

पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड  
(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)  
POWER SYSTEM OPERATION CORPORATION LIMITED  
(A wholly owned subsidiary of POWERGRID)



पश्चिम क्षेत्रीय भार प्रेषण केन्द्र

एफ-३, सेन्दुल रोड, एम्.आई.डी.सी. एरिया, मरोल, अन्धेरी (पूर्व), मुंबई-400 093.

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WESTERN REGIONAL LOAD DESPATCH CENTRE

F-3, MIDC Area, Marol, Andheri (East), Mumbai - 400 093.

Phone (O) : 022-28202690, 28203885, 28397634 • E-mail : wrldc@bol.net.in • Fax : 022 - 28235434, 28202630

संदर्भ संख्या / Ref. No.

प क्षे भा प्रे केंद्र / प्रणाली प्रचालन -I /307/ 2012 दिनांक :Date 17 | 07 | 2012  
WRLDG /SO-I/307/2012/

सेवा में / To,

As per distribution list

विषय : पश्चिम क्षेत्रीय भार प्रेषण केंद्र कि अप्रैल 2012 से जून 2012 माह की प्रणाली प्रचालन रिपोर्ट

Sub: System Operation Report of Western Regional Load Despatch Centre for the month from APR. 2012 to JUNE. 2012.

महोदय / Sir

आपको सूचित किया जाता है कि पश्चिम क्षेत्रीय भार प्रेषण केंद्र कि माह अप्रैल 2012 से जून 2012 की प्रणाली प्रचालन रिपोर्ट वेब साइट [www.wrldc.com](http://www.wrldc.com) पर उपलब्ध है। आगे भी हर त्रैमाह की प्रणाली प्रचालन रिपोर्ट इसी वेब साइट पर उपलब्ध रहेगी।

This is to inform you that System Operation Report of Western Regional Load Despatch Centre for the month from Apr 2012 to June 2012 is available in the website [www.wrldc.com](http://www.wrldc.com)  
The System Operation Report of every quarter will be available in the same website in future also.

धन्यवाद सहित | With Regards

आपका विश्वस्त / Your faithfully

(वी.ए.मुर्ति / V.A.Murty)

उप महाप्रबंधक (एस ओ - I)/DGM(SO-I)

पश्चिम क्षेत्र की तिमाही रिपोर्ट  
QUARTERLY REPORT  
OF  
WESTERN REGION

**Apr-2012 to June-2012**  
2012-2013 (Quarter-I)



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

पश्चिम क्षेत्रिय 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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पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(पावरग्रिड की एक पूर्ण स्वामित्व वाली कंपनी)

पश्चिम क्षेत्रिय भार प्रेषण केन्द्र, मुम्बई

Power System Operation Corporation Ltd.

(A wholly owned subsidiary company of POWERGRID)



**QUARTERLY REPORT**

Date: 17-Jul-12

YEAR:2012-13/Quarter 1

For Period: APR-12 to JUNE-12

Brief report on Regional Power System /Performance of the grid :

1) Power Supply Position and Peak Demand / Met In Western Region

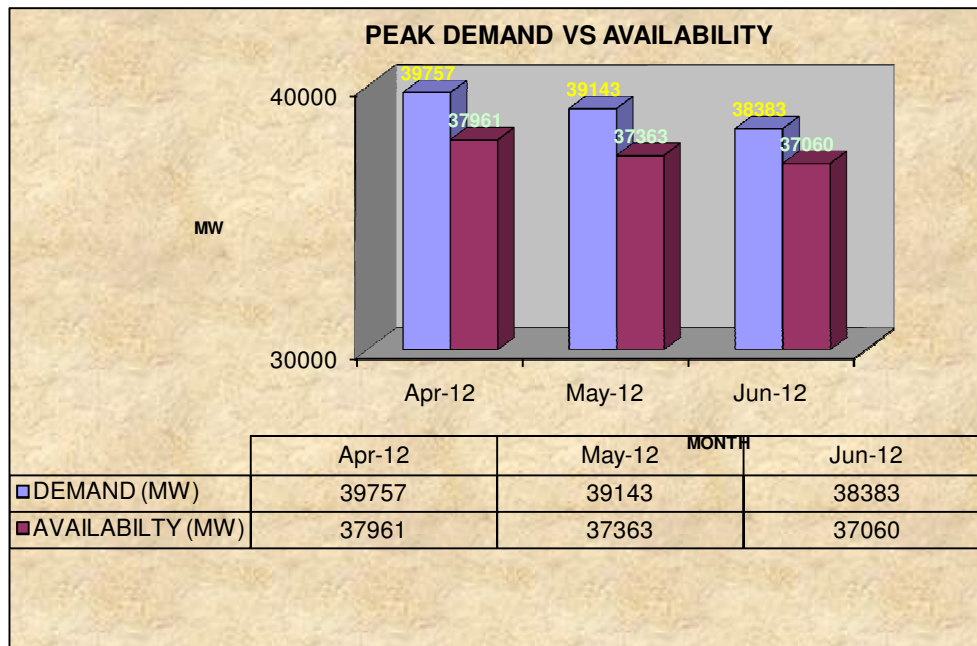
is given below

a. विद्युत पूर्ति की स्थिति Power Supply Position

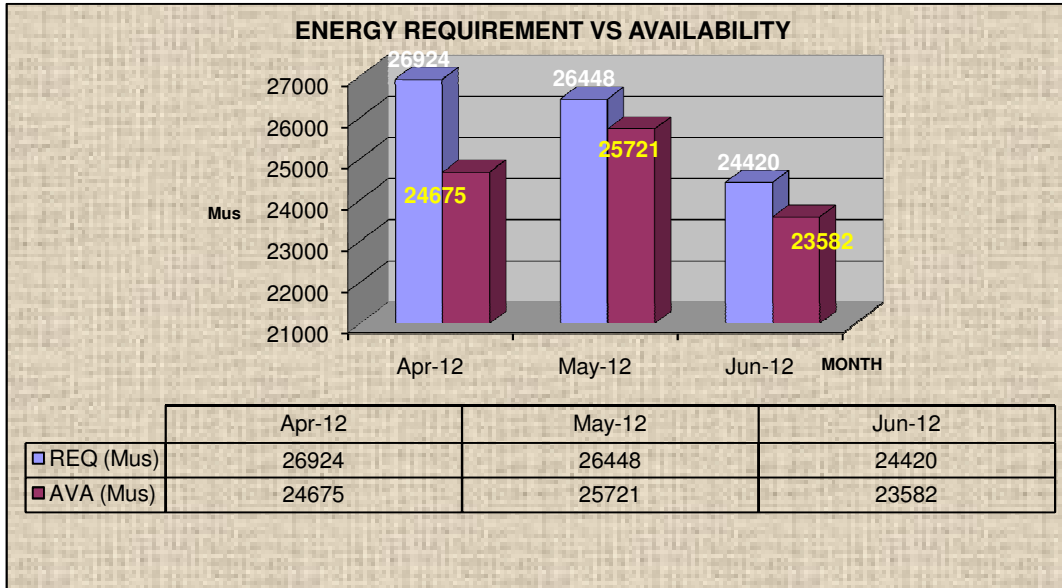
माह Month	संघटक Constituent	आवश्यकता Requirement (MUs)	उपलब्धता Availability (MUs)	कमी Shortage (%)
Apr-12	गुजरात Gujarat	7373	7342	0.42
	मध्य प्रदेश Madhya pradesh	4099	3551	13.37
	छत्तिसगढ Chattisgarh	2153	2128	1.16
	महाराष्ट्र Maharashtra	11564	11091	4.09
	गोवा Goa	240	232	3.33
	दिव और दमण D&D	182	162	10.99
	दादर नगर हवेली DNH	397	394	0.76
	पश्चिम क्षेत्र Western Region	26924	24675	8.35
May-12	गुजरात Gujarat	7747	7683	0.82
	मध्य प्रदेश Madhya pradesh	3973	3720	6.38
	छत्तिसगढ Chattisgarh	2096	2071	1.17
	महाराष्ट्र Maharashtra	11770	11410	3.06
	गोवा Goa	260	255	1.90
	दिव और दमण D&D	194	177	8.82
	दादर नगर हवेली DNH	407	404	0.79
	पश्चिम क्षेत्र Western Region	26448	25721	2.75
Jun-12	गुजरात Gujarat	7372	7297	1.01
	मध्य प्रदेश Madhya pradesh	3669	3325	9.38
	छत्तिसगढ Chattisgarh	1786	1768	1.01
	महाराष्ट्र Maharashtra	10778	10407	3.45
	गोवा Goa	224	219	2.37
	दिव और दमण D&D	191	171	10.56
	दादर नगर हवेली DNH	399	395	1.03
	पश्चिम क्षेत्र Western Region	24420	23582	3.43

**b. Peak Demand / Demand Met(MW)**

माह Month	संघटक Constituent	आवश्यकता Requirement	उपलब्धता Availability	कमी Shortage
Apr-12	गुजरात Gujarat	11385	11361	0.21
	मध्य प्रदेश Madhya pradesh	8400	6939	17.39
	छात्तिसगढ Chattisgarh	3457	3320	3.96
	महाराष्ट्र Maharashtra	18437	17268	6.34
	गोवा Goa	426	386	9.39
	दिव और दमण D&D	265	235	11.32
	दादर नगर हवेली DNH	565	564	0.18
	पश्चिम क्षेत्र Western Region	39757	37961	<b>4.52</b>
May-12	गुजरात Gujarat	11639	11510	1.11
	मध्य प्रदेश Madhya pradesh	7522	6788	9.76
	छात्तिसगढ Chattisgarh	3243	3123	3.70
	महाराष्ट्र Maharashtra	18240	17173	5.85
	गोवा Goa	473	397	16.07
	दिव और दमण D&D	276	245	11.23
	दादर नगर हवेली DNH	585	579	1.03
	पश्चिम क्षेत्र Western Region	39143	37363	<b>4.55</b>
Jun-12	गुजरात Gujarat	11586	11406	1.55
	मध्य प्रदेश Madhya pradesh	7484	6714	10.29
	छात्तिसगढ Chattisgarh	3088	2886	6.54
	महाराष्ट्र Maharashtra	18282	17182	6.02
	गोवा Goa	477	413	13.42
	दिव और दमण D&D	276	247	10.51
	दादरा नगर हवेली DNH	586	579	1.19
	पश्चिम क्षेत्र Western Region	38383	37060	<b>3.45</b>



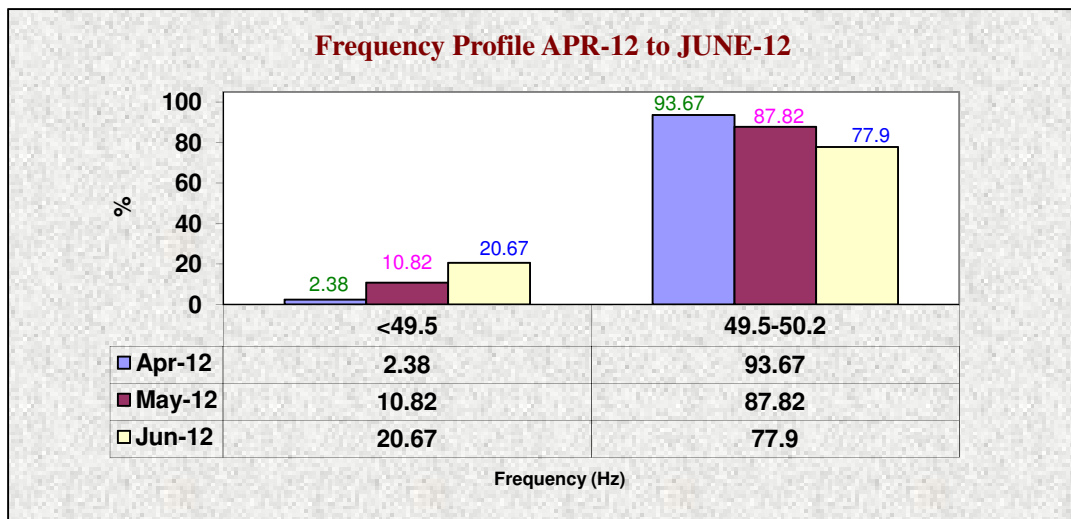
c.



2) आवृत्ती वितरण प्रतिशत में Frequency distribution in %

SUMMARY

Month	<48.8	48.8 - 49.2	49.2 -49.5	49.5-50.2	50.2-51.0	>51.0	<49.5	49.5-50.2	>50.2
Apr-12	0	0.1	2.28	93.67	3.94	0.00	2.38	93.67	3.94
May-12	0	1.08	9.74	87.82	1.36	0.00	10.82	87.82	1.36
Jun-12	0.08	3.92	16.67	77.9	1.43	0.00	20.67	77.9	1.43



3) माह अप्रैल 2012 से जून 2012 में ग्रिड के प्रमुख उप केन्द्र का विद्युतदाब रूपरेखा  
Voltage Profile of major Sub-Stations for the months of Apr12- June 12

माह	सब स्टेशनका नाम Sub station name	अंकितमूल्य विद्युतदाब Nominal Voltage(KV)	विद्युतदाब स्थिति (प्रतिशत समय) Percentage of time when voltage was			अधिकतम विद्युतदाब Max. Voltage(KV)	न्यूनतम विद्युतदाब Min. Voltage(KV)
			Below 0.97p.u.	0.97-1.03p.u	Above 1.03p.u.		
Apr-12	धुले Dhule	400	0.00	7.68	92.32	436	398
	असोज Asoj	400	0.00	40.31	59.69	421	400
	कराड Karad	400	0.00	14.46	85.54	432	400
	कासेर Kasor	400	0.00	14.29	85.71	425	400
	इन्दौर Indore	400	0.00	16.27	83.73	426	397
	इटारसी Itarsi	400	0.00	11.61	88.39	426	397
	जेतपुर Jetpur	400	0.00	36.32	63.68	428	401
	भिलाई Bhilai	400	0.00	40.14	59.86	421	400
	बिना Bina	400	0.00	27.15	72.85	426	393
	ग्वालियर Gwalior	400	0.00	23.99	76.01	424	381
May-12	धुले Dhule	400	0.00	3.31	96.69	432	402
	असोज Asoj	400	0.00	61.40	38.60	420	401
	कराड Karad	400	0.00	27.51	72.49	429	395
	कासेर Kasor	400	0.00	26.08	73.92	422	406
	इन्दौर Indore	400	0.00	28.25	71.75	428	397
	इटारसी Itarsi	400	0.00	20.24	79.76	427	402
	जेतपुर Jetpur	400	0.00	25.79	74.21	426	395
	भिलाई Bhilai	400	0.00	3.60	96.40	430	406
	बिना Bina	400	0.00	48.32	51.68	431	398
	ग्वालियर Gwalior	400	0.00	57.07	42.93	437	387
Jun-12	धुले Dhule	400	0.00	1.51	98.49	432	406
	असोज Asoj	400	0.00	43.27	56.73	422	393
	कराड Karad	400	0.00	9.94	90.06	432	398
	कासेर Kasor	400	0.00	20.04	79.96	423	406
	इन्दौर Indore	400	0.00	10.53	89.47	427	403
	इटारसी Itarsi	400	0.00	7.39	92.61	427	403
	जेतपुर Jetpur	400	0.02	24.25	75.73	425	404
	भिलाई Bhilai	400	0.00	0.22	99.78	428	409
	बिना Bina	400	0.00	33.65	66.35	429	399
	ग्वालियर Gwalior	400	0.96	69.80	29.24	430	365

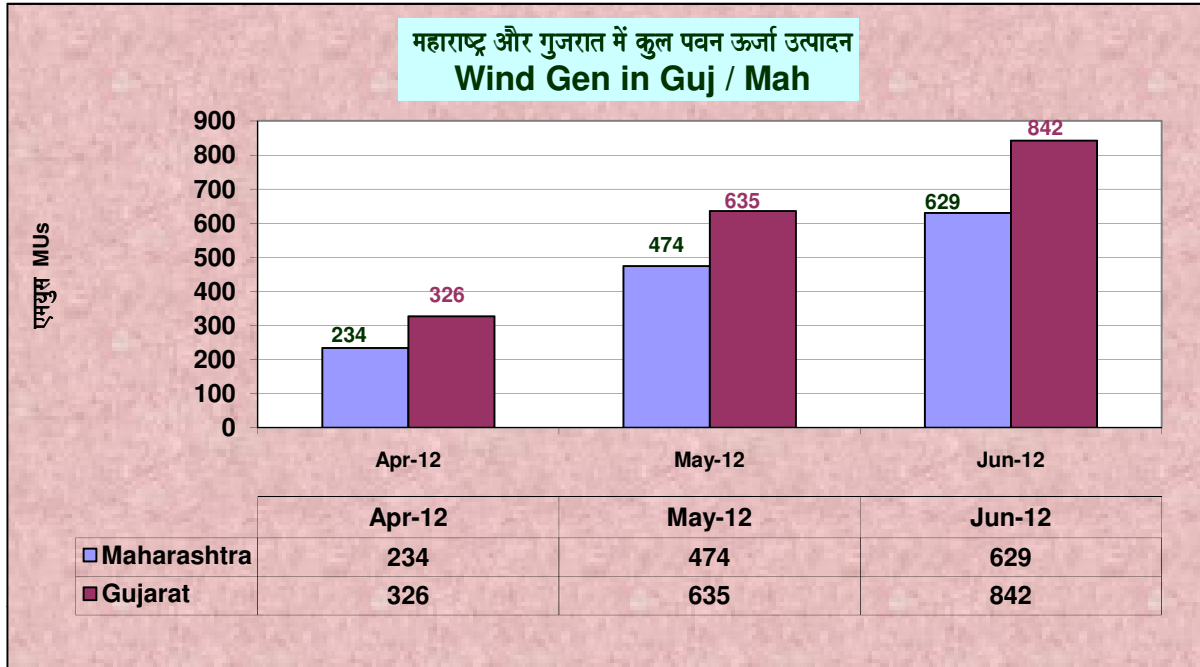
4) Schedule and Drawal Of Constituents from Central sector

Month	State/U.T/	Schedule	Actual Drawal	Total Over (+)/Under (-) drawal
Apr-12	System	(Mus)	(MUs)	(MUs)
	गुजरात Gujarat	1233.67	899.54	-334.13
	मध्य प्रदेश Madhya Pradesh	1705.88	1527.01	-178.87
	महाराष्ट्र Maharashtra	3545.02	3851.02	306.00
	छत्तिसगढ Chhattisgarh	395.03	414.77	19.74
	गोवा Goa	190.82	213.52	22.70
	दमन और दीव D&D	166.58	161.76	-4.82
	दादर नगर हवेली DNH	409.12	393.97	-15.15
	Western Region	7646.12	7461.59	-184.53
May-12	गुजरात Gujarat	1595.87	1236.40	-359.47
	मध्य प्रदेश Madhya Pradesh	1835.22	1694.61	-140.61
	महाराष्ट्र Maharashtra	3736.92	3607.58	-129.34
	छत्तिसगढ Chhattisgarh	504.81	431.55	-73.26
	गोवा Goa	233.53	237.33	3.80
	दमन और दीव D&D	173.87	174.33	0.46
	दादर नगर हवेली DNH	429.92	404.26	-25.66
	Western Region	8510.14	7786.06	-724.08
Jun-12	गुजरात Gujarat	1216.04	871.49	-344.55
	मध्य प्रदेश Madhya Pradesh	1611.87	1530.32	-81.55
	महाराष्ट्र Maharashtra	3206.15	3163.48	-42.67
	छत्तिसगढ Chhattisgarh	355.01	312.10	-42.91
	गोवा Goa	195.79	202.61	6.83
	दमन और दीव D&D	177.50	170.68	-6.82
	दादर नगर हवेली DNH	414.20	395.20	-18.99
	Western Region	7176.55	6645.89	-530.66

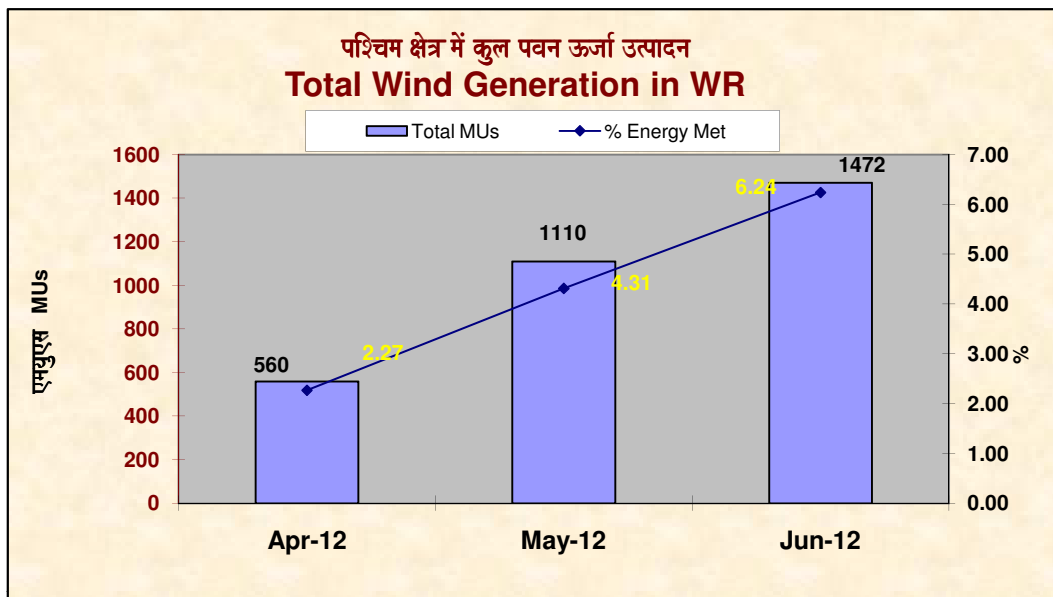


5)

पवन ऊर्जा उत्पादन Wind Generation :				
Month	Generation in MUs			%of energy met
	Maharashtra	Gujarat	Total	
Apr-12	234	326	560	2.27
May-12	474	635	1110	4.31
Jun-12	629	842	1472	6.24



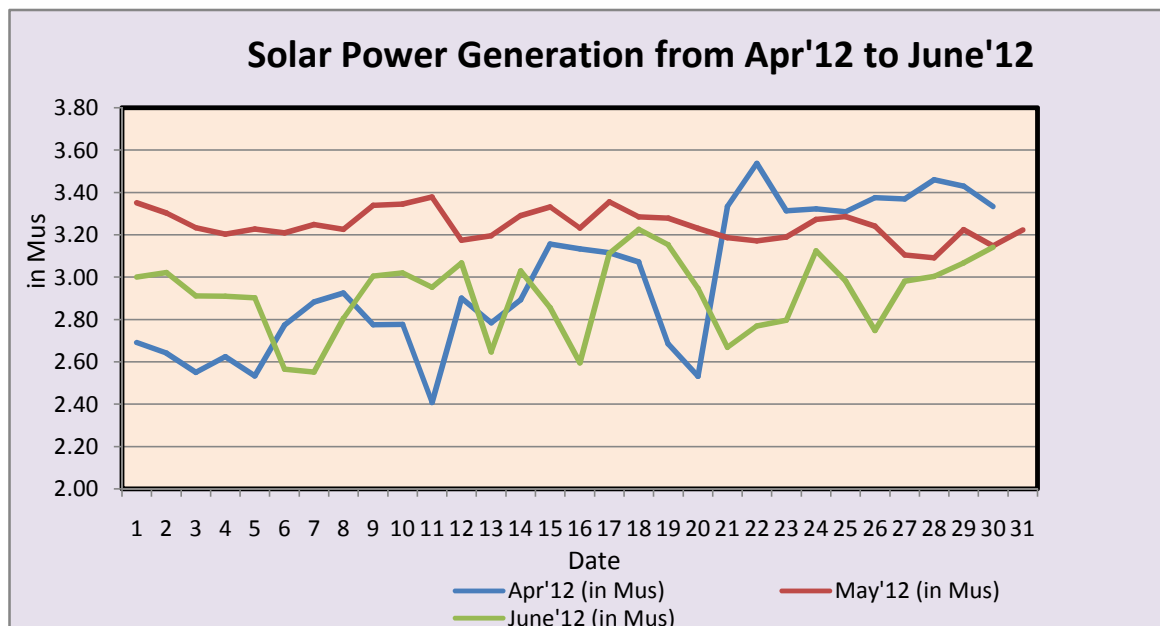
माह Month	कुल Total	ऊर्जा मेट प्रतिशत में %of energy
Apr-12	560	2.27
May-12	1110	4.31
Jun-12	1472	6.24



6)

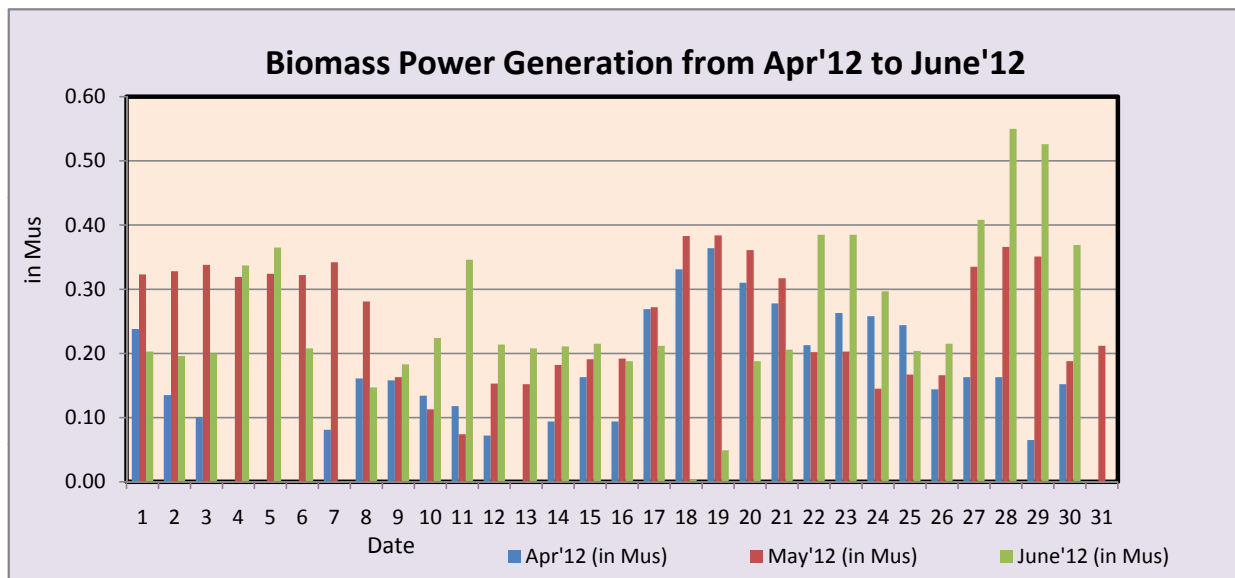
### Solar Power Generation from Apr'12 to June'12

Month/Date	Apr'12 (in Mus)	May'12 (in Mus)	June'12 (in Mus)
1	2.69	3.35	3.00
2	2.64	3.30	3.02
3	2.55	3.23	2.91
4	2.62	3.20	2.91
5	2.53	3.23	2.90
6	2.77	3.21	2.56
7	2.88	3.25	2.55
8	2.92	3.23	2.81
9	2.78	3.34	3.01
10	2.78	3.35	3.02
11	2.41	3.38	2.95
12	2.90	3.17	3.07
13	2.78	3.19	2.65
14	2.89	3.29	3.03
15	3.16	3.33	2.86
16	3.13	3.23	2.60
17	3.12	3.36	3.11
18	3.07	3.28	3.23
19	2.69	3.28	3.15
20	2.53	3.23	2.95
21	3.33	3.19	2.67
22	3.54	3.17	2.77
23	3.31	3.19	2.80
24	3.32	3.27	3.12
25	3.31	3.29	2.98
26	3.38	3.24	2.75
27	3.37	3.10	2.98
28	3.46	3.09	3.00
29	3.43	3.22	3.07
30	3.33	3.15	3.14
31		3.22	
<b>Total</b>	<b>89.64</b>	<b>100.57</b>	<b>87.56</b>



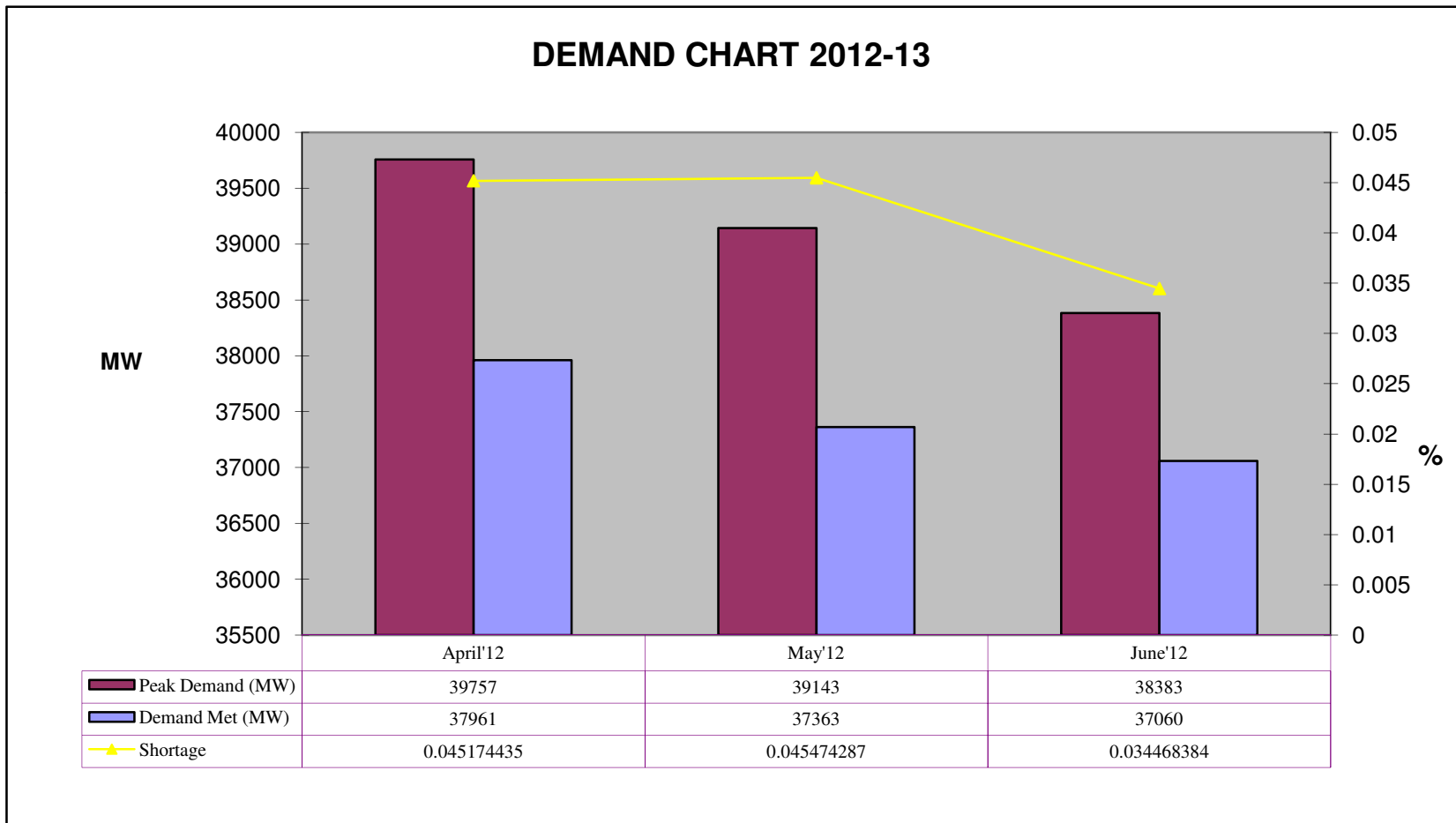
7) **Biomass Power Generation from Apr'12 to June'12**

Month/Date	Apr'12 (in Mus)	May'12 (in Mus)	June'12 (in Mus)
1	0.24	0.32	0.20
2	0.14	0.33	0.20
3	0.10	0.34	0.20
4	0.00	0.32	0.34
5	0.00	0.32	0.37
6	0.00	0.32	0.21
7	0.08	0.34	0.00
8	0.16	0.28	0.15
9	0.16	0.16	0.18
10	0.13	0.11	0.22
11	0.12	0.07	0.35
12	0.07	0.15	0.21
13	0.00	0.15	0.21
14	0.09	0.18	0.21
15	0.16	0.19	0.22
16	0.09	0.19	0.19
17	0.27	0.27	0.21
18	0.33	0.38	0.00
19	0.36	0.38	0.05
20	0.31	0.36	0.19
21	0.28	0.32	0.21
22	0.21	0.20	0.39
23	0.26	0.20	0.39
24	0.26	0.15	0.30
25	0.24	0.17	0.20
26	0.14	0.17	0.22
27	0.16	0.34	0.41
28	0.16	0.37	0.55
29	0.07	0.35	0.53
30	0.15	0.19	0.37
31		0.21	
<b>Total</b>	<b>4.77</b>	<b>7.85</b>	<b>7.44</b>



8) **DEMAND CHART from April'12 to June'12**

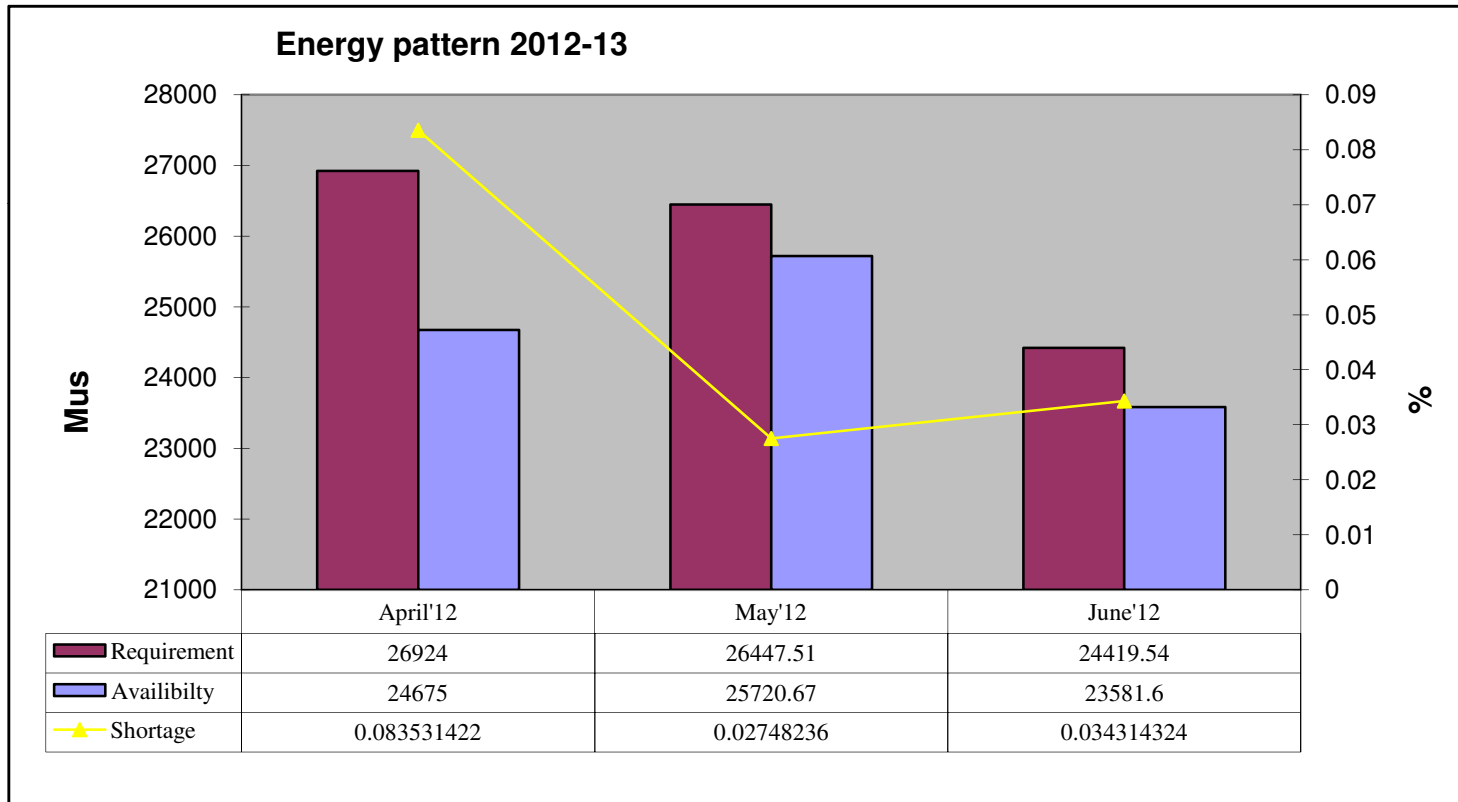
Month	Peak Demand (MW)	Demand Met (MW)	Shortage
April'12	39757	37961	4.52%
May'12	39143	37363	4.55%
June'12	38383	37060	3.45%



9)

### ENERGY CHART from April'12 to June'12

Month	Requirement	Availibility	Shortage
April'12	26924	24675	8.35%
May'12	26448	25721	2.75%
June'12	24420	23582	3.43%



## 10) COMMISSIONING OF NEW GENERATING UNITS

अनुक्रमांक SL.NO.	स्टेट/आएसजिएस STATE/ISGS/IPP	स्टेशन का नाम STATION NAME	क्षमता CAPACITY (MW)	ईकाई UNIT	दिनांक DATE
1	NTPC	SIPAT	660	3	1/4/2012
2	ESSAR	VADINAR	600	2	3/4/2012
3	NTPC	MAUDA	500	1	8/4/2012
4	NTPC	VSTPS-IV	500	11	13/6/2012
5	Reliance Power	Vidharbha Industry Power	300	1	25/06/12
6	MPPTCL	Jaypee Bina Thermal Power Plant	250	1	27/06/12

## 11) COMMISSIONING OF NEW TRANSMISSION LINES

अनुक्रमांक SL.NO.	संघटक CONSTITUENT	लाइन का नाम LINE NAME	सर्किट नम्बर CKT NO	केवी KV	दिनांक DATE
1	MSETCL	Wardha-Warora	I	400	15/05/2012
2	POWERGRID	Seoni-Wardha*	I	765	30/05/2012
3	POWERGRID	Wardha-Mauda	II	400	31/05/2012
4	POWERGRID	Solapur(PG)-Kolhapur	I	400	30/06/12
5	POWERGRID	Satna-Bina	s/c	765	30/06/12
6	POWERGRID	Seoni-Bina	s/c	765	30/06/12

\* Seoni-Wardha charged at 765KV.

## 12) COMMISSIONING OF NEW SUBSTATIONS: NIL

## 13) COMMISSIONING OF NEW ICT

अनुक्रमांक SL.NO.	संघटक CONSTITUENT	स्टेशन का नाम STATION NAME	कोवि रेणो KV RATIO	क्षमता CAPACITY(MVA)	दिनांक DATE
1	POWERGRID	Parli ICT-III	400/220	500	24/05/2012
2	POWERGRID	Bina ICT	1200/400/33	1000	26/05/2012
3	POWERGRID	Lonikhand ICT-II	400/220	500	30/06/12
4	POWERGRID	Satna ICT-I	765/400	1000	30/06/12

## 14) COMMISSIONING OF NEW LINE / BUS REACTORS

अनुक्रमांक SL.NO.	संघटक CONSTITUENT	स्टेशन का नाम STATION NAME	कोवि रेणो KV RATIO	क्षमता CAPACITY(MVAR)	दिनांक DATE
1	POWERGRID	Rajgarh	400	125	24/05/2012
2	POWERGRID	Wardha	400	63	30/06/2012
3	POWERGRID	Satna (Bus Reactor)	400	240	30/06/2012
4	POWERGRID	Kolhapur	400	50	30/06/2012
5	POWERGRID	Solapur	400	50	30/06/2012

**15) Generation constraints affecting Grid operation :**

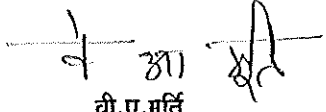
i) Due to ash dyke problem Korba NTPC is generating around 2100 MW against installed capacity 2600MW .

f) Major problem/constraints affecting Grid operation including major Grid disturbances:  
Attached as Annexure I

i) Grid Separations :

NIL

ii) Grid Disturbances:

  
वी.ए.मुर्ति  
उप महाप्रबंधक (एस ओ - I)

## Quarterly Operational/Transmission Constraints

**Quarter: Apr-June'12**

**Region:Western Region**

### 1. Section 1

#### a) Transmission Constraints

S. No	Corridor	Season/ Antecedent Conditions	Description of the constraints	Figure/ table no.	Has the constraint occurred in earlier quarter?. Details thereof
1.	400kV Raipur-Bhilai S/C	In case of outage of one circuit of 765kV Sipat-Seoni D/C, and tripping of the remaining circuit of 765kV Sipat-Seoni (N-1-1 contingency) will cause critical loading on 400kV Raipur-Bhilai S/C.	Tripping of 400kV Raipur-Bhilai S/C may critically load 220kV Raipur-Bhilai D/C and may cause cascade tripping/partial disturbance.	Figure 1,2&3	Yes, It was reported in the feedback for Jan-Mar'12.
2.	220kV Kawas-Ichhapur S/C	When all units in Kawas is generating full, this line is critically loaded.	220kV Kawas-Haldarwa D/C is kept out to reduce inflow towards Kawas from Haldarwa.	Figure 18&19	Additional line Kawas-Ichhapur D/C is synchronized in June'12 and now Kawas generation is less due to low demand. So the constraint is not experienced now.
3.	400kV Hadala-Jetpur S/C	Even with restricted generation of around 2200MW by APL, Mundra and Injection of power from Vadinar (2X600MW) around 300MW at Hadala via 400kV Vadinar-Hadala D/C ,high loading of around 550-600MW is observed in 400kV Hadala-Jetpur S/C.	220kV Hadala-Rajkot D/C carries around 200MW each. Tripping of 400kV Hadala-Jetpur S/C will critically load Hadala ICTs (2x315MVA) and 220kV Hadala-Rajkot-Jetpur circuits		Yes. Now Vadinar units are out due to low demand, so constraint is not experienced.



			and may cause partial grid disturbance in the area.		
4.	220kV Kotmikala-Amarkantak D/C	All the Units at Korba(W)(4x210MW), Korba(E)(4x50+2x120) and Korba-east Extn (DSPM-2x250MW) are in service.	Outage/tripping of any one line from DSPM or Korba(E) causes overloading of 220KV Kotmikala-Amarkantak lines. Tripping of these lines initiates cascaded tripping of few more lines ,ICTs and generating units at Korba (E),DSPM,K(W) and BALCO.		Yes.

b) ICT Constraints

S. No	ICT	Season/ Antecedent Conditions	Description of the constraints	Figure/ table no.	Has the constraint occurred in earlier quarter? Details.
1.	2x315MVA 400/220kV Vapi ICT	Around 50% of the total demand met by DD&DNH is met through Vapi ICTs.	Both ICTs loaded above 200MW. Critical at the time of one ICT outage.	Figure4,5&6	Yes. 3 <sup>rd</sup> ICT expected by Dec'12.Meanwhile to take care of safe loading of existing 2x315MVA ICTs, combined import transfer capability for DD and DNH is restricted to 980MW.

c) Low Voltage

S. No	Nodes	Season/ Antecedent Conditions	Description of the constraints	Figure/ table no.	Has the constraint occurred in earlier quarter? Details.
	NIL				

d) High Voltage

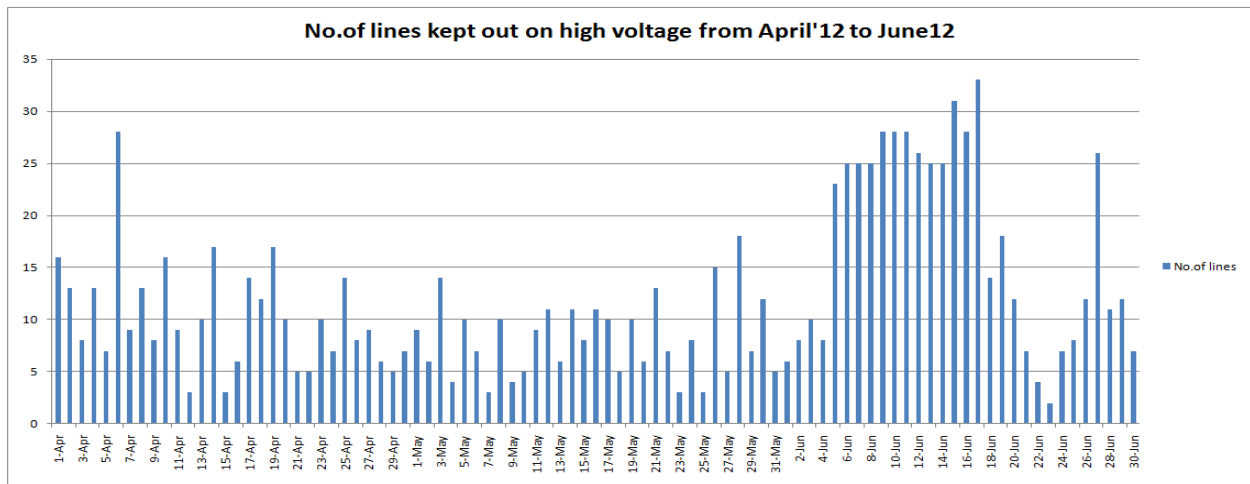
S. No	Nodes	Season/ Antecedent Conditions	Description of the constraints	Figure/ table no.	Has the constraint occurred in earlier quarter?
1.	Raipur, Raigarh, Birsinghpur, Khandwa, Damoh, Bhopal, Nagda, Rajgarh, Bhadrawati, Wardha, Dhule, Kolhapur, Bhusawal, Akola	Low demand/ absence of adequate reactors	Inadequate reactive compensation leading to opening of lines	Figure 7-17	Yes, High voltage at Bhadrawati and Raipur reported earlier.

**2. Section 2**

a) Lines opened on high voltage

S. No	Transmission Element (s) opened	Corresponding nodes experiencing high voltage	Graph No.
1.	Raipur-Raigarh-I ckt	Raipur, Raigarh	Voltage duration curves of corresponding nodes are shown.
2.	Raigarh-Rourkela-I ckt	Raigarh	
3.	Nagda-Dehgam-I ck	Nagda	
4.	Nagda-Sujalpur-I ckt	Nagda	
5.	Nagda-Rajgarh-I ckt	Rajgarh	
6.	Kolhapur-Mapusa-I ckt	Kolhapur	
7.	SSP-Dhule-I	Dhule	

8.	SSP-Rajgarh-I ckt	Rajgarh	
9.	Itarsi-Khandwa-I ckt	Khandwa	
10.	Itarsi-Bhopal-I ckt	Bhopal	
11.	Khandwa-Rajgarh-I ckt	Rajgarh,Khandwa	
12.	B'wat-Parli-I ckt	B'wati,Parli	
13.	Wardha-Akola-I ckt	Akola	
14.	765kV Seoni-Wardha-I ckt	Wardha	
15.	Korba-Birsinghpur-I ckt	Birsinghpur	
16.	Damoh-Birsinghpur-I&II	Birsinghpur	
17.	Damoh-Bhopal-I ckt	Damoh&Bhopal	
18.	Satna-Bina-I ckt	Satna	



A graphical representation of number of 400 kV lines opened on daily basis to control high voltage is given above.

b) Lines opened to control overloading

S. No	Transmission Element (s) opened	Overloaded corridor	Remarks
1.	220kV Kawas-Haldarwa	220kV Kawas-Ichhapur	Additional line Kawas-Ichhapur D/C is synchronized in June'12

X-----X-----X-----X