Ref. No. MERC/MSEDCL/FAC/1688 August 09, 2006

The Managing Director,
Maharashtra State Electricity Distribution Company Ltd.,
5th Floor, Prakashgad, Plot No. G-9,
Bandra (East),
Mumbai – 400 051.

Sub : **Levy of Fuel Adjustment Charges (FAC) by MSEDCL for the month of May 2006 to be recovered in the month of August 2006.**

Ref : 1) MSEDCL Letters No. SE/TRC/21428 dated July 25, 2006 and,
2) Letter No.SE/TRC/22646 dated August 03, 2006 giving clarification

Sir,

Upon vetting the FAC calculations for the month of May 2006 submitted, vide letters under above reference; the Commission hereby approves the FAC for the month of May 2006 to be recovered in the month of August 2006. Please find below the details of approval.

The Commission has considered the increase in power purchase cost for the month of May 2006 only in case of approved power purchase sources as per the Tariff Order dated 10th March, 2004 and in line with the Commissions vetting report dated 6th July, 2006 approving FAC for the month of April, 2006 of MSEDCL.

The Commission vide its letter dated 5th May, 2006 has conveyed the details of the arrear under recovery during the months of October, 2005 to February, 2006, interest allowed on the same and recovery of the same in the billing months of July, August and September, 2006. The Commission vide its letter dated 1st June, 2006 and 6th July, 2006, while vetting FAC for the months of March and April 2006 respectively, had considered the actual billed amount vis-à-vis the estimated billed amount as reflected vide letter dated 5th May, 2006. Besides, the billing months for recovery of the above said arrear amount were modified to June, July and August 2006 on your request.

MSEDCL has informed the actual billed amount for FAC in the month of May, 2006 as Rs. 313.08 crore as against estimated amount of Rs. 384.34 crore. The Commission through the previous vetting reports dated 6th July, 2006 has directed you to produce certified actual billed amount (August 2003 to April 2006) towards FAC but to no avail. Hence the Commission hereby directs MSEDCL to submit audited billed amount details pertaining to FAC month since August 2003, failing which future FAC submission will not be considered for vetting and approval.

Contd…2

Ref. No. MERC/MSEDCL/FAC/1688 August 09, 2006

Accordingly, the Commission has revised the arrear under-recovery for the period September 2005 to February 2006 to Rs. 555.74 crore out of which an amount Rs.338.58 crore has already been recovered in the month of June 2006 and July 2006.

The balance amount of Rs.217.16 crore and Rs 1.56 interest thereon is allowed to be recovered in billing month of August, 06. **The details are given in Table A of the annexure**. **The month wise recovery of arrear under-recovery along with the interest thereof is detailed in Table B of the annexure**.

The total amount allowed to be recovered in the billing month of August 2006 is Rs. 440.77 crore and is as detailed below: -

Rs. Crore

Sr. No.	**Particulars**	**As per MSEDCL**	**Allowed by Commission**
1	FAC of May 2006 net of T&D loss	355.87	222.05
2	Arrear under recovery for the period September 2005 to February 2006	217.16	217.16
3	Balance Interest on arrear under-recovery for the period September 2005 to January 2006	1.16	1.56
	Total	**574.19**	440.77

The Commission hereby allows FAC rate @ 103paise/unit for May 2006 to be billed in the month of August, 2006 consisting of 52 paise/unit towards increase in fuel cost in the month of May 2006 and 51 paise/unit on account of arrear under-recovery and interest thereof. Also the matter of recovery of arrear under-recovery for the period September 2005 to February 2006 stands disposed.

With regards,

Yours faithfully,

(Ms. Malini Shankar)
Secretary

Encl : 1. ANNEXURE (1 page).
2. Vetting Report (39 pages)

Cc: The Director (Operations)
Maharashtra State Electricity Distribution Co. Ltd.,
5th Floor, Prakashgad, Plot No. G-9, Bandra (East),
Mumbai 400 051.

Ref. No. MERC/MSEDCL/FAC/1688 August 09, 2006

Cc: The Supdt Engineer (TRC)
Maharashtra State Electricity Distribution Co. Ltd.,
Bandra (East), Mumbai 400 051.

Cc: Prayas,
Amrita Clinic, Athawale Corner,
Lakdipool-Karve Road Junction,
Deccan Gymkhana, Karve Road,
Pune 411 004.
E.mail: prayas@vsnl.com

Cc: The President,
Mumbai Grahak Panchayat,
Grahak Bhavan,
Sant Dynyaneshwar Marg,
Behind Cooper Hospital,
Vile Parle (W), Mumbai 400 056.
E-mail: seb@vsnl.com

Cc: The President,
Thane Belapur Industries Association,
Plot No.P-14, MIDC,
Rabale Village, PO Ghansoli,
Navi Mumbai 400 701.

Cc: The President,
Vidarbha Industries Association,
1st floor, Udyog Bhawan,
Civil Lines, Nagpur 440 001.
Fax No.0712 780170
E-mail:rkengg_ngp@sancharnet.in viangp@nagpur.dot.net.in

Cc: Shri Anupam Ray / Kiran Malla,
Pricewaterhouse Coopers (P) Ltd.,
252, Veer Savarkar Marg, 2nd floor,
Shivaji Park, Dadar, Mumbai 400 025.
Fax No. 5654 7800, Tel. 56691057
E-mail: anupam.ray@in.pwc.com

Cc: Shri A.D. Mahajan / Shri Uday Thakur,
SICOM Ltd.
Nirmal Building, Nariman Point, Mumbai400021

ANNEXURE
TABLE A

Updated under recovery amount for the FAC period September, 2005 to February, 2006 considering actual billed amount up to April 2006

(Rs. in crore)

FAC Month	Recoverable FAC as per Commission's vetting letter dated 5.5.06	Billing month	Actual FAC amount billed as per MSEDCL	Under Recovery as per Commission	Period of under recovery till Billing month June 06	Int. @6% p.a. on under recovery
Sept.05	105.35	Jan-06		105.35	5	2.63
Oct.05	194.52	Feb-06	112.5	82.02	4	1.64
Nov.05	189.43	Mar-06		189.43	3	2.84
Dec. 05	240.48	Mar-06	194.36	46.12	3	0.69
Jan.06	309.29	Apr-06	247.73	61.56	2	0.62
Feb 06	384.34	May -06	313.08	71.26		
Total	**1423.41**		**867.67**	**555.74**		**8.42**

TABLE B

Recovery of arrear under recovery in the billing Months of June 2006 to August, 2006 updated for the actual billed amount till May 2006

(Rs. in crore)

Billing Month	Under recovery already allowed by Commission for recovery (a)	Balance Under recovery (b)	Interest already allowed for recovery by Commission (c)	Total amount allowed for recovery (a+c)	Int. @6% p.a. on the balance under recovery (b)
Jun-06	138.51	417.23*	7.73	146.24	2.09
Jul-06	200.07	217.16**	2.31	202.38	1.09
Total	**338.58**		**10.04**	**348.62**	**3.18**

* 417.23 = 555.74-138.51
** 217.16 = 417.23-200.07

Detailed Vetting Report
MSEDCL, FAC Charges for the period May, 2006.
Attachment to letter No. MERC/MSEDCL/FAC/1688 dated 9th August 2006

1. The Commission vide its letter dated 24th February 2006 has approved FAC charges for the month of September 2005 based on the Tariff Order dated 10th March 2004 and MERC (Terms and Conditions of Tariff) Regulations 2005. In the said letter, the Commission has approved variable fuel cost to be considered for FAC calculations as against the variable cost of generation indicated in the Tariff Order.

2. Further, the Commission has issued a detailed Order in the matter of MSEDCL petition for review of regulations relating to FAC Formula dated 21st March, 2006, salient features of which are as below :-

   i) The Commission has directed to consider the normative fixed cost as 69.6 paise / kWh based on the tariff order for FY. 2003-04 for arriving at the per unit variable cost for the sources of power purchase for which break up of fixed and variable cost is not available. The Commission has directed to deduct this normative fixed cost from the total cost per unit for the sources for which break up is not available such as Traders, bi-lateral sources, TPC and CPT, while estimating the change in fuel cost to be recovered through FAC.

   ii) The Commission to approve the FAC to be recovered by MSEDCL in excess of existing ceiling (20 paise / unit) on recovery through FAC charge after detailed vetting of the actual FAC data on case to case basis till the Commission issues the order on ARR and Tariff of MSEDCL for FY. 2006-07.

3. The Commission has issued its Order dated 28h April 2006 in the matter of MSEDCL petition for approval of short term power purchase for the period April to June 2006 in which it has been observed as follows :-

   a. As per the Regulations 25, the baseline quantum and cost of power purchase have to be approved by the Commission and the approval for

short term power purchase is required to be given only when the variation in quantum or cost with respect to approved quantum and cost is more than 5% caused by emergency conditions.

b. Since the approved baseline does not exist, the Commission is constrained in not being able to approve a short term power procurement as proposed by MSEDCL.

c. MSEDCL has sought to recover the increase in power purchase cost through FAC. In no case, the Commission would permit recovery of cost associated with short term power procurement through FAC.

d. MSEDCL may proceed with the power purchase at its own risk and if on subsequent assessment during the ARR and Tariff process, the short term power purchase is found to be meritorious then it may be allowed in the total power purchase, else it may have to be disallowed.

Accordingly, the Commission had not considered the power purchased from sources like Kawas (liquid fuel), NVVN and Adani under power purchase cost while carrying out vetting of FAC for the month of April, 2006 as informed by the Commission vide its letter dated 6th July, 2006.

4. As per the Regulation 23 of MERC Regulations 2005 related to Long term power procurement plan, the distribution licensee shall prepare a five year plan for procurement of power in its area of supply and submit the same to the Commission for approval. The Long term power procurement plan shall be an annual rolling plan and the first plan period shall commence on 1st April, 2006.

Accordingly, the Commission had not considered the power purchased from sources like Sardar Sarovar and Pench under power purchase cost while carrying out vetting of FAC for the month of April, 2006 as informed by the Commission vide its letter dated 6th July, 2006.

MSEDCL vide its letter dated 25th July, 2006 has forwarded FAC submissions for the month of May, 06 with a charge @83 paise/unit for metered sales.

Ihe Commission has carried out FAC vetting for May 2006 on the basis of…

- Tariff Order dated 10th March, 2004
- MERC (Terms and Conditions of Tariff) Regulations 2005
- Vetting reports for the months of September 2005 to April 2006.
- Commission's Order dated 21st March, 2006 in the matter of MSEDCL's petition for review of Regulations relating to FAC formula (Case 52 of 2005)
- Commission's Order dated 28th April, 2006 in the matter of MSEDCL's petition for approval of short term power purchase for the period April to June 2006 (Case 3of 2006)

Analysis of FAC proposal submitted by MSEDCL and computation of FAC charges for May, 2006 is as below :

i) Variable cost of generation :

a. MSEDCL has submitted the break up of purchase price of raw materials for all stations certified by CA. MSEDCL has also submitted the variable cost of generation of all stations except Chandrapur certified by Chartered Accountant.

b. **Variable Fuel Cost :**

MSEDCL has considered the base variable fuel cost for each station as given by the Commission in its letter dated 24th February 2006. MSEDCL has submitted sample bills for the fuel purchased along with the FAC submissions.

MSEDCL has submitted fuel analysis report of representative monthly sample of fuels certified by an Independent Certification Agency along with FAC submissions for the Nashik power station only. For other stations, the same have

not been submitted. **The Commission directs MSEDCL to submit the fuel analysis report along with FAC submissions for all the stations.**

c. **Auxiliary consumption** –MSEDCL has taken auxiliary consumption at each unit at normative levels as per the Tariff Order dated 10th March, 2004 for calculation of variable cost of generation and the same is allowed.

d. **Heat Rate** - MSEDCL has worked out the variable cost of generation considering normative heat rates of each station as per the Tariff Order dated 10th March, 2004 and the same is allowed.

e. Transit Loss – MSEDCL has worked out the variable cost of generation considering normative transit loss as per the Tariff Order dated 10th March, 2004.

ii) Variable cost of power purchase –

a. MSEDCL has purchased 2342 MU's with a variable cost of Rs.537.98 crore @ Rs.2.2975/ (after deduction of fixed cost @69.60 paise/unit in case of sources where the fixed costs are not available) as against estimated 1349 MU's with a variable cost of Rs.161.37 crore @ Rs.1.20 /unit. Thus, the units purchased have increased by 74% whereas the purchase cost has increased by 191% for May, 2006. The major increase in cost is due to the power purchase from Kawas Unit at very high rates.

b. MSEDCL has not submitted the Long Term Power Procurement Plan. MSEDCL has considered cost of power purchase from Korba, Vindhyachal I & II, Kawas (Gas & Liquid), Gandhar, Kakrapar, Tarapur, Eastern Region, Power Trading Corporation, Adani, NVVN, Dodson, Sardar Sarovar, Pench, RGPL, Lanco, Non Conventional Sources and Captive Power Plants under Power Purchase Cost. The cost of power purchase from Captive Power Plants is

allowed as the avg. rate of purchase of Rs.2.74/unit is lower than the avg. cost of supply of Rs.2.83/- per unit in terms of the Regulations 25.6 of MERC (Terms & Conditions of Tariff) Regulations 2005. **However, the power purchase cost from Kawas, Adani, NVVN, RGPPL, Lanco, Sardar Sarovar, Pench is higher than the cost of supply and has not been allowed in terms of the Order of the Commission dated 28th April, 2006 and in terms of the MERC (Terms & Conditions of Tariff) Regulations 2005.**

c. MSEDCL has considered the revised FPA charges of the year 2005-06 in variable cost of power purchase from Korba, Vindhyachal I & II, Kawas, Gandhar and Eastern Region. **As the charges pertains to the previous year, the Commission has disallowed the same to be passed through FAC for the month of May, 2006 and MSEDCL may consider the same at the time of truing up. Rate of FPA for power purchase from Gandhar has been taken as per CA Certificate. The cost of power purchase from Kawas (Gas) has been taken after multiplying the rates by units.**

d. Considering the severe power shortage faced by MSEDCL (partly due to shutdown of the Unit 5 of Chandrapur Station of 500 MW), the additional energy purchased by MSEDCL from the sources already approved by the Commission in the Tariff Order dated 10th March, 2004 and cost thereof for May, 2006 is allowed.

d. MSEDCL has submitted the data for the power purchase certified by Chartered Accountant **except the data relating to Non Conventional Sources of Energy (NCSE) and Captive Power Plant. The Commission has allowed the cost on these to be passed through the FAC and directs MSEDL to submit the certified details within a month from the date of this letter. It expresses its displeasure in MSEDCL continuously not abiding by its own confirmation vide letter dated 20th April, 2005 to get the power purchase statements from Renewable Source of Power audited. The Commission**

directs MSEDCL to submit future FAC submissions along with audited power purchase statements for power purchased from Renewable Source of Power and Captive Power Plants.

e. As directed by the Commission in its order dated 21st March, 2006, MSEDCL has deducted normative fixed cost per of 69.60 paise / unit from the actual total cost per unit from the sources where break up of fixed cost and variable is not available.

f. The wind power purchase rate is taken as Rs.3.46 / unit and hydropower rate is taken as Rs.2.45/ unit as per the respective orders. The cost of power purchase from bagasse is taken as Rs.3.24/- per unit. The Commission has allowed the cost for power purchase from Non Conventional Sources of Energy (NCSE) and CPP as claimed by MSEDCL.

g. **UI charges:**

MSEDCL has purchased 218 MU's through UI at average rate of Rs.3.42/ unit and the same are allowed.

h. **Scheduled Energy Received in grid through Imports from various regions and losses:**

MSEDCL has claimed losses in power purchase through grid at 145 MU's as the difference between the Scheduled Energy (including UI) and Actual Drawal. Further, MSEDCL vide its e-mailed letter dated 3rd August, 2006 has clarified working of the same. Accordingly, the Commission has considered the losses in the grid as given by MSEDCL.

iii) **Interest on working capital –** MSEDCL has not considered interest on incremental working capital requirement on account of change in fuel and power purchase costs and accordingly the same is not considered in the FAC.

iv) Adjustment factor for over recovery / under recovery –

The Commission has reworked under recovery for the period September 2005 to February 2006 by considering the actual amount billed, as made available by MSEDCL for the months of March 2006 and April 2006. Accordingly, the total arrear under-recovery amount for the period September 2005 to February 2006 comes to Rs. 555.74 crore, out of which an amount of Rs. 338.58 crore has been already allowed to be recovered in the billing months of June and July 2006. The balance un-recovered amount of Rs.217.16 crore is allowed to be recovered in billing months of August 2006. The total interest to be recovered on the arrear under-recovery amount of Rs.217.16 crore is Rs.1.56 crore.

The Commission through the previous vetting report (letter dated July 06, 2006) has directed MSEDCL to produce audited actual billed amount statements but MSEDCL has not to avail. Hence the Commission hereby directs MSEDCL to submit audited billed amount details pertaining to FAC month since August 2003 along with next FAC submission failing which future FAC submission would not be considered for vetting and approval.

v) T & D Loss: MSEDCL has considered the normative T&D loss as per the Tariff Order dated 10th March, 2004 while arriving at the FAC rate for May, 2006.

The Commission has arrived at recoverable FAC of Rs.222.05 crore (net of T&D loss) @ 52 paise/unit for May 2006 to be billed in the month of August, 2006. The summary of FAC is given below and the details are as per the Tables 1.1, 1.2, 1.3, 1.4, 1.5, 2.1a, 2.2b, 2.3, 3.1, 3.3, 4.1, 6.1, 7.1, 7.3 and 8.1.

Calculation of FAC charge for the month of May 2006:

Sr. No.	Parameter	Units	May 2006	
	Calculation of FAC		**As per MSEDCL**	**As per Commission**
1	Normative Variable Fuel Cost of generation	Rs./unit	1.24	1.24
2	Normative Variable Fuel Cost of power purchase	Rs./unit	2.30	1.78
3	Normative Variable Fuel cost of generation and power purchase	Rs./unit	1.64	1.43
5	Change in Variable Fuel cost of generation and power purchase	Rs./unit	0.64	0.42
6	Net Generation	MUs	3843	3843
7	Net power purchase	MUs	2342	1987
8	Net Generation + Net power purchase	MUs	6184	5830
9	Change in Variable Fuel cost of generation and power purchase	Crore	393.08	245.27
10	Working capital interest (I)	Crore	0.00	0.00
11	Adjustment of over recovery/ under recovery (B)	Crore	0.00	0.00
12	Total FAC (9+10+11)	Crore	393.08	245.27
	FAC liable sale			
13	Sale within License Area	MUs	4287	4287
14	Excess T & D losses	MUs	448	448
15	Sale within License Area and Excess T & D losses	MUs	4735	4735
	FAC Charge without considering cap	Paise/unit	83	52
16	FAC(A) allowed	Rs.crore	355.87	222.05
17	FAC(A) disallowed corresponding to excess loss	Rs.crore	37.21	23.22

Table	1.1							
Title	Energy Sales							
Sr. No.	Consumer Category	Unit	FY 03-04	May-06			Cumulative upto Month & Year	
			Order	Order	Actual	Reasons for material variation	Order	Actual
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1.0	Energy Sales in License Area[1]							
	Domestic	MU	8,781	732	709		5,854	
	Non-Domestic	MU	1,954	163	189		1,303	
	LTP-G	MU	3,640	303	352		2,427	
	PWW	MU	481	40	32		361	
	Agriculture-Metered	MU	894	75	204		671	
	Street Lighting	MU	635	53	43		476	
	Temporary	MU	-	-	3		-	
	HTP-I	MU	6,644	554	421		4,983	
	HTP-II	MU	6,217	518	1,186		4,663	
	HTP-III&IV (PWW)	MU	1,031	86	90		773	
	HTP-V (Railway)	MU	980	82	97		735	
	HTP-VI	MU	310	26	34		233	
	HTP-VII (Agriculture)	MU	582	49	57		437	
	Mula Pravara	MU	667	56	60		500	
	Others	MU			24		-	
	Inter state	MU	-	-	0		-	
	Subtotal	**MU**	**32,816**	**2,735**	**3,498**		**23,414**	**0**
2.0	Energy Sales outside License Area excluding Energy Sales reported at (3)							
	Consumer 1	MU						
	Consumer 2	MU						
	…	MU						
	Consumer 'n'	MU						
	Subtotal	**MU**	-	-	-		**0**	**0**

Table	1.1							
Title	Energy Sales							
Sr. No.	Consumer Category	Unit	FY 03-04	May-06			Cumulative upto Month & Year	
			Order	Order	Actual	Reasons for material variation	Order	Actual
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
3.0	Energy Sales corresponding to specific utilisation of a particular Unit/Station[2] as per Order	MU						
4.0	Total Energy Sales (1.0 + 2.0 + 3.0)	MU	32,816	2,735	3,498		23,414	-
5.0	Total Energy Sales excluding Energy Sales corresponding to specific utilisation of a particular Unit/Station as per Order (1.0 + 2.0)	MU	32,816	2,735	3,498.14		23,414	-

Table	1.2									
Title										
Sr. No.	**Consumer Category[1]**	**FY 2003-2004 (Order)**			**May-06**				**Cumulative upto Month & Year**	
		Load	**Norm[2]**	**EC_{UM}[3]**	**Order**	**Load**	**EC_{UM}[3]**	**Reasons for material variation**	**Order**	**EC_{UM}[3]**
		HP	**hrs/ HP/ Year**	**MU**	**MU**	**HP**	**MU**		**MU**	**MU**
(A)	(B)	(F)	(F)	(D)	(E)	(G)	(H)	(I)	(J)	(K)
1.0	**Unmetered Hrs>1300**	2660698	1458	2413	201		276		2413	2166
1.1	**Unmetered Hrs<1300**	4497468	1188	4480	373		512		4480	4022
	Total	**7158166**	**2646**	**6893**	**574**		**789**		**6893**	**6187**

Table	**1.3**					
Title	**Energy Availability**					
Sr. No.	**Source of Generation/Power Purchase**	**Unit**	**FY 03-04**	**May-06**		
			Order	**Order**	**Actual**	**Reasons for material variation**
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1.0	**Generation**[1]					
1.1	**Capacity**	**MW**				
	Khaparkheda	**MW**	840	840	840	
	Paras	**MW**	58	58	58	
	Bhusawal	**MW**	478	478	478	
	Nasik	**MW**	910	910	910	
	Parli	**MW**	690	690	690	
	Koradi	**MW**	1,080	1,080	1,080	
	Chandrapur	**MW**	2,340	2,340	2,340	
	Gas Thermal	**MW**	912	912	852	Unit No.1 of 60 MW is scrapped.
	Hydel Stations	**MW**	2,430	2,430	2,349	
	Subtotal	**MW**	**9,738**	**9,738**	**9,597**	
1.2	**Availability**					
	Khaparkheda	%	92%	92%	100%	
	Paras	%	94%	94%	93%	
	Bhusawal	%	89%	89%	95%	
	Nasik	%	95%	95%	92%	
	Parli	%	97%	97%	80%	
	Koradi	%	87%	87%	77%	
	Chandrapur	%	93%	93%	75%	
	Gas Thermal	%	55%	55%	98%	
	Hydel Stations	%				
	Subtotal	**%**				
1.3	**PLF**					
	Khaparkheda	%	81%	81%	97%	
	Paras	%	75%	75%	91%	
	Bhusawal	%	74%	74%	90%	
	Nasik	%	65%	65%	87%	
	Parli	%	65%	65%	74%	
	Koradi	%	69%	69%	68%	
	Chandrapur	%	83%	83%	72%	
	Gas Thermal	%	51%	51%	70%	
	Hydel Stations	%				
	Subtotal	**%**				

Title	Energy Availability					
Sr. No.	Source of Generation/Power Purchase	Unit	FY 03-04	May-06		
			Order	Order	Actual	Reasons for material variation
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1.4	**Gross Generation**	**MU**				
	Khaparkheda	MU	5,979	498	607	
	Paras	MU	382	32	39	
	Bhusawal	MU	3,113	259	318	
	Nasik	MU	5,143	429	592	
	Parli	MU	3,918	327	381	
	Koradi	MU	6,542	545	543	
	Chandrapur	MU	16,984	1,415	1,254	
	Gas Thermal	MU	4,058	338	442	
	Hydel Stations	MU	4,104	342	293	
	Subtotal	**MU**	**50,223**	**4,185**	**4,471**	
1.5	**Auxiliary Consumption**	**MU**				
	Khaparkheda	MU	508	42	54	
	Paras	MU	37	3	4	
	Bhusawal	MU	311	26	30	
	Nasik	MU	463	39	51	
	Parli	MU	380	32	37	
	Koradi	MU	641	53	54	
	Chandrapur	MU	1,291	108	95	
	Gas Thermal	MU	97	8	9	
	Hydel Stations	MU	25	2	3	
	Subtotal	**MU**	**3,753**	**313**	**338**	
1.6	**Net Generation (1.4-1.5)**	**MU**				
	Khaparkheda	MU	5,471	456	553	
	Paras	MU	345	29	35	
	Bhusawal	MU	2,802	234	288	
	Nasik	MU	4,680	390	541	
	Parli	MU	3,538	295	344	
	Koradi	MU	5,901	492	489	
	Chandrapur	MU	15,693	1,308	1,159	
	Gas Thermal	MU	3,961	330	433	
	Hydel Stations	MU	4,079	340	290	
	Subtotal	**MU**	**46,470**	**3,873**	**4,133**	

Title	Energy Availability					
Sr. No.	Source of Generation/Power Purchase	Unit	FY 03-04	May-06		
			Order	Order	Actual	Reasons for material variation
(A)	(B)	(C)	(D)	(E)	(F)	(G)
2.0	Net Power Purchase[2]	MU				
	Korba	MU	4,501	375	450	
	Vindhyanchal - I	MU	2,727	227	270	
	Vindhyanchal - II	MU	2,081	173	261	
	Kawas - Gas	MU	457	38	86	
	Kawas - Liquid	MU	-	-	116	
	Gandhar	MU	818	68	149	
	Kakrapar	MU	1,772	148	75	
	Tarapur 1-4	MU	1,187	99	183	
	Eastern Region	MU	108	9	84	
	Tata Power (Trading)	MU	104	9	-	
	Power Trading Corp	MU	2,127	177	183	
	Adani	MU			96	
	NVVN	MU			21	
	RETL	MU			-	
	Tata N.P.	MU		-	-	
	Dodson	MU			-	
	Sardar Sarovar	MU			22	
	Pench	MU			6	
	RGPPL	MU			86	
	Lanco	MU			8	
	Received in grid through Imports from various regions & Loss	MU			(145)	
	Unscheduled Interchange (UI)	MU			218	
	Power Purchase from wind generating units	MU		-	152	
	Power Purchase from other renewable sources of generation (Hydro)	MU	300	25	0	
	Power Purchase from Bagasse	MU		-	1	
	Power Purchase from captive	MU		-	19	
	Subtotal	MU	**16,182**	**1,349**	**2,342**	

Title	**Energy Availability**					
Sr. No.	**Source of Generation/Power Purchase**	**Unit**	**FY 03-04**	**May-06**		
				Order	**Actual**	**Reasons for material variation**
(A)	(B)	(C)	(D)	(E)	(F)	(G)
3.0	**Energy Available**	**MU**				
3.1	Gross Generation + Net Power Purchase (1.4+2.0)	MU	**66,405**	**5,534**	**6,813**	
3.2	Net Generation + Net Power Purchase (1.6+2.0)	MU	**62,652**	**5,221**	**6,475**	
3.3	Net Energy Available at transmission voltage	MU	**62,652**	**5,221**	**6,475**	
3.4	Net Energy Available at distribution voltage	MU			**6,042**	

Table	**1.4**					
Title	**T&D Loss**					
Sr. No.	**Parameter**	**Unit**	**FY 03-04**	**May-06**		
			Order	**Order**	**Actual**	**Reasons for material variation**
(A)	(B)	(C)	(D)	(E)	(F)	(H)
1.0	**Transmission and Stepdown Loss**[1]					
1.1	Net Energy Input at transmission voltages (Net Generation + Net Purchase)	MU			6475	
1.2	Energy Sales at transmission voltages	MU			0	
1.3	Energy fed to Distribution System	MU			6042	
1.4	Transmission and Stepdown Loss (1.1 - 1.2 - 1.3)	MU			432	
1.5	Transmission and Stepdown Loss as % of Net Energy Input (1.4 / 1.1)	%			**6.68%**	
2.0	**Distribution Loss**[1]					
2.1	Net Energy Input (input from Transmission System + net energy input at distribution voltages)	MU	-	-	6042	
2.2	Energy Sales (Metered) at distribution voltages	MU			3498	
2.3	Estimated Consumption for Unmetered Categories	MU			789	
2.4	Distribution Loss (2.1 - 2.2 - 2.3)	MU			1756	
2.5	Distribution Loss as % of net energy input (2.4 / 2.1)	%			**29.05%**	
3.0	**Transmission and Distribution (T&D) Loss**					
3.1	Net Energy Input (i.e. Net Generation + Net Power Purchase)	MU			6,475	
3.2	Energy Sales (Metered + Unmetered) (1.2+2.2+2.3)	MU			4,287	
3.3	T&D Loss (3.1 - 3.2)	MU			2,188	
3.4	T&D Loss as % of Net Energy Input (3.3 / 3.1)	%	**26.87%**	**26.87%**	**33.79%**	
4.0	**Excess T&D Loss = T&D Loss (3.3) - T&Dapp x Net Energy Input (3.1)**	**MU**			**448**	

Table	1.5		
Title	**Excess Auxiliary Consumption**		
Sr. No.	**Parameter**	**Unit**	**May-06**
(A)	(B)	(C)	(D)
1.0	**Actual Auxiliary Consumption (Table 1.3, Sr. No. 1.5)**		
	Khaparkheda	MU	54.09
	Paras	MU	4.05
	Bhusawal	MU	30.08
	Nasik	MU	51.19
	Parli	MU	37.40
	Koradi	MU	54.38
	Chandrapur	MU	95.15
	Gas Thermal	MU	8.87
	Hydel Stations	MU	2.68
	Subtotal	**MU**	**337.89**
2.0	**Actual Auxiliary Consumption %**		
	Khaparkheda	%	8.90%
	Paras	%	10.29%
	Bhusawal	%	9.45%
	Nasik	%	8.64%
	Parli	%	9.81%
	Koradi	%	10.01%
	Chandrapur	%	7.59%
	Gas Thermal	%	2.01%
	Hydel Stations	%	0.92%
	Actual Auxiliary Consumption for all Generating Stations	%	**7.56%**
3.0	**Normative Auxiliary Consumption[1]**		
	Khaparkheda	MU	51.63
	Paras	MU	3.82
	Bhusawal	MU	31.84
	Nasik	MU	53.31
	Parli	MU	36.99
	Koradi	MU	53.24
	Chandrapur	MU	95.29
	Gas Thermal	MU	10.61
	Hydel Stations	MU	1.76
	Normative Auxiliary Consumption for all Generation Stations	**MU**	**338.48**

Title	**Excess Auxiliary Consumption**		
Sr. No.	**Parameter**	**Unit**	**May-06**
(A)	(B)	(C)	(D)
4.0	**Excess Auxiliary Consumption[2]**		
	Khaparkheda	MU	2.46
	Paras	MU	0.23
	Bhusawal	MU	(1.76)
	Nasik	MU	(2.11)
	Parli	MU	0.41
	Koradi	MU	1.14
	Chandrapur	MU	(0.15)
	Gas Thermal	MU	(1.74)
	Hydel Stations	MU	0.93
	Subtotal	**MU**	**(0.59)**

Table	**2.1**				
Title	**Fuel Calorific Value**				
Sr. No.	**Station/Unit**	**Parameter**	**Unit**	**FY**	**May-06**
				Order	**Actual**
(A)	(B)	(C)	(D)	(E)	(F)
1.0		**Calorific value of constituents of Fuel Basket specified at (2.0)**			
		Coal - Raw Coal	kcal/Kg		-
		Coal - Washed Coal	kcal/Kg		-
		Coal - Imported Coal	kcal/Kg		-
		Coal - Blended Coal	kcal/Kg		3,622
		Oil - LDO	kcal/Kl		10,611
		Oil - HSD	kcal/Kl		-
		Oil - FO	kcal/Kl		10,448
		Oil - LSHS	kcal/Kl		10,485
		Gas	Kcal/SM^3		8,748
2.0		**Calorific value of Fuel Basket specified in the Tariff Order**			
		Fuel Basket 1	kcal/qty		N.A.
		Fuel Basket 2	kcal/qty		N.A.
		…	kcal/qty		
		Fuel Basket 'n'	kcal/qty		N.A.

Table	2.1a												
Title	Fuel Calorific Value												
Sr. No.	Station	Parameter	Unit	FY	Month & Year	For the month of May 2006							
				Order	Actual								
(A)	(B)	(C)	(D)	(E)	(F)								
1.0	MAHAGENCO STNs	Calorific value of constituents of Fuel Basket specified at (2.0)				K'Kheda	Paras	Bhusawal	Nasik	Parli	Koradi	Cha'pur	Total Average
		Coal - Raw Coal	kcal/kg				3935	3679			4046	3112	
		Coal - Washed Coal	kcal/kg								4948	4520	
		Coal - Imported Coal	kcal/kg					6622	6676				
		Coal - Blended Coal	kcal/kg			3470	3935	**3742**	4029	3456	3905	3417	**3622**
		Oil - LDO	kcal/Kl			10595	10300	10850	10860	10450	10680	10400	**10611**
		Oil - HSD	kcal/Kl										**0**
		Oil - FO	kcal/Kl			10285	10150	10670	10690	10350	10465	10260	**10448**
		Oil - LSHS	kcal/Kl								10485		**10485**
		Gas (Uran Station)	Kcal/SM ^3										**8748**

Table	2.2																					
Title	Fuel Inventory																					
		For the month May 2006																				
Sr. No.	Station	Fuel[1]	Unit of Qty	Opening Level			Purchase2 during May 2006			Available at Plant Boundary2 during May 2006					Consumption during May 2006					Closing Inventory		
				Qty	Value	Rate	Qty	Value	Rate	Transit Loss		Qty at Plant Boundary	Issued to		Qty	Qty	Value	Price	Price	Qty	Value	Rate
				MT	Rs Lakh	Rs/ Qty	MT	Rs Lakh	Rs/ Qty	QTY.MT	VALUE (Rs.Lakhs)	MT	QTY. MT	VALUE (Rs.Lakhs)	MT	Mkcal	Rs Lakh	Rs/Qty	Rs/ Mkcal	MT	Rs Lakh	Rs/MT
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(K1)	(L) = (H)-(K)	L1	L2	(M)	(N)	(O)	(P)	(Q)	(R)=(E)+(L)-(M)	(S)=(F)+(I)-(O)	(T)
MAHAGENCO – Coal Based Stations		Coal - Raw Coal	MT	1510826	20090	1330	2031176	28623	1409	20157	339	2011019	0	0	2217389	0	31402	1416	0	1304457	16972	1301
		Coal - Washed Coal	MT	0	0	0	406384	6432	1583	0	0	406384	0	0	406384	0	6432	1583		0	**0**	
		Coal - Imported Coal	MT	54796	2304	4205	177426	6706		0	0	177426	0	0	126417	0	4835	3825		105805	4175	3946
		Subtotal		**1565622**	**22394**	**1430**	**2614986**	**41761**	**1597**	**20157**	**339**	**2594829**	**0**	**0**	**2750189**	**9960361**	**42669**	**1551**	**428**	**1410262**	**21147**	**1499**
		Oil - LDO	KL	12757	3633	28476	48	15	30522	0	0	48	0	0	730	6605	207	28297	3126	12075	3441	28494
		Oil - HSD	KL	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
		Oil - FO	KL	18070	3496	19345	1493	359	24021	0	0	1493	0	0	1900	18518	377	19845	2036	17663	3477	19687
		Oil - LSHS	KL	1533	313	20389	1433	356	0	0	0	1433	0	0	799	7542	180	22538	2388	2167	488	22537
		Subtotal		**32360**	**7441**	**22994**	**2974**	**729**	**24517**	**0**	**0**	**2974**	**0**	**0**	**3429**	**32665**	**764**	**22271**	**2338**	**31906**	**7406**	**23214**
		Other charges as per 2.2b			0			0		0	0		0	0			0				0	
		Total - Coal	0		**29835**			**42490**		**20157**	**339**		**0**	**0**		**9993025**	**43771**		**441**		**28553**	
	Gas Based Station	**Fuel[1]**	**Unit of Qty**	**Qty**	**Value**	**Rate**	**Qty**	**Value**	**Rate**	**Transit Loss**		**Qty at Plant Boundary**	**Issued to**		**Qty**	**Qty**	**Value**	**Price**	**Price**	**Qty**	**Value**	**Rate**
				MM^3	**Rs Lakh**	**Rs/SM^3**	**MM^3**	**Rs Lakh**	**Rs/SM^3**	**MM^3**	**Rs Lakh**	**MM^3**	**Mkcal**	**Rs Lakh**	**MM^3**	**Mkcal**	**Rs Lakh**	**Rs/SM^3**	**Rs/Mkcal**	**MM^3**	**Rs Lakh**	**Rs/SM^3**
	Uran Gas Station	**Total - Gas**	MMCMD	0	0	0	99.11	3495.54	3.53	0	0	0	0	0	99	867024	3495.54	3.53	403	0	0	0
	MAHAGENCO - TOTAL	**TOTAL - Coal & Gas**			**29835**			**45985**								**10860050**	**47267**				**28553**	

Table	2.2.b Supplementary sheet													
Title	Purchase price break up													
		For the month of May 2006												
Sr. No.	Station	Fuel[1]		Purchase price of Fuel as Indicated in Supplier's Invoice										
			Quantity Purchase	Base Price	Transportation	Insurance	Local Transportation	Taxes	Duties SED	Royalty Charges	Others STC	Others	Others	Total Value
				Rs Lakh	Rs Lakh	Rs Lakh	Rs Lakh	Rs Lakh	Rs Lakh	Rs Lakh	Rs Lakh	Rs Lakh	Rs Lakh	Rs Lakh
1	TOTAL – COAL STNS	Coal - Raw Coal	2,031,175.93	18,323.31	6,856.14	-	-	837.21	202.77	1,690.37	713.32	-	-	28,623.12
		Coal - Washed Coal	406,383.90	4,542.98	626.14	-	-	198.87	42.17	343.12	122.41	556.09	-	6,431.78
		Coal - Imported Coal	177,425.78	3,443.70	1,367.07	8.87	737.50	257.88	251.00	-	-	602.55	37.06	6,705.63
		Total Coal	**2614985.61**	**26,309.99**	**8,849.35**	**8.87**	**737.50**	**1,293.96**	**495.94**	**2,033.49**	**835.73**	**1,158.64**	**37.06**	**41,760.53**
		Oil - LDO	47.54	12.57	0.51	-	-	-	-	-	-	-	1.43	14.51
		Oil - HSD	-	-		-	-	-	-	-	-	-	-	-
		Oil - FO	1,492.93	311.64	15.49	-	-	39.85	-	-	-	-	(8.36)	358.62
		Oil - LSHS	1,433.47	306.18	18.70			39.56	-	-	-			355.99
		Total Oil	**2973.94**	**630.39**	**34.70**	**-**	**-**	**79.41**	**-**	**-**	-	**-**	**(6.93)**	**729.12**

Table	**2.2.b Supplementary sheet**													
Title	**Purchase price break up**													
		For the month of May 2006												
Sr. No.	**Station**	**Fuel[1]**		**Purchase price of Fuel as Indicated in Supplier's Invoice**										
				Base Price	**Service charges**	**Insurance**	**Additional service charges**	**Taxes**	**Duties**	**Royalty Charges**	**Rebate**	**Others**	**Others**	**Total Value**
				Rs Lakh	**Rs Lakh**	**Rs Lakh**	**Rs Lakh**	**Rs Lakh**	**Rs Lakh**	**Rs Lakh**	**Rs Lakh**	**Rs Lakh**	**Rs Lakh**	**Rs Lakh**
1	**URAN GAS STATION**	Gas		**3456.96**	**5.81**	**0.00**	**49.42**	**389.24**	**0.00**	**31.72**	**436.76**	**6.63**	**0.13**	**3,503**
		Total Coal		**3,457**	**6**	**-**	**49**	**389**	**-**	**32**	**437**	**7**	**0**	**3,503**
	Summary of Purchase for URAN GAS station for the month of Apr 2006													
	Fuel supplied	**Name of Supplier**			**As per Invoice**			**As per Payment Advise**			**As booked in Accounts**			
				Price	**Qty**	**Rate**	**Value**	**Qty**	**Rate**	**Value**	**Qty**	**Rate**	**Value**	
	Gas	M/s.Gail (contract dated 10.02.98)		**3,200**	**99.11**	**3200.00**	**3503.15**	**99.11**	**3200.00**	**3495.54**	**99.11**	**3200.00**	**3,496**	
	Total				**99**		**3,503**	**99**		**3,496**	**99**		**3,496**	

Table	2.3							
Title	Fuel Cost							
Sr. No.	Station	Fuel Basket	Unit of Qty	Order for FY		May-06		
				Consumption[1]	Fuel price[1]	Consumption[1]	Fuel price[1]	Reasons for material variation
				Unit	Rs/Unit	Unit	Rs/Unit	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	MAHAGENCO	Coal - Raw Coal	MT			2217389	1416	
		Coal - Washed Coal	MT			406384	1583	
		Coal - Imported Coal	MT			126417	3825	
		Coal - Blended Coal	MT			2750189	1551	
		Oil - LDO	KL			730	28297	
		Oil - HSD	KL			0	0	
		Oil - FO	KL			1900	19845	
		Oil - LSHS	KL			799	22538	
		Gas	MM^3			99	3496	
		Total						

Table	**2.4**				
Title	**Fuel Consumption by Various Generating Station/ Unit**				
Sr. No.	**Generating Station/Unit**	**Unit for Qty**	**Fuel Basket (FB) [1]**	**May-06**	
				Consumption	**Consumption**
				Qty	**Mkcal**
(A)	(B)	(C)	(D)	(E)	(F)
	Fuel consumption by Generating Station/Unit				
	Khaperkheda		Coal	449563	1559984
	Khaperkheda		Oil	201	1896
	Total		**All fuels[2]**	**449764**	**1561880**
	Paras		Coal	31900	125527
	Paras		Oil	35	324
	Total		**All fuels[2]**	**31935**	**125850**
	Bhusawal		Coal	222466	832468
	Bhusawal		Oil	474	4672
	Total		**All fuels[2]**	**222940**	**837140**
	Parli		Coal	292022	1009228
	Parli		Oil	927	8855
	Total		**All fuels[2]**	**292949**	**1018083**
	Nasik		Coal	389357	1568719
	Nasik		Oil	260	2535
	Total		**All fuels[2]**	**389617**	**1571254**
	Koradi		Coal	411142	1605510
	Koradi		Oil	1247	11753
	Total		**All fuels[2]**	**412389**	**1617263**
	Chandrapur		Coal	953739	3258926
	Chandrapur		Oil	285	2629
	Total		**All fuels[2]**	**954024**	**3261555**
	Uran		Gas	99	867024
	Total		**All fuels[2]**	**99**	**867024**
	Fuel-wise subtotal of consumption				
	Total fuel consumption		**Coal**	**2750189**	**9960361**
	Total fuel consumption		**Oil**	**3429**	**32665**
	Total fuel consumption		**Gas**	**99**	**867024**
	Total		**All fuels[2]**	**2753717**	**10860050**

Table	**2.5**								
Title	**Transit Loss on Fuel**								
Sr. No.	**Generating Station[1]**	**Fuel[1]**	**Order FY**	**May-06**					
			Transit Loss	**Despatch[2]**	**Receipt[3]**	**Transit Loss**	**Actual Transit Loss**	**Normative Transit Loss actual**	**Reasons for material variation**
			%	**Qty**	**Qty**	**%**	**Rs.Lacs**	**Rs.Lacs**	
(A)	(B)		(C)	(D)	(E)	(F) = ((D)-(E))/(D)			
	Khaparkheda		1.45%	401608	398420	**0.79%**	**35.59**	**64.99**	
	Paras		2.58%	31361	30626	**2.34%**	**11.55**	**12.71**	
	Bhusawal		0.98%	209872	206585	**1.57%**	**53.70**	**33.61**	
	Nasik		0.96%	367583	362306	**1.44%**	**101.48**	**67.86**	
	Parli		2.40%	240379	233430	**2.89%**	**115.61**	**95.98**	
	Koradi		1.47%	405431	404540	**0.22%**	**22.99**	**153.79**	
	Chandrapur		1.72%	958752	958922	**-0.02%**	**(2.33)**	**225.49**	
	Total Thermal			**2614986**	**2594829**		**338.59**	**654.43**	

Table	**3.1**					
Title	**Heat Rate for Thermal Generating Station/Unit**					
Sr. No.	**Generating Station/Unit**[1]	**Order FY**	**May-06**			
		Heat Rate	**Gross Generation**	**Energy Input**	**Heat Rate**	**Reasons for material variation**
		kcal/ kWh	**MU**	**Mkcal**	**kcal/ kWh**	
(A)	(B)	(C)	(D)	(E)	(F) = (E)/(D)	(G)
	Khaparkheda	2725	607	1561880	2,571	
	Paras	3200	39	125850	3,196	
	Bhusawal	2735	318	837140	2,630	
	Nasik	2663	592	1571254	2,653	*
	Parli	2649	381	1018083	2,670	*
	Koradi	2996	543	1617263	2,977	
	Chandrapur	2502	1,254	3261555	2,601	
	Gas Thermal	1966	442	867024	1,961	
	Total for Thermal Generation		**4,178**	**10860050**	**2,599**	

Table	3.2					
Title	Secondary Oil Consumption for Thermal Generating Station/Unit					
Sr. No.	Generating Station/Unit[1]	Order (FY)	May-06			
		Secondary Oil Consumption	Gross Generation	Secondary Oil Consumption	Secondary Oil Consumption	Reasons for material variation
		ml/kWh	MU	kl	ml/kWh	
(A)	(B)	© *	(D)	(E)	(F) = (E)/(D)	(G)
	Khaparkheda		607	201	0.33	
	Paras		39	35	0.88	
	Bhusawal		318	474	1.49	
	Nasik		592	260	0.44	
	Parli		381	927	2.43	
	Koradi		543	1247	2.30	
	Chandrapur		1,254	285	0.23	
	Gas Thermal		-	-	-	Not Applicable
	Total for Thermal Generation		**3,736**	**3,429**	**0.92**	

Table	3.3															
Title	Calculation of Station/Unit-wise variable cost of generation (fuel cost)															
Sr. No.	Generating Station/Unit[1&2]	Fuel Basket (FB)[1&2]	Order (FY)			Order for Month & Year			May-06					Normative Actual Var. Cost[4] for Apr 2006		
				Var. Cost[3]	Var. Cost	Generation[3]	Var. Cost[3]	Var. Cost	Generation[3]	Reasons for Material Variation	Var. Cost[3]	Var. Cost		Generation[3]	Var. Cost[3]	Var. Cost
			MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	MU		Rs/ kWh	Rs Lakh		MU	Rs/ kWh	Rs Lakh
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)		(N)	(O)	(P)
1.0	Generating Station/Unit wise, Fuel Basket-wise details															
2.0	Generating Station/Unit wise summary															
	Khaparkheda		5471	0.9162	50125.3	456	0.9162	4,177	553		1.10	6,091		553	1.17	6,457
	Paras		345	1.2063	4161.74	29	1.2063	347	35		1.47	521		35	1.47	519
	Bhusawal		2802	1.0721	30040.2	234	1.0721	2,503	288		1.61	4,635		288	1.68	4,829
	Nasik		4680	1.3188	61719.8	390	1.3188	5,143	541		1.62	8,752		541	1.62	8,786
	Parli		3538	1.2278	43439.6	295	1.2278	3,620	344		1.52	5,234		344	1.50	5,168
	Koradi		5901	1.1695	69012.2	492	1.1695	5,751	489		1.19	5,794		489	1.22	5,948
	Chandrapur		15693	0.7023	110212	1,308	0.7023	9,184	1,159		1.10	12,745		1,159	1.08	12,479
	Gas Thermal		3961	0.6742	26705.1	330	0.6742	2,225	433		0.81	3,496		433	0.81	3,519
	Total	**All fuels**	**42391**	**0.9328**	**395416**	**3,533**	**0.9328**	**32,951**	**3,843**		**1.23**	**47,267**		**3,843**	**1.24**	**47,706**

Title	**Calculation of Station/Unit-wise variable cost of generation (fuel cost)**														
Sr. No.	**Generating Station/Unit[1&2]**	**Fuel Basket (FB)[1&2]**	**Order (FY)**			**Order for Month & Year**			**May-06**				**Normative Actual Var. Cost[4] for Apr 2006**		
				Var. Cost[3]	**Var. Cost**	**Generation[3]**	**Var. Cost[3]**	**Var. Cost**	**Generation[3]**	**Reasons for Material Variation**	**Var. Cost[3]**	**Var. Cost**	**Generation[3]**	**Var. Cost[3]**	**Var. Cost**
			MU	**Rs/ kWh**	**Rs Lakh**	**MU**	**Rs/ kWh**	**Rs Lakh**	**MU**		**Rs/ kWh**	**Rs Lakh**	**MU**	**Rs/ kWh**	**Rs Lakh**
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
3.0	**Total for all Generating Stations/Units**														
	Total Generation excl FHC	All fuels													
	Fuel Handling Cost (FHC)														
	Generation including FHC														
4.0	**Generation corresponding to Utilisation of Specific Generating Station/Unit corresponding to sale mentioned at Table 1.1, Item 3[5]**														
	Generating Station/Unit 'n'	FB ..													
5.0	**Total for all Generating Stations/Units excl. generation reported at (4.0)**		**42391**	**0.93**	**395416**	**3533**	**0.93**	**32951**	**3843**	**0**	**1.23**	**47267**	**3843**	**1.24**	**47706**

Sheet 3.3a									
Calculation of Normative Variable Cost of Generating Stations									
A. Thermal Stations	**K'kheda**	**Paras**	**Bhusawal**	**Nasik**	**Parli**	**Koradi**	**C'pur**	**Total for Coal**	**Uran (Gas)**
Actual Gross Generation (MU)	607	39	318	592	381	543	1,254	3,736	442
Approved Auxiliary Consumption%	**8.50%**	**9.70%**	**10.00%**	**9.00%**	**9.70%**	**9.80%**	**7.60%**		**2.40%**
Net Generation (MU)	556	36	287	539	344	490	1,159	3,410	432
Actual Generation Cost (Rs lakhs)	6,091	521	4,635	8,752	5,234	5,794	12,745	43,771	3,496
Less: Transit Loss after Adjustment	36	12	54	101	116	23	(2)	339	-
Add: Normative Transit Loss (Rs.Lakhs)	65	13	34	68	96	154	225	654	-
Actual Adjusted Gen Cost (Rs.Lakhs)	6,120	522	4,615	8,719	5,215	5,925	12,972	44,087	3,496
Actual Quantity delivered (MT)	401,608	31,361	209,872	367,583	240,379	405,431	958,752	2,614,986	
Avg coal purchase price (Rs/MT)	1,485	1,570	2,238	2,263	1,708	1,352	1,325		
Actual Transit Loss (MT)	3,189	735	3,286	5,277	6,949	891	(170)	20,157	
Actual Heat Input (Kcal/kWh)	1,561,880	125,850	837,140	1,571,254	1,018,083	1,617,263	3,261,555	9,993,025	867,024
Actual Fuel Cost (Rs/MkCal)	392	415	551	555	512	366	398	441	403
Base Variable Cost (Rs/kWh)	**0.9162**	**1.2063**	**1.0721**	**1.3188**	**1.2278**	**1.1695**	**0.7023**		**0.6742**
Actual Heat Rate (kCal/kWh)	2,571	3,196	2,630	2,653	2,670	2,977	2,601	2,675	1,961
Norm - Heat Rate (kCal/kWh)	**2,725**	**3,200**	**2,735**	**2,663**	**2,649**	**2,996**	**2,502**	**2,675**	**1,966**
Variable cost after adjustment for Heat rate & Auxiliary Consumption	1.1670	1.4696	1.6751	1.6238	1.5025	1.2169	1.0770	1.1802	0.8121
Norm - Transit Loss (%)	**1.45%**	**2.58%**	**0.98%**	**0.96%**	**2.40%**	**1.47%**	**1.72%**		**1.72%**
Normative Variable Cost (Rs/kWh)	1.1670	1.4696	1.6751	1.6238	1.5025	1.2169	1.0770	1.1802	0.8121

Table	4.1														
Title	Variable cost of power purchase[1&11]														
Sr. No.	Power Purchase Source[2]	Order (FY)			Order for Month & Year			May-06							
		Net Purchase[3]	Var. Cost[5]	Var. Cost Amt[4]	Net Purchase[3]	Var. Cost[5]	Var. Cost Amt[4]	Net Purchase[3]	Tariff[6]	PP Amt[7]	FAC Unit[8]	FAC Rate[9]	FAC Amt[10]	Var. Cost Amt[4]	Var. Cost[5]
		MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	Rs Lakh	Rs/ kWh
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)= (I)*(J)	(L)	(M)	(N)= (L)*(M)	(O)= (K)+(N)	(P)
	Korba	4501	0.53	23,630	375	0.53	1,969	450	0.53	2,367	450	0.09	409	2776	0.62
	Vindhyanchal -I	2727	0.74	20,049	227	0.74	1,671	270	0.82	2,203	270	0.13	362	2565	0.95
	Vindhyanchal -II	2081	0.79	16,467	173	0.79	1,372	261	0.79	2,061	261	0.13	339	2400	0.92
	Kawas - Gas	457	2.45	11,190	38	2.45	933	86	1.03	878	86	0.15	131	1009	1.18
	Kawas - Liquid	0	-	-	-	-	-		3.39	-	-	3.84	-	0	#DIV/0!
	Gandhar	818	1.15	9,374	68	1.15	781	149	1.04	1,556	149	0.49	724	2280	1.53
	Kakrapar	1772	2.99	53,002	148	2.99	4,417	75	2.06	1,557	75	0.20	148	1705	2.26
	Tarapur 1-4	1187	0.94	11,212	99	0.94	934	183	1.74	3,175	183	0.03	55	3230	1.77
	Eastern Region	108	1.06	1,148	9	1.06	96	84	0.82	690	84	0.26	215	905	1.08
	Tata Power (Trading)	104	1.80	1,876	9	1.80	156	-		-	-		-	0	#DIV/0!

Title	Variable cost of power purchase[1&11]															
Sr. No.	Power Purchase Source[2]	Order (FY)			Order for Month & Year			May-06								
		Net Purchase[3]	Var. Cost[5]	Var. Cost Amt[4]	Net Purchase[3]	Var. Cost[5]	Var. Cost Amt[4]	Net Purchase[3]	Tariff[6]	PP Amt[7]	FAC Unit[8]	FAC Rate[9]	FAC Amt[10]	Var. Cost Amt[4]	Var. Cost[5]
		MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	Rs Lakh	Rs/ kWh
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)= (I)*(J)	(L)	(M)	(N)= (L)*(M)	(O)= (K)+(N)	(P)
	Power Trading Corp	2127	1.49	31,796	177	1.49	2,650	183	2.96	5,436	183	-	-	5436	2.96
	Adani	0		-	-	-	-		3.90	-	-	-	-	0	#DIV/0!
	NVVN	0		-	-	-	-		3.41	-	-	-	-	0	#DIV/0!
	RETL	0		-	-	-	-	-	-	-	-		-	0	#DIV/0!
	Tata N.P.	0		-	-	-	-	-	-	-	-		-	0	#DIV/0!
	Dodson	0		-	-	-	-	-	-	-	-		-	0	#DIV/0!
	Sardar Sarovar	0		-	-	-	-		3.48	-	-		-	0	#DIV/0!
	Pench	0		-	-	-	-		1.75	-	-		-	0	#DIV/0!
	RGPPL	0		-	-	-	-		3.55	-	-	-	-	0	#DIV/0!
	Lanco	0							3.41	-	-	-	-	0	#DIV/0!
	Losses	0		-	-	-	-	(145)	-	-	(145)		-	0	-
	Unscheduled Interchange (UI)	0		4,400	-	-	367	218	3.42	7,451	218		-	7451	3.42
	Non Conventional Sources (Wind)	0		-	-	-	-	152	3.46	5,265	152		-	5265	3.46
	Non Conventional Sources (Hydro))	300	3.17	9,500	25	3.17	792	0	2.45	0	0		-	0	2.45
	Power Purchase from Bagasse	0		-	-	-	-	1	3.24	44	1		-	44	3.24
	Power Purchase from captive generating units	0		-	-	-	-	19	2.04	383	19		-	383	2.04
	Total Power Purchase	**16182**	**1.20**	**193,646**	**1349**	**1.20**	**16137**	**1987**	**1.66**	**33065**	**1987**	**0.12**	**2382**	**35447**	**1.7842**

Table	**6.1**												
Title	**Composite variable cost of generation and power purchase**												
Sr. No.	**Parameter**	**Order (FY)**			**Order for Month & Year**			**May-06**			**Normative Actual[4] for Month & Year**		
		Energy	**Var. Cost[2]**	**Var. Cost Amt[3]**	**Energy**	**Var. Cost[2]**	**Var. Cost Amt[3]**	**Energy**	**Var. Cost[2]**	**Var. Cost Amt[3]**	**Energy**	**Var. Cost[2]**	**Var. Cost Amt[3]**
		MU	**Rs/ kWh**	**Rs Lakh**	**MU**	**Rs/ kWh**	**Rs Lakh**	**MU**	**Rs/ kWh**	**Rs Lakh**	**MU**	**Rs/ kWh**	**Rs Lakh**
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)
1.0	Own Generation[1] (Table No. 3.3, Sr. No. 5.0)	42,391	0.93	395,416	3,533	0.93	32,951.32	3,843	1.23	47,267	3,843	1.24	47,706
2.0	Disallowance of FAC for Excess Auxiliary Consumption (Table No. 3.4)												
3.0	Net Power Purchase (Table No. 4.1)	16,182	1.20	193,646	1,349	1.20	16,137	1,987	1.78	35,447	1,987	1.78	35,447
4.0	Own Generation + Net Power Purchase (1.0-2.0+3.0)	**58,573**	**1.01**	**589,062**	**4,881**	**1.01**	**49,088**	**5,830**	**1.42**	**82,714**	**5,830**	**1.43**	**83,154**

Table	**6.2**		
Title	**Change in variable cost of generation and power purchase (C) - Format 1**		
Sr. No.	**Parameter**	**Unit**	**Value**
(A)	(B)	(C)	(D)
1.0	Weighted Average variable cost of generation and power purchase considered by the Commission for Month & Year (Table No.6.1 Sr. No.4.0, Col. No. (G))	Rs/kWh	1.01
2.0	Weighted Average Normative Actual variable cost of generation and power purchase for Month & Year (Table No.6.1 Sr. No.4.0, Col. No. (M))	Rs/kWh	1.43
3.0	Change in variable cost of generation and power purchase (2.0-1.0)	Rs/kWh	0.42
4.0	Generation[1] + Net Power Purchase (Table No.6.1 Sr. No.4.0, Col. No. (L))	MU	5,830
5.0	Change in variable cost of generation and power purchase (3.0 x 4.0)	Rs Lakh	24,527

Table	**6.7**		
Title	**Total Fuel Cost and Power Purchase Adjustment**		
Sr. No.	**Parameter**	**Unit**	**Value**
(A)	(B)	(C)	(D)
1.0	Change in cost (C) (Table 6.2, Sr. No.5.0 for FAC Mechanism or Table 6.3, Sr. No. 4.0 for FOCA Mechanism)	Rs Lakh	24,527
2.0	Interest on Working Capital (I) (Table 6.5, Sr. No. 3.0)	Rs Lakh	-
3.0	Adjustment factor for over-recovery/under-recovery (B) (Table 6.6, Sr. No. 3.0)	Rs Lakh	-
4.0	FAC (A) = C + I + B (1.0 + 2.0 + 3.0)	Rs Lakh	24,527
5.0	Any unpredictable and uncontrollable expenses incurred (Z)[1]	Rs Lakh	
6.0	FOCA (A) = C + I + B + Z (4.0 + 5.0)	Rs Lakh	

Table	**7.1**		
Title	**Calculation of per unit FAC/FOCA Charge**		
Sr. No.	**Parameter**	**Unit**	**Value**
(A)	(B)	(C)	(D)
1.0	Energy Sales within License Area (Table 1.1, Sr. No.5.0)	MU	3,498
2.0	Estimated Consumption within License Area (Table 1.2, Sr. No. 4.0)	MU	789
3.0	Excess T&D Loss (Table 1.4, Sr. No. 4.0)	MU	448
4.0	Total FAC (Table 6.7, Sr. No. 4.0) or Total FOCA (Table 6.7, Sr. No. 6.0)	Rs Lakh	24,527
5.0	FAC Charge (FAC_{kWh}) or FOCA Charge ($FOCA_{kWh}$) without considering cap on monthly Charge (4.0/(1.0+2.0+3.0))	Paise/kWh	51.80
6.0	Cap on monthly FAC/FOCA Charge	Rs/kWh	
6.1	Cap at 10% of the variable component of tariff[2]	Paise/kWh	
6.2	Cap at increase in CPI for a similar period	Paise/kWh	
6.3	Cap as lower of 6.1 and 6.2	Paise/kWh	-
7.0	FAC Charge (FAC_{kWh}) or FOCA Charge ($FOCA_{kWh}$) considering cap on monthly FAC Charge/FOCA Charge (lower of 5.0 and 6.3)[1]	Rs/kWh	0.52

Table	**7.3**		
Title	**Recovery of FAC/FOCA Charge**		
Sr. No.	**Parameter**	**Unit**	**Value**
(A)	(B)	(C)	(D)
1.0	FAC (A)/ FOCA (A) considering cap on Monthly FAC/FOCA Charge (Table 7.1, Sr. No. 6.0 x (Table 7.1, Sr. No. 1.0 + Table 7.1, Sr. No. 2.0))	Rs Lakh	22204.99
2.0	FAC(A)/ FOCA (A) disallowed corresponding to excess T&D loss (Table 7.1, Sr. No. 7.0 x Table 7.1, Sr. No. 3.0)	Rs Lakh	2321.74
3.0	Carried forward FAC (A)/ FOCA (A) for recovery during future period (Table 7.1, Sr. No. 4.0 - 1.0 - 2.0)	Rs Lakh	0.00

Table	**8.1**		
Title	**Summary of FAC (A) and FAC_{kWh}**		
Sr. No.	**Parameter**	**Unit**	**Value**
(A)	(B)	(C)	(D)
1.0	**Calculation of FAC (A)**		
1.1	Disallowance of change in variable cost of generation corresponding to excess auxiliary consumption	Rs Lakh	-
1.2	Change in weighted average variable cost of generation and power purchase after accounting for disallowance of change in variable cost corresponding to excess auxiliary conumption	Rs Lakh	-
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	24,527
1.4	Working Capital Interest (I)	Rs Lakh	-
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	-
1.6	**FAC (A) = C + I + B**	Rs Lakh	**24,527**
2.0	**Calculation of FAC_{kWh}**		
2.1	Sale within License Area	MU	4,287
2.2	Excess T&D Loss	MU	448
2.3	FAC Charge (FAC_{kWh}) without considering cap on monthly FAC Charge	Paise/kWh	52
2.4	Cap on monthly FAC Charge	Rs/kWh	-
2.5	**FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge**	Rs/kWh	0.52
3.0	**FAC (A)**		
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	22,205
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	2,322
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	-