



**MP POWER TRANSMISSION COMPANY LIMITED**  
**STATE LOAD DESPATCH CENTRE, NAYAGAON, JABALPUR 482 008**  
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No.07-05/SG-9B-II/

Jabalpur, dated 23-01-2013

To

**As per distribution list**

Sub: Minutes of 31<sup>st</sup> meeting of Operation and Coordination Committee of MP.

Please find enclosed herewith minutes of 31<sup>st</sup> meeting of the Operation and Coordination Committee of MP held on **18<sup>th</sup> December 2012 at 11.00 AM** at **Narmada Jacksons, South Civil lines, Jabalpur**. The Minutes are also available on the website of SLDC '[www.sldcmpindia.com](http://www.sldcmpindia.com)'.

**Encl : As above.**

**( K.K.Prabhakar )**  
**Member Secretary, OCC**  
**S. E. (LD), SLDC**  
**MPPTCL, Jabalpur**

## Distribution List

<p>The Chief Engineer (T&amp;C), MP Power Transmission Co. Limited, Jabalpur. <b>Fax No- 0761-2665593, 2702710</b></p>	<p>The Superintending Engineer (DCC-WZ), DISCOM Control Centre, MP Paschim Kshetra Vidyut Vitaran Co. Limited, Near Polo Ground, Jail Road, Indore <b>Fax No- 0731-2421554.</b></p>
<p>The Chief Engineer (T&amp;P), MP Power Transmission Co. Limited, Jabalpur <b>Fax No- 0761-2665593.</b></p>	<p>The Superintending Engineer (DCC-EZ), DISCOM Control Centre, MP Poorva Kshetra Vidyut Vitaran Co. Limited, Jabalpur. <b>Fax No- 0761-2668503</b></p>
<p>The Executive Director (Plg &amp; PS), MP Power Transmission Co. Limited, Jabalpur <b>Fax No- 0761-2665593</b></p>	<p>The Addl. Chief General Manager (LM), DISCOM Control Centre, MP Madhya Kshetra Vidyut Vitaran Co. Limited, Bhopal. <b>Fax No- 0755-2580611</b></p>
<p>The Executive Director (O&amp;M:Gen.), MP Power Generating Co. Limited, Jabalpur. <b>Fax No- 0761-2664572</b></p>	<p>The Chief Engineer (PM&amp;C), Narmada Hydroelectric Development Corpn. Ltd, NHDC Parisar, Shamla Hills, Bhopal – 462013. <b>Fax No- 0755-4030130</b></p>
<p>The Chief Engineer (O&amp;M:Hydel), MP Power Generating Co. Limited, Jabalpur. <b>Fax No- 0761-2664746</b></p>	<p>The General Manager, Indira Sagar Power Station, NHDC Office complex, PO : Narmada Nagar, Distt : Khandwa (MP) – 450 119. <b>Fax No- 07323-284080</b></p>
<p>The Chief General Manager (S), MP Power Management Company, Jabalpur. <b>Fax No- 0761-2664749</b></p>	<p>The General Manager, Omkareshwar Power Station, Prashnik Bhawan, Urja Vihar, Sidhwarkut, Distt : Khandwa (MP) – 450 554. <b>Fax No- 07280-271703</b></p>
<p>The Executive Engineer, Sub Load Despatch Centre, MPPTCL, Indore Fax No- 0731-2874515</p>	<p>The Executive Engineer, Sub Load Despatch Centre, MPPTCL, Bhopal <b>Fax No- 0755-2885220</b></p>
<p>The President, Shree Maheshwar Hydel Power Corporation Limited, “Abhyanchal Parisar”, Mandleshwar Distt : Khargone 451 221 (<b>Fax 07283-233830</b>)</p>	<p>Shri Rajiv Keskar, E. A. to Chairman MPPMCL, Energy Department, Vallabh Bhawan, Bhopal. <b>Fax No- 0755-2441691 / 2441642</b></p>
<p>The Director (Projects), BLA Power Limited, At : Niwari, PO: Khorsipan, Tah : Gadarwara, Distt ; Narsinghpur 487 551 <b>Fax No. 07791-243667 / 243669</b></p>	<p>The Director, Jaiprakash Power Ventures Ltd., Village Sirchopi Subpost Office-Agasod, Post Office-Bina- 470113 Distt- Sagar <b>Fax No. 07580-277200</b></p>

**MINUTES OF 31<sup>ST</sup> MEETING OF OPERATION & COORDINATION COMMITTEE OF MP  
HELD ON 18<sup>TH</sup> DECEMBER 2012 AT 11.00 AM AT Narmada Jacksons, South Civil  
lines, Jabalpur.**

31<sup>ST</sup> meeting of Operation & Co-ordination Committee of MP hosted by M/s BLA Power Pvt. Ltd., was held on 18<sup>TH</sup> December 2012 at Narmada Jacksons, South Civil lines, Jabalpur. The list of participants is enclosed at Ann.-1.0.

The meeting commenced with welcoming the participants in the meeting by Shri P.Chaturvedi, General Manager, BLA Power. He stated that this meeting is organized by BLA power in coordination with SLDC. Shri P.A.R.Bende, Chief Engineer, SLDC & Chairman OCC, has expressed his gratitude to BLA Power 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.

He stated that this meeting is important because the enquiry committee constituted by CERC on grid disturbance in the Northern Region on 30<sup>th</sup> July 2012 & in Northern, Eastern & North-Eastern Region on 31<sup>st</sup> July 2012 have given their recommendations which are binding on all the constituents and have to be implemented in time bound manner. A meeting was organized in SLDC on 22.11.2012 with constituents of State Grid to discuss the various recommendations of enquiry committee and to formulate action plan for various recommendations, was also discussed in the meeting. It was agreed in the meeting to carry out the Protection Audit through a third party in the time bound manner within a year. This exercise shall be repeated periodically and the same shall be monitored by SLDC & WRPC. It was also decided that till the third party audit is carried out, a group of Internal Protection Audit must be formed through a committee constituted with engineers from SLDC, MPPTCL, MPPGCL and NHDC. In the first phase, all the 400 KV sub-stations of MPPTCL, all the thermal power stations including IPP, Tons, ISP, OSP Hydel Power Stations shall be covered.

He further stated that prior to twin black outs, beneficiaries of Western Region were allowed over drawal/under drawal depending upon the frequency, but the situation has been changed after the incidences of 30<sup>th</sup> & 31<sup>st</sup> July 2012 and now no overdrawal / under drawal is allowed more than 150 MW irrespective of the frequency. Similarly generators have to stick to their injection schedule.

The Chairman OCC stated that main problem faced by SLDC is putting the load on the system by DISCOMs when availability becomes higher as most of the load management is done from 11 KV side. In case of high frequency and under drawal of MP from its schedule, DISCOM's response to normalize schedule load shedding is not adequate. . He insisted on better management of hydro generation and stressed the need to plan the demand anticipation by DISCOMs very carefully.

He further informed the committee that recently WRLDC has filed a petition No. 262/MP/2012 before Hon'ble CERC regarding Maintaining security of the inter-connected power system in terms of Regulation 5.2 and compliance of Regulations 5.4.2. and 6.4.8 of IEGC. The copy of the same was distributed to the participants in the meeting. He requested the MPPGCL and DISCOMs to adhere to mandatory provisions of Indian Electricity Grid Code, Grid Standards and various Regulations issued by CERC from time to time and the directives of Western Regional Load Despatch Centre to ensure integrated grid operation in reliable and secured manner.

He welcomed Shri Nagendra Singh, Director (Project) BLA Power and his team for organizing this meeting. He invited Shri Nagendra Singh to express his views. Shri Nagendra Singh, Director, BLA Power expressed sincere thanks to give the opportunity to BLA power for hosting the meeting first time and hoped that the outcome of this meeting shall be very fruitful.

**ITEM NO. 1 : CONFIRMATION OF MINUTES :** Member Secretary, OCC stated that minutes of 30<sup>th</sup> meeting of Operation & coordination committee of MP held on 29.09.2012 at Madhya Kshetra Vidyut Vitaran company Limited, Bhopal were forwarded to the committee members vide No. No.07-05/SG-9B-II/2546 dated 26-10-2012. No comments have been received from the members. The committee confirmed the minutes of 30<sup>th</sup> meeting.

**ITEM NO. 2 :REVIEW OF SYSTEM OPERATION DURING THE MONTHS SEPTEMBER TO NOVEMBER 2012.**

**2.1 Frequency Particulars :** The Member Secretary apprised the committee that during November 2012 the system frequency was below 49.7 Hz for 1.79% of time against 3.33% of time during October 2012 & 3.22% of time during September 2012. The system frequency was within the IEGC range of 49.7-50.2 Hz for 85.83 % of the time against 90.39 % of time during October 2012 & 84.09% of time during September 2012. The average monthly frequency was 50.02 Hz during November 2012, in October 2012 & in September 2012 it was 49.98 and 50.02 Hz respectively. Regarding operation in high frequency range, frequency during the month of November 2012 was above 50.20 Hz for 12.38 % of time against 6.28% of time during October 2012 & 12.69% of time during September 2012. The system frequency did not touched 48.8 Hz during the above period.

The detailed frequency particulars for the month of September to November 2012 are enclosed at **Annexure-2.1**. The brief details of frequency profile is given here under :

Month	Average frequency	minimum integrated frequency over an hour	maximum integrated frequency over an hour	Instantaneous minimum frequency	Instantaneous maximum frequency
Sep 2012	50.02 Hz	49.22 Hz	50.41 Hz	48.96 Hz	50.65 Hz
Oct 2012	49.98 Hz	49.72 Hz	50.32 Hz	49.37 Hz	50.61 Hz
Nov 2012	50.02 Hz	49.74 Hz	50.34 Hz	49.33 Hz	50.63 Hz

**2.2 Operational Matters**

**2.2.1 Operational Discipline :** The committee noted the System operated in terms of frequency profile for the months September to November 2012 is as given below for discussion by the committee :

Month	% of time Frequency Below 49.7 Hz	% of time Frequency above 50.2 Hz	% of time frequency within the permissible range of 49.7-50.2 Hz	Average monthly frequency	No. of times frequency dipped below 48.8 Hz
Sep 2012	3.22 %	12.69%	84.09%	50.02 Hz	0
Oct 2012	3.33 %	6.28%	90.39%	49.98 Hz	0
Nov 2012	1.79 %	12.38%	85.83%	50.02 Hz	0

Member Secretary OCC stated that during last three months frequency profile was very good. Chairman OCC stated that % of time frequency below 49.7 Hz has been decreased during last three months whereas % of time frequency above 50.2 Hz is in higher side. This shows that the availability in the system is better and grid is running in disciplined manner. He further stated that the day-ahead availability and demand forecasting should be submitted very carefully so that proper load management could be planned accordingly. Director DCC East Discom informed the committee that the Discoms are furnishing their day-ahead demand in two days advance so that complete plan should be prepared well in advance and DISCOMs can give the supply as per their schedules.

Member Secretary, OCC presented the 15 minutes average frequency graph for the month of September 2012 to November 2012. He also presented the Discom wise Hourly Average Schedule vs Actual Drawal along with hourly average frequency for month of September 2012 to November 2012. He stated that during September Central Discoms was overdrawing and West Discom was under drawing during the month whereas East Discom was over drawing during 18.00 hrs to 06.00 hrs and under drawing during 06.00 hrs to 10.00 hrs. He further stated that there is wide variation in East Discoms schedule vs actual Drawal and advised them to check the same. He Further presented that the MP Schedule and drawl is almost same as WRLDC/NLDC is not allowing to overdraw and under draw above / below 150 MW.

**2.2.2 Messages for drawal curtailment :** The committee noted the total number of messages of significant violation of IEGC by the DISCOMs by overdrawing at frequency below 49.7 Hz is as given hereunder:

MONTH	East Discom	Central Discom	West Discom	Total
Sep 2012	0	1	0	1
Oct 2012	13	8	28	49
Nov 2012	2	19	50	96

**2.3.1 Voltage Profile :** The Committee noted the date wise voltage profile at some of the important 400 KV and 220 KV substations during the months September to November 2012 is enclosed at **Annexure - 2.3.1.**

During the months September to November 2012, the deviation of voltage from the accepted limit on either side was recorded at following important 400 KV s/s in MP Grid.

Sr No	Name of 400 KV Substation	SEPTEMBER 2012				OCTOBER 2012			
		Max. Voltage observed		Min. Voltage observed		Max. Voltage observed		Min. Voltage observed	
		Voltage	Date	Voltage	Date	Voltage	Date	Voltage	Date
1	Indore	427	16.09.12	---	---	427	02.10.12	---	---
2	Itarsi	427	29.09.12	---	---	426	17.10.12	---	---
3	Bina	427	01.09.12	---	---	425	17.10.12	---	---
4	Gwalior	433	15.09.12	---	---	431	23.10.12	---	---
5	Nagda	428	15.09.12	---	---	428	17.10.12	---	---
6	Satpura	428	15.09.12	---	---	425	21,26.10.12	---	---
7	Birsingpur	431	06.09.12	---	---	427	1,6,31.10.12	---	---
Sr No	Name of 400 KV Substation	NOVEMBER 2012							
		Max. Voltage observed		Min. Voltage observed					
		Voltage	Date	Voltage	Date				
1	Indore	424	14, 25.11.12	---	---				
2	Itarsi	425	13.11.12	---	---				
3	Bina	427	21.11.12	---	---				
4	Gwalior	433	30.11.12	---	---				
5	Nagda	428	24.11.12	---	---				
6	Satpura	428	13,15.11.12	---	---				
7	Birsingpur	428	06.11.12	---	---				

Member Secretary OCC stated that voltage profile almost remained same during last three months. Chairman OCC informed the committee that from the next meeting SLDC will show the voltage duration curve for Nagda and Birsinghpur in 15 minutes time block. He further informed the committee that the New SCADA will be commissioned in next two years in SLDC and all substations upto 132 KV will be covered. He invited the suggestion from DISCOMS, MPPGCL and MPPTCL if any online data is required by them from new SCADA system to be commissioned at SLDC.

**2.3.2 Status of Capacitor Banks in sub-transmission system :** The Committee noted the updated information of the status of capacitor banks in sub-transmission system as on 30<sup>th</sup> November 2012 as submitted by DISCOMS is detailed below :

DISCOM	Capacitor bank installed in good condition)(Nos )		Capacitor bank installed but defective & are repairable (Nos)			Requirement of repair against each unit (Nos)	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	Nos of 100 KVAR Units required	600 KVAR	1200 KVAR	600 KVAR	1200 KVAR	600 KVAR	1200 KVAR
WZ	735	504	28	96	--	225	38	46	52	57	101	82
CZ	8	721	3	34	-	24	3	16	0	588	0	373
EZ	399	159	5	01	-	94	37	6	--	--	--	--

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

Figures are in MVAR

SN	Particulars	WZ	CZ	EZ
1	MVAR capacity of connected capacitors in good condition	1045.8	806.4	430.2
2	MVAR capacity of connected capacitors in partially good condition	109.5	42.6	14
3	MVAR capacity of connected capacitors in good condition including partially good condition.	1155.3	849.0	444.2
4	MVAR capacity of connected capacitors covered under ADV T-V Scheme.	99.6	559.5	Nil
5	Grand total MVAR of capacitors including that are proposed in ADB T-V scheme	1254.9	1408.5	Nil

Chairman OCC stated that there is a improvement in East Discom but there is no change in other DISCOMS. MPPTCL representative requested the committee that DISCOMS should ensure that all the capacitor banks should be kept in service and supported documents may be produced whenever asked for the same. Director DCC, East Discom informed the committee that possibly all the defective units will be replaced in next month. Chairman OCC requested the other DISCOMS to replace the defective units as early as possible.

**2.3.3 Status of Shunt Capacitor Banks installed at various EHV Transmission Substation :** Member OCC informed the updated information of the status of Installed capacitor banks(in MVAR) in EHV transmission system as on 30<sup>th</sup> November 2012 as submitted by MPPTCL is given below :

Voltage Class	Capacitor bank installed in good condition (No/Mvar)	Capacitor bank installed but defective & are repairable (No/Mvar)	Requirement of repair against each unit (No/Mvar)	Requirement against non-repairable capacitor banks	Capacitor banks already covered under ADB T-V	Balance capacitor banks to be covered in other schemes
220 KV	2 No / 62 MVAR	All in Service	---	---	---	
132 KV	36 Nos / 1182.34 MVAR		---	---	---	
33 KV	366 Nos / 3319 MVAR		---	---	---	-
Total	404 nos / 4563.34 MVAR		---	---	---	

Member Secretary OCC stated that in last OCC, MPPTCL has informed that all the capacitor banks are in service. When low voltage problem was reported at 132 KV sub-station Ashoknagar, it was found that capacitor banks provided at Ashoknagar were out of service. MPPTCL representative informed the committee that the problem has been rectified & the capacitor banks at Ashok Nagar have again put into service.

**2.4.1 Status of completion of on going Transmission Schemes being executed by MPPTCL :** Member Secretary OCC informed the committee the latest status of completion various ongoing Transmission Schemes for the current financial year i.e. Year 2012-2013 upto 30.11.2012 and the plan of transmission schemes for 2012-13 as submitted by MPPTCL is enclosed as annexure **2.4.1(i) & 2.4.1(ii)**.

Chairman OCC requested that in next OCC meeting the ongoing Transmission Schemes being executed by MPPTCL including bus reactors for the Year 2013-14 should also be furnished by MPPTCL along with the status for the current year.

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

- (i) **U/F and df/dt Relay Operation:** Member Secretary OCC informed that frequency did not touch 48.80 Hz during September 2012 to November 2012
- (ii) **Defective U/F & df/dt relays :** Member Secretary OCC apprised the committee that MPPTCL has informed that all the U/F & df/dt relays provided are in healthy condition.
- (iii) **Review of df/dt and Under Frequency Relay :** Member Secretary OCC informed the committee that as per Grid disturbance enquiry committee recommendations the df/dt relay settings have been reviewed and MPPTCL has submitted list of the feeders on which df/dt relays are installed. As regards u/f relay settings on 33KV feeders at EHV substations of MPPTCL, SLDC vide letter no. 3011 dtd 10.12.2012 has requested the Chief Engineer (Plg &PS) to formulate the Discom wise scheme for all 7 days of the week and intimate. The CE (Plg&PS) need to expedite and submit the same, so as to comply the directions of MoP, GOI.

Chairman OCC stated that as per CERC the under frequency relay should be installed on those feeders which do not fall under load regulatory measures. He further informed this will be possible after the completion of feeder separation. The Discoms were requested to furnish the status of feeder separation so that the under frequency relay could be reviewed accordingly. Member Secretary OCC requested the MPPTCL to furnish the feeder wise details of under frequency relay.

Chairman OCC stated that one of the recommendations of enquiry committee was to review the df/dt and under frequency relays. The df/dt relays are already reviewed by MPPTCL and information has been submitted. The new plan for District wise scheme under frequency relays for all 7 days has also been submitted by MPPTCL in the meeting. The Chairman OCC requested the MPPTCL to submit the information/data i.e. feeder wise details of under frequency relays along with monthly average load of that feeders, so that the under frequency plan could be finalized by conducting a meeting with STU and DISCOMs. The MPPTCL agreed to furnish the same in the mid of January 2013. The same is yet to be received.

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

- (i) Member Secretary OCC informed the committee the details of DISCOM wise Power supply given to various domestic categories during the period September to November 2012 is enclosed at **Annexure 2.5(i)**.
- (ii) **Group Allocation to Newly Commissioned existing EHV substations :-** Member Secretary OCC informed the committee, as per information submitted by Plng. & Power System, the region wise list of 33 KV feeders emanating from various newly commissioned/existing EHV substations for which groups have not been allocated is given in **Annexure 2.5 (ii)**. The DISCOM wise details of pending group allocation to 33 KV feeders is given below :

SN	DISCOM	Region	No of 33 KV feeders for which groups to be allocated
01	EAST	Jabalpur	01
02		Sagar	02
03		Rewa	10
04		<b>Total</b>	<b>13</b>
05	WEST	Indore	15
06		Ujjain	00
07		<b>Total</b>	<b>15</b>
08	CENTRAL	Bhopal	04
09		Gwalior	00
10		<b>Total</b>	<b>04</b>
<b>TOTAL</b>		<b>Grand Total</b>	<b>22</b>

The Chairman OCC stated that the group allocation of above feeders are pending till date and the same is to be done by DISCOMs. The Director DCC, East Discom submitted that inter Discom feeder like 33 Panagar feeder (Central to East Discom), it is not clear that which DISCOM will allocate the group no. for those feeders. It has been observed that DISCOM take months together to allocate group no. to the newly charged 33 KV feeders.

In view of the above, the following is decided in the meeting:-

- (a) For the feeder emanating from one Discom and terminating to other Discom, the group should be allocated by the Discom where the drawl point is situated.**
- (b) The group should be allocated before charging/ commissioning the new feeder first time.**

## ITEM NO. 3 : OPERATIONAL PLANNING



- 3.1 Anticipated availability for the Month of January 2012 to March 2013.:** Member Secretary OCC informed the committee the average hourly anticipated availability, demand and shortage/surplus for the period Jan 2013 to March 2013 is given in **Annexure-3.1 [Committee may like to note]**
- 3.2 Generating Units under planned outage and proposed maintenance programme :** Member Secretary OCC informed the committee the all the planned outages of MPPGCL units was completed upto Oct 2012.
- 3.3 Proposed shutdown programme of Transmission lines / Transformers :** Member Secretary OCC informed the committee the proposed shutdown of transmission elements for the period 01.01.2013 to 28.02.2013 submitted by MPPTCL is enclosed in **annexure 3.3**. The MPPGCL and NHDC have not submitted the shutdown proposals. The shut down proposed in 315 MVA transformer at Nagda is not possible due to critical loading of Nagda ICTs and load of Nagda area cannot be managed with the remaining two nos. 315 MVA ICTs. The Chairman OCC requested the MPPTCL to propose the load management plan in consultation with the West DISCOM so that possibility for shut down could be explored.
- 3.4 Proposed shutdown programme of Transmission line / Transformers for OCCM & LGBR of Western Region :** Member Secretary OCC informed the committee the all the outages of EHV elements interconnecting MPPTCL/MPPGCL with ISTS network / Network of other states, are to be approved in the OCCM of WRPC. Programme of such outages for the next month is to be furnished to WRPC on the 4<sup>th</sup> of current month for getting approval in the ensuing OCCM of WRPC. WRLDC will not allow outages which are not approved in OCCM except that of emergency nature. Thus the proposal for outage for the next month should be submitted to SLDC before 2<sup>nd</sup> of the current month.
- 3.5 Information for OCCM of MP :-** Member Secretary OCC informed the committee the it has been noticed that some of the entities are not submitting data for OCCM timely even after repeated persuasion from SLDC. This is delays in preparation of agenda items of OCCM. All the entities are requested to furnished the desired information pertaining to them well within the time.
- 3.6 Long Outages of transmission elements and protections :** Member Secretary OCC informed the committee the transmission elements as detailed below are under long outages :

<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 as intimated for 31<sup>st</sup> OCC.</b>
1	63MVAR Bus-I Reactor at Satpura TPS	24.05.2005	Damage of all three limbs along with reactor tank	Installation and commissioning in bay no.17 shall be completed along with switchyard of unit # 10 & 11. Expected by March, 13.
2	220KV Breaker of 220 KV Tons-Rewa line-II at Tons HPS	30.06.2011	R &Y Phase pole out	Order placed on M/s. Electro, Vadodara. Material received at site & will be put service by 15 <sup>th</sup> Jan 13.
3	16 MVA, 15.75/6.6 KV UAT-1B at SGTPS, Birsinghpur	25.02.2008	Bursting of incomer breaker of 6.6 KV bus 1SB	Commissioned at 12.40 hrs on dtd. 08.10.12.
4	UAT 7-B at Satpura TPS	29.11.2011	Tripped on differential & Bucholtz relay protection due to internal fault in the	Taken into service on 30 <sup>th</sup> Oct 12 at 08.30 hrs.

			transformer	
5	16MVA UAT of Unit # 4 at Amarkantak TPS	17.11.2011	Heavy oil leakage	Taken into service on 24.10.12.
6	Bus bar Differential protection scheme at Amarkantak TPS	Since commissioning	Not commissioned.	M/s ABB is not responding, further exploring the possibilities of supply by another source.
7	Carrier protection of 400 KV Sarni-Seoni line Channel-1 at Satpura TPS	26.06.2007	Problem in PLCC system at Seoni end, since LILO of 400 KV Sarni- Bhilai at Seoni	Taken into service on 27.09.12
8	220 KV Bus bar protection scheme at SGTPS Birsinghpur	Since commissioning of 220 KV switch yard	The scheme not available	One offer is received. Requested for date extension and date is extended upto 15.01.2013.
9	400 KV Bus bar protection scheme at SGTPS Birsinghpur	Since commissioning of 220 KV switch yard	Under commissioning state	Commissioned on dtd. 08.10.12
10	UAT No. 1 at RABS Bargi HPS.	JUNE 2008	Not mentioned	Taken into service on 31.10.12 at 15.15 hrs.
11	220 KV Bus bar differential protection at TONS HPS	Since commissioning	Not mentioned	New Scheme with digital relays is required to be procured & commissioned. Case is under progress.
12	400KV Nagda-Rajgarh Line-I circuit breaker at 400KV Nagda s/s.	03.12.2011	Due to outage of R & Y phase poles. Line can be charged from tie breaker.	Taken into service on 10.10.12.

The MPPGCL ensured the committee that the installation and commissioning of 63MVAR Bus-I Reactor at Satpura TPS shall be completed by the end of March 2013.

**ITEM NO. 4 : OPERATIONAL STATISTICS FOR THE MONTH OF September 2012 and November 2012 :**  
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 SEPTEMBER 2012 TO NOVEMBER 2012 :**  
There was no major grid disturbance in MP during September 2012 to November 2012. However the Grid Disturbance and Grid Incidents in MP categorized under GI-01 and GD-02 are given in **Annexure 5.0**.

The Chairman OCC informed that WRLDC has issued a notice to SLDC for not submitting the System disturbance report of SGTPS. He further informed that this is happened because there was delay in receipt of system disturbance report from Birsinghpur. Member Secretary also informed the committee that the report of system disturbance at Shujalpur is not received even after repeated request by SLDC. The Chairman OCC stated that the flash report of the grid incidence should be submitted immediately to

SLDC followed by detail report within 24 hours of the incidence.

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

**6.1 PROCEDURE FOR ISSUING CODE FOR OPERATION OF TRANSMISSION ELEMENTS IN THE STATE GRID:-** Member Secretary informed the committee that the procedure for issuing code for operation of transmission element in the State Grid has been implemented by SLDC from 01<sup>st</sup> November 2012.

**6.2 Status of AMR:-** Member Secretary informed the committee that SLDC requested the MPPTCL and JayPee Bina to intimate the latest status of AMR of ABT meters installed at interface points. In response MPPTCL informed that the tender was issued and formalities may be completed by the end of December. JayPee Bina representative has ensured to implement the same. He further informed that MPPTCL has arranged the demonstration of AMR of the ABT meters by various bidders participated in the tender. SLDC representative was also present in the demonstration. SLDC requested MPPTCL to expedite the implementation, so that Automatic downloading of meter data could be done at the earliest. ***Member Secretary OCC intimated that the M/s BLA Power Ltd has provided the Automatic readings system for ABT meters installed at their premises.***

The MPPGCL was also requested to ensure communication of weekly data of ABT meters in encoded file generated in meters, through AMR from January 2013. It is requested that other entities may give the latest update in this regard at the earliest.

**6.3 Energy Accounting of 33 KV Inter Discom Feeders :** Member Secretary informed the committee that SLDC had requested all the DISCOMs to furnish the list of inter DISCOM feeders for the purpose of energy accounting, if not being considered by SLDC so far. However, only Central Discom has furnished the additional inter Discom point which have been included for energy accounting from the month of October 2012. The similar details or confirmation is still awaited from East and West Discom. The updated list of inter Discom interface point is enclosed here with as **Annexure 7.3**.

### **6.4 Additional points proposed by EA to Chairman (MPPMCL):**

(i) **Demand forecast at 11 kV feeder level :** It was instructed by Hon'ble Energy Secretary during meeting held on dated 5<sup>th</sup> Oct-12 to start Day Ahead Demand forecast at 11 kV feeder level with the help of Web Based module developed in-house for this purpose & the same is conveyed through Energy Department's letter no 6231/13/2012 Bhopal dated 23 Nov-12. The application is available at [www.dcclm.com](http://www.dcclm.com) and is accessible with different level privileges at DCC , Circle & Division level. The present status of Day ahead Demand Estimation through this application needs to be discussed in OCC meeting.

Shri Keshkar inform the committee that the NDCCs have started filling 11KV feeder wise day ahead demand with supply timings in the web based module but the DCCs have to monitor it and ensure that the demand forecast on 11KV feeder and thereby at 33KV feeder level gets tallied with the actual load of 33KV feeders. Supply discipline not only at 33 KV feeder level but also at 11 KV feeder level can be monitored with the help of this application. The DCCs have ensured to maximize the use of this application in demand forecast.

(ii) **Complying to Un-scheduled Load Shedding mechanism by DISCOMs :** As per Un-scheduled load relief mechanism duly approved by MPPMCL, the Discoms have to act in accordance

with it. It is observed that the Discoms are not implementing the load shedding as specified through this mechanism in real time

Shri Keshkar inform the committee that during this rabi season instead of increasing operational schedule of WZ the new unscheduled load shed mechanism based upon different weight age on U/O estimation, % deviation in actual and forecasted demand and drawal has been made and implemented. In case of state O/D or U/D more than the permissible as per the instructions of SLDC, the DCCs have to take load shed or put load into the system as per the quantum displayed in the system but the operations through this system needs to be further coordinated by the DCCs with SLDC.

**(iii) Load Relief Calculation :-** The calculation pattern of expected / real time relief is not same in the three Discoms. The Web based application for Day ahead Demand Estimation is capable to calculate the relief accurately after entering 11 kV feeder wise demand and supply schedule in it.

Shri Keshkar inform the committee that the load relief calculations even in case of unscheduled load shed at 11 KV or at 33KV feeder level can be done through this web based day ahead demand estimation software provided that the 11 KV feeder wise demand forecast is accurate. The DCCs has ensured to maintain the accuracy through NDCCs.

#### **ITEM NO. 7 : BLACK-START MOCK DRILL OF HYDEL POWER STATIONS :**

**7.1 Replacement of 48 Volt DC Battery and Ampere meter at Bargi HPS:** Member Secretary enquired about the replacement of 48V DC battery and defective ampere meter at Bargi HPS in the meeting. In response MPPGCL informed the committee that the same will be done within a week. MPPGCL is requested to furnish the status of the same.

**7.2 Black Start mock drill at Tons HPS :** Member Secretary informed the committee that the black start drill at Tons HPS was performed on 21.11.2012 with machine no. 3 of 105 MW. Radial load of 132 KV substations Pawai and Nagod was fed through tons machine no.3. After islanding, the hunting was observed in frequency and voltage in the islanded area. It is found that Governor of Machine no.3 was not working properly. Hence the black start mock drill had been stopped. It is noticed that the governor on all three machines are not in auto mode. MPPGCL is requested to furnish next date of mock drill after attending the fault of governor and time schedule of putting the governor on auto mode on all three machines. MPPGCL informed that the auto governor mode in all the three machines at Tons shall be made available within three months. Chairman OCC stated that the black start mock drill at Tons HPS shall be planned after the confirmation from MPPGCL.

**7.3 Schedule of Black Start mock drill at HPS:** Member Secretary informed the committee that the need for timely performing the black start mock drills of HPS have become necessary after twin blackouts in the major parts of the country, to ensure availability at the time of blackout. Chairman OCC stated the following Schedules of Black Start mock drill at HPS shall strictly be followed as per details given below :

<b>Name of Power Station</b>	<b>Proposed Date</b>
Gandhisagar	28.12.2012
Rajghat	09.01.2013
Madikheda	11.01.2013
Birsingpur	15.01.2013
Bargi	21.01.2013
Tons	MPPGCL to intimate for readiness of the machines in auto governor mode.

In response to above MPPGCL informed that the Black Start mock drill at Madikheda and Rajghat is not possible due to non availability of Governor in auto mode. Chairman OCC informed the committee that Black Start mock drill at Madikheda and Rajghat shall be done after confirmation from MPPGCL regarding working of governor in auto mode.

#### **ITEM NO 8: SOME IMPORTANT MATTERS REQUIRED IMMEDIATE ATTENTION :**

**8.1 Quarterly Review of Crisis Management Plan :** Member Secretary informed the committee that Chief Engineer (DMLF), CEA vide letter dated 27.04.2012 have intimated that need for regular monitoring of the contingency plan to ensure the readiness of various utilities in handling the crisis situation was emphasized by MOP and conducting mock drills by various utilities was discussed. CEA have advised to conduct at least one mock drill during a quarter by creating emergent situations to which the plant/installations are vulnerable and furnish the report to CEA.

All the entities are requested to submit the CMP report for the third quarter i.e. September 2012 to December 2012.

**8.2 Status of Physical & Cyber Security in Power Sector regarding :** Member Secretary informed the committee that status of physical & cyber security in Power Sector for the third quarter September 2012 to December 2012 have not been received from any of the constituents. The constituents/utilities may like to furnish the status directly to the Chief Engineer (GM), CEA New Delhi under intimation to SLDC Jabalpur and WRPC Mumbai .

Chairman OCC requested that members of the committee to include requirement of cyber security in their ERP system.

**8.3 Absorption of reactive power by generators:-** Member Secretary informed the committee that in 439th OCC of WR, based on the discussions held during last OCC meetings, the WRPC stated that it is imperative that generators will absorb maximum MVAR when asked by SCM/Shift Incharge at WRLDC/SLDC. It was requested by WRPC that generators will come with data of reactive power absorption; voltage at the bus before and after the message is given by WRLDC/SLDC in every OCC of WR. In order to monitor the response, WRPC also requested the generators to send the capability curves of generators in their system to all concerned.

Member Secretary intimated the MPPGCL and NHDC to absorb the MVAR as and when requested by WRLDC and SLDC and furnish the data regularly to WRPC & SLDC.

#### **ITEM NO 9: OTHER OPERATIONAL ISSUES :**

**9.1 : Standard Operating Procedure for DCCs :** Member Secretary informed that as directed, the following key action points related to implementation of Standard Operating Procedure be ensured by DISCOMs within the timeline fixed by Energy Department, GoMP. The DISCOMs have furnished the activity wise updated status which is enclosed at **Annexure 9.1**.

#### **9.2 RGMO status of generating units in WR :-**

Member Secretary OCC informed the committee that the RGMO feature is not available in any of the eligible units of MPPGCL Thermal and Hydel Stations. He further informed that the RGMO in SGTPS # 5 is also not functioning. MPPGCL informed that the prayer for the exemption for RGMO for hydel power stations and eligible thermal units was made before the Central Commission for thermal and hydel units till October 2013. Chairman OCC requested that the order of the approval of the commission may

be submitted to the SLDC. The JP Bina TPS has been requested to intimate the time limit by which they will implement the RGMO in their unit.

The Chairman OCC informed the committee that the RGMO is available in all the units of ISP whereas the RGMO in Omkareshwar shall be implemented only when the permission is accorded to raise the reservoir level above MDDL. He further stated that black start mock drill at Omkareshwar shall be done after the reservoir level is raised below MDDL. He further stated that as no representative of JP Bina is present in the meeting, a letter has to be given to JP Bina for intimation of date for implementation of RGMO in their unit.

**9.3 Action on the recommendations of the Enquiry Committee formed by MoP on Grid Disturbances on 30<sup>th</sup> & 31<sup>st</sup> July 2012 :** Member Secretary informed the committee that on the recommendations of the Enquiry Committee formed by MoP Gol on grid disturbances in the Northern Region on 30<sup>th</sup> & 31<sup>st</sup> July 2012. The following has been decided:-

**Conducting Protection Audit of EHV Stations & Power Stations-** He informed that as per recommendations of the Enquiry Committee all the participants have to carryout the Protection Audit through third party in a time bound manner within a year. This exercise shall be repeated periodically and the same shall be monitored by SLDC / WRPC. In the meeting it was agreed that till the third party audit is carried out, a group "Internal Protection Audit" should be formed through a committee constituted with Engineers from SLDC, MPPTCL, MPPGCL & NHDC. Accordingly a Committee has been formed for conducting Internal Protection Audit. The Internal Protection Audit Committee shall review all the protection scheme for power houses and other sub-stations as per the Central Board of Irrigation and Power (CBIP) guidelines and as per the guidelines of WRPC. In the first phase, all the 400 KV sub-stations of MPPTCL and thermal power stations including IPPs, Tons, ISP & OSP Hydel Power Stations shall be covered. The Internal Protection Audit of 220 KV sub-stations of MPPTCL and remaining sub-stations shall be done in the second phase. The Internal Protection Audit shall start from 1<sup>st</sup> January 2013 during the 1<sup>st</sup> quarter for the calendar year 2013.

**9.4 Petition filed by POSOCO in the matter of `Maintaining security of the interconnected power system of India –**

Member Secretary informed the committee that the Western Regional Load Despatch Centre, POSOCO has filed a petition before the Central Electricity Regulatory Commission on 5<sup>th</sup> December 2012 in the matter of "Maintaining security of the interconnected power system of India in terms of regulation 5.2 of the Indian Electricity Grid Code and compliance of regulation 5.4.2 and 6.4.8 of the IEGC read along with regulation 111 of the CERC (Conduct of Business) regulations, 1999". In the petition the POSOCO has made a prayer that the Hon'ble Commission may –

- a. Direct all the STUs/SLDCs of the Western Region to forecast their demand and make adequate arrangements to avoid dependence on Unscheduled Interchange for meeting their demand or for injecting short term surplus power irrespective of the frequency.

- b. Direct all the STUs/SLDCs of the Western Region to implement automatic demand disconnection scheme as mandated in the regulation 5.4.2 (d) of the IEGC and submit the details of the same to CERC/RPCs/RLDCs.
- c. Direct all the STUs/SLDCs/Regional Entities of the Western Region to comply with Regulation 5.2 (j) of the IEGC.
- d. Direct all the STUs/SLDCs of the Western Region to give their inputs to implement the Grid Security Expert System and direct the WRPC secretariat should actively associate themselves in getting these schemes implemented in terms of NLDC letter ref. POSOCO/NLDC dated 11<sup>th</sup> September 2012 to Member GO&D.

**9.5 Tightening of frequency band – Amendment proposed in IEGC & UI Regulation :** Member secretary informed the committee that the Western Regional Load Despatch Centre, POSOCO in the petitions filed before the Central Electricity Regulatory Commission has proposed the amendment to IEGC & UI Regulation mentioning that the Enquiry Committee on grid disturbances has identified over drawal as one of the causes of grid disturbances and the Committee has inter-alia recommended as under-

“Frequency band needs to be further tightened and brought closer to 50 Hz. POSOCO may file an urgency application in Supreme Court for early resolution of the issue in view of the recent grid disturbances.

A review of UI mechanism should be carried out in view of its impact on recent grid disturbances. Frequency control through UI may be phased out in a time bound manner and generation reserves/ancillary services may be used for frequency control. Appropriate regulatory mechanism needs to be put in place for this purpose. POSOCO should take up the matter with CERC”.

The POSOCO has sought to address the following major issues –

- (a) Narrowing down frequency band further, so that system operates close to 50 Hz.
- (b) Imposing limits on UI injection/ drawal and making its truly inadvertent interchange; and
- (c) Introduction of locational bias in UI settlement rate.

The Central Commission in its order dated 29.11.12 and 5.12.12 has directed that the present petition be treated as proposal of POSOCO as amendment of the relevant regulations and further directed its staff to examine the proposal and submit to the Commission for consideration in a time bound manner.

## **ITEM NO 10 : SCADA/EMS RELATED ISSUES :**

### **10.1 PROVIDING TELEMETRY OF ALL 132 KV S/s :-**

SLDC informed that as directed by the Govt. of MP, telemetry of all 132 KV sub-stations is required to be provided. The SLDC has already initiated action for enhancement of system sizing to accommodate 132KV S/s data in the new SCADA/EMS system, being implemented through PGCIL. The telemetry equipments as well as data channel for all 132 KV sub-stations of MPPTCL are to be worked out and procured and installed by MPPTCL.

The matter was discussed and it was decided to initiate action, as decided in the separate meeting proposed to be held on 20-12-2012 at SLDC.

## **10.2 PROGRESS OF INSTALLATION OF NEW RTUS ALONG WITH PLCC DATA LINKS AT EHV**

### **S/S:-**

The progress of installation and commissioning of RTU's was reviewed and it was assured by T&C /T&P MPPTCL to

- (1) Arrange communication channels for 220KV Sidhi S/s, 220KV Betul, 132KV Harda S/s, 132KV Khategaon on top priority, as RTU has already been commissioned at these Sub Stations but data is not available at SLDC.
- (2) To arrange balance process connections (specially SOE connections) at S/s where RTU integration is already completed.
- (3) To investigate the matter and arrange for reliable functioning of 220KV Seoni & 220KV Birsingpur RTU.
- (4) To take up the matter with the firm for restoration of telemetry of Astha 220KV S/s and replacement of MFM at 220KV Chnidwara.
- (5) To plan & arrange communication channels well in advance for RTU's being delivered under II<sup>nd</sup> phase, so as to avoid delay in commissioning of RTU's.
- (6) To arrange the training on Calisto<sup>NX</sup> RTU from the firm.
- (7) To take-up the matter with the firm for expediting the commissioning of RTU as well as providing commissioning schedule in advance.

## **10.3 MAINTENANCE OF RTU's & AVAILABILITY OF SPARES:-**

**MPPGCL:-** In the last OCC meeting, it was decided that the RTU spares procured by MPPGCL may be stored at centralized location at Jabalpur (may be GCC/Hydel testing Division) so that time consumed in restoration of telemetry fault may be minimized. However, action in the matter has not been taken. Accordingly, the matter was again discussed & SLDC requested MPPGCL to take suitable action in the matter, on priority basis for which MPPGCL agreed.

**MPPTCL:-** It was informed by SLDC that the matter of arrangement of Spare CPU's along with D20ME rack for GE/Honeywell RTU's was discussed in last three OCCM meetings and it was assured by T&C department of MPPTCL to initiate the action in the matter. It was informed by T&C that action is being initiated for procurement of spares as well as for repairing of faulty spares.

## **10.4 ARRANGEMENT OF TELEMETRY FOR SATPURA EXTENTION & SINGAJI TPS**

**(A) STPS Extention:-** The matter for providing telemetry of Satpura extention plant was discussed in detail and MPPGCL assured to arrange the testing of telemetry of STPS extention plant by 15<sup>th</sup> January 2013. MPPTCL informed that providing configured VFT modem, along with cable from modem to wide band communication equipment required at Itarsi 220KV S/s is also to be provided by MPPGCL.

**(B) SINGAJI STPS:-** SLDC requested MPPGCL to provide details of channel route finalised for voice telemetry and data telemetry. CE (T&C) informed that the telemetry shall be routed through Chegaon-Barwaha-Indore. The PLCC equipments for intermediate stations are being released by MPPTCL shortly. MPPTCL further requested to arrange configured VFT modem for control centre end and inform the commissioning schedule.

## **10.5 THE ARRANGEMENT OF DATA CHANNELS FOR REMOTE VDU INSTALLED AT GCC, DCC & CMD MPPTCL CHAMBER.**

**(A)** The matter was discussed in detail in 29<sup>th</sup> OCM meeting & it was suggested by MPPGCL that a single agency may take-up the work of arranging communication channels for all the remote work stations available in Shakti Bhawan, on cost sharing basis & requested T&C department of, MPPTCL to explore the possibility of arranging the same by the communication division. The SLDC requested to inform progress in the matter.



As no action is being initiated in the matter, it was specifically informed by SLDC that for functioning of remote work stations from new SCADA system a high speed & reliable communication link is a prerequisite & hence SLDC again requested all concern departments to arrange the reliable high speed data channel, either jointly through communication section of MPPTCL, or separately.

**(B) UNRELIABLE WIRELESS LINK OF WZ INDORE:-** SLDC informed that the existing wireless link hired by WZ DISCOM from M/s TULIP is also not functioning properly and fails frequently. The frequent failure also resulting in SCADA system performance. SLDC

Vide letter dated 11-12-2012, requested WZ DISCOM to arrange a joint meeting of SLDC, WZ, TULIP, ERICSSON, GE engineers at Jabalpur to discuss the matter and found out the solution. WZ DISCOM representative informed that they have taken up the matter with M/s TULIP and shortly provide the date for meeting at SLDC Jabalpur.

#### **10.6 DISCREPANCY IN TELEMETERED VALUES RECEIVED FROM DIFFERENT EHV S/S & POWER STATIONS & UPGRADATION OF EXISTING RTU's**

SLDC requested MPPGCL and MPPTCL to take up the work of telemetry discrepancy & upgradation of RTU's immediately so that the work gets completed as per the schedule submitted to CERC. MPPTCL & MPPGCL assured to complete the work within the time frame submitted to CERC.

The matter of upgradation of RTU at 220KV Satna, 220KV Nagda, 220KV Ratlam, 220KV Neemuch, is specially discussed and SLDC informed that RTU configuration modification, availability of transducers etc is already their but process connections are pending from long time. T&C assured to complete the process connections within fifteen days.

Further, SLDC also informed that at most of the Hydel power stations, process connections for SOE are not yet done. MPPGCL representative informed regarding non availability of wiring details at site. In response it was clarified by SLDC that wiring details along with complete RTU manual were delivered at sites along with RTU. Further, on request, a copy of the wiring details was also provided by SLDC to those power stations, who has informed regarding non availability of wiring details. SLDC further requested to collect the RTU manual from SLDC, for the stations where the same is not available.

The matter of telemetry discrepancy at Birsingpur TPS was also specifically discussed and MPPGCL assured to look into the issues on priority basis.

#### **10.7 LONG OUTAGE OF RTU's**

SLDC informed that the RTU's at 220KV Damoh, 132KV Morwa, 220KV Tikamgarh, 220KV Pandurna S/s are not functioning since long time. CE (T&C) informed that because of problem in arranging PLC data link from 32KV Morwa S/s, option of utilizing GPS/GPRS communication medium is under consideration and shall be finalised shortly. For other RTU's, MPPTCL assured to take up necessary action on priority basis for avoiding long outage.

#### **10.8 PROVIDING ALTERNATE DATA CHANNELS & EXPRESS VOICE CHANNELS FOR RTU STATIONS:-**

The matter was discussed in detail specifically for arranging alternate data channels for power stations. As voice and data channels provided through PLC for Hydel power stations are most unreliable, SLDC also requested MPPGCL to evaluate other media eg. Satellite phones from Hydel power stations to SLDC.

SLDC specifically requested MPPGCL to rectify the voice communication problem of TONS HPS, as per present arrangement, it is very difficult to contact the TONS HPS. MPPGCL & MPPTCL assured to take necessary action and if required, a separate meeting shall also be arranged between MPPGCL &

T&C MPPTCL to sort out the matters regarding alternate data and voice channels for important power stations.

#### **10.9 NON AVAILBILITY OF TELEMETRY OF M/s BLA POWER**

M/s BLA power informed that the PLCC panels required for establishment of communication channel have already been delivered. Further, the work for interfacing of their relay panel having real time data with PLCC channel is in progress. M/s BLA power confirm that the telemetry of their power Stations shall be arranged by March 2013. SLDC specifically requested to confirm the arrangement of MODEM required at control centre end for which M/s BLA power agreed.

#### **10.10 PROBLEM IN TELEMETRY OF INDIRA SAGAR HYDEL POWER STATION:-**

SLDC informed that the Status points received from ISP always received as non-current tag. Further, analog telemetry, when feeder/generator not in load is also received as non current. The matter was thoroughly investigated by ISP officers at ISP end as well as SLDC/GE officials at Sub-LDC end.

The problem still persists. The HAIL support is required to be arranged by ISP at ISP end. ISP representative requested to depute engineer at ISP from SLDC. SLDC requested ISP to provide plan of visits of HAIL engineer so that SLDC engineer may also be deputed at the same time. SLDC further informed that the similar problem was observed around year back, at that time, the problem gets rectified by M/s HAIL, by some activity at HAIL end.

#### **ITEM No 11- Any other issue with the permission of the chair**

**11.1 Change of CT ratio of all feeders at Omkareshwar Hydel Power Station:-** Member Secretary informed the committee that the CT of two feeders i.e Nimrani and Barwaha at omkareshwar has been changed. He requested the Omkareshwar representative to replace the CT in remaining three feeders also with 800/1 Amp CT. MPPTCL representative requested NHDC that CT should be replaced before commissioning of Singaji Thermal Plant and 400 KV Chhegaon sub-Station, as after commissioning of chhegaon Sub Station the load will be increased in the feeders emanating from Omkareshwar HPS. The Member Secretary OCC requested the Omkareshwar HPS to furnish the plan for replacement of CT of remaining three feeders. Omkareshwar representative ensured to furnish the same at the earliest. The same is not received by SLDC till date.

**ITEM No 12 : DATE AND VENUE OF NEXT OCC MEETING :** It is proposed to hold 32<sup>nd</sup> OCC meeting of Operation and Coordination Committee of MP on 18<sup>TH</sup> February 2013 at SLDC, MPPTCL, Jabalpur.

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### FREQUENCY PARTICULARS

S. No.	Particulars	Sep-12		Oct-12		Nov-12	
<b>1 INTEGRATED OVER AN-HOUR</b>							
1.1	Maximum Frequency	50.41 Hz	Between 03.00 hrs & 04.00 Hrs on 16.09.12	50.32 Hz	Between 2100 Hrs & 2200 Hrs on 24.10.12	50.34 Hz	Between 23.00 hrs & 24.00 Hrs on 18.11.12
1.2	Minimum Frequency	49.22 Hz	Between 19.00 hrs & 20.00 Hrs on 05.09.12	49.72 Hz	Between 05.00 hrs & 06.00 Hrs on 09.10.12	49.74 Hz	Between 15.00 hrs & 16.00 Hrs on 22.11.12
1.3	Average Frequency	50.02 Hz		49.98 Hz		50.02 Hz	
<b>2 INSTANTANEOUS FREQUENCY</b>							
2.1	Maximum Frequency	50.65 Hz	AT 08.05 HRS ON 14.09.12	50.61 Hz	AT 06.03 HRS ON 02.10.12	50.63 Hz	AT 14.02 HRS ON 15.11.12
2.2	Minimum Frequency	48.96 Hz	AT 14.18 HRS ON 10.09.12	49.37 Hz	AT 18.10 HRS ON 17.10.12	49.33 Hz	AT 16.48 HRS ON 06.11.12

#### 3 Percentage of time when frequency was :-

	%age of time when frequency was	Sep-12	Oct-12	Nov-12
3.1	Below 48.5 Hz	0.00	0	0
3.2	Between 48.50 Hz and 48.8 Hz	0.00	0	0
3.3	Between 48.80 Hz and 49.2 Hz	0.01	0	0
3.4	Between 49.20 Hz and 49.5 Hz	0.30	0.11	0.06
3.5	Between 49.50 Hz and 49.7 Hz	2.91	3.22	1.73
3.6	Between 49.70 Hz and 50.2 Hz	84.09	90.39	85.83
3.7	Between 50.20 Hz and 50.3 Hz	--	--	--
3.8	Between 50.30 Hz and 51.0 Hz	12.69	6.28	12.38
3.9	Between 51.0 Hz AND 51.5 Hz	0.00	0	0
3.1	Above 51.5 Hz	0.00	0	0
4.1	No. of times frquency touched 48.80 Hz	0	0	0
4.2	No. of times frquency touched 48.60 Hz	0	0	0
4.3	No. of times frquency touched 51.0 Hz	0	0	0

## Voltage Profile During the Month of SEP- 2012

Date	Indore		Itarsi		Bina		Gwalior		Nagda		Birsingpur		Satpura	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	423	403	423	399	427	394	430	401	426	404	419	412	430	421
2	426	406	424	402	418	395	428	402	427	407	420	412	429	418
3	426	409	424	406	417	402	425	404	426	409	420	410	428	420
4	425	409	425	407	419	399	426	403	426	409	419	407	427	417
5	425	409	425	407	422	400	426	403	426	409	421	408	429	419
6	425	409	425	407	418	395	425	403	426	409	424	409	428	416
7	426	408	427	406	422	402	426	401	428	407	426	414	431	418
8	426	407	426	405	419	402	427	406	427	406	426	415	427	420
9	424	406	424	404	419	401	428	401	425	406	422	414	427	418
10	425	409	424	409	420	404	426	403	426	410	426	407	426	420
11	426	412	426	411	424	410	429	407	427	413	424	411	426	419
12	422	409	424	410	422	403	426	404	424	408	423	413	427	419
13	424	407	424	407	423	400	426	410	426	407	428	408	427	419
14	424	409	426	406	424	400	426	409	427	409	416	409	427	420
15	426	407	427	406	426	403	431	412	428	407	428	410	427	419
16	427	411	426	410	426	402	432	406	426	411	415	410	428	419
17	424	409	424	410	426	408	426	410	426	410	417	406	428	420
18	423	405	423	404	424	398	430	404	426	406	418	409	427	419
19	421	400	423	406	418	399	428	407	424	400	419	412	426	416
20	423	404	424	402	417	397	425	405	424	404	420	409	427	419
21	423	404	424	402	414	398	424	406	424	404	423	412	428	417
22	422	403	425	404	425	403	430	411	426	404	424	408	428	413
23	423	406	424	405	423	399	424	406	426	407	423	407	427	417
24	423	407	424	407	416	405	424	405	427	411	424	408	428	418
25	421	407	423	407	417	407	422	405	424	410	419	408	427	416
26	425	402	427	402	422	401	427	406	427	404	422	407	426	417
27	421	403	424	402	421	401	424	407	423	404	420	405	427	419
28	422	402	425	403	424	403	430	405	424	404	419	412	425	417
29	426	403	427	404	424	402	424	404	427	406	424	414	429	421
30	423	403	423	403	418	399	423	402	425	406	421	415	427	416
31														
<b>Max / Min</b>	<b>427</b>	<b>400</b>	<b>427</b>	<b>399</b>	<b>427</b>	<b>394</b>	<b>432</b>	<b>401</b>	<b>428</b>	<b>400</b>	<b>428</b>	<b>405</b>	<b>431</b>	<b>413</b>

## Voltage Profile During the Month of OCT - 2012

Date	Indore		Itarsi		Bina		Gwalior		Nagda		Birsingpur		Satpura	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	424	400	423	399	421	398	427	402	426	403	420	409	427	410
2	427	410	424	406	419	398	425	404	428	412	418	407	426	408
3	424	402	423	402	419	396	421	407	426	406	417	405	426	413
4	424	402	423	402	411	393	419	405	427	401	413	406	426	410
5	426	404	424	406	417	398	420	412	428	405	419	404	427	409
6	426	406	425	409	415	405	423	404	428	409	420	412	427	411
7	424	406	424	407	418	400	423	401	428	408	418	412	424	408
8	420	392	419	394	417	395	425	401	423	394	417	410	421	409
9	421	398	421	400	419	404	423	403	427	399	419	413	421	409
10	420	400	419	401	419	401	426	402	421	402	419	413	421	408
11	420	400	419	401	414	404	421	406	423	402	419	413	421	409
12	421	402	419	402	417	397	421	400	424	402	418	412	421	411
13	420	402	418	402	414	396	417	405	423	401	418	412	423	414
14	424	405	423	406	414	397	417	405	425	406	419	413	424	406
15	422	407	421	407	420	399	425	404	425	406	422	411	426	405
16	423	397	423	400	415	401	421	405	426	395	419	410	427	406
17	425	393	426	400	425	402	426	405	428	392	423	408	426	410
18	420	392	424	399	423	405	428	405	423	390	423	415	423	409
19	424	399	425	405	418	406	424	406	428	400	424	409	424	410
20	421	402	423	401	419	403	423	407	427	404	423	412	423	407
21	419	399	419	402	414	402	423	409	426	400	425	413	424	407
22	419	399	420	400	416	403	424	409	424	400	424	413	426	412
23	419	399	421	401	420	405	431	409	425	402	423	413	426	411
24	419	399	421	401	420	405	431	409	425	402	424	414	426	411
25	418	397	421	401	422	403	427	404	422	401	424	415	424	405
26	421	404	424	407	423	409	429	410	426	407	425	413	426	412
27	422	401	423	404	422	408	428	405	427	403	423	413	427	418
28	420	402	420	405	420	406	424	409	426	406	421	413	426	411
29	419	396	419	399	416	405	426	402	423	399	424	416	424	405
30	423	404	423	406	422	407	428	408	427	405	421	415	426	412
31	423	403	423	403	418	399	423	402	425	406	419	416	427	418
<b>Max</b>	<b>427</b>	<b>392</b>	<b>426</b>	<b>394</b>	<b>425</b>	<b>393</b>	<b>431</b>	<b>400</b>	<b>428</b>	<b>390</b>	<b>425</b>	<b>404</b>	<b>427</b>	<b>405</b>

## ANNEXURE - 2.4.1

M.P. POWER TRANSMISSION COMPANY LIMITED						
TRANSMISSION WORKS COMPLETED DURING 2012-13 (UP TO 30.11.2012)						
S. No.	NAME OF THE TRANSMISSION LINE / (FINANCED BY)	TYPE OF CIRCUITS	ROUTE LENGTH	CIRCUIT KMS.	DATE OF COMPLETION	DATE OF COMMISSIONING
<b>I.</b>	<b>EHV TRANSMISSION LINES</b>					
<b>A.</b>	<b>400 KV TRANSMISSION LINES</b>	NIL				
	<b>Sub-Total (A)</b>					
<b>B.</b>	<b>220 KV TRANSMISSION LINES</b>					
1	Diversion of 220KV Rajgarh - Pithampur DCDS line up to common point near 220KV Sub station, Pithampur (ADB-II/S)	DCDS	1.60	3.20	June'12	11.06.2012
2	LILO of 220KV Pithampur - Indore & 220 kv Pithampur - Badnagar line at Pithampur 400 KV Substations (I/C) (4x5.9 2+ 2x21.4) (PFC)	DCDS	27.32	66.48	Oct'12	-
3	LILO of 220KV Amarkantak TPS-Korba line for 220KV S/S Anoopur		3.87	15.48	Nov'12	-
	<b>Sub-Total (B)</b>		<b>32.79</b>	<b>85.16</b>		
<b>C.</b>	<b>132 KV TRANSMISSION LINES</b>					
1	Barman - Gadarwara second ckt. (PFC)	2nd Ckt		30.54	MAY'2012	28.05.2012
2	Power supply to M/s. IMC, Baklai from 220KV Barwaha Sub-station (D/W)	DCSS	34.17	34.17	June'12	02.06.2012
3	Power supply to M/s. Arya Energy. Kotma from 132KV Kotma Sub-station (D/W)	DCSS	1.29	1.29	June'12	30.06.2012
4	Power supply to Mungawali Railway Traction S/s from 220kv Bina S/s. (D/W)	DCSS	31.32	31.32	July'12	26.07.2012
5	LILO of 132 kv Rewa - Sidhi line for Rewa - II (Sagra) 132KV S/s (2x13.38) (GoMP)	DCDS	13.38	26.76	August'12	30.08.2012
6	Power supply to M/s Diamond Cement Plants at Imlai & Narsingharh (Distt. Damoh) from 220 KV Damoh Sub-station (2x17.61 + 1x1.65 + 1x19.31) (D/W)	DCDS	38.57	56.18	Oct'12	29.10.2012
7	LILO of both ckts of 132 kv Amarkantak - Morwa line at Anoopur 220 KV S/s (4x2.36) (GoMP)	DCDS	4.72	9.44	Oct'12	31.10.2012
	<b>Sub-Total (C)</b>		<b>123.45</b>	<b>189.70</b>		
	<b>Total (EHV LINES) (A + B + C)</b>		<b>156.24</b>	<b>274.86</b>		

<b>II.</b>	<b>EHV SUB - STATIONS</b>					
<b>S. No.</b>	<b>NAME OF SUBSTATION / (DISTRICT) / (FINANCED BY)</b>	<b>VOLTAGE RATIO (KV)</b>	<b>No.OF X-mer &amp; Cap.(MVA)</b>	<b>EFFECTIVE CAPACITY MVA</b>	<b>DATE OF COMPL-ETION</b>	<b>DATE OF COMMI-SSIONING</b>
<b>A.</b>	<b>400 KV SUBSTATIONS</b>	<b>NIL</b>				
	<b>Sub Total (A) (400KV S/s)</b>			<b>0</b>		
<b>B.</b>	<b>220 KV SUBSTATIONS</b>					
a.	<b>NEW SUBSTATIONS</b>					
b.	<b>ADDITIONAL TRANSFORMERS</b>					
1	Mehgaon (Addl Trans) (Distt. Bhand) (ADB)	220/132	1x160	160	APRIL'12	05.04.2012
2	Tikamgarh (Addl Trans) (Distt. Tikamgarh) (ADB)	220/132	1x160	160	MAY'12	24.05.2012
3	Sabalgarh (Addl Trans) (Distt. Morena) (ADB)	220/132	1x160	160	August'12	24.08.2012
	<b>Sub Total (B) (220KV S/s)</b>			<b>480</b>		
<b>C.</b>	<b>132 KV SUBSTATIONS</b>					
a.	<b>NEW SUBSTATIONS</b>					
1	Rewa - II (Sagra) (Distt. Rewa) (GoMP / TRANSCO)	132/33	1x40	40	Sept'12	13.09.2012
2	Bankhedi (Distt. Hoshangabad) (PFC)	132/33	1x40	40	Sept'12	28.09.2012
	<b>Sub Total (C.a) (NEW S/s)</b>			<b>80</b>		
b.	<b>ADDITIONAL TRANSFORMERS</b>					
1	Ghosla (Additional) District Ujjain. (ADB)	132/33	1x40	40	June'2012	14.06.2012
2	132 KV Indore (Chambal) (Addl) (Distt. Indore) (GoMP)	132/33	1x40	40	August'12	03.08.2012
3	Anoopur (Shahdol) (GoMP)	132/33	1x40	40	Nov'12	01.11.2012
	<b>Sub Total (C.b) (ADDITIONAL TRANSFORMER)</b>			<b>120</b>		
c.	<b>AUGMENTATION OF CAPACITY</b>					
1	Ratadia (Mullapura) (Aug from 40 to 63 MVA) (Distt. Ujjain) (Simhastha)	132/33		23	MAY'12	25.05.2012
2	Dabra (Aug from 20 to 40 MVA) (Distt. Gwalior) (ADB - II)	132/33		20	August'12	10.08.2012
3	Ratlam (Aug from 20 to 40 MVA) (Distt. Ratlam) (ADB - II)	132/33		20	Sept'12	01.09.2012
	<b>Sub Total (C.c) (AUGMENTATION OF CAPACITY)</b>			<b>63</b>		
	<b>Sub-Total (C) (132 kv Sub-stations)</b>			<b>263</b>		
	<b>Total (EHV SUB - STATIONS) (A+B+C)</b>			<b>743</b>		

## Discoms wise Average Supply Hours

PARTICULARS	East Zone			Central Zone		
	Sep-12	Oct-12	Nov-12	Sep-12	Oct-12	Nov-12
Commissinary HQ	23:47	23:47	23:55	23:47	23:41	23:40
District HQ	23:54	22:59	22:15	23:51	21:57	21:59
Tehsil HQ	21:22	18:24	17:55	23:28	18:08	17:42
Rural -3Phase	16:13	14:36	14:30	22:43	14:05	13:22
Rural -1Phase	0:00	0:00	0:00	0:00	0:00	0:00
Total Rural	16:13	14:36	14:30	22:43	14:05	13:22
PARTICULARS	West Zone			MP		
	Sep-12	Oct-12	Nov-12	Sep-12	Oct-12	Nov-12
Commissinary HQ	23:49	23:49	23:51	23:53	24:00	23:48
District HQ	23:55	23:53	23:56	23:17	24:00	22:44
Tehsil HQ	23:07	18:58	18:52	20:16	22:02	18:07
Rural -3Phase	15:57	12:11	11:37	14:44	13:46	13:20
Rural -1Phase	0:00	0:00	0:00	0:00	0:00	0:00
Total Rural	15:57	12:11	11:37	14:44	13:46	13:20

**LIST OF 33KV FEEDERS UNDER MPPKVCL, JABALPUR**

(For which group to be allocated)

<b>JABALPUR REGION</b>		
Name of EHV Substation	Name of 33kV feeder	Date of charging of feeder
<b>132KV</b>		
220kV Pipariya	33kV Panagar	02.03.2011
<b>SAGAR REGION</b>		
<b>132KV</b>		
132kV Khajuraho	33kV Airport	25.06.2011
132kV Bijawar	33kV Bada Malhara	04.01.2012
<b>REWA REGION</b>		
<b>132KV</b>		
132kV Beohari	33kV Madwas	03.01.2012
132kV Rajmilan	33kV Khutar	05.03.2012
	33kV Rajmilan	05.03.2012
132KV Nagod	33KV Nagod	13.02.2012
	33KV Raikwara	13.02.2012
	33KV Jasso	09.02.2012
	33KV Singhpur	10.02.2012
<b>220KV</b>		
220kV Satna	33KV Raigaon	19.05.2011
220kV Kotar (Rewa)	33kV Semariya	22.10.2011
220kV Maihar	33kV Reliance	15.04.2011

**LIST OF 33KV FEEDERS UNDER MPMKVCL, JABALPUR**

(For which group to be allocated)

<b>BHOPAL REGION</b>		
Name of EHV Substation	Name of 33KV feeder	Date of charging of feeder
<b>132KV</b>		
132KV Gudgaon	33KV Gudgaon	31.06.2012
132KV Kurawar	33KV Oswal Denim	24.02.2012
<b>220KV</b>		
220KV Betul	33KV Junawani	04.05.2012
220KV Bairagarh	33KV liser	19.05.2012



**LIST OF 33KV FEEDERS UNDER MPPKVCL, INDORE**  
**(For which group to be allocated)**  
**INDORE REGION**

Name of EHV Substation	Name of 33KV feeder	Date of Charging of feeder
<b>132 KV</b>		
132KV Betma	33KV Chiklonda	12.06.2010
	33KV Gohan	15.02.2012
132KV Manawar	33KV NVDA	23.05.2011
	33KV Anjanda	03.05.2011
132KV Kanwan	33KV Rajod	14.06.2011
132KV Sanwer	33KV Panth Piplai-II	08.12.2010
	33KV Panth Piplai-III	16.10.2011
132KV Petlawad	33KV Raipuriya	22.07.2010
	33KV Sarangi	22.12.2010
	33KV Kothara	08.02.2012
	33KV Bolasa	08.02.2012
<b>220KV</b>		
220KV Jetpura (Indore)	33KV BPCL	30.08.2012
220KV Pithampur	33KV MPAKVN (Nalrip Water Works)	30.07.2011
	33KV Sagore	03.01.2011
220KV Indore EAST (Bicholi)	33KV Kannod (Industrial)	17.08.2007

Anticipated Hourly Average Availability MP : 2012-2013																												
Month : Jan 13																										Shortage(+) /Surplus(-)		
Hrs	Thermal	GS	PEN	BAR	TONS	BIR	RJGT	DEV	SIL	Zinha	MAD	Hydel	CSS	Suge	ISP	SSP	OSP	DVC	RMT	IPP	Total	Banking	MTP	Total	Unres Dem	Res Dem	wrt unres	wrt res
1	2246	0	50	45	0	20	0	50	10	10	0	185	2440	40	0	40	0	300	15	174	5440	1099	380	6919	7184	6457	265	-462
2	2246	0	0	45	0	20	0	50	10	10	0	135	2440	40	0	40	0	300	15	174	5390	1099	380	6869	6921	6192	51	-677
3	2246	0	0	45	0	20	0	50	10	10	0	135	2440	40	0	40	0	300	15	174	5390	1099	380	6869	6703	6055	-167	-814
4	2246	0	0	45	0	0	0	50	10	10	0	115	2440	40	0	53	0	300	15	174	5383	1099	380	6862	6526	5875	-336	-987
5	2246	0	0	0	0	0	0	50	10	10	0	70	2440	40	0	53	0	300	15	174	5338	1090	380	6808	6511	5865	-297	-943
<b>6</b>	<b>2246</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>10</b>	<b>10</b>	<b>0</b>	<b>70</b>	<b>2440</b>	<b>40</b>	<b>0</b>	<b>40</b>	<b>50</b>	<b>300</b>	<b>15</b>	<b>174</b>	<b>5375</b>	<b>440</b>	<b>380</b>	<b>6195</b>	<b>6824</b>	<b>6175</b>	<b>630</b>	<b>-20</b>
7	2246	40	0	45	0	0	0	50	10	10	0	155	2440	40	360	53	100	300	15	174	5883	445	380	6708	7387	6675	679	-33
8	2246	40	0	45	0	0	0	50	10	10	0	155	2440	40	480	53	200	300	15	174	6103	445	380	6928	7472	6765	544	-163
9	2246	40	0	45	0	0	0	50	0	10	0	145	2440	40	480	53	200	300	15	174	6093	445	380	6918	7536	6981	619	63
10	2246	40	0	45	0	0	0	0	0	10	0	95	2440	40	480	414	200	300	15	174	6404	445	380	7229	7745	7192	515	-37
11	2246	40	0	45	0	0	0	0	10	10	0	105	2440	40	600	414	250	300	15	174	6584	439	380	7403	7985	7256	582	-147
12	2246	40	0	45	0	0	0	0	0	10	0	95	2440	40	600	414	250	300	15	174	6574	439	380	7393	8043	7346	650	-47
13	2246	0	0	45	0	0	0	0	0	10	0	55	2440	40	480	414	200	300	15	174	6364	399	380	7143	7886	7190	742	47
14	2246	0	0	45	0	0	0	0	0	10	0	55	2440	40	360	414	150	300	15	174	6194	399	380	6973	7736	7035	763	62
15	2246	0	0	45	0	0	0	0	0	10	0	55	2440	40	360	276	150	300	15	174	6056	399	380	6835	7662	6960	827	125
16	2246	0	0	45	0	0	0	0	0	10	0	55	2440	40	360	53	150	300	15	174	5833	399	380	6612	7581	6880	969	268
17	2246	0	0	90	0	0	0	0	0	10	0	100	2440	40	360	53	200	300	15	174	5928	399	380	6707	7405	6832	697	125
18	2313	80	100	90	100	0	0	50	10	10	0	440	2440	40	360	53	200	300	15	174	6335	399	380	7114	7602	7027	488	-88
19	2313	80	100	90	315	20	40	50	10	10	40	755	2490	40	480	450	200	300	15	174	7218	332	380	7929	8331	7827	402	-102
20	2313	80	100	90	315	20	40	50	10	15	40	760	2490	40	720	530	30	300	15	174	7372	332	380	8084	8747	8242	663	158
<b>21</b>	<b>2313</b>	<b>80</b>	<b>100</b>	<b>90</b>	<b>315</b>	<b>20</b>	<b>40</b>	<b>50</b>	<b>10</b>	<b>15</b>	<b>40</b>	<b>760</b>	<b>2490</b>	<b>40</b>	<b>720</b>	<b>530</b>	<b>350</b>	<b>300</b>	<b>15</b>	<b>174</b>	<b>7692</b>	<b>332</b>	<b>380</b>	<b>8404</b>	<b>8913</b>	<b>8422</b>	<b>510</b>	<b>18</b>
22	2313	80	100	90	210	20	40	50	10	15	40	655	2490	40	600	530	250	300	15	174	7367	332	380	8079	8564	8072	486	-7
23	2246	80	100	90	210	20	20	50	10	10	0	590	2440	40	240	140	100	300	15	174	6285	963	380	7628	8134	7642	506	14
24	2246	80	100	90	105	20	20	50	10	10	0	485	2440	40	120	140	50	300	15	174	6010	963	380	7353	7670	7162	317	-191
MU	1681	25	23	42	49	6	6	25	5	8	5	193	1822	30	253	163	102	223	11	129	4607	441	283	5331	5675	5212	344	-119

Anticipated Hourly Average Availability MP : 2012-2013																												
Month : Feb 13																										Shortage(+) /Surplus(-)		
Hrs	Thermal	GS	PEN	BAR	TONS	BIR	RJGT	DEV	SIL	Zinha	MAD	Hydel	CSS	Suge	ISP	SSP	OSP	DVC	RMT	IPP	Total	Banking	MTP	Total	Unres Dem	Res Dem	wrt unres	wrt res
1	2246	80	50	80	105	0	0	50	10	10	0	385	2410	40	0	40	0	300	15	438	5873	662	380	6915	7364	6728	448	-187
2	2246	80	0	80	0	0	0	50	10	0	0	220	2410	40	0	40	0	300	15	438	5708	662	380	6750	7244	6608	494	-142
3	2246	80	0	80	0	0	0	50	10	0	0	220	2410	40	0	40	0	300	15	438	5708	662	380	6750	7054	6498	304	-252
4	2246	80	0	80	0	0	0	50	10	0	0	220	2410	40	0	40	0	300	15	438	5708	662	380	6750	7034	6475	284	-275
5	2246	80	0	80	0	0	0	0	10	0	0	170	2410	40	0	40	0	300	15	438	5658	652	380	6691	7174	6615	483	-76
6	2246	80	0	40	0	0	0	0	10	0	0	130	2410	40	110	40	50	300	15	438	5778	652	380	6811	7344	6785	533	-26
7	2246	40	0	40	0	0	0	0	10	0	0	90	2410	40	440	210	200	300	15	438	6388	212	380	6981	7564	6981	584	0
8	2246	0	0	40	0	0	0	0	0	0	0	40	2410	40	550	210	250	300	15	438	6498	212	380	7091	7534	6951	444	-140
9	2246	0	0	40	0	0	0	0	0	0	0	40	2410	40	550	315	250	300	15	438	6603	212	380	7196	7535	7099	339	-96
10	2246	0	0	40	0	0	0	0	0	0	0	40	2410	40	660	315	300	300	15	438	6763	212	380	7356	7615	7193	259	-163
11	2246	0	0	40	0	0	0	0	0	0	0	40	2410	40	440	315	200	300	15	438	6443	206	380	7030	7684	7114	655	85
12	2246	0	0	40	105	0	0	0	0	0	0	145	2410	40	440	315	200	300	15	438	6548	206	380	7135	7674	7104	540	-30
13	2246	0	0	40	105	0	0	0	0	0	0	145	2410	40	440	315	200	300	15	438	6548	194	380	7122	7682	7100	560	-22
14	2246	0	0	40	105	0	0	0	0	0	0	145	2410	40	440	315	200	300	15	438	6548	194	380	7122	7662	7080	540	-42
15	2246	0	0	40	210	0	0	0	0	0	0	250	2410	40	330	315	150	300	15	438	6493	194	380	7067	7702	7120	635	53
16	2246	0	0	40	315	0	0	0	0	0	0	355	2410	40	330	315	150	300	15	438	6598	194	380	7172	7692	7110	520	-62
17	2246	0	0	40	315	0	0	0	0	0	0	355	2410	40	330	315	150	300	15	438	6598	194	380	7172	7763	7299	591	126
18	2313	80	100	80	315	0	0	50	10	0	0	635	2410	40	330	315	150	300	15	438	6946	194	380	7520	7973	7509	454	-11
19	2313	80	100	80	315	0	40	50	10	10	40	725	2410	40	440	550	200	300	15	438	7431	198	380	8009	8513	8109	503	100
20	2313	80	100	80	315	0	40	50	10	15	40	730	2460	40	660	550	300	300	15	438	7806	198	380	8384	8823	8419	439	35
21	2313	80	100	80	315	0	40	50	10	15	40	730	2460	40	840	550	400	300	15	438	8086	198	380	8664	8983	8586	319	-78
22	2313	80	100	80	315	0	40	50	10	15	40	730	2460	40	840	550	400	300	15	438	8086	198	380	8664	8883	8486	218	-178
23	2246	80	100	80	315	0	20	50	10	10	0	665	2410	40	330	550	350	150	15	438	7193	563	380	8137	8452	8056	316	-80
24	2246	80	100	80	210	0	20	50	10	10	0	560	2410	40	330	210	350	150	15	438	6748	563	380	7692	8292	7889	600	197
MU	1519	30	21	40	94	0	6	15	4	2	4	217	1624	27	247	190	125	193	10	294	4445	232	255	4933	5243	4898	310	-35

Anticipated Hourly Average Availability MP : 2012-2013																												
Month : Mar 13																										Shortage(+) /Surplus(-)		
Hrs	Thermal	GS	PEN	BAR	TONS	BIR	RJGT	DEV	SIL	Zinha	MAD	Hydel	CSS	Suge	ISP	SSP	OSP	DVC	RMT	IPP	Total	Banking	MTP	Total	Unres Dem	Res Dem	wrt unres	wrt res
1	2246	40	0	80	0	0	0	0	10	0	0	130	2450	40	0	32	0	300	15	438	5650	662	380	6692	6851	6274	159	-418
2	2246	40	0	80	0	0	0	0	10	0	0	130	2450	40	0	32	0	300	15	438	5650	662	380	6692	6751	6174	59	-518
3	2246	0	0	80	0	0	0	0	10	0	0	90	2450	40	0	32	0	300	15	438	5610	662	380	6652	6567	6069	-85	-583
4	2246	0	0	80	0	0	0	0	10	0	0	90	2450	40	0	32	0	300	15	438	5610	662	380	6652	6547	6047	-105	-605
5	2246	0	0	80	0	0	0	0	10	0	0	90	2450	40	0	32	0	300	15	438	5610	652	380	6643	6407	5907	-236	-735
6	2246	0	0	40	0	0	0	0	10	0	0	50	2450	40	0	32	50	300	15	438	5620	652	380	6653	6497	5997	-156	-655
7	2246	0	0	40	105	0	0	0	10	0	0	155	2450	40	105	32	50	300	15	438	5830	212	380	6422	6612	6081	189	-342
8	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	105	32	100	300	15	438	5870	212	380	6462	6582	6051	119	-412
9	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	105	32	150	300	15	438	5920	212	380	6512	6622	6233	109	-279
10	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	105	32	150	300	15	438	5920	212	380	6512	6702	6318	189	-194
11	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	105	32	150	300	15	438	5920	206	380	6506	6732	6206	225	-301
12	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	105	32	150	300	15	438	5920	206	380	6506	6722	6196	215	-311
13	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	105	32	50	300	15	438	5820	194	380	6394	6566	6058	172	-336
14	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	105	32	50	300	15	438	5820	194	380	6394	6546	6038	152	-356
15	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	210	32	100	300	15	438	5975	194	380	6549	6636	6128	87	-421
16	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	210	32	100	300	15	438	5975	194	380	6549	6626	6118	77	-431
17	2246	0	0	40	105	0	0	0	0	0	0	145	2450	40	210	32	100	300	15	438	5975	194	380	6549	6611	6218	62	-331
18	2313	80	100	80	105	0	0	0	10	0	0	375	2450	40	210	32	50	300	15	438	6223	194	380	6796	6811	6387	15	-409
19	2313	80	100	80	315	0	40	0	10	0	0	625	2500	40	315	394	150	300	15	438	7090	198	380	7668	7577	7224	-91	-444
20	2313	80	50	80	315	0	40	0	10	0	25	600	2500	40	420	450	200	300	15	438	7276	198	380	7854	7997	7644	143	-211
21	2313	80	50	80	315	0	40	0	10	0	25	600	2500	40	630	450	300	300	15	438	7586	198	380	8164	8104	7764	-60	-401
22	2313	80	50	80	315	0	40	0	10	0	25	600	2500	40	630	450	300	300	15	438	7586	198	380	8164	7837	7494	-327	-671
23	2246	80	50	80	315	0	0	0	10	0	25	560	2500	40	105	30	50	300	15	438	6283	563	380	7227	7397	7054	170	-173
24	2246	80	50	80	210	0	0	0	10	0	0	430	2500	40	105	35	50	300	15	438	6158	563	380	7102	7087	6734	-15	-368
MU	16814	20	14	45	94	0	5	0	4	0	3	185	1832	30	120	74	71	223	11	326	4554	257	283	5094	5127	4787	33	-307

**Proposed shut down of transmission elements during 01-01-13 to 28-02-13**

S.No	Name of Sub station	Details of Transmission Element	Date of Maintenance	Time	Remark
1	Nagda 400	315 MVA Transformer-I	03-Jan-13	08:00hrs-17:00hrs	Post Mansoon Maintenance
2	Nagda 400	315 MVA Transformer-I	04-Jan-13	08:00hrs-17:00hrs	Post Mansoon Maintenance
3	Nagda 400	400KV Nagda – Rajgarh - I 50MVAR Reactor	10-Jan-13	08:00hrs-17:00hrs	Routine Maintainanace
4	Nagda 400	400KV Nagda – Rajgarh - I Main Bay	18-Jan-13	08:00hrs-17:00hrs	Routine Maintainanace
5	Indore 400	220 KV Barnagar Feeder	10.01.2013	09.00hr-17.00hr	LA replacement work
6	Indore 400	3x105 MVA 400/220 KV Xmer I	18-Feb-13	07.00hr-17.00hr	Maintenance & Relay testing
7	Indore 400	3x105 MVA 400/220 KV Xmer I	19-Feb-13	07.00hr-17.00hr	Maintenance & Relay testing
8	Indore 400	3x105 MVA 400/220 KV Xmer II	21-Feb-13	07.00hr-17.00hr	Maintenance & Relay testing
9	Indore 400	3x105 MVA 400/220 KV Xmer II	22-Feb-13	07.00hr-17.00hr	Maintenance & Relay testing
10	Indore 400	3x105 MVA 400/220 KV Xmer III	25-Feb-13	07.00hr-17.00hr	Maintenance & Relay testing
11	Indore 400	3x105 MVA 400/220 KV Xmer III	26-Feb-13	07.00hr-17.00hr	Maintenance & Relay testing
12	Indore 400	3x105 MVA 400/220 KV Xmer IV	27-Feb-13	07.00hr-17.00hr	Maintenance & Relay testing
13	Indore 400	3x105 MVA 400/220 KV Xmer IV	28-Feb-13	07.00hr-17.00hr	Maintenance & Relay testing

<b>Unitwise / Stationwise Generation in MU</b>					
<b>A. Thermal</b>					<b>Ann 4.1</b>
Stn. Name	UNIT No.	Capacity MW	Sep-12	Oct-12	Nov-12
<b>AMARKANTAK</b>	3	120	56.701	42.30	56.77
	4	120	58.77	56.69	57.99
	<b>PH II</b>	<b>240</b>	<b>115.47</b>	<b>98.99</b>	<b>114.76</b>
	<b>PH III</b>	<b>210</b>	<b>130.60</b>	<b>146.25</b>	<b>145.66</b>
	<b>TOT</b>	<b>450</b>	<b>246.07</b>	<b>245.23</b>	<b>260.42</b>
<b>SATPURA</b>	1	62.5	23.78	31.27	27.59
	2	62.5	30.13	30.24	27.03
	3	62.5	17.72	0.00	0.00
	4	62.5	22.20	24.30	23.93
	5	62.5	1.37	24.25	26.00
	<b>PH I</b>	<b>312.5</b>	<b>95.19</b>	<b>110.06</b>	<b>104.55</b>
	6	200	99.62	107.57	87.76
	7	210	0.00	1.37	92.12
	<b>PH II</b>	<b>410</b>	<b>99.615</b>	<b>108.94</b>	<b>179.88</b>
	8	210	102.21	109.52	99.62
	9	210	11.83	107.54	100.91
	<b>PH III</b>	<b>420</b>	<b>114.04</b>	<b>217.05</b>	<b>200.53</b>
	<b>TOT</b>	<b>1142.5</b>	<b>308.85</b>	<b>436.04</b>	<b>484.96</b>
<b>SANJAY GANDHI</b>	1	210	48.76378	88.54	101.20
	2	210	107.45	107.18	107.44
	<b>PH I</b>	<b>420</b>	<b>156.22</b>	<b>195.72</b>	<b>208.64</b>
	3	210	107.03	99.63	90.93
	4	210	116.97	114.97	116.60
	<b>PH II</b>	<b>420</b>	<b>224.00</b>	<b>214.59</b>	<b>207.53</b>
	<b>PH III</b>	<b>500</b>	<b>148.65</b>	<b>340.02</b>	<b>278.01</b>
	<b>TOT</b>	<b>1340</b>	<b>528.86</b>	<b>750.34</b>	<b>694.18</b>
<b>MPPGCL THERMAL</b>		<b>2932.5</b>	<b>1083.78</b>	<b>1431.61</b>	<b>1439.55</b>
AMARKANTAK POWER HOUSE-I RETIRED FROM SERVICE WEF 01.04.2009					
<b>B. Hydel</b>					
Station Name		Capacity MW	Sep-12	Oct-12	Nov-12
GANDHISAGAR		115.0	12.16	8.08	25.73
R.P.SAGAR		172.0	3.99	28.20	76.56
J.SAGAR		99.0	14.29	19.00	49.89
CHAMBAL		386.0	30.43	55.28	152.19
M.P.CHAMBAL		193.0	15.22	27.64	76.09
PENCH		160.0	74.66	74.34	49.85
M.P.PENCH		107.0	49.78	49.56	33.23
BARGI		90.0	57.65	45.16	38.21
TONS		315.0	150.53	168.79	145.57
BIRSINGHPUR		20.0	7.91	0.94	0.10
B.SGR(DEOLONDH)		60.0	40.96	27.80	8.45
B.SGR(SILPARA)		30.0	5.19	15.74	16.06
RAJGHAT		45.0	16.59	5.95	16.09
M.P.RAJGHAT		22.5	8.29	2.98	8.04
B.SGR(JINHA)		20.0	7.11	14.60	14.92
MADIKHEDA		60.0	31.73	8.42	11.15
TOTAL HYDEL		1186.0	422.76	417.0	452.6
MPPGCL Hydel		915.0	404.48	369.8	326.1
MPSEB HYDEL Share		917.5	374.36	361.6	351.8
<b>C. NHDC (Ex-Bus)</b>					
Station Name		Capacity MW	Sep-12	Oct-12	Nov-12
Indira Sagar Hydel Project		1000	515.432	293.733	272.113
Omkareshwar Hydel Project		520	198.579	117.584	110.153

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

Ann 4.2

S.No.	Particulars	Sep-12	Oct-12	Nov-12
1	MPSEB Thermal Availability	940.09	1251.74	1267.45
2	MPSEB Hydel Availability	371.12	358.20	348.51
3	Indira Sagar	514.93	291.31	272.00
4	Omkareshwar	198.58	117.58	110.15
5	Schedule / Drawal From Central Sector	1300.06	1613.60	1703.49
6	Schedule of DVC	143.68	277.69	265.10
7	Schedule of Sujen	29.45	26.28	22.56
8	Sardar Sarovar	503.97	199.05	141.38
9	Additional Power Purchase	0.00	192.81	420.08
10	Sale of Power	-350.07	-102.96	0.00
11	Banking of Power	-521.09	10.06	274.55
12	Energy Exchange	0.00	0.00	0.00
13	Unschedule Interchange	-24.75	15.09	115.99
14	Other Imp / Exp	128.27	92.32	139.36
15	<b>Total MPSEB Supply excl. Aux. Cons.</b>	<b>3234.24</b>	<b>4342.77</b>	<b>5080.62</b>
16	Average Supply per Day	107.81	140.09	169.35
17	Maximum Daily M.P. Supply	120.68	158.46	175.56
18	Minimum Daily M.P. Supply	92.31	114.29	159.32
19	Registered Demand : MW	6768	8829	9484
24	Unrestricted Demand : MW	6742	8955	9854

**Hourly Average Own Generation, Schedule Drawal , Actual Drawal & Demand**  
**Month :- September 2012**

Ann 4.3(i)

FIGURES IN MW

Hrs.	FREQ.	Own Generation										Schedule from										Tot Avl.	Act. Dri	UI	Intra State STOA	DEMAND MET	Load Shedding			REST. DEMAND	UNRES. T. DEMAND	
		Ther. Incl Aux	Ther. Excl Aux	HYD.	ISP	OSP	BLA Power	JP BINA IPP	Injection from STOA	Total	CSS	DVC ER	Suge n	SSP	SEZ	Banking	Sale	Pur	Exchange	STOA	Internd+Matat						Total	SCH	UNSCH			TOTAL
1:00	50.06	1503	1368	576	866	333	11	21	-32	3142	1647	166	45	715	9	-729	-285	0	0	32	18	1619	4729	1692	74	3	4838	0	24	24	4853	4853
2:00	50.10	1502	1367	553	823	318	11	21	-32	3061	1662	164	50	708	9	-719	-278	0	0	32	18	1647	4677	1694	47	3	4758	0	24	24	4769	4769
3:00	50.14	1478	1345	511	775	305	11	21	-36	2932	1665	164	50	708	9	-719	-247	0	0	36	18	1684	4584	1755	71	3	4690	0	15	15	4687	4687
4:00	50.16	1466	1334	496	741	299	11	21	-39	2863	1660	164	50	705	9	-719	-232	0	0	39	18	1695	4527	1765	71	3	4632	0	6	6	4616	4616
5:00	50.04	1463	1332	489	719	285	10	21	-39	2816	1666	163	50	695	9	-719	-238	0	0	39	18	1684	4469	1719	35	3	4539	0	4	4	4537	4537
6:00	50.14	1489	1355	497	700	288	10	21	-38	2833	1673	163	50	699	9	-712	-251	0	0	38	18	1688	4489	1554	-134	3	4390	0	4	4	4376	4376
7:00	50.14	1484	1350	434	563	237	10	21	-43	2573	1658	164	50	699	9	-677	-382	0	0	43	18	1583	4125	1330	-253	3	3907	0	0	0	3891	3891
8:00	50.16	1477	1344	412	510	215	10	16	-42	2466	1656	165	50	701	9	-687	-486	0	0	42	18	1469	3908	1321	-148	3	3790	0	0	0	3772	3772
9:00	50.13	1487	1353	443	539	220	10	16	-42	2539	1655	165	50	700	9	-687	-548	0	0	42	18	1405	3918	1292	-113	3	3834	0	0	0	3819	3819
10:00	50.05	1484	1351	472	588	242	10	16	-39	2639	1646	165	45	700	9	-713	-769	0	0	39	18	1140	3754	1114	-27	3	3756	1	0	1	3750	3751
11:00	50.04	1471	1338	513	667	261	10	16	-36	2770	1653	168	45	701	9	-720	-844	0	0	36	18	1067	3811	1099	33	3	3873	0	0	0	3868	3868
12:00	50.10	1471	1338	529	697	272	10	11	-35	2821	1660	168	45	706	9	-717	-875	0	0	35	18	1050	3850	1014	-36	3	3838	0	0	0	3827	3828
13:00	50.19	1483	1350	499	681	274	10	5	-37	2782	1662	172	45	706	9	-770	-810	0	0	37	18	1069	3835	1058	-11	3	3843	1	0	1	3822	3823
14:00	50.08	1484	1351	479	658	258	9	5	-37	2724	1660	172	45	700	9	-770	-786	0	0	37	18	1084	3793	1094	10	3	3821	1	0	1	3813	3814
15:00	50.08	1493	1359	501	653	256	10	11	-37	2753	1663	172	45	703	9	-782	-779	0	0	37	18	1087	3820	1145	58	3	3902	0	0	0	3892	3892
16:00	50.10	1488	1354	503	648	255	10	16	-38	2749	1659	172	50	703	9	-782	-768	0	0	38	18	1101	3824	1090	-11	3	3842	0	0	0	3831	3831
17:00	50.13	1500	1365	446	584	232	10	16	-43	2609	1663	171	50	706	9	-787	-685	0	0	43	18	1189	3772	1083	-106	3	3695	0	0	0	3681	3681
18:00	50.09	1504	1369	441	586	231	10	16	-41	2611	1815	166	50	707	10	-787	-662	0	0	41	18	1358	3942	1348	-10	3	3962	0	0	0	3951	3951
19:00	49.87	1539	1400	631	738	286	10	16	-26	3054	1952	160	50	707	10	-685	-405	0	0	26	18	1832	4860	2087	254	3	5144	1	0	1	5163	5163
20:00	50.02	1568	1427	690	914	329	10	16	5	3391	1990	293	50	715	10	-696	-270	0	0	-5	18	2105	5470	2180	75	3	5575	34	4	38	5575	5609
21:00	50.04	1580	1438	701	923	339	10	16	1	3428	2002	307	50	715	10	-696	-217	0	0	-1	18	2189	5591	2226	36	3	5657	0	40	40	5689	5689
22:00	49.98	1572	1431	676	919	335	10	16	-8	3379	2010	307	45	715	10	-694	-223	0	0	8	18	2197	5551	2104	-94	3	5487	0	35	35	5524	5524
23:00	50.03	1540	1401	631	888	330	10	16	-10	3266	2025	310	45	715	10	-694	-323	0	0	10	18	2116	5356	1975	-141	3	5244	0	40	40	5279	5279
24:00	50.14	1531	1393	581	885	327	10	16	-26	3186	1852	267	45	715	9	-693	-357	0	0	26	18	1883	5043	1819	-64	3	5008	0	33	33	5021	5021
Avg.	50.08	1502	1367	529	719	280	10	16	-31	2891	1744	194	48	706	9	-723	-488	0	0	31	18	1521	4404	1523	-16	3	4418	2	9	11	4417	4419
00 TO 06 HRS.	50.11	1484	1350	520	771	305	11	21	-36	2941	1662	164	49	705	9	-720	-255	0	0	36	18	1669	4579	1697	27	3	4641	0	13	13	4640	4640
06 TO 12 HRS.	50.10	1479	1346	467	594	241	10	16	-39	2635	1655	166	47	701	9	-700	-651	0	0	39	18	1286	3894	1195	-91	3	3833	0	0	0	3821	3821
12 TO 18 HRS.	50.11	1492	1358	478	635	251	10	11	-39	2705	1687	171	47	704	9	-780	-748	0	0	39	18	1148	3831	1136	-12	3	3844	0	0	0	3832	3832
06 TO 18 HRS.	50.11	1486	1352	473	615	246	10	14	-39	2670	1671	168	47	703	9	-740	-699	0	0	39	18	1217	3863	1166	-51	3	3839	0	0	0	3826	3827
18 TO 24 HRS.	50.01	1555	1415	652	878	324	10	16	-11	3284	1972	274	47	714	10	-693	-299	0	0	11	18	2054	5312	2065	11	3	5352	6	25	31	5375	5381



**Hourly Average Own Generation, Schedule Drawal , Actual Drawal & Demand**  
**Month :- October 2012**

Ann 4.3(ii)

**FIGURES IN MW**

Hrs.	FREQ.	Own Generation										Schedule from													Tot Avl.	Act. Dri	UI	Intra State STOA	DEMAND MET	Load Shedding			REST. DEMAND	UNRES. DEMAND
		Ther. Incl Aux	Ther. Excl Aux	HYD.	ISP	OSP	BLA Power	JP BINA IPP	Injection from STOA	Total	CSS	DVC ER	Suge n	SSP	SEZ	Banking	Sale	Pur	Exchange	STOA	Internd+Matat	Total	SCH	UNSCH						TOTAL				
1:00	49.99	1907	1736	526	750	276	9	15	11	3323	2056	372	34	169	10	52	-78	303	0	-11	20	2927	6226	3033	106	1	6357	258	22	280	6381	6639		
2:00	49.99	1904	1733	512	691	265	9	15	10	3235	2066	371	34	169	10	52	-78	300	0	-10	20	2935	6145	3006	71	1	6242	252	21	273	6263	6515		
3:00	50.07	1902	1731	498	654	250	9	15	8	3165	2070	371	34	169	10	52	-79	308	0	-8	20	2948	6089	3028	80	1	6194	229	20	249	6199	6429		
4:00	50.04	1898	1727	509	593	225	10	15	6	3085	2072	371	34	169	10	52	-56	317	0	-6	20	2985	6045	3088	103	1	6175	170	29	200	6195	6366		
5:00	49.99	1893	1723	519	510	194	10	15	-2	2969	2072	370	34	169	10	52	-46	307	0	2	20	2991	5935	3151	160	1	6121	131	56	188	6179	6310		
6:00	50.06	1895	1725	530	440	180	10	15	1	2900	2066	371	34	169	10	52	-46	311	0	-1	20	2988	5864	3106	118	1	6007	138	63	201	6058	6196		
7:00	49.97	1901	1730	483	230	108	10	15	8	2583	2067	371	34	163	10	-21	-60	264	0	-8	20	2840	5398	2841	2	1	5426	491	21	512	5452	5943		
8:00	50.06	1896	1725	441	163	90	10	15	10	2453	2064	370	34	163	10	-21	-83	213	0	-10	20	2760	5189	2791	31	1	5246	514	22	536	5259	5773		
9:00	50.08	1899	1728	415	155	82	10	15	13	2418	2067	370	34	163	10	-21	-113	199	0	-13	20	2715	5109	2635	-80	1	5055	512	51	564	5094	5606		
10:00	50.05	1896	1725	282	48	39	10	15	20	2138	2068	367	34	231	10	-21	-288	198	0	-20	20	2599	4712	2510	-89	1	4649	714	8	722	4650	5364		
11:00	49.97	1896	1726	314	44	37	10	15	19	2165	2061	365	34	258	10	-21	-298	205	0	-19	20	2616	4756	2753	138	1	4919	689	112	801	5036	5725		
12:00	50.05	1883	1714	356	52	23	10	15	20	2190	2044	364	34	272	10	-21	-279	204	0	-20	20	2628	4793	2627	0	1	4819	726	149	875	4961	5687		
13:00	50.09	1891	1721	340	56	18	10	15	21	2182	2041	361	34	278	10	-21	-206	204	0	-21	20	2701	4859	2798	96	1	4981	755	99	855	5068	5823		
14:00	50.04	1908	1736	329	56	20	10	15	18	2185	2043	338	34	272	10	-21	-188	222	0	-18	20	2712	4872	2803	91	1	4989	726	90	816	5073	5799		
15:00	49.99	1901	1730	331	52	20	10	16	17	2176	2046	342	34	194	10	-21	-209	225	0	-17	20	2624	4775	2700	75	1	4876	788	55	843	4932	5720		
16:00	50.01	1905	1734	315	44	18	10	14	20	2155	2064	340	34	170	10	-21	-228	221	0	-20	20	2590	4721	2601	11	1	4757	768	41	809	4795	5564		
17:00	50.08	1895	1725	274	67	23	10	14	18	2132	2173	341	34	170	10	-21	-252	204	0	-18	20	2662	4769	2533	-129	1	4666	647	29	676	4683	5330		
18:00	50.10	1931	1757	391	330	116	10	14	22	2639	2202	336	34	170	11	-21	-214	222	0	-22	20	2739	5354	2663	-76	1	5303	572	16	587	5302	5874		
19:00	50.14	1965	1788	650	736	285	10	17	22	3508	2197	369	34	467	10	33	-72	288	0	-22	20	3325	6805	3511	186	1	7020	331	88	419	7076	7406		
20:00	50.09	1969	1792	684	825	322	9	17	21	3670	2200	366	34	651	10	36	-96	268	0	-21	20	3469	7113	3570	101	1	7241	322	89	411	7310	7631		
21:00	50.10	1978	1800	683	825	325	9	17	18	3678	2202	366	34	651	10	36	-79	303	0	-18	20	3525	7177	3584	59	1	7263	308	99	407	7340	7648		
22:00	50.10	1968	1791	602	806	316	9	16	20	3560	2201	366	34	631	10	36	-82	303	0	-20	20	3501	7035	3526	25	1	7087	334	55	388	7119	7453		
23:00	50.04	1929	1756	604	820	312	9	16	12	3529	2100	366	34	250	10	68	-130	306	0	-12	20	3012	6516	3225	213	1	6755	345	70	415	6817	7162		
24:00	50.07	1922	1749	554	781	297	9	16	9	3416	2076	366	34	165	10	52	-119	322	0	-9	20	2917	6308	2972	55	1	6389	388	62	450	6438	6826		
Avg.	50.05	1914	1742	464	405	160	10	15	14	2811	2097	362	34	264	10	14	-141	259	0	-14	20	2884	5690	2961	56	1	5772	463	57	520	5820	6283		
00 TO 06 HRS.	50.02	1900	1729	516	606	232	10	15	6	3113	2067	371	34	169	10	52	-64	308	0	-6	20	2962	6051	3069	106	1	6183	196	35	232	6213	6409		
06 TO 12 HRS.	50.03	1895	1725	382	115	63	10	15	15	2325	2062	368	34	208	10	-21	-187	214	0	-15	20	2693	4993	2693	0	1	5019	608	61	668	5075	5683		
12 TO 18 HRS.	50.05	1905	1734	330	101	36	10	15	19	2245	2095	343	34	209	10	-21	-216	216	0	-19	20	2671	4892	2683	11	1	4929	709	55	765	4976	5685		
06 TO 18 HRS.	50.04	1900	1729	356	108	50	10	15	17	2285	2078	355	34	209	10	-21	-202	215	0	-17	20	2682	4942	2688	6	1	4974	659	58	716	5026	5684		
18 TO 24 HRS.	50.09	1955	1779	630	799	310	9	16	17	3560	2163	366	34	469	10	44	-96	298	0	-17	20	3292	6826	3398	106	1	6959	338	77	415	7017	7354		

**Hourly Average Own Generation, Schedule Drawal , Actual Drawal & Demand**  
**Month :- November 2012**

**Ann 4.3(iii)**

**FIGURES IN MW**

Hrs.	FREQ.	Own Generation										Schedule from													Tot Avl.	Act. Dri	UI	Intra State STOA	DEMAND MET	Load Shedding			REST. DEMAND	UNRES. T. DEMAND
		Ther. Incl. Aux	Ther. Excl. Aux	HYD.	ISP	OSP	BLA Power	JP BINA IPP	Injection from STOA	Total	CSS	DVCE	Suge	SSP	SEZ	Banking	Sale	Pur	Exchange	STOA	Inter and Mat	Total	SCH	UNSCH						TOTAL				
1:00	50.04	1986	1807	335	198	83	14	103	20	2558	2257	356	30	92	12	899	0	739	0	-20	14	4381	6823	4603	222	1	7162	593	102	695	7257	7850		
2:00	50.10	1977	1799	302	169	64	14	103	9	2459	2257	354	30	92	12	899	0	751	0	-9	14	4401	6743	4614	213	1	7075	593	92	685	7147	7740		
3:00	50.17	1974	1796	277	134	61	14	103	-1	2384	2250	354	30	92	12	899	0	763	0	1	14	4417	6684	4581	165	1	6966	576	85	661	7016	7592		
4:00	50.08	1978	1800	257	128	55	14	103	-15	2342	2253	349	30	92	12	899	0	790	0	15	14	4455	6680	4575	120	1	6919	559	36	595	6938	7497		
5:00	50.05	1985	1806	271	185	69	14	103	-14	2434	2253	350	30	92	12	900	0	793	0	14	14	4458	6775	4562	104	1	6997	559	24	583	7010	7569		
6:00	50.02	1945	1770	339	271	102	14	103	2	2602	2246	350	30	92	12	799	0	630	0	-2	14	4171	6655	4314	143	19	6934	585	178	763	7108	7693		
7:00	50.00	1949	1774	375	294	123	14	103	-4	2679	2256	350	30	99	12	127	0	544	0	4	14	3436	5997	3596	161	19	6294	1399	119	1518	6413	7812		
8:00	50.04	1968	1791	405	300	123	14	104	8	2746	2255	350	30	99	12	127	0	393	0	-8	14	3272	5900	3424	152	19	6190	1460	156	1616	6338	7798		
9:00	50.07	1978	1800	424	294	124	14	104	19	2778	2248	353	30	99	12	127	0	359	0	-19	14	3223	5883	3226	3	19	6023	1451	241	1692	6251	7702		
10:00	50.07	1980	1802	377	331	136	14	104	28	2792	2240	368	30	136	11	127	0	371	0	-28	14	3270	5944	3487	218	19	6299	1533	142	1675	6428	7961		
11:00	50.00	1969	1792	434	421	180	14	105	28	2973	2234	367	30	153	11	127	0	478	0	-28	14	3387	6241	3660	273	1	6635	1093	478	1571	7114	8206		
12:00	50.11	1962	1786	430	434	179	14	99	28	2970	2233	366	30	170	11	127	0	426	0	-28	14	3351	6207	3357	6	1	6327	1143	569	1712	6876	8019		
13:00	50.16	1963	1786	420	428	176	14	96	28	2948	2230	348	30	167	11	115	0	449	0	-28	14	3337	6175	3656	319	1	6605	1036	492	1528	7065	8102		
14:00	50.09	1956	1780	401	426	176	14	101	19	2916	2229	348	30	170	11	115	0	531	0	-19	14	3430	6231	3638	207	1	6554	1019	529	1548	7065	8084		
15:00	50.07	1952	1776	368	399	169	14	101	15	2843	2233	348	30	160	11	115	0	495	0	-15	14	3392	6121	3565	172	1	6409	1185	205	1390	6601	7786		
16:00	50.04	1952	1776	348	288	118	14	99	14	2657	2258	348	30	137	11	115	0	548	0	-14	14	3448	5992	3610	162	1	6268	1167	337	1504	6597	7764		
17:00	50.10	1960	1783	310	258	104	14	97	25	2592	2351	348	30	133	11	115	0	519	0	-25	14	3497	5978	3691	194	1	6285	1142	199	1341	6464	7607		
18:00	50.23	2021	1839	566	464	181	14	97	36	3197	2366	353	30	133	11	115	0	652	0	-36	14	3638	6724	3754	115	1	6952	929	203	1132	7107	8037		
19:00	50.12	2079	1892	709	741	294	14	99	33	3782	2333	369	30	452	11	143	0	718	0	-33	14	4039	7707	4283	244	1	8066	903	309	1212	8345	9247		
20:00	50.11	2088	1900	722	770	302	14	98	30	3835	2348	369	30	534	12	143	0	684	0	-30	14	4104	7828	4378	274	4	8218	906	307	1213	8498	9404		
21:00	50.23	2093	1905	697	769	304	14	100	12	3800	2347	370	30	534	12	212	0	682	0	-12	14	4190	7877	4243	53	4	8048	805	280	1085	8272	9077		
22:00	50.23	2085	1898	657	744	292	14	95	10	3709	2352	364	30	497	12	212	0	677	0	-10	14	4148	7748	4355	206	3	8066	769	146	915	8157	8926		
23:00	50.20	1993	1814	595	593	235	14	99	21	3369	2280	353	30	242	11	796	0	449	0	-21	14	4155	7412	4305	150	19	7693	772	85	856	7732	8503		
24:00	50.13	1989	1810	410	353	149	14	101	5	2842	2256	352	30	106	11	896	0	536	0	-5	14	4197	6925	4254	56	19	7115	828	40	868	7126	7955		
Avg.	50.10	1991	1812	435	391	158	14	101	15	2925	2274	356	30	191	11	381	0	582	0	-15	14	3810	6635	3989	164	7	6921	959	223	1182	7122	8080		
00 TO 06 HRS.	50.08	1974	1796	297	181	72	14	103	0	2463	2253	352	30	92	12	883	0	745	0	0	14	4380	6727	4542	161	4	7009	578	86	664	7079	7657		
06 TO 12 HRS.	50.05	1968	1791	408	346	144	14	103	18	2823	2244	359	30	126	11	127	0	428	0	-18	14	3323	6029	3459	136	13	6295	1346	284	1631	6570	7916		
12 TO 18 HRS.	50.11	1967	1790	402	377	154	14	98	23	2859	2278	349	30	150	11	115	0	532	0	-23	14	3457	6203	3652	195	1	6512	1080	327	1407	6817	7896		
06 TO 18 HRS.	50.08	1968	1790	405	361	149	14	101	20	2841	2261	354	30	138	11	121	0	480	0	-20	14	3390	6116	3555	165	7	6403	1213	306	1519	6693	7906		
18 TO 24 HRS.	50.17	2055	1870	632	661	263	14	98	18	3556	2319	363	30	394	12	400	0	624	0	-18	14	4139	7583	4303	164	8	7868	830	195	1025	8022	8852		

**Hourly Average Schedule Drawal , Actual Drawal &Over(+)/Under(-) Drawal**  
**Month :- September 2012**

FIGURES IN MW

Hrs.	FREQ.	EZONE							CZONE							WZONE						
		SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand
1:00	50.06	1461	1686	225	0	19	1702	1702	1451	1576	125	0	3	1575	1575	1915	1577	-338	0	2	1576	1576
2:00	50.10	1445	1658	213	0	20	1673	1673	1433	1546	113	0	3	1544	1544	1880	1554	-326	0	1	1551	1551
3:00	50.14	1424	1645	222	0	11	1650	1650	1405	1521	116	0	3	1518	1518	1839	1524	-316	0	1	1519	1519
4:00	50.16	1413	1601	188	0	3	1596	1596	1390	1516	125	0	3	1511	1511	1816	1516	-301	0	0	1509	1509
5:00	50.04	1396	1498	101	0	4	1500	1500	1371	1508	137	0	0	1506	1506	1786	1533	-253	0	0	1532	1532
6:00	50.14	1400	1285	-116	0	3	1282	1282	1377	1527	150	0	0	1521	1521	1787	1578	-209	0	1	1573	1573
7:00	50.14	1303	1036	-267	0	0	1032	1032	1273	1454	181	0	0	1448	1448	1619	1417	-202	0	0	1411	1411
8:00	50.16	1244	1004	-240	0	0	999	999	1208	1393	186	0	0	1387	1387	1526	1393	-134	0	0	1386	1386
9:00	50.13	1238	1064	-174	0	0	1059	1059	1204	1319	115	0	0	1313	1313	1527	1452	-75	0	0	1446	1446
10:00	50.05	1181	1103	-79	1	0	1101	1102	1145	1249	103	0	0	1247	1247	1474	1405	-69	0	0	1403	1403
11:00	50.04	1193	1251	58	0	0	1249	1250	1158	1236	78	0	0	1234	1234	1517	1386	-132	0	0	1384	1384
12:00	50.10	1203	1298	95	0	0	1295	1295	1166	1232	66	0	0	1228	1228	1541	1308	-232	0	0	1305	1305
13:00	50.19	1205	1389	184	1	0	1382	1383	1167	1264	97	0	0	1257	1257	1534	1190	-344	0	0	1184	1184
14:00	50.08	1198	1356	158	1	0	1353	1354	1157	1261	104	0	0	1259	1259	1516	1204	-311	0	0	1202	1202
15:00	50.08	1204	1313	109	0	0	1310	1310	1166	1261	94	0	0	1258	1258	1525	1328	-197	0	0	1325	1325
16:00	50.10	1204	1256	52	0	0	1252	1252	1166	1258	92	0	0	1254	1254	1523	1329	-194	0	0	1325	1325
17:00	50.13	1199	1096	-103	0	0	1092	1092	1159	1253	94	0	0	1248	1248	1494	1347	-147	0	0	1342	1342
18:00	50.09	1255	1101	-155	0	0	1098	1098	1205	1352	147	0	0	1348	1348	1550	1510	-40	0	0	1506	1506
19:00	49.87	1507	1516	9	1	0	1522	1522	1475	1741	266	0	0	1748	1748	1906	1886	-20	0	0	1893	1893
20:00	50.02	1678	1804	126	22	0	1803	1825	1651	1813	162	13	0	1812	1824	2160	1957	-202	0	4	1960	1960
21:00	50.04	1717	1933	216	0	25	1956	1956	1690	1798	108	0	12	1808	1808	2212	1926	-286	0	2	1926	1926
22:00	49.98	1709	1883	174	0	21	1905	1905	1680	1742	62	0	13	1756	1756	2199	1862	-336	0	0	1863	1863
23:00	50.03	1657	1802	145	0	23	1824	1824	1616	1679	63	0	13	1691	1691	2122	1763	-359	0	3	1765	1765
24:00	50.14	1561	1744	182	0	21	1758	1758	1533	1619	86	0	10	1622	1622	2019	1646	-373	0	2	1641	1641
<b>Avg.</b>	<b>50.08</b>	<b>1375</b>	<b>1430</b>	<b>55</b>	<b>1</b>	<b>6</b>	<b>1433</b>	<b>1434</b>	<b>1344</b>	<b>1463</b>	<b>120</b>	<b>1</b>	<b>2</b>	<b>1462</b>	<b>1463</b>	<b>1749</b>	<b>1525</b>	<b>-225</b>	<b>0</b>	<b>1</b>	<b>1522</b>	<b>1522</b>
<b>00 TO 06 HRS.</b>	50.11	1423	1562	139	0	10	1567	1567	1405	1532	128	0	2	1529	1529	1837	1547	-290	0	1	1543	1543
<b>06 TO 12 HRS.</b>	50.10	1227	1126	-101	0	0	1122	1123	1192	1314	121	0	0	1310	1310	1534	1393	-141	0	0	1389	1389
<b>12 TO 18 HRS.</b>	50.11	1211	1252	41	0	0	1248	1248	1170	1275	105	0	0	1270	1270	1523	1318	-205	0	0	1314	1314
<b>06 TO 18 HRS.</b>	50.11	1219	1189	-30	0	0	1185	1185	1181	1294	113	0	0	1290	1290	1529	1356	-173	0	0	1351	1351
<b>18 TO 24 HRS.</b>	50.01	1638	1780	142	4	15	1794	1798	1607	1732	125	2	8	1739	1741	2103	1840	-263	0	2	1841	1841

**Hourly Average Schedule Drawal , Actual Drawal &Over(+)/Under(-) Drawal**  
**Month :- October 2012**

FIGURES IN MW

Hrs.	FREQ.	EZONE							CZONE							WZONE						
		SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand
1:00	49.99	1917	1879	-38	55	0	1879	1934	1961	1861	-100	67	1	1863	1930	2369	2617	248	136	21	2639	2775
2:00	49.99	1898	1845	-53	50	0	1845	1895	1940	1827	-113	65	0	1827	1892	2328	2570	243	136	21	2591	2728
3:00	50.07	1888	1849	-39	38	0	1845	1883	1927	1797	-130	55	0	1793	1847	2303	2548	246	136	20	2562	2698
4:00	50.04	1879	1787	-92	41	0	1785	1826	1919	1763	-157	57	3	1763	1820	2276	2625	348	72	26	2647	2719
5:00	49.99	1857	1725	-132	3	4	1730	1733	1895	1769	-125	57	5	1775	1832	2224	2626	402	72	46	2673	2745
6:00	50.06	1841	1568	-272	3	8	1574	1576	1878	1827	-52	63	6	1829	1892	2186	2612	426	72	48	2656	2728
7:00	49.97	1717	1227	-490	75	0	1228	1303	1747	1742	-5	177	0	1743	1920	1965	2457	492	240	21	2480	2720
8:00	50.06	1662	1178	-484	81	0	1176	1256	1686	1576	-110	194	0	1573	1767	1876	2492	616	240	22	2510	2749
9:00	50.08	1638	1296	-342	46	0	1293	1339	1659	1417	-242	229	0	1414	1643	1841	2341	501	237	51	2387	2624
10:00	50.05	1537	1297	-240	35	0	1295	1330	1540	1368	-172	197	0	1366	1562	1673	1985	312	482	8	1990	2472
11:00	49.97	1550	1474	-75	51	35	1511	1562	1555	1409	-146	182	0	1410	1593	1692	2036	344	456	77	2115	2571
12:00	50.05	1540	1611	71	27	50	1659	1686	1547	1339	-208	182	0	1337	1519	1693	1869	177	516	99	1966	2482
13:00	50.09	1558	1734	177	15	54	1784	1799	1566	1359	-207	179	0	1355	1535	1715	1888	173	561	45	1928	2489
14:00	50.04	1578	1655	77	16	30	1682	1699	1593	1343	-250	173	3	1345	1517	1738	1991	252	537	58	2046	2583
15:00	49.99	1545	1574	29	73	4	1578	1650	1564	1299	-265	174	3	1302	1476	1695	2004	309	542	49	2053	2595
16:00	50.01	1530	1442	-88	73	7	1449	1522	1548	1404	-144	136	3	1407	1542	1671	1910	238	560	31	1939	2499
17:00	50.08	1547	1229	-319	50	0	1226	1276	1554	1473	-81	119	0	1470	1589	1685	1963	278	479	29	1987	2466
18:00	50.10	1684	1420	-264	23	0	1416	1439	1703	1701	-2	108	0	1696	1803	1922	2182	260	441	16	2191	2632
19:00	50.14	2090	2106	16	56	14	2110	2167	2115	2099	-16	78	9	2098	2176	2583	2815	232	197	65	2867	3064
20:00	50.09	2190	2316	126	52	25	2334	2386	2202	2127	-75	73	13	2134	2207	2739	2799	59	198	51	2841	3039
21:00	50.10	2215	2337	123	40	31	2361	2402	2226	2146	-80	70	14	2154	2224	2774	2780	6	198	54	2825	3023
22:00	50.10	2170	2232	61	58	11	2236	2294	2180	2094	-86	107	8	2096	2203	2705	2761	56	168	35	2787	2955
23:00	50.04	2004	2082	79	64	4	2084	2147	2046	2016	-30	113	3	2017	2129	2500	2657	156	168	64	2717	2885
24:00	50.07	1944	1895	-49	107	0	1891	1999	1993	1932	-60	113	7	1936	2048	2418	2561	144	168	55	2611	2780
<b>Avg.</b>	<b>50.05</b>	<b>1791</b>	<b>1698</b>	<b>-92</b>	<b>47</b>	<b>12</b>	<b>1707</b>	<b>1754</b>	<b>1814</b>	<b>1695</b>	<b>-119</b>	<b>124</b>	<b>3</b>	<b>1696</b>	<b>1819</b>	<b>2107</b>	<b>2379</b>	<b>272</b>	<b>292</b>	<b>42</b>	<b>2417</b>	<b>2709</b>
<b>00 TO 06 HRS.</b>	50.02	1880	1776	-104	32	2	1776	1808	1920	1807	-113	61	3	1808	1869	2281	2600	319	104	30	2628	2732
<b>06 TO 12 HRS.</b>	50.03	1607	1347	-260	53	14	1360	1413	1622	1475	-147	193	0	1474	1667	1790	2197	407	362	46	2241	2603
<b>12 TO 18 HRS.</b>	50.05	1574	1509	-65	42	16	1522	1564	1588	1430	-158	148	2	1429	1577	1738	1990	252	520	38	2024	2544
<b>06 TO 18 HRS.</b>	50.04	1590	1428	-162	47	15	1441	1488	1605	1452	-153	171	1	1451	1622	1764	2093	329	441	42	2133	2573
<b>18 TO 24 HRS.</b>	50.09	2102	2161	59	63	14	2169	2232	2127	2069	-58	92	9	2072	2164	2620	2729	109	183	54	2775	2958

**Hourly Average Schedule Drawal , Actual Drawal &Over(+)/Under(-) Drawal**  
**Month :- November 2012**

FIGURES IN MW

Hrs.	FREQ.	EZONE							CZONE							WZONE						
		SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand	SCH	Demand Met	O/U DRL	SCH LS	Unsch LS	Restrict ed Demand	Unrestrict ed Demand
1:00	50.04	2181	2185	4	0	42	2224	2224	2239	2215	-25	159	37	2249	2409	2526	2763	236	434	23	2783	3216
2:00	50.10	2165	2159	-7	0	29	2182	2182	2222	2197	-25	159	30	2221	2380	2499	2719	219	434	33	2744	3178
3:00	50.17	2154	2154	0	0	30	2173	2173	2209	2183	-27	143	21	2193	2336	2478	2630	152	434	33	2650	3084
4:00	50.08	2154	2107	-47	0	20	2122	2122	2210	2171	-38	143	6	2172	2315	2471	2641	170	416	9	2644	3060
5:00	50.05	2164	2065	-98	0	15	2077	2077	2221	2225	4	143	3	2224	2367	2486	2707	221	416	6	2709	3125
6:00	50.02	2121	1894	-227	0	60	1953	1953	2177	2300	123	143	49	2347	2490	2468	2740	272	442	70	2808	3250
7:00	50.00	1935	1344	-591	329	13	1357	1685	1975	2152	176	420	36	2188	2607	2259	2798	539	651	70	2869	3519
8:00	50.04	1901	1300	-602	365	17	1314	1680	1943	1995	53	471	39	2032	2503	2227	2895	668	623	100	2992	3615
9:00	50.07	1894	1488	-406	315	24	1509	1824	1938	1864	-74	507	26	1886	2393	2209	2671	462	629	191	2856	3485
10:00	50.07	1902	1545	-357	286	15	1557	1843	1940	1897	-43	534	31	1924	2458	2197	2857	660	714	95	2947	3660
11:00	50.00	1980	1887	-93	108	161	2048	2156	2026	1939	-88	411	96	2036	2446	2333	2809	476	574	221	3030	3604
12:00	50.11	1973	1959	-14	106	180	2132	2238	2019	1860	-159	411	86	1941	2351	2330	2508	178	626	303	2803	3430
13:00	50.16	1965	2129	164	0	199	2318	2318	2013	1943	-70	381	88	2023	2403	2318	2533	215	656	204	2724	3380
14:00	50.09	1986	2008	21	0	225	2227	2227	2031	1891	-140	392	101	1986	2377	2347	2656	309	627	204	2853	3480
15:00	50.07	1957	1847	-110	152	50	1893	2044	1997	1820	-177	406	36	1852	2258	2299	2742	443	627	119	2856	3483
16:00	50.04	1928	1688	-240	153	89	1774	1928	1967	1871	-96	391	62	1931	2322	2229	2709	480	622	186	2892	3514
17:00	50.10	1920	1502	-419	147	14	1511	1658	1950	2029	80	391	41	2063	2455	2192	2754	562	604	145	2890	3494
18:00	50.23	2102	1926	-176	124	17	1929	2053	2163	2250	88	296	72	2307	2603	2482	2776	294	509	114	2871	3380
19:00	50.12	2393	2497	104	121	97	2585	2706	2452	2402	-51	262	125	2518	2780	2958	3166	209	520	87	3242	3762
20:00	50.11	2433	2650	217	127	116	2757	2884	2486	2408	-78	262	100	2500	2762	3018	3160	142	518	91	3240	3758
21:00	50.23	2457	2636	179	97	116	2735	2831	2510	2429	-81	261	56	2468	2729	3048	2982	-66	447	108	3070	3517
22:00	50.23	2422	2549	127	97	25	2557	2653	2472	2392	-80	273	39	2414	2686	2994	3126	132	400	82	3186	3586
23:00	50.20	2322	2364	42	96	20	2370	2466	2383	2319	-64	273	22	2327	2599	2828	3010	182	403	43	3035	3438
24:00	50.13	2208	2200	-8	80	13	2203	2283	2262	2185	-77	273	11	2187	2460	2604	2730	126	476	17	2736	3211
<b>Avg.</b>	<b>50.10</b>	<b>2109</b>	<b>2003</b>	<b>-106</b>	<b>113</b>	<b>66</b>	<b>2063</b>	<b>2175</b>	<b>2159</b>	<b>2122</b>	<b>-36</b>	<b>313</b>	<b>51</b>	<b>2166</b>	<b>2479</b>	<b>2492</b>	<b>2795</b>	<b>303</b>	<b>533</b>	<b>106</b>	<b>2893</b>	<b>3426</b>
<b>00 TO 06 HRS.</b>	50.08	2156	2094	-63	0	33	2122	2122	2213	2215	2	148	24	2234	2383	2488	2700	212	429	29	2723	3152
<b>06 TO 12 HRS.</b>	50.05	1931	1587	-344	251	68	1653	1904	1974	1951	-22	459	53	2001	2460	2259	2756	497	636	164	2916	3552
<b>12 TO 18 HRS.</b>	50.11	1976	1850	-127	96	99	1942	2038	2020	1967	-53	376	67	2027	2403	2311	2695	384	608	162	2848	3455
<b>06 TO 18 HRS.</b>	50.08	1954	1718	-235	174	84	1797	1971	1997	1959	-38	417	60	2014	2431	2285	2726	441	622	163	2882	3504
<b>18 TO 24 HRS.</b>	50.17	2373	2483	110	103	65	2534	2637	2428	2356	-72	267	59	2402	2669	2908	3029	121	461	71	3085	3545

### SYSTEM DISTURBANCE September to November–2012

#### System Disturbance / System Incidence :

- 1. System Disturbance on 05.09.12 at Satpura TPS :** On dated 05.09.12 at around 10.00 Hrs MP system was running normal with N-E-W grid. At around 10.13 Hrs, it has been reported that, 220KV Main Bus-I at Satpura TPS tripped on Zone-I on R & B Phase due to inrush current while charging 400/220KV 500 MVA ICT from 220KV side. After some time 220KV Main Bus-II also tripped without any indication on Bus bar differential protection. All the 220KV feeders emanating from STPS 220KV switchyard and running Units No. 1,2,3,4 & 6 also tripped. Bus No. II was charged at 11.00 Hrs by taking back feed supply from Handia s/s. System was normalized in due course of time. There was no consumer load loss due to this tripping, however generation loss at STPS Sarni was 281 MW (energy loss of about 3.17 MU).
- 2. System Disturbance on 07.10.12 at TONS HPS :** On dated 07.10.12 at around 21.35 Hrs MP system was running at frequency 50.15 Hz with N-E-W grid. At around 21.40 Hrs, it has been reported that all running machines got tripped and all outgoing 220KV lines also tripped. Further it was informed by Tons HPS that B-phase jumper between breaker and isolator of 220KV Tons-Rewa ckt-I snapped at Tons end. 220KV Tons-Satna & Tons-Kotar lines did not trip from remote end to clear the fault. Hence all three lines tripped from Tons end and supply failed on 220KV Bus. Thereafter all three running machines tripped on Over-Speed. System was normalized in due course of time. There was no consumer load loss due to this tripping, however generation loss at Tons HPS was 300 MW (energy loss of about 16.00 LU).
- 3. System Disturbance on 17.10.12 at 220KV S/s Burwaha :** On dated 17.10.12 MP system was running normal at frequency 49.94 Hz with N-E-W grid. At around 12.54 Hrs, it has been reported by 220KV Burwaha S/s that B-phase tension string towards 160MVA X'mer has failed and this has created bus fault on 220KV Main bus. Resulting all 220KV lines emanating from Burwaha 220KV S/s tripped from remote end and total supply failed on 220KV Bus. There was no any interruption in the adjoining sub station and no consumer load loss due to this tripping. System was normalized in due course of time.
- 4. System Disturbance on 27.10.12 due to opening of EHV lines by WRLDC :** On dated 27.10.12 at around 21.27 Hrs MP system was running at frequency 50.07 Hz with N-E-W grid. WRLDC has given a fax message at 21.30 Hrs to curtail overdrawal without indicating the system frequency and any constraint. System frequency at 21.27 Hrs was 50.07 Hz. Though there was no violation of IEGS / UI Regulations. It may be seen from the system over-view that by 21.50 Hrs MP overdrawal was reduced from 419 MW to 332 MW i.e. 87 MW and was in decreasing trend, however, WRLDC has unilaterally and without intimating MP-SLDC opened 220KV Damoh(PG)-Takamgarh(MP) line without intimating to SLDC even without exchange of code. As soon as 220KV Damoh(PG)-Takamgarh(MP) line was opened by WRLDC load of 160MVA X'mer at 220KV Takamgarh S/s shifted to 220KV Chhatapur S/s. Load on 160MVA X'mer at 220KV Chhatapur S/s reached beyond 150MW and it got tripped from 132KV side. Subsequently, total load shifted on 132KV Damoh-Hatta link which also tripped on overload. There was a consumer load loss due to this tripping about 160MW for 10 to 15 minutes and total interruption occurred to 220KV S/s Tikamgarh & Chhatapur and 132KV S/s Takamgarh, Prithvipur, Jatara, Khajuraho, Bijawar, Hatta and Narsingharh. System was normalized in due course of time.
- 5. System Disturbance on 07.11.12 at OSP HPS :** On dated 07.11.12 at around 05.50 Hrs, MP system was running at frequency 49.74 Hz with N-E-W grid. As per the information gathered from OSP only Unit No.3 was running on 220KV "B" Bus due to

some problem in breaker. Other units and 220KV lines were shifted on "A" Bus keeping Bus-coupler in "ON" position

At around 05.55 Hrs, suddenly it was found that breaker air pressure of unit No.7 came to zero. The breaker of unit No.7 was hand tripped from control room but breaker could not be opened and LBB protection operated on unit No.7. This has resulted into tripping of all 220KV lines connected to "A" bus along with 220KV bus coupler and unit No.3, hence total supply failed at OSP. Faulty breaker was isolated and system was normalized in due course of time. There was no consumer load loss due to this tripping, however generation loss at OSP HPS was 148.5 MW (energy loss of about 1.75 LU).

**6. System Disturbance on 10.11.12 at SGTPS Birsinghpur :** On dated 10.11.12 at around 05.25 Hrs, MP system was running normal at frequency 49.96 Hz with N-E-W grid. At around 05.30 Hrs, it has been reported by SGTPS Birsinghpur that flashover observed in B-phase Bus-II isolator of 400KV Birsinghpur-Damoh PGCIL ckt-I. Subsequently all 400KV feeders along with 500 MVA ICT (400/220KV) & 210 MW running units No. 2, 3, 4 & 500 MW unit No.5 also tripped. Faulty section was isolated and system was normalized in due course of time. There was no any interruption in the adjoining sub station and no consumer load loss due to this tripping, however generation loss at SGTPS Birsinghpur was 960 MW (energy loss of about 141.50 LU) .

**7. System Disturbance on 10.11.12 at 220KV Shujalpur & 220KV Ashta S/s :** On dated 10.11.12 at around 18.50 Hrs, MP system was running normal at frequency 50.06 Hz with N-E-W grid. At around 18.55 Hrs, it was reported that both 220KV circuits between 400KV PGCIL Shujalpur and 220KV S/s of MPPTCL Shujalpur tripped on O/C, E/F from PGCIL end. Prior to above tripping, both 220KV Bhopal-Shujalpur circuits were kept open due to over loading of 400KV ICTs at Bhopal. Further, due to tripping of both 220KV Shujalpur-Shujalpur circuits, 220KV bus at MPPTCL Ssujalpur S/s become dead and load of 3x160 MVA X'mers shifted on 2x160 MVA X'mers at 220KV Ashta sub station, hence both 160 MVA X'mers at 220KV S/s Ashta tripped on O/C B-phase. Due to this tripping, interruption occurred to around twelve Nos. 132KV sub station in the adjoining area for 11 to 15 minutes. There was also interruption to 132KV Railway Traction feeder Maxi, Shujalpur and Ratadiya for 10 minutes. Due to this tripping there was a consumer load loss of about 360 MW and,

### Updated Status Standard Operating Procedure for DCCs

S.No.	Action Point	Timeline	East Discom	Central Discom	West Discom
1	Feeder grouping, prioritization and mapping	30.04.2012	Completed	completed	Completed
2	Formation of NDCC and DEAG	30.04.2012	Completed	completed	Completed
3	Set-up communication channel (DCC – NDCC)	30.04.2012	Completed	completed	Under Process
4	Set-up communication channel (NDCC- SS)	30.06.2012	Partially Completed	On 812, 33/11 kv S/s Telephone connection available on 585 Nos. S/s rest may be completed upto 31-01-2012.	Under Process
5	Setting of systematic outage planning protocol	30.04.2012	Completed	Still not setup	Implemented w.e.f 27.09.12
6	Complete implementation of DAS on 33 kV feeders	30.04.2012	Under Progress	Completed on 50 Nos. S/s and rest may be completed upto 31-11-12.	Under Execution
7	Develop incentive mechanism for DCC, NDCC, SS staff	31.12.2012	under Approval	Work on Progress	
8	Infrastructure to obtain weekly data from interface meters	30.04.2012	Not Related	Not setup	
9	Implementation to obtain weekly data from interface meters	30.06.2012	Not Related	Not related with Central Discom	
10	Implementation and compliance of SOP	01.05.2012	Partially Completed	On process	Completed
11	Implementation schedule to be uploaded on SLDC site	Done	Completed	Not related with Central Discom	
12	Implementation of IT tools for DCC	31.12.2012	Under Progress	Development of IT. Tools are in likely to be completed upto 28.12.12.	
13	Technical proposal for development of IT tools	31.03.2012	Under Progress	Not related with Central Discom	



**Annexure-10.5**

**TELEMETRY DISCRIPIENCY LIST FOR INDORE T&C CIRCLE**

Sr.No	DESCRIPTION	Status	telemetry value at SLDC	actual value at site
<b>Burwaha 220 KV S/S</b>				
1	220 KV BUS COUPLER	CB	FAULTY	OPEN
2	220 KV ITARSI FEEDER	CB	FAULTY	CLOSE
3	220 /132 KV TRANSFORMER 1	CB	FAULTY	CLOSE
4	BURWAHA 132KV-CHEGAON	CB	FAULTY	CLOSE
5	BURWAHA 220 KV NIMRANI	CB	FAULTY	CLOSE
6	132BUS COUPLER	CB	FAULTY	CLOSE
7	220/132KV 160 MVA XMER-	OLTC	17	3
8	220/132KV 3X40 MVA XMER	OLTC	17	3
9	63 MVA XMER	OLTC	17	4
10	132 KV CHOTI KHARGONE	MW	0	52
11	132 KV CHOTI KHARGONE	CB	OPEN	CLOSE
<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
5	132/33 XMER (20 MVA) NEW	CB,MW,MVAR,SOE	<b>Telemetry Not available</b>	
5	132 KV NAPA-BADGAON			
6	220/132 KV , 3*40 MVA TXMER	CB	FAULTY	CLOSE
<b>SOE'S OF ALL THE FEEDERS ARE NOT COMING</b>				
<b>PITHAMPUR 220 KV S/S</b>				
1	220KV BUS XFER	CB	FAULTY	OPEN
2	220KV PITHAMPUR - RAJGARH I	CB	NC	CLOSE
3	220KV PITHAMPUR- RAJGARH II	CB	NC	CLOSE
4	220KV BUS COUPLER	CB	FAULTY	CLOSE
5	132/33 KV TRANSFORMER 3	OLTC	N/C	11
6	PITAMPUR 132 KV-HML	CB	FAULTY	OPEN
7	132 KV TRB	CB	FAULTY	OPEN
8	132 KV BUS COUPLE	CB	FAULTY	CLOSE
9	132 KV IC-2	CB	OPEN	CLOSE
10	132KV HML	MW,MVAR	<b>NOT AVAILABLE,UPGRADATION OF RTU REQUIRED</b>	
11	132KV PARASRAMPURIYA	MW,MVAR		
12	132KV JAMLI	MW,MVAR,CB		
13	132/33 KV TRANSFORMER 2	MW,MVAR,CB,OLTC		
14	132/33 KV TRANSFORMER 3	MW,MVAR,CB,OLTC		
15	132/33 KV TRANSFORMER 3	CB	OPEN	CLOSE
16	132/33 KV TRANSFORMER 2	OLTC	N/C	8
17	220/132 XMER2	OLTC	N/C	11
<b>SOE'S OF ALL THE FEEDERS ARE NOT COMING</b>				
<b>INDORE NZ 220KV S/s</b>				
1	220KV Bus TRF	CB	Faulty	Open
2	132KV INDORE NZ -1	CB	Faulty	Close
3	132KV NZ- DEPALPUR -2	CB	Faulty	Close
4	132KV NZ- SANWER	MW,MVAR CB,SOE	Telemetry Not Available, Upgradation required	
5	132KV NZ- UJJAIN			
6	132KV TRACTION			
7	220KV MAIN BUS 2	VOLTAGE	0KV	230KV

**TELEMETRY DISCRIPIENCY LIST FOR NAGDA T&C CIRCLE**

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>NAGDA 400 KV S/S</b>				
1	400KV NAGDA –SUJALPUR 1	CB	FAULTY	OPEN
2	400KV NAGDA –SUJALPUR 2	CB	FAULTY	CLOSE
3	400KV NAGDA –DEHGAON 1	CB	FAULTY	OPEN
4	400KV NAGDA –DEHGAON 2	CB	FAULTY	CLOSE
5	400Kv RAJGARH 1 & 2 TIE BREAKER	CB	FAULTY	CLOSE
6	400Kv SUJALPUR-1 & DEHGAON-1 TIE BREAKER	CB	FAULTY	CLOSE
7	400Kv SUJALPUR-2 & DEHGAON-2 TIE BREAKER	CB	FAULTY	CLOSE
8	400/220 KV ICT I	OLTC	17	9
9	400/220 KV ICT II & III	OLTC	N/C	7
<b>NAGDA 220 KV S/S</b>				
1	220/132 XMER(132 SIDE)-II	CB	OPEN	CLOSE
2	125 MVA TRANSFORMER	OLTC	9	8
3	160 MVA TRANSFORMER	OLTC	9	12
4	40 MVA TRANSFORMER –II	OLTC	17	5
5	<b>220/132 160 MVA XMER NEW</b>	CB, SOE, MW, MVAR	<b>Telemetry not available. RTU configuration required for upgradation already arranged by SLDC.</b>	
6	<b>220/33 100MVA XMER NEW</b>			
7	<b>220/132KV TRF-3</b>			
8	<b>132 GRASIM</b>	SOE,MW,MVAR,CB	<b>Telemetry not available. RTU configuration required for upgradation already arranged by SLDC.</b>	
9	<b>132 MAHIDPUR-2</b>			
10	<b>132KV BUSCOUPLER</b>	CB	FAULTY	CLOSE
<b>RATLAM 220 KV S/S</b>				
1	220/132 XMER-1	CB	FALTY	CLOSE
2	220KV RATLAM-NAGDA-I	CB	FAULTY	CLOSE
3	220 KV BADNAGAR-1	CB	FAULTY	CLOSE
4	220 KV BADNAGAR-2	CB	FAULTY	CLOSE
5	220 BUS XFER	CB	FAULTY	OPEN
6	132/33 KV TRANSFORMER -2	OLTC	N/C	7
7	<b>220KV RATLAM - NAGDA 2</b>	CB, SOE MW, MVAR	<b>TELEMETRY NOT AVAILABLE. UPGRADATION OF RTU REQUIRED TO BE UNDERTAKEN.</b>	
8	<b>132/33 TRF-2 &amp; 3 ( NEW)</b>			
9	<b>132KV RATLAM-SAILANA</b>			
<b>NEEMUCH 220 KV S/S</b>				
1	220/132 KV TRANSFORMER 1	CB,SOE	<b>TELEMETRY NOT AVAILABLE.PROVISION OF TELEMETRY ALREADY AVAILABLE.</b>	
2	220/132 KV TRANSFORMER 2	MW,MVAR, CB,SOE		
3	132 NEEMUCH UDEPUR	CB	FAULTY	OPEN
4	220/132 KV TRANSFORMER 1	OLTC	N/C	7
5	132 MANDSOR 1&2	CB	FAULTY	CLOSE
6	132 MALHARGARH	CB	FAULTY	CLOSE
7	132 MALHARGARH	MW	NOT COMING	
NOTE:-SOE DATA NOT RECEIVED.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				

**TELEMETRY DISCRIPIENCY LIST FOR UJJAIN T&C CIRCLE**

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>DEWAS 220 KV S/S</b>				
1	132/33 KV TRANSFORMER 2	OLTC	N/C	7
2	220/132 KV TRANSFORMER 1	OLTC	N/C	7
3	220/132 KV TRANSFORMER 2	OLTC	N/C	7
4	132 /33 KV TRANSFORMER 1	OLTC	N/C	8
5	132/33KV 40 MVA XMER	CB	FAULTY	CLOSE
<b>UJJAIN 220 KV S/S</b>				
1	220/132 KV TRANSFORMER 4	OLTC	N/C	6
2	220/132 KV XMER-3	OLTC	N/C	6
3	132 BUS COUPLER	CB	FAULTY	OPEN
4	132/33 KV XMER-1	OLTC	N/C	6
<b>SHUJALPUR 220 KV S/S</b>				
1	160MVA TRANSFORMER-II	OLTC	2	10
2	132/33 63MVA XMER 2	CB, SOE	Telemetry Not Available	
3	132KV Shujalpur-Shajapur			
4	132KV Interconnector-1			
5	132KV Interconnector-2			
<b>BADOD 220KV S/S</b>				
1	220/132KV TRANSFORMR	OLTC	NA	
2	132KV BUS COUPLER	CB	FAULTY	
3	132/33KV Transformer	CB, SOE, MW, MAVR	Telemetry not available,Proces connection need to be done	
4	132 KV Badod- Gahosla			
5	132KV Badod- Suwasar			
<b>RAJGARH DHAR 220 KV S/s</b>				
	ALL CB AND SOE received as faulty			

**TELEMETRY DISCRIPIENCY LIST FOR SATNA T&C CIRCLE**

Sr.No	DESCRIPTION	Status	telemetry value at SLDC	actual value at site
<b>Satna 220 KV S/S</b>				
1	SATNA 220KV CHHATARPUR-1	CB	FAULTY	CLOSE
2	220/132 KV TRANSFORMER 2	OLTC	N/C	7
3	132/33 KV TRANSFORMER 1	OLTC	N/C	7
4	132/33 KV TRANSFORMER 2	OLTC	N/C	7
5	132KV SATNA- MANJHGAWAN	CB	FAULTY	CLOSE
6	132KV SATNA-PAWAI	CB	FAULTY	CLOSE
7	132KV SATNA- PRISM CEMENT	CB	FAULTY	CLOSE
8	132KV SATNA- PANNA	CB	FAULTY	CLOSE
9	132KV SATNA- MANJHGAWAN	MW,MVAR SOE	<b>Telemetry not available. RTU configuration done by SLDC. Transducer and CMr's required for upgradation is also provided to site along six months back.</b>	
10	132KV SATNA- PAWAI			
11	132KV SATNA- PRISM CEMENT			
12	132 SATNA-SATNA IC-1			
13	132 STANA-SATNA IC-2			
14	220KV KOTAR	CB	FAULTY	CLOSE
15	132 KV PANNA	MW,MVAR	N/C	
16	132KV SATNA CEMENT	MW,MVAR	N/C	
<b>Morwa 132 KV S/S</b>				
<b>MORWA RTU FAILED TELEMETRY NOT COMING</b>				
<b>REWA 220KV S/s</b>				
1	220KV SIRMOR-1	MW,	0	15
2	220KV SIRMOR-1	MVAR	0	3
3	220KV SIRMOR-2	MW	0	15
4	220KV SIRMOR-2	MVAR	0	3
5	220KV VOLTAGE	VOLTAGE	146	220
6	220KV FREQUENCY	FREQ	47.5	49.93
7	220KV SIRMOR-1	CB	FAULTY	CLOSE
8	220KV SIRMOR-2	CB	FAULTY	OPEN
9	220KV BUSCOUPLER	CB	FAULTY	CLOSE
10	220/132 XMER-1	CB	FAULTY	CLOSE
11	220/132KV XMER-2	CB,MW,MVAR	NOT CONNECTED	
12	220KV SATNA	CB	FAULTY	CLOSE
13	220KV SIDHI	CB	FAULTY	CLOSE
14	220KV BUS 2	VOLATAGE	105	220
<b>SOE'S OF ALL THE FEEDERS ARE NOT COMING</b>				

**TELEMETRY DISCRIPIENCY LIST FOR JABALPUR T&C CIRCLE**

Sr.No	DESCRIPTION	Status	telemetry value at SLDC	actual value at site
<b>NARSINGPUR 220KV S/s</b>				
1	220KV NARSINGPUR-PIPARIYA	CB	FULTY	CLOSE
2	220KV NARSINGPUR-ITARSI	CB	OPEN	CLOSE
3	220/132 TRANSFORMER-2	CB	OPEN	CLOSE
4	220 KV TRB	CB	FAULTY	CLOSE
5	220/132 KV TRANSFORMER 1	OLTC	N/C	7
6	220/132 KV TRANSFORMER 2	OLTC	N/C	5
7	132/33 KV TRANSFORMER 1	OLTC	N/C	6
8	220/132 KV TRANSFORMER 2	MW	456	147
9	220/132 KV TRANSFORMER 2	MVAR	456	6
10	132 BUS TRANSFER	CB	FAULTY	CLOSE
11	132 Narsingpur-Barman-2	CB,SOE,MW,MVAR	TELEMETRY NOT AVAILABLE	
12	132/33 TRANSFORMER-2			
<b>SOE'S OF ALL THE FEEDERS ARE NOT COMING</b>				
<b>Jabalpur 220 KV S/S</b>				
1	220/132 KV TRANSFORMER 1	CB	FAULTY	CLOSE
2	220 KV TRB	CB	FAULTY	OPEN
3	JABALPUR 132 KV- MADHOTAL	CB	FAULTY	CLOSE
4	132 KV BUS TRF	CB	FAULTY	CLOSE
5	220KV JABALPUR-BIRSINGHPUR 1	CB & SOE	NOT AVAILABLE	CONNECTION TO BE EXTENDED
6	220KV JABALPUR-BIRSINGHPUR 2	CB & SOE	NOT AVAILABLE	
7	132/33 KV TRANSFORMER 2	CB	FAULTY	CLOSE
8	220/132KV XMER-1 132 SIDE	CB	FAULTY	CLOSE
<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,MVAR	NOT AVAILABLE	
4	220/132 KV TRANSFORMER 2	CB,OLTC	NOT AVAILABLE	
5	132/132 KV TRANSFORMER 1	MW,MVAR	NOT AVAILABLE	
6	220/132 KV TRANSFORMER 1 132 SIDE	CB	FAULTY	CLOSE
7	132/33 KV TRANSFORMER 1& 2	MW,MVAR,OLTC	NOT AVAILABLE	
8	132/33 KV TRANSFORMER 1& 2	CB,SOE	NOT AVAILABLE	
9	132KV Interconnector 1 & 2	MW,MVAR		
10	132/33 TR-1	CB	FAULTY	OPEN
11	132/33 IC-1 &	CB	FAULTY	OPEN
12	132/33 KYMORE-1 & 2	CB	FAULTY	OPEN
<b>SOE'S OF ALL THE FEEDERS ARE NOT COMING</b>				

**TELEMETRY DISCRIPIENCY LIST FOR GWALIOR T&C CIRCLE**

Sr.No	DESCRIPTION	Status	telemetry value at SLDC	actual value at site
<b>GUNA 220 KV S/S</b>				
1	220KV BUSCOUPLER	CB	FAULTY	<b>CLOSE</b>
2	220/132KV XMER-1	OLTC	17	<b>7</b>
3	40MVA XMER 1&2	OLTC	NOT AVAILABLE	
<b>SOE'S OF ALL THE FEEDERS ARE NOT COMING IN GUNA 220 S/S</b>				
<b>GWALIOR 220 KV S/S</b>				
1	132/33 TRF 2	OLTC	NC	8
2	132/33 TRf-4	OLTC	NC	7
3	220/132KV XMER-1 132 SIDE	CB	FAULTY	<b>CLOSE</b>
4	220/132KV XMER-2 132 SIDE	CB	FAULTY	<b>CLOSE</b>

**TELEMETRY DISCRIPIENCY LIST FOR BHOPAL T&C CIRCLE**

Sr.No	DESCRIPTION	status	telemetry value at SLDC	actual value at site
<b>BHOPAL 400 KV S/S</b>				
1	400/220 KV DAMOH-1	CB	FAULTY	CLOSE
2	400 KV DAMOH 1&2 TIE BREAKER	CB	FAULTY	CLOSE
3	220KV BAIRAGARH	CB	FAULTY	CLOSE
<b>PIPARIA 132 KV S/S</b>				
1	132KV BARELI	CB	FAULTY	OPEN
2	132/33KV 20MVA XMER	OLTC	N/C	
3	132/33KV 40MVA XMER	OLTC	N/C	
<b>SOE'S OF ALL THE FEEDERS ARE NOT COMING IN PIPARIYA 132 S/S</b>				
<b>SARNI 220 KV S/S</b>				
<b>RTU FAILED TELEMETRY NOT COMING</b>				
<b>BAIRAGARH 220 KV S/S</b>				
1	220 KV BUS 1	VOLTAGE	126	227
2	220 KV BUS 1	FREQUENCY	N/C	49.78
3	220/132 XMER -I	CB	FAULTY	CLOSE
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,MVAR		
7	132/33 XMER (20 MVA) NEW IV	CB,OLTC		
8	132/33 XMER (20 MVA) NEW IV	MW		
9	132/33 XMER (20 MVA) NEW IV	MVAR		
10	132KV BHOPAL -2	CB,MW,MVAR,SOE		
11	BAIRAGRAH 132KV-LALGHATI II	CB	FAULTY	OPEN
12	220KV BUS COUPLER	CB	FAULTY	CLOSE
13	132KV BUS COUPLER	CB	FAULTY	CLOSE
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 220/132 TR-2	CB	FAULTY	CLOSE
3	132KV HANDIA 220/132 TR-2 132 SIDE	CB	FAULTY	CLOSE
4	132 KV HARDA	CB	FAULTY	CLOSE
5	220/132 TR-2	OLTC	N/C	
NOTE:-SOE DATA NOT RECEIVED EXCEPT BARWAHA FEEDER.CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED				

<b>Bina 400 KV S/S</b>				
1	400/220 KV XMER III Primary side	CB	FAULTY	CLOSE
2	400/220 KV XMER III Secondary side	CB	FAULTY	CLOSE
<b>Bina 220 KV S/S</b>				
6	132KV BINA –GANGBASODA	CB	N/C	
7	132KV BINA - BORL 1 &2	CB,SOE MW,MVAR	NOT AVAILABLE	
8	132KV BINA - BORL 1 &2			
5	132KV BINA – MUNGAWALI			
SOE DATA NOT RECEIVED.CONNECTIONS FOR GWALIOR-2,GUNA-1 FEEDERS HAVE TO BE VERIFIED				
<b>Telemetry Discripiency List of Tikamgar 220,Sagar 132 not prepared because all three RTU's are not functioning</b>				

**TELEMETRY DISCRIPIENCY LIST FOR SAGAR T&C CIRCLE**



## Telemetry Discrepancy at power stations

Sr No	DESCRIPTION	Status	telemetry value at SLDC	actual value at site
<b>SATPURA TPS</b>				
1	STPS BUS 1	VOLTAGE	360	415
2	GT 6	MW	152	170
3	GT6	MVAR	1	45
4	GT7	MW	190	150
5	GT7	MVAR	56	65
6	GENERATOR 7	CB	FAULTY	OPEN
7	GENERATOR 8	CB	OPEN	CLOSE
<b>AMARKANTAK THERMAL POWER STATION</b>				
1	132KV RAJMILAN-1	CB	FAULTY	CLOSE
2	132KV RAJMILAN-2	CB	FAULTY	CLOSE
3	132/33 KV TRNSFRMER 4 & 5	OLTC	N/C	6
4	220KV SUKHA	CB	OPEN	CLOSE
5	132KV BUS COUPLER	CB	N/C	CLOSE
6	220KV BUS 2	FREQUENCY	N/C	
7	220/132 XMER-1 132 SIDE	CB	OPEN	CLOSE
8	132KV BUS	FREQUENCY	N/C	
<b>BARGI HPS</b>				
Note :- The circuit breaker status of all generator/bus coupler etc. are displayed correctly in On condition. However, in off condition, the same is received as faulty.				
<b>TONS HPS</b>				
1	220/33 20 MVA XMER	CB	FAULTY	OPEN
2	GENERATOR-2	CB	FAULTY	OPEN
3	220KV REWA-2	CB	FAULTY	CLOSE
4	BUS COUPLER	CB	FAULTY	OPEN
5	Generator-3	CB	FAULTY	OPEN
6	Satna MW	MW	33	20
7	Kotar MW		11	0
8	Satna MVAR	MVAR	30	20
9	Kotar MVAR		18	0
10	Rewa MW		12	20
11	Rewa MVAR		2	1
9 Note:- <b>SOE CONNECTION NOT DONE FOR ANY FEEDER AT TONS HPS</b>				
<b>GANDHISAGAR HPS</b>				
1	132/33 KV XMER	OLTC	6	9
2	132/33 KV XMER	CB	OPEN	CLOSE
3	GENERATOR 1	CB	FAULTY	CLOSE
<b>RAJGHAT HPS</b>				
1	RAJGHAT132 KV-LALITPUR	CB	FAULTY	OPEN
2	GEN1	CB	FAULTY	CLOSE
3	GEN2	CB	FAULTY	CLOSE
NOTE SOE'S OF ALL THE FEEDERS ARE NOT COMING.				

## Telemetry Discrepancy at SGTPS

Sr No	DESCRIPTION	Status	telemetry value at SLDC	actual value at site
1	400/220KV TRANSFORMER	CB	OFF	CLOSE
2	400/220KV TRANSFORMER	SOE	SOE DATA NOT RECEIVED.	
3	400KV STATION TRANSFORMER	CB	FAULTY	CLOSE
4	400KV STATION TRANSFORMER	SOE	SOE DATA NOT RECEIVED.	
5	400KV BUS COUPLER	CB	FAULTY	OPEN
6	400KV BUS COUPLER	SOE	SOE DATA NOT RECEIVED.	
7	400KV BUS TIE	CB	FAULTY	CLOSE
8	400KV BUS TIE	SOE	SOE DATA NOT RECEIVED.	
9	400KV KATNI-2	CB	FAULTY	CLOSE
10	400KV KATNI-2	SOE	SOE DATA NOT RECEIVED.	
11	400KV DAMOH-1	SOE	SOE DATA NOT RECEIVED.	
12	400KV DAMOH-2(PG)	CB	FAULTY	CLOSE
13	400KV DAMOH-2(PG)	SOE	SOE DATA NOT RECEIVED.	
14	220KV BUS COUPLER	CB	FAULTY	CLOSE
15	220KV BUS COUPLER	SOE	SOE DATA NOT RECEIVED.	
16	220 GENERATOR #1	CB	FAULTY	CLOSE
17	400 GENERATOR #5	SOE	SOE DATA NOT RECEIVED.	

**NOTE:- SOE'S OF MOST OF THE FEEDERS ARE NOT COMING ,CONNECTIONS FOR ALL FEEDERS HAVE TO BE VERIFIED.**