



**MP POWER TRANSMISSION COMPANY LIMITED  
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No.07-05/SG-9B-II/ 1802

Jabalpur, dated 02-09-2011

To

**As per distribution list**

Sub: Minutes of 25<sup>th</sup> meeting of Operation and Coordination Committee of MP..

Please find enclosed herewith the minutes of 25<sup>th</sup> meeting of the Operation and Coordination Committee of MP held on 20th August 2011 at Banquet Hall, Shakti Bhavan, Jabalpur, for further necessary action at your end please.

**( P.A.R. Bende )  
Member Secretary, OCC  
Addl. C.E.(LD), SLDC  
MPPTCL, Jabalpur**

**Encl : As above.**

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## Distribution List

The Chairman & Managing Director MP Power Transmission Co. Ltd, Jabalpur	The Chairman & Managing Director MP Power Generating Co. Ltd, Jabalpur
The Chairman & Managing Director MP Poorva Kshetra Vidyut Vitaran Co. Ltd, Jabalpur	The Chairman & Managing Director MP Paschim Kshetra Vidyut Vitaran Co. Ltd, Near Polo Ground, Jail Road, Indore.
The Chairman & Managing Director MP Madhya Kshetra Vidyut Vitaran Co. Ltd, Govindpura, Bhopal.	The Managing Director MP Power Trading Co. Ltd, Jabalpur
The Chief Engineer (T&C), MP Power Transmission Co. Limited, Jabalpur.	The Superintending Engineer (DCC-WZ), DISCOM Control Centre, MP Paschim Kshetra Vidyut Vitaran Co. Limited, Near Polo Ground, Jail Road, Indore.
The Executive Director (T&P), MP Power Transmission Co. Limited, Jabalpur.	The Executive Engineer (DCC-EZ), DISCOM Control Centre, MP Poorva Kshetra Vidyut Vitaran Co. Limited, Jabalpur.
The Executive Engineer (Plg & PS), MP Power Transmission Co. Limited, Jabalpur	The Dy. Chief General Manger (LM), DISCOM Control Centre, MP Madhya Kshetra Vidyut Vitaran Co. Limited, Govindpura, Bhopal.
The Executive Director (O&M:Gen.), MP Power Generating Co. Limited, Jabalpur.	The Chief Engineer (PM&C), Narmada Hydroelectric Development Corpn. Ltd, NHDC Parisar, Shamla Hills, Bhopal – 462013.
The Chief Engineer (O&M:Hydel), MP Power Generating Co. Limited, Jabalpur.	The General Manager, Indira Sagar Power Station, NHDC Office complex, PO : Narmada Nagar, Distt : Khandwa (MP) – 450 119.
The Chief General Manager (S), MP Power Trading Company, Jabalpur.	The General Manager, Omkareshwar Power Station, Prashnik Bhawan, Urja Vihar, Sidhwarkut, Distt : Khandwa (MP) – 450 554.
The Executive Engineer, Sub Load Despatch Centre, MPPTCL, Indore	The Executive Engineer, Sub Load Despatch Centre, MPPTCL, Bhopal
The President, Shree Maheshwar Hydel Power Corporation Limited, “Abhyanchal Parisar”, Mandleshwar Distt : Khargone 451 221 (Fax 07283-233830)	

**MINUTES OF 25<sup>th</sup> MEETING OF OPERATION & COORDINATION COMMITTEE OF MP HELD ON  
20<sup>th</sup> AUGUST 2011 AT BANQUET HALL, SHAKTI BHAVAN, JABALPUR.**

25<sup>th</sup> meeting of Operation & Co-ordination Committee of MP was held on 20.08.2011 at Banquet Hall, Shakti Bhavan, Jabalpur. The list of participants is enclosed at Annexure-1.0.

The meeting commenced with welcoming the participants in the meeting by Shri Pasricha, DGM, MP Trading Co. Ltd. Shri P.K. Vaishya, Managing Director extended his gratitude for granting the privilege to MP Power Trading Co. to host the OCC meeting. He welcomed all the participants attending the OCC meeting and stated that during the current year the hydel availability is fairly good and during the rabi season the supply to the consumers as per plan should be maintained. He further expressed the need for accurate estimation of demand by the DISCOMs for proper planning of load generation balance.

Shri A.P. Bhairve, Chief Engineer, SLDC & Chairman OCC, has expressed his gratitude to MP Power Trading Company Limited, Jabalpur for hosting the meeting and welcomed all the participant of OCCM from various entities and stated that the members are gathered here to discuss various important operational issues and the presence of the participants here shows their commitment towards maintaining a reliable and stable grid. He further expressed his views that the results of the efforts of discussions in the OCC meetings have been quite positive.

Chairman OCC has explained about the congestion charges applicable in Inter-Regional Corridor. He further stated that if the penalty for congestion charges is imposed by NLDC to Regional entities, the same will be disbursed among the defaulter Intra-State entities of MP. He advised all the entities not to under draw or Over inject at high frequency and nor overdraw or under inject at low frequency to avoid the congestion charges. He informed the committee that due to good monsoon almost all the reservoir levels of Hydel power Stations have reached at FRL except Pench and Gandhisagar & hopes that the same will also be reached to FRL by the end of monsoon. He stated that due to full reservoir level of all hydel Power stations the availability of MP has got increased as compared to previous years and this will help to meet the rabi season demand in real time. Chairman OCC further stated that rabi season will be very crucial as the demand will go up and system voltage may go down in the system. The great role has to be played by all concerned to control the system voltages to ensure safety of the grid.

Chairman OCC has also explained the new 'Point of Connection Charges (POC) and losses' methodology for Interstate transmission charges. He further stated that deviation of more than 20% in the injection or withdrawal zone shall attract additional 25% POC charges, which need to be avoided. It has further been informed that in case of congestion for overdrawing by 25% of schedule at low frequency, in addition to UI and congestion charge the additional 25% POC charges will also be applicable and therefore all steps should be taken by the DISCOMs/Generators to avoid drawal/injection violation.

Thereafter, Chairman, OCC requested Shri P.A.R. Bende, Member Secretary (OCC) to take up the agenda items for discussion.

**ITEM NO. 1 : CONFIRMATION OF MINUTES :** Member Secretary, OCC stated that the Minutes of Minutes of 24<sup>th</sup> ,meeting of Operation & coordination committee of MP held on 25.06.2011 at MP Poorva Kshetra Vidyut Vitaran Company, Jabalpur were forwarded to the committee members vide No. No.07-05/SG-9B-II/1450 dated 20-07-2011. No comments have been received from the members. The minutes of the 24<sup>th</sup> meeting of Operation & coordination committee of MP have been confirmed by the Committee.

## ITEM NO. 2 :REVIEW OF SYSTEM OPERATION DURING THE MONTHS JUN to JUL 2011.

**2.1 Frequency Particulars :** Member Secretary, OCC informed the committee that the system frequency was within the permissible range of 49.5-50.2 Hz for in July 2011 for 93.33% of time against 90.93% of time in June 2011. The system frequency was below 49.5 Hz during July 2011 for 4.81% of time as compared to 4.56% time during June 2011. The average frequency during July 2011 was 49.84 Hz and in June 2011 it was 49.89 Hz. Regarding operation in high frequency range , frequency in July 2011 was above 50.2 Hz for 1.86% of time against 4.51% of time during June 2011. During June & July 2011 the system frequency did not touch 48.8 Hz.

The detailed frequency particulars for the month of June 2011 to July 2011 are enclosed at Annexure-2.1. The brief details of frequency profile is given hereunder :

Month	Average frequency	minimum integrated frequency over an hour	maximum integrated frequency over an hour	instantaneous minimum frequency	Instantaneous maximum frequency
Jun 2011	49.89 Hz	49.23 Hz	50.33 Hz	48.82 Hz	50.60 Hz
Jul 2011	49.84 Hz	49.37 Hz	50.27 Hz	48.80 Hz	50.49 Hz

The Director DCC, East Discom, requested Member Secretary, OCC to display the DISCOMs wise Schedule and Drawal at the time of maximum and minimum frequency observed. It was assured to incorporate the same from the next OCC meeting.

## 2.2 Operational Matters

**2.2.1 Operational Discipline :** Member Secretary, OCC stated that the frequency profile for the months June & July 2011 was satisfactory with frequency within the permissible range for above 90% and average monthly frequency around 49.85 z. The committee noted the frequency profile details as given below :

Month	% of time Frequency Below 49.5 Hz	% of time Frequency above 50. 2 Hz	% of time frequency within the permissible range of 49.5-50.2 Hz	Average monthly frequency	No. of times frequency dipped below 48.8 Hz
Jun 2011	4.56	4.51	90.93	49.89	0
Jul 2011	4.81	1.86	93.33	49.84	0

**2.3.1 Voltage Profile :** Committee noted date wise voltage profile at some of the important 400 KV and 220 KV substations during the months June & July 2011is enclosed at Annexure -2.3.1

During the months June & July 2011, the deviation of voltage from the accepted limit on either side was recorded at following location in MP Grid.

Sr. No.	Name of Substation	JUNE 2011				JULY 2011			
		Max. Voltage observed		Min. Voltage observed		Max. Voltage observed		Min. Voltage observed	
		Voltage	Date	Voltage	Date	Voltage	Date	Voltage	Date
1	Indore	426	23.06.11	---	---	431	10.07.11	---	---
2	Itarsi	427	21.06.11	---	---	430	10.07.11	---	---
3	Bina	435	26.06.11	---	---	428	29.07.11	378	11.07.11
4	Gwalior	435	26.06.11	372	24.06.11	433	09.07.11	371	19.07.11
5	Nagda	432	19.06.11	---	---	434	10.07.11	---	---

Director, DCC, East zone, requested that the maximum / Minimum voltage of major 400 KV like Katni may also be given. It was assured to incorporate the same from the next OCC meeting.

**2.3.2 Status of Capacitor Banks in sub-transmission system :** The updated information of the status of capacitor banks in sub-transmission system as submitted by the Discoms in the 25<sup>th</sup> OCC meeting is detailed below :

DISCOM	Capacitor bank installed in good condition (No)		Capacitor bank installed but defective & are repairable (No)			Requirement of repair against each unit (No)	Requirement against non-repairable capacitor banks		Capacitor banks already covered under ADB T-V		Balance capacitor banks to be covered in other schemes	
	600 KVAR	1200 KVAR	600 KVAR	1200 KVAR	2400 KVAR	No of 100 KVAR Units required	600 KVAR	1200 KVAR	600 KVAR	1200 KVAR	600 KVAR	1200 KVAR
WZ	512	332	28	108	9	305	38	46	133	123	61	50
CZ	8	721	3	34	24	3	16	0	588	0	441	8
EZ	411	232	16	23	-	124	25	48	-	-	-	-

DISCOMs have also furnished the updated additional information as detailed below.:

SN	Particulars	Figures are in MVAR		
		WZ	CZ	EZ
1	MVAR capacity of connected capacitors in good condition	705.6	805.4	525.0
2	MVAR capacity of connected capacitors in partially good condition	137.5	42.6	24.8
3	MVAR capacity of connected capacitors in good condition including partially good condition.	843.1	848.0	549.8
4	MVAR capacity of connected capacitors covered under ADV T-V Scheme.	227.4	705.6	Nil
5	Grand total MVAR of capacitors including that are proposed in ADB T-V scheme	1070.5	1553.6	549.8

ED (Plg & PS) stated that the updated status of capacitor banks installed at EHV S/s of MPPTCL should also included from the next OCC Meeting so that proper record for the same could be maintained. Member secretary, OCC requested SE (T&C) to ensure submission of the same to the committee from the next Meeting.

#### 2.4.1 Status of completion of on going Transmission Schemes being executed by MPPTCL :

The Committee noted the updated status of completion of transmission schemes during 2010-11, updated status of completion of transmission schemes during 2010-11( up to Jul'11) and various ongoing Transmission Schemes for the current financial year i.e. Year - 2011-2012 as submitted by MPPTCL and are enclosed as annexure 2.4.1(i) ,2.4.1(ii) & 2.4.1(iii). The SE(T&C), MPPTCL has informed that 2x50 MVAR bus reactors at 400 KV Nagda s/s shall be commissioned by end of September 2011.

#### 2.4.2 U/F and df/dt Relay Operation

(i) **U/F and df/dt Relay Operation:** The Committee noted that during June & July 11 the system frequency never dipped below 48.8 Hz. The frequency also did not touch 48.6 and 48.2 Hz during the period.

(ii) **Defective u/f, df/dt relays :** The Committee noted that the u/f relays have been installed at all sub stations of MPPTCL and there is no pending position as on 31<sup>st</sup> July 2011.

#### 2.5 Power Cuts / Load restrictions/Differential Load Shedding by DISCOMS & group allocation to 33 KV feeders :

(i) The Committee noted the details of DISCOM wise average power supply hours during June & July 2011. The same is enclosed at Annexure 2.5(i).

(ii) The committee noted the region wise list of 33 KV feeders emanating from various newly commissioned/existing EHV substations for which groups have not been allocated. The same is given in Annexure 2.5(ii). The list shows that there is no pending group allocation in Bhopal & Gwalior Region. The details of pending group allocation to 33 KV feeders is given below :

SN	DISCOM	No of 33 KV feeders for which groups to be allocated
01	EAST	27
02	WEST	08
03	CENTRAL	NIL
<b>TOTAL</b>		<b>35</b>

Member secretary, OCC informed the committee that pending allocation of East DISCOM is very high and in Rewa region is maximum. He requested Director DCC, East Discom to send the proposals to ED (Plg & PS) for group allocation. Director DCC agreed to submit the same at the earliest. Member OCC also requested the East and West DISCOM representatives to take up the matter with their corporate office for taking over the group allocation activities at company level as has been done by Central DISCOM.

#### ITEM NO. 3 : OPERATIONAL PLANNING

**3.1 Anticipated availability for the Month of September 2011 to March 2012:** Committee noted the details of Source wise Availability for the period September 2011 to March-2012. This has been worked out on the basis availability as furnished by the respective entities for 2011-12. The NHDC submitted the revised availability from September 2011 to March 2012 in the meeting. The availability from MPPGCL Thermal and Hydel stations is also received by the SLDC. The revised

Source wise Availability for the period September 2011 to March-2012 is enclosed in Annexure-3.1.

### 3.2 Demand Estimation for the Month of September 2011 to March 2012:

Member Secretary stated that the DISCOMs have already submitted their Fortnightly/ monthly Unrestricted & Restricted Demand/Energy requirement on average hourly basis. He informed the committee that based on the information furnished by MPPGCL, NHDC and Discoms, the DISCOMWISE availability, Demand and Surplus/shortfall shall be prepared and circulated by SLDC by 25th August 2011, so that DISCOMs prepare their supply PLAN accordingly. SLDC has circulated the DISCOMWISE availability, Demand and Surplus/shortfall to all the entities vide letter dated 26-08-2011. The availability shall be again reviewed at the end of monsoon i.e. first week of October 2011.

Member Secretary has requested MPPGCL to submit generation and water discharge programmed of Hydel Power Stations on 10-daily basis. A copy of the 10 daily plan of RABS Bargi furnished by Irrigation department to NVDA has been handed over to SE(O&M:Hydel) as reference. NHDC representatives also requested the committee that complete inflow/discharge plan from Bargi to Omkareshwar should be computed by SLDC in consultation with NHDC and MPPGCL. In response to above Member Secretary requested SE (O&M:Hydel) to obtain the 10-daily water discharge and generation program from irrigation department of Rani Avanti Bai Sagar and submit to SLDC by 30<sup>th</sup> Sep 2011. The SE(O&M:Hydel) agreed to submit the same in time.

### 3.3 Generating Units under planned outage and proposed maintenance programme : The committee noted the details of generating units under planned outages for the period August to September 2011 based on R-03 (as on 8<sup>th</sup> August 2011) submitted by MPPGCL.

Member Secretary, OCC pointed out that as per plan as furnished by MPPGCL, 120 MW Unit 4 of Amarkantak Thermal Power Station shall be under COH upto 31-08-2011, whereas in the GoMP meeting at Bhopal the schedule for COH was given as 01-06-2011 to 30-09-2011. The MPPGCL representative assured the committee to look in to the matter and revise the same accordingly. The revised maintenance plan of MPPGCL R-04 has been received by SLDC and is enclosed at Annexure-3.3. The generating units under planned outages for the period Aug to Sep 2011 shall be as under is shall be as under :

SN	Description	Capacity	From	To	Reason
01	Amarkantak TPS # 3	120 MW	16.09.2010	30.09.2011	COH/R&M
02	Amarkantak TPS # 4	120 MW	01.06.2011	30.09.2011	COH – IP rotor damage
03	Satpura TPS # 4	62.5 MW	25.07.2011	14.08.2011	AOH
04	Satpura TPS #6	200 MW	29.07.2011	16.09.2011	COH., Pent house repair,Eco., LTSH
04	Satpura TPS #7	210 MW	01.07.2011	30.07.2011	AOH
05	Satpura TPS #9	210 MW	01.09.2011	20.10.2011	COH
06	SGTPS #1	210 MW	15.09.2011	05.10.2011	AOH
07	SGTPS #2	210 MW	05.09.2011	19.10.2011	COH
08	SGTPS #3	210 MW	26.07.2011	31.08.2011	AOH

### 3.4 Proposed shutdown programme of Transmission lines/Transformers : T&C, MPPTCL has submitted the shutdown programme of Transmission lines / Transformers in the meeting and same is enclosed at Annexure- 3.4

**3.5 Long Outages of transmission elements:** The committee noted the transmission elements under long outages as detailed below :

<b>S N</b>	<b>Line/Transformer/Breaker/ Reactor etc under long outage</b>	<b>Outage date</b>	<b>Reason</b>	<b>Expected date of restoration.</b>
1	63 MVAR Bus-I Reactor at Satpura TPS.	24.05.2005	Damage of all three limbs along with reactor tank.	Order has been placed to BHEL. MPPGCL representative informed that work will be completed by Feb 2012.
2	132 KV Breaker of Rajghat - Lalitpur line.	24.02.2011	Gas leakage.	As informed by MPPGCL, Breaker repair/replacement will be done in the first week of September 2011.
3	400 KV Breaker of 400 KV Itarsi-Bhopal line.	10.07.2011	Breaker problem.	As informed by T&C, Breaker will be replaced by 30 <sup>th</sup> September 2011.

**ITEM NO. 4 : OPERATIONAL STATISTICS FOR THE MONTH OF JUNE 2011 TO JULY 2011 :** The committee noted the details of actual generation, Schedule from Central Sector demand etc. & are given in the following Annexures:

- Annex. 4.1 Unit wise actual Generation of MPPGCL thermal Units and station wise Generation of MPPGCL& NHDC Hydel Units.
- Annex. 4.2 Power Supply Position.
- Annex. 4.3 Hourly Average of Availability and Demand.
- Annex. 4.4 Hourly average schedule Vs Drawal of DISCOMs.

**ITEM NO. 5 : SYSTEM DISTURBANCE IN MP DURING June & July 2011 :** The committee noted that there were three events in MP categorized under GI-01 and GD-01 in MP in July 11. The detailed reports for two events has been received by SLDC and the report from S.E.(T&C) Ujjain/Indore is awaited. SE (T&C) informed the committee that the tripping report is already submitted to SLDC through email. The report on Grid incidence at Satpura Thermal Power Station on 05.07.2011, at 220 KV s/s Badod on 24.07.2011 and Grid Disturbance at 220 KV Narsinghpur substation on 24.07.2011 is detailed in Annexure 5.

Member Secretary, OCC pointed out that tripping incident similar to 05.07.2011 had happened twice in last year at Satpura TPS. He requested MPPGCL to investigate the matter, in consultation with T&C if necessary, and take corrective measures to avoid its recurrence in future as on all three incidents all running units at Satpura TPS had tripped affecting load generation balance severely for considerable duration. MPPGCL representatives agreed for the same. **[Note : The remedial measures taken may please be intimated by ED(O&M:Gen) office to SLDC so that the same may be put up in next OCC meeting]**

**ITEM NO. 6.0 : OTHER IMPORTANT OPERATIONAL ISSUES**

**6.1 Black-Start mock drill of Hydel Power Stations :** Member Secretary, OCC informed that the in last OCC meeting the outcome of Black start Mock Drill at Indira Sagar Project was discussed in detail and following decisions were taken by the Committee :



1. ISP assured that as proposed by WRLDC necessary modifications shall be explored to ensure that operation of units under speed control mode is possible under normal operation.
2. MPPTCL assured to investigate following problem noticed during mock drill :
  - (i) After opening the 400 KV bus-coupler at ISP voltage of around 200 kV was appearing on 400kV Main Bus-B at ISP though it was zero immediately after tripping of unit at 10:15:06 hrs. Surprisingly Indore bus-I was also showing similar value (200 kV approximately) at its end. Though it was assumed to be an instrument error, the voltage became zero only after opening the CB of ISP-Indore-II from ISP end.
  - (ii) After successfully running ISP machine in is-landed mode for around one hour, the check-synchronisation at 400 kV Indore B/C was done with due diligence and care but the unit experienced perceptible jerk and tripped on excitation failure alarm. This requires checking of healthiness of the synchronising trolley at 400/220 kV Indore S/S.

NHDC informed the committee that the proposal from BHEL is still awaited and two generators under speed control mode is possible under normal operation.

T&C MPPTCL informed that the reports are awaited from Indore and shall be submitted to SLDC by 1<sup>st</sup> week of September 2011.

Member Secretary stated that auto start facility is not available at any of MPPGCL Hydel Power Stations and also the DG sets at Pench HPS is out of order for want of repair. MPPGCL agreed to explore the possibility of equipping the generators with auto start facility and shall inform the time frame for repairing of DG set at Pench HPS.

Member Secretary, OCC informed the committee that the plan for black start mock drill of MPPGCL Hydel power stations is to be finalised in first phase for Bargi, Tons and Pench Hydel Power Stations in consultation with MPPGCL, MPPTCL and concerned DISCOM. To finalise the program, a meeting shall be held preferably in the first week of September 2011.

**6.2 Tripping of Units at Omkareshwar Power Station on 10th June 2011:** The matter of simultaneous tripping of all four running units at Omkareshwar Power Station on 10.06.2011 at 15:59 Hrs on tripping of 220 KV OSP-Nimarani and OSP-Khandwa lines was discussed in last OCC meeting. The Committee had expressed its concern on recurrence of such tripping and advised OSP to investigate the matter in consultation with MPPTCL and revise protection relay settings if required. The representatives from Omkareshwar Power Station informed the committee that the protection settings have been revised by OSP in consultation with EE (T&C), Barwaha and thereafter no such tripping incident occurred at Omkareshwar Power Station.

**6.3 Preparation of contingency scheme by DISCOMs:** Member Secretary informed the committee that the DISCOMs, in the 24<sup>th</sup> OCC meeting, had explained the difficulties being faced to identify the 33 KV feeders for preparation of contingency schemes as most of the feeders are tapped to different substations which may also be under load shedding when contingency situation arise. After detailed discussion it was felt necessary to prepare the plan such that during different time periods, different set of feeders for contingency operation are identified. The representatives from DISCOMs had assured to look into the matter and prepare the contingency plan accordingly.

The matter has been discussed again. The CE(LD) requested the DISCOMs to identify the feeders for contingency operation and a contingency document may be prepared and submitted to SLDC, which SLDC will forward to WRLDC. The DISCOMs assured to submit the same by the end of September 2011.

**6.4 Reporting of Grid disturbance and Grid incident:** It was informed that WRPC has to report the details of grid disturbances during the month to CEA by the 1<sup>st</sup> or latest by 2<sup>nd</sup> of every month. WRPC requested WRLDC to furnish a compiled report of the categorized grid disturbances for the month by the 1<sup>st</sup> of every month, i.e by 1<sup>st</sup> July for grid disturbances in June and so on. Accordingly WRLDC requested the constituents to furnish the report for June 2011 in the prescribed format. The ED(O&M: Gen), MPPGCL, (O&M: Hydel), MPPGCL and CE(T&C), MPPTCL were requested by SLDC vide UO No. 180 dated 07.07.2011 to furnish the report for June 2011 directly to WRLDC and vide No. 216 dated 2.08.2011 for furnishing the report for July 2011. However, SLDC has not received any confirmation in this regard.

Member Secretary also stated that as per CEA regulations on Grid standards 2010, the Grid Disturbance and Grid Incident has been defined as given below :

- (a) **“Grid disturbance”** means tripping of one or more power system elements of the grid like a generator, transmission line, transformer, shunt reactor, series capacitor and Static VAR Compensator, resulting in total failure of supply at a sub-station or loss of integrity of the grid, at the level of transmission system at 220 kV and above.
- (b) **“Grid incident”** means tripping of one or more power system elements of the grid like a generator, transmission line, transformer, shunt reactor, series capacitor and Static VAR Compensator, which requires re-scheduling of generation or load, without total loss of supply at a sub-station or loss of integrity of the grid at 220 kV and above.

The categorisation of grid incidents and grid disturbances shall be as follows :-

**(a) Categorisation of grid incidents in increasing order of severity-**

**Category GI-1** - Tripping of one or more power system elements of the Grid like a generator, transmission line, transformer, shunt reactor, series capacitor and Static VAR Compensator, which requires re-scheduling of generation or load, without total loss of supply at a sub-station or loss of integrity of the grid at 220 kV.

**Category GI-2** - Tripping of one or more power system elements of the grid like a generator, transmission line, transformer, shunt reactor, series capacitor and Static VAR Compensator, which requires re-scheduling of generation or load, without total loss of supply at a sub-station or loss of integrity of the grid at 400 kV.

**(b) Categorisation of grid disturbance in increasing order of severity-**

**Category GD-1** - When less than ten per cent. of the antecedent generation or load in a regional grid is lost;

**Category GD-2** - When ten per cent. to less than twenty percent of the antecedent generation or load in a regional grid is lost.

**Category GD-3** - When twenty per cent. to less than thirty per cent. of the antecedent generation or load in a regional grid is lost;

**Category GD-4** - When thirty per cent. to less than forty per cent. of the antecedent generation or load in a regional grid is lost;

**Category GD-5** - When forty per cent. or more of the antecedent generation or load in a regional grid is lost.

**Explanation:** For the purpose of categorisation of grid disturbances, percentage loss of generation or load, whichever is higher shall be considered.

Member Secretary further informed the committee that the word '**regional**' in these definitions of Grid Incidents/Disturbance (GI/GD) may be substituted by the word '**state**', for submitting the report pertaining to network of MP. He further stated that the report in the SLDC format (Annexure 6.4.) may be sent directly by the concerned substation/divisions/power station.

s within 24 hours of occurrence and a flash report is required to be sent by substation/control room officials immediately to SLDC .

Chairman, OCC submitted that the category wise information should be furnished by each entities on next day of incident to SLDC, so the compiled information could be forwarded to RLDC. He also stated that the flash report of the incidents should be submitted immediately after the occurrences of incidents to the SLDC. Member Secretary informed the committee that the category wise information for the month of June and July 2011 is to be sent to RLDC and hence MPPTCL/MPPGCL should furnish the compiled report immediately to SLDC.

MPPGCL representative informed that they have instructed the power stations to directly send the reports to WRLDC. Member Secretary requested MPPGCL to instruct the field offices to send the report directly to SLDC only, who will compile Grid Incidents/Disturbances and forward to WRLDC.

#### **ITEM NO 7 : SCADA/EMS RELATED ISSUES :**

##### **7.1 PROGRESS OF INSTALLATION OF NEW RTUS ALONG WITH PLCC DATA LINKS AT EHV S/S :**

It was informed by Planning section that the PLCC equipments required for first four RTU's i.e. 220 KV Indore (East), 220 KV Sukha, 220 KV Sagar and 220 KV Mandideep has already been released. The arrangement for installation, commissioning and testing of data channels required for these RTU's shall be taken up before delivery of RTU's, so that integration of RTU's with the SCADA system is ensured.

##### **7.2 DISCREPANCY IN TELEMETERED VALUES RECEIVED FROM DIFFERENT EHV S/S & POWER STATIONS :**

The matter was discussed in detail and it was decided that necessary instructions to the field officers, shall be issued by T&C and MPPGCL, for rectification of the telemetry discrepancies on priority basis. It was agreed by T&C representatives that the telemetry discrepancy of 400KV S/s shall be rectified before next OCCM meeting and telemetry discrepancies at other S/s shall be taken up in phased manner. Further, it was also decided that T&C and MPPGCL shall provide the details of site coordinators for telemetry work for various sub stations and power stations, and if felt necessary, a separate meeting of site coordinators for telemetry work, shall also be arranged.

The list of faulty telemetered values/process connections is detailed in annexure-7.2(i) & 7.2(ii).

##### **7.3 UPGRADATION OF EXISTING RTUS :**

It was decided that the T&C wing shall initiate the procurement of material required for upgradation of RTU's and the upgradation of RTU's shall be carried out as early as possible.

#### **7.4 ARRANGING DEDICATED VOICE CHANNEL FROM SUB-STATIONS/POWER STATIONS TO SLDC :**

It was informed by SLDC that the dedicated Voice channel from 400KV S/s Nagda, 132KV S/s Morwa, 220KV S/s Pandurna, 220KV S/s Mehgaon, 220KV Shujalpur are yet to be provided. During the meeting, It was assured by T&C representatives that voice channels for these S/s's shall be arranged at the earliest.

Member Secretary stated that the PLCC equipments for dedicated voice channels were procured under ULDC project and for new RTU locations also PLCC equipments for dedicated voice and channels have been procured. He requested MPPTCL to extend such voice channels upto nearest Sub LDC/SLDC wideband node so that the same could be configured into the ULDC Exchanges. It was agreed that a meeting with T&C and T&P will be organized at SLDC Jabalpur to work out the same.

#### **7.5 ALTERNATE DATA CHANNEL FOR CRITICAL RTUS:**

SLDC provided list of S/s having critical RTU's, but having availability of only single data channel. It was assured by T&C wing and MPPGCL to look into the matter and arrange for second data channel for these critical RTU's, at the earliest.

#### **7.6 Telemetry of Maheshwar Hydrel Power Station :**

SLDC informed that the requirement for integration for telemetry of MHPS has already been forwarded by SLDC. However, feedback in the matter has not been received from MHPS. MHPS representative informed that they had forwarded the details received from SLDC to M/s BHEL and revert back after receipt of feedback from BHEL. SLDC further requested to provide single line diagram, data IO list along with other requested details at least one month before commencement of generation from MHPS. SLDC, MPPTCL further, requested to arrange dual communication channel from Maheshwar HPS to Sub-LDC Indore, along with necessary Modems for control Centre end. MHPS representative agreed for the same.

#### **ITEM NO. 8 : ABT related issues :**

**8.1 IRREGULARITIES IN COMMUNICATION OF WEEKLY ABT METER DATA TO WRLDC BY PENCH:** The committee noted that since last six months that the weekly ABT meter of Pench Hydrel project is not being sent within time to WRLDC. As per Pench official due to non-availability of communication at Pench HPS, the data is being sent through Ramtek and it is very difficult to monitor the same by Pench Official as they have no communication. It is therefore requested that MPPGCL should ensure that weekly ABT Meter data of Pench HPS should be sent to WRLDC within specified time limit. MPPGCL representatives stated that they shall taken up the with Pench Officials and ensure that the ABT meter data to WRLDC shall be matter shall be sent to WRLDC within specified time limit

**8.2 INSTALLATION OF ABT METERS AT 33 KV FEEDERS EMANATING FROM BARGI LEFT BANK CANAL HEAD POWER HOUSE :** The committee noted as informed by MPPGCL representative in 23<sup>rd</sup> OCC meeting that the ABT meters at both 33KV feeders emanating from 2x5 MW Bargi Left bank canal head power house to compute the injection of power house has been installed. SE (O&M ) Hydrel confirm the same and informed that the details of the ABT meters shall be submitted to SLDC .The details of ABT meters is yet to be received BY SLDC. MPPGCL are requested to furnished the same at the earliest.

**8.3 INSTALLATION OF ABT METERS AT 400 KV BIRSINGPUR-DAMOH PGCIL LINE:** The committee noted that the ABT meters at 400 KV Birsingpur –Damoh Power grid line 3 & 4 is installed

by Power grid. The meter software for the same is not available with SLDC. The MPPGCL representative is requested to install the ABT meters at above feeders so that the injection of Unit no. 5 could be computed. MPPGCL representative informed the committee that the Power Grid is not ready to give the connection from their CT and PT and requested SLDC to take up the matter with PGCIL. SLDC assured to take up the matter with PGCIL.

**8.4 ABT METER DATA OF BARWAHA :** About 80% of data of ABT meters installed under the jurisdiction of testing division Barwaha & S/S division Khargone is missing in the mrd / rm3 files since last three months. It is therefore requested that MPPTCL should ensure completeness of ABT meter data before sending to SLDC.

**ITEM NO. 9 : ADDITIONAL AGENDA POINT : LOAD DIVERSION CASES :**

ED(Pig&PS), MPPTCL raised the issue of overloading of 132 KV Seondha, Khargone, Bhind and Kannod substations and requested for diversion of load to adjoining substations as detailed below :

- (i) 132 KV s/s Seondha : Shifting of load thereof to adjoining 132 KV s/s Lahar running under loaded.
- (ii) 132 KV s/s Bhind : Shifting of load thereof to adjoining 132 KV s/s Ron running under loaded.
- (iii) 132 KV s/s Khargone : Shifting of load thereof to adjoining 132 KV s/s Kasarwad running under loaded.
- (iv) 132 KV s/s Kannod : Shifting of load thereof to adjoining 132 KV s/s Khategaon running under loaded.

The concerned DISCOMs have been requested to take up the matter with their concerned offices for diversion of load.

**ITEM No 10 : DATE AND VENUE OF NEXT OCC MEETING :** It is proposed to hold 26<sup>th</sup> meeting of Operation and Coordination Committee of MP on 18<sup>th</sup> October 2011 at SLDC, Jabalpur.

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**REPORTING OF OPERATIONAL EVENT /ACCIDENT****As per IEGC 2010**

<b>SN</b>	<b>Details of tripping incident</b>	<b>Description</b>
i	Time & date of event	
ii	Location	
iii	Plant and/or equipment directly involved	
iv	Description and cause of event	
v	Antecedent conditions of load and generation, including frequency, voltage and flow in the affected area at the time of tripping including Weather Condition prior to the event	
vi	Damage to equipment, if any	
vii	Supply Interrupted (MW & MWh) and duration, if applicable.	
viii	Amount of Generation lost (MW & MWh), if applicable	
ix	Possibility of alternate supply arrangement	
x	Estimate of time to return service	
xi	All relevant system data including copies of record of all recording instruments including DR, ER, DAS etc:	
xii	Sequence of trippings with time:	
xiii	Details of relay flags:	
ivx	Remedial measure:	
xi	Recommendations for future improvement/repeat incident	
xii	Any other information	

**Name & Designation of the officer  
Reporting the incident**

## FREQUENCY PARTICULARS

Particulars	Jun-11		Jul-11	
<b>INTEGRATED OVER AN-HOUR</b>				
Maximum Frequency	50.33 Hz	Between 03.00 hrs & 04.00 Hrs on 18.06.11	50.27 Hz	Between 1700 Hrs & 1800 Hrs on 03.07.11
Minimum Frequency	49.23 Hz	Between 20.00 hrs & 21.00 Hrs on 21.06.11	49.37 Hz	Between 19.00 hrs & 20.00 Hrs on 04.07.11
Average Frequency	49.89 Hz		49.84 Hz	
<b>INSTANTANEOUS FREQUENCY</b>				
Maximum Frequency	50.6 Hz	AT 06.03 HRS ON 10.06.11	50.49 Hz	AT 06.05 HRS ON 19.07.11
Minimum Frequency	48.82 Hz	AT 20.21 HRS ON 21.06.11	48.8 Hz	AT 19.43 HRS ON 25.07.11

### Percentage of time when frequency was :-

%age of time when frequency was	Jun-11	Jul-11
Below 48.5 Hz	0.00	0
Between 48.50 Hz and 48.8 Hz	0.00	0
Between 48.80 Hz and 49.2 Hz	0.54	0.38
Between 49.20 Hz and 49.5 Hz	4.02	4.43
Between 49.50 Hz and 49.7 Hz	12.81	16.56
Between 49.70 Hz and 50.2 Hz	78.12	76.77
Between 50.20 Hz and 50.3 Hz	3.62	1.68
Between 50.30 Hz and 51.0 Hz	0.89	0.18
Between 51.0 Hz AND 51.5 Hz	0.00	0
Above 51.5 Hz	0.00	0
No. of times frequency touched 48.80 Hz	0	0
No. of times frequency touched 48.60 Hz	0	0
No. of times frequency touched 51.0 Hz	0	0

### Voltage Profile During the Month of JUNE- 2011

Date	Indore		Itarsi		Bina		Gwalior		Nagda	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	421	403	420	405	429	407	433	400	428	406
2	421	397	423	400	424	401	432	397	428	401
3	420	407	421	405	418	398	427	394	426	411
4	423	402	421	402	414	396	424	380	423	406
5	424	399	423	400	417	397	427	396	430	407
6	419	397	417	399	420	398	425	397	425	404
7	423	396	421	400	418	402	429	402	428	394
8	421	404	422	407	424	408	432	403	427	402
9	425	401	424	404	426	408	426	392	430	404
10	419	397	417	399	428	395	432	391	427	405
11	417	402	415	399	420	396	422	387	426	408
12	420	402	417	399	421	392	426	386	426	408
13	419	393	415	394	417	398	417	387	426	402
14	421	399	419	397	419	397	421	384	428	406
15	425	403	423	403	430	396	432	396	428	404
16	423	406	424	400	425	388	429	375	430	409
17	424	409	426	407	429	400	428	388	430	409
18	421	404	423	403	429	396	429	382	429	412
19	424	405	424	404	427	392	426	380	432	414
20	424	411	426	410	427	403	426	388	431	419
21	414	410	427	410	427	397	427	386	424	416
22	414	410	427	410	428	395	428	383	424	417
23	426	412	425	409	428	394	425	379	430	416
24	425	413	425	408	430	386	430	372	431	418
25	424	410	424	407	431	384	432	376	430	415
26	424	411	427	409	435	398	435	393	428	417
27	420	409	421	409	420	400	424	393	426	414
28	422	410	423	406	420	398	425	391	426	412
29	423	404	424	407	424	399	427	399	430	411
30	420	406	421	403	428	397	430	395	427	413
<b>Max / Min</b>	<b>426</b>	<b>393</b>	<b>427</b>	<b>394</b>	<b>435</b>	<b>384</b>	<b>435</b>	<b>372</b>	<b>432</b>	<b>394</b>

### Voltage Profile During the Month of July 2011

Date	Indore		Itarsi		Bina		Gwalior		Nagda	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	420	411	421	407	425	403	427	394	428	415
2	420	401	419	400	423	394	424	391	427	406
3	421	406	419	405	423	392	428	381	428	413
4	422	393	421	396	419	400	420	385	428	399
5	421	408	423	410	421	399	419	386	427	412
6	420	406	421	409	424	404	424	391	426	410
7	423	404	425	407	423	394	420	386	430	410
8	425	413	425	413	424	392	426	389	430	413
9	426	412	424	411	424	394	433	386	422	416
10	431	409	430	407	427	391	429	372	434	415
11	426	408	426	406	418	378	418	374	430	411
12	426	410	425	405	420	387	418	376	430	413
13	423	410	420	408	412	390	414	381	426	413
14	424	414	422	411	423	397	420	382	428	416
15	423	412	424	414	421	406	422	399	427	414
16	424	408	427	408	426	393	421	380	428	411
17	423	411	425	410	422	397	423	387	431	417
18	424	407	426	409	426	403	419	387	430	414
19	430	413	429	414	425	381	418	371	433	414
20	428	412	426	410	424	387	421	376	431	411
21	427	407	425	406	421	384	420	372	431	407
22	426	414	425	411	426	399	425	387	431	414
23	426	411	427	410	427	395	425	388	431	411
24	425	413	424	410	426	396	428	389	430	415
25	421	409	420	406	415	385	412	379	428	411
26	420	411	420	409	414	395	417	382	425	415
27	421	407	420	409	421	397	416	382	427	412
28	424	413	424	411	423	408	423	397	428	414
29	424	411	423	408	428	397	426	392	428	410
30	425	411	423	409	423	392	423	383	428	413
31	426	410	424	407	419	392	421	384	432	411
<b>Max</b>	<b>431</b>	<b>393</b>	<b>430</b>	<b>396</b>	<b>428</b>	<b>378</b>	<b>433</b>	<b>371</b>	<b>434</b>	<b>399</b>



MP POWER TRANSMISSION COMPANY LIMITED								
TRANSMISSION WORKS COMPLETED DURING 2010-11 (UP TO 31.03.2011)								
S. No.	NAME OF THE TRANSMISSION LINE / (FINANCED BY)	TYPE OF CIRCUITS	ROUTE LENGTH	CIRCUIT KMS.	DATE OF COMPLETION	DATE OF COMMISSIONING	ESTIMATED COST (Rs. In lacs)	
<b>I. EHV TRANSMISSION LINES</b>								
<b>A. 400 KV TRANSMISSION LINES</b>								
NIL								
<b>Sub-Total (A)</b>								
<b>B. 220 KV TRANSMISSION LINES</b>								
1	Maheshwar - Nimrani line (2x26.50 km) (DCDS) (ADB - II).	DCDS	26.50	53.00	APRIL'10	12.04.2010	1319	
2	Chhindwara - Betul line (2x133.30 km) (DCDS) (ADB - II).	DCDS	133.30	266.60	JUNE'10	03.06.2010	5778	
3	LILo of 220kv Satna - Bansagar Tons line for 220KV S/s Kotar (2x3.90)	DCDS	3.90	7.80	AUG'10	15.08.2010	350	
4	LILo of one ckt of 220kv Khandwa - Neapanagar DCDS line for 220KV S/s Chhegaon (2x17.52) (ADB - II).	DCDS	17.52	35.04	JAN'11	24.01.2011	907	
5	LILo of one circuit of 220KV Amarkantak - Birsinghpur line at 400 kv S/s Sukha (PGCIL) (2x165.90 km). (DCDS) (ADB - II).	DCDS	165.90	331.80	FEB'11	11.02.2011	7672	
6	Satna - Chhatarpur(1x156.43 + 4x3.21) (PFC)	DCSS	159.64	169.27	FEB'11	25.02.2011	5205	
7	Ashta - Dewas (2x71.67) (ADB - II)	DCDS	71.67	143.34	MAR'11	08.03.2011	3178	
8	LILo of one Ckt of 220KV Bhopal - Bina DCDS line at Vidisha along with diversion work (2x21.24 Km) (ADB - II)	DCDS	21.24	42.48	MAR'11	15.03.2011	1305	
<b>Sub-Total (B)</b>								
			<b>599.67</b>	<b>1049.33</b>			<b>25714</b>	
<b>C. 132 KV TRANSMISSION LINES</b>								
1	Power supply to M/s JP Sidhi cement, Satna from Satna 220kv S/s (D/W)	DCSS	21.46	21.46	APRIL'10	09.04.2010	1224	
2	LILo of 132 KV Sheopurkalan - Gwalior line through Sabalgarh 220kv S/s. (2x1.87) (ADB - II).	DCDS	1.87	3.74	MAY'10	28.05.2010	182	
3	Tarana - Makdon DCSS line (CM DECL)	DCsS	23.06	23.06	JUNE'10	16.06.2010	782	
4	LILo of Both Ckts of 132 KV Barwaha-Sanawad-Chhegaon line at 220kv Chhegaon S/s (2x1.95 + 2x1.94) (ADB - II).	DCDS	3.89	7.78	JUNE'10	26.06.2010	412	
5	Power supply to M/s Nahar Polyfilms, Mandideep from Mandideep 220kv S/s (D/W)	DCSS	3.16	3.16	JULY'10	03.07.2010	178	
6	132KV Interconnector between 220KV Dewas to 132KV Dewas (BNP) line (ADB-II)	DCSS	1.24	1.24	JULY'10	23.07.2010	57	
7	2nd circuit stringing of 132 kv Tap line for Shrinagar from Jabalpur - Narsinghpur line (ADB-II)	2nd ckt		8.78	JULY'10	24.07.2010	68	
8	LILo of 132KV Shujalpur - Shajapur line through Shujalpur 220KV Sub-station (ADB-II)	DCDS	4.46	8.92	JULY'10	31.07.2010	262	
9	Satna - Pawai DCSS line (ADB-II)	DCSS	68.74	68.74	JULY'10	31.07.2010	2041	
10	Jatara - Prithvipur DCSS line (ADB-II)	DCSS	51.83	51.83	AUG'10	07.08.2010	1050	
11	Ashta - Polaikalan DCSS line (CM DECL)	DCSS	26.84	26.84	AUG'10	20.08.2010	1061	
12	Shivpuri (220kv) - Kolaras DCSS line (ADB - II)	DCSS	34.69	34.69	SEPT'10	18.09.2010	817	
13	Ashta - Ichhawar DCSS line (CM DECL)	DCSS	34.65	34.65	SEPT'10	14.09.2010	1108	
14	Nimrani - Manawar DCDS line (ADB - II)	DCDS	43.02	86.04	SEPT'10	24.09.2010	1439	
15	132 kv Power supply for RTS, Guna from Guna 220kv(D/W)	DCDS	7.83	15.66	OCT'10	14.10.2010	268	
16	Chhegaon (220kv) - Khargone DCDS line (ADB - II)	DCDS	68.38	136.76	DEC'10	09.12.2010	2216	
17	Rerouting of 132 kv Betul - Gudgaon line through Betul 220 kv S/s (1x11.42) (ADB - II)	DCSS	11.42	11.42	DEC'10	20.12.2010	367	
18	LILo of 132 KV Chhegaon - Khandwa line at 220kv Chhegaon S/s (2x15.80) (ADB - II)	DCDS	15.80	31.60	JAN'11	25.01.2011	515	
19	Power Supply to M/s PHED, Khatpura from 220kv Hoshangabad S/s (1x31.26) (D/W)	DCSS	31.26	31.26	FEB'11	01.02.2011	1204	
20	LILo of 132 KV Bhopal (220kv) - Bhopal (MACT) line using 33kv Ringmain for 132kv S/s Amrawadkhurd (Bhopal)	DCSS	1.13	1.13	FEB'11	01.02.2011	116	
21	Nagda - Mahidpur 2nd ckt (CM DECL)	2nd ckt		23.04	FEB'11	01.02.2011	196	
22	132KV Rajgarh (B) - Raghogarh DCSS (ADB - II)	DCSS	74.02	74.02	FEB'11	18.02.2011	1845	
23	LILo of one ckt of 132 kv Betul - Multai line through Betul 220 kv S/s (2x3.55) (ADB - II)	DCDS	3.55	7.10	FEB'11	23.02.2011	186	
24	Betul (220kv) - Chicholi DCSS (ADB - II)	DCSS	26.55	26.55	MAR'11	30.03.2011	737	
25	Vidisha - Shamsabad DCSS line (ADB - II)	DCSS	57.93	57.93	MAR'11	30.03.2011	1750	
<b>Sub-Total (C)</b>								
			<b>616.78</b>	<b>797.40</b>			<b>20081</b>	
<b>Total (EHV LINES) (A + B + C)</b>								
			<b>1216.45</b>	<b>1846.73</b>			<b>45795</b>	

<b>II. EHV SUB - STATIONS</b>							
S. No.	NAME OF THE SUBSTATION / (DISTRICT) / (FINANCED BY)	VOLTAGE RATIO (KV)	No.OF X-mer & Cap.(MVA)	EFFECTIVE CAPACITY MVA	DATE OF COMPLETION	DATE OF COMMISSIONING	ESTIMATED COST (Rs. In lacs)
<b>A. 400 KV SUBSTATIONS</b>							
<b>a. NEW SUBSTATIONS</b>							
1	Katni (Distt. Katni) (ADB - II)	400/220/33	1x315	315	APRIL'10	05.04.2010	3917
2	Indore (ADDL) (Distt. Indore)	400/220/33	1x315	315	DEC'10	28.12.2010	2322
<b>Sub Total (B) (220KV S/s)</b>				<b>630</b>			<b>6239</b>
<b>B. 220 KV SUBSTATIONS</b>							
<b>a. NEW SUBSTATIONS</b>							
1	Chhegaon (Distt.Khandwa) (ADB - II)	220/132/33	1x160	160	JULY'10	03.07.2010	3716
2	Kotar (Distt.Satna)	220/132/33	1x160	160	OCT'10	30.10.2010	2753
3	Vidisha (Distt.Vidisha) (ADB - II)	220/132/33	1x160	160	DEC'10	20.12.2010	2220
4	Betul (Distt. Betul) (ADB - II)	220/132/33	1x160	160	DEC'10	21.12.2010	2502
<b>b. ADDITIONAL TRANSFORMERS</b>							
1	Ashta (ADDL) (Distt. Sehore) (ADB - II)	220/33	1x100	100	JULY'10	17.07.2010	(*)
<b>Sub Total (B) (220KV S/s)</b>				<b>740</b>			<b>11191</b>
<b>C. 132 KV SUBSTATIONS</b>							
<b>a. NEW SUBSTATIONS</b>							
1	Zarda (Distt. Ujjain) (CM DECL)	132/33	1x40	40	MAY'10	22.05.2010	947
2	Petlawad (Distt. Jhabua) (CM DECL)	132/33	1x40	40	JUNE'10	17.06.2010	947
3	Majhgawan (Distt. Satna) (CAN BANK)	132/33	1x40	40	JULY'10	06.07.2010	716
4	Makdone (Distt. Ujjain) (CM DECL)	132/33	1x40	40	JULY'10	12.07.2010	947
5	Pawai (Distt. Panna) (CM DECL)	132/33	1x40	40	AUG'10	12.08.2010	983
6	Polaikalan (Distt. Shajapur) (CM DECL)	132/33	1x40	40	AUG'10	30.08.2010	947
7	Ichhwar (Distt. Sehore) (CM DECL)	132/33	1x40	40	SEPT'10	16.09.2010	947
8	Kolaras (Distt. Shivpuri)	132/33	1x40	40	SEPT'10	28.09.2010	632
9	Amrawatkhard (Distt. Bhopal)	132/33	1x63	63	JAN'11	31.01.2011	1182
<b>Sub Total (C.a) (NEW S/s)</b>				<b>383</b>			<b>8248</b>
<b>b. ADDITIONAL TRANSFORMERS</b>							
1	Indore (Satyasai) (ADDL) (Distt. Indore)	132/33	1x20	20	APRIL'10	1.04.2010	180
2	Khategaon (ADDL) (Distt. Dewas)	132/33	1x40	40	APRIL'10	14.04.2010	184
3	Ayodhyanager (ADDL) (Distt. Bhopal)	132/33	1x20	20	APRIL'10	15.04.2010	160
4	Dhamnod (ADDL) (Distt. Mandsaur)	132/33	1x20	20	JULY'10	31.07.2010	120
5	Bhonra (ADDL) (Distt. Guna)	132/33	1x20	20	AUG'10	21.08.2010	143
6	Chhegaon (220kv) (ADDL) (Distt.Khandwa)	132/33	1x40	40	SEPT'10	29.09.2010	(*)
7	Kotar (220kv) (ADDL) (Distt.Satna)	132/33	1x63	63	NOV'10	03.11.2010	(*)
8	Pithampur (220kv) (ADDL) (Distt.Dhar)	132/33	1x63	63	NOV'10	30.11.2010	753
9	Mandideep (220kv) (ADDL) (Distt.Raisen)	132/33	1x40	40	JAN'11	24.01.2011	577
10	Betul (220kv) (ADDL) (Distt. Betul)	132/33	1x40	40	FEB'11	25.02.2011	(*)
<b>Sub Total (C.b) (ADDITIONAL TRANSFORMER)</b>				<b>366</b>			<b>2117</b>
<b>c. AUGMENTATION OF CAPACITY</b>							
1	Jabalpur (AUG. from 40 to 63 MVA) (Distt. Jabalpur)	132/33		23	JULY'10	23.07.2010	576
2	Kurawar (Aug from 40 to 63 MVA) (Distt. Sehore)	132/33		23	OCT'10	05.10.2010	605
3	Sarni (Aug from 20 to 40 MVA) (Distt. Betul)	132/33		20	OCT'10	08.10.2010	450
4	Nepanagar (220kv) (Aug from 12.5 to 20 MVA) (Distt. Burhanpur)	132/33		7.5	NOV'10	24.11.2010	35
<b>Sub Total (C.c) (AUGMENTATION OF CAPACITY)</b>				<b>73.5</b>			<b>1666</b>
<b>Sub-Total (C) (132 kv Sub-stations)</b>				<b>822.5</b>			<b>12031</b>
<b>Total (EHV SUB - STATIONS) (A+B+C)</b>				<b>2192.5</b>			<b>29461</b>
<b>Grand Total (TRANSMISSION)</b>							<b>75256</b>
(*) : Cost included in respective 220 kv New Sub-stations .						<b>DT 07.04.2011</b>	

ANNEXURE - VI							
M.P. POWER TRANSMISSION COMPANY LIMITED							
TRANSMISSION WORKS COMPLETED DURING 2011-12 (UP TO 31.07.2011)							
S. No.	NAME OF THE TRANSMISSION LINE / (FINANCED BY)	TYPE OF CIRCUITS	ROUTE LENGTH	CIRCUIT KMS.	DATE OF COMPLETION	DATE OF COMMISSIONING	ESTIMATED COST (Rs. In lacs)
<b>I. EHV TRANSMISSION LINES</b>							
<b>A. 400 KV TRANSMISSION LINES</b>							
NIL							
<b>Sub-Total (A)</b>							
<b>B. 220 KV TRANSMISSION LINES</b>							
1	LILO of one ckt of 220kv Bina - Shivpuri line at 765KV S/s Bina of PGCIL (2x0.83)	DCDS	0.83	1.66	APRIL'11	14.04.2011	143
2	Diversion of 220kv Jabalpur (220kv) - Jabalpur (Sukha) line due to Guage Conversion of Jabalpur - Gonda Rly line (from NG to BG (2x6.18) (D/W)	DCDS	6.18	12.36	JULY'11	29.07.2011	858
<b>Sub-Total (B)</b>							
<b>7.01 14.02</b>							
<b>1001.00</b>							
<b>C. 132 KV TRANSMISSION LINES</b>							
1	Modification / Shifting of 132 kv Vindhyachal - Waidhan line due to Stage - IV VSTPP extension project of NTPC, Singrauli (2x6.71) (D/W)	DCDS	6.71	13.42	MAY'11	03.05.2011	432
2	Power supply to M/s Bhilai JP Cement, Satna from Kotar (220kv) S/s (17.49) (D/W)	DCSS	17.49	17.49	MAY'11	26.05.2011	614
3	Second Circuiting of 132 KV Sabalgarh - Sheopurkalan line (ADB - II)	2nd Ckt		88.97	JULY'11	13.07.2011	600
<b>Sub-Total (C)</b>							
<b>24.20 119.88</b>							
<b>1646.00</b>							
<b>Total (EHV LINES) (A + B + C)</b>							
<b>31.21 133.90</b>							
<b>2647</b>							
<b>II. EHV SUB - STATIONS</b>							
S. No.	NAME OF THE SUBSTATION / (DISTRICT) / (FINANCED BY)	VOLTAGE RATIO (KV)	No.OF X-mer & Cap.(MVA)	EFFECTIVE CAPACITY MVA	DATE OF COMPLETION	DATE OF COMMISSIONING	ESTIMATED COST (Rs. In lacs)
<b>A. 400 KV SUBSTATIONS</b>							
NIL							
<b>Sub Total (B) (220KV S/s)</b>							
<b>0</b>							
<b>0</b>							
<b>B. 220 KV SUBSTATIONS</b>							
<b>a. NEW SUBSTATIONS</b>							
1	Maihar (Distt.Satna) (D/W)	220/132/33	1x160	160	JULY'10	31.07.2011	2188
<b>b. ADDITIONAL TRANSFORMERS</b>							
1	Ashta (Addl Trans) (Distt. Sehore)	220/132	1x160	160	JULY'11	01.07.2011	1147
<b>Sub Total (B) (220KV S/s)</b>							
<b>320</b>							
<b>3335</b>							
<b>C. 132 KV SUBSTATIONS</b>							
<b>a. NEW SUBSTATIONS</b>							
1	Chicholi (Distt. Betul) (ADB - II)	132/33	1x40	40	APRIL'11	09.04.2011	851
2	Shamsabad (Distt. Vidisha) (GoMP)	132/33	1x40	40	MAY'11	27.05.2011	958
<b>Sub Total (C.a) (NEW S/s)</b>							
<b>80</b>							
<b>1809</b>							
<b>b. ADDITIONAL TRANSFORMERS</b>							
1	Rewa (Addl) (Distt. Rewa) (ADB - II) (S)	132/33	1x40	40	JUNE'11	12.06.2011	578
<b>Sub Total (C.b) (ADDITIONAL TRANSFORMER)</b>							
<b>40</b>							
<b>578</b>							
<b>c. AUGMENTATION OF CAPACITY</b>							
1	Bhopal (MACT) (Aug from 20 to 63 MVA) (Distt. Bhopal) (ADB - II)(S)	132/33		43	JUNE'11	06.06.2011	499
<b>Sub Total (C.c) (AUGMENTATION OF CAPACITY)</b>							
<b>43</b>							
<b>499</b>							
<b>Sub-Total (C) (132 kv Sub-stations)</b>							
<b>163</b>							
<b>2886</b>							
<b>Total (EHV SUB - STATIONS) (A+B+C)</b>							
<b>483</b>							
<b>6221</b>							
<b>III CAPACITOR BANKS</b>							
S.No.	NAME OF THE SUBSTATION	District		EFFECTIVE CAPACITY MVAR	DATE OF COMPLETION	DATE OF COMMISSIONING	ESTIMATED COST (Rs. In lacs)
<b>A. 33 KV SHUNT CAPACITORS (MVAR)</b>							
1	Ashta 220 kv S/s. (2x12 MVAR)	Sehore		20	APRIL'11	01.04.2011	35
2	Badnagar 220 kv S/s. (2x12 MVAR)	Ujjain		20	APRIL'11	22.04.2011	35
3	Betul 220 kv S/s. (1x12 MVAR)	Betul		10	JULY'11	07.07.2011	35
4	Chicholi 132 kv S/s. (1x12 MVAR)	Betul		10	JULY'11	12.07.2011	35
<b>Total (33 KV SHUNT CAPACITORS)</b>							
<b>60</b>							
<b>MVAR</b>							
<b>140</b>							
<b>Total Cost of Trans. Works Completed in 2011-12</b>							
<b>9008.00</b>							
(*) : Cost included in respective 220 kv New Sub-stations .							
<b>01.08.2011</b>							

**M. P. POWER TRANSMISSION COMPANY LTD**  
**TRANSMISSION PROGRAMME FOR YEAR 2011-12**

S. No.	NAME OF THE TRANSMISSION LINE & ASSOCIATED SUBSTATIONS	VOLTAGE LEVEL (KV)	TYPE	LENGTH OF LINE (Ckt.Kms.) / S/S. CAPACITY (MVA)	ESTIMATED COST (in Lakh Rs.)	TARGET	FUNDING AGENCY	Status
<b>I</b>	<b>220 KV LINES :</b>							
1	LILO of one ckt of 220KV Bina - Shivpuri line at Bina 765kv S/s of PGCIL DCDS line (2x0.83).	220 KV	DCDS	1.66	143	May-11		
2	Maheshwar - Pithampur (2x54)	220 KV	DCDS	108.00	2845	Dec-11	ADB - II	
3	LILO of both Ckt. Of 220KV Nagda - Neemuch line for Daloda 220kv S/S. (2xDCDS) (2x2x4)	220 KV	DCDS	16	500	Mar-12	PFC - II	
4	220KV DCDS Malwa TPS - Chhegaon line (2x65)	220 KV	DCDS	130	3627	Mar-12	PFC - II	
5	2nd Ckt of 220KV Sarni - Pandhurna line	220 KV	2ND CKT	83	1705	Mar-12	ADB - II	
	<b>SUB TOTAL (I) (220KV LINES)</b>			<b>338.66</b>	<b>8820.00</b>			
<b>II.</b>	<b>132 KV LINES</b>							
1	2nd circuitng of 132 KV-Sabalgarh 220 KV-Sheopurkalan 132 KV line	132 KV	2ND CKT	94.00	600	Dec-11	ADB - II	
2	Sabalgarh 220 KV - Vijaypur 132 KV DCSS line	132 KV	DCSS	32.00	813	Aug-11	ADB - II	
3	Shahdol - Dindori 132KV DCSS line	132 KV	DCSS	65.00	2041	Aug-11		
4	Sironj - Maksudnagarh DCSS	132 KV	DCSS	60.00	1543	Sep-11	PFC	
5	Sidhi -Deosar DCDS line (2x55 km).	132 KV	DCDS	110.00	1840	Dec-11	ADB - II	
6	LILO of 2nd ckt Of 132KV Betul - Multai line at Betul 220 KV S/s (2x3.75)	132KV	DCDS	7.50	186	Dec-11		
7	LILO of both ckts. Of 132KV Amarkantak to Morwa/Waidhan line at Rajmilan 132KV S/s	132KV	DCDS	4.00	251	Dec-11		
8	Satna - Nagod DCSS	132 KV	DCSS	20.00	540	Dec-11	PFC - II	
9	LILO of Gadarwada - Pipariya line for Bankhedi DCDS line (2x5 Kms)	132 KV	DCDS	10.00	160	Feb-12	PFC - II	
10	2nd circuitng of 132 KV Sidhi - Mouganj line	132 KV	2ND CKT	7.30	58	Mar-12		
	<b>SUB TOTAL (II)(132KV LINES)</b>			<b>409.80</b>	<b>8032.00</b>			
	<b>TOTAL TRANSMISSION LINES (I+II)</b>			<b>748.46</b>	<b>16852</b>			
<b>III</b>	<b>220 KV SUB STATIONS</b>							
	<b>NEW SUB STATIONS</b>							
1	Daloda 220kv NEW S/S with 1x160MVA, 220/132kv Tr.+ 1x40MVA, 132/33kv Tr.+ 4 Nos. 220kv FB + 2 Nos. 132kv FB (Distt - Mandsaur)	220/132/33		160	2000	Mar-12	PFC - II	
	<b>Additional Transformer</b>							
1	220/132kv 160MVA Additional Transformer at Ashta 220kv (Distt - Sehore)	220/132		160	1147	Aug-11	PFC - II	
	<b>SUB TOTAL (III) (220KV SUB STATIONS)</b>			<b>320</b>	<b>3147</b>			

S. No.	NAME OF THE TRANSMISSION LINE & ASSOCIATED SUBSTATIONS	VOLTAGE LEVEL (KV)	TYPE	LENGTH OF LINE (Ckt.Kms.) / S/S. CAPACITY (MVA)	ESTIMATED COST (in Lakh Rs.)	TARGET	FUNDING AGENCY	Status
<b>IV.</b>	<b>132 KV SUB STATIONS</b>							
	<b>NEW SUB STATIONS</b>							
1	Chicholi 132 S/S with 1x40MVA 132/33kV Tr. + 1 No. 132kV FB (Distt. Betul)	132/33		40	851	Apr-11	ADB - II	
2	Shamsabad 132kV S/S with 40MVA 132/33kV X-mer. (Vidisha)	132/33		40	958	Jun-11		
3	Dindori 132kV S/S with 20 MVA 132/33kV X-mer.(Dindori)	132/33		20	908	Aug-11		
4	Vijaypur 132 S/S with 1x40MVA 132/33kV Tr. + 1 No. 132kV FB (Distt. Sheopur Kalan)	132/33		40	841	Aug-11	ADB - II	
5	Deosar 132kV S/S with 63 MVA 132/33kV X-mer.(Sidhi)	132/33		63	987	Dec-11	PFC - II	
6	Rajmillan 132kV S/S with 40MVA 132/33kV X-mer.	132/33		40	1180	Dec-11		
7	Nagod 132kV S/S with 40MVA 132/33kV X-mer. (Satna)	132/33		40	960	Dec-11	PFC - II	
8	Bankhedi New 132kV S/S with 1 no. 132kv feeder bays (Distt. Hoshangabad)	132/33		40	960	Feb-12	PFC - II	
	<b>Additional/Augmentation works</b>							
1	Rewa (Addl.) (Distt. Rewa)	132/33		40	578	Jul-11	ADB SAVING	
2	Bhopal (MACT) (Aug from 20 to 40 MVA) (Distt. Bhopal)	132/33		20	499	Jul-11	ADB SAVING	
3	Vinoba Bhawe (Aug from 40 to 63 MVA) (Distt. Jabalpur)	132/33		23	629	Aug-11		
4	400KV Katni (Addl.) (Distt. Katni)	132/33		40	630	Aug-11		
5	Kymore (Aug from 20 to 40 MVA) (Distt. Katni)	132/33		20	467	Sep-11		
6	Mangalia (Addl.)	132/33		40	630	Sep-11		
7	220 KV Damoh (Addl) (Distt. Damoh)	132/33		40	524	Sep-11	ADB SAVING	
8	Multai (Aug 20 to 40.) (Distt. Betul)	132/33		20	585	Oct-11	ADB SAVING	
9	Pithampur (Addl.) (Distt. Dhar)	132/33		40	630	Oct-11		
10	Katra (Addl.) (Distt. Rewa)	132/33		20	160	Oct-11		
11	Aron (Addl.) (Distt. Guna)	132/33		40	630	Nov-11		
12	Dindori (Addl)	132/33		20		Nov-11	Cost included in New S/s	
	<b>SUB TOTAL (IV) (132KV SUB STATIONS)</b>			<b>686</b>	<b>13607</b>			
	<b>TOTAL E.H.V. SUB-STATION (III+IV)</b>			<b>1006</b>	<b>16754</b>			
	<b>TOTAL COST OF THE WORKS</b>				<b>33606</b>		<b>13.04.2011</b>	

### Discoms wise Average Supply Hours

PARTICULARS	East Zone		Central Zone	
	Jun-11	Jul-11	Jun-11	Jul-11
Commissinary HQ	23:32	22:53	22:57	23:17
District HQ	22:39	21:50	20:50	21:14
Tehsil HQ	18:38	17:37	17:33	17:47
Rural -3Phase	14:28	13:23	14:12	13:15
Rural -1Phase	0:00	0:00	0:00	0:00
Total Rural	14:28	13:23	14:15	13:15
PARTICULARS	West Zone		MP	
	Jun-11	Jul-11	Jun-11	Jul-11
Commissinary HQ	23:55	23:41	23:22	22:26
District HQ	23:00	22:46	22:13	21:56
Tehsil HQ	20:18	17:36	18:45	17:40
Rural -3Phase	15:56	13:35	14:48	14:08
Rural -1Phase	0:00	0:00	0:00	0:00
Total Rural	15:56	13:35	14:48	14:08

**LIST OF 33KV FEEDERS FOR WHICH GROUP TO BE ALLOCATED****1. JABALPUR REGION**

Name of EHV Substation	Name of 33KV feeder
<b>132KV</b>	
132KV Marhotal	33KV Kathonda
<b>220KV</b>	
220KV Pipariya	33KV Panagar

**2. SAGAR REGION**

Name of EHV Substation	Name of 33KV feeder
<b>132KV</b>	
132KV Gaurjhamer	33KV Deori-II
132KV Sagar	33KV Housing Board
<b>220KV</b>	
220KV Damoh	33KV PGCIL 33KV Narsingharh 33KV Industrial Estate

**3. REWA REGION**

Name of EHV Substation	Name of 33KV feeder
<b>132KV</b>	
132KV Umariya	33KV Pipariya (Coal Mines) 33KV Manpur
132KV Kotma	33KV Chachai (Anoop-pur)
132KV Shahdol	33KV DCL
132KV Waidhan	33KV Sasan Power 33KV Rajmilan
132KV Majhgawan	33KV Majhgawan 33KV Barondha 33KV Kothi 33KV Chitrakoot
132KV Beohari	33KV Bansagar 33KV Beohari 33KV Jaisingh nagar 33KV Papoundh
<b>220KV</b>	
220KV Kotar	33KV Kotar 33KV Sukwah 33KV Birsinghpur 33KV Dagdiha 33KV Tikuri
220KV Birsinghpur	33KV Ascent

**4. INDORE REGION**

Name of EHV Substation	Name of 33KV feeder
<b>132KV</b>	
132KV Indore West	33KV Gandhi Nagar
132KV Betma	33KV Chiklonda 33KV Industrial 33 KV Gohan
<b>220KV</b>	
220KV South Zone	33KV Datoda 33KV Tillore
220KV Jetpura (Indore)	33KV Rama Phosphate

**5. UJJAIN REGION**

Name of EHV Substation	Name of 33KV feeder
<b>132KV</b>	
132KV Manasa	33KV Kukdewshawar

## Anticipated Average Availability at MP Periphery: 2011-12 WITH BILATERAL

Figures in MW

Particulars											Sep-11				
	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU
Thermal (R-04)											1421	1421	1421	1421	1023
Hydel											310	180	200	620	236
CSS											1740	1740	1740	1740	1253
ISP											1000	1000	1000	1000	720
SSP											650	620	630	620	454
Omkareshwar											380	380	380	380	274
Maheshwar											0	0	0	0	0
DVC											0	0	0	0	0
Rihand +Matatila											25	25	25	25	18
Sugen											96	96	96	96	69
Banking+sale											-658	-704	-880	-681	-526
<b>Total</b>											<b>4964</b>	<b>4757</b>	<b>4612</b>	<b>5221</b>	<b>3520</b>
<b>Unres. Demand</b>											<b>5050</b>	<b>4660</b>	<b>4870</b>	<b>5920</b>	<b>3813</b>
<b>Resl. Demand</b>											<b>5050</b>	<b>3550</b>	<b>3610</b>	<b>5860</b>	<b>3361</b>
<b>Shortgae(+)/ Surplus(-) (wrt Unres)</b>											<b>86</b>	<b>-97</b>	<b>258</b>	<b>699</b>	<b>176</b>
<b>Shortgae(+)/ Surplus(-) (wrt res)</b>											<b>86</b>	<b>-1207</b>	<b>-1002</b>	<b>639</b>	<b>-159</b>
Particulars	Oct-11					Nov-11					Dec-11				
	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU
Thermal (R-04)	1905	1905	1905	1905	1417	2122	2122	2122	2122	1528	2164	2164	2164	2164	1610
Hydel	270	150	260	660	249	410	220	310	700	295	410	230	310	670	301
CSS	1890	1890	1890	1890	1406	1910	1910	1910	1910	1375	1860	1860	1860	1860	1384
ISP	80	0	120	810	188	350	120	270	850	286	160	250	270	680	253
SSP	110	180	130	420	156	30	160	140	430	137	160	80	130	430	149
Omkareshwar	40	0	60	340	82	160	50	110	340	119	70	100	110	310	110
Maheshwar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DVC	110	110	110	110	82	0	0	0	0	0	110	110	110	110	82
Rihand +Matatila	15	15	15	15	11	15	15	15	15	11	15	15	15	15	11
Sugen	96	96	96	96	69	96	96	96	96	69	96	96	96	96	69
Banking+sale	-50	-67	-85	-50	-47	401	63	63	155	123	657	63	76	293	203
<b>Total</b>	<b>4466</b>	<b>4279</b>	<b>4501</b>	<b>6196</b>	<b>3614</b>	<b>5494</b>	<b>4756</b>	<b>5036</b>	<b>6618</b>	<b>3943</b>	<b>5702</b>	<b>4968</b>	<b>5141</b>	<b>6628</b>	<b>4171</b>
<b>Unres. Demand</b>	<b>6290</b>	<b>6260</b>	<b>6540</b>	<b>7710</b>	<b>4985</b>	<b>7200</b>	<b>7220</b>	<b>7080</b>	<b>8360</b>	<b>5375</b>	<b>7140</b>	<b>7240</b>	<b>7100</b>	<b>8120</b>	<b>5506</b>
<b>Resl. Demand</b>	<b>5080</b>	<b>4190</b>	<b>4440</b>	<b>6290</b>	<b>3720</b>	<b>5760</b>	<b>5200</b>	<b>5010</b>	<b>6700</b>	<b>4081</b>	<b>5760</b>	<b>5350</b>	<b>5170</b>	<b>6480</b>	<b>4233</b>
<b>Shortgae(+)/ Surplus(-) (wrt Unres)</b>	<b>1824</b>	<b>1981</b>	<b>2039</b>	<b>1514</b>	<b>1369</b>	<b>1706</b>	<b>2464</b>	<b>2044</b>	<b>1742</b>	<b>1480</b>	<b>1438</b>	<b>2272</b>	<b>1959</b>	<b>1492</b>	<b>1332</b>
<b>Shortgae(+)/ Surplus(-) (wrt res)</b>	<b>614</b>	<b>-89</b>	<b>-61</b>	<b>94</b>	<b>106</b>	<b>266</b>	<b>444</b>	<b>-26</b>	<b>82</b>	<b>138</b>	<b>58</b>	<b>382</b>	<b>29</b>	<b>-148</b>	<b>62</b>
Particulars	Jan-12					Feb-12					Mar-12				
	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU
Thermal (R-04)	2164	2164	2164	2164	1610	2164	2164	2164	2164	1506	2164	2164	2164	2164	1610
Hydel	50	80	110	590	154	130	100	10	490	127	130	80	50	460	134
CSS	1910	1910	1910	1910	1421	1910	1910	1910	1910	1329	1930	1930	1930	1930	1436
ISP	320	160	80	580	212	40	200	150	660	183	150	110	130	680	199
SSP	50	260	220	410	175	20	140	110	330	104	100	110	120	310	119
Omkareshwar	150	70	30	240	91	20	90	80	280	82	70	50	60	310	91
Maheshwar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DVC	110	110	110	110	82	110	110	110	110	77	176	176	176	176	131
Rihand +Matatila	15	15	15	15	11	15	15	15	15	10	15	15	15	15	11
Sugen	96	96	96	96	69	96	96	96	96	67	96	96	96	96	69
Banking+sale	657	63	76	293	203	602	63	76	275	177	472	63	76	229	156
<b>Total</b>	<b>5522</b>	<b>4928</b>	<b>4811</b>	<b>6408</b>	<b>4028</b>	<b>5107</b>	<b>4888</b>	<b>4721</b>	<b>6330</b>	<b>3662</b>	<b>5303</b>	<b>4794</b>	<b>4816</b>	<b>6370</b>	<b>3956</b>
<b>Unres. Demand</b>	<b>7090</b>	<b>7300</b>	<b>7060</b>	<b>8420</b>	<b>5556</b>	<b>6320</b>	<b>6770</b>	<b>6660</b>	<b>8280</b>	<b>4877</b>	<b>6130</b>	<b>6240</b>	<b>5940</b>	<b>7190</b>	<b>4743</b>
<b>Resl. Demand</b>	<b>5830</b>	<b>5490</b>	<b>5230</b>	<b>6860</b>	<b>4354</b>	<b>5110</b>	<b>5040</b>	<b>4920</b>	<b>6750</b>	<b>3797</b>	<b>5010</b>	<b>4710</b>	<b>4380</b>	<b>5830</b>	<b>3707</b>
<b>Shortgae(+)/ Surplus(-) (wrt Unres)</b>	<b>1568</b>	<b>2372</b>	<b>2249</b>	<b>2012</b>	<b>1526</b>	<b>1213</b>	<b>1882</b>	<b>1939</b>	<b>1950</b>	<b>1299</b>	<b>827</b>	<b>1446</b>	<b>1124</b>	<b>820</b>	<b>784</b>
<b>Shortgae(+)/ Surplus(-) (wrt res)</b>	<b>308</b>	<b>562</b>	<b>419</b>	<b>452</b>	<b>326</b>	<b>3</b>	<b>152</b>	<b>199</b>	<b>420</b>	<b>135</b>	<b>-293</b>	<b>-84</b>	<b>-436</b>	<b>-540</b>	<b>-249</b>

### Basis of Anticipated Availability for 2011-2012

- 1 Central Sector :- Availability from Central Sector as per Maintenance Programme furnished by WRPC(LGBR), Mumbai & including 200 MW for drought prone area of Bundelkhand. Availability of Sipat Stage -I not Considered as per information furnished by Tredeco
- 2 Thermal :- As furnished by O&M : Generation , MPPGCL (R-04) & excluding Aux. Cons.
- 3 Hydel :- As furnished by O & M Hydel.
  - (a) Schedule of generation from Bansagar-III HPS shall depend upon requirement of water from Bansagar reservoir by Bihar Sate as per share.
  - (b) Schedule of Generation from Pench HPS shall depend upon reservoir level of Kheri dam of Govt. of MS Situated in down stream of Pench
  - (c) Schedule of generation for other HPS is also dependent on release of water allocated by WRD
  - (d) Hydel Generation considering Normal Rains in 2011-12 and may change during real time as per system requirement.
- 4 ISP,OSP and SSP : As furnished by NHDC/NCA
- 5 Maheshwar : Not Considered
- 6 DVC & Sujen : Considering Availability as furnished by MP TradeCo.



TENTATIVE MAINTENANCE PROGRAMME OF MPPGCL THERMAL UNITS FOR THE YEAR 2011-2012																				R 4				25-Aug-2011						
STATION	UNIT No.	AOH START	AOH COMP	APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		JAN		FEB		MAR		No of Days	REMARKS	
AM-II	3	1-Apr-11	30-Sep																									183	C.O.H.	
AM-II	4	1-Jun-11	30-Sep																									122	C.O.H.	IP ROTOR DAMAGE
AMK EXT	5	Deferred																										0		
STP-I	1	Deferred																										0		
STP-I	2	Deferred																										0		
STP-I	3	1-May-11	31-May																									31	A.O.H.	
STP-I	4	25-Jul-11	16-Aug																									23	A.O.H.	
STP-I	5	30-May-11	22-Jun																									24	A.O.H.	
STP-II	6	29-Jul-11	16-Sep																									50	C.O.H.	Pent house repair,Eco., LTSH
STP-II	7	1-Jul-11	30-Jul																									30	A.O.H.	
STP-III	8	Deferred																										0		
STP-III	9	1-Sep-11	20-Oct																									50	C.O.H.	Eco, Reheater, LTSH
SGTPS - I	1	15-Sep-11	05-Oct																									21	A.O.H.	SS Header Rep.
SGTPS - I	2	5-Sep-11	19-Oct																									45	C.O.H.	Re-Heater APH & Wind Box Rep.
SGTPS - II	3	26-Jul-11	31-Aug																									37	C.O.H.	Econ.Repl ,HPT,IPT&LPT
SGTPS - II	4	5-May-11	31-May																									27	A.O.H.	
SGTPS - III	5	Deferred																										0	A.O.H.	
Capacity under Planned Maintenance				120	120	323	393	303	282	450	541	713	671	790	937	490	140	0	0	0	0	0	0	0	0	0	0			
PLANNED MAINTENANCE %				4	4	11	13	10	10	15	18	24	23	27	32	17	5	0	0	0	0	0	0	0	0	0	0			
THERMAL AVAILABILITYAFTER CONSIDERING FORCED & PARTIAL OUTAGES IN MW INCLUDING AUX. CONSUMPTION				1913		1723		1731		1610		1444		1571		2109		2351		2397		2397		2397		2397				
Generation In MU				1378		1282		1246		1198		1074		1131		1569		1693		1783		1783		1668		1783				
PUF In %				65		59		59		55		49		54		72		80		82		82		82		82			68.3	

**MAINTANANCE PROGRAMME OF TRANSMISSION  
ELEMENT for Aug-2011 & Sep 2011**

S.NO.	SUB STATION	DATE	TIME		NAME OF FEEDER / TRANSFORMER / BUS
			FROM	TO	
1	400 KV S/S KATNI	NIL	NIL	NIL	NIL
2	400 KV S/S BINA	NIL	NIL	NIL	NIL
3	400 KV S/S BHOPAL	01-09-11	0900 Hrs	1700 Hrs	400 KV BUS-1
4	400 KV S/S BHOPAL	02-09-11	0900 Hrs	1700 Hrs	400 KV BUS-2
5	400 KV S/S BHOPAL	03-09-11	0900 Hrs	1700 Hrs	220 KV BAIRAGARH -1, LINE AND BAY
6	400 KV S/S BHOPAL	05-09-11	0900 Hrs	1700 Hrs	220 KV BAIRAGARH -2, LINE AND BAY
7	400 KV S/S BHOPAL	07-09-11	0900 Hrs	1700 Hrs	315 MVA TRANSFORMER -1
8	400 KV S/S BHOPAL	08-09-11	0900 Hrs	1700 Hrs	400 KV MAIN AND TIE CB OF 315 MVA X'MER -1
9	400 KV S/S BHOPAL	09-09-11	0900 Hrs	1700 Hrs	220 KV ICT NO.1
10	400 KV S/S BHOPAL	12-09-11	0900 Hrs	1700 Hrs	220 KV BUS TRANSFER BAY AND AUX BUS
11	400 KV S/S BHOPAL	13-09-11	0900 Hrs	1700 Hrs	315 MVA TRANSFORMER -2
12	400 KV S/S BHOPAL	14-09-11	0900 Hrs	1700 Hrs	400 KV MAIN AND TIE CB OF 315 MVA X'MER -2
13	400 KV S/S BHOPAL	15-09-11	0900 Hrs	1700 Hrs	220 KV ICT NO.2
14	400 KV S/S INDORE	17-08-11	0700 Hrs	1700 Hrs	400 KV B/C
15	400 KV S/S INDORE	23-08-11	0700 Hrs	1700 Hrs	400 KV B/T
16	400 KV S/S NAGDA	16-08-11	0800 Hrs	1700 Hrs	400 KV INDORE
17	400 KV S/S NAGDA	18-08-11	0800 Hrs	1700 Hrs	400 KV NAGDA - RAIGARH -1
18	400 KV S/S NAGDA	19-08-11	0800 Hrs	1700 Hrs	400 KV NAGDA - RAIGARH -1
19	400 KV S/S NAGDA	23-08-11	0800 Hrs	1700 Hrs	400 KV NAGDA - RAIGARH -2
20	400 KV S/S NAGDA	24-08-11	0800 Hrs	1700 Hrs	400 KV NAGDA - RAIGARH -2
21	400 KV S/S NAGDA	26-08-11	0800 Hrs	1700 Hrs	400 KV NAGDA - ISP
22	400 KV S/S NAGDA	27-08-11	0800 Hrs	1700 Hrs	400 KV NAGDA - ISP
23	400 KV S/S NAGDA	05-09-11	0800 Hrs	1700 Hrs	400 KV MAIN BUS -1
24	400 KV S/S NAGDA	06-09-11	0800 Hrs	1700 Hrs	400 KV MAIN BUS -1
25	400 KV S/S NAGDA	12-09-11	0800 Hrs	1700 Hrs	400 KV MAIN BUS -2
26	400 KV S/S NAGDA	13-09-11	0800 Hrs	1700 Hrs	400 KV MAIN BUS -2

<b>Unitwise / Stationwise Generation in MU</b>				
<b>A. Thermal</b>				
Stn. Name	UNIT No.	Capacity MW	June-11	July-11
<b>AMARKANTAK</b>	3	120	0	0.00
	4	120	0.63	0.00
	<b>PH II</b>	<b>240</b>	<b>0.63</b>	<b>0.00</b>
	<b>PH III</b>	<b>210</b>	<b>149.89</b>	<b>138.38</b>
	<b>TOT</b>	<b>450</b>	<b>150.52</b>	<b>138.38</b>
<b>SATPURA</b>	1	62.5	31.64	27.91
	2	62.5	26.75	27.86
	3	62.5	25.46	31.02
	4	62.5	23.49	16.30
	5	62.5	7.50	24.65
	<b>PH I</b>	<b>312.5</b>	<b>114.83</b>	<b>127.75</b>
	6	200	68.48	89.77
	7	210	44.28	5.33
	<b>PH II</b>	<b>410</b>	<b>112.75</b>	<b>95.09</b>
	8	210	89.13	85.34
	9	210	73.3	90.40
	<b>PH III</b>	<b>420</b>	<b>162.43</b>	<b>175.74</b>
<b>TOT</b>	<b>1142.5</b>	<b>390.01</b>	<b>398.58</b>	
<b>SANJAY GANDHI</b>	1	210	94.57	72.82
	2	210	80.11	74.39
	<b>PH I</b>	<b>420</b>	<b>174.68</b>	<b>147.21</b>
	3	210	86.35	84.75
	4	210	110.96	111.80
	<b>PH II</b>	<b>420</b>	<b>197.31</b>	<b>196.55</b>
	<b>PH III</b>	<b>500</b>	<b>333.55</b>	<b>317.10</b>
	<b>TOT</b>	<b>1340</b>	<b>705.53</b>	<b>660.86</b>
<b>MPPGCL THERMAL</b>		<b>2932.5</b>	<b>1246.06</b>	<b>1197.82</b>
AMARKANTAK POWER HOUSE-I RETIRED FROM SERVICE WEF 01.04.2009				
<b>B. Hydel</b>				
Station Name	Capacity MW	June-11	July-11	
GANDHISAGAR	115.0	2.84	0.00	
R.P.SAGAR	172.0	3.18	0.04	
J.SAGAR	99.0	4.01	2.36	
CHAMBAL	386.0	10.02	2.40	
M.P.CHAMBAL	193.0	5.01	1.20	
PENCH	160.0	41.38	14.11	
M.P.PENCH	107.0	27.59	9.40	
BARGI	90.0	27.53	47.53	
TONS	315.0	72.96	41.38	
BIRSINGHPUR	20.0	2.59	9.89	
B.SGR(DEOLONDH)	60.0	0.00	0.00	
B.SGR(SILPARA)	30.0	4.78	0.60	
RAJGHAT	45.0	0.00	15.84	
M.P.RAJGHAT	22.5	0.00	7.92	
B.SGR(JINHA)	20.0	0.00	0.23	
MADIKHEDA	60.0	8.25	31.89	
<b>TOTAL HYDEL</b>	<b>1186.0</b>	<b>167.5</b>	<b>163.9</b>	
MPPGCL Hydel	915.0	160.3	161.5	
MPSEB HYDEL Share	917.5	148.7	150.0	
<b>C. NHDC</b>				
		Jun-11	Jul-11	
Indira Sagar Hydel Project	1000	215.470	235.737	
Omkareshwar Hydel Project	520	111.883	128.256	

**MP SUPPLY EXCLUDING AUXILIARY CONS.  
in Million Units**

S.No.	Particulars	June-11	July-11
1	MPSEB Thermal Availability	1077.86	1026.52
2	MPSEB Hydel Availability	146.34	148.33
3	Indira Sagar	215.31	235.52
4	Omkareshwar	111.88	128.26
5	Schedule / Drawal From Central Sector	1237.67	1394.15
6	Schedule of DVC	24.11	0.00
7	Schedule of Sujen	23.33	27.31
8	Sardar Sarovar	213.85	200.24
9	Additional Power Purchase	0.00	0.00
10	Sale of Power	-47.75	-62.61
11	Banking of Power	-159.62	-290.76
12	Energy Exchange	0.00	0.00
13	Unschedule Interchange	-166.13	-180.17
14	Other Imp / Exp	112.01	114.57
<b>15</b>	<b>Total MPSEB Supply excl. Aux. Cons.</b>	<b>2788.86</b>	<b>2741.34</b>
16	Average Supply per Day	92.96	88.43
17	Maximum Daily M.P. Supply	105.56	91.97
18	Minimum Daily M.P. Supply	75.52	74.76
19	Registered Demand : MW	6069	5170
24	Unrestricted Demand : MW	6944	5767

**Hourly Average Own Generation, Schedule Drawal, Actual Drawal & Demand**  
**Month :- June 2011**

FIGURES IN MW

Hrs.	FREQ.	Own Generation								Schedule from												Tot. Avl.	Act. Drl.	UI	Other Imp/Exp	DEMAND MET	Load Shedding			REST. DEMAND	UNRES. DEMAND
		Ther. Incl. Aux	Ther. Excl. Aux	HYD.	ISP	OSP	Injection from STOA	Total	CSS	DVCE	Sug	SSP	SEZ	Banking	Sale	Pur	Exchange	STOA	Wind+Mata	Total	SCH						UNSCH	TOTAL			
1:00	49.92	1733	1577	249	410	181	-33	2384	1637	31	30	169	10	-162	-91	78	0	33	2	1737	4120	1632	-105	-23	4017	547	0	547	4027	4574	
2:00	49.99	1730	1574	235	380	164	-36	2317	1645	31	30	165	10	-160	-87	76	0	36	2	1749	4066	1660	-89	-23	3978	539	1	540	3981	4520	
3:00	50.07	1717	1562	229	372	155	-41	2277	1639	31	30	165	10	-162	-82	78	0	41	2	1754	4031	1674	-80	-23	3952	437	0	437	3945	4382	
4:00	50.12	1711	1557	214	309	138	-43	2176	1640	31	30	162	10	-160	-81	78	0	43	2	1757	3933	1600	-157	-23	3777	406	0	406	3763	4169	
5:00	49.95	1716	1561	162	241	122	-43	2043	1638	31	30	159	10	-160	-80	78	0	43	2	1753	3796	1534	-220	-23	3578	401	2	402	3584	3985	
6:00	50.07	1718	1563	123	138	100	-48	1877	1639	31	30	159	10	-157	-55	78	0	48	2	1786	3663	1468	-318	-23	3346	418	0	418	3339	3757	
7:00	50.06	1712	1558	92	79	83	-48	1764	1625	31	30	159	10	-113	-56	36	0	48	2	1773	3537	1373	-400	-23	3138	544	0	544	3132	3675	
8:00	50.09	1704	1551	78	56	78	-49	1715	1625	31	30	153	10	-113	-58	36	0	49	2	1766	3481	1368	-398	-23	3084	565	5	570	3081	3646	
9:00	50.02	1703	1550	75	91	76	-43	1749	1624	31	30	156	10	-114	-56	36	0	43	2	1763	3512	1369	-394	-23	3119	466	0	466	3117	3583	
10:00	50.01	1715	1561	121	156	108	-43	1904	1598	29	29	426	10	-352	-68	36	0	43	2	1753	3657	1531	-222	-23	3436	393	4	397	3439	3832	
11:00	49.95	1722	1567	156	208	124	-35	2020	1605	36	32	463	10	-352	-73	36	0	35	2	1794	3814	1680	-115	-23	3700	265	8	273	3714	3980	
12:00	49.94	1723	1568	207	256	151	-17	2165	1593	31	32	466	10	-352	-116	36	0	17	2	1721	3886	1632	-89	-23	3797	271	6	277	3810	4080	
13:00	50.03	1706	1552	216	281	161	-12	2198	1587	31	32	472	10	-352	-112	36	0	12	2	1718	3916	1697	-21	-23	3896	295	14	308	3907	4201	
14:00	49.80	1712	1558	218	303	168	-9	2238	1585	31	32	475	10	-352	-115	36	0	9	2	1714	3952	1558	-156	-23	3797	349	6	355	3826	4175	
15:00	49.80	1719	1564	208	308	173	-6	2247	1587	31	32	275	10	-352	-117	34	0	6	2	1510	3757	1397	-112	-23	3646	486	0	486	3668	4154	
16:00	50.00	1713	1558	216	307	165	-6	2241	1587	31	32	181	10	-352	-117	34	0	6	2	1414	3655	1247	-167	-23	3490	586	7	593	3497	4083	
17:00	49.99	1711	1557	186	257	149	-17	2132	1594	31	32	166	10	-352	-116	34	0	17	2	1418	3550	1160	-259	-23	3292	599	1	600	3295	3894	
18:00	50.12	1733	1577	133	188	115	-37	1977	1613	33	32	169	10	-369	-65	34	0	37	2	1496	3473	1296	-200	-23	3274	490	0	490	3262	3752	
19:00	49.95	1751	1594	149	268	132	-39	2104	1621	33	32	401	10	-129	-32	33	0	39	2	2011	4114	1818	-193	-23	3922	323	0	323	3928	4250	
20:00	49.77	1771	1611	309	536	238	-6	2687	1625	33	32	463	10	-128	-5	107	0	6	2	2145	4833	1893	-253	-23	4581	436	0	436	4613	5049	
21:00	49.84	1776	1616	369	593	283	-9	2854	1622	33	32	488	10	-128	-1	107	0	9	2	2173	5026	1950	-223	-23	4805	480	0	480	4827	5306	
22:00	49.91	1775	1615	367	595	288	-9	2857	1628	32	32	494	10	-128	-6	108	0	9	2	2181	5037	1942	-239	-23	4799	454	14	468	4826	5280	
23:00	49.83	1744	1587	309	498	248	-14	2627	1634	32	32	305	10	-155	-1	109	0	14	2	1982	4609	1658	-324	-23	4286	616	1	617	4310	4925	
24:00	49.88	1719	1564	272	448	211	-18	2477	1622	25	27	198	10	-166	0	109	0	18	2	1845	4322	1619	-226	-23	4097	609	0	609	4112	4722	
Avg.	49.96	1726	1571	204	303	159	-27	2210	1617	31	31	287	10	-222	-66	61	0	27	2	1777	3989	1573	-207	-23	3784	457	3	460	3792	4249	
00 TO 06 HRS.	50.02	1721	1566	202	308	143	-41	2179	1640	31	30	163	10	-160	-79	78	0	41	2	1756	3935	1595	-161	-23	3775	458	1	458	3773	4231	
06 TO 12 HRS.	50.01	1713	1559	121	141	104	-39	1886	1612	31	31	304	10	-233	-71	36	0	39	2	1762	3648	1492	-270	-23	3379	417	4	421	3382	3799	
12 TO 18 HRS.	49.96	1716	1561	196	274	155	-14	2172	1592	32	32	290	10	-355	-107	35	0	14	2	1545	3717	1393	-153	-23	3566	468	5	472	3576	4043	
06 TO 18 HRS.	49.98	1714	1560	159	208	129	-27	2029	1602	31	31	297	10	-294	-89	35	0	27	2	1653	3683	1442	-211	-23	3472	442	4	447	3479	3921	
18 TO 24 HRS.	49.86	1756	1598	296	490	233	-16	2601	1625	31	31	391	10	-139	-8	96	0	16	2	2056	4657	1813	-243	-23	4415	486	3	489	4436	4922	

**Hourly Average Own Generation, Schedule Drawal , Actual Drawal & Demand**  
**Month :- July 2011**

FIGURES IN MW

Hrs.	FREQ.	Own Generation							Schedule from													Tot Avl.	Act. Dri	UI	Other Imp/Exp	DEMAND MET	Load Shedding			REST. DEMAND	UNRES. T. DEMAND
		Ther. Incl Aux	Ther. Excl Aux	HYD.	ISP	OSP	Injection from STOA	Total	CSS	DVCE	Sug	SSP	SEZ	Banking	Sale	Pur	Exchange	STOA	Inter-connector	Total	SCH						UNSCH	TOTAL			
1:00	49.92	1595	1451	222	464	257	0	2394	1834	0	33	97	11	-333	-99	0	0	31	10	1583	3977	1539	-44	1	3904	472	3	475	3916	4388	
2:00	49.90	1598	1454	212	432	242	0	2340	1834	0	33	94	11	-333	-72	0	0	36	10	1614	3953	1559	-55	1	3863	463	1	464	3875	4337	
3:00	49.96	1601	1457	206	399	220	0	2282	1834	0	33	94	11	-333	-48	0	0	41	10	1642	3924	1628	-14	1	3870	358	2	359	3877	4234	
4:00	50.01	1595	1452	204	334	192	0	2181	1836	0	33	94	11	-333	-36	0	0	41	10	1655	3837	1563	-92	1	3705	292	1	293	3705	3997	
5:00	49.86	1583	1441	188	292	167	0	2087	1825	0	33	91	11	-333	-38	0	0	40	10	1638	3726	1429	-209	1	3477	276	1	277	3493	3769	
6:00	49.99	1587	1444	176	211	133	0	1963	1824	0	33	91	11	-357	-43	0	0	37	10	1605	3568	1281	-324	1	3208	339	0	339	3210	3549	
7:00	49.98	1564	1423	147	161	100	0	1831	1815	0	34	91	10	-276	-88	0	0	36	10	1633	3463	1220	-413	1	3016	406	0	406	3018	3424	
8:00	50.03	1534	1396	145	141	91	0	1772	1808	0	34	91	11	-276	-91	0	0	35	10	1623	3395	1253	-370	1	2991	457	0	457	2988	3445	
9:00	49.94	1568	1427	146	159	93	0	1825	1798	0	34	91	10	-279	-150	0	0	29	10	1543	3368	1255	-288	1	3053	413	0	413	3058	3471	
10:00	49.97	1586	1443	149	187	109	0	1889	1790	0	44	443	10	-499	-91	0	0	24	10	1732	3621	1428	-304	1	3293	324	6	329	3302	3626	
11:00	49.87	1593	1450	158	218	124	0	1950	1786	0	37	508	10	-498	-120	0	0	15	10	1749	3699	1509	-239	1	3445	338	0	338	3459	3797	
12:00	49.88	1597	1454	176	232	134	0	1996	1778	0	37	510	10	-498	-141	0	0	10	10	1716	3712	1486	-230	1	3474	337	6	342	3492	3828	
13:00	50.01	1598	1454	178	231	131	0	1994	1775	0	37	508	10	-504	-146	0	0	-1	10	1689	3683	1544	-145	1	3540	415	2	417	3542	3957	
14:00	49.86	1591	1448	187	238	133	0	2005	1766	0	37	476	10	-504	-145	0	0	0	10	1651	3656	1408	-242	1	3414	434	1	435	3429	3863	
15:00	49.85	1597	1453	190	237	131	0	2012	1767	0	37	205	10	-504	-157	0	0	-3	10	1366	3377	1317	-49	1	3332	557	17	573	3364	3921	
16:00	49.91	1603	1459	199	232	133	0	2023	1763	0	37	108	10	-504	-141	0	0	4	10	1289	3312	1201	-88	1	3221	557	25	582	3254	3811	
17:00	49.96	1593	1450	192	239	140	0	2021	1764	0	37	102	10	-504	-124	0	0	25	10	1321	3343	1117	-205	1	3114	577	3	580	3121	3698	
18:00	50.06	1627	1480	192	233	137	0	2043	1765	0	37	98	10	-534	-88	0	0	32	10	1330	3373	1201	-130	1	3213	400	2	402	3209	3609	
19:00	49.87	1674	1524	206	278	153	0	2161	1750	0	34	455	10	-315	-73	0	0	31	10	1902	4063	1659	-243	1	3790	408	4	412	3808	4216	
20:00	49.72	1688	1536	307	453	216	0	2513	1805	0	34	575	10	-315	-28	0	0	-6	10	2086	4599	1844	-242	1	4363	576	1	576	4401	4977	
21:00	49.74	1717	1562	344	620	301	0	2828	1807	0	34	575	10	-316	-23	0	0	-6	10	2091	4919	1840	-251	1	4675	432	5	438	4717	5149	
22:00	49.87	1694	1542	343	624	312	0	2820	1809	0	34	552	10	-316	-17	0	0	-5	10	2078	4897	1797	-281	1	4623	396	0	396	4642	5037	
23:00	49.84	1617	1471	295	577	304	0	2648	1830	0	34	211	10	-369	-22	0	0	-3	10	1702	4349	1553	-149	1	4204	528	0	528	4224	4752	
24:00	49.92	1601	1457	254	485	282	0	2477	1830	0	34	110	10	-343	-41	0	0	18	10	1630	4107	1521	-108	1	3981	643	0	643	3992	4635	
Avg.	49.91	1608	1464	209	320	176	0	2169	1800	0	35	261	10	-391	-84	0	0	19	10	1651	3830	1465	-196	1	3615	433	3	436	3629	4062	
00 TO 06 HRS.	49.94	1593	1450	201	355	202	0	2208	1831	0	33	93	11	-337	-56	0	0	38	10	1623	3831	1500	-123	1	3671	367	1	368	3679	4046	
06 TO 12 HRS.	49.95	1574	1432	154	183	108	0	1877	1796	0	37	289	10	-388	-113	0	0	25	10	1666	3543	1359	-307	1	3212	379	2	381	3220	3599	
12 TO 18 HRS.	49.94	1601	1457	190	235	134	0	2016	1767	0	37	249	10	-509	-133	0	0	10	10	1441	3457	1298	-143	1	3306	490	8	498	3320	3810	
06 TO 18 HRS.	49.94	1588	1445	172	209	121	0	1947	1781	0	37	269	10	-448	-123	0	0	17	10	1553	3500	1328	-225	1	3259	434	5	440	3270	3704	
18 TO 24 HRS.	49.83	1665	1515	291	506	261	0	2574	1805	0	34	413	10	-329	-34	0	0	5	10	1915	4489	1702	-213	1	4273	497	2	499	4297	4794	

**Hourly Average Schedule Drawal , Actual Drawal &Over(+)/Under(-) Drawal**  
**Month :- June 2011**

**FIGURES IN MW**

Hrs.	FREQ.	CZONE			EZONE			WZONE		
		SCH	ACTUAL	O/U DRL	SCH	ACTUAL	O/U DRL	SCH	ACTUAL	O/U DRL
1:00	49.92	1416	1324	-92	1334	1348	14	1427	1345	-82
2:00	49.99	1403	1304	-98	1321	1334	13	1397	1340	-58
3:00	50.07	1394	1270	-124	1314	1328	14	1386	1354	-31
4:00	50.12	1368	1244	-124	1291	1225	-65	1335	1308	-28
5:00	49.95	1330	1213	-117	1258	1099	-159	1268	1266	-2
6:00	50.07	1299	1117	-181	1230	984	-246	1195	1245	49
7:00	50.06	1262	1046	-216	1196	876	-320	1135	1216	81
8:00	50.09	1248	1057	-191	1183	838	-344	1108	1189	81
9:00	50.02	1249	992	-257	1184	846	-338	1115	1281	166
10:00	50.01	1269	971	-298	1194	961	-233	1229	1504	275
11:00	49.95	1305	1052	-253	1262	1056	-207	1299	1593	294
12:00	49.94	1315	1104	-211	1269	1138	-131	1327	1555	228
13:00	50.03	1323	1171	-152	1276	1165	-111	1361	1561	200
14:00	49.80	1328	1202	-126	1283	1079	-204	1372	1516	144
15:00	49.80	1279	1188	-91	1214	1089	-125	1273	1368	95
16:00	50.00	1255	1119	-136	1182	1107	-75	1225	1263	37
17:00	49.99	1242	1057	-185	1166	982	-185	1184	1254	70
18:00	50.12	1233	1073	-160	1159	900	-259	1138	1301	163
19:00	49.95	1410	1266	-144	1352	1054	-298	1411	1603	191
20:00	49.77	1585	1385	-201	1514	1441	-74	1719	1756	37
21:00	49.84	1644	1442	-202	1572	1623	51	1829	1739	-90
22:00	49.91	1648	1438	-209	1577	1632	55	1836	1729	-107
23:00	49.83	1536	1381	-154	1461	1442	-19	1644	1463	-182
24:00	49.88	1462	1335	-128	1383	1329	-54	1520	1433	-87
<b>Avg.</b>	<b>49.96</b>	<b>1367</b>	<b>1198</b>	<b>-169</b>	<b>1299</b>	<b>1161</b>	<b>-137</b>	<b>1364</b>	<b>1424</b>	<b>60</b>
<b>00 TO 06 HRS.</b>	50.02	1368	1245	-123	1291	1220	-72	1335	1310	-25
<b>06 TO 12 HRS.</b>	50.01	1275	1037	-238	1215	952	-262	1202	1390	187
<b>12 TO 18 HRS.</b>	49.96	1277	1135	-142	1213	1054	-160	1259	1377	118
<b>06TO 18 HRS.</b>	49.98	1276	1086	-190	1214	1003	-211	1231	1383	153
<b>18 TO 24 HRS.</b>	49.86	1547	1375	-173	1477	1420	-56	1660	1620	-40

**Hourly Average Schedule Drawal , Actual Drawal &Over(+)/Under(-) Drawal**  
**Month :- July 2011**

**FIGURES IN MW**

Hrs.	FREQ.	CZONE			EZONE			WZONE		
		SCH	ACTUAL	O/U DRL	SCH	ACTUAL	O/U DRL	SCH	ACTUAL	O/U DRL
1:00	49.92	1325	1318	-8	1275	1422	147	1381	1164	-217
2:00	49.90	1325	1297	-27	1273	1410	137	1359	1156	-204
3:00	49.96	1318	1277	-42	1265	1417	152	1337	1176	-160
4:00	50.01	1300	1270	-30	1241	1303	62	1290	1132	-158
5:00	49.86	1270	1233	-37	1218	1118	-101	1241	1126	-115
6:00	49.99	1245	1096	-149	1195	982	-213	1179	1130	-49
7:00	49.98	1204	1021	-183	1152	900	-252	1111	1096	-15
8:00	50.03	1180	1032	-148	1131	884	-247	1080	1076	-4
9:00	49.94	1173	984	-189	1123	896	-227	1080	1173	93
10:00	49.97	1203	999	-205	1186	1019	-167	1206	1275	69
11:00	49.87	1220	1044	-177	1209	1109	-100	1263	1293	29
12:00	49.88	1215	1081	-135	1205	1155	-50	1269	1238	-32
13:00	50.01	1211	1128	-83	1200	1152	-48	1265	1259	-6
14:00	49.86	1206	1139	-67	1225	1068	-158	1253	1207	-46
15:00	49.85	1155	1136	-19	1119	1095	-23	1140	1101	-39
16:00	49.91	1142	1071	-72	1094	1103	9	1091	1047	-44
17:00	49.96	1155	1036	-119	1105	1013	-91	1102	1065	-37
18:00	50.06	1164	1108	-56	1111	957	-154	1109	1147	39
19:00	49.87	1328	1297	-30	1294	1132	-162	1376	1360	-16
20:00	49.72	1466	1410	-57	1444	1492	48	1625	1462	-163
21:00	49.74	1560	1469	-92	1532	1722	190	1803	1484	-320
22:00	49.87	1559	1480	-79	1532	1708	176	1810	1435	-375
23:00	49.84	1419	1416	-3	1375	1515	140	1565	1274	-291
24:00	49.92	1360	1376	16	1310	1426	115	1439	1179	-260
<b>Avg.</b>	<b>49.91</b>	<b>1279</b>	<b>1197</b>	<b>-83</b>	<b>1242</b>	<b>1208</b>	<b>-34</b>	<b>1307</b>	<b>1211</b>	<b>-97</b>
<b>00 TO 06 HRS.</b>	49.94	1297	1249	-49	1245	1275	31	1298	1147	-151
<b>06 TO 12 HRS.</b>	49.95	1199	1027	-173	1168	994	-174	1168	1192	24
<b>12 TO 18 HRS.</b>	49.94	1172	1103	-69	1142	1065	-78	1160	1138	-22
<b>06TO 18 HRS.</b>	49.94	1186	1065	-121	1155	1029	-126	1164	1165	1
<b>18 TO 24 HRS.</b>	49.83	1449	1408	-41	1414	1499	85	1603	1366	-237



**1. System Occurrence at Satpura on dtd. 05.07.2011 :** On dtd. 05.07.2011 at about 18.15 hrs., due to failure of 220 KV Bus-I PT Y-Phase (SCT make), a bus fault occurred at 220 KV Bus-I at Satpura Thermal Power Station, Sarni and resulting in tripping of all running units and feeders connected with 220 KV Bus I & II . The details of tripping is given below :-

### INCIDENT REPORTING

#### SECTION – 14 : OPERATION EVENT /A CCIDENT REPORTING

- |     |                                      |                                    |                                                       |
|-----|--------------------------------------|------------------------------------|-------------------------------------------------------|
| 01. | Date and time of incident            | :                                  | 05.07.2011 18.15 Hrs                                  |
| 02. | Location of incident                 | :                                  | 220 KV Switch Yard STPS PH-I MPPGCL Sarni             |
| 03. | Type of incident                     | :                                  | Failure of 220 KV Bus-I, P.T. “Y” phase (SCT make PT) |
| 04. | System parameter before the incident | :                                  |                                                       |
|     | a)                                   | Bus-I voltage                      | : 230 KV                                              |
|     | b)                                   | Bus-II voltage                     | : 228 KV                                              |
|     | c)                                   | Frequency                          | : 49.8 Hz                                             |
|     | d)                                   | <b><u>(i) Generation:</u></b>      |                                                       |
|     |                                      | Unit No.1                          | : Under shutdown                                      |
|     |                                      | Unit No.2                          | : 45 MW                                               |
|     |                                      | Unit No.3                          | : 44 MW                                               |
|     |                                      | Unit No.4                          | : Under shutdown                                      |
|     |                                      | Unit No.5                          | : Under shutdown                                      |
|     |                                      | Unit No.6                          | : 145 MW                                              |
|     |                                      | Unit No.7                          | : Under shutdown                                      |
|     |                                      | <b><u>(ii) Load on feeder:</u></b> |                                                       |
|     |                                      | Itarsi-I (Handia)                  | : 40 MW                                               |
|     |                                      | Itarsi-II                          | : 50 MW                                               |
|     |                                      | Itarsi-II                          | : 50 MW                                               |
|     |                                      | Itarsi-III                         | : 50 MW                                               |
|     |                                      | Itarsi-IV                          | : 50 MW                                               |
|     |                                      | Pandhurna                          | : 30 MW                                               |
|     |                                      | Sub-station                        | : 50 MW                                               |
|     |                                      | Res. Trans. I                      | : 3.2 MW                                              |
|     |                                      | Res. Trans.II                      | : 3.0 MW                                              |
|     |                                      | Stn.Trans. III                     | : 2.0 MW                                              |
|     |                                      | Stn. Trans.IV                      | : 8.0 MW                                              |
| 05. | Relay indication received &          | :                                  |                                                       |



## **2. System occurrence at 220 KV substation, Narsinghpur on dtd. 24.07.2011 at 04.06 Hrs.**

On dated 24<sup>th</sup> July 2011 at 04.06 hrs, a bus fault occurred on 220 KV Y Ph. Bus of 220 KV sub-station, Narsinghpur due to Y Ph. cross over jumper at Main Bus structure snapped from T-Clamp, resulting total supply failure. The tripping report received from EE (Testing), Testing Dn.II, MPPTCL, Jabalpur is as under:-

- (1) 220 KV Narsinghpur-Jabalpur-I tripped from Jabalpur end on B-N, Zone-II indications. Load prior to tripping – 72 MW.
- (2) 220 KV Narsinghpur-Jabalpur-II tripping from Jabalpur end on B-N, Zone-II indications. Load prior to tripping – 72 MW.
- (3) 220 KV Narsinghpur-Itarsi tripped from Itarsi end on B-N, Zone-II indications. Load prior to tripping – 122 MW.
- (4) 220 KV Narsinghpur-Pipariya tripped from Pipariya end on B-N, Zone-II indications. Load prior to tripping – 126 MW.
- (5) 220 KV Narsinghpur-Sukha-I tripped from Sukha end on B-N, Zone-II indications. Load prior to tripping – 64 MW.
- (6) 220 KV Narsinghpur-Sukha-II tripped from Sukha end on B-N, Zone-II indications. Load prior to tripping – 64 MW.

No tripping no indication on any feeder at 220 KV Sub-station Narsinghpur except on BB Panel. The following indication was observed on BB panel.

B phase, Bus zone protection operated.

Due to above tripping, total interruption occurred at following sub-stations. 132 KV Pipariya supply taken at 132 KV sub-station Gadawara through Pipariya-Gadawara 132 KV link at 04.30 hrs and system normalized. The interruption period to sub-stations and loss of load are as under:-

Sr. No.	Name of S/s	From	To	Period	Loss of Load-In MW
1.	220 KV S/s, Narsinghpur	04.06	04.39	33 min.	-
2.	132 KV S/s, Gadawara	04.06	04.30	24 min.	10.0
3.	132 KV S/s, Narsinghpur	04.06	04.33	27 min.	4.8
4.	132 KV S/s, Shrinagar	04.06	04.34	28 min.	4.0
5.	132 KV S/s, Shahapura	04.06	04.37	31 min.	2.0
6.	132 KV S/s, Barman	04.06	04.32	26 min.	3.2

**REPORTING OF OPERATIONAL EVENT /ACCIDENT****As per IEGC 2010**

<b>SN</b>	<b>Details of tripping incident</b>	<b>Description</b>
i	Time & date of event	
ii	Location	
iii	Plant and/or equipment directly involved	
iv	Description and cause of event	
v	Antecedent conditions of load and generation, including frequency, voltage and flow in the affected area at the time of tripping including Weather Condition prior to the event	
vi	Damage to equipment, if any	
vii	Supply Interrupted (MW & MWh) and duration, if applicable.	
viii	Amount of Generation lost (MW & MWh), if applicable	
ix	Possibility of alternate supply arrangement	
x	Estimate of time to return service	
xi	All relevant system data including copies of record of all recording instruments including DR, ER, DAS etc:	
xii	Sequence of trippings with time:	
xiii	Details of relay flags:	
ivx	Remedial measure:	
xi	Recommendations for future improvement/repeat incident	
xii	Any other information	

**Name & Designation of the officer  
Reporting the incident**

## TELEMETRY DISCRIPIENCY LIST FOR MPPTCL S/s

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>NAGDA 400 KV S/S</b>				
1	400KV NAGDA –SUJALPUR 1 & 2	CB & SOE	NOT AVAILABLE	<b>RTU CONFIGURATION ALREADY ARRANGED BY SLDC.PROCESS CONNECTIONS NOT EXTENDED DESPITE OF CONSTANT PERSUASION</b>
3	400KV NAGDA –DEHGAON 1 & 2	CB & SOE		
5	400/220 KV XMER 3	CB & SOE		
6	400KV NAGDA –RAJGRAH 1 & 2	CB & SOE		
8	400Kv DEH2-SUJALPUR 1 & 2 TIE BREAKER	CB &SOE		
10	RAJGARH1-RAJGARH2 TIE BREAKER	CB & SOE		
11	220 KV NAGDA –RATLAM-1 & 2	CB & SOE		
13	220KV NAGDA-RATLAM 1 & 2	MW & MVAR		
14	400KV NAGDA-INDORE	CB	OPEN	CLOSE
15	400/220 TR-3 220 SIDE	CB	FAULTY	OPEN
16	400/220 TR-2 220 SIDE	CB	FAULTY	CLOSE
17	220 NAGDA-NEEMUCH-1	CB	FAULTY	CLOSE
18	220 NAGDA UJJAIN-1	CB	FAULTY	CLOSE
19	400/220 KV ICT I	OLTC	17	9
20	400/220 KV ICT II & III	OLTC	N/C	7
<b>NAGDA 220 KV S/S</b>				
1	220 KV BUS COUPLER	CB	FAULTY	OPEN
2	220/132 XMER NEW	CB	NOT AVAILABLE	CLOSE
3	220/132 XMER NEW	MW	NOT AVAILABLE	40
4	220/132 XMER NEW	MVAR	NOT AVAILABLE	15
5	220/132 XMER (132 SIDE) –I	CB	FAULTY	CLOSE
6	220/132 XMER(132 SIDE)-II	CB	FAULTY	CLOSE
8	NAGDA 132 KACHROD	CB	FAULTY	CLOSE
9	NAGDA132 RATDIYA	CB	FAULTY	CLOSE
10	125 MVA TRANSFORMER	OLTC	9	8
11	160 MVA TRANSFORMER	OLTC	9	12
12	40 MVA TRANSFORMER –II	OLTC	17	5
<b>DEWAS 220 KV S/S</b>				
1	220KV BUS COUPLER	CB	OPEN	CLOSE
2	220/132 XMER -2	CB	FAULTY	CLOSE
3	132 /33 KV TRANSFORMER 1	OLTC	N/C	8
4	132/33 KV TRANSFORMER 2	OLTC	N/C	7
5	220/132 KV TRANSFORMER 1	OLTC	N/C	7
6	220/132 KV TRANSFORMER 2	OLTC	N/C	7
7	DEWAS 220 KV –INDORE EAST	CB	FAULTY	CLOSE
8	DEWAS 220 KV –INDORE 400KV S/S	CB	FAULTY	CLOSE
9	220 DEWAS ASTHA-2	CB	FAULTY	OPEN
10	DEWAS IC II	CB	FAULTY	CLOSE

## Annexure-7.2(i)

11	132 DEWAS IC-I	CB	FAULTY	OPEN
NOTE:-SOE DATA NOT RECEIVED.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>UJJAIN 220 KV S/S</b>				
1	220/132 KV TRANSFORMER 4	OLTC	N/C	6
2	UJJAIN132-SYNTHETIC I&II	CB	FAULTY	OPEN
3	UJJAIN132 INDORE-I	CB	FAULTY	CLOSE
4	UJJAIN132 AGAR	CB	FAULTY	CLOSE
5	UJJAIN220/132 XMER-4	CB	FAULTY	CLOSE
6	UJJAIN 132 KV –GHOSLA	CB	FAULTY	CLOSE
7	UJJAIN 132 BUS SECTION	CB	FAULTY	OPEN
NOTE:-SOE'S OF BADOD 1 & 2,INDORE-1 220/132 XMER-4 FEEDERS ARE NOT COMING.				
<b>SHUJALPUR 220 KV S/S</b>				
1	160 MVA TRANSFORMER –I	OLTC	2	10
2	160MVA TRANSFORMER-II	OLTC	10	5
3	220/132 160MVA XMER 3	OLTC	NOT CONNECTED	
4	220/132 160MVA XMER 3	MW	<b>TO BE PROVIDED BY ALREADY AVAILABLE FUTURE FEEDER IN RTU</b>	
5	220/132 160MVA XMER 3	MVAR		
6	220/132 160MVA XMER 3	CB		
7	160 MVA TRANSFORMER I (132 KV SIDE)	CB	FAULTY	CLOSE
8	20 MVA TRANSFORMER II	CB	FAULTY	CLOSE
9	132 SHUJALPUR ARNIKALAN-I	CB	FAULTY	OPEN
10	132 SHUJALPUR –SARANGPUR-2	CB	FAULTY	OPEN
11	132 SHUJALPUR IC-I & IC-II	CB,MW,MVAR	NOT CONNECTED	
<b>RATLAM 220 KV S/S</b>				
5	220/132 XMER-2	CB	FALTY	CLOSE
2	RATLAM-NAGDA-I	CB	FAULTY	CLOSE
3	220 KV TRB	CB	FAULTY	OPEN
4	RATLAM - NAGDA 2 NEW	CB	NOT AVAILABLE	CLOSE
5	RATLAM - NAGDA 2 NEW	MW	NOT AVAILABLE	10
6	RATLAM - NAGDA 2 NEW	MVAR	NOT AVAILABLE	5
7	RATLAM 132 KV-TRACTION 2	CB	FAULTY	CLOSE
8	RATLAM132 –IC-I	CB	FAULTY	CLOSE
1	132/33 KV TRANSFORMER 2	OLTC	N/C	7
<b>NEEMUCH 220 KV S/S</b>				
1	220/132 KV TRANSFORMER 2	CB,SOE	<b>TELEMETRY NEED TO BE ARRANGED BY UPGRADATION OF RTU</b>	
2	220/132 KV TRANSFORMER 2	MW		
3	220/132 KV TRANSFORMER 2	MVAR		
4	NEEMUCH 132 KV INTER CONNECTOR II	CB	FAULTY	CLOSE
5	220 NEEMUCH-NAGDA 2	CB	FAULTY	OPEN
6	NEEMUCH 132 KV UDEYPUR	CB	FAULTY	CLOSE
7	132 KV BUS COUPLER 2	CB	FAULTY	CLOSE

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9	132 NEEMUCH UDEPUR	CB	FAULTY	OPEN
11	132 NEEMUCH MALHARGARH	CB	FAULTY	OPEN
12	132 NEEMUCH RATANGARH	CB	FAULTY	OPEN
13	220/132 KV TRANSFORMER 1	OLTC	N/C	7
NOTE:-SOE DATA NOT RECEIVED.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>BHOPAL 400 KV S/S</b>				
1	400/220 KV TRANSFORMER 3	OLTC	N/C	5
2	400 KV TIE BREKAR 3	CB	FAULTY	CLOSE
3	400 KV BHOPAL-DAMOH I	CB & SOE	.PROCESS CONNECTIONS NOT EXTENDED DESPITE OF CONSTANT PERSUATION	
4	BHOPAL-DAMOH TIE BREAKER	CB & SOE		
5	400 KV BHOPAL –DAMOH –II	CB & SOE		
6	220KV BHOPAL-BINA1 & 2	CB & SOE		
7	220 BHOPAL 400/220 TR-2	CB	FAULTY	CLOSE
<b>BHOPAL 220 KV S/S</b>				
1	BHOPAL132 KV-CHAMBLE I	CB	FAULTY	CLOSE
2	BHOPAL132 KV- CHAMBLE II	CB	FAULTY	CLOSE
3	100MVA XMER-IV	CB	The telemetry need to be provided by arranging RTU configuration with the help of Sub-LDC and installation and commissioning of transducers.	
4	100MVA XMER-IV	MW		
5	100MVA XMER-IV	MVAR		
6	100MVA XMER-IV	OLTC		
7	132 SIDE 220/132 160MVA XMER-II & III	CB	FAULTY	CLOSE
8	132KV BHEL	CB	OPEN	CLOSE
<b>PIPARIA 132 KV S/S</b>				
1	132/33 KV TRANSFORMER 1	OLTC	N/C	4
2	132KV BARELI	CB	FAULTY	OPEN
3	132/33KV 20MVA XMER	OLTC	N/C	
4	132/33KV 40MVA XMER	OLTC	N/C	
5	132 ITARSI	CB	N/C	
6	132/33 TR-II	MW,MVAR	N/C	
<b>SARNI 220 KV S/S</b>				
1	SARNI 220 KV TRB	CB	FAULTY	CLOSE
2	SARNI 220/132KV 100 MVA XMER 2	CB	FAULTY	CLOSE
3	SARNI 220 POWER HOUSE	CB	FAULTY	OPEN
4	SARNI 220 BUS TRANSFER	CB	FAULTY	OPEN
5	132KV BUS VOLTAGE	VOLTAGE	1	133
<b>BAIRAGARH 220 KV S/S</b>				
1	220 KV BUS 1	VOLTAGE	143	225
2	220 KV BUS 1	FREQUENCY	N/C	49.78
3	220/132 XMER –I	CB	FAULTY	CLOSE

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4	220/132 XMER (160MVA) NEW II	CB	<b>TELEMETRY NOT AVAILABLE AND NEED TO BE PROVIDED BY UPGRADATION OF RTU</b>	
5	220/132 XMER (160MVA) NEW II	MW		
6	220/132 XMER (160MVA) NEW II	MVAR		
7	132/33 XMER (20 MVA) NEW IV	CB		
8	132/33 XMER (20 MVA) NEW IV	MW		
9	132/33 XMER (20 MVA) NEW IV	MVAR		
10	BAIRAGRAH 132 KV BHOPAL II	CB	OPEN	CLOSE
11	BAIRAGRAH 132KV-LALGHATI II	CB	FAULTY	OPEN
13	132 SHYAMPUR	CB,MW,MVAR	N/C	

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>HANDIA 220 KV S/S</b>				
1	220KV HANDIA -ITARSI -I	CB	FAULTY	CLOSE
2	220KV HANDIA -BURWAHA	CB	FAULTY	CLOSE
3	220 KV TRB	CB	FAULTY	CLOSE
4	220KV HANDIA -ITARSI -2	MW	<b>TELEMETRY NOT AVAILABLE AND NEED TO BE PROVIDED BY UPGRADATION OF RTU</b>	
5	220KV HANDIA -ITARSI -2	MVAR		
6	220KV HANDIA -ITARSI -2	CB		
7	220KV HANDIA-SATPURA	MW		
8	220KV HANDIA-SATPURA-	MVAR		
9	220KV HANDIA-SATPURA-	CB		
10	220/132 XMER-2	CB	FAULTY	CLOSE
11	132 KANNOD	CB	FAULTY	OPEN
12	132/33 XMER-2	CB	FAULTY	CLOSE
NOTE:-SOE DATA NOT RECEIVED EXCEPT BARWAHA FEEDER.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				
<b>MALANPUR 220 KV S/S</b>				
1	220 KV BUS COUPLER I	CB	FAULTY	CLOSE
2	220 KV BUS COUPLER II	CB	FAULTY	CLOSE
3	132 SIDE 220/132 TR-1	CB	FAULTY	CLOSE
4	132/33 TR-3	CB	OPEN	CLOSE
NOTE:-SOE DATA NOT RECEIVED EXCEPT 132 AMBAHA FEEDER.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				
<b>MEHGAON 220 KV S/S</b>				
1	220 KV BUS TRANSFER	CB	FAULTY	<b>None of the status process connections from the rtu is extended so far. All cb and soe need to be extended</b>
2	220/132 KV TRANSFERMER	CB	FAULTY	
3	MEHGAON 22KV- MALANPUR	CB	FAULTY	
4	MEHGAON 22KV- AURIYA	CB	FAULTY	
5	220/132 KV TRANSFERMER (132 KV SIDE)	CB	FAULTY	
6	MEHGAON 132 KV RON	CB	FAULTY	
7	132 KV BUS TRANSFER	CB	FAULTY	
8	132 KV BHIND	CB	FAULTY	
9	132 KV SEONDHA	CB	FAULTY	
10	132KV PORSA	CB	FAULTY	
11	132 KANNOD	CB	FAULTY	



12	132/33 XMER-2	CB	FAULTY	
<b>GWALIOR 220 KV S/S</b>				
1	GWALIOR 132 KV-BANMORE	CB	FAULTY	OPEN
2	132 KV TRB	CB	FAULTY	OPEN
3	GWALIOR 132 KV-TRACTION I	CB	FAULTY	OPEN
4	220/132 XMER I(132KV SIDE)	CB	FAULTY	CLOSE
NOTE:-SOE DATA NOT RECEIVED EXCEPT 132 DABRA FEEDER.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>GUNA 220 KV S/S</b>				
1	220 KV Guna-Blna-2 feeder	MW,MVAR	NOT AVAILABLE	Telemetry need to be provided by upgradation of RTU
2	220 KV Guna-Blna-2 feeder	CB,SOE	NOT AVAILABLE	
2	220/132 XMER NEW	CB,SOE	NOT AVAILABLE	
3	220/132 XMER NEW	MW	NOT AVAILABLE	
4	220/132 XMER NEW	MVAR	NOT AVAILABLE	
6	132KV ASHOK NAGAR	CB	FAULTY	CLOSE
10	220/132 XMER-2	CB	FAULTY	CLOSE
11	132 KANNOD	CB	FAULTY	OPEN
12	132/33 XMER-2	CB	FAULTY	CLOSE
NOTE:-SOE DATA NOT RECEIVED CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				
<b>Pandurna 220 KV S/S</b>				
1	220 BUS TRANSFER	CB	OPEN	CLOSE
2	132 PANDURNA IC-I	CB	FAULTY	OPEN
3	132 PANDURNA IC-II	CB	FAULTY	CLOSE
4	132 BUS COUPLER	CB	FAULTY	CLOSE
NOTE:-SOE DATA NOT RECEIVED.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				
<b>Narsingpur 220 KV S/S</b>				
1	220/132 KV TRANSFORMER 1	OLTC	N/C	7
2	220/132 KV TRANSFORMER 2	OLTC	N/C	5
3	132/33 KV TRANSFORMER 1	OLTC	N/C	6
4	NARSINGPUR220 KV-PIPARIYA	CB	FAULTY	CLOSE
5	220/132 KV TRANSFORMER 2	MW	456	23
6	220/132 KV TRANSFORMER 2	MVAR	456	32
7	220/132 KV TRANSFORMER 2	CB	OPEN	CLOSE
8	220 KV TRB	CB	OPEN	CLOSE
9	132/33 KV TRANSFORMER 2	MW	NOT AVAILABLE	
10	132/33 KV TRANSFORMER 2	MVAR	NOT AVAILABLE	
11	132/33 KV TRANSFORMER 2	CB	NOT AVAILABLE	
12	132 BUS TRANSFER	CB	FAULTY	CLOSE
NOTE:- SOE DATA NOT RECEIVED.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				

<b>Jabalpur 220 KV S/S</b>				
1	220/132 KV TRANSFORMER 1	CB	FAULTY	CLOSE
2	220/132 KV TRANSFORMER 2	CB	FAULTY	CLOSE
3	220 KV TRB	CB	FAULTY	OPEN
4	JABALPUR 132 KV- MADHOTAL	CB	FAULTY	CLOSE
5	220/132 KV TRANSFORMER 2	MW	206	45
6	220KV JABALPUR-BIRSINGHPUR 1	CB & SOE	NOT AVAILABLE	CONNECTION TO BE EXTENDED
7	220KV JABALPUR-BIRSINGHPUR 2	CB & SOE	NOT AVAILABLE	
8	132/33 KV TRANSFORMER 1 & 2	CB	FAULTY	CLOSE
9	132 KV DAMOH	CB	FAULTY	OPEN
10	132 KV SRINAGAR	CB	FAULTY	OPEN
NOTE:- SOE DATA NOT RECEIVED EXCEPT 220 NTPC-1 & 132 DAMOH FEEDERS.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				
Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>KATNI 220 KV S/S</b>				
1	220 KV BUS COUPLER	CB	FAULTY	CLOSE
2	220 KV TRB	CB	FAULTY	OPEN
3	220/132 KV TRANSFORMER 2	MW	NOT AVAILABLE	
4	220/132 KV TRANSFORMER 2	MVAR	NOT AVAILABLE	
5	220/132 KV TRANSFORMER 2	CB	NOT AVAILABLE	
6	220/132 KV TRANSFORMER 1 & 2	OLTC	NOT AVAILABLE	
7	132 SIDE 220/132 TR-1 & 2	CB	FAULTY	OPEN
8	132/33 TR-1	CB	FAULTY	OPEN
<b>Satna 220 KV S/S</b>				
1	220/132 KV TRANSFORMER 2	OLTC	N/C	7
2	132/33 KV TRANSFORMER 1	OLTC	N/C	7
3	132/33 KV TRANSFORMER 2	OLTC	N/C	7
4	SATNA 220KV-SATNA PGCIL 2	CB	OPEN	CLOSE
8	SATNA 220 KV TONS 1 & 2	CB	NOT AVAILABLE	To be provided by utilizing transducer of 132kv interconnectors
9	SATNA 220 KV TONS 1 & 2	MW	NOT AVAILABLE	
10	SATNA 220 KV TONS 1 & 2	MVAR	NOT AVAILABLE	
11	SATNA 220 PGCIL 1	CB	OPEN	CLOSE
12	SATNA 220 PGCIL II	CB	OPEN	CLOSE
13	132KV SIDE XMER-I	CB	FAULTY	CLOSE
<b>Morwa 132 KV S/S</b>				
1	132/33 KV TRANSFORMER 1	OLTC	N/C	7
2	132/33 KV TRANSFORMER 2	OLTC	N/C	7
3	132/33 KV TRANSFORMER 3	CB	NOT AVAILABLE	
4	132/33 KV TRANSFORMER 3	MW	NOT AVAILABLE	
5	132/33 KV TRANSFORMER 3	MVAR	NOT AVAILABLE	

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6	132 BINA	CB	FAULTY	OPEN
7	132/33 XMER-I	CB	FAULTY	OPEN
NOTE:-SOE DATA NOT RECEIVED.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				
<b>PITHAMPUR 220 KV S/S</b>				
1	220 KV TRB	CB	FAULTY	OPEN
2	PITAMPUR 220 KV-BADNAGAR	CB	FAULTY	OPEN
3	132/33 KV TRANSFORMER 2	OLTC	N/C	8
4	132/33 KV TRANSFORMER 3	OLTC	N/C	11
5	PITAMPUR 132 KV-HML	CB	FAULTY	OPEN
6	132 KV TRB	CB	FAULTY	OPEN
7	132 KV BUS COUPLE	CB	FAULTY	OPEN
8	132/33 KV TRANSFORMER 1	CB	CLOSE	CLOSE
9	132/33 KV TRANSFORMER 2	CB	OPEN	CLOSE
10	132/33 KV TRANSFORMER 3	CB	OPEN	CLOSE
11	132 KV BAGRI	CB	FAULTY	OPEN
12	220KV RAJGARH I& II	CB	FAULTY	CLOSE
13	132KV BUS COUPLER	CB	FAULTY	CLOSE
14	220KV BUS COUPLER	CB	FAULTY	CLOSE
15	132 KV IC-2	CB	OPEN	CLOSE

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>Burwaha 220 KV S/S</b>				
1	160 MVA XMER	OLTC	17	3
2	3X40 MVA XMER	OLTC	17	3
3	63 MVA XMER	OLTC	17	4
4	220 KV BUS COUPLER	CB	FAULTY	OPEN
5	220 /132 KV TRANSFORMER 1	CB	FAULTY	CLOSE
6	BURWAHA 132KV-CHEGAON	CB	FAULTY	CLOSE
7	BURWAHA 220 KV NIMRANI	CB	FAULTY	CLOSE
SOE DATA NOT RECEIVED.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				
<b>Nepanagar 220 KV S/S</b>				
1	160 MVA XMER	OLTC	17	15
2	3X40 MVA XMER	OLTC	1	9
3	12.5 MVA XMER	OLTC	17	5
4	NEPA -CHEGAON 132 KV	CB	FAULTY	CLOSE
5	132/33 XMER (20 MVA) NEW	CB	NOT AVAILABLE	CLOSE
6	132/33 XMER (20 MVA) NEW	MW	NOT AVAILABLE	15
7	132/33 XMER (20 MVA) NEW	MVAR	NOT AVAILABLE	5
8	3*40 MVA TXMER	CB	FAULTY	CLOSE
SOE DATA NOT RECEIVED.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				
<b>DAMOH 220 KV S/S</b>				
1	DAMOH 220 KV SAGAR	MW	181	125
2	220/132 XMER NO-1	MW	0	0
3	220/132 XMER NO-1	MVAR	0	0
4	220/132 XMER 2	CB	FAULTY	CLOSE

<b>Bina 400 KV S/S</b>				
1	400/220 KV XMER III	CB	FAULTY	CLOSE
2	220KV BINA-BINA-1	MW	83	83
3	220KV BINA-BINA-2	MW	83	83
4	220KV TRB	CB	CLOSE	CLOSE
5	BINA 220 KV-GWALIOR 1&2	CB	FAULTY	CLOSE
6	40KB TIE BKR 2	CB	CLOSE	CLOSE
7	400/220 XMER-3	CB	FAULTY	CLOSE
8	220KV SAGAR	CB	FAULTY	OPEN
9	220KV GUNA	CB	FAULTY	OPEN
SOE .CONNECTIONS FOR ALL FEEDERS NEED TO BE VERIFIED EXCEPT 220 BHOPAL-1 FEEDER.				
<b>Bina 220 KV S/S</b>				
1	BINA 132 KV-CAPACITOR BANK	CB	FAULTY	CLOSE
2	BINA 132 KV-GANGBASODA	CB	FAULTY	CLOSE
3	BINA 132 KV- BORL 1 &2	CB	NOT AVAILABLE	
4	BINA 132 KV- BORL 1 &2	MW	NOT AVAILABLE	
5	BINA 132 KV- BORL 1 &2	MVAR	NOT AVAILABLE	
SOE DATA NOT RECEIVED.CONNECTIONS FOR GWALIOR-2,GUNA-1 FEEDERS HAVE TO BE VERIFIED				

### Telemetry Discrepancy at power stations

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>AMARKANTAK THERMAL POWER STATION</b>				
1	220KV BUS COUPLER	CB	FAULTY	CLOSE
2	ATPS220KV-SIDHI	MW	80 MW	95 MW
3	ATPS220KV-SIDHI	MVAR	6 MVAR	31 MVAR
4	ATPS220KV-BRS220 III	MW	21MW	40MW
5	GENERATOR 5	CB	N/C	CLOSE
6	ATPS220KV-BRS220 III	CB	N/C	
7	ATPS 220/6.6 KV Stn Xmer A	CB	N/C	CLOSE
8	ATPS 220/6.6 KV Stn Xmer B	CB	N/C	CLOSE
9	ATPS SIDHI	CB	N/C	CLOSE
10	132/33 KV TRANSFORMER 4	OLTC	N/C	6
11	132/33 KV TRANSFORMER 4	CB	FAULTY	CLOSE
12	132/33 KV TRANSFORMER 5	CB	FAULTY	CLOSE
13	132/33 KV TRANSFORMER 5	OLTC	N/C	6
14	132KV BUS COUPLER	CB	N/C	CLOSE
15	132KV MORWA	CB	FAULTY	CLOSE
16	132KV WADHAN	CB	FAULTY	CLOSE
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				

<b>BARGI HPS</b>				
1	BARGI 132 KV GENERATOR-2	CB	FAULTY	OPEN
2	132/33 20MVA STN. XMER	CB	FAULTY	OPEN
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				
<b>MADHIKHEDA HPS</b>				
5	Madhikheda 132 Kv- Karera I	MW	0	10
6	Madhikheda 132 Kv- Karera I	MVAR	0	5
7	Madhikheda 132 Kv- Karera II	MW	0	10
8	Madhikheda 132 Kv- Karera II	MVAR	0	5
<b>PENCH HPS</b>				
ALL CB ARE COMING AS FAULTY SINCE WORK IN CONTROL PANELS. SHALL BE VERIFIED AFTER COMPLETION OF WORK OF CONTROL PANELS AT PENCH.				
Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –TONS HPS</b>				
1	220/33 20 MVA Xmer	CB	FAULTY	OPEN
2	GENERATOR-2	CB	FAULTY	OPEN
3	GENERATOR-3	CB	FAULTY	OPEN
4	Bus Coupler	CB	FAULTY	OPEN
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE.				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –BANSAGAR-II HPS</b>				
1	132/33KV STN XMER	CB	FAULTY	CLOSE
2	BUSCOUPLER	CB	FAULTY	CLOSE
3	220/132KV 160MVA XMER	CB	FAULTY	CLOSE
4	132/33 40 MVA XMER	CB	FAULTY	CLOSE
5	220KV MANGAWAN	CB,MW,MVAR	N/C	
6	220KV SIDHI	CB,MW,MVAR	N/C	
7	220/132 160 MVA XMER	CB,MW,MVAR	N/C	
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				
<b>RTU name –GANDHISAGAR HPS</b>				
1	GENERATOR 4 & 5	CB	FAULTY	OPEN
2	132/33 KV XMER-1	CB	FAULTY	CLOSE
3	132/33 KV XMER	OLTC	6	9
Note:- SOE of all feeders are coming				
<b>RTU name –OMKARESHWAR HPS</b>				
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE VERIFEID				

<b>RTU name –RAJGHAT HPS</b>				
1	RAJGHAT132 KV-LALITPUR	CB	FAULTY	OPEN
2	RAJGHAT132 KV-GEN-1	CB	FAULTY	OPEN
3	RAJGHAT132 KV-GEN2,GEN3	CB	FAULTY	OPEN
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				
<b>RTU name –SATPURA TPS</b>				
1	GENERATOR-7	CB	FAULTY	CLOSE
2	STPS PH II BUS TIE	CB	FAULTY	CLOSE
3	STPS PH II	CB	OPEN	CLOSE
Note:- SOE 'S of Sarni, Handia, Itarsi –II, Itarsi-III, Itarsi-IV STP PH-I FEEDERS are not coming. SOE'S of Seoni,Koradi,Itarsi of STP 400 KV S/S are not coming.				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –AMARKANTAK 220 KV S/S</b>				
1	220KV BUS COUPLER	CB	FAULTY	CLOSE
2	ATPS220KV-SIDHI	MW	80MW	95MW
3	ATPS220KV-SIDHI	MVAR	6MVAR	31MVAR
4	ATPS220KV-BRS220 III	MW	21MW	40MW
5	GENERATOR 5	CB	N/C	CLOSE
6	ATPS220KV-BRS220 III	CB	N/C	CLOSE
7	ATPS 220/6.6 KV Stn Xmer A	CB	N/C	CLOSE
8	ATPS 220/6.6 KV Stn Xmer B	CB	N/C	CLOSE
9	ATPS SIDHI	CB	N/C	CLOSE
10	132/33 KV TRANSFORMER 4	OLTC	N/C	6
11	132/33 KV TRANSFORMER 4	CB	FAULTY	CLOSE
12	132/33 KV TRANSFORMER 5	CB	FAULTY	CLOSE
13	132/33 KV TRANSFORMER 5	OLTC	N/C	6
14	132KV BUS COUPLER	CB	N/C	CLOSE
15	132KV MORWA	CB	FAULTY	CLOSE
16	132KV WADHAN	CB	FAULTY	CLOSE
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –BARGI HPS KV S/S</b>				
1	BARGI 132 KV GENERATOR-2	CB	FAULTY	OPEN
2	132/33 20MVA STN. XMER	CB	FAULTY	OPEN
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –ISP HPS</b>				
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –MADHIKHEDA HPS</b>				
1	GENERATOR -3	MW	10	19
2	Madhikheda 132 Kv- Karera II	MW	0	10
3	Madhikheda 132 Kv- Karera II	MVAR	0	5

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –PENCH HPS</b>				
1	GENERATOR-2	CB	FAULTY	CLOSE
2	SEONI-I	CB	FAULTY	CLOSE
3	SEONI-II	CB	FAULTY	CLOSE
4	132/33KV XMER-I	CB	FAULTY	CLOSE

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –SANJAYGANDHI HPS</b>				
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –TONS HPS</b>				
1	220/33 20 MVA Xmer	CB	FAULTY	OPEN
2	GENERATOR-2	CB	FAULTY	OPEN
3	GENERATOR-3	CB	FAULTY	OPEN
4	Bus Coupler	CB	FAULTY	OPEN
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE.				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –BANSAGAR-II HPS</b>				
1	132/33KV STN XMER	CB	FAULTY	CLOSE
2	BUSCOUPLER	CB	FAULTY	OPEN
3	220/132KV 160MVA XMER	CB	FAULTY	CLOSE
4	132/33 40 MVA XMER	CB	FAULTY	CLOSE
5	220KV MANGAWAN	CB,MW,MVAR	N/C	
6	220KV SIDHI	CB,MW,MVAR	N/C	
7	220/132 160 MVA XMER	CB,MW,MVAR	N/C	
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –GANDHISAGAR HPS</b>				
1	GENERATOR 4 & 5	CB	FAULTY	OPEN
2	132/33 KV XMER-1	CB	FAULTY	CLOSE
3	132/33 KV XMER	OLTC	6	9
Note:- SOE of all feeders are coming				



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Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –OMKARESHWAR HPS</b>				
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –RAJGHAT HPS</b>				
1	RAJGHAT132 KV-LALITPUR	CB	FAULTY	OPEN
2	RAJGHAT132 KV-GEN-1	CB	FAULTY	OPEN
3	RAJGHAT132 KV-GEN2,GEN3	CB	FAULTY	OPEN
Note:- SOE CONNECTION FOR ALL FEEDERS NEED TO BE DONE				

Sr No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>RTU name –SATPURA HPS</b>				
1	GENERATOR-7	CB	FAULTY	CLOSE
2	STPS PH II BUS TIE	CB	FAULTY	CLOSE
3	STPS PH II	CB	OPEN	CLOSE
Note:- SOE 'S of Sarni, Handia, Itarsi –II, Itarsi-III, Itarsi-IV STP PH-I FEEDERS are not coming. SOE'S of Seoni,Koradi,Itarsi of STP 400 KV S/S are not coming.				