Power Plants	Capacity	Date of Commissioning	Source/ Comments
Gujarat			
Hydro			
Ukai Unit-I	75	8-Jul-74	http://www.gseb.com/uh.php?PowerStationID=1
Ukai Unit-II	75	13-Dec-74	
Ukai Unit-III	75	22-Apr-75	
Ukai Unit-IV	75	4-Mar-76	
Ukai Unit-V	2.5	8-Dec-87	
Ukai Unit-VI	2.5	19-Feb-88	
Ukai (LBCH)	5	1987-1988	http://www.cea.nic.in/opt1_design_engg_hydro.pdf
Kadana Unit-I	60	31/3/1990	http://www.gseb.com/uh.php?PowerStationID=8
Kadana Unit-II	60	9/1/1990	
Kadana Unit-III	60	1/2/1998	
Kadana Unit-IV	60	27/5/1998	
Kadana Unit-V	1	24/3/1994	
Kadana Unit-VI	1	31/3/1994	
Panam Canal Unit-1	1	24/3/1994	http://www.gseb.com/gerc_index.htm (Petition for Aggregate Revenue Requirement for the
Panam Canal Unit-2	1	31/3/1994	
Sardar Sarovar RBPH Unit-I	200	1/2/2005	WREB Annual Report (2004-2005) Annex-VII (16% of 450MW)
Sardar Sarovar CHPH Unit-I	50	4/10/2004	
Sardar Sarovar CHPH Unit-II	50	16/8/2004	
Sardar Sarovar CHPH Unit-III	50	31/8/2004	
Sardar Sarovar CHPH Unit-IV	50	3/5/2004	
Sardar Sarovar CHPH Unit-V	50	15/12/2004	
Gas			
Dhuvaran GT-1	27	27/5/1970	http://www.cea.nic.in/opm/anu0001/SEC10.pdf
Dhuvaran GT-2	27	10/8/1970	
Dhuvaran CCCP GT	67.85	4/6/2003	CEA General Review (2005):Table No. 2.7
Dhuvaran CCCP ST	38.77	22/9/2003	
Utran Unit-1	30	17/12/1992	http://www.gseb.com/uh.php?PowerStationID=7
Utran Unit-2	30	28/12/1992	
Utran Unit-3	30	7/5/1992	
Utran Unit-4	45	17/7/1993	
Hazira CCGP - GSEL Surat	52	30/9/2001	CEA: Performance Review (2004-2005):Section 10
Hazira CCGP - GSEL Surat	52	16/10/2001	
Hazira CCGP - GSEL Surat	52.1	31/3/2002	

Gas (Private Sector)			
AE Co. Gas (Vatwa)	116	1991	http://www.tce.co.in/brochures/Ccpp/ccppa4.pdf
GIPCL	145	Feb-92	http://www.gipcl.com/
GIPCL	160	Nov-97	
Essar Gas	515 (300 MW to GEB)	1997	http://www.essar.com/power/plants.htm
GPEC	655	1998	http://www.clpgroup.com/NR/exeres/73212876-BBCA-488D-AB51-12AE87E80EEE%2C4C80FCB8-AA49-46F4-ADDE-FA8D616C2A12%2Cframeless.htm?ch=%5FCLPPA%5FAsiaPacific%5F&lang=en
Gas (Central Sector)			
Central	424		Considered Below
Coal			
Dhuvaran Unit-1	63.5	12/7/1965	http://www.gseb.com/uh.php?PowerStationID=2
Dhuvaran Unit-2	63.5	29/4/1965	
Dhuvaran Unit-3	63.5	17/2/1965	
Dhuvaran Unit-4	63.5	17/12/1964	
Dhuvaran Unit-5	140	27/5/1972	
Dhuvaran Unit-6	140	10/9/1972	
Ukai Unit-1	120	29/3/1976	http://www.gseb.com/uh.php?PowerStationID=9
Ukai Unit-2	120	23/6/1976	
Ukai Unit-3	200	21/1/1979	
Ukai Unit-4	200	9/11/1979	
Ukai Unit-5	210	30/1/1985	
Gandhinagar Unit-1	120	13/3/1977	http://www.gseb.com/uh.php?PowerStationID=3
Gandhinagar Unit-2	120	10/4/1977	
Gandhinagar Unit-3	210	2/3/1990	
Gandhinagar Unit-4	210	20/7/1991	
Gandhinagar Unit-5	210	17/3/1998	
Wanakbori Unit-1	210	23/3/1982	http://www.gseb.com/uh.php?PowerStationID=4
Wanakbori Unit-2	210	15/1/1983	
Wanakbori Unit-3	210	15/3/1984	
Wanakbori Unit-4	210	3/9/1986	
Wanakbori Unit-5	210	23/9/1986	
Wanakbori Unit-6	210	18/11/1987	

Wanakbori Unit-7	210	31/12/1998	
Sikka Unit-1	120	26/3/1988	http://www.gseb.com/uh.php?PowerStationID=5
Sikka Unit-2	120	31/3/1993	
Kutch Lignite Unit-1	70	29/3/1990	http://www.gseb.com/uh.php?PowerStationID=6
Kutch Lignite Unit-2	70	25/3/1991	
Kutch Lignite Unit-3	75	31/3/1997	
Akrimota Lignite	125	31/3/2005	WREB Annual Report (2004-2005): Annex-VII
Coal (Private Sector)			
Gujarat electric Co.			It includes Wanakbori Unit-7 and Gandhinagar Unit-5 which have already been considered above
AE Co. Sabarmati	2x3.75	1934	http://www.torrentpower.com/investors/inv_cp_hd.php
AE Co. Sabarmati (C-1 Station)	4x15	1954-1958	
AE Co. Sabarmati (D Station)	110	1979	
AE Co. Sabarmati (E Station)	110	1985	
AE Co. Sabarmati (F Station)	110	1988	
GIPCL-Surat Lignite	250	Nov-99	http://www.gipcl.com/
Coal (Central Sector)			
Central	829		Considered Below
Nuclear (Central Sector)			
Central	285		Considered Below
Diesel			
Diesel Power	17.48		No generation from diesel in 2004-2005, hence need not to be considered for BM calculation
Wind			
Wind Power	236.67		No generation from diesel in 2004-2005, hence need not to be considered for BM calculation

Power Plants	Capacity	Date of Commissioning	Source/ Comments
Madhya Pradesh			
Hydro			
Gandhisagar Unit-1		19/11/1960	
Gandhisagar Unit-2	5x23=115 (50%)	19/11/1960	http://www.mperc.org/mppower1.html

Gandhisagar Unit-3	3x23=115 (50%)	19/11/1960	http://www.mperc.org/mppower1.html
Gandhisagar Unit-4		19/8/1963	
Gandhisagar Unit-5		3/11/1966	
R.P.Sagar	4x43=172 (50%)		Being low-cost power generation sources, these plants are considered for BM claculation to arrive at a conservative
Jawahar Sagar	3x33=99 (50%)		
Pench Unit-1	80	9/9/1986	http://www.mperc.org/mppower1.html
Pench Unit-2	80	9/3/1987	
Bargi Unit-1	45	3/6/1988	http://www.mperc.org/mppower1.html
Bargi Unit-2	45	29/11/1992	
Birsinghpur	20	1/11/1991	http://www.mperc.org/mppower1.html
Bansagar Tons (Stage-I) Unit-1	105	27/9/1991	http://www.mperc.org/mppower1.html
Bansagar Tons (Stage-I) Unit-2	105	3/9/1992	
Bansagar Tons (Stage-I) Unit-3	105	3/8/1992	
Bansagar (Stage-II) Unit-1	15	28/8/2002	
Bansagar (Stage-II) Unit-2	15	1/9/2002	
Bansagar (Stage-III) Unit-1	20	18/7/2001	
Bansagar (Stage-III) Unit-2	20	25/8/2001	
Bansagar (Stage-III) Unit-3	20	2/9/2002	
Rajghat Unit-1	15 (50%)	15/10/1999	http://www.mperc.org/mppower1.html
Rajghat Unit-2	15 (50%)	29/9/1999	
Rajghat Unit-3	15 (50%)	3/11/1999	
Sardar Sarovar RBPH Unit-I	200	1/2/2005	WREB Annual Report (2004-2005) Annex-VII
Sardar Sarovar CHPH Unit-I	50	4/10/2004	
Sardar Sarovar CHPH Unit-II	50	16/8/2004	
Sardar Sarovar CHPH Unit-III	50	31/8/2004	
Sardar Sarovar CHPH Unit-IV	50	3/5/2004	
Sardar Sarovar CHPH Unit-V	50	15/12/2004	
Mini-Micro Hydro			
Morand Unit-1	0.335	31/3/1990	http://www.mperc.org/mppower1.html
Morand Unit-2	0.335	9/12/1990	
Morand Unit-3	0.335	28/3/1991	
Satpura Unit-1	0.5	9/2/1996	
Satpura Unit-2	0.5	9/2/1997	
Tilwara	0.25	2/1/1997	
Chargaon	0.8	7/2/1997	

Bhimgarh Unit-1	1.2	17/2/1998	
Bhimgarh Unit-2	1.2	10/3/1998	
Hydro (Central)			
Indira Sagar Unit-1	125	1/1/2004	CEA General Review (2005):Table No. 2.7
Indira Sagar Unit-2	125	18/1/2004	
Indira Sagar Unit-3	125	27/2/2004	
Indira Sagar Unit-4	125	28/3/2004	
Indira Sagar Unit-5	125	23/7/2004	WREB Annual Report (2004-2005): Annex-VII
Indira Sagar Unit-6	125	29/12/2004	
Indira Sagar Unit-7	125	27/10/2004	
Indira Sagar Unit-8	125	23/3/2005	
Gas			
State Sector	0		
Central Sector	257		Considered Below
Coal			
Amarkantak Unit-I	30	1/2/1965	http://www.mperc.org/mppower1.html
Amarkantak Unit-II	20	8/2/1965	
Amarkantak Unit-III	120	23/11/1977	
Amarkantak Unit-IV	120	16/5/1978	
Satpura Unit-I	62.5	6/10/1967	http://www.mperc.org/mppower1.html
Satpura Unit-II	62.5	21/3/1968	
Satpura Unit-III	62.5	14/5/1968	
Satpura Unit-IV	62.5	10/7/1968	
Satpura Unit-V	62.5	17/4/1970	
Satpura Unit-VI	200	1/7/1979	
Satpura Unit-VII	210	20/9/1980	
Satpura Unit-VIII	210	25/1/1983	
Satpura Unit-IX	210	7/2/1984	
Sanjay Gandhi Unit-I	210	26/3/1993	http://www.mperc.org/mppower1.html
Sanjay Gandhi Unit-II	210	27/3/1994	
Sanjay Gandhi Unit-III	210	28/2/1999	
Sanjay Gandhi Unit-IV	210	23/11/1999	
Coal (Private Sector)			
Nil	0		
Coal (Central Sector)			
Central	1058		Considered Below
Nuclear (Central Sector)			

Central	93		Considered Below
Diesel			
Diesel Power	0		
Wind			
Wind Power	35.61		No generation from diesel in 2004-2005, hence need not to be considered for BM calculation

Power Plants	Capacity	Date of Commissioning	Source/ Comments
Chattisgarh			
Hydro			
Hasdeo Bango Unit-1	40	21/3/1994	http://www.cseb-powerhub.com/generation.htm
Hasdeo Bango Unit-2	40	21/11/1994	
Hasdeo Bango Unit-3	40	11/1/1995	
Gangrel Unit-1	2.5	2/4/2004	http://www.cseb-powerhub.com/generation.htm
Gangrel Unit-2	2.5	29/6/2004	
Gangrel Unit-3	2.5	17/10/2004	
Gangrel Unit-4	2.5	5/11/2004	
Gas			
State	0		
Central	0		
Coal			
Korba (E) Power House-II Unit-1	50	5/9/1966	http://www.cseb-powerhub.com/generation.htm
Korba (E) Power House-II Unit-2	50	16/5/1967	
Korba (E) Power House-II Unit-3	50	23/3/1968	
Korba (E) Power House-II Unit-4	50	31/10/1968	
Korba (E) Power House-III Unit-5	120	27/4/1976	
Korba (E) Power House-III Unit-6	120	5/4/1981	
Korba (W) Power House-I Unit-1	210	21/8/1983	http://www.cseb-powerhub.com/generation.htm
Korba (W) Power House-I Unit-2	210	31/3/1984	
Korba (W) Power House-II Unit-3	210	28/3/1985	

Korba (W) Power House-II Unit-4	210	13/3/1986	
Coal (Private Sector)			
Nil	0		
Coal (Central Sector)			
Central	210		Considered Below
Nuclear (Central Sector)			
Central	0		
Diesel			
Diesel Power	0		
Wind			
Wind Power	11.51		No generation from diesel in 2004-2005, hence need not to be considered for BM calculation

Power Plants	Capacity	Date of Commissioning	Source/ Comments
Maharashtra			
Hydro			
Koyna Stage-I Unit-1	70	16/5/1962	http://www.mahagenco.in/genstats/gg99.shtm
Koyna Stage-I Unit-2	70	2/6/1962	
Koyna Stage-I Unit-3	70	28/1/1963	
Koyna Stage-I Unit-4	70	29/2/1963	
Koyna Stage-II Unit-1	80	30/6/1967	http://www.mahagenco.in/genstats/gg99.shtm
Koyna Stage-II Unit-2	80	28/11/1966	
Koyna Stage-II Unit-3	80	22/8/1966	
Koyna Stage-II Unit-4	80	23/3/1966	
Koyna Stage-III Unit-1	80	6/7/1975	http://www.mahagenco.in/genstats/gg99.shtm
Koyna Stage-III Unit-2	80	11/1/1976	
Koyna Stage-III Unit-3	80	8/6/1977	
Koyna Stage-III Unit-4	80	2/10/1978	
Koyna Stage-IV Unit-1	250	20/6/1999	http://www.mahagenco.in/genstats/gg99.shtm
Koyna Stage-IV Unit-2	250	25/11/1999	
Koyna Stage-IV Unit-3	250	3/3/2000	
Koyna Stage-IV Unit-4	250	3/5/2000	
Koyna-DPH Unit-1	20	3/10/1980	http://www.mahagenco.in/genstats/gg99.shtm
Koyna-DPH Unit-2	20	16/3/1981	
Vaitarna	60	26/6/1976	http://www.mahagenco.in/genstats/gg98.shtm

Vaitarna Dam Toe	1.5	21/9/1987	http://www.mahagenco.in/genstats/gg98.shtm
Bhira-TR Unit-1	40	13/9/1987	http://www.mahagenco.in/genstats/gg100.shtm
Bhira-TR Unit-2	40	29/3/1988	
Eldari Unit-1	7.5	16/6/1968	http://www.mahagenco.in/genstats/gg100.shtm
Eldari Unit-2	7.5	10/5/1968	
Eldari Unit-3	7.5	20/3/1968	
Vir Unit-1	4.5	20/2/1975	http://www.mahagenco.in/genstats/gg99.shtm
Vir Unit-2	4.5	17/2/1975	
Bhatghar	16	2/8/1977	http://www.mahagenco.in/genstats/gg99.shtm
Tilari	60	10/10/1986	http://www.mahagenco.in/genstats/gg100.shtm
Radhanagari	4x1.2=4.8	1952	http://www.mahagenco.in/genstats/gg100.shtm
Bhandardara Stage-I	10	27/3/1986	http://www.mahagenco.in/genstats/gg99.shtm
Bhandardara Stage-II	34	19/5/1999	http://www.mahagenco.in/genstats/gg100.shtm
Pawana	10	11/6/1988	http://www.mahagenco.in/genstats/gg99.shtm
Bhatsa	15	28/9/1991	http://www.mahagenco.in/genstats/gg99.shtm
Dhom Unit-1	1	13/3/1992	http://www.mahagenco.in/genstats/gg100.shtm
Dhom Unit-2	1	31/3/1992	
Kanhar	4	18/8/1991	http://www.mahagenco.in/genstats/gg100.shtm
Manikdoh	6	9/2/1998	http://www.mahagenco.in/genstats/gg100.shtm
Ujjani	12	2/5/1994	http://www.mahagenco.in/genstats/gg100.shtm
Paithan	12	1/11/1984	http://www.mahagenco.in/genstats/gg100.shtm
Pench Unit-1 (33.33% Share)	80	9/9/1986	http://www.mahagenco.in/genstats/gg100.shtm
Pench Unit-2 (33.33% Share)	80	9/3/1987	
Surya	6	1/1/1999	http://www.mahagenco.in/genstats/gg100.shtm
Surya CDPH	0.75	4/6/1999	http://www.mahagenco.in/genstats/gg100.shtm
Dimbhe	5	17/10/1998	http://www.mahagenco.in/genstats/gg100.shtm
Panshet	8	31/3/1991	http://www.mahagenco.in/genstats/gg99.shtm
Varasgaon	8	21/8/1991	http://www.mahagenco.in/genstats/gg100.shtm
Warna Unit-1	8	16/9/1998	http://www.mahagenco.in/genstats/gg100.shtm
Warna Unit-2	8	1/9/1999	
Dudhganga Unit-1	12	27/2/2001	http://www.mahagenco.in/genstats/gg100.shtm
Dudhganga Unit-2	12	31/3/2000	
Terwanmedhe	0.2	31/3/1999	http://www.mahagenco.in/genstats/gg100.shtm
Yeoteshwar	0.08		Being low-cost power generation sources, these plants are
Sardar Sarovar RBPH Unit-I	200	1/2/2005	WREB Annual Report (2004-2005) Annex-VII
Sardar Sarovar CHPH Unit-I	50	4/10/2004	
Sardar Sarovar CHPH Unit-II	50	16/8/2004	

Sardar Sarovar CHPH Unit-III	50	31/8/2004	(27% 0f 450MW)
Sardar Sarovar CHPH Unit-IV	50	3/5/2004	
Sardar Sarovar CHPH Unit-V	50	15/12/2004	
Majalgaon Unit-1	0.75	1/1/2002	http://www.mahagenco.in/genstats/gg100.shtm
Majalgaon Unit-2	0.75	1/1/2002	
Majalgaon Unit-3	0.75	1/1/2002	
Karanjavan	3	26/10/2001	http://www.mahagenco.in/genstats/gg100.shtm
Hydro (Private Sector)			
Tata (H) Bhira Unit-1 to 6	150	1922	http://www.mahagenco.in/genstats/gg98.shtm
Tata (H) Bhivpuri Unit-1 to 6	72	1925	
Tata (H) Khopoli Unit-1 to 6	72	1927 (5 Units) 1952 (1 Unit)	
Tata (H) Bhira PSU	150	1997	
Gas			
Uran Unit-1	60	20/2/1982	http://www.mahagenco.in/genstats/gg98.shtm
Uran Unit-2	60	29/3/1982	
Uran Unit-3	60	26/5/1982	
Uran Unit-4	60	21/7/1982	
Uran Unit-5	108	10/10/1985	
Uran Unit-6	108	2/8/1985	
Uran Unit-7	108	17/6/1985	
Uran Unit-8	108	15/1/1986	
Uran WHR Unit-1	120	16/3/1994	http://www.mahagenco.in/genstats/gg98.shtm
Uran WHR Unit-2	120	28/10/1994	
Gas (Private Sector)			
Trombay			Not a low-cost power generation source, hence not considered for BM calculation to be on a conservative side
Dhabol	740	13/5/1999	http://www.mahagenco.in/genstats/gg98.shtm
Gas (Central Sector)			
Central	404		Considered Below
Coal			
Nasik Unit-1	140	16/8/1970	http://www.mahagenco.in/genstats/gg98.shtm
Nasik Unit-2	140	21/3/1972	
Nasik Unit-3	210	26/4/1979	
Nasik Unit-4	210	10/7/1980	

Nasik Unit-5	210	30/1/1981	
Koradi Unit-1	120	3/6/1974	http://www.mahagenco.in/genstats/gg98.shtm
Koradi Unit-2	120	24/3/1975	
Koradi Unit-3	120	3/3/1976	
Koradi Unit-4	120	22/7/1976	
Koradi Unit-5	200	15/7/1978	
Koradi Unit-6	210	30/3/1982	
Koradi Unit-7	210	13/1/1983	
Bhusawal Unit-1	62.5	17/7/1966	http://www.mahagenco.in/genstats/gg98.shtm
Bhusawal Unit-2	210	30/8/1979	
Bhusawal Unit-3	210	4/5/1982	
Parli Unit-1	30	15/11/1971	http://www.mahagenco.in/genstats/gg98.shtm
Parli Unit-2	30	17/6/1972	
Parli Unit-3	210	10/10/1980	
Parli Unit-4	210	26/3/1985	
Parli Unit-5	210	31/12/1987	
Khaparkheda Unit-1	210	26/3/1989	http://www.mahagenco.in/genstats/gg98.shtm
Khaparkheda Unit-2	210	8/1/1990	
Khaparkheda Unit-3	210	31/5/2000	
Khaparkheda Unit-4	210	7/1/2001	
Chandrapur Unit-1	210	15/8/1983	http://www.mahagenco.in/genstats/gg98.shtm
Chandrapur Unit-2	210	11/7/1984	
Chandrapur Unit-3	210	3/5/1985	
Chandrapur Unit-4	210	8/3/1986	
Chandrapur Unit-5	500	22/3/1991	
Chandrapur Unit-6	500	11/3/1992	
Chandrapur Unit-7	500	1/10/1997	
Paras	62.5	25/5/1967	http://www.mahagenco.in/genstats/gg98.shtm
Coal (Private Sector)			
Dahanu (BSES) Unit-1	250	6/1/1995	http://www.mahagenco.in/genstats/gg98.shtm
Dahanu (BSES) Unit-2	250	29/3/1995	
Trombay TPC			Not a low-cost power generation source, hence not considered for BM calculation to be on a conservative side
Coal (Central Sector)			
Central	1339		Considered Below
Nuclear (Central Sector)			

Central	312		Considered Below
Diesel			
Diesel Power	0		
Wind			
Wind Power	452.92		No generation from diesel in 2004-2005, hence need not to be considered for BM calculation

Power Plants	Capacity	Date of Commissioning	Source/ Comments
Goa			
Hydro			
Aravelam	0.05		Being a low-cost power generation source, this plant is considered for BM claculation to arrive at a conservative value of BM
Gas (Private Sector)			
Reliance Salgaonkar	48	14/8/1999	http://www.rel.co.in/aboutus/GoaPower.asp
Gas (Central Sector)			
Central	0		
Coal			
State	0		
Coal (Private Sector)			
Private Sector	0		
Coal (Central Sector)			
Central	332		Considered Below
Nuclear (Central Sector)			
Central	0		
Diesel			
Diesel Power	0		
Wind			
Wind Power	0.02		No generation from diesel in 2004-2005, hence need not to be considered for BM calculation

Power Plants	Capacity	Date of Commissioning	Source/ Comments
Daman & Diu			
Hydro			

Nil	0		
Gas			
Nil	0		
Gas (Central Sector)			
Central	4		Considered Below
Coal			
State	0		
Coal (Private Sector)			
Private Sector	0		
Coal (Central Sector)			
Central	13		Considered Below
Nuclear (Central Sector)			
Central	2		Considered Below
Diesel			
Diesel Power	0		
Wind			
Wind Power	0		

Power Plants	Capacity	Date of Commissioning	Source/ Comments
Dadra & Nagar haveli			
Hydro			
Nil	0		
Gas			
Nil	0		
Gas (Central Sector)			
Central	27		Considered Below
Coal			
State	0		
Coal (Private Sector)			
Private Sector	0		
Coal (Central Sector)			
Central	29		Considered Below
Nuclear (Central Sector)			
Central	2		Considered Below
Diesel			
Diesel Power	0		

Wind			
Wind Power	0		

Power Plants	Capacity	Date of Commissioning	Source/ Comments
Central Sector Unallocated Power			
Hydro	0		
Coal	650		Considered Below
Gas	197.59		Considered Below
Nuclear	66		Considered Below

Power Plants	Capacity	Date of Commissioning	Source/ Comments
Central Sector			
Gas			
Kawas GPS Unit-I	106	Mar-92	http://www.ntpc.co.in/powerplants/ntpc_pw_kawas.shtml
Kawas GPS Unit-II	106	May-92	
Kawas GPS Unit-III	106	Jun-92	
Kawas GPS Unit-IV	106	Aug-92	
Kawas GPS Unit-V	110.5	Feb-93	
Kawas GPS Unit-VI	110.5	Mar-93	
Gandhar GPS Unit-I	131	Mar-94	http://www.ntpc.co.in/powerplants/ntpc_pw_Jhanor.shtml
Gandhar GPS Unit-II	131	Mar-94	
Gandhar GPS Unit-III	131	May-92	
Gandhar GPS Unit-IV	255	Mar-95	
Coal			
Korba STPS Unit-I	200	Mar-83	http://www.ntpc.co.in/powerplants/ntpc_pw_korba.shtml
Korba STPS Unit-II	200	Oct-83	
Korba STPS Unit-III	200	Mar-84	
Korba STPS Unit-IV	500	May-87	
Korba STPS Unit-V	500	Mar-88	
Korba STPS Unit-VI	500	Mar-89	
Vindhyachal STPS Unit-I	210	Oct-87	http://www.ntpc.co.in/powerplants/ntpc_pw_vindhyachal.sh
Vindhyachal STPS Unit-II	210	Jul-88	
Vindhyachal STPS Unit-III	210	Feb-89	
Vindhyachal STPS Unit-IV	210	Dec-89	

Vindhyachal STPS Unit-V	210	Mar-90	tml
Vindhyachal STPS Unit-VI	210	Feb-91	
Vindhyachal STPS Unit-VII	500	Mar-99	
Vindhyachal STPS Unit-VIII	500	Feb-00	
Nuclear			
Tarapur Unit-1	160	1969	http://www.dae.gov.in/taps.htm
Tarapur Unit-2	160	1969	
Kakrapar Unit-1	220	1993	http://www.dae.gov.in/kapp.htm
Kakrapar Unit-2	220	1995	

Generation Details in the Western Region for the year 2002-2003				
State	**Fuel**	**Gross MU Generated**	**Auxiliary Consumption (MU)**	**Net MU Generated**
		2002-2003	**2002-2003**	**2002-2003**
Gujarat				
State Electricity Boards				
Thermal	Coal	22051.81		
Thermal	Diesel	0.00		
Thermal	Gas	211.90		
Hydro	Hydro	588.45		
Wind	Wind	0.00		
Electricity Departments/ Govt. Undertakings/ Municipalities				
Thermal	Coal	3398.00		
Thermal	Diesel	0.00		
Thermal	Gas	1826.10		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Nuclear	Nuclear	0.00		
Private Generating Stations				
Thermal	Coal	5072.42		
Thermal	Diesel	0.00		
Thermal	Gas	3786.31		
Hydro	Hydro	0.00		
Wind	Wind	179.366		
Non-Utilities				
Self Generating Industries	Low Cost (Assumed for conservative estimate)			1452.00
Total Thermal	**Coal**	30522.23	3029.67	**27492.56**
Total Thermal	**Diesel**	0.00	0.00	**0.00**
Total Thermal	**Gas**	5824.31	117.97	**5706.34**
Total Hydro	**Hydro**	588.45	7.14	**581.31**
Total Wind	**Wind**	179.37	0.00	**179.37**
Total Nuclear	**Nuclear**	0.00	0.00	**0.00**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**			**1452.00**
Madhya Pradesh				
State Electricity Boards				
Thermal	Coal	13680.86		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	1771.34		
Wind	Wind	0.00		
Electricity Departments/ Govt. Undertakings/ Municipalities				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		

Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Nuclear	Nuclear	0.00		
Private Generating Stations				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	32.52		
Non-Utilities				
Self Generating Industries	Low Cost (Assumed for conservative estimate)			0.00
Total Thermal	**Coal**	13680.86	1314.99	**12365.87**
Total Thermal	**Diesel**	0.00	0.00	**0.00**
Total Thermal	**Gas**	0.00	0.00	**0.00**
Total Hydro	**Hydro**	1771.34	4.68	**1766.66**
Total Wind	**Wind**	32.52	0.00	**32.52**
Total Nuclear	**Nuclear**	0.00	0.00	**0.00**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**			**0.00**
Chattisgarh				
State Electricity Boards				
Thermal	Coal	7593.22		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	276.95		
Wind	Wind	0.00		
Electricity Departments/ Govt. Undertakings/ Municipalities				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Nuclear	Nuclear	0.00		
Private Generating Stations				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Non-Utilities				
Self Generating Industries	Low Cost (Assumed for conservative estimate)			666.25
Total Thermal	**Coal**	7593.22	735.02	**6858.20**
Total Thermal	**Diesel**	0.00	0.00	**0.00**

Total Thermal	**Gas**	0.00	0.00	**0.00**
Total Hydro	**Hydro**	276.95	0.49	**276.46**
Total Wind	**Wind**	0.00	0.00	**0.00**
Total Nuclear	**Nuclear**	0.00	0.00	**0.00**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**			**666.25**
Maharashtra				
State Electricity Boards				
Thermal	Coal	50304.19		
Thermal	Diesel	0.00		
Thermal	Gas	3891.17		
Hydro	Hydro	4185.21		
Wind	Wind	0.00		
Electricity Departments/ Govt. Undertakings/ Municipalities				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Nuclear	Nuclear	0.00		
Private Generating Stations				
Thermal	Coal	1899.85		
Thermal	Diesel	0.00		
Thermal	Gas	1151.90		
Hydro	Hydro	1350.20		
Wind	Wind	666.63		
Non-Utilities				
Self Generating Industries	Low Cost (Assumed for conservative estimate)			349.62
Total Thermal	**Coal**	52204.04	4165.65	**48038.39**
Total Thermal	**Diesel**	0.00	0.00	**0.00**
Total Thermal	**Gas**	5043.07	119.78	**4923.29**
Total Hydro	**Hydro**	5535.41	38.08	**5497.33**
Total Wind	**Wind**	666.63	0.00	**666.63**
Total Nuclear	**Nuclear**	0.00	0.00	**0.00**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**			**349.62**
Goa				
State Electricity Boards				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		

Hydro	Hydro	0.00		
Wind	Wind	0.00		
Electricity Departments/ Govt. Undertakings/ Municipalities				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Nuclear	Nuclear	0.00		
Private Generating Stations				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	273.05		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Non-Utilities				
Self Generating Industries	Low Cost (Assumed for conservative estimate)			0.00
Total Thermal	**Coal**	0.00	0.00	**0.00**
Total Thermal	**Diesel**	0.00	0.00	**0.00**
Total Thermal	**Gas**	273.05	2.73	**270.32**
Total Hydro	**Hydro**	0.00	0.00	**0.00**
Total Wind	**Wind**	0.00	0.00	**0.00**
Total Nuclear	**Nuclear**	0.00	0.00	**0.00**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**			**0.00**
D&N Haveli				
State Electricity Boards				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Electricity Departments/ Govt. Undertakings/ Municipalities				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Nuclear	Nuclear	0.00		
Private Generating Stations				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		

Non-Utilities				
Self Generating Industries	Low Cost (Assumed for conservative estimate)			0.00
Total Thermal	**Coal**	0.00	0.00	**0.00**
Total Thermal	**Diesel**	0.00	0.00	**0.00**
Total Thermal	**Gas**	0.00	0.00	**0.00**
Total Hydro	**Hydro**	0.00	0.00	**0.00**
Total Wind	**Wind**	0.00	0.00	**0.00**
Total Nuclear	**Nuclear**	0.00	0.00	**0.00**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**			**0.00**
Daman & Diu				
State Electricity Boards				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Electricity Departments/ Govt. Undertakings/ Municipalities				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Nuclear	Nuclear	0.00		
Private Generating Stations				
Thermal	Coal	0.00		
Thermal	Diesel	0.00		
Thermal	Gas	0.00		
Hydro	Hydro	0.00		
Wind	Wind	0.00		
Non-Utilities				
Self Generating Industries	Low Cost (Assumed for conservative estimate)			0.00
Total Thermal	**Coal**	0.00	0.00	**0.00**
Total Thermal	**Diesel**	0.00	0.00	**0.00**
Total Thermal	**Gas**	0.00	0.00	**0.00**
Total Hydro	**Hydro**	0.00	0.00	**0.00**
Total Wind	**Wind**	0.00	0.00	**0.00**
Total Nuclear	**Nuclear**	0.00	0.00	**0.00**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**			**0.00**

Generation from Central Sector Power Plants located in Western Region				
Total Thermal	**Coal**	33391.85	2769.58	**30622.27**
Total Thermal	**Diesel**	0.00	0.00	**0.00**
Total Thermal	**Gas**	7572.87	117.35	**7455.52**
Total Hydro	**Hydro**	0.00	0.00	**0.00**
Total Wind	**Wind**	0.00	0.00	**0.00**
Total Nuclear	**Nuclear**	6200.00	600.00	**5600.00**
Import from Central Sector Power Plants located in other Regions				
Total Thermal	**Coal**			**3875.83**
Total Thermal	**Diesel**			**0.00**
Total Thermal	**Gas**			**33.37**
Total Hydro	**Hydro**			**0.00**
Total Wind	**Wind**			**0.00**
Total Nuclear	**Nuclear**			**0.00**
Import from other Regions				
NREB				1124.49
SREB				466.82
EREB				257.2
Total Import from other Regions				**1848.51**
Total Thermal Generation in WR	Coal			129253.12
Total Thermal Generation in WR	Diesel			0.00
Total Thermal Generation in WR	Gas			18388.84
Total Hydro Generation in WR	Hydro			8121.76
Total Wind Generation in WR	Wind			878.52
Total Nuclear Generation in WR	Nuclear			5600.00
Total Generation from Non-Utilities in WR	Low Cost (Assumed for conservative estimate)			2467.87
Total Import from other Regions in WR				1848.51
Total Generation in WR (including Gen. from SEBs, Electricity Dept., Govt. Undertakings, Municipalities, Private Generating Stations and Central Sector Share)				**162242.24**

Total Generation from Non-Utilities in WR				**2467.87**
Total Import from other Regions in WR				**1848.51**
Gross Generation from all sources in WR				**166558.62**
20% of Gross Generation from all sources in WR				**33311.7232**

Generation Details in the Western Region for the year 2004-2005				
State	**Fuel**	**Gross MU Generated**	**Auxiliary Consumption (MU)**	**Net MU Generated**
		2004-2005	**2004-2005**	**2004-2005**
Gujarat				
Total Thermal	Coal	30120.94	2933.63	27187.31
Total Thermal	Diesel	0.00	0.00	0.00
Total Thermal	Gas	13366.83	261.59	13105.24
Total Hydro	Hydro	873.19	7.07	866.12
Total Wind	Wind	0.00	0.00	0.00
Total Nuclear	Nuclear	0.00	0.00	0.00
Madhya Pradesh				
Total Thermal	Coal	13502.55	1414.69	12087.86
Total Thermal	Diesel	0.00	0.00	0.00
Total Thermal	Gas	0.00	0.00	0.00
Total Hydro	Hydro	3737.85	7.31	3730.54
Total Wind	Wind	0.00	0.00	0.00
Total Nuclear	Nuclear	0.00	0.00	0.00
Chattisgarh				
Total Thermal	Coal	7924.98	782.82	7142.16
Total Thermal	Diesel	0.00	0.00	0.00
Total Thermal	Gas	0.00	0.00	0.00
Total Hydro	Hydro	382.64	0.00	382.64
Total Wind	Wind	0.00	0.00	0.00
Total Nuclear	Nuclear	0.00	0.00	0.00
Maharashtra				
Total Thermal	Coal	55543.13	4452.14	51090.99
Total Thermal	Diesel	0.00	0.00	0.00
Total Thermal	Gas	5450.19	124.89	5325.30
Total Hydro	Hydro	5583.54	39.08	5544.46
Total Wind	Wind	0.00	0.00	0.00
Total Nuclear	Nuclear	0.00	0.00	0.00
Goa				
Total Thermal	Coal	0.00	0.00	0.00
Total Thermal	Diesel	0.00	0.00	0.00
Total Thermal	Gas	138.36	0.00	138.36
Total Hydro	Hydro	0.00	0.00	0.00
Total Wind	Wind	0.00	0.00	0.00

Total Nuclear	Nuclear	0.00	0.00	0.00
D&N Haveli				
Total Thermal	Coal	0.00	0.00	0.00
Total Thermal	Diesel	0.00	0.00	0.00
Total Thermal	Gas	0.00	0.00	0.00
Total Hydro	Hydro	0.00	0.00	0.00
Total Wind	Wind	0.00	0.00	0.00
Total Nuclear	Nuclear	0.00	0.00	0.00
Daman & Diu				
Total Thermal	Coal	0.00	0.00	0.00
Total Thermal	Diesel	0.00	0.00	0.00
Total Thermal	Gas	0.00	0.00	0.00
Total Hydro	Hydro	0.00	0.00	0.00
Total Wind	Wind	0.00	0.00	0.00
Total Nuclear	Nuclear	0.00	0.00	0.00
Generation from Central Sector Power Plants located in Western Region & in other Regions				
Total Thermal	Coal			32953.356
Total Thermal	Diesel			0.00
Total Thermal	Gas			6703.57
Total Hydro	Hydro			0.00
Total Wind	Wind			0.00
Total Nuclear	Nuclear			4496.51
Import from other Regions				
NREB				1093.264
SREB				1766.607
EREB				9094.757
Total Import from other Regions				**11954.628**
Import from Self Generating Industries (Balco and Jindal)	Low Cost (Assumed for conservative estimate)			**978.14**
Total Thermal Generation in WR	Coal			130461.68
Total Thermal Generation in WR	Diesel			0.00
Total Thermal Generation in WR	Gas			25272.47
Total Hydro Generation in WR	Hydro			10523.76
Total Wind Generation in WR	Wind			0.00
Total Nuclear Generation in WR	Nuclear			4496.51

Total Import from other Regions in WR				11954.63
Total Import from Self Generating Industries in WR	Low Cost (Assumed for conservative estimate)			978.14
Total Generation in WR (including Gen. from all the States, Union Territories and Central Sector Share)				**170754.42**
Total Import from other Regions in WR				**11954.63**
Total Import from Self Generating Industries in WR				**978.14**
Gross Generation from all sources in WR				**183687.18**
20% of Gross Generation from all sources in WR				**36737.4368**

Generation Details in	
State	**Fuel**
Gujarat	
State Electricity Boards	
Thermal	Coal
Thermal	Diesel
Thermal	Gas
Hydro	Hydro
Wind	Wind
Electricity Departments/ Govt. Undertakings/ Municipalities	
Thermal	Coal
Thermal	Diesel
Thermal	Gas
Hydro	Hydro
Wind	Wind
Nuclear	Nuclear
Private Generating Stations	
Thermal	Coal
Thermal	Diesel
Thermal	Gas
Hydro	Hydro
Wind	Wind
Non-Utilities	
Self Generating Industries	Low Cost (Assumed for conservative estimate)
Total Thermal	**Coal**
Total Thermal	**Diesel**
Total Thermal	**Gas**
Total Hydro	**Hydro**
Total Wind	**Wind**
Total Nuclear	**Nuclear**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**
Madhya Pradesh	
State Electricity Boards	
Thermal	Coal
Thermal	Diesel
Thermal	Gas
Hydro	Hydro
Wind	Wind
Electricity Departments/ Govt. Undertakings/ Municipalities	
Thermal	Coal
Thermal	Diesel

Source
CEA General Review (2002-2003) : Table No. 3.5
CEA General Review (2002-2003) : Table No. 3.6
CEA General Review (2002-2003) : Table No. 3.6
CEA General Review (2002-2003) : Table No. 5.3
For Auxiliary Consumption: CEA General Review (2002-2003) : Table No. 5.6
CEA General Review (2002-2003) : Table No. 3.5

CEA General Review (2002-2003) : Table No. 3.6	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Nuclear	Nuclear
	Private Generating Stations	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Non-Utilities	
CEA General Review (2002-2003) : Table No. 5.3	Self Generating Industries	Low Cost (Assumed for conservative estimate)
For Auxiliary Consumption: CEA General Review (2002-2003) : Table No. 5.6	**Total Thermal**	**Coal**
	Total Thermal	**Diesel**
	Total Thermal	**Gas**
	Total Hydro	**Hydro**
	Total Wind	**Wind**
	Total Nuclear	**Nuclear**
	Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**
	Chattisgarh	
	State Electricity Boards	
CEA General Review (2002-2003) : Table No. 3.5	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Electricity Departments/ Govt. Undertakings/ Municipalities	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Nuclear	Nuclear
	Private Generating Stations	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Non-Utilities	
CEA General Review (2002-2003) : Table No. 5.3	Self Generating Industries	Low Cost (Assumed for conservative estimate)
For Auxiliary Consumption: CEA	**Total Thermal**	**Coal**
	Total Thermal	**Diesel**

For Auxiliary Consumption: CEA General Review (2002-2003) : Table No. 5.6	**Total Thermal**	**Gas**
	Total Hydro	**Hydro**
	Total Wind	**Wind**
	Total Nuclear	**Nuclear**
	Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**
	Maharashtra	
	State Electricity Boards	
CEA General Review (2002-2003) : Table No. 3.5	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Electricity Departments/ Govt. Undertakings/ Municipalities	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Nuclear	Nuclear
	Private Generating Stations	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Non-Utilities	
CEA General Review (2002-2003) : Table No. 5.3	Self Generating Industries	Low Cost (Assumed for conservative estimate)
For Auxiliary Consumption: CEA General Review (2002-2003) : Table No. 5.6	**Total Thermal**	**Coal**
	Total Thermal	**Diesel**
	Total Thermal	**Gas**
	Total Hydro	**Hydro**
	Total Wind	**Wind**
	Total Nuclear	**Nuclear**
	Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**
	Goa	
	State Electricity Boards	
CEA General Review (2002-2003) : Table No. 3.5	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas

2003) : Table No. 3.5	Hydro	Hydro
	Wind	Wind
	Electricity Departments/ Govt. Undertakings/ Municipalities	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Nuclear	Nuclear
	Private Generating Stations	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Non-Utilities	
CEA General Review (2002-2003) : Table No. 5.3	Self Generating Industries	Low Cost (Assumed for conservative estimate)
For Auxiliary Consumption: CEA General Review (2002-2003) : Table No. 5.6	**Total Thermal**	**Coal**
	Total Thermal	**Diesel**
	Total Thermal	**Gas**
	Total Hydro	**Hydro**
	Total Wind	**Wind**
	Total Nuclear	**Nuclear**
	Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**
	D&N Haveli	
	State Electricity Boards	
CEA General Review (2002-2003) : Table No. 3.5	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Electricity Departments/ Govt. Undertakings/ Municipalities	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind
	Nuclear	Nuclear
	Private Generating Stations	
CEA General Review (2002-2003) : Table No. 3.6	Thermal	Coal
	Thermal	Diesel
	Thermal	Gas
	Hydro	Hydro
	Wind	Wind

CEA General Review (2002-2003) : Table No. 5.3	
For Auxiliary Consumption: CEA General Review (2002-2003) : Table No. 5.6	
CEA General Review (2002-2003) : Table No. 3.5	
CEA General Review (2002-2003) : Table No. 3.6	
CEA General Review (2002-2003) : Table No. 3.6	
CEA General Review (2002-2003) : Table No. 5.3	
For Auxiliary Consumption: CEA General Review (2002-2003) : Table No. 5.6	

Non-Utilities	
Self Generating Industries	Low Cost (Assumed for conservative estimate)
Total Thermal	**Coal**
Total Thermal	**Diesel**
Total Thermal	**Gas**
Total Hydro	**Hydro**
Total Wind	**Wind**
Total Nuclear	**Nuclear**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**
Daman & Diu	
State Electricity Boards	
Thermal	Coal
Thermal	Diesel
Thermal	Gas
Hydro	Hydro
Wind	Wind
Electricity Departments/ Govt. Undertakings/ Municipalities	
Thermal	Coal
Thermal	Diesel
Thermal	Gas
Hydro	Hydro
Wind	Wind
Nuclear	Nuclear
Private Generating Stations	
Thermal	Coal
Thermal	Diesel
Thermal	Gas
Hydro	Hydro
Wind	Wind
Non-Utilities	
Self Generating Industries	Low Cost (Assumed for conservative estimate)
Total Thermal	**Coal**
Total Thermal	**Diesel**
Total Thermal	**Gas**
Total Hydro	**Hydro**
Total Wind	**Wind**
Total Nuclear	**Nuclear**
Total from Non-Utilities	**Low Cost (Assumed for conservative estimate)**

	Generation from Central Sector Power Plants located in Western Region	
CEA General Review (2002-2003) : Table No. 3.6 For Auxiliary Consumption: CEA General Review (2002-2003) : Table No. 5.6	**Total Thermal**	**Coal**
	Total Thermal	**Diesel**
	Total Thermal	**Gas**
	Total Hydro	**Hydro**
	Total Wind	**Wind**
	Total Nuclear	**Nuclear**
	Import from Central Sector Power Plants located in other Regions	
CEA General Review (2002-2003) : Table No. 5.8	**Total Thermal**	**Coal**
	Total Thermal	**Diesel**
	Total Thermal	**Gas**
	Total Hydro	**Hydro**
	Total Wind	**Wind**
	Total Nuclear	**Nuclear**
	Import from other Regions	
CEA General Review (2002-2003) : Table No. 5.9	NREB	
	SREB	
	EREB	
Sum of import from Central Sector Power Plants located in other regions and import from other regions can be cross checked with Table No. 5.2 of CEA General Review (2002-	**Total Import from other Regions**	
	Total Thermal Generation in WR	Coal
	Total Thermal Generation in WR	Diesel
	Total Thermal Generation in WR	Gas
	Total Hydro Generation in WR	Hydro
	Total Wind Generation in WR	Wind
	Total Nuclear Generation in WR	Nuclear
	Total Generation from Non-Utilities in WR	Low Cost (Assumed for conservative estimate)
	Total Import from other Regions in WR	
	Total Generation in WR (including Gen. from SEBs, Electricity Dept., Govt. Undertakings, Municipalities, Private Generating Stations and Central Sector Share)	

Can be cross checked with Table No. 5.2 of CEA General Review (2002-2003)

Total Generation from Non-Utilities in WR	
Total Import from other Regions in WR	
Gross Generation from all sources in WR	
20% of Gross Generation from all sources in WR	

Source
WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-05
WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-05
WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-05
WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-05 & Annex-X (6/8) for power generation from WHR
WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-05

WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-05

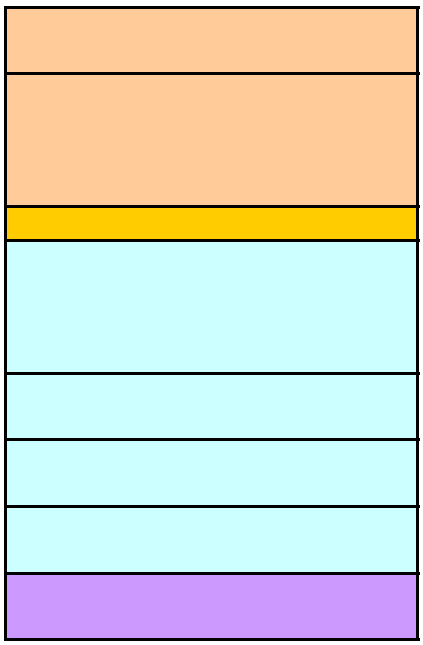
WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-2005

WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-2005 and Annex-XIII Schedule/ Drawal of Energy by Various Systems

WREB Annual Report (2004-2005) : Annex-XIII Schedule/ Drawal of Energy by Various Systems during 2004-05

The difference between the sum of imports from NTPC-Ramagundam and from other

WREB Annual Report (2004-2005) : Annex-XI Statewise Generation and Requirement during the year 2004-05



the Western Region for the year 2003-2004			
Gross MU Generated	**Auxiliary Consumption (MU)**	**Net MU Generated**	**Source**
2003-2004	**2003-2004**	**2003-2004**	
20402.49			CEA General Review (2005) : Table No. 3.5
0.00			
934.10			
859.34			
0.00			
3398.00			CEA General Review (2005) : Table No. 3.6
0.00			
788.62			
0.00			
113.20			
0.00			
4593.80			CEA General Review (2005) : Table No. 3.6
0.00			
7041.99			
0.00			
138.30			
		2217.38	CEA General Review (2005) : Table No. 5.3
28394.29	2732.84	**25661.45**	For Auxiliary Consumption: CEA General Review (2005) : Table No. 5.5
0.00	0.00	**0.00**	
8764.71	163.97	**8600.74**	
859.34	6.77	**852.57**	
251.50	0.00	**251.50**	
0.00	0.00	**0.00**	
		2217.38	
13168.47			CEA General Review (2005) : Table No. 3.5
0.00			
0.00			
2632.37			
1.24			
0.00			
0.00			

0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			
		0.00	CEA General Review (2005) : Table No. 5.3
13168.47	1302.99	**11865.48**	For Auxiliary Consumption: CEA General Review (2005) : Table No. 5.5
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
2632.37	5.73	**2626.64**	
1.24	0.00	**1.24**	
0.00	0.00	**0.00**	
		0.00	
7617.49			CEA General Review (2005) : Table No. 3.5
0.00			
0.00			
298.94			
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			
		614.27	CEA General Review (2005) : Table No. 5.3
7617.49	749.40	**6868.09**	For Auxiliary Consumption:
0.00	0.00	**0.00**	

0.00	0.00	**0.00**	For Auxiliary Consumption: CEA General Review (2005) : Table No. 5.5
298.94	0.64	**298.30**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
		614.27	
42177.67			CEA General Review (2005) : Table No. 3.5
0.00			
4006.23			
4155.73			
602.39			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			
0.00			
12019.83			CEA General Review (2005) : Table No. 3.6
0.00			
1426.00			
1336.00			
666.63			
		365.16	CEA General Review (2005) : Table No. 5.3
54197.50	4364.42	**49833.08**	For Auxiliary Consumption: CEA General Review (2005) : Table No. 5.5
0.00	0.00	**0.00**	
5432.23	125.25	**5306.98**	
5491.73	42.82	**5448.91**	
1269.02	0.00	**1269.02**	
0.00	0.00	**0.00**	
		365.16	
0.00			CEA General Review (2005) : Table No. 3.5
0.00			
0.00			

0.00			(2005) : Table No. 3.5
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
202.27			
0.00			
0.00			
		0.00	CEA General Review (2005) : Table No. 5.3
0.00	0.00	**0.00**	For Auxiliary Consumption: CEA General Review (2005) : Table No. 5.5
0.00	0.00	**0.00**	
202.27	4.05	**198.22**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
		0.00	
0.00			CEA General Review (2005) : Table No. 3.5
0.00			
0.00			
0.00			
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			

		0.00	CEA General Review (2005) : Table No. 5.3
0.00	0.00	**0.00**	For Auxiliary Consumption: CEA General Review (2005) : Table No. 5.5
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
		0.00	
0.00			CEA General Review (2005) : Table No. 3.5
0.00			
0.00			
0.00			
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			CEA General Review (2005) : Table No. 3.6
0.00			
0.00			
0.00			
0.00			
		0.00	CEA General Review (2005) : Table No. 5.3
0.00	0.00	**0.00**	For Auxiliary Consumption: CEA General Review (2005) : Table No. 5.5
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
		0.00	

32685.70	2285.00	**30400.7**	CEA General Review (2005) : Table No. 3.6 For Auxiliary Consumption: CEA General Review (2005) : Table No. 5.5
0.00	0.00	**0.00**	
7108.91	163.45	**6945.46**	
0.00	0.00	**0.00**	
0.00	0.00	**0.00**	
5700.00	600.00	**5100.00**	
		4188.30	
		0.00	
		0.00	
		0.00	
		0.00	
		205.74	
		1137.41	CEA General Review (2002-2003) : Table No. 5.7 and 5.8
		0	
		1450.41	
		2587.82	Sum of import from Central Sector Power Plants located in other regions and import from other regions can be cross checked with Table No. 5.2 of CEA
		128817.10	
		0.00	
		21051.40	
		9226.42	
		1521.76	
		5305.74	
		3196.81	
		2587.82	
		165922.42	

		3196.81	
		2587.82	
		171707.05	Can be cross checked with Table No. 5.2 of CEA General Review (2005)
		34341.41	

Power generation Mix of Western Regional Grid for three years			
Energy Source	**2002-03**	**2003-04**	**2004-05**
Thermal Power % out of Total grid generation	88.64	87.28	84.78
Low Cost Power % out of Total grid generation	**11.36**	**12.72**	**15.22**
% of Low Cost generation out of Total grid generation - Average of the three most recent years – 13.1%			

Sample of Power Plants for BM Calculation								
Sr.No.	Power plant name / location	State	Year of commissioning	Fuel Type	Capacity of the new addition	Total Capacity	Generation of the Unit in 2004-2005	Comments
					(MW)	(MW)	(MU)	
1	R.P.Sagar	Madhya Pradesh		Hydro	172 (50%)		188.64	Year of commissioning for these power plants are not
2	Jawahar Sagar	Madhya Pradesh		Hydro	99 (50%)		140.52	
3	Yeoteshwar	Maharashtra		Hydro	0.08		0.00	
4	Aravelam	Goa		Hydro	0.05		0.00	
5	Akrimota Lignite	Gujarat	31/3/2005	Lignite	125		0.00	
6	Indira Sagar Unit-8	Madhya Pradesh	23/3/2005	Hydro	125	1000	0.80	
7	Sardar Sarovar RBPH Unit-1	Gujarat	1/2/2005	Hydro	200		42.13	Generation from Sardar Sarovar RBPH Unit-1 & Sardar Sarovar CHPH Unit-1 to 5
8	Sardar Sarovar RBPH Unit-1	Madhya Pradesh	1/2/2005	Hydro	200		149.65	
9	Sardar Sarovar RBPH Unit-1	Maharashtra	1/2/2005	Hydro	200		71.09	
10	Indira Sagar Unit-6	Madhya Pradesh	29/12/2004	Hydro	125	1000	41.74	
11	Gangrel Unit-4	Chattisgarh	5/11/2004	Hydro	2.5		7.52	Generation from Gangrel Unit-1 to 4
12	Indira Sagar Unit-7	Madhya Pradesh	27/10/2004	Hydro	125	1000	25.16	
13	Gangrel Unit-3	Chattisgarh	17/10/2004	Hydro	2.5		0.00	Generation already considered in Gangrel Unit-4
14	Sardar Sarovar CHPH Unit-1	Gujarat	4/10/2004	Hydro	50		0.00	

15	Sardar Sarovar CHPH Unit-1	Madhya Pradesh	4/10/2004	Hydro	50		0.00	Generation already considered in Sardar Sarovar RBPH Unit-1
16	Sardar Sarovar CHPH Unit-1	Maharashtra	4/10/2004	Hydro	50		0.00	
17	Sardar Sarovar CHPH Unit-3	Gujarat	31/8/2004	Hydro	50		0.00	
18	Sardar Sarovar CHPH Unit-3	Madhya Pradesh	31/8/2004	Hydro	50		0.00	
19	Sardar Sarovar CHPH Unit-3	Maharashtra	31/8/2004	Hydro	50		0.00	
20	Sardar Sarovar CHPH Unit-2	Gujarat	16/8/2004	Hydro	50		0.00	
21	Sardar Sarovar CHPH Unit-2	Madhya Pradesh	16/8/2004	Hydro	50		0.00	
22	Sardar Sarovar CHPH Unit-2	Maharashtra	16/8/2004	Hydro	50		0.00	
23	Indira Sagar Unit-5	Madhya Pradesh	23/7/2004	Hydro	125	1000	120.09	
24	Gangrel Unit-2	Chattisgarh	29/6/2004	Hydro	2.5		0.00	Generation already considered in Gangrel Unit-4
25	Sardar Sarovar CHPH Unit-4	Gujarat	3/5/2004	Hydro	50		0.00	Generation already considered in Sardar Sarovar RBPH Unit-1
26	Sardar Sarovar CHPH Unit-4	Madhya Pradesh	3/5/2004	Hydro	50		0.00	
27	Sardar Sarovar CHPH Unit-4	Maharashtra	3/5/2004	Hydro	50		0.00	

28	Gangrel Unit-1	Chattisgarh	2/4/2004	Hydro	2.5		0.00	Generation already considered in Gangrel Unit-4
29	Indira Sagar Unit-4	Madhya Pradesh	28/3/2004	Hydro	125	1000	138.18	
30	Indira Sagar Unit-3	Madhya Pradesh	27/2/2004	Hydro	125	1000	314.87	
31	Sardar Sarovar CHPH Unit-5	Gujarat	15/2/2004	Hydro	50		0.00	Generation already considered in Sardar Sarovar RBPH Unit-1
32	Sardar Sarovar CHPH Unit-5	Madhya Pradesh	15/2/2004	Hydro	50		0.00	
33	Sardar Sarovar CHPH Unit-5	Maharashtra	15/2/2004	Hydro	50		0.00	
34	Indira Sagar Unit-2	Madhya Pradesh	18/1/2004	Hydro	125	1000	390.83	
35	Indira Sagar Unit-1	Madhya Pradesh	1/1/2004	Hydro	125	1000	300.20	
36	Dhuvaran CCCP ST	Gujarat	22/9/2003	Gas	38.77	133.6	194.42	
37	Dhuvaran CCCP GT	Gujarat	4/6/2003	Gas	67.85	133.6	340.25	
38	Bansagar (Stage-III) Unit-3	Madhya Pradesh	2/9/2002	Hydro	20	60	26.47	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
39	Bansagar (Stage-II) Unit-2	Madhya Pradesh	1/9/2002	Hydro	15	30	34.77	Station auxiliary consumption is distributed in the ratio
40	Bansagar (Stage-II) Unit-1	Madhya Pradesh	28/8/2002	Hydro	15	30	33.33	
41	Hazira CCGP-GSEL Surat	Gujarat	31/3/2002	Gas	52.1	156.1	386.23	

42	Majalgaon Unit-1	Maharashtra	1/1/2002	Hydro	0.75	2.25	0.00	Assumed as no generation data is provided in WREB Annual Report
43	Majalgaon Unit-2	Maharashtra	1/1/2002	Hydro	0.75	2.25	0.00	
44	Majalgaon Unit-3	Maharashtra	1/1/2002	Hydro	0.75	2.25	0.00	
45	Karanjavan	Maharashtra	26/10/2001	Hydro	3	3	0.00	
46	Hazira CCGP-GSEL Surat	Gujarat	16/10/2001	Gas	52	156.1	377.78	
47	Hazira CCGP-GSEL Surat	Gujarat	30/9/2001	Gas	52	156.1	387.36	
48	Bansagar (Stage-III) Unit-2	Madhya Pradesh	25/8/2001	Hydro	20	60	24.68	Station auxiliary consumption is distributed in the ratio
49	Bansagar (Stage-III) Unit-1	Madhya Pradesh	18/7/2001	Hydro	20	60	24.51	
50	Dudhganga Unit-1	Maharashtra	27/2/2001	Hydro	12	24	62.03	Includes generation from both Dudhganga Unit-1 & 2
51	Khaparkheda Unit-4	Maharashtra	7/1/2001	Coal	210	840	1354.05	Station auxiliary consumption is distributed in the ratio
52	Khaparkheda Unit-3	Maharashtra	31/5/2000	Coal	210	840	1463.92	
53	Koyna (Stage-IV) Unit-4	Maharashtra	3/5/2000	Hydro	250	1000	223.01	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
54	Dudhganga Unit-2	Maharashtra	31/3/2001	Hydro	12	24	0.00	Generation already considered in Dudhganga Unit-1

55	Koyna (Stage-IV) Unit-3	Maharashtra	3/3/2000	Hydro	250	1000	718.46	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
56	Vindhyachal STPS Unit-VIII	Central Share	February' 2000	Coal	500	2260	3586.90	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
57	Koyna (Stage-IV) Unit-2	Maharashtra	25/11/1999	Hydro	250	1000	265.68	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
58	Sanjay Gandhi Unit-IV	Madhya Pradesh	23/11/1999	Coal	210	840	1332.96	Station auxiliary consumption from all the four Units is distributed in the ratio of installed capacity of the Units

59	Rajghat Unit-3	Madhya Pradesh	3/11/1999	Hydro	7.5	22.5	13.71	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
60	GIPCL-Surat Lignite	Gujarat	November '1999	Lignite	250	250	1627.53	
61	Rajghat Unit-1	Madhya Pradesh	15/10/1999	Hydro	7.5	22.5	18.75	Station auxiliary consumption is
62	Rajghat Unit-2	Madhya Pradesh	29/9/1999	Hydro	7.5	22.5	10.89	
63	Warna Unit-2	Maharashtra	1/9/1999	Hydro	8	16	28.34	Net generation is distributed as per the installed capacity of the Units.
64	Reliance Salgaonkar	Goa	14/8/1999	Gas	48	48	138.36	
65	Koyna (Stage-IV) Unit-1	Maharashtra	20/6/1999	Hydro	250	1000	526.76	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
66	Surya CDPH	Maharashtra	4/6/1999	Hydro	0.75	0.75	0.00	
67	Bhandardara Stage-II	Maharashtra	19/5/1999	Hydro	34	44	36.71	
68	Dhabol	Maharashtra	13/5/1999	Gas	740	740	0.00	
69	Terwanmedhe	Maharashtra	31/3/1999	Hydro	0.2	0.2	0.09	

70	Vindhyachal STPS Unit-VII	Central Share	March'1999	Coal	500	2260	3560.31	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
71	Sanjay Gandhi Unit-III	Madhya Pradesh	28/2/1999	Coal	210	840	1412.06	Station auxiliary consumption from all the four Units is distributed in the ratio of installed capacity of the Units
72	Surya	Maharashtra	1/1/1999	Hydro	6	6	13.88	
73	Dimbhe	Maharashtra	17/10/1998	Hydro	5	5	9.02	
74	Warna Unit-1	Maharashtra	16/9/1998	Hydro	8	16	28.34	Net generation is distributed as per the installed capacity of the Units.
75	Kadana Unit-IV	Gujarat	27/5/1998	Hydro	60	240	96.71	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
76	Gandhinagar Unit-5	Gujarat	17/3/1998	Coal	210	210	1423.01	
77	Bhimgarh Unit-2	Madhya Pradesh	10/3/1998	Hydro	1.2		0.00	Included in Mini-

78	Bhimgarh Unit-1	Madhya Pradesh	17/2/1998	Hydro	1.2		0.00	Micro Hydro
79	Manikodh	Maharashtra	9/2/1998	Hydro	6	6	4.08	
80	Kadana Unit-III	Gujarat	1/2/1998	Hydro	60	240	94.74	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
81	GPEC	Gujarat	1998	Gas	655		3565.16	
82	GIPCL	Gujarat	Nov-97	Gas	160		1098.91	
83	Chandrapur Unit-7	Maharashtra	1/10/1997	Coal	500	2340	3113.62	Station auxiliary consumption is distributed in the ratio of installed capacity of the Units
84	Kutch Lignite Unit-3	Gujarat	31/3/1997	Lignite	75	215	423.25	
85	Satpura Unit-2	Madhya Pradesh	9/2/1997	Hydro	0.5		0.00	Included in Mini-Micro Hydro Power Plants
86	Chargaon	Madhya Pradesh	7/2/1997	Hydro	0.8		0.00	
87	Tilwara	Madhya Pradesh	2/1/1997	Hydro	0.25		0.00	
88	Tata (H) Bhira PSU	Maharashtra	1997	Hydro	150		577.93	
89	Essar Gas	Gujarat	1997	Gas	515 (300MW to GEB)		3327.73	
90	Satpura Unit-1	Madhya Pradesh	9/2/1996	Hydro	0.5		0.00	Included in Mini-Micro Hydro Power Plants wherefrom the generation is zero in 2004-2005

91	Kakrapar Unit-2	Central Share	1995	Nuclear	220	440	1106.27	
92	Dahanu (BSES) Unit-2	Maharashtra	29/3/1995	Coal	250		2001.27	
				Total			**37025.64**	
20% of Gross generation in the most recent year i.e.							**36382.56**	
				Coal			**21298.88**	
				Gas			**9816.20**	
				Hydro			**4804.29**	
				Nuclear			**1106.27**	

CALCULATION OF GRID EMISSION FACTOR OF WESTERN ELECTRICITY GRID				
Year of offer	**2002-03**		**2003-04**	
Generation Mix				
Sector	**MU**	**%**	**MU**	**%**
Thermal Coal Based-Western Region	129253.12	78.47	128817.10	76.17
Thermal Diesel Based-Western Region	0.00	0.00	0.00	0.00
Thermal Gas Based-Western Region	18388.84	11.16	21051.40	12.45
Hydro-Western Region	8121.76	4.93	9226.42	5.46
Wind-Western Region	878.52	0.53	1521.76	0.90
Nuclear-Western Region	5600.00	3.40	5305.74	3.14
Import from Self Generating Industries	2467.87	1.50	3196.81	1.89
Total	**164710.11**	**100.00**	**169119.23**	**100.00**
Total generation excluding Low-cost power generation	147641.96		149868.50	
Generation by Coal out of Total Generation excluding Low-cost power generation	129253.12	87.54	128817.10	85.95
Generation by Diesel out of Total Generation excluding Low-cost power generation	0.00	0.00	0.00	0.00
Generation by Gas out of Total Generation eexcluding Low-cost power generation	18388.84	12.46	21051.40	14.05
Imports from others				
Imports from NREB	1124.49		1137.41	
Imports from SREB	466.82		0.00	
Imports from EREB	257.20		1450.41	
Estimation of Baseline Emission Factor (tCO_2/MU)				
Simple Operating Margin				
Fuel 1 : Coal				
Avg. Efficiency of power generation with coal as a fuel, %		36.732		36.576
Avg. Calorific Value of Coal used (kcal/kg)		4171		3820
Estimated Coal consumption (tons/yr)		72553424		79289960
Emission Factor for Coal-IPCC standard value (tonne CO2/TJ)		96.1		96.1
Oxidation Factor of Coal-IPCC standard value		0.98		0.98
COEF of Coal (tonneCO2/ton of coal)		1.645		1.506
Fuel 2 : Diesel				
Avg. Efficiency of power generation with diesel as a fuel, %		41.707		41.707
Avg. Calorific Value of Diesel used (kcal/kg)		9760		10186
Estimated Diesel consumption (tons/yr)		0		0
Emission Factor for Diesel-IPCC standard value (tonne CO2/TJ)		74.1		74.1
Oxidation Factor of Diesel-IPCC standard value		0.99		0.99
COEF of Diesel (tonneCO2/ton of diesel)		2.998		3.129
Fuel 3 : Gas				
Avg. Efficiency of power generation with gas as a fuel, %		45		45
Avg. Calorific Value of Gas used (kcal/kg)		11942		11942
Estimated Gas consumption (tons/yr)		2942817		3368913
Emission Factor for Gas- IPCC standard value(tonne CO2/TJ)		56.1		56.1
Oxidation Factor of Gas-IPCC standard value		0.995		0.995
COEF of Gas(tonneCO2/ton of gas)		2.791		2.791
EF (OM Simple, excluding imports from other grids), tCO2/MU		863.87		859.68
EF (NREB), tCO2/MU		790.00		740.00
EF (SREB), tCO2/MU		770.00		760.00
EF (EREB), tCO2/MU		1190.00		1190.00
EF (OM Simple), tCO2/MU		863.58		861.93

3 years Average EF (OM Simple), tCO2/MU				
Considering 20% of Gross Generation				
Sector	**MU**	**%**	**MU**	**%**
Thermal Coal Based-Western Region				
Thermal Diesel Based-Western Region				
Thermal Gas Based-Western Region				
Hydro-Western Region				
Wind-Western Region				
Nuclear-Western Region				
Import from other Regions				
Import from Self Generating Industries				
Total				
Generation by Coal out of Total Generation				
Generation by Diesel out of Total Generation				
Generation by Gas out of Total Generation				
Built Margin				
Fuel 1 : Coal				
Avg. efficiency of power generation with coal as a fuel, %				
Avg. calorific value of coal used in UPPCL, kcal/kg				
Estimated coal consumption, tons/yr				
Emission factor for Coal (IPCC),tonne CO2/TJ				
Oxidation factor of coal (IPCC standard value)				
COEF of coal (tonneCO2/ton of coal)				
Fuel 2 : Diesel				
Avg. Efficiency of power generation with diesel as a fuel, %				
Avg. Calorific Value of Diesel used (kcal/kg)				
Estimated Diesel consumption (tons/yr)				
Emission Factor for Diesel-IPCC standard value (tonne CO2/TJ)				
Oxidation Factor of Diesel-IPCC standard value				
COEF of Diesel (tonneCO2/ton of diesel)				
Fuel 3 : Gas				
Avg. Efficiency of power generation with gas as a fuel, %				
Avg. Calorific Value of Gas used (kcal/kg)				
Estimated Gas consumption (tons/yr)				
Emission Factor for Gas- IPCC standard value(tonne CO2/TJ)				
Oxidation Factor of Gas-IPCC standard value				
COEF of Gas(tonneCO2/ton of gas)				
EF (BM) (tCO2/MU)				
Combined Margin Factor (Avg of OM & BM) (tCO2/MU)				

2004-05	
MU	**%**
130461.68	75.97
0.00	0.00
25272.47	14.72
10523.76	6.13
0.00	0.00
4496.51	2.62
978.14	0.57
171732.56	**100.00**
155734.15	
130461.68	83.77
0.00	0.00
25272.47	16.23
1093.26	
1766.61	
9094.76	
	36.487
	3820
	80496903
	96.1
	0.98
	1.506
	41.707
	10186
	0
	74.1
	0.99
	3.129
	45
	11942
	4044423
	56.1
	0.995
	2.791
	851.08
	730.00
	740.00
	1180.00
	866.96

	864.16
MU	%
21298.88	57.52
0.00	0.00
9816.20	26.51
4804.29	12.98
0.00	0.00
1106.27	2.99
0.00	0.00
0.00	0.00
37025.64	100.00
21298.88	57.52
0.00	0.00
9816.20	26.51
	36.487
	3820
	13141742
	96.1
	0.98
	1.506
	41.707
	10186
	0
	74.1
	0.99
	3.129
	45
	11942
	1570914
	56.1
	0.995
	2.791
	653.06
	758.61

Emission Factor for electricity	kgCO2/kWh	0.7586
Power consumption for O2	kWh/m3	1.05

Month	Power requirement for EAF	Power requirement LF	EAF auxiliary	O2 Consumpiton	Power Requirement for O2 production	Total Power consumption	Average power consumption	Average Baseline emissions
	kWh/lmt	kWh/lmt		m3/lmt	kWh/lmt	kWh/lmt	kWh/lmt	kgCO2/lmt
Apr-03	485	99	115.30	46.50	48.825	748.125		
May-03	482	95	95.18	43.30	45.465	717.645		
Jun-03	485	95	106.65	43.80	45.99	732.64		
Jul-03	468	92	93.13	47.30	49.665	702.795		
Aug-03	499	96	93.99	48.90	51.345	740.335	**731**	**554.8**
Sep-03	499	93	90.00	47.30	49.665	731.665		
Oct-03	503	93	89.98	45.30	47.565	733.545		
Nov-03	492	89	74.82	41.30	43.365	699.185		
Dec-03	504	90	84.64	46.30	48.615	727.255		
Jan-04	506	89	88.11	43.60	45.78	728.89		
Feb-04	535	90	89.60	44.90	47.145	761.745		
Mar-04	522	95	88.83	43.70	45.885	751.715		

Emission Factor for electricity	kgCO2/kWh	0.75861
Power consumption for O2	kWh/m3	1.05
kg CO2 per GJ LPG combustion		65
NCV LPG KJ/Kg		47652
kg CO2 per kg LPG combustion		3.09738

Month	Power requirement for EAF	Power Requirement for LF	EAF auxiliary	O2 Consumpiton	Power Requirement for O2 production	Total Power consumption	Average power consumption	LPG Consumption
	kWh/lmt	kWh/lmt	kWh/lmt	m3/lmt	kWh/lmt	kWh/lmt	kWh/lmt	kg/lmt
Apr-05	440	83	84.93	58.22	61.131	669.06		2.56
May-05	453	79	75.61	55.30	58.065	665.68		4.25
Jun-05	449	91	94.49	58.16	61.068	695.56		3.52
Jul-05	454	94	82.40	58.96	61.908	692.31		2.50
Aug-05	474	95	84.60	52.19	54.7995	708.40		2.48
Sep-05	465	94	73.16	55.81	58.6005	690.76	**679.40**	2.57
Oct-05	473	104	98.34	56.15	58.9575	734.30		3.16
Nov-05	444	97	71.42	57.47	60.3435	672.76		3.50
Dec-05	427	92	74.53	59.98	62.979	656.51		4.60
Jan-06	437	83	79.19	58.24	61.152	660.34		4.99
Feb-06	450	80	66.61	50.94	53.487	650.10		4.16

Mar-06	440	88	72.05	54.26	56.973	657.02		4.23

Thermal energy consumption through LPG	Average themal energy consumption	Project emissions
KJ/lmt	KJ/lmt	kg CO2/lmt
121989.12		
202521.00		
167735.04		
119130.00		**526**
118176.96		
122465.64	**168859.54**	
150580.32		
166782.00		
219199.20		
237783.48		
198283.22		

201668.49		

Description	Units	Value
Average Baseline Emission	kgCO2/lmt	**554.8**
Average Project Emission	kgCO2/lmt	**526.4**
Difference	kgCO2/lmt	**28.4**
Expected Production per year	lmt/year	**240000**
Emission Reduction	tCO2/yr	**6816**

Year	Emission Reductions
2006 (1st August to 31st December)	**2840**
2007	**6816**
2008	**6816**
2009	**6816**
2010	**6816**
2011	**6816**
2012	**6816**
2013	**6816**
2014	**6816**
2015	**6816**
2007 (1st January 31st July)	**3976**
Total Emission Reduction	**68160**
Crediting years	**10**
Average Emission Reductions over the Crediting Years (10 Years)	**6816**