

पश्चिम क्षेत्रीय भार प्रेषण केंद्र की
मई 2011 माह की प्रणाली प्रचालन रिपोर्ट

**System Operation Report
Of Western Region**

For the month of May 2011



पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
(पावरग्रिड की एक पूर्ण स्वामित्व वाली कंपनी)

पश्चिम क्षेत्रीय भार प्रेषण केन्द्र, मुम्बई

Power System Operation Corporation Ltd.
(A wholly owned subsidiary company of POWERGRID)
Western Regional Load Despatch Centre, Mumbai

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SYSTEM OPERATION REPORT OF WESTERN REGION
FOR THE MONTH OF MAY 2011

A)SUMMARY REPORT

I)IMPORTANT EVENTS

a)COMMISSIONING OF NEW GENERATING UNITS

SL.NO.	CONSTITUENT	UNIT NAME	UNIT NO	C`ty(MW)	DATE
1	NIL	NIL	NIL	NIL	NIL

b)COMMISSIONING OF NEW TRANSMISSION LINES

SL.NO.	CONSTITUENT	LINE NAME	CKT NO	KV	DATE
1	GETCO	Limbdi-Vadavi	I	400	16/05/11
2	POWERGRID	Bina-Sujalpur	D/C	400	29/05/11
3	POWERGRID	Sujalpur-Nagda	I	400	29/05/11
4	POWERGRID	Sujalpur-Nagda	II	400	30/05/11
5	POWERGRID	Parli(MSETCL) -Parli(PG)	D/C	400	30/05/11

c)COMMISSIONING OF NEW SUBSTATIONS

NIL

d)COMMISSIONING OF NEW ICT / BUS /LINE REACTORS

SL.NO.	CONSTITUENT	STATION NAME	KV RATIO	CAPACITY	DATE
1	DNH	Khadoli	220/66	160	25/05/11
2	POWERGRID	Parli(PG)	400/220	50	30/05/11

e) Major problem/constraints affecting Grid operation including major Grid disturbances

NIL

i) Grid Separations **NIL**

ii) Grid Disturbances **NIL**

माह मई 2011 में पश्चिम क्षेत्र का निष्पादन डाटा

Performance of Western Regional Grid during May - 2011
Schedule and Drawal Of Constituents from Central sector

Sl. No.	State/U.T/ System	Schedule (Mus)	Actual Drawal (MUs)	Total Over (+)/Under (-) drawal (MUs)	Overdrawal at Freq. <49.5Hz (MUs)	Underdrawal at Freq. >50.2Hz (MUs)
1	गुजरात Gujarat	743.37	564.29	-179.08	0.524	2.907
2	मध्य प्रदेश Madhya Pradesh	1706.09	1690.63	-15.46	0.94	2.31
3	महाराष्ट्र Maharashtra	2368.06	2782.37	414.31	4.35	0.441
4	छत्तिसगढ Chhattisgarh	-185.75	-198.53	-12.78	0.873	2.011
5	गोवा Goa	216.37	192.31	-24.06	0.077	1.645
6	दमन और दीव D&D	175.12	158.6	-16.52	0.023	0.87
7	दादर नगर हवेली	348.2	321.57	-26.63	0.046	1.29
8	कुल TOTAL	5371.46	5511.24	36.42	6.835	11.474

आवृत्ति रूपरेखा

III a. Frequency Profile

MAXIMUM FREQUENCY(Inst.):	50.95 HZ
आधिकतम आवृत्ती एकिकृत :	
Minimum frequency(Inst)	49.00 HZ
न्यूनतम आवृत्ती एकिकृत :	
Average frequency	49.89 HZ
औसत आवृत्ती	

b. आवृत्ती वितरण प्रतिशत में Frequency distribution in %

HZ	<48.8	48.8 - 49.2	49.2 -49.5	49.5-50.2	50.2-51.0	>51.0
%	0	0.2	2.92	92.22	4.66	0.00

IV Power Supply Position and Peak Demand / Met In Western Region

a. विद्युत पूर्ति की स्थिति Power Supply Position

	May-11			April -11 TO May -11		
	Requirement (MUs)	Availability (MUs)	Shortage (%)	Requirement (MUs)	Availability (MUs)	Shortage (%)
Gujarat	6777	6750	0.40	13589	13487	0.75
MPSEB	3853	3234	16.07	7914	6546	17.29
CSEB	1831	1816	0.82	3656	3619	1.01
Maharashtra	12346	10542	14.61	24809	21238	14.39
Goa	231	228	1.30	469	463	1.28
D&D	196	156	20.43	373	313	16.10
DNH	328	325	0.91	676	669	1.03
Western Region	25573	23053	9.85	51522	46363	10.01

b. Peak Demand / Demand Met(MW)

	May-11			April -11 TO May -11		
	Requirement (MW)	Availability (MW)	Shortage (%)	Requirement (MW)	Availability (MW)	Shortage (%)
Gujarat	10589	10459	1.23	10589	10459	1.23
MPSEB	7329	6233	14.95	7664	7511	2.00
CSEB	2891	2814	2.66	3408	2908	14.67
Maharashtra	20574	16560	19.51	20574	16923	17.75
Goa	421	405	3.80	421	405	3.80
D&D	253	225	11.07	264	248	6.06
DNH	473	469	0.85	514	511	0.58
Western **Region	40223	35066	12.82	41249	35388	14.21

**Regional demand met is the simultaneous demand met and not the sum of demand met by constituent .

PEAK DEMAND FOR MAY.2011

State	Catered	UNSCHLS +SCHLS	FC	PC	Total	Date	Time	Freq.
दिव दमण DD								
पंजीकृत Registered	269	-	-	-	269	02.05.11	24:00	49.69
दादरा नगर हवेली DNH								
पंजीकृत Registered	492	-	-	-	492	02.05.11	16:00	49.77
गुजरात GUJARAT								
पंजीकृत Registered	10459	-	-	-	10459	30.05.11	15:00	49.67
असीमित Unrestricted	10459	0	121	0.00	10580	30.05.11	15:00	49.67
छत्तीसगढ़ रा .वि.बोर्ड Chhattisgarh								
पंजीकृत Registered	2814	-	-	-	2814	03.05.11	19:00	50.17
असीमित Unrestricted	2788	98	5	0	2891	02.05.11	19:00	49.95
मध्य प्रदेश रा .वि.बोर्ड Madhy Pradesh								
पंजीकृत Registered	6233	-	-	-	6233	18.05.11	21:00	49.77
असीमित Unrestricted	6175	1080	71	0	7326	17.05.11	21:00	49.67
महाराष्ट्र रा .वि.बोर्ड-MAHA-RASHTRA								
पंजीकृत Registered	16560	-	-	-	16560	31.05.11	16:00	49.80
असीमित Unrestricted	14815	5474	285	0	20574	25.05.11	15:00	49.45
पश्चिम क्षेत्र WESTERN REGION								
पंजीकृत Registered	35066	-	-	-	35066	03.05.11	21:00	49.95
असीमित Unrestricted	34909	4960	354	0	40223	04.05.11	21:00	49.71

माह मई 2011 में अंतर क्षेत्र से पश्चिम क्षेत्र को विद्युत विनिमय

Inter-Regional Exchange of Power in Western Region during May -11

DESCRIPTION	Import (Mus)
Indian Energy Exchange (ER to WR)	48.38
Power Exchange of India (ER to WR)	13.73
ER (NTPC) to GUVNL	50.93
ER (NTPC) to MP PTCL	31.04
ER (NTPC) to CSEB	12.59
ER (NTPC) to MSEDCL	62.14
ER (NTPC) to GOA	0.00
ER (NTPC) to D D	0.82
ER (NTPC) to D N H	1.26
DVC to MPPTCL (Long Term Open Access)	81.13
Hirakud to CSEB	1.32
MEGHALAYA to CSEB (NVVNL)	4.37
SIKKIM to RINFRA MSEB (SIKKIM)	21.70
STERLITE to MSEB (NVVNL)	4.57
NBVL to MPSEB (NVVNL)	8.52
Indian Energy Exchange (NR to WR)	439.07
Rihand (Hydro) to MPPTCL (Long Term Open Access)	1.88
Matathilla (Hydro) to MPPTCL (Long Term Open Access)	1.57
RPPC to CSEB (NVVNL)	57.92
JK to CSEB (NVVNL)	72.47
DESCRIPTION	Export(Mus)
MPSEB to WBSEB (NVVNL)	12.13
PCBL GUVNL to NPCL (NPCL)	10.70
TPC MSEB to UPCL (KISPL)	0.41
MIELMH CSEB to PSEB (LANCO)	8.77
NDPL(DTL) to KSEB (GMRETL)	0.08
APPCC to DTL (PTC LTD)	0.39
GUVNL to UPPCL (NVVNL)	71.54
MPSEB to UPPCL (UPPCL)	12.03
RINFRA MSEB to UPPCL (UPPCL)	38.29
HARIYANA to TNEB (TNEB)	90.35
GUVNL to NPCL (NPCL)	35.67
CSEB to UPPCL (PTC LTD)	71.54
CSEB to HARIYANA (PTC LTD)	0.86
JPL to UPCL (JPL)	47.07
GANDHAR-LNG to RPPC (NVVNL)	0.89
CSEB to NDMC(DTL) (PTC LTD)	6.26
APPCC to BSES_RAJ (PTC LTD)	0.59
AMNEPL MSEB to UPPCL (TPTCL)	3.15
WARDHA MSEB to UPPCL (KISPL)	17.87

DESCRIPTION	Export(Mus)
TPC MSEB to UPPCL (KISPL)	12.35
CSEB to BSES_RAJ (PTC LTD)	0.82
JPL to APPCC (NVVNL)	138.64
VIL CSEB to APPCC (KISPL)	3.72
GUVNL to TNEB (TNEB)	62.64
MSPSPL CSEB to APPCC (KISPL)	4.37
REALISPAT CSEB to APPCC (KISPL)	4.70
TORRENT_GUVNL to BESCO (NVVNL)	0.00
CSEB to TNEB (PTC LTD)	0.00
MSPPL CSEB to APPCC (KISPL)	2.66
MIEL CSEB to APPCC (NVVNL)	17.20
BALCO CSEB to APPCC (NVVNL)	35.22
NET IMPORT FROM ER	36.96
NET EXPORT TO NR	571.70
NET EXPORT TO SR	688.03

दिनांक 31 | 05 | 2011 को राज्यानुसार संस्थापित क्षमता
INSTALLED GENERATION CAPACITY OF THE STATES INCLUDING SHARES AS ON 31.05.2011

(All fig. in MW)

State	Ownership	Hydro	Coal	Gas	Nuclear	Total	Diesel	RES	Total
Gujarat	State	772.00	4440.00	892.72	0.00	6104.72	17.28	29.90	6151.90
	Private	0.00	2630.00	2577.50	0.00	5207.50	0.20	1821.14	7028.84
	Central(firm allo)	0.00	1628.89	424.27	559.32	2612.48	0.00	0.00	2612.48
	Total	772.00	8698.89	3894.49	559.32	13924.70	17.48	1851.04	15793.22
Madhya Pradesh	State	1703.66	2807.50	0.00	0.00	4511.16	0.00	11.76	4522.92
	Private	0.00	0.00	0.00	0.00	0.00	0.00	232.60	232.60
	Central(firm allo)	1520.00	1552.60	257.18	273.24	3603.02	0.00	0.00	3603.02
	Total	3223.66	4360.10	257.18	273.24	8114.18	0.00	244.36	8358.54
Chhattisgarh	State	120.00	2060.00	0.00	0.00	2180.00	0.00	19.05	2199.05
	Private	0.00	1600.00	0.00	0.00	1600.00	0.00	199.90	1799.90
	Central(firm allo)	0.00	804.00	0.00	47.52	851.52	0.00	0.00	851.52
	Total	120.00	4464.00	0.00	47.52	4631.52	0.00	218.95	4850.47
Maharashtra	State	2884.84	7295.00	672.00	0.00	10851.84	0.00	257.73	11109.57
	Private	447.00	2905.00	180.00	0.00	3532.00	0.00	2316.15	5848.15
	Central(firm allo)	0.00	2138.05	2623.93	690.14	5452.12	0.00	0.00	5452.12
	Total	3331.84	12338.05	3475.93	690.14	19835.96	0.00	2573.88	22409.84
Goa	State	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05
	Private	0.00	0.00	48.00	0.00	48.00	0.00	30.00	78.00
	Central(firm allo)	0.00	283.03	0.00	25.80	308.83	0.00	0.00	308.83
	Total	0.00	283.03	48.00	25.80	356.83	0.00	30.05	386.88
DD	State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Central(firm allo)	0.00	21.04	4.20	7.38	32.62	0.00	0.00	32.62
	Total	0.00	21.04	4.20	7.38	32.62	0.00	0.00	32.62
DNH	State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Central(firm allo)	0.00	25.04	27.10	8.46	60.60	0.00	0.00	60.60
	Total	0.00	25.04	27.10	8.46	60.60	0.00	0.00	60.60
WR	State	5480.50	16602.50	1564.72	0.00	23647.72	17.28	318.49	23983.49
	Private	447.00	7135.00	2805.50	0.00	10387.50	0.20	4599.79	14987.49
	Central(firm allo)*	1520.00	5748.30	3336.68	1611.86	12216.84	0.00	0.00	12216.84
	Unallocated	0.00	950.35	196.91	228.14	1375.40	0.00	0.00	1375.40
	Total	7447.50	30436.15	7903.81	1840.00	47627.46	17.48	4918.28	53267.57

Note - Renewable Energy Sources (RES) includes Small Hydro Project, Biomass Gasifier, Biomass Power, Urban & Industrial Waste Power

c) SAILENT FEATURE OF WESTERN REGION GRID FOR THE MONTH OF May -2011

1. स्थापित क्षमता Installed Capacity (MW)	गुजरात Gujarat	मध्य प्रदेश M.P	छत्तिसगढ CSEB	महाराष्ट्र Mah.	गोवा Goa	सेंट्रल सेक्टर Central Sector	सेंट्रल सेक्टर Central unlocated	पश्चिम क्षेत्र Western Region
May'10	14325	8281	4769	21469	50689	13872	1375	50689
May'11	15793.22	8359	4850	22410	387	12217	1375	53268
वृद्धि प्रतिशतमें % increase	10.25	0.94	1.70	4.38	-99	-11.93	0.0	5.09
2. उर्जा Energy (Gross)	गुजरात Gujarat	मध्य प्रदेश M.P	छत्तिसगढ CSEB	महाराष्ट्र Mah.	गोवा Goa	दिव दमण DD	दादरा नगर हवेली DNH	प क्षेत्र Western Region
असिमित आवश्यकता Unrestricted requirement (MUs)								
मई May'10	6965	1659	3820	12541	235	116	326	25661
मई May'11	6777	3853	1831	12346	231	196	328	25573
असिमित आवश्यकता Unrestricted Requirement MUs/day								
मई May'10	225	54	123	405	8	4	11	828
मई May'11	219	124	59	398	7	6	11	825
ऊर्जा उपलब्धता Energy availability (MUs)								
मई May'10	6448	1650	3035	9956	220	113	325	21748
मई May'11	6750	3234	1816	10542	228	156	325	23053
ऊर्जा उपलब्धता Energy availability MUs/day								
मई May'10	208	53	98	321	7	4	10	702
मई May'11	218	104	59	340	7	5	10	744
3. मांग Demand	गुजरात Gujarat	मध्य प्रदेश M.P	छत्तिसगढ CSEB	महाराष्ट्र Mah.	गोवा Goa	दिव दमण DD	दादरा नगर हवेली DNH	प क्षेत्र Western Region
असिमित मांग Unrestricted demand (MW)								
मई May'10	10433	2742	6672	20308	544	235	490	39260
मई May'11	10589	7329	2891	20574	421	253	473	40223
प्रतिशत in%	1.50	167.29	-56.67	1.31	-22.61	7.66	-3.47	2.45
चरम मांग Peak Demand met (MW)								
मई May'10	9725	2658	5420	15945	453	232	485	32472
मई May'11	10459	6233	2814	16560	405	225	469	35066
प्रतिशत in%	7.55	134.50	-48.08	3.86	-10.60	-3.02	-3.30	7.99
4. मांग और ऊर्जा में कमतरता प्रतिशतमें Shortage in demand and energy (%)								
क्षमतामें कमी Capacity shortage	गुजरात Gujarat	मध्य प्रदेश M.P	छत्तिसगढ CSEB	महाराष्ट्र Mah.	गोवा Goa	दिव दमण DD	दादरा नगर हवेली DNH	पश्चिम क्षेत्र Western Region
अधिशेष (-)/surplus (+) (MW)								
मई May'10	-708	-84	-1252	-4363	-91.00	-3.00	-5.00	-6788
प्रतिशत in%	-6.79	-3.06	-18.76	-21.48	-16.73	-1.28	-1.02	-17.29
मई May'11	-130	-1096	-77	-4014	-16	-28	-4	-5157
प्रतिशत in%	-1.23	-14.95	-2.66	-19.51	-3.80	-11.07	-0.85	-12.82
ऊर्जा में कमी Energy अधिशेष Surplus (+) (MUs)	गुजरात Gujarat	मध्य प्रदेश M.P	छत्तिसगढ CSEB	महाराष्ट्र Mah.	गोवा Goa	दिव दमण DD	दादरा नगर हवेली DNH	प क्षेत्र Western
मई May'10	-516.41	-9.39	-785.09	-2585.04	-14.66	-2.11	-1.05	-3913.75
प्रतिशत in%	-7.41	-0.57	-20.55	-20.61	-6.24	-1.83	-0.32	-15.25
मई May'11	-27.00	-619.00	-15.00	-1804.00	-3.00	-40.00	-3.00	-2520.00
प्रतिशत in%	-0.40	-16.07	-0.82	-14.61	-1.30	-20.41	-0.91	-9.85

माह मई 11 में ग्रिड के प्रमुख उप केन्द्र का विद्युतदाब रूपरेखा

Voltage Profile of major Sub-Stations for the month of May -2011

क्षेत्र Region	सब स्टेशनका नाम	अर्कितमूल्य विद्युतदाब Nominal	विद्युतदाब स्थिती (प्रतिशत समय)			अधिकतम विद्युतदाब Max.	न्यूनतम विद्युतदाब Min.	संक्षिप्त स्पष्टीकरण Brief Explanation
	Sub station name	Voltage(KV)	Percentage of time when voltage was			Voltage(KV)	Voltage(KV)	
			Below 0.97 p.u.	0.97-1.03 p.u	Above 1.03 p.u.			
Western	धुले Dhule	400	0.00	14.51	85.49	432	398	
	असोज Asoj	400	0.00	0.00	100.00	427	404	
	कराड Karad	400	0.28	45.63	54.08	430	382	
	कासोर Kasor	400	0.00	14.22	85.78	431	407	
	इन्दौर Indore	400	0.15	23.85	76.01	427	395	
	इटारसी Itarsi	400	0.00	30.13	69.87	427	395	
	जेतपुर Jetpur	400	0.00	1.93	98.07	432	405	
	भिलाई Bhilai	400	0.00	43.62	56.38	429	397	
	बिना Bina	400	0.12	54.65	45.24	434	393	
	ग्वालियर Gwalior	400	0.25	46.94	52.82	437	379	

A) Inter-Regional Transfer Of Energy For The Month Of May- 2011	
EXPORT	Mus
NET IMPORT FROM ER	36.96
NET EXPORT TO NR	571.70
NET EXPORT TO SR	688.03

B) INTRA- REGIONAL ENERGY EXCHANGES(In Mus)	
DESCRIPTION	Mus
VGL CSEB to BEST MSEB (GMRETL)	2.25
NSPCL CSEB to DD (BILATERAL)	47.36
SSPL CSEB to MPSEB (NVVNL)	4.92
RREL CSEB to MPSEB (NVVNL)	4.79
BALCO CSEB to MSEB (NVVNL)	31.92
VIL GUVNL to MPSEB (NVVNL)	5.89
MIEL CSEB to MPSEB (NVVNL)	5.68
BALCO CSEB to BEST MSEB (4.27
SBMPL CSEB to MPSEB (NVVNL)	2.95
MPSEB to RINFRA MSEB (RINFRA	24.30
JPL to RINFRA MSEB (JPL)	190.08
NSPCL CSEB to DNH (DNH)	67.65
TORRENT_GUVNL to MPSEB	73.82
BPIL CSEB to MPSEB (NVVNL)	6.70
BALCO CSEB to RINFRA MSEB	26.95
JPL to MSEB (NVVNL)	74.40
JPL to GOA (NVVNL)	27.53
WELSPUN GUVNL to MPSEB	4.75
WARDHA MSEB to MPSEB(KISPL)	12.00
TPC MESB to MPSEB(TPTCL)	16.28
SEML CSEB to MPSEB(NVVNL)	7.04
SCPL CSEB to BEST MSEB (GMRETL)	0.56
NSPCL CSEB to DD (DD)	19.26

(C) Exchanges through Indian Energy Exchange (All figures are in KWH)

(Figures in bracket are export)

TOTAL	GUVNL	MPPTCL	CSEB	MSEDCL	GOA	DD	DNH	JINDAL POWER	LANCO
(429793170)	(237,272,940)	3,357,120	(40,629,310)	(8,524,060)	(8,798,280)	0.000	0.000	(2,240,880)	(128,970,580)

(D) Exchanges through Power exchange India ltd. (All figures are in KWH)

(Figures in bracket are export)

TOTAL	GUVNL	MPPTCL	CSEB	MSEDCL	GOA	DD	DNH	JINDAL POWER
(109,978,510)	(110,123,410)	0	0	144,900	0	0	0	0

(E) Scope for further increase in Inter-state energy transfer and constraints if any: Nil

(F) Regulatory measures (If any) : Nil

AUFLS OPERATION DURING May, 2011

In the month of May, 2011 , frequency remained below 49.5 Hz for 3.12% of the time .
During the month frequency did not touch 48.8 Hz .

The details of operation of AUFLS are given below.

State	Dates on which frequency relays at 48.8 Hz operated	Actual load relief obtained (MW) (Range)	Load relief required as per the scheme (MW)	Dates on which U/F relays did not operate
Maharashtra	Nil	Nil	550	Nil
Gujarat	Nil	Nil	220	Nil
Madhya Pradesh	Nil	Nil	152	Nil
CSEB	Nil	Nil	38	Nil

Generating Station Details

CENTRAL SECTOR GENERATING STATIONS

NTPC					
TYPE	STATION	INSTALLED CAPACITY		EFFECTIVE CAPACITY	
		UNITS	TOTAL (MW)	UNITS	TOTAL (MW)
THERMAL	KSTPS	3x200+4x500	2600	3x200+4x500	2600
	VSTPS	6x210+4x500	3260	6x210+4x500	3260
	Sipat STPS-II	2X500	1000	2X500	1000
	Bhilai TPP	1x250	250	1x250	250
TOTAL THERMAL			7110		7110
GAS	KAWAS	4x106+2x116.1	656.20	4x106+2x116.1	656.20
	GANDHAR	3x144.3+1x224.49	657.39	3x144.3+1x224.49	657.39
TOTAL GAS			1313.59		1313.59
GRAND TOTAL			8423.59		8423.59

NPCIL

TYPE	STATION	INSTALLED CAPACITY		EFFECTIVE CAPACITY	
		UNITS	TOTAL (MW)	UNITS	TOTAL (MW)
NUCLEAR	TAPS	2x160+2x540	1400	2x160+2x540	1400
	KAPS	2x220	440	2x220	440
TOTAL NUCLEAR			1840		1840

CENTRAL SECTOR SUMMARY

TOTAL CENTRAL SECTOR	THERMAL		7110		7110
	GAS		1313.59		1313.59
	NUCLEAR		1840		1840
GRAND TOTAL (CENTRAL SECTOR)			10263.59		10263.59

STATE SECTOR GENERATING STATIONS

GUJARAT

TYPE	STATION	INSTALLED CAPACITY		EFFECTIVE CAPACITY	
		UNITS	TOTAL (MW)	UNITS	TOTAL (MW)
HYDRO	UKAI	4x75	300	4x75	300
	UKAI (LBCH)	2x2.5	5	2x2.5	5
	KADANA	4x60	240	4x60	240
	PANAM CANAL	2x1	2	2x1	2
	SARDAR SAROVAR	16% of 1450	232	16% of 1450	232
	TOTAL HYDRO			779	
THERMAL	A.E.Co.	1x60+2x110+120	400	1x60+2x110+120	400
	DHUVARAN	2x110	220	2x110	220
	UKAI	2x120+2x200+1x210	850	2x120+2x200+1x210	850
	GANDHI NAGAR	2x120+3x210	870	2x120+3x210	870
	WANAKBORI	7x210	1470	7x210	1470
	SIKKA	2x120	240	2x120	240
	KUTCH LIGNITE	2x70+2x75	290	2x70+2x75	290
	SURAT LIGNITE	4x125	500	4x125	500
	AKRIMOTA	2x125	250	2x125	250
	Mundra(APL)	4*330 + 1*660	1980	4*330 + 1*660	1980
TOTAL THERMAL			7070		7070
GAS	DHUVARAN	1x218.62	218.62	1x218.62	218.62
	TORRENT POWER	2X32.5+35.0(ST)	100	2X32.5+35(ST)	100
	UTRAN-I	3x33+1x45	144	2x30+1x32+1x45	137
	UTRAN-II	1X228+1X146(ST)	374	1X228+1X146(ST)	374
	GIPCL	1x106+1x54+2x125	410	1x106+1x54+2x125	410
	ESSAR	3x110+1x185 (ST)	515	3x110+1x185	515
	GAS	GPEC	3x135+1x250	655	3x135+1x250
	GSEG HAZIRA	2x52+1x52.1 (ST)	156.1	2x52+1x52.1 (ST)	156.1
	SUGEN	3X382.5	1147.5	3X382.5	1147.5
TOTAL GAS			3720.22		3713.22

Diesel			17.48		17.48
RES			2000.47		2000.47
TOTAL GUJARAT	HYDRO		779		779
	THERMAL		7070		7070
	GAS		3720.22		3713.22
GRAND TOTAL (GUJARAT)			13587.17		13580.17

MADHYA PRADESH

TYPE	STATION	INSTALLED CAPACITY		EFFECTIVE CAPACITY		
		UNITS	TOTAL (MW)	UNITS	TOTAL (MW)	
HYDRO	GANDHI NAGAR	5x23 (50%)	57.5	5x23 (50%)	57.5	
	R P SAGAR	4x43 (50%)	86	4x43 (50%)	86	
	J SAGAR	3x33 (50%)	49.5	3x33 (50%)	49.5	
	PENCH SHARE	2x80 (66.67%)	106.672	2x80 (66.67%)	106.672	
	BANASAGAR TONS	1x315	315	1x315	315	
	BARGI	2x50	100	2x50	100	
	BANASAGAR	1x30+1x60+1x20	110	1x30+1x60+1x20	110	
	BIRSINGHPUR	1x20	20	1x20	20	
	RAJGHAT	3x15(50%)	22.5	3X15(50%)	22.5	
	INDIRA SAGAR	8x125	1000	8x125	1000	
	MADHIKHEDA HEP	2X20	40	2X20	40	
	MINI & MICRO HYDRO	13.5	13.5	3.25	13.5	
	*	Omkareswar Hydro	8x65	520	8x65	520
		SARDAR SAROVAR	57% of 1450	826.5	57% of 1450	826.5
TOTAL HYDRO			3267.17		3267.17	
THERMAL	AMARKANTAK	2X120+1X210	450	2X120+1X210	450	
	SATPURA-I	5x62.5 (60%)	187.5	5x62.5 (60%)	187.5	
	SATPURA-II	1x200+1x210	410	1x200+1x210	410	
	SATPURA-III	2x210	420	2x210	420	
	S GANDHI TPS	4x210	840	4x210	840	
	S GANDHI TPS	1x500	500	1x500	500	
TOTAL THERMAL			2807.5		2807.5	
TOTAL MADHYA PRADESH	HYDRO		3267.17		3267.17	
	THERMAL		2807.5		2807.5	
Diesel			0		0	
RES			267		267	
GRAND TOTAL (MADHYA PRADESH)			6341.67		6341.67	

CHHATISGARH

TYPE	STATION	INSTALLED CAPACITY		EFFECTIVE CAPACITY	
		UNITS	TOTAL (MW)	UNITS	TOTAL (MW)
HYDRO	HASDEO BANGO	3x40	120	3x40	120
	Gangrel	1x5	5	1x5	5
TOTAL HYDRO			125		125
THERMAL	KORBA (E)	4x50+2x120	440	4X50+2X120	440
	KORBA (W)	4x210	840	4x210	840
	KORBA (E) ext-I	2x250	500	2x250	500
	JINDAL TPP	4x250	1000	4x250	1000
	LANCO-Amarkantak	2x300	600	2x300	600
TOTAL THERMAL			2780		2780
TOTAL CHHATISGARH	HYDRO		125		125
	THERMAL		2780		2780
Diesel			0		0
RES			250.95		250.95
GRAND TOTAL (CHHATISGARH)			3155.95		3155.95

MAHARASHTRA

TYPE	STATION	INSTALLED CAPACITY		EFFECTIVE CAPACITY	
		UNITS	TOTAL (MW)	UNITS	TOTAL (MW)
HYDRO	KOYNA I & II	4x(65+5)+4x(75+5)	600	4x(65+5)+4x(75+5)	600
	KOYNA III	4x80	320	4x80	320
	KOYNA DPH	2x20	40	2X18	36
	KOYNA IV	4x250	1000	4x250	1000
	KHOPOLI	1 TO 8	96	1 TO 8	96
	BHIVPURI	1 TO 7	99	1 TO 7	99
	BHIRA	6x25	150	6x25	150

TATA HYDRO	BHIRA PSS	1x150	150	1x150	150
	VAITHARNA	1x60+1x1.5	61.5	1x60+1x1.5	61.5
	ELDARI	3x7.5	22.5	3x7.5	22.5
	VEER & BHATGAR	2x4.5+1x16	25	2x4.5+1x16	25
	PAITHAN	1x12	12	1x12	12
	TILLARI	1x60	60	1x60	60
	RADHANAGRI	4x1.2	4.8	4x1.2	4.8
	BHIRA T/R	2x40	80	2x40	80
	BHANDARDHARA	1 & 2	46	1 & 2	46
	DUDHGANGA	2x12	24	2x12	24
	PENCH DRAWAL	2x80 (33.33%)	53.328	2x80 (33.33%)	53.328
	PAWANA	1x10	10	1x10	10
	BHATSA	1x15	15	1x15	15
	DHOM	2x1	2	2x1	2
	KANHAR	1x4	4	1x4	4
	MANIKDOH	1x6	6	1x6	6
	UJJANI	1x12	12	1x12	12
	DIMBHE	1x5	5	1x5	5
	SURYA	1X6+1X0.75	6.75	1x0.75+1x6	6.75
	PANSHET	1x8	8	1x8	8
	VARASGAON	1x8	8	1x8	8
	WARNA	2x8	16	2x8	16
	YEOTESHWAR	1x0.08	0.08	1x0.08	0.08
	TERWANMEDHE	1x0.2	0.2	1x0.2	0.2
	GHATGHAR	2x125	250	2x125	250
	SARDAR SAROVAR	27% of 1450	391.5	27% of 1450	391.5
	TOTAL HYDRO		3578.658		3574.658
THERMAL	CHANDRAPUR	4x210+3x500	2340	4x210+3x500	2340
	TROMBAY	1x150+2x500+1X250	1400	1x150+2x500+1X250	1400
*	KORADI	1x200+2x210	620	1x200+2x210	620
	NASIK	2x125+3x210	880	2x125+3x210	880
	KHAPERKHEDA	4x210	840	4x210	840
*	PARLI	2x20+3x210	670	2x20+3x210	670
	BHUSAWAL	2x210	420	2x210	420
	REL DAHANU	2x250	500	2x250	500
*	PARAS	1x55	55	1x55	55
	PARAS	2x250	500	2x250	500
	NEW PARLI	2x250	500	2x250	500
	JSW Ratnagiri	4x300	1200	4x300	1200
	Wardha Warora	3x135	405	3x135	405
	TOTAL THERMAL		10330		10330
GAS	TROMBAY-7A & 7B	120+60	180	120+60	180
	URAN (G)	4x60+4x108	960	3x60+4x108	900
	URAN-DPH	2x120	240	2x120	240
	RATNAGIRI PH - I	PHASE-I	740	PHASE-I	740
	RATNAGIRI PH -II	PHASE-II	740	PHASE-II	740
	RATNAGIRI PH- III	PHASE-III	740	PHASE-III	740
	TOTAL GAS		3600		3540
Diesel			0		0
RES			2809.33		2809.33
MAHARASHTRA	HYDRO		3578.658		3574.658
	THERMAL		10330		10330
	GAS		3600		3540
	WIND+RES		2809.33		2809.33
	GRAND TOTAL (MAHARASHTRA)		23127.318		23063.318
GOA					
TYPE	STATION	INSTALLED CAPACITY		EFFECTIVE CAPACITY	
		UNITS	TOTAL (MW)	UNITS	TOTAL (MW)
Diesel			0		0
RES			30		30
GAS	RELIANCE, SALGAONKAR	1x39.82+1x8.2	48.02	1x39.82+1x8.2	48.02
	GRAND TOTAL (GOA)		78.02		78.02

*PARAS-2, PARLI-1&2,BHUSAWAL-1 ,& KORADI 1TO 4 DERATED BY 565 MW TOTAL

PROGRESS OF TRANSMISSION LINE CONSTRUCTION IN WR

	Name of transmission line	<u>Length in ckt km.</u>	Commissioning Schedule	Remarks
A	Gujarat			
	I)400kV Lines			
1	Essar - Hadala	226	July'11	work under progress,ROW Problems
2	400 kV Adani-Zerda Line no.2	661.12	May`12	Work under progress
3	400 kV Adani-Zerda Line no.1	661.12	Oct'11	Package awarded
	II)220kV Lines			
1	220 KV D/C Utran- Kosamba s/s from Vav-Zagadia line-II	86	July'11	work under progress, ROW Problem
2	220 KV D/C GSEG(Hazira)-Kosamba line	124	July'11	Work under progress
3	220 KV D/C GPPC-Dhokadva line	100	July'11	Work under progress
4	LILO of one circuit of 220 KV D/C Savarkundla-Otha line at GPPC	93	June'11	Work under progress
5	LILO of 220 KV Morbi-Halvad line 1 at 400 KV Bhimasar (PG) S/S	215	July'11	Check survey work under progress
6	LILO of 220 KV Morbi-Halvad line 2 at 400 KV Bhimasar (PG) S/S	210	June'11	Check survey work under progress
7	220 KV GSEG(Hazira)-Mota line	111.06	July'11	Check survey work under progress
8	220 KV D/C Nakhatrana-Varsana line	190	June'11	Check survey work under progress
B)	Madhya Pradesh			
	I) 400kV Lines			
	II) 220kV Lines			
1	LILO of 1st ckt DCDS200KV Gwalior-Malanpur at 400kv Gwalior PGCIL S/S	16.4	2011-12	Work restarted and is nearing completion
2	Satna - Chhatapur line	156.32	2011-12	Work under progress
3	Jabalpur-Narsingpur part line for 400kv PGCIL Sukha	153.14	2011-12	Work almost completed, charging being arranged
4	Chegoan - Nimrani	205	2011-12	Work almost completed, charging being arranged
5	Maheshwar - Rajgarh	230	2011-12	Forest approval not yet received.work not commenced
6	Dewas - Astha line	144	2011-12	Work in progress
C)	Chhatisgarh			
	I) 400kV Lines			
1	LILO of 400 kV Korba(west)-Bhilai to Raipur DCDS	25	Dec'11	Profile of 19.937 km has been approved.Work under progress
2	400 kV Korba(West) – Khedamara DCDS	224	June'12	Work under progress
3	400 KV DCDS Marwa TPP-Proposed 400 KV s/s Raipur	150	Mar'12	Work under progress

PROGRESS OF TRANSMISSION LINE CONSTRUCTION IN WR

	Name of transmission line	<u>Length in ckt km.</u>	Commissioning Schedule	Remarks
4	LILO of 400 KV Korba(W)Bhilai(Khedmara) line to Marwa TPP	65	Mar'12	Order placed
	II) 220kV Lines			
1	Korba- Bishrampur DCSS	153	2011-12	Payment for forest compensation has been made, work will start after second phase approval of forest.
2	220 KV DCSS Kheedmara - 220KV s/s Bemtara + 1 no. bay at Khedmara & 1 no. at Betemara	50.9	July'11	Work under progress
3	Chhuri - Mopka DC DS line	180	Mar'12	Profile of 34.84 km has been approved
D)	Maharashtra			
	I) 400kV Lines			
1	Bhusawal-II -A'rangabad (location 1-270&1-271)	190	July'11	work in progress
2	400 KV D/C line from Chandrapur-Wardha via Warora	123	Dec'11	Work in progress
3	400 KV line from Koradi TPS-Wardha s/s	120	Dec'11	Work in progress
	II) 220kV Lines			
1	Chitegaon-Shendra D/C	86.2	June'11	Work in progress
2	Beed - Patoda D/C	45	July'11	Work in progress
3	Parli TPS-Nanded M/C line (Waghala)	90.3	July'11	Work in progress
4	Jaina- Chikhali D/C	150	July'11	Work in progress
5	220kv D/C on D/C tower from 400kv Bhusawal-II to 220kv Amalner	182	July'11	Work still in progress
6	220 KV D/C on D/C Tower from Jeur-Paranda	30	Sep`11	Alt line LILO on 220KV usmanabad -barshi for panda is given to M/S Kalpatru
7	220 KV Koradi-Butibori II D/C line on M/C tower at 400 KV Koradi s/s	53	Sep`11	Work in progress
8	220 KV Paras-Balapur D/C on M/C	5.61	July'11	Work in progress
Sl.No	POWERGRID			
	765 kV & 400kv			
E)	W R Strengthening scheme-II			
	For Absorbing import in Eastern and Central part of WR			
1	765 kv 2nd s/c Seoni(PG)-Wardha(PG)	261	Aug`11	Work in progress
2	400 KVWardha(PG)-Parli(PG) D/C(quad.)	674	Jun'11	ROW problem
3	400 KVRaipur(PG) - Wardha(PG) D/C	741	Jan`12	Work affected due to ROW problem
5	400 KVParli (MSEB)-Parli (PG) D/C	14	Jun'11	Engg & survey under progress

PROGRESS OF TRANSMISSION LINE CONSTRUCTION IN WR

	Name of transmission line	Length in ckt km.	Commissioning Schedule	Remarks
For Regional strengthening in southern Maharashtra to be implemented through IPTC Route by WR				
6	400 KV Parli (PG)-Pune D/C	646	March'12	Objection from KEIPL SEZ on the line routing near Pune end.
7	400 KV Pune (PG)-A'bad(MSEB) D/C	450	March'12	Objection from KEIPL SEZ on the line routing near Pune end.
8	400 KV Parli(PG)-Pandharpur/Solapur D/C	272	Dec'11	Forest clearance received.Power line Xing proposal submitted for all cases
9	400 KV Solapur(PG)-Kolhapur(MSEB)	438	Aug'11	Forest clearance received submitted for PTCC clearence
10	LILO of L'khand(MSEB)-Kalwa(MSEB) at Pune(PG) D/C	2.4	Aug'11	PTCC clearance received
For Regional strengthening in Gujarat to be implemented through IPTC Route by WR transmission (Guj) Pvt.				
12	400 KV Rajgarh(PG)-Karamsad(GEB) D/C	468	June'11	Under Progress
14	400 KV Ranchodpura(GEB)-Zerda(GEB) D/C	280	June'11	
For Regional strengthening in Northern Madhya Pradesh				
Transmission system associated with Gandhar-II(GBPP)				
18	400 KV Gandhar-Kawas D/C	190	*	* 33 month from investment approval or from tying up date of FSA by NTPC whichever is later
19	400 KV Gandhar-Rajkot D/C	600	*	
WR strengthing system-V				
22	400 KV Vapi- Navi Mumbai D/C	258	March`13	Severe ROW problem
WR strengthing system-IX				
23	LILO of 400 KV Bina-Nagda Line at Sujalpur	60	30.05.2011	Charged
WR strengthing system-X				
24	LILO of 765 KV Sipat-Seoni line near Sipat at Bilaspur	14	Feb'12	Award placed in Dec`10 Engg in progress
WR strengthing system-XI				
25	LILO of 765 KV 2nd Sipat-Seoni line near Sipat at Bilaspur	24	Feb'12	Award placed in Dec`10 Engg in progress
Transmission system associated with Korba-III				
26	400 KV D/C Korba STPS-Raipur line	430	June'11	Work near completion
Transmission system associated with Mundra UMPP				
27	400 KV D/C Mundra-Limbdi	626	Dec'11	
28	400 KV D/C Mundra-Bachchauranchodpur	764	June'11	Attempts are made to bring line in June`11
29	400 KV D/C Mundra-Bachchaur-Jetpur	666	Mar'12	Wild life sanctury portion clearance awaited
30	400 KV D/C Gandhar-Navsari line	212	Mar'12	River crossing
31	400 KV D/C Navsari-Mumbai	408	Mar'12	01 out of 02 package awarded.
32	400 KV D/C Wardha-Aurangabad	800	Oct'12	Tendering under progress
33	400 KV D/C Aurangabad-Auranagabad(MSETCL)line	60	Oct'12	Tendering under progress
34	LILO of both ckt of Kawas-Navsari 220 kV D/C at Navsari	100	Oct'12	Tendering under progress

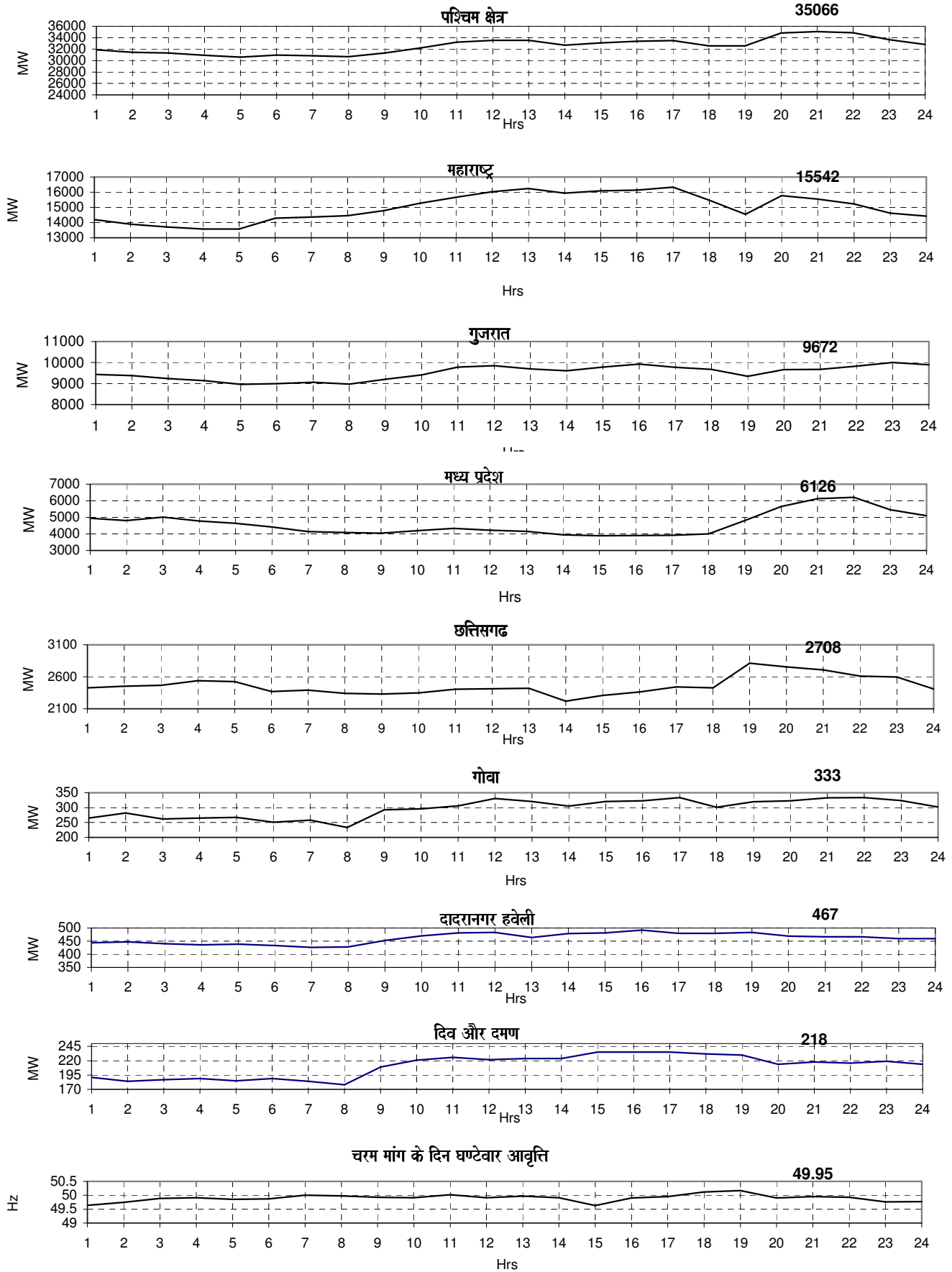
PROGRESS OF TRANSMISSION LINE CONSTRUCTION IN WR

	Name of transmission line	<u>Length in ckt km.</u>	Commissioning Schedule	Remarks
Transmission system associated with Sasan UMPP				
35	765 KV Sasan-Satna Line-I	257	Dec'12	
36	765 KV Sasan-Satna Line-II	260	Dec'12	Tower package awarded
37	765 KV Satna-Bina Line I	279	Dec'12	
38	765 KV Satna-Bina Line II	274	Dec'12	
39	765 KV Sasaram-Fatehpur line II	352	Dec'12	Tendering under progress
40	765 KV Agra-Fatehpur line	340	Dec'12	Tendering under progress
41	400 KV Bina-Bina(MPPTCL)line	10	Dec'12	Award placed in Mar'09,Engg. Under progress
42	LILO of both ckt of Vindhyanchal Jabalpur 400 KV D/C at Sasan	10	Dec'12	Award placed in Feb'09,Engg. Under progress
43	765 KV Bina-Indore line	320	Dec'12	
44	400 KV Indore-Indore(MPPTCL) line	120	Dec'12	
INTER-REGIONAL LINES				
East-West transmission corridor strengthening scheme				
1	400 KV Raigarh-Rourkela D/C	420	Aug '11	Under Progress

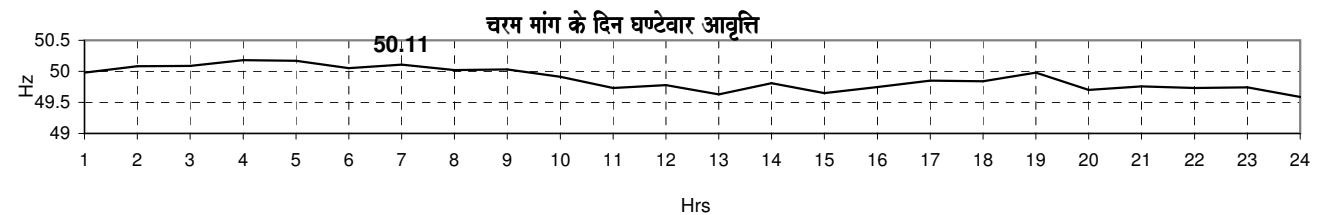
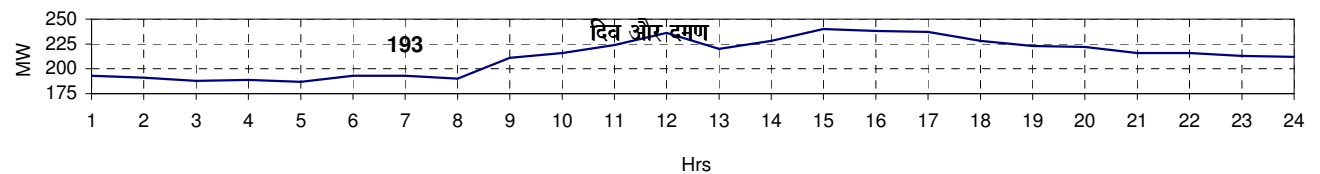
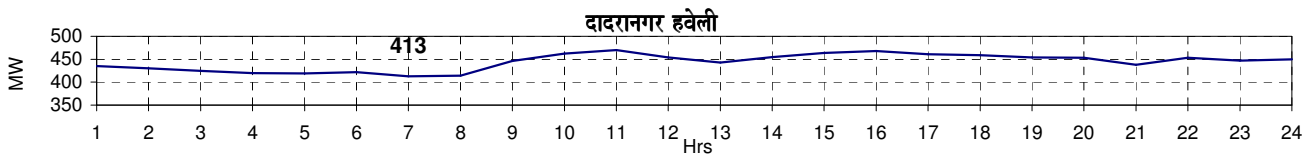
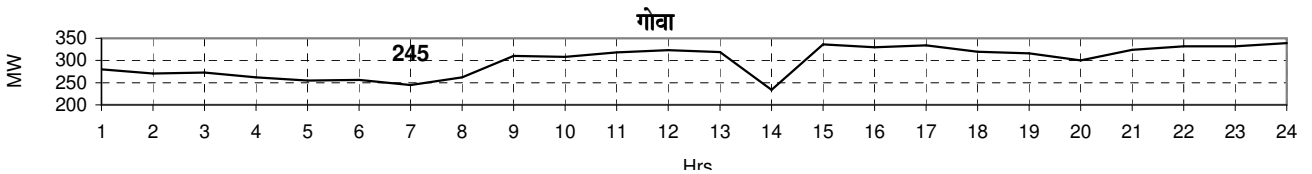
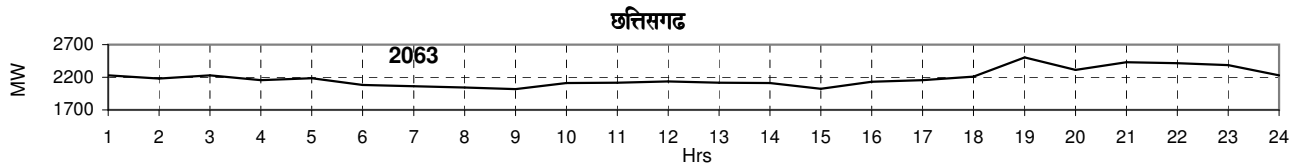
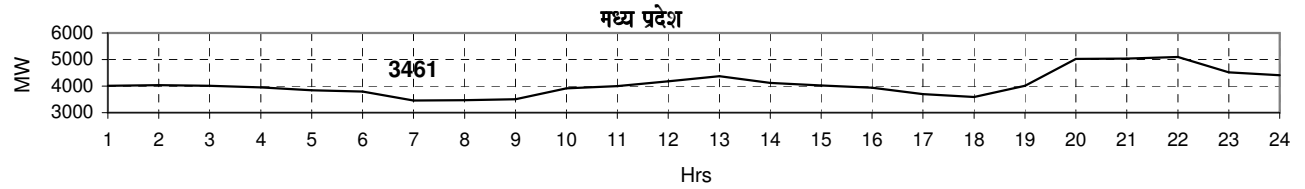
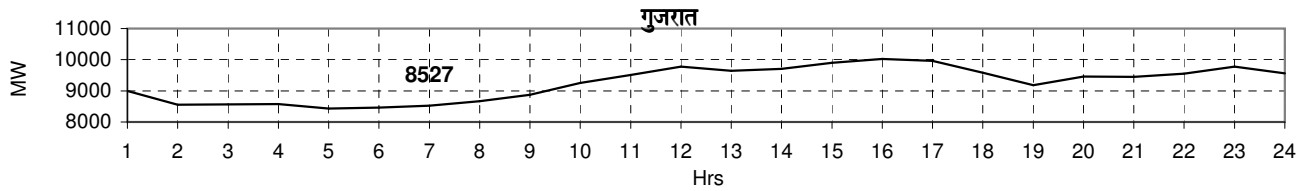
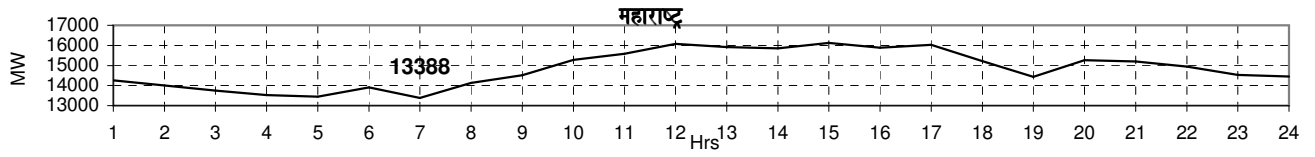
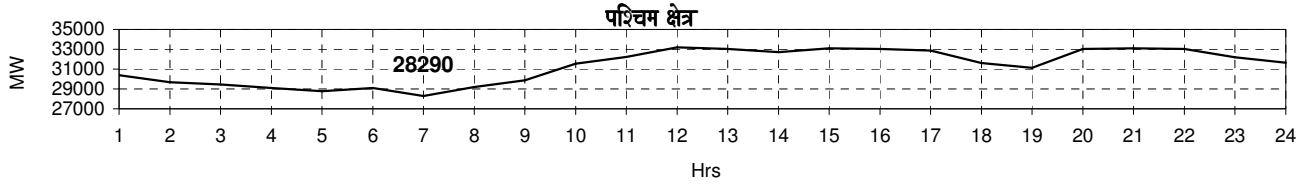
PROGRESS OF ONGOING GENERATION PROJECT IN WESTERN REGION

Sr.No.	Name of the power project	Unit No.	Capacity(MW)	commissionig schedule
A	<u>GUJARAT</u>			
1	Ukai TPS extn	6	490	Jul-11
2	Pipavav CCPP-GPCL & GSPC joint venture	block 1 block 2	350 350	2011-12 2011-12
3	Mundra ultra mega TPP (TATA)	1 2	800 800	Sep-11 Sep-11
4	Hazira CCPP Expansion GSEG	GT+ST	350	May-11
	OTHER PROJECTS			
1	Gujarat lignite NLC&GPCL joint venture	Stage 1 Stage 2	1500 500	2011-12 2012-13
2	Pipavav TPP - Torrent power		1000	2011-12
3	Mundra STPP (Adani power ltd)	1	660	Sep-11
B	<u>MADHYA PRADESH</u>			
1	Amarkantak TPS	2	500	Jul-11
2	Satpura TPS ext.	10 11	250 250	Jul-11 Jul-11
	OTHER PROJECTS			
1	Maheshwar HEP		400	12-Mar
2	Malwa TPP	1	500	2011-12
C	<u>CHATTISGARH</u>			
1	Marwa TPP	1 2	500 500	Sep-12 Nov'12
2	Korba west -III TPP	1	500	Jul-12
	OTHER PROJECTS			
1	Bhaiyathan TPP Phase 1	1	500	Dec-12
		2	500	Aug-13
2	IFFCO	1 2	660 660	Aug-12 Dec-12
D	<u>MAHARASHTRA</u>			
1	Khaperkheda TPS Extn.	1	500	Jul-11
2	JSW Ratnagiri TPP (JSW Ltd.)	4	300	Sep-11
	OTHER PROJECTS	1	800	Oct-12
1	Koradi TPS extn	1	800	Nov-11
2	Dhopawe TPS	2 block 2	800 340	May-12 Nov-11
3	Utran CCPP	1	800	Apr-12
4	Koradi TPS extn.(replacement)	1	500	Dec-11
5	Chandrapur TPS Extn	2	500	May-12
E	<u>CENTRAL SECTOR</u>			
1	Sipat TPP	2 3	660 660	July'11 Feb'12
3	Mauda TPP	2	500	2012-13

पश्चिम क्षेत्र का चरम भार दिन के प्रतिघंटा भार वक
HOURLY DEMAND CURVES ON REGIONAL PEAK DAY 03.05.2011

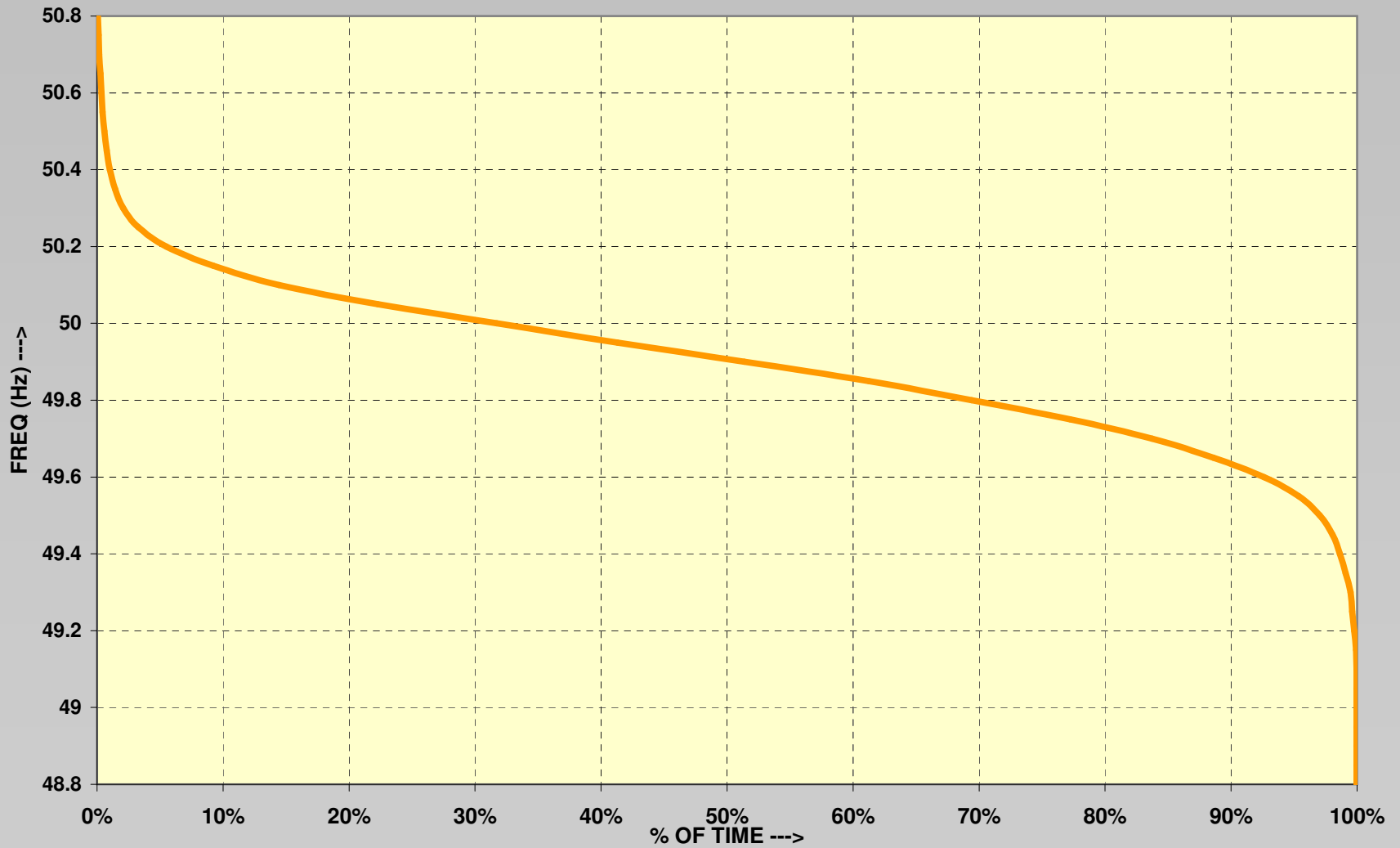


पश्चिम क्षेत्र का न्यूनतम भार दिन के प्रतिघंटा भार वक
 HOURLY MIN.DEMAND CURVES ON REGIONAL PEAK DAY 23.05.2011



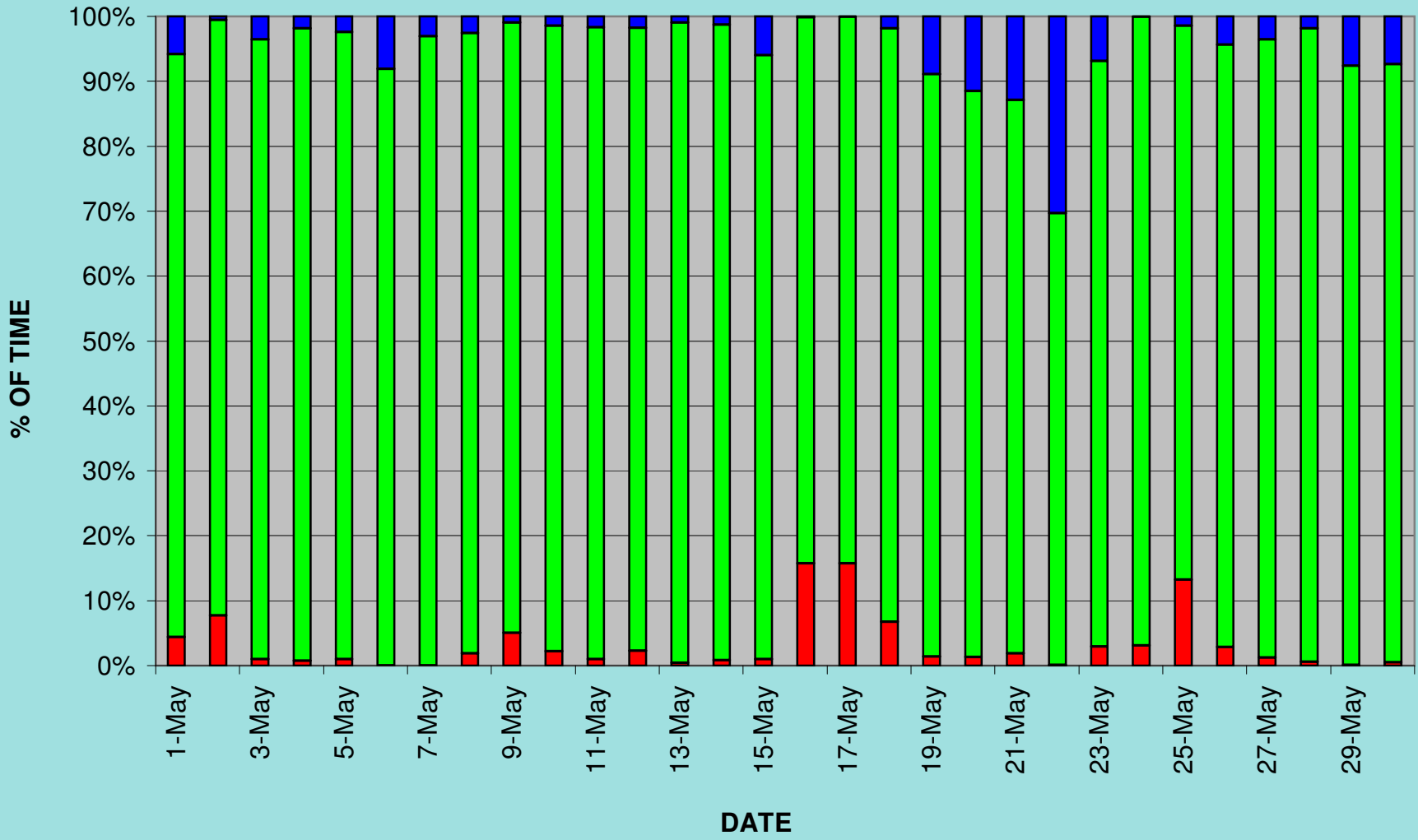
NEW GRID FREQUENCY DURATION CURVE FOR MAY '11

Max =50.950 Hz, Min=49.00 Hz Average = 49.89 Hz



Frequency Profile - MAY'11

■ <49.5 ■ 49.5 - 50.2 ■ >50.2



WIND GENERATION MAY-11

GUJARAT MAHARASHTRA

