

Managing Director,
Tata Power Company Ltd.,
 Regulations Department Corporate Centre,
 A 34, Sant Tukaram Road,
 Carnac Bunder,
 Mumbai – 400 009.

Subject: Approval of TPC Fuel Adjustment Charges (FAC) for April 2006 to June 2006.

Dear Sir,

With reference to your application dated 28th September, 2006 in pursuance of directions in the Tariff Order for F.Y. 2004-05, and subsequent correspondence on the above subject, I am directed to forward herewith the decision of the Commission (refer Annexure) for further necessary action.

The Commission has carried out the vetting of FAC amount for the months of April 2006 to June 2006, the summary of which is as under:

Particulars	Unit	April 06		May 06		June 06	
		TPC	COMMISSION	TPC	COMMISSION	TPC	COMMISSION
FAC (A) = C + I + B		21384.36	3451.82	23966.44	10634.44	29398.75	16930.62
FAC charge without considering cap on monthly FAC charge	Paise/kWh	230.52	37.21	239.50	106.27	297.85	171.53
FAC Charge considering cap on monthly FAC Charge	Paise/kWh	21.00	21.00	21.00	21.00	21.00	21.00
FAC considering cap on monthly FAC Charge	Rs Lakh	1948.07	1948.07	2090.74	2090.74	2072.80	2072.80
FAC disallowed corresponding to excess T&D loss	Rs. Lakh	--	--	10.72	10.72	--	--
Carried Forward FAC for recovery during future period	Rs. Lakh	19436.29	1503.75	21864.98	8532.98	27325.95	14857.83

With Regards,



Yours faithfully,

(Smt. Malini Shankar)
 Secretary, MERC

Encl : Detailed Vetting Report (45 pages)



Ref.: MERC/TPC/FAC/APRIL06 – JUNE06/2006-07/564

March 26, 2007

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Cc:

Prayas Energy Group,
Amrita Clinic, Athawale Corner,
Lakdipool-Karve Road Junction,
Deccan Gymkhana, Karve Road,
Pune 411 004.

The President,
Mumbai Grahak Panchayat,
Grahak Bhavan,
Sant Dynyaneshwar Marg,
Behind Cooper Hospital,
Vile Parle (West), Mumbai 400 056.

The General Secretary,
Thane Belapur Industries Association,
Plot No.P-14, MIDC,
Rabale Village, PO Ghansoli,
Navi Mumbai 400 7001.

The President,
Vidarbha Industries Association,
1st floor, Udyog Bhawan,
Civil Lines, Nagpur 440 001.

Shri A.D. Mahajan,
Senior Manager,
SICOM Limited,
Nirmal, Nariman Point,
Mumbai – 400 021.



**Detailed Vetting of Fuel Adjustment Cost (FAC) charges of Tata Power Company Ltd.
(TPC) for the months of April 2006 to June 2006.
Attachment to MERC letter No. MERC/TPC/FAC/APR06-JUN06/2006-07 dated
March 26, 2007.**

1 TPC's Application for approval of FAC Charge for April 06 to June 06

As per the Tariff Order dated 11th June 2004, TPC is required to obtain post facto approval of the Commission on a quarterly basis for the FAC charged. The Commission has validated the FAC for June 2004 and issued detailed vetting report dated 4th January, 2005 detailing therein the methodology adopted to compute change in variable cost of generation and power purchase. The Commission has also validated the FAC for the months of April 2004 to March 2006 and issued detailed vetting report on 19th June 2006. Accordingly, TPC has forwarded its application for vetting of FAC for the months covering 1st quarter of the financial year 2006-07.

TPC vide its letter REG/MERC-SUB/06/179 dated 28th September, 2006 submitted the FAC submissions for the period April 2006 to June 2006. These submissions are in the standard formats prescribed by the Commission vide its letter dated 22nd August, 2005.

The methodology adopted by TPC for FAC calculations is as under :-

- 1) TPC has computed the change in variable cost of generation and power purchase on a composite basis by considering the change in weighted average cost of generation and power purchase.
- 2) TPC has considered the estimated generation and power purchase in MUs and estimated weighted average cost of generation and power purchase for each Unit, as per the Commission's directions in vetting report dated 4th January 2005 for calculating the change in the fuel cost.
- 3) TPC has apportioned the variable cost of generation from Unit 4 to the sale outside the licensed area i.e. MSEDCL and to its licensed area to the extent of the generation used to meet its peak requirement.



- 4) TPC has apportioned variable cost of own generation (other than the variable cost of generation from Unit 4) to sale within its licensed area and balance to the sale outside license area.
- 5) The entire generation from Hydel station has been apportioned to sale in License area.

The vetting by the Commission is based on the following orders :-

- a. Tariff Order dated 11th June, 2004.
- b. The vetting report dated 4th January, 2005 approving FAC of TPC for the month of June 2004.
- c. The Commission's order dated 7th December, 2004 in the matter of "Drawal of power by TPC from MSEB and compliance of TPC Tariff Order".
- d. The vetting report dated 19th June, 2006 approving FAC of TPC for the period April 2004 to March 2006.

The Commission consultants held detailed discussions with TPC officials to clarify certain aspects and to understand the computations/assumptions used by TPC.

Variable cost of generation -

While assessing the actual variable cost of generation, the Commission has assessed unit wise variable cost of generation and weighted average variable cost of generation considering the following:-

- Change in generation mix
- Change in fuel price



- Fuel handling charges
- Normative operating parameters (i.e. heat rate and auxiliary consumption) as set out in the Tariff Order.

Change in generation mix:

The Commission has carried out a broad assessment of adherence to the principles of merit order dispatch by comparing fuel wise, unit wise monthly gross generation with the levels considered in the Tariff Order and seeking justification for any material variation. Gross generation estimated as per Tariff Order and actual generation for the month April 2006 to June 2006 are detailed below:-

Station	Fuel wise VC / unit as per order (Rs./kWh)	Estimated Gross Generation as per Order for April 06 (MUs)	Actual Gross Generation for April 06 (MUs)	Estimated Gross Generation as per Order for May 06 (MUs)	Actual Gross Generation for May 06 (MUs)	Estimated Gross Generation as per Order for June 06 (MUs)	Actual Gross Generation for June 06 (MUs)
Hydel	-	115.80	174.34	108.70	137.20	106.10	173.87
Unit # 7	Gas – 0.62	108.20	125.74	111.80	139.47	108.20	129.65
Unit # 6	Gas – 0.71	-	6.32	-	25.62	-	10.41
Unit # 5	Gas – 0.75	-	-	-	-	-	-
Unit # 4	Gas – 0.79	-	-	-	-	-	-
Unit # 5	Coal – 1.18	315.90	347.58	326.50	343.73	315.90	349.45
Unit # 6	Oil – 2.50	360.00	306.10	372.00	289.25	360.00	259.21
Unit # 5	Oil- 2.62	44.10	4.05	45.50	1.53	22.00	0.18
Unit # 4	Oil – 2.76	-	81.97	-	79.92	-	58.26
Total		944.00	1046.10	964.50	1016.72	912.20	981.03
Net Power Purchase from MSEB / Others	2.99	11.50	32.56	9.90	64.34	5.70	57.20
Less : Sale to MSEB from Unit # 4 / Others		0.00	102.62	0.00	18.27	0.00	0.00



Change in Fuel Price :

Actual variable cost of power generation of each unit is certified by Cost Accountant. The Commission had directed TPC vide its letter dated 4th January, 2005 to submit fuel analysis report of representative monthly samples of fuels certified by an Independent Certification Agency in support of actual fuel calorific value along with its quarterly FAC submissions in future. Subsequently, TPC submitted the fuel analysis report of representative monthly samples of fuels certified in respect of actual calorific value.

Fuel Handling Cost :

The fuel handling cost has been worked out by TPC as per the formula considered by the Commission in its vetting report dated 4th January, 2005.

Normative Operating Parameters:

TPC has considered Unit-wise approved heat rate as per the Tariff Order for FY 2004-05 for computing actual Unit-wise, variable cost of generation on monthly basis and the same is allowed.

Disallowance of FAC corresponding to excess auxiliary Consumption:

TPC has considered Unit-wise norm of auxiliary consumption approved in the Tariff Order for computing Unit-wise excess auxiliary consumption. Fuel Adjustment Cost corresponding to excess auxiliary consumption has been disallowed by multiplying Unit-wise excess auxiliary consumption (apportioned to various fuels) with the increase in fuel wise unit wise variable cost of thermal generation. Fuel Adjustment Cost corresponding to excess auxiliary consumption for hydel generation has been disallowed by multiplying excess auxiliary consumption with the increase in weighted average cost of own generation.

TPC has computed disallowance of FAC for excess auxiliary consumption as nil for April 06 & May 06 and Rs.27.34 Lakh for June 06 and the same has been considered by the Commission.

Variable cost of power purchase:

TPC has considered various alternate power purchase sources in addition to MSEB and accordingly purchased power from MSEDCL, MSEDCL-Jindal, MSEDCL-kawas, TPTCL-TISCO, MSEDCL-DVC, Sikkim, WBSEB, Gridco, Assam, TPTCL-CESC to meet the



growing demand of license area. The details of the power purchase quantity and rate are detailed in Table 4.1.

The Commission in its Orders dated 17th September 04 and 7th December 2004 cited the following points from various places of the Tariff Order and it states as under:

- *“The Commission directs TPC to enter into an alternative arrangement to purchase power during peak hours so as to ensure that load shedding is not required.*
- *It would be economical to buy part of quantity at higher rate rather than operating Unit 4 as a base load station.*
- *The Commission may consider permitting additional cost of purchase of power during peak hours for meeting energy requirement of License Area operations arising of shutdown of Unit 4, through FAC mechanism, based on evidence submitted by TPC to substantiate its claims.*
- *TPC may explore the option of selling electricity generated using unit 4 to MSEB and other states, in such a manner that there is no additional burden on consumers of the License Area.”*

In view of the above, the Commission approves the additional power purchase from other sources through FAC mechanism considering the shortfall in peak requirement of energy. However, in future, TPC has to justify the power purchase in excess of approved limit.

Change in variable cost of own generation and power purchase

Change in variable cost of own generation and power purchase has been arrived at by multiplying total of gross generation and power purchase with the change in weighted average cost of generation and power purchase. Further the Commission has also considered the VAT refund obtained by TPC during the first quarter of FY 2006-07.

Apportionment of change in variable cost of own generation and power purchase cost to License Area.

The Commission in its report dated 4th January, 2005 has specified the formula for arriving at apportionment of change in variable cost of own generation and power purchase cost to License Area so that the consumers in the License Area benefit from the low cost generation from the hydel plants.

TPC has apportioned the change in variable cost of own generation and power purchase cost to License Area as per the said formula.



Interest on working capital –

TPC has not considered any interest on working capital due to change in prices of fuel and accordingly, the Commission has also not considered the same.

Adjustment factor for over recovery / under recovery –

While computing adjustment factor for over / under recovery “B”, TPC has taken into account the incremental cost allowed to be recovered in the month of February 2006 and March 2006 to be actually recovered in the month of April 2006 and May 2006 respectively.

As per the Tariff Order dated 3rd October, 2006 for the FY. 2006-07, the Commission has considered the actual revenue reported by TPC during FY 2004-05 and FY 2005-06 including revenue from FAC as part of truing up. The Commission has therefore, not considered the amount of over / under recovery for FY 04-05 and FY 05-06 separately. Thus, there is no opening balance of over / under recovery as on 1st April, 2006. The detailed working of adjustment factor for over / under recovery is shown in Table 6.6.

The Commission has also factored the carried forward adjustment for over / under recovery attributable to application of ceiling limit in the computation of component “B”.

Excess T & D Loss –

TPC has considered allowable T& D Loss at the normative T&D Loss rate of 2.41% as stipulated in the Tariff Order, and determined the excess T&D Loss for April 2006 to June 2006 by applying the formula as stipulated by the Commission in its vetting report dated 4th January, 2005. Excess T&D Loss has been assessed at 5.10 MUs in the month of May 2006 and nil in April 2006 and June 2006.

As worked out by TPC, the FAC disallowed corresponding the excess T&D Loss for the month of May 2006 is Rs.10.72 Lakh and the same is allowed.

Calculation of FAC per unit :-



FAC per unit has been computed by considering FAC (A) for the License area, Energy sales submitted by TPC for the License area and Excess T&D Loss. The Commission approves the FAC rate of 37.21 paise/kWh, 106.27 paise/kWh, and 171.53 paise/kWh, as against that submitted by TPC FAC rate of 230.52 paise/kWh, 239.50 paise/kWh and 297.67 paise/kWh for the month of April, May and June 2006 respectively.

FAC charge considering monthly cap :-

Since FAC kWh for April to June 2006 is higher than the monthly ceiling of 21 paise / kWh on FAC charge, the FAC charge is capped at 21 paise/kWh. The FAC amount under recovered for the month attributable to application of the cap has been carried forwarded to the next month for inclusion as part of adjustment for over recovery / under recovery component of FAC (A).



Summary of FAC

Sr. No.	Parameter	Unit	Value		Value		Value	
(A)	(B)	(C)	(D)		(D)		(D)	
			April 06		May 06		June 06	
1.0	Calculation of FAC (A)		TPC	COMMISSION	TPC	COMMISSION	TPC	COMMISSION
1.1	Disallowance of change in variable cost of generation corresponding to <u>excess auxiliary consumption</u>	Rs Lakh	-	-	-	-	31.85	27.34
1.2	Change in weighted average variable cost of <u>generation and power purchase</u> after accounting for disallowance of change in variable cost corresponding to excess auxiliary consumption	Rs Lakh	5354.48	5,339.75	11062.37	11,067.91	10091.82	8,558.47
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	5337.58	5,322.90	11062.37	11,067.91	10121.16	8,556.34
1.4	Working Capital Interest (I)	Rs Lakh	-	-	-	-	-	-
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	16046.78	(1871.08)	12904.07	(433.47)	19277.59	8374.28
1.6	FAC (A) = C + I + B	Rs Lakh	21384.36	3451.82	23966.44	10634.44	29398.75	16930.62
2.0	Calculation of FAC_{kWh}							
2.1	Sale within License Area	MU	927.65	927.65	995.59	995.59	987.05	987.05
2.2	Excess T&D Loss	MU	-	-	5.10	5.10	-	-
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	Paise/kWh	230.52	37.21	239.50	106.27	297.85	171.53
2.4	Cap on monthly FAC Charge	Paise/kWh	21.00	21.00	21.00	21.00	21.00	21.00
2.5	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	Paise/kWh	21.00	21.00	21.00	21.00	21.00	21.00
3.0	FAC (A)							
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	1948.07	1,948.07	2,090.74	2,090.74	2072.80	2,072.80
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-	-	10.72	10.72	-	-
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	19436.29	1503.75	21864.98	8532.98	27325.95	14857.83



Table No	Title
3.1	Heat Rate for Thermal Generating Station/unit
3.3	Calculation of Station/Unitwise variable cost of generation (fuel cost)
3.4	Disallowance of FAC for Excess Auxiliary Consumption
4.1	Variable Cost of Power Purchase
6.1	Composite Variable Cost of Generation and Power Purchase
6.2	Change in Variable Cost of Generation and Power Purchase (C) - Format I
6.4	Apportionment of change in variable cost of generation and power purchase (C) to License Area
6.6	Adjustment for over recovery / under recovery (B)
6.7	Total fuel cost and power purchase adjustment
7.1	Calculation of per unit FAC charge
8.1	Summary of FAC (A) and FAC kwh



April 2006

Table	3.1					
Title	Heat Rate for Thermal Generating Station/Unit					
Sr. No.	Generating Station/Unit¹	Order FY	April - 2006			
		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)
1.0	Unit # 4	2,574.00	81.974	206,473.93	2,518.77	
2.0	Unit # 5	2,447.00	351.63	873,588.43	2,484.40	
3.0	Unit # 6	2,338.00	312.42	722,423.05	2,312.35	
4.0	Unit # 7	2,019.00	125.735	244,015.58	1,940.71	
	Total for Thermal Generation		871.759	2046501	2,347.55	



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 April			April - 2006				Normative Actual Var. Cost ⁴ for April - 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														
	Hydro	Water	1,336.10	-	-	115.80	-	-	174.34		-	-	174.34	-	-
	Unit # 7	Gas	1,197.40	0.62	7,423.88	108.20	0.62	670.84	125.74		0.72	908.31	125.74	0.75	944.95
	Unit # 6	Gas	102.70	0.71	729.17	-	0.71	-	6.32		0.86	54.37	6.32	0.87	54.97
	Unit # 5	Gas	-	0.75	-	-	0.75	-	-		-	-	-	0.91	-
	Unit # 4	Gas	-	0.79	-	-	0.79	-	-		-	-	-	0.96	-
	Unit # 5	Coal	3,844.00	1.18	45,359.20	315.90	1.18	3,727.62	347.58		1.25	4,327.90	347.58	1.23	4,262.75
	Unit # 6	Oil	3,660.20	2.50	91,505.00	360.00	2.50	9,000.00	306.10		5.02	15,354.90	306.10	5.06	15,489.15
	Unit # 5	Oil	340.20	2.62	8,913.24	44.10	2.62	1,155.42	4.05		5.46	221.31	4.05	5.30	214.66
	Unit # 4	Oil	111.60	2.76	3,080.16	-	2.76	-	81.97		5.40	4,429.60	81.97	5.57	4,566.67
2.0	Generating Station/Unit wise summary														
	Hydro	All fuels	1,336.10	-	-	115.80	-	-	174.34		-	-	174.34	-	-
	Unit # 4	All fuels	111.60	2.76	3,080.16	-	-	-	81.97		5.40	4,429.60	81.97	5.57	4,566.67
	Unit # 5	All fuels	4,184.20	1.30	54,272.44	360.00	1.36	4,883.04	351.63		1.29	4,549.20	351.63	1.27	4,477.41
	Unit # 6	All fuels	3,762.90	2.45	92,234.17	360.00	2.50	9,000.00	312.42		4.93	15,409.27	312.42	4.98	15,544.12
	Unit # 7	All fuels	1,197.40	0.62	7,423.88	108.20	0.62	670.84	125.74		0.72	908.31	125.74	0.75	944.95



3.3															
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 April			April - 2006				Normative Actual Var. Cost ⁴ for April - 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	10,592.20	1.48	157,010.65	944.00	1.54	14,553.88	1,046.10		2.42	25,296.39	1,046.10	2.44	25,533.15
	Fuel Handling Cost (FHC)				1,090.00			100.00				87.24			87.24
	Generation including FHC		10,592.20	1.49	158,100.65	944.00	1.55	14,653.88	1,046.10		2.43	25,383.63	1,046.10	2.45	25,620.39
4.0	Generation corresponding to Utilisation of Specific Generating Station/ Unit corresponding to sale mentioned at Table 1.1, Item 3⁵														
	Unit # 4 / Unit # 6	Oil							106.83		6.00	6,409.64	106.83	6.00	6,409.64
5.0	Total for all Generating Stations/Units excl. generation reported at (4.0)		10,592.20	1.49	158,100.65	944.00	1.55	14,653.88	939.27		2.02	18,973.99	939.27	2.05	19,210.74



Table	3.4					
Title	Disallowance of FAC for Excess Auxiliary Consumption ¹					
Sr. No.	Generating Station/Unit	Fuel Basket (FB)	April - 2006			
			Excess Aux Cons ²	Change in Var. Cost ³	Increase in Var. Cost ⁴	Disallowance ⁵
			MU	Rs/kWh	Rs/kWh	Rs Lakh
(A)	(B)	(C)	(D)	(E)	(F) = max(E,0)	(G) = (D) * (F)
	Hydro	Water	-	0.49	0.49	-
	Unit # 4	Gas	-	0.17	0.17	-
	Unit # 4	Oil	-	2.81	2.81	-
	Unit # 4	All Fuel	-			-
	Unit # 5	Gas	-	0.16	0.16	-
	Unit # 5	Coal	-	0.05	0.05	-
	Unit # 5	Oil	-	2.68	2.68	-
	Unit # 5	All Fuel	-			-
	Unit # 6	Gas	-	0.16	0.16	-
	Unit # 6	Oil	-	2.56	2.56	-
	Unit # 6	All Fuel	-			-
	Unit # 7	Gas	-	0.13	0.13	-
	Unit # 7	All Fuel	-			-
	Total for all Generating Stations/Units		-			-



Table	4.1														
Title	Variable cost of power purchase ^{1&11}														
Sr. No.	Power Purchase Source ²	Order (FY)			Order for April - 2006			Actual for April - 2006							
		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)
(7)	MSEDCL-Peak	61.50	2.99	1,838.85	11.50	2.99	343.85	-	-	-	-	-	-	-	-
(8)	MSEDCL-OffPeak	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(9)	MSEDCL-Jindal	-	-	-	-	-	-	1.70	3.73	63.31	-	-	-	63.31	3.73
(10)	MSEDCL-Kawas-Liquid	-	-	-	-	-	-	3.77	3.77	142.10	-	-	-	142.10	3.77
(11)	MSEDCL-Kawas-Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(12)	MSEDCL-DVC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(13)	MSEDCL-Sikkim	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(14)	MSEDCL-WBSEB	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(15)	MSEDCL-Gridco	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(16)	MSEDCL-Assam	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(17)	MSEDCL-KPCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(18)	IPTCL-Jindal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(19)	IPTCL-TISCO	-	-	-	-	-	-	27.09	4.35	1,177.65	-	-	-	1,177.65	4.35
(20)	IPTCL-CESC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(21)	IPTCL-TISCO (DA)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(22)	GEL-Arp	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(23)	MSEDCL-Gandhar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Power Purchase	61.50	2.99	1,838.85	11.50	2.99	343.85	32.56	4.25	1,383.05	-	-	-	1,383.05	4.25



Table	6.1												
Title	Composite variable cost of generation and power purchase												
Sr. No.	Parameter	Order (FY)			Order for April - 2006			Actual for April - 2006			Normative Actual4 for April - 2006		
		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)	10,592.20	1.49	158,100.65	944.00	1.55	14,653.88	939.27	2.02	18,973.99	939.27	2.0453	19,210.74
2.0	Disallowance of FAC for Excess Auxiliary Consumption (Table No. 3.4)												-
3.0	Net Power Purchase (Table No. 4.1)	61.50	2.99	1,838.85	11.50	2.99	343.85	32.56	4.25	1,383.05	32.56	4.2483	1,383.05
4.0	Own Generation + Net Power Purchase (1.0-2.0+3.0)	10,653.70	1.50	159,939.50	955.50	1.57	14,997.73	971.83	2.09	20,357.04	971.83	2.1191	20,593.80



Table	6.2		
Title	Change in variable cost of generation and power purchase (C) - Format 1		
For	April - 2006		
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 April - 2006 (Table No.6.1 Sr. No.4.0, Col. No. (H))	Rs/kWh	1.5696
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	2.1191
3.0	Change in variable cost of generation and power purchase (2.0-1.0)	Rs/kWh	0.5494
4.0	Generation ¹ + Net Power Purchase (Table No.6.1 Sr. No.4.0, Col. No. (L))	MU	971.83
5.0	Change in variable cost of generation and power purchase (3.0 x 4.0)	Rs Lakh	5,339.75



Table	6.4				
Title	Apportionment of change in variable cost of generation and power purchase (C) to License Area				
For	April - 2006				
Sr. No.	Parameter	Unit	Sale within License Area	Sale outside License Area	Total
(A)	(B)	(C)	(D)	(E)	(F) = (D) + (E)
1	Energy Sales (Table 1.1, Sr. No. 5.0)	MU	927.65	2.39	930.04
2	Apportionment of Generation and Power purchase				
2.1	Apportionment of hydel generation ¹	MU	173.69	-	173.69
2.2	Apportionment of net thermal generation and power purchase ^{2&3} (Table 3.3, Sr. No. 5.0)	MU	763.41	2.42	765.82
2.3	Apportionment of generation and power purchase (2.2 + 2.3)	MU	937.10	2.42	939.51
3	Apportionment of change in variable cost of generation and power purchase (Table 6.2, Sr. No. 5.0) in proportion of 2.2 above	Rs Crore	5,322.90	16.86	5,339.75



Table	6.6		
Title	Adjustment for Over-Recovery/Under-Recovery (B)		
For	April - 2006		
Sr. No.	Parameter	Unit	Value
(A)	(B)	(C)	(D)
1.0	Adjustment for over-recovery/under-recovery ('B')		
1.1	Incremental cost allowed to be recovered in Month j-4 (February - 2006)	Rs Lakh	-
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (April - 2006)	Rs Lakh	1871.08
1.3	(over-recovery)/under-recovery (1.2-1.1)	Rs Lakh	(1871.08)
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit	Rs Lakh	-
3.0	Adjustment factor for over-recovery/under-recovery (1.5+2.0)	Rs Lakh	(1871.08)



Table	6.7		
Title	Total Fuel Cost and Power Purchase Adjustment		
For	April - 2006		
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	5,322.90
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	(1871.08)
4.0	FAC (A) = C + I + B (1.0 + 2.0 + 3.0)	Rs Lakh	3451.82



Table	7.1		
Title	Calculation of per unit FAC Charge		
For	April - 2006		
Sr. No.	Parameter	Unit	Value
(A)	(B)	(C)	(D)
1.0	Energy Sales within License Area (Table 1.1, Sr. No.5.0)	MU	927.65
2.0	Estimated Consumption within License Area (Table 1.2, Sr. No. 4.0)	MU	-
3.0	Excess T&D Loss (Table 1.4, Sr. No. 4.0)	MU	-
4.0	Total FAC (Table 6.7, Sr. No. 4.0) or Total FOCA (Table 6.7, Sr. No. 6.0)	Rs Lakh	3451.82
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	37.21
6.0	Cap on monthly FAC/FOCA Charge		
6.1	Cap at 10% of the variable component of tariff ²	Paise/kWh	21.00
6.2	Cap at increase in CPI for a similar period	Paise/kWh	NA
6.3	Cap as lower of 6.1 and 6.2	Paise/kWh	21.00
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	Paise/kWh	21.00



Table	8.1		
Title	Summary of FAC (A) and FAC _{kWh}		
For	April - 2006		
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 <u>excess auxiliary consumption</u>	Rs Lakh	-
1.2	Change in weighted average variable cost of <u>generation and power purchase</u> after accounting for disallowance of change in variable cost corresponding to excess auxiliary consumption	Rs Lakh	5,339.75
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	5,322.90
1.4	Working Capital Interest (I)	Rs Lakh	-
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	(1871.08)
1.6	FAC (A) = C + I + B	Rs Lakh	3451.82
2.0	Calculation of FAC_{kWh}		
2.1	Sale within License Area	MU	927.65
2.2	Excess T&D Loss	MU	-
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	Paise/kWh	37.21
2.4	Cap on monthly FAC Charge	Paise/kWh	21.00
2.5	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	Paise/kWh	21.00
3.0	FAC (A)		
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	1,948.07
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	1503.75



May 2006

Table	3.1					
Title	Heat Rate for Thermal Generating Station/Unit					
			May - 2006			
Sr. No.	Generating Station/Unit¹	Order FY				
		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)
1.0	Unit # 4	2,574.00	79.917	204,776.07	2,562.36	
2.0	Unit # 5	2,447.00	345.255	854,784.40	2,475.81	
3.0	Unit # 6	2,338.00	314.875	737,577.79	2,342.45	
4.0	Unit # 7	2,019.00	139.469	268,167.57	1,922.78	
	Total Thermal Generation for		879.516	2065305.84	2,348.23	



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 May			May - 2006			Normative Actual Var. Cost ⁴ for May - 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														
	Hydro	Water	1,336.10	-	-	108.70	-	-	137.20		-	-	137.20	-	-
	Unit # 7	Gas	1,197.40	0.62	7,423.88	111.80	0.62	693.16	139.47		0.71	985.64	139.47	0.74	1,033.20
	Unit # 6	Gas	102.70	0.71	729.17	-	0.71	-	25.62		0.85	218.53	25.62	0.86	219.80
	Unit # 5	Gas	-	0.75	-	-	0.75	-	-		-	-	-	0.90	-
	Unit # 4	Gas	-	0.79	-	-	0.79	-	-		-	-	-	0.94	-
	Unit # 5	Coal	3,844.00	1.18	45,359.20	326.50	1.18	3,852.70	343.73		1.18	4,068.20	343.73	1.17	4,020.87
	Unit # 6	Oil	3,660.20	2.50	91,505.00	372.00	2.50	9,300.00	289.25		5.34	15,450.49	289.25	5.32	15,393.89
	Unit # 5	Oil	340.20	2.62	8,913.24	45.50	2.62	1,192.10	1.53		5.85	89.33	1.53	5.57	84.98
	Unit # 4	Oil	111.60	2.76	3,080.16	-	2.76	-	79.92		5.79	4,630.61	79.92	5.86	4,682.45
2.0	Generating Station/ Unit wise summary														
	Hydro	All fuels	1,336.10	-	-	108.70	-	-	137.20		-	-	137.20	-	-
	Unit # 4	All fuels	111.60	2.76	3,080.16	-	-	-	79.92		5.79	4,630.61	79.92	5.86	4,682.45
	Unit # 5	All fuels	4,184.20	1.30	54,272.44	372.00	1.36	5,044.80	345.26		1.20	4,157.53	345.26	1.19	4,105.85
	Unit # 6	All fuels	3,762.90	2.45	92,234.17	372.00	2.50	9,300.00	314.88		4.98	15,669.03	314.88	4.96	15,613.69
	Unit # 7	All fuels	1,197.40	0.62	7,423.88	111.80	0.62	693.16	139.47		0.71	985.64	139.47	0.74	1,033.20



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 May			May - 2006			Normative Actual Var. Cost ⁴ for May - 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	
(A)	(B)	(C)	MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	MU	(K)	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh
3.0	Total for all Generating Stations /Units														
	Total Generation excl FHC	All fuels	10,592.20	1.48	157,010.65	964.50	1.56	15,037.96	1,016.72		2.50	25,442.80	1,016.72	2.50	25,435.19
	Fuel Handling Cost (FHC)				1,090.00			100.00				73.49			73.49
	Generation including FHC		10,592.20	1.49	158,100.65	964.50	1.57	15,137.96	1,016.72		2.51	25,516.30	1,016.72	2.51	25,508.69
4.0	Generation corresponding to Utilisation of Specific Generating Station/ Unit corresponding to sale mentioned at Table 1.1, Item 3⁵														
	Unit # 4 / Unit # 6	Oil							19.05		6.00	1,142.81	19.05	6.00	1,142.81
5.0	Total for all Generating Stations/Units excl. generation reported at (4.0)		10,592.20	1.49	158,100.65	964.50	1.57	15,137.96	997.67		2.44	24,373.49	997.67	2.44	24,365.88



Table 3.4						
Title Disallowance of FAC for Excess Auxiliary Consumption¹						
Sr. No.	Generating Station/Unit	Fuel Basket (FB)	May - 2006			
			Excess Aux Cons²	Change in Var. Cost³	Increase in Var. Cost⁴	Disallowance⁵
			MU	Rs/kWh	Rs/kWh	Rs Lakh
(A)	(B)	(C)	(D)	(E)	(F) = max(E,0)	(G) = (D) * (F)
	Hydro	Water	-	0.87	0.87	-
	Unit # 4	Gas	-	0.15	0.15	-
	Unit # 4	Oil	-	3.10	3.10	-
	Unit # 4	All Fuel	-			-
	Unit # 5	Gas	-	0.15	0.15	-
	Unit # 5	Coal	-	(0.01)	-	-
	Unit # 5	Oil	-	2.95	2.95	-
	Unit # 5	All Fuel	-			-
	Unit # 6	Gas	-	0.15	0.15	-
	Unit # 6	Oil	-	2.82	2.82	-
	Unit # 6	All Fuel	-			-
	Unit # 7	Gas	-	0.12	0.12	-
	Unit # 7	All Fuel	-			-
	Total for all Generating Stations/Units		-			-



Table	4.1														
Title	Variable cost of power purchase ^{1&11}														
Sr. No.	Power Purchase Source ²	Order (FY)			Order for May - 2006			Actual for May - 2006							
		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)
(7)	MSEDCL-Peak	61.50	2.99	1,838.85	9.90	2.99	296.01	11.92	3.76	448.48	11.92	0.78	0.93	449.41	3.76
(8)	MSEDCL-OfiPeak	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(9)	MSEDCL-Jindal	-	-	-	-	-	-	12.40	3.59	444.76				444.76	3.59
(10)	MSEDCL-Kawas-Liquid	-	-	-	-	-	-	22.33	8.35	1,863.90				1,863.90	8.35
(11)	MSEDCL-Kawas-Gas	-	-	-	-	-	-	-	-	-				-	-
(12)	MSEDCL-DVC	-	-	-	-	-	-	-	-	-				-	-
(13)	MSEDCL-Sikkim	-	-	-	-	-	-	-	-	-				-	-
(14)	MSEDCL-WBSEB	-	-	-	-	-	-	-	-	-				-	-
(15)	MSEDCL-Gridco	-	-	-	-	-	-	-	-	-				-	-
(16)	MSEDCL-Assam	-	-	-	-	-	-	-	-	-				-	-
(17)	MSEDCL-KPCL	-	-	-	-	-	-	-	-	-				-	-
(18)	TPTCL-Jindal	-	-	-	-	-	-	-	-	-				-	-
(19)	TPTCL-TISCO	-	-	-	-	-	-	17.69	4.33	765.55				765.55	4.33
(20)	TPTCL-CESC	-	-	-	-	-	-	-	-	-				-	-
(21)	TPTCL-TISCO (DA)	-	-	-	-	-	-	-	-	-				-	-
(22)	GEL-Arp	-	-	-	-	-	-	-	-	-				-	-
(23)	MSEDCL-Gandhar	-	-	-	-	-	-	-	-	-				-	-
	Total Power Purchase	61.50	2.99	1,838.85	9.90	2.99	296.01	64.34	5.48	3,522.71	11.92	0.78	0.93	3,523.64	5.48



Table	6.1												
Title	Composite variable cost of generation and power purchase												
Sr. No.	Parameter	Order (FY)			Order for May - 2006			Actual for May - 2006			Normative Actual ⁴ for May - 2006		
		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)	10,592.20	1.49	158,100.65	964.50	1.57	15,137.96	997.67	2.44	24,373.49	997.67	2.4423	24,365.88
2.0	Disallowance of FAC for Excess Auxiliary Consumption (Table No. 3.4)												-
3.0	Net Power Purchase (Table No. 4.1)	61.50	2.99	1,838.85	9.90	2.99	296.01	64.34	5.48	3,523.64	64.34	5.4768	3,523.64
4.0	Own Generation + Net Power Purchase (1.0- 2.0+3.0)	10,653.70	1.50	159,939.50	974.40	1.58	15,433.97	1,062.01	2.63	27,897.13	1,062.01	2.6261	27,889.52



Table	6.2		
Title	Change in variable cost of generation and power purchase (C) - Format 1		
For	May - 2006		
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 May - 2006 (Table No.6.1 Sr. No.4.0, Col. No. (H))	Rs/kWh	1.5839
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	2.6261
3.0	Change in variable cost of generation and power purchase (2.0-1.0)	Rs/kWh	1.04217
4.0	Generation ¹ + Net Power Purchase (Table No.6.1 Sr. No.4.0, Col. No. (L))	MU	1,062.01
5.0	Change in variable cost of generation and power purchase (3.0 x 4.0)	Rs Lakh	11,067.91



Table	6.4				
Title	Apportionment of change in variable cost of generation and power purchase (C) to License Area				
For	May - 2006				
Sr. No.	Parameter	Unit	Sale within License Area	Sale outside License Area	Total
(A)	(B)	(C)	(D)	(E)	(F) = (D) + (E)
1	Energy Sales (Table 1.1, Sr. No. 5.0)	MU	995.59	-	995.59
2	Apportionment of Generation and Power purchase				
2.1	Apportionment of hydel generation ¹	MU	136.57	-	136.57
2.2	Apportionment of net thermal generation and power purchase ^{2&3} (Table 3.3, Sr. No. 5.0)	MU	888.64	-	888.64
2.3	Apportionment of generation and power purchase (2.2 + 2.3)	MU	1,025.21	-	1,025.21
3	Apportionment of change in variable cost of generation and power purchase (Table 6.2, Sr. No. 5.0) in proportion of 2.2 above	Rs Crore	11,067.91	-	11,067.91



Table	6.6		
Title	Adjustment for Over-Recovery/Under-Recovery (B)		
For	May - 2006		
Sr. No.	Parameter	Unit	Value
(A)	(B)	(C)	(D)
1.0	Adjustment for over-recovery/under-recovery ('B')		
1.1	Incremental cost allowed to be recovered in Month j-4 (March - 2006)	Rs Lakh	-
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (May - 2006)	Rs Lakh	1937.22
1.3	over-recovery/under-recovery (1.2-1.1)	Rs Lakh	(1937.22)
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit	Rs Lakh	1503.75
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	(433.47)



Table	6.7		
Title	Total Fuel Cost and Power Purchase Adjustment		
For	May - 2006		
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	11,067.91
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	(433.47)
4.0	FAC (A) = C + I + B (1.0 + 2.0 + 3.0)	Rs Lakh	10634.44



Table	7.1		
Title	Calculation of per unit FAC/FOCA Charge		
For	May - 2006		
Sr. No.	Parameter	Unit	Value
(A)	(B)	(C)	(D)
1.0	Energy Sales within License Area (Table 1.1, Sr. No.5.0)	MU	995.59
2.0	Estimated Consumption within License Area (Table 1.2, Sr. No. 4.0)	MU	-
3.0	Excess T&D Loss (Table 1.4, Sr. No. 4.0)	MU	5.10
4.0	Total FAC (Table 6.7, Sr. No. 4.0) or Total FOCA (Table 6.7, Sr. No. 6.0)	Rs Lakh	10634.44
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	106.27
6.0	Cap on monthly FAC/FOCA Charge		
6.1	Cap at 10% of the variable component of tariff ²	Paise/kWh	21.00
6.2	Cap at increase in CPI for a similar period	Paise/kWh	NA
6.3	Cap as lower of 6.1 and 6.2	Paise/kWh	21.00
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	Paise/kWh	21.00



Table	8.1		
Title	Summary of FAC (A) and FAC_{kWh}		
For	May - 2006		
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 <u>excess auxiliary consumption</u>	Rs Lakh	-
1.2	Change in weighted average variable cost of <u>generation and power purchase</u> after accounting for disallowance of change in variable cost corresponding to excess auxiliary consumption	Rs Lakh	11,067.91
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	11,067.91
1.4	Working Capital Interest (I)	Rs Lakh	-
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	(433.47)
1.6	FAC (A) = C + I + B	Rs Lakh	10634.44
2.0	Calculation of FAC_{kWh}		
2.1	Sale within License Area	MU	995.59
2.2	Excess T&D Loss	MU	5.10
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	Paise/kWh	106.27
2.4	Cap on monthly FAC Charge	Paise/kWh	21.00
2.5	FAC Charge (FAC_{kWh}) considering cap on monthly FAC Charge	Paise/kWh	21.00
3.0	FAC (A)		
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	2,090.74
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	10.72
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	8532.98



June 2006

Table	3.1					
Title	Heat Rate for Thermal Generating Station/Unit					
Sr. No.	Generating Station/Unit ¹	Order FY	June - 2006			
		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)
1.0	Unit # 4	2,574.00	58.258	146,180.06	2,509.18	
2.0	Unit # 5	2,447.00	349.63	837,096.44	2,394.24	
3.0	Unit # 6	2,338.00	269.625	630,170.65	2,337.21	
4.0	Unit # 7	2,019.00	129.649	250,986.19	1,935.89	
	Total for Thermal Generation		807.162	1864433.35	2,309.86	



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 June			June - 2006			Normative Actual Var. Cost ⁴ for June - 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	
(A)	(B)	(C)	MU	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh	MU	(K)	Rs/ kWh	Rs Lakh	MU	Rs/ kWh	Rs Lakh
1.0	Generating Station/Unit wise, Fuel Basket-wise details														
	Hydro	Water	1,336.10	-	-	106.10	-	-	173.87		-	-	173.87	-	-
	Unit # 7	Gas	1,197.40	0.62	7,423.88	108.20	0.62	670.84	129.65		0.58	755.08	129.65	0.61	787.50
	Unit # 6	Gas	102.70	0.71	729.17	-	0.71	-	10.41		0.70	73.22	10.41	0.70	73.25
	Unit # 5	Gas	-	0.75	-	-	0.75	-	-		-	-	-	0.74	-
	Unit # 4	Gas	-	0.79	-	-	0.79	-	-		-	-	-	0.77	-
	Unit # 5	Coal	3,844.00	1.18	45,359.20	315.90	1.18	3,727.62	349.45		1.28	4,473.40	349.45	1.31	4,571.99
	Unit # 6	Oil	3,660.20	2.50	91,505.00	360.00	2.50	9,000.00	259.21		5.04	13,075.19	259.21	5.05	13,079.60
	Unit # 5	Oil	340.20	2.62	8,913.24	22.00	2.62	576.40	0.18		4.22	7.74	0.18	5.28	9.68
	Unit # 4	Oil	111.60	2.76	3,080.16	-	2.76	-	58.26		5.42	3,154.89	58.26	5.56	3,236.39
2.0	Generating Station/ Unit wise summary														
	Hydro	All fuels	1,336.10	-	-	106.10	-	-	173.87		-	-	173.87	-	-
	Unit # 4	All fuels	111.60	2.76	3,080.16	-	-	-	58.26		5.42	3,154.89	58.26	5.56	3,236.39
	Unit # 5	All fuels	4,184.20	1.30	54,272.44	337.90	1.27	4,304.02	349.63		1.28	4,481.14	349.63	1.31	4,581.67
	Unit # 6	All fuels	3,762.90	2.45	92,234.17	360.00	2.50	9,000.00	269.63		4.88	13,148.41	269.63	4.88	13,152.85
	Unit # 7	All fuels	1,197.40	0.62	7,423.88	108.20	0.62	670.84	129.65		0.58	755.08	129.65	0.61	787.50



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 June			June - 2006				Normative Actual Var. Cost ⁴ for June - 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	10,592.20	1.48	157,010.65	912.20	1.53	13,974.86	981.03		2.20	21,539.53	981.03	2.22	21,758.40
	Fuel Handling Cost (FHC)				1,090.00			100.00				141.09			141.09
	Generation including FHC		10,592.20	1.49	158,100.65	912.20	1.54	14,074.86	981.03		2.21	21,680.61	981.03	2.23	21,899.49
4.0	Generation corresponding to Utilisation of Specific Generating Station/ Unit corresponding to sale mentioned at Table 1.1, Item 3⁵														
	Unit # 4 / Unit # 6	Oil													
5.0	Total for all Generating Stations/Units excl. generation reported at (4.0)		10,592.20	1.49	158,100.65	912.20	1.54	14,074.86	981.03		2.21	21,680.61	981.03	2.23	21,899.49



Table 3.4							
Title Disallowance of FAC for Excess Auxiliary Consumption ¹							
Sr. No.	Generating Station/Unit	Fuel Basket (FB)	June - 2006	Excess Aux Cons ²	Change in Var. Cost ³	Increase in Var. Cost ⁴	Disallowance ⁵
(A)	(B)	(C)	(D)	MU	Rs/kWh	Rs/kWh	Rs Lakh
					(E)	(F) = max(E,0)	(G) = (D) * (F)
	Hydro	Water	-		0.69	0.69	-
	Unit # 4	Gas	-		(0.02)	-	-
	Unit # 4	Oil	0.32		2.80	2.80	8.86
	Unit # 4	All Fuel	0.32				8.86
	Unit # 5	Gas	-		(0.01)	-	-
	Unit # 5	Coal	-		0.13	0.13	-
	Unit # 5	Oil	-		2.66	2.66	-
	Unit # 5	All Fuel	-				-
	Unit # 6	Gas	0.03		(0.01)	-	-
	Unit # 6	Oil	0.73		2.55	2.55	18.48
	Unit # 6	All Fuel	0.75				18.48
	Unit # 7	Gas	-		(0.01)	-	-
	Unit # 7	All Fuel	-				-
	Total for all Generating Stations/Units		1.07				27.34



Table	4.1														
Title	Variable cost of power purchase ^{1&11}														
Actual for June - 2006															
Sr. No.	Power Purchase Source ²	Order (FY)	Order for June - 2006												
		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)
(7)	MSEDCL-Peak	61.50	2.99	1,838.85	5.70	2.99	170.43	6.10	2.99	182.38	6.10	1.27	77.52	259.89	4.26
(8)	MSEDCL-OfPeak	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(9)	MSEDCL-Jindal	-	-	-	-	-	-	7.31	3.73	272.64	-	-	-	272.64	3.73
(10)	MSEDCL-Kawas-Liquid	-	-	-	-	-	-	0.30	69.60	212.00	-	-	-	212.00	69.60
(11)	MSEDCL-Kawas-Gas	-	-	-	-	-	-	2.61	2.05	53.60	-	-	-	53.60	2.05
(12)	MSEDCL-DVC	-	-	-	-	-	-	2.38	4.88	116.17	-	-	-	116.17	4.88
(13)	MSEDCL-Sikkim	-	-	-	-	-	-	5.40	5.66	305.28	-	-	-	305.28	5.66
(14)	MSEDCL-WBSEB	-	-	-	-	-	-	0.56	4.75	26.75	-	-	-	26.75	4.75
(15)	MSEDCL-Gridco	-	-	-	-	-	-	3.90	5.13	200.31	-	-	-	200.31	5.13
(16)	MSEDCL-Assam	-	-	-	-	-	-	5.10	6.52	332.28	-	-	-	332.28	6.52
(17)	MSEDCL-KPCL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(18)	TPTCL-Jindal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(19)	TPTCL-TISCO	-	-	-	-	-	-	19.16	4.35	833.07	-	-	-	833.07	4.35
(20)	TPTCL-CESC	-	-	-	-	-	-	0.97	4.58	44.49	-	-	-	44.49	4.58
(21)	TPTCL-TISCO (DA)	-	-	-	-	-	-	3.41	4.19	142.61	-	-	-	142.61	4.19
(22)	GEL-Arp	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(23)	MSEDCL-Gandhar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Power Purchase	61.50	2.99	1,838.85	5.70	2.99	170.43	57.20	4.76	2,721.58	6.10	127.09	77.52	2,799.09	4.89



Table	6.1												
Title	Composite variable cost of generation and power purchase												
Sr. No.	Parameter	Order (FY)			Order for June - 2006			Actual for June - 2006			Normative Actual ⁴ for June - 2006		
		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)	10,592.20	1.49	158,100.65	912.20	1.54	14,074.86	981.03	2.21	21,680.61	981.03	2.2323	21,899.49
2.0	Disallowance of FAC for Excess Auxiliary Consumption (Table No. 3.4)												27.34
3.0	Net Power Purchase (Table No. 4.1)	61.50	2.99	1,838.85	5.70	2.99	170.43	57.20	4.89	2,799.09	57.20	4.8931	2,799.09
4.0	Own Generation + Net Power Purchase (1.0-2.0+3.0)	10,653.70	1.50	159,939.50	917.90	1.55	14,245.29	1,038.23	2.36	24,479.71	1,038.23	2.3763	24,671.24



Table	6.2		
Title	Change in variable cost of generation and power purchase (C) - Format 1		
For	June - 2006		
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 June - 2006 (Table No.6.1 Sr. No.4.0, Col. No. (H))	Rs/kWh	1.5519
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	2.3763
3.0	Change in variable cost of generation and power purchase (2.0-1.0)	Rs/kWh	0.824331
4.0	Generation ¹ + Net Power Purchase (Table No.6.1 Sr. No.4.0, Col. No. (L))	MU	1,038.23
5.0	Change in variable cost of generation and power purchase (3.0 x 4.0)	Rs Lakh	8,558.47



Table	6.4				
Title	Apportionment of change in variable cost of generation and power purchase (C) to License Area				
For	June - 2006				
Sr. No.	Parameter	Unit	Sale within License Area	Sale outside License Area	Total
(A)	(B)	(C)	(D)	(E)	(F) = (D) + (E)
1	Energy Sales (Table 1.1, Sr. No. 5.0)	MU	987.05	0.20	987.25
2	Apportionment of Generation and Power purchase				
2.1	Apportionment of hydel generation ¹	MU	173.25	-	173.25
2.2	Apportionment of net thermal generation and power purchase ^{2&3} (Table 3.3, Sr. No. 5.0)	MU	830.50	0.21	830.71
2.3	Apportionment of generation and power purchase (2.2 + 2.3)	MU	1,003.75	0.21	1,003.95
3	Apportionment of change in variable cost of generation and power purchase (Table 6.2, Sr. No. 5.0) in proportion of 2.2 above	Rs Crore	8,556.34	2.13	8,558.47



Table	6.6		
Title	Adjustment for Over-Recovery/Under-Recovery (B)		
For	June - 2006		
Sr. No.	Parameter	Unit	Value
(A)	(B)	(C)	(D)
1.0	Adjustment for over-recovery/under-recovery ('B')		
1.1	Incremental cost allowed to be recovered in Month j-4 (April - 2006)	Rs Lakh	1,948.07
1.2	Incremental cost in Month j-4 actually recovered in month j-2 (June - 2006)	Rs Lakh	2,106.77
1.3	over-recovery/under-recovery (1.2-1.1)	Rs Lakh	(158.70)
2.0	Carried forward adjustment for over-recovery/under-recovery attributable to application of ceiling limit	Rs Lakh	8532.98
3.0	Adjustment factor for over-recovery/under-recovery (1.3+2.0)	Rs Lakh	8374.28



Table	6.7		
Title	Total Fuel Cost and Power Purchase Adjustment		
For	June - 2006		
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	8,556.34
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	8374.28
4.0	FAC (A) = C + I + B (1.0 + 2.0 + 3.0)	Rs Lakh	16930.62



Table	7.1		
Title	Calculation of per unit FAC/FOCA Charge		
For	June - 2006		
Sr. No.	Parameter	Unit	Value
(A)	(B)	(C)	(D)
1.0	Energy Sales within License Area (Table 1.1, Sr. No.5.0)	MU	987.05
2.0	Estimated Consumption within License Area (Table 1.2, Sr. No. 4.0)	MU	-
3.0	Excess T&D Loss (Table 1.4, Sr. No. 4.0)	MU	-
4.0	Total FAC (Table 6.7, Sr. No. 4.0) or Total FOCA (Table 6.7, Sr. No. 6.0)	Rs Lakh	16930.62
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	171.53
6.0	Cap on monthly FAC/FOCA Charge		
6.1	Cap at 10% of the variable component of tariff ²	Paise/kWh	21.00
6.2	Cap at increase in CPI for a similar period	Paise/kWh	NA
6.3	Cap as lower of 6.1 and 6.2	Paise/kWh	21.00
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	Paise/kWh	21.00



Table	8.1		
Title	Summary of FAC (A) and FAC _{kWh}		
For	June - 2006		
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 <u>excess auxiliary consumption</u>	Rs Lakh	27.34
1.2	Change in weighted average variable cost of <u>generation and power purchase</u> after accounting for disallowance of change in variable cost corresponding to excess auxiliary consumption	Rs Lakh	8,558.47
1.3	Apportionment of change in variable cost of generation and power purchase to License Area (C)	Rs Lakh	8,556.34
1.4	Working Capital Interest (I)	Rs Lakh	-
1.5	Adjustment for Over Recovery/Under Recovery (B)	Rs Lakh	8374.28
1.6	FAC (A) = C + I + B	Rs Lakh	16930.62
2.0	Calculation of FAC _{kWh}		
2.1	Sale within License Area	MU	987.05
2.2	Excess T&D Loss	MU	-
2.3	FAC Charge (FAC _{kWh}) without considering cap on monthly FAC Charge	Paise/kWh	171.53
2.4	Cap on monthly FAC Charge	Paise/kWh	21.00
2.5	FAC Charge (FAC _{kWh}) considering cap on monthly FAC Charge	Paise/kWh	21.00
3.0	FAC (A)		
3.1	FAC (A) considering cap on Monthly FAC Charge	Rs Lakh	2,072.80
3.2	FAC (A) disallowed corresponding to excess T&D loss	Rs Lakh	-
3.3	Carried forward FAC (A) for recovery during future period	Rs Lakh	14857.83

