there is no load at Baliguda area.

NESCO

NESCO representative wanted to know the status of establishment of 132kV Karanjia S/s.

Deliberation in the meeting

Director (Engg.) stated that the above substation would be completed by January'09. He also stated that there is a proposal for 220kV sub station at Keonjhar with LILO from 220kV TTPS-Joda Ckt.-II.

NESCO representative wanted to know the status of up gradation of Joda and Polasponga S/Ss.

Deliberation in the meeting

Director (Engg.) stated that action has already been taken up for up gradation of the above S/s.

The DISCOS raised the issue regarding bay extension work at different substations to supply power to their respective areas.

Deliberation in the meeting

Director (Engg.) stated that the action has already being taken up for 51 no.s of bay extension work at different substation.

Regarding establishment of new grid S/Ss, Director (Engg.) stated that the Letter of Intent have already been placed for construction of 19no.s of S/Ss at different locations, the formalities of which are to be completed soon.

Director (Engg.) stated that since there is no surplus power available, all the Discos are requested to intimate OPTCL in case of permission issued to any new industry, as instantaneous peak of 3000 MW have been experienced on 11.10.08.

C.G.M.(O&M) requested to all the Discos to submit the list of railway traction substations and their contract demands for their respective company.

Item No. 9- Issues relating to TTPS:

TTPS representative stated that the proposal for shutdown of TTPS-Chainpal switch yard need to be examined by OPTCL for renovation of switchyard.

Deliberation in the meeting

Director (Engg.) stated that the shutdown of TTPS-Chainpal feeder is not possible at this stage.

Item No. 10- Issues relating to IbTPS:

IBTPS representative stated that frequent tripping of IB units was noticed during last few days.

They wanted that 220kV Budhipadar-Korba and IB-Budhipadar required to be islanded in case of fault occurred beyond bus.

Deliberation in the meeting

Director (Engg) stated that M/S PRDC, Bangalore have been entrusted to study the condition and suggest remedial measures.

Item No. 11- Issues relating to NALCO:

NALCO representative wanted to know the establishment of bus bar protection scheme at Meramundali S/s.

Deliberation in the meeting

Director (Engg) stated that the action regarding the bus bar protection scheme at Meramundali S/s has already been taken up and will be completed by January'09.

Director (Engg) further stated that at the present power scenario there is shortage of power. NALCO is requested to examine for injection of at least 100 MW of power to the OPTCL system.

Item No. 12- Others:

Sr.G.M.(PP) stated that during the last six months the Discos (except NESCO) have exceeded their drawal than the quantum approved in ARR. They are requested to regulate their drawal for the rest of the period of FY 2008-09 to restrict to the approved quantum in the ARR.

Telecom representative stated that a dedicated 33kV line to Mendhasal is needed for uninterrupted power supply to the air conditioners.

Deliberation in the meeting

Sr.G.M.(Construction) stated that the action against the above matter is being taken up.

Elimination of 11kV System from the Grid:

CGM (O&M) stated that DISTCOS were asked to submit their estimation for commission of 11kV system to 33kV system. NESCO has submitted estimate incorporating up gradation work, which is abnormally high. However construction wing of OPTCL is preparing the estimate.

Deliberation in the meeting

Southco representative stated that the estimate has been prepared for the above work.

Item No:13: The date and venue of 52nd Operational Coordination meeting shall be intimated soon.

Sr.G.M. (Power System)

ANNEXURE-A

MEMBERS PRESENT

| SL.NO. | NAME | DESIGNATION |
|--------|-----------------------|--------------------------------------|
| 1 | Sri K.K. Nath | Director (Engineering), OPTCL |
| 2 | Sri J.P. Das | Sr. G.M. (R&T),OPTCL |
| 3 | Sri Niranjan Dash | C.G.M. (Construction), OPTCL. |
| 4 | Sri B.N. Mahapatra | Sr.G.M (PS) SLDC, OPTCL. |
| 5 | Sri. A.R. Padhi | Sr. G.M. (C.P), OPTCL |
| 6 | Sri. K.N. Padhi | Sr. G. M.(PP), GRIDCO |
| 7 | Sri D.K. Choudhary | Sr. G.M. (TP), OPTCL |
| 8 | Sri M.K. Mishra | Sr.G.M.(CPC), OPTCL |
| 9 | Sri. B.C. Padhi | Sr. G. M, OHPC |
| 10 | Sri S.C. Mudali | G.M., SLDC, OPTCL |
| 11 | Sri S.N. Sahany | G.M., (Tech.), SOUTHCO |
| 12 | Sri S.C. Das | G.M.(Utilities & Services), HINDALCO |
| 13 | Sri. B.R. Mishra | D.G.M., SLDC |
| 14 | Sri S.C. Naik | D.G M (Operation), TTPS |
| 15 | Sri Dibakar Behera | D.G.M., IMFA |
| 16 | Sri N.R. Mandha | D.G.M.(Elect.), OPTCL |
| 17 | Sri B.B. Nayak | D.G.M.(F), NALCO |
| 18 | Sri H.S. Dandapat | A.G.M., NESCO |
| 19 | Sri A.C. Patra | A.G.M., ULDC, OPTCL |
| 20 | Sri Santosh Kumar Das | A.G.M. (SS), Power System, OPTCL. |
| 21 | Sri B. P. Gantayat | Dy. Manager (Elect.), OHPC |
| 22 | Sri P.K. Padhy | Manager, CESU |
| 23 | Sri K.C. Samantray | Manager, OPGC |
| 24 | Sri P.K. Mishra | Manager, SLDC |
| 25 | Sri P.L. Gouda | A.M. (Telecom), OPTCL |
| 26 | Sri. S.K. Padhi | A.M., NESCO |
| 27 | Mrs. Archana Sahoo | A.M., OPTCL |



ORISSA POWER TRANSMISSION CORPORATION LTD.

OFFICE OF THE Sr. GENERAL MANAGER (POWER SYSTEM)
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Dated:

.11.2008

No. SGM(PS)-PL-15/2007(VOL .-V)/_103(25)

From:

Sr. G.M (Power System) OPTCL, Bhubaneswar.

To:

| The Director (Commercial), | The Director (Engg.), | The Director (Operation), |
|------------------------------|-------------------------|--------------------------------|
| Gridco, Bhubaneswar | OPTCL, Bhubaneswar | OHPC, Bhubaneswar |
| The CGM (O & M), | The CGM (Const.), | The CGM (IT), |
| OPTCL, Bhubaneswar | OPTCL, Bhubaneswar | OPTCL, Bhubaneswar |
| The Sr. G.M (C.P), | The Sr. G.M (TP), | The Sr. G.M., (R&T), |
| OPTCL, Bhubaneswar | OPTCL, Bhubaneswar | OPTCL, Bhubaneswar |
| The Sr. G.M. (CPC), | The Sr. G.M (PP), | The G.M. (Telecom) |
| OPTCL, Bhubaneswar | GRIDCO, Bhubaneswar | OPTCL, Bhubaneswar |
| The Vice President(O), | The D.G.M (Electrical), | The G.M. (O &M), |
| ICCL, Choudwar | IbTPS, OPGC, Banharpali | CPP, NALCO, Angul |
| The DGM (O & M), | The D.G.M, | The D.G.M.(Power Ditribution), |
| NTPC (TTPS), Talcher | HINDALCO, Hirakud | RSP, Rourkela |
| The Member Secretary. | The C.E.O., | The C.E.O., |
| (GCC), 3 rd Floor | SOUTHCO, Berhampur | CESU, Bhubaneswar |
| Bidyut Bhaban,OPTCL Hqs | | |
| The C.E.O., | The C.E.O., | The S.E, Machhakund |
| NESCO, Balasore | WESCO, Burla | |

Sub: Minutes of 51^{st} Power System Operational Co-ordination meeting held on 31.10.08 at PTC, Chandaka, OPTCL, Bhubaneswar.

Sir,

Please find enclosed herewith the minutes of 50th Power System Operational Co-ordination meeting held on **31.10.2008** at PTC, Chandaka, Bhubaneswar for information and necessary action.

Yours faithfully;

Encl.: As above

C.M.D.

Sr. General Manager (PS)

<u>CC</u>: The Executive Asst. to C.M.D., OPTCL along with a copy of enclosure for kind information

of