

**MINUTES OF 16TH MEETING OF OPERATION & COORDINATION COMMITTEE OF MP HELD ON
16TH SEPTEMBER 2009 AT CORPORATE OFFICE, MPMKVCL, BHOPAL**

The 16th meeting of Operation & Co-ordination Committee of MP was held on 16th September 2009 at corporate office, MP Madhya Kshetra Vidyut Vitaran Co. Ltd, Bhopal. The list of participants is enclosed at Annexure-1.0.

Shri R.P. Sharma, OSD (SLDC) and Chairman OCC welcomed the members and participants in the 16th OCCM of MP. He expressed his satisfaction on the methodology finalised by the Committee constituted to formulate the rationalization of weekly offs for Rural feeders and requested the committee to discuss and arrive at a final decision in the matter. While highlighting power situation in the MP, he stressed the need of round the clock functioning of DISCOM Control Center at Indore and start of night shift in East DCC for proper load management not only to restrict the overdrawal from the Grid at low frequencies to ensure proper compliance of the CERC regulation on UI but also to have proper load management.

He informed that during July 2009, the system frequency of the combined grid was within the permissible range of 49.2 to 50.3 Hz for 94.74% of time however, the frequency was within the permissible limits for 73.98% of the time during August 2009 i.e. about 21% lower than July 2009. The net unscheduled interchange by MP during the months July and August 2009 was -41.69 MU. And 13.47 MU respectively

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

ITEM NO. 1 : CONFIRMATION OF MINUTES

Minutes of 15th meeting of Operation & coordination committee of MP held on 15.07.2009 at SLDC, Jabalpur were forwarded to the committee members vide letter no. 07-05/SG-9B-II/1260 dated 04.08.2009 & also posted on the SLDC website. The minutes of the 15th meeting of Operation & coordination committee of MP have been confirmed by the Committee.

ITEM NO. 2 : REVIEW OF SYSTEM OPERATION DURING THE MONTH OF JULY 2009 AND AUGUST 2009

2.1 FREQUENCY PARTICULARS

The detailed frequency particulars for the month of July-2009 & August-2009 are enclosed at Annexure-2.1. The One hour integrated average frequency during July and August 2009 was recorded at 49.07 Hz and 49.41 Hz respectively. The minimum integrated average frequency was 48.98 Hz and 48.89 Hz for the respective months with the maximum frequency at 50.40 Hz and 50.14 Hz. The instantaneous maximum and minimum frequency recorded for July and August 2009 was 50.56, 48.74 Hz and 50.46 Hz, 48.62 Hz respectively. The committee noted the same.

2.2 OPERATIONAL MATTERS

2.2.1 OPERATIONAL DISCIPLINE :

The Member Secretary OCCM indicated that during July-2009 & August 2009, the system frequency of the combined grid was within the permissible range of 49.2-50.3 Hz for 94.74 % & 73.98% of the time respectively. During July and August 2009 the system frequency remained below

49.2 Hz for 4.70 % and 25.88 % of the time respectively. The net unscheduled interchange by MP during the months July and August 2009 was -41.69 MU. And 13.47 MU respectively.

There was no instances of significant violation of IEGC by MP during the month of July 2009 and August 2009 as reported by WRLDC.

2.3.1 VOLTAGE PROFILE

Committee noted the voltage profile of some of the important 400 KV and 220 KV substations of MP during the month of July-2009 & August-2009 which is enclosed at Annexure -2.3.

During the month of July 2009 & August 2009, the deviation of voltage from the accepted limit on either side was recorded at following location in MP Grid.

Sr .No.	Name of Substation	JULY 2009				AUGUST 2009			
		Max. Voltage observed		Min. Voltage observed		Max. Voltage observed		Min. Voltage observed	
		Voltage	Date	Voltage	Date	Voltage	Date	Voltage	Date
1	Indore	423	24, 28.07.09	No Deviation Observed				No Deviation Observed	
2	Itarsi	429	01.07.09			429	16.08.09		
3	Bina	427	28.07.09			429	16.08.09	379	23, 24.08.09
4	Gwalior	429	29.07.09	365	20.07.09	436	16.08.09	372	13.08.09
5	Nagda	430	24.07.09	No Deviation Observed		428	16, 30.08.09	No Deviation Observed	

2.3.2 Status of CAPCITOR Banks in sub-transmission system

The Central Discom has informed that out of 588 capacitors of 1200 KVAR capacity, 376 nos. have been installed as on 31.08.09 and balance 212 nos. are expected to be installed by Dec 09. The East DISCOM has also furnished the details. The 4 Nos. 1200 KVAR and 62 Nos 600 KVAR capacitors have been ordered and they are expected to be installed by end of October 2009. It is advised by the committee to the DISCOMs to expedite the work for installation of balance capacitor banks.

2.4.1 STATUS OF COMPLETION OF ON GOING TRANSMISSION SCHEMES BEING EXECUTED BY MPPTCL

The committee noted the updated status of various ongoing transmission schemes for the current year as per the available information furnished by MPPTCL.

2.4.2 U/F RELAY OPERATION

The committee noted that the frequency touched, 48.80 Hz for 82 and 855 times during July & August 2009 respectively.

The OSD, SLDC has informed the committee that the expected load relief from df/dt operation could not be achieved during grid disturbance in Chhattisgarh on 13-09-2009. This may be mainly due to the fact that most of the radial feeders on which df/dt relays are installed have come in the ring main as a result even in case of tripping the supply from other end is available and the expected load relief required for safeguard of the system is not achieved. He stressed the need for review of the df/dt relay and

advised the T&C and Power System representatives for the same so that the df/dt relays are shifted to radial feeders.

The representative of MPPTCL has informed that all u/f relays are installed on 33 KV feeders at EHV substations. The committee advised to conduct periodical testing of the u/f and df/dt relays by the testing divisions. It is also informed that the DISCOMs may not issue any instruction directly to substations for blocking of u/f relays on specific events, but follow the correct approach in case need arises and under such condition the u/f relay should be installed on any other feeder to avail equal amount of load relief from u/f relay operation.

2.4.3 CONFIRMATION OF HEALTHINESS STATUS OF SERS/DRS EQUIPMENT IN THE SYSTEM

The Member Secretary, OCC pointed out that the consolidated report on the status of healthiness of SERs/DRs is not received from Transco and Genco and status reports from few individuals substations and Power stations is only received. However, the S.E. (T&C) Bhopal has furnished the monthly status of disturbance recorder/ Event Sequence recorder/ Fault recorder in service. The Indira Sagar Hydel Power Station has also furnished the details of the DRs/SERs equipments installed at Indira Sagar Hydel Power Station.

It has been told that the consolidated information is required for the OCCM of WRPC on monthly basis. The Transmission and Generating Companies should furnish the status regularly by 5th of every month for which the representatives agreed.

2.5 POWER CUTS / LOAD RESTRICTIONS/DIFFERENTIAL LOAD SHEDDING BY DISCOMS

Details of Discom wise power cuts & regulatory measures during July & August 2009 are enclosed at Annexure 2.5.

(i) **DIFFERENTIAL LOAD SHEDDING** : The DCCs were requested vide letter No. 07-05/PM-57/1010 dated 30.06.2009 to furnish to SLDC the hourly differential load shedding data in MW on daily basis to work out the unrestricted demand. It has been told that despite repeated reminders the Discoms have not started furnishing the data to SLDC and in its absence the unrestricted demand computation is computed without taking into account the relief from differential load shedding. It is advised that the DISCOMs should start furnishing the hourly differential load shedding data in MW on daily basis to SLDC. The OSD SLDC has stressed the need of planning the differential load shedding by the Discoms in such a manner so that frequency profile is maintained within specified limits (49.5 to 50.3 Hz) and proper load generation balanced is achieved. He further maintained that the differential load shedding should be implemented by the DCCs to have a better control over the demand and frequency profile.

(ii) **LOAD SHEDDING BY EAST DISCOM DCC** : Instances of exercising load shedding by East DCC at high frequency (freq above 50.0 HZ) has been discussed. It has been reported that in the recent past the East DCC continued with the load shedding even during high frequency period. Moreover, the East DCC do not have correlation with differential load shedding plan and the same is being carried out by field divisions irrespective of system frequency. The OSD SLDC has expressed his concern that such type of operations is dangerous from the point of system security and should be avoided. The East-DCC representative assured the committee to look into the matter to avoid such happenings in future.

2.6 DISTRICTWISE / GROUPWISE LOADING OF FEEDERS

(i) The details of district wise/group wise load of the year 2009-10 computed on the basis of information received from the power system cell was submitted by TRADECO to SLDC and DISCOMs for study and finding out discrepancies if any. The committee in its 15th meeting had

discussed the matter and decided that the analysis of districtwise / groupwise loads shall be computed by the respective DISCOMs and the same shall be submitted to SLDC from time to time. However the data is not submitted to SLDC. The SLDC requested all DISCOMs to prepare and furnish the data to SLDC.

- (ii) As desired by the CE (PS), MPPTCL, the details of mixed load feeders (Discoms wise) feeding to Tahsil (urban) plus Rural areas have been furnished by East and West Discoms. The Central Discom has stated that this issue should not have been included in the meeting agenda, to which SLDC has clarified that CE(PS) MPPTCL had requested to include this as agenda point and that there is no harm in discussing the issue being of importance from the point of load management. The SE(PS) MPPTCL has clarified that the data is required for Chairman Level coordination meeting. The Central Discom has agreed to submit the details of mixed load feeders shortly. The Central Discom further stated that the separation of mixed load feeders is not possible at 33 KV level but it can be achieved at 11 KV level.

The OSD, SLDC has expressed his view that the mixed load feeders should be separated out into Rural and Tahsil feeders, otherwise the Tahsil HQ would suffer for more power cuts. The Central Discom has submitted that the load shedding from 33 KV feeders is a temporary arrangement in their Discom and the load shedding would be done from 11 KV which will be informed whenever it is planned by Central Discom.

2.7 RATIONALISATION OF WEEKLY OFF OF RURAL FEEDERS -

The plan finalised by the committee constituted for rationalization of weekly offs of rural feeders has been discussed and approved by the committee. It is decided that respective DISCOMs shall implement the weekly off plan in their respective DISCOMs.

ITEM NO. 3 : OPERATIONAL PLANNING

3.1 ANTICIPATED POWER SUPPLY POSITION FOR THE MONTH OF JULY 2009 TO MARCH 2010-

Details of anticipated demand and source-wise availability for the period September 2009 to March 2010 is enclosed in Annexure 3.1.

It was explained by the Member Secretary, OCC that as per MPEGC, the SLDC is responsible to do the demand estimation for period up to one year ahead for which the DISCOMs have to provide to SLDC their estimates of demand for the year ahead on month basis for the next financial year by 15th November each year. The DISCOMs shall also provide daily demand on month ahead by 25th for the next month. The SLDC has requested the DISCOMs to furnish their estimates of anticipated restricted & unrestricted demand for the year 2010-11 on month basis by 15th November 2009. The DISCOMs agreed to furnish the same.

3.2 Generating Units under planned outage and proposed maintenance programme-

The details of outage of generating units under planned outage, proposed maintenance programme for September 2009 to March 2010 (R-5) has been discussed. The SLDC desired that the maintenance of generating units may be done as per the plan.

3.3 Proposed shutdown programme of Transmission lines / Transformers -

The proposed maintenance programme for the period 16th September to 15th November 2009 was discussed in the meeting and found in order.

3.4 Long Outages of transmission elements :

The Committee discussed the long outages of transmission elements. The T&C, MPPTCL and O&M:Gen MPPGCL sections have given the schedule and work progress of bringing back these elements into service which is detailed below :

S N	Line/Transformer/Breaker/ Reactor etc under long outage	Outage date	Reason	Expected date of restoration as intimated in the 16th OCCM
1	63 MVAR Reactor at Satpura TPS	24.05.2005	Damage of all three limbs along with reactor tank	Sanction of estimate for new reactor is under approval stage.
2	400 KV Bkr of Nagda-Rajgarh – II at 400 KV S/S Nagda	23.10.2008	Breaker faulty need repair	Restored on 11-09-2009.
3	160 MVA X'mer at 220 KV S/S Julwania	12.02.2009	High tan δ value of the transformer bushing and winding.	New transformer is expected to be commissioned before 20 th September. (commissioned on 18-09-2009)
4	Tie Breaker of 315 MVA, 400/220 KV X'mer –II at 400 KV Bina S/S	23.10.2008	Gas Leakage from PIR	Matter is being pursued with M/s CGL.

The SLDC desired that MPPTCL and MPPGCL may expedite the efforts to put back the faulty transmission elements at Bina and Satpura in the shortest possible time. OSD, SLDC has expressed the need of restoration of Bus reactor at Satpura TPS before onset of monsoon. The progress of the same shall be reviewed in the next OCC meeting.

ITEM NO. 4 : OPERATIONAL STATISTICS FOR THE MONTH OF JULY & AUG 2009.

The details of actual generation, schedule from Central Sector, demand etc. as given in Annexure 4.1 to 4.5 of the agenda of 16th OCC meeting has been noted by the Committee.

ITEM NO. 5 : SYSTEM DISTURBANCE IN MP FOR THE MONTH OF JULY & AUG 2009

There was no significant system disturbance reported during the period July & Aug 2009.

ITEM NO. 6 : REVIEW OF SYSTEM OPERATION & MANAGEMENT

6.1 PROGRESS OF FUNCTIONING OF DISCOM CONTROL CENTRE (DCC)

The Committee was informed that round the clock shift duty is being performed along with load regulatory measures in Central Discom in all shifts and in East Discom in 'B' and 'C' shifts. However, despite repeated persuasion by SLDC the West Discom has not started the Control Room. The OSD, SLDC explained the importance and necessity of Discom Control Centers and requested East and West Discoms to give the date for commencing the activities at DCC in all three shifts. The East DCC has assured to start the night shift soon and West Discom has assured the committee to start the DCC in all three shifts along with load regulatory measures from 20th September 2009.

6.2 PREPAREDNESS OF MPPGCL FOR IMPLEMENTATION OF BALANCING & SETTLEMENT CODE -

The matter of establishing full fledged ABT monitoring cells at thermal power stations and providing adequate communication facility at thermal and hydel power stations has been discussed by the Committee. The representative from MPPGCL has assured to look into the matter of establishing ABT monitoring cells at Thermal Power Stations.

ITEM NO 7 : ABT METER READING :

The matter of non receipt of ABT meter readings of interface points for the period 1st to 15th and 16th to end of the month from most of the testing divisions and power stations in time and receipt of the same for complete month has been discussed by the Committee. The representative from MPPTCL and MPPGCL assured that testing divisions and power stations shall ensure emailing of data for each fortnightly period in time with completeness and correctness in every respect.

ITEM NO 8 : SCADA/EMS RELATED ISSUES :

8.1 PROGRESS OF INSTALLATION OF NEW RTUS ALONG WITH PLCC DATA LINKS AT EHV S/S :

The SE o/o ED (T&P-PMU), MPPTCL has informed that the procurement process for RTU's is under progress and the demonstration of the RTUs is being given by the vendors with SLDC SCADA system. It is also informed that the procurement of PLCC equipments for data and speech is also being taken up.

8.2 MAINTENANCE OF TELEMETERING EQUIPMENTS AT EHV STATIONS AND POWER STATIONS :

The representative from MPPTCL has confirmed that the AMC of the RTUs is under process. The representative from MPPGCL has been advised to take initiative for centralised AMC of RTUs at power stations for which they have agreed.

8.3 DISCREPANCY IN TELEMETERED VALUES RECEIVED FROM DIFFERENT EHV S/S & POWER STATIONS :-

The discrepancies of telemetry values at Substations and Power Stations as given in annexure-8.3(i) & 8.3(ii) of agenda points has been discussed and the representatives of MPPTCL and MPPGCL have agreed to check and correct the same at EHV sub-stations and Power Stations. The progress shall be reviewed in the next OCC meeting.

8.4 UPGRADATION OF EXISTING RTUS :-

The matter of upgradation of existing RTUs was discussed in the 15th OCC meeting and it was informed that the details required for upgradation of RTUs is not received from Jabalpur, Satna, Sagar & Gwalior testing circles despite constant persuasion by ED(T&C) office. The SE 0/0 ED(T&C), MPPTCL had assured to compile the information from all testing circles. However, no details have been received so far. The SLDC has pointed out that in absence of the details from these testing circles it is difficult to work out the requirement and hence the details are required on urgent basis. The SE(T&C) o/o MPPTCL assured to look into the matter and submit the progress in this matter in the 16th OCC meeting.

8.5 SHIFTING OF OPGW IN PROPOSED DIVERTED ROUTE FROM 220 KV JABALPUR TO 400 KV SUKHA S/S

The SE o/o ED (T&P-PMU) intimated that price bid has been opened and the procurement would be finalised soon. The OSD, SLDC advised that the arrangement of OPGW and required hardware may be done on priority so that the OPGW may be installed on the diverted route prior to switch over to the diverted line.

ITEM NO. 9 : NHDC Related issue:

- (i) In the last OCC, it was informed by NHDC that dead synchronization features is not available in Control Scheme of Breakers at Omkareshwar hydel power station and hence at the time of tripping any feeder depend solely on charging from remote end. NHDC informed that dead synchronization facility is available locally and that remote synchronization facility is not available.
- (ii) The issue of non-commissioning of auto Reclosure Scheme at Hydel Power Station of NHDC has been discussed. It has been informed by NHDC that auto Reclosure is implemented at ISP. However, the same is to be implemented at OSP which will be done after discussion with PGCIL.
- (iii) The instances of operation of LBB (Local Breaker Backup) Protection at Omkareshwar Hydel Power Station due to sticking of poles of generator circuit breaker causing tripping of lines and generators have been discussed. The NHDC informed that the scheme has been modified and now there would not be any problem. However, the same is pending for 220 KV OSP-Nimrani breaker which will be completed soon.

ITEM NO. 10 : FREE GOVERNOR MODE OF OPERATION ON ALL GENERATING UNITS INSTALLED.

The OSD, SLDC has informed that the Hon'ble CERC in order dated 20.08.2009 in petition No. 66/2003 has directed the implementation of only restricted governor operation in various types of thermal and hydro units as per the following schedule:

a) KWU & LMZ turbines for thermal sets of 200 MW and above:

- i) Software based EHG system; - 01.03.2010
- ii) Hardware based EHG system where boiler controls are in "Auto"; - 01.06.2010

b) Hydro units of 10 MW and above - 01.03.2010

All the generating companies have been requested to place before the Commission, within a month, their action plan in line with the above schedule and furnish monthly progress reports to the Commission in this regard. The MPPGCL and NHDC agreed for the same.

ITEM No.11 : DATE AND VENUE OF NEXT OCC MEETING ::

The 17th meeting of Operation and Coordination Committee of MP shall be held on 16th November-2009 at SLDC, MPPTCL, Jabalpur.

ANNEXURE - 1

LIST OF PARTICIPANTS IN THE 16TH OCC MEETING

S.No.	NAME	DESIGNATION
1	Shri R.P. SHARMA	OSD, SLDC and CHAIRMAN, OCC
2	Shri P.A.R. BENDE	SE(LD) and MEMBER SECY ,OCC
3	Shri SURYA BALI	AGM, TRADCO
4	Shri ANIL D. AMBAWANI	S.E.(T&C) ,MPPTCL BHOPAL
5	Shri PRASHANT PANWALKAR	E.E. O/O S.E. (T&C) BHOPAL
6	Shri S.S. NIGAM	S.E.(PS) ,JABALPUR
7	Shri A.K. DAS	S.E. o/o ED(T&P:PMU) ,JABALPUR
8	Shri RAKESH KUMAR JAIN	E.E. (OPN) ATPS , CHACHAI
9	Shri SUBHASH DESHPANDE	E.E. o/o ED (O& M GEN.), JABALPUR
10	Shri SHYAMJI TIWARI	DIRECTOR (DCC-EZ), JABALPUR
11	Shri NEERAJ KUCHIYA	A.E. (DCC-EZ), JABALPUR
12	Shri ASHOK NIKOSE	E.E. (DCC-EZ), JABALPUR
13	Shri RAJEEV KESKAR	E.E. (DCC-CZ) BHOPAL
14	Shri K.C. MISHRA	E.E. (DCC-CZ) BHOPAL
15	Shri S.J. MARATHE	A.E.E. (DCC-CZ) BHOPAL
16	Shri K.K. SHARMA	A.E. (DCC-CZ) BHOPAL
17	Shri RAVI SHARMA	J.E. (DCC-CZ) BHOPAL
18	Shri S.A. ANSARI	C.E.(COMML & IT), MPMKVVCL, BHOPAL
19	Shri SANJAY MOHASE	ADD. C.E. (W & P), INDORE
20	Shri PRADEEP GOYAL	S.E. (DCC-WZ) INDORE
21	Shri S.K. JAIN	E.E. (WZ) INDORE
22	Shri M.K. JAITWAL	ADDL. S.E. (SUB- SLDC) INDORE
23	Shri PRADEEP SCHAN	E.E. (SUB- SLDC) BHOPAL
24	Shri S. SANYAL	C.E.(COMML.) ,NHDC, BHOPAL
25	Shri ARURAG SETH	S.M.(COMML), NHDC, BHOPAL
26	Shri HARISH KUMAR SHARMA	D.M.(E), NHDC, OSP , KHANDWA

Voltage Profile During the Month of July 2009

Date	Indore		Itarsi		Bina		Gwalior		Nagda	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	411	387	417	396	418	397	425	393	423	397
2	410	388	416	393	411	397	418	389	422	398
3	414	392	420	402	417	406	418	393	426	403
4	416	396	420	404	414	404	411	382	427	405
5	416	397	420	404	416	402	417	384	426	405
6	418	387	421	394	413	395	412	378	424	394
7	418	394	421	402	412	400	417	384	427	401
8	416	401	420	405	412	395	412	371	424	409
9	420	400	423	405	415	398	415	384	427	407
10	417	402	421	409	414	400	416	382	425	410
11	417	399	421	405	414	402	420	391	426	407
12	416	401	420	405	419	397	420	383	424	409
13	417	396	423	404	421	395	427	386	425	403
14	416	399	421	404	418	402	420	394	424	407
15	417	400	422	407	417	403	421	389	425	409
16	416	399	421	407	416	395	417	384	424	406
17	418	404	424	409	416	399	414	382	427	411
18	420	401	424	408	414	401	416	384	427	406
19	420	404	424	406	417	401	427	379	428	410
20	416	399	421	410	411	397	412	365	423	406
21	417	400	422	414	419	400	421	384	424	407
22	418	401	421	414	423	398	425	377	424	406
23	417	407	423	414	413	399	417	379	422	410
24	423	400	429	401	423	392	424	381	430	406
25	422	399	426	406	424	396	422	382	428	404
26	419	403	421	409	415	398	418	386	424	405
27	418	402	421	409	419	401	421	386	423	408
28	423	404	428	413	427	403	428	390	429	407
29	421	403	428	411	422	408	429	398	428	409
30	416	400	428	407	420	399	423	384	424	409
31	417	401	423	409	418	392	424	375	424	407
Max	423	387	429	393	427	392	429	365	430	394

Voltage Profile During the Month of August 2009

Date	Indore		Itarsi		Bina		Gwalior		Nagda	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	417	400	422	409	416	396	414	382	424	406
2	419	401	423	409	412	397	416	380	425	406
3	417	400	421	409	411	400	407	379	426	407
4	416	400	422	407	417	394	413	378	426	408
5	417	403	422	410	415	395	414	381	424	407
6	417	399	421	406	415	392	414	3814	424	402
7	412	392	419	400	409	396	411	378	422	401
8	415	393	420	402	412	391	410	381	426	403
9	413	393	419	400	410	389	410	384	424	400
10	411	382	419	393	415	386	412	375	424	394
11	411	382	419	393	415	401	401	384	424	394
12	414	397	421	407	416	404	411	383	424	407
13	410	397	419	404	414	400	409	372	420	406
14	416	402	426	411	421	405	420	391	426	404
15	416	399	426	410	426	399	426	392	427	406
16	417	413	429	410	429	408	436	400	428	423
17	414	399	424	408	423	400	425	398	424	405
18	418	401	426	406	424	406	425	388	423	402
19	414	397	424	409	424	394	428	397	424	406
20	413	391	426	404	415	399	415	391	423	399
21	413	391	426	404	415	401	419	387	423	399
22	414	394	426	406	417	396	418	384	422	404
23	410	392	419	404	413	379	415	376	419	399
24	414	392	423	404	413	379	418	376	419	399
25	416	397	421	404	412	395	416	383	427	404
26	415	400	420	406	415	398	415	384	424	410
27	416	394	423	404	421	396	419	387	424	406
28	417	404	425	411	418	404	416	392	427	413
29	418	404	423	413	415	401	418	385	427	414
30	419	402	422	408	418	400	413	394	428	412
31	417	400	423	406	3413	396	421	387	425	407

Discoms wise Average Supply Hours

PARTICULARS	East Zone		Central Zone		West Zone		MP	
	Jul-09	Aug-09	Jul-09	Aug-09	Jul-09	Aug-09	Jul-09	Aug-09
Commissinary HQ	22:24:00	22:29	22:38:00	22:19	22:42	22:59	22:34	22:28
District HQ	21:29	19:26	20:15	19:25	21:32	19:41	21:03	19:24
Tehsil HQ	15:17	11:41	15:26	13:14	16:08	12:36	15:35	12:27
Rural -3Phase	6:29	4:31	6:48	5:39	6:47	4:58	6:41	5:00
Rural -1Phase	6:12	4:39	5:12	4:02	6:42	5:28	6:01	4:42
Total Rural	12:41	9:10	12:00	9:41	13:29	10:26	12:42	9:42

Anticipated Average Availability at MP Periphery: 2009-10

Figures in MW

Particulars											Sep-09				
											0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU
Thermal (R-5)											1502	1502	1502	1502	1081
Hydel											70	0	0	240	56
CSS											1559	1559	1559	1559	1122
ISP											160	0	0	320	86
SSP											30	30	30	240	59
Omkareshwar											50	50	50	50	36
DVC											100	100	100	100	72
Total											3470	3240	3240	4010	2513
Avg Unres. Demand											4100	3900	3700	4800	
Particulars	Oct-09					Nov-09					Dec-09				
	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU
Thermal (R-5)	1729	1729	1729	1729	1286	1911	1911	1911	1911	1376	1911	1911	1911	1911	1422
Hydel	90	0	10	290	73	100	50	10	360	94	100	50	10	390	102
CSS	1606	1606	1606	1606	1195	1581	1581	1581	1581	1139	1530	1530	1530	1530	1138
ISP	240	0	0	380	115	260	0	0	500	137	230	0	0	498	135
SSP	30	30	30	240	61	120	30	30	310	88	120	30	30	310	91
Omkareshwar	50	50	50	50	37	50	50	50	160	56	50	50	50	160	58
DVC	100	100	100	100	74	100	100	100	100	72	100	100	100	100	74
Total	3845	3515	3525	4395	2842	4122	3722	3682	4922	2961	4041	3671	3631	4899	3021
Avg Unres. Demand	5200	5000	5000	5800		6500	6300	6000	7000		6600	6500	6200	7100	
Particulars	Jan-10					Feb-10					Mar-10				
	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU	0 to 06	06 to 12	12 to 18	18 to 24	Energy in MU
Thermal (R-5)	1911	1911	1911	1911	1422	1911	1911	1911	1911	1284	1911	1911	1911	1911	1422
Hydel	100	0	10	300	76	60	0	0	220	47	10	0	0	180	35
CSS	1651	1651	1651	1651	1228	1567	1567	1567	1567	1053	1646	1646	1646	1646	1225
ISP	220	0	0	440	123	170	0	0	390	94	160	0	0	370	99
SSP	120	30	30	270	84	100	30	30	200	60	100	30	30	200	67
Omkareshwar	50	50	50	160	58	50	50	50	110	44	50	50	50	110	48
DVC	100	100	100	100	74	100	100	100	100	67	100	100	100	100	74
Total	4152	3742	3752	4832	3065	3958	3658	3658	4498	2650	3977	3737	3737	4517	2970
Avg Unres. Demand	6400	6300	5900	6900		5800	5700	5400	6400		5200	5000	4800	5800	