

THE PETITION

Before the Hon'ble Delhi Electricity Regulatory Commission

Filing No. _____

Case No. _____

IN THE MATTER OF

Petition for approval of Annual Revenue Requirement for the FY 2005-06 and for determination of Bulk Supply Tariff (BST) to be charged by TRANSCO for the power being supplied to the following Distribution Licensees viz.

- BSES - Yamuna Power Limited
- BSES - Rajdhani Power Limited
- North Delhi Power Limited
(Here-in after called DISCOMs)
- NDMC and MES

AND

IN THE MATTER OF

Delhi TRANSCO Limited (here-in after called "TRANSCO" or "DTL") a company incorporated under the provisions of the Company Act, 1956 and having its registered office at Shakti Sadan, Kotla

Marg, New Delhi - 110 002.

PETITIONER

**PETITION UNDER SECTION II READ WITH SECTION 28 OF THE DELHI ELECTRICITY REFORM ACT,
2000**

The Petitioner respectfully submits as under: -

1. The Petitioner is a wholly owned company of the Government of National Capital Territory of Delhi.
2. Pursuant to the applicable provisions of the Delhi Electricity Reform Act 2000, the Government of National Capital Territory of Delhi (here-in after called “Government”) undertook the reform and restructuring of the erstwhile Delhi Vidyut Board (DVB), which was implemented through a statutory transfer scheme. The Transfer Scheme rules notified provides for reorganization of DVB including transfer of properties, assets, liabilities etc.

The Transfer Scheme provides for unbundling of the erstwhile DVB into 6 Companies / entities. The transmission functions along with related assets have been transferred to TRANSCO (formerly Delhi Power Supply Company Limited).

The TRANSCO is to undertake the functions of bulk purchase of electricity from various generating companies and other sources and effect supply of electricity to the three Distribution Companies and also to NDMC and MES who are licensees in their respective areas.
3. In December 2001, a joint petition by Delhi Power Supply Company Limited and the three

Distribution Companies was filed with the Hon'ble Commission for determination of Bulk Supply Tariff and for determination of opening levels of Aggregate Technical & Commercial (AT&C) Losses. The Hon'ble Commission has approved the bulk supply tariff upto March 2002 and opening level of AT & C losses in its order dated 22nd February 2002. The petitioner would crave leave to refer to the order dated 22nd February 2002.

4. After issue of Bulk Supply Tariff (BST) Order in February 2002 the Government of the National Territory of Delhi issued certain amendments to the Transfer Scheme Rules vide notification No. F.11(99)/2001-Power/207 Dated 26th June 2002.

5. Under the circumstances indicated above and with the formation of TRANSCO as a Transmission Company, TRANSCO submitted its Annual Revenue Requirement (ARR) to the Hon'ble Commission for the year 2002-03 (9 months), for the year 2003-04 and also for the year 2004-05.

6. The Petitioner had also submitted that as per the amendment to the policy directions vide notification No.F11 (118) / 2001-power/187 dated 31.05.2002, the following are the relevant points pertaining to TRANSCO: -

(i) The Government will make available to TRANSCO an amount of approximately, Rs.3452 Crores (say 3450 Crores) during the period 2002-03 to 2006-07 as a loan to TRANSCO to be repaid in a manner agreed to between the TRANSCO and the Government at a later date. The TRANSCO will use the loan to bridge the gap between its revenue requirement and the Bulk Supply Price, which it may receive from the Distribution Licensees. The schedule for disbursement of loans is as follows:

FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	Total

Rs. 1,364 Crore	Rs. 1,260 Crore	Rs. 690 Crore	Rs. 138 Crore	Rs. 0 Crore	Rs. 3,452 Crore	(ii) The TRANSCO shall also undertake
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to repay the loan payable to the Holding Company mentioned in the relevant Schedules of the Transfer Scheme, within 13 years from the date of transfer with a waiver on interest and moratorium on principal repayment for the first 4 years. Thereafter the loan will carry interest at the rate of 12% per annum and would be repaid in 18 equal half yearly installments.

(iii) The stakeholders shall be bound by the policy directions with amendments from the date of issuance thereof till the end of FY 2006-07.

7. Based on examination of the ARR filed by TRANSCO as well as considering various aspects of tariff determination, the Hon'ble Commission had passed an Order dtd. June 26, 2003, which fixed the bulk supply tariffs for TRANSCO for the year 2003-04 and another Order dated 9th June 2004, applicable from the 19th June 2004, which fixed the BST for TRANSCO for FY 2004-05.
8. For the purpose of determination of BST for TRANSCO for the FY 2005-06, the TRANSCO is filing herewith its ARR for the FY 2005-06 for determination and fixing the BST to be charged on:
 - (i) Three DISCOMs for the year 2005-06 based on Transfer Scheme and policy directions of the Government of National Capital Territory of Delhi and
 - (ii) NDMC & MES, who are Licensees in their respective areas.
9. The Hon'ble Commission in its order dated 9th June 2004 and in its review order dated 08/11/04 had considered that revenue of Rs. 210 crore in FY 2003-04 and revenue of Rs.

103 crore in FY 2004-05 to be collected as arrears pertaining to DVB period would accrue to TRANSCO from the Holding Company. However, the Government through its correspondence dated 26/06/03 and 09/06/04 has clearly stated that the said amount would not be transferred to TRANSCO from the Holding Company. Although GNCTD had provided Rs. 210 Crore as additional loan amount during FY 2003-04, the same has been reduced from the allocation of Rs. 690 Crore for FY 2004-05, thus leaving the balance Government support for FY 2004-05 at Rs. 480 Crore.

Hence, TRANSCO respectfully submits before the Hon'ble Commission for the truing up on account of non-receipt of DVB period arrears from the Holding Company while determining the ARR for FY 2005-06.

10. The present petition contains the following documents:

- (i) Summary of the petition
- (ii) Detailed formats with explanatory notes
- (iii) Supporting documents
- (iv) Copy of approval of CMD, TRANSCO to the ARR proposal for FY 2005-06.
- (v) The affidavit verifying the petition duly notarized.

11. The petitioner respectfully submits the following:

- (i) The Transfer Scheme has been made effective from 1st July 2002 as per the notification of the Government.
- (ii) The petitioner has finalized the Annual Accounts of FY 2003-04 and has attached as **annexure 16**. The petitioner has relied upon information contained in the said accounts where relevant.
- (iii) Data pertaining to the previous years up to FY 2003-04 is taken at actuals. The

data for the months of April to September 2004 is also taken at actuals. The data for the remaining period of 2004-05 and also for the year 2005-06 is projected based on assumptions as considered appropriate in this petition.

(iv) As per provisions under Electricity Act, 2003, State Load Dispatch Centre (SLDC) is to be established by the State Govt. to ensure integrated operation of the power system in a State. The Act further provides that the SLDC may levy and collect such fee and charges from the generating companies and licensees engaged in inter-state transmission of electricity as may be specified by the State Commission. At present the functions of SLDC are being discharged by a separate section within TRANSCO. The charges are being claimed through ARR of TRANSCO.

The Act further provides that the State Transmission Utilities as well as SLDC shall not engage in the business of trading in electricity. This provision will, however, become operative after one year of the enforcement of the Electricity Act 2003, i.e. 9th June 2004. This date has been extended to 9th June 2005 vide Government of India's Gazette Notification. In view of this, GNCTD is considering the options for restructuring the business of TRANSCO with a possibility of separating the Transmission and bulk supply functions.

The present petition is, however, being filed for the TRANSCO as a single entity as this position will continue for the time being. However, an attempt has been made in this petition to provide a break-up of the costs of TRANSCO into the following functions:

1. The function of purchase of power and sale thereof
2. The Transmission function
3. The function of operating and maintaining the SLDC

12. Having regard to the submission of ARR in this petition, the Petitioner pleads with the

Hon'ble Commission to permit the appropriate tariff revision in the ensuing year within the overall tariff framework. Since the plea is to be examined in the light of its impact on downstream networks, no specific BST has been proposed in the present ARR.

13. The petitioner respectfully prays the Hon'ble Commission to please:

- a) Approve the ARR of TRANSCO for FY 2005-06. The resultant shortfall in FY 2004-05 be also permitted to be recovered in the ARR for FY 2005-06 through the truing up mechanism.
- b) Determine BST for the three Distribution Licensees duly considering the provisions of statutory transfer scheme and policy directions of the Government of NCT of Delhi, and
- c) Determine Bulk supply tariff for NDMC and MES who are licensees in their respective areas.
- d) Pass any such further order (or) orders as the Hon'ble Commission may deem just and proper in the circumstances explained above.

PETITIONER: ____Sd/-____

DELHI TRANSCO LTD.,

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1 SUMMARY OF THE PROPOSAL

1.1 Preamble

The Delhi TRANSCO Limited (hereinafter called TRANSCO or DTL) has to approach the Hon'ble Delhi Electricity Regulatory Commission (DERC) for approval of Annual Revenue Requirement (ARR) and determination of Bulk Supply Tariff (BST) for FY 2005-06.

According to the transfer scheme finalised at the time of restructuring the DVB, the Government assistance for DTL for the FY 2004-05 is Rs. 690 crores and for FY 2005-06 it is Rs. 138 crores.

1.2 The Energy Requirement

The energy requirement for the 6 months of 2004-05 and the ensuing year 2005-06 has been arrived at using the energy requirement as projected by the five licensees of DTL. A transmission loss of 2% within TRANSCO system has been added to this energy requirement of the licensees to arrive at the total energy requirement at DTL periphery.

Table 1: The energy requirement projections

(in MUs)	BSES Yamuna	BSES Rajdhani	NDMC		MES		NDPL	Total	Energy Req. at DTL Periphery*
	MU	MU	MkVAh	MU	MkVAh	MU	MU	MU	MU
Apr -04 to Sep-04 (Act.)	2,989	4,750	721	686	96	92	3,086	11,603	11,705
Oct -04 to Mar-05 (Est.)	2,477	3,907	505	480	167	159	2,443	9,466	9,659
FY 2004-05 (Total)	5,466	8,657	1,226	1,166	263	251	5,529	21,069	21,365
FY 2005-06(Est.)	5,730	9,040	1,276	1,212	304	289	5,535	21,806	22,251

** Assuming a transmission loss of 2% in DTL system for the projections*

For FY 2004-05 the total energy requirement at DTL periphery for Sale to the licensees has been estimated to be 21,365 MUs. Hence, it can be inferred from the above Table that the estimated growth rate in energy requirement at DTL periphery for FY 2005-06 over FY 2004-05 is 4.15%.

1.3 The Energy Balance

After arriving at the total energy required at DTL periphery, the net energy availability of energy from the various generating stations has been found out. The net energy availability from the generating stations has been arrived at after estimating the allocated capacity share from each Central Generating Station (CGS) and also the likely energy generation schedule in the generating stations situated in Delhi and adjusting the same for the likely transmission loss. In cases where the monthly demand is higher than the monthly power supply, energy is proposed to be purchased through Unscheduled Interchange (UI). Energy is also assumed to be bought on a short-term basis from other sources to meet the peaking requirement. The energy balance for the first six months of FY 2004-05 and the projection period i.e. next 6 months of FY 2004-05 and for FY 2005-06 is given in the table below:

Table 2: Energy Balance for TRANSCO

(Figures in MUs)	FY 2004-05			FY 2005-06 Petitioned
	Apr-Sep '04 (Actual)	Oct '04-Mar '05 (Estimated)	Total	
CGS Stations	6986	4891	11877	10643
GENCO	1405	1240	2645	3130
PPCL	1226	1004	2230	2245
BTPS	2581	2270	4851	4972
HPSEB	1052	74	1126	1383
Other sources	0	587	587	646
Total purchase	13250	10066	23316	23019
PGCIL Transmission Losses*	(239)	(279)	(518)	(477)
Energy Available	13,011	9,787	22,798	22,543
UI purchase / (sale)	(1306)	54	(1252)	(292)
Other Sales	0	(182)	(182)	0

Energy at DTL Periphery	11705	9659	21365	22251
Transmission Loss in DTL Network**	(102)	(193)	(295)	(445)
Energy Sold to Licencees	11,603	9,466	21,070	21,806
Demand Projected by Licencees		9466		21806

**Includes losses from CGS Stations and Other Sources*

***Transmission losses assumed to be 2% in DTL system*

1.4 Energy Procurement Costs

The total units proposed to be purchased from the various sources, total power purchase costs and the per unit cost for FY 2004-05 and FY 2005-06 are as follows:

Table 3: Projected Power Purchase Costs for the FY 2004-05 and FY 2005- 06

	FY 2004-05			FY 2005-06		
	Units (MUs)	Cost (Rs. Crore)	Rs./kWh	Units (MUs)	Cost (Rs. Crore)	Rs./kWh
CGS Stations	11877	2317	1.95	10643	2150	2.02
GENCO	2645	569	2.15	3130	842	2.69
PPCL	2230	474	2.13	2245	570	2.54
BTPS	4851	1139	2.35	4972	1227	2.47
HPSEB	1126	312	2.77	1383	404	2.92
Other sources	587	166	2.82	646	180	2.79
Total purchase	23316	4977	2.13	23019	5373	2.33
UI purchase / (sale)	(1252)	(426)	3.40	(292)	(61)	2.10
Other Sales	(182)	(46)	2.55			
Net Purchase	21882	4505	2.06	22727	5312	2.34
Transmission Charges		159			148	

Other Wheeling Charges		7			7	
RLDC Costs		1			1	
ULDC Costs		16			16	
Taxes		40			37	
Incentives		35			27	
Open Access Charges		15			21	
Total	21882	4778	2.18	22727	5569	2.45

1.5 Other Expenses

Besides power purchase costs, which comprises the majority of the expenses of DTL, the other expenses are enumerated as follows:

- Employees costs
- Administration and General Expenses
- Repairs and Maintenance
- Interest on loans from sources approved by the Government
- Legal charges
- Auditors fees
- Depreciation
- Holding cost of regulatory assets
- Other expenditure, if any.

The Total estimated expenditure of TRANSCO for FY 2004-05 and FY 2005-06 is detailed in the table below:

Table 4: Total expenditure of DTL for FY 2004-05 and FY 2005-06

Sl.No.	Description	2004-05	2005-06
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		Rs. Crore	Rs. Crore
I	Expenditure		
1	Purchase of energy	4778.13	5569.40
2	Employees costs	39.82	43.81
3	Administration and General Expenses	12.45	13.70
4	Repairs and Maintenance	13.41	19.75
5	Interest on loans from sources approved by the Government	5.97	27.80
6	Legal charges	Included in 3	Included in 3
7	Auditors fees	Included in 3	Included in 3
8	Depreciation	27.73	33.31
9	Processing fee for the Commission	0.75	0.75
10	Rebate to DISCOMs on sale of power	17.68	22.66
11	Holding cost of the regulatory assets	11.00	0.00
II	Reasonable Return	48.79	46.49
III	Other exp. (contingency reserve)	1.85	2.22
	Total Expenditure (I+II+III)	4957.58	5779.88

1.6 Truing up for FY 2004-05

The net truing up required for FY 2004-05 to be considered while determining the BST of FY 2005-06 is presented in the Table below:

Table 5: Truing up for FY 2004-05

Description	Rs. crores
Net Revenue Requirement	4958
Truing up as approved by DERC for FY 2003-04	55

Past DVB arrears for the FY 2003-04	210
Total Revenue Requirement for FY 2004-05	5223
<i>Actual Revenue from sale of power (Apr '04 - Sept '04)</i>	<i>2115</i>
<i>Estimated Revenue from sale of power (Oct'04 - Mar'05)</i>	<i>1888</i>
Total Revenue from Sale of Power	4003
Non- tariff income	86
Govt. Support	690
Regulatory asset	100
Total Revenue Flow	4879
Truing up required	344

It can be seen from the above Table that the actual expenditure and revenue estimated by TRANSCO for FY 2004-05 is Rs. 5,223 Crore and Rs. 4,003 Crore respectively. The revenue estimated by TRANSCO is based on the actuals for the first six months and demand forecast by the licensees for the next six months. It is also submitted to the Hon'ble Commission that Rs. 210 Crore be considered as part of ARR as this amount has not been provided by the Holding Company to TRANSCO on account of DVB arrears as GNCTD claims that this is not part of the transfer scheme. Out of the total assistance of Rs. 690 Crore, an amount of Rs. 210 Crore would be adjusted towards the loan paid by GNCTD in advance in FY 2003-04 and only Rs. 480 crore would be received in FY 2004-05. Further, the Hon'ble Commission had allowed Rs. 55 crore of revenue gap in FY 2003-04 as truing up in FY 2004-05. Hence, it has been taken as a revenue requirement. The Hon'ble Commission may kindly consider the truing up of Rs 344 Crore for FY 04-05 while determining the tariff for FY 05-06.

1.7 Annual Revenue Requirement for FY 05-06

The ARR is an essential input for the determination of BST. The ARR for transmission and Bulk Supply business as filed with the Hon'ble Commission is to determine the level of tariff that TRANSCO is required to charge the three DISCOMs, NDMC and MES. A summary of the calculations of the annual revenue requirement of DTL for the FY 2005-06 is given in table below:

Table 6: Annual Revenue Requirement for the year 2005-06

S.No	Head	Rs.Crore
Expenditure		
1	Total Expenditure	5780

2	Truing up on account of FY2004-05	344
3	Amortisation of regulatory Assets	100
	TOTAL	6224
4	Non-tariff Income	86
Annual Revenue Requirement		6138
Revenues		
1	Assistance from GNCTD	138
2	Revenue from sale of power at existing tariff	4352
	TOTAL	4490
	NET REVENUE GAP	1648
Sale of energy for FY05-06 (in MUs)		21806
Average Cost of supply (Rs./kWh)*		2.75

**Cost = (ARR - Govt. Assistance) / Sale of Energy*

The petitioner respectfully submits to the Honourable Commission to approve the Annual Revenue Requirement and to determine the Bulk Supply Tariff for the year 2005-06.

2 ENERGY REQUIREMENT

2.1 Rationale

TRANSCO is responsible for purchase, transmission and Bulk Supply of electricity to the various licensees including MES and NDMC operating in the State of Delhi. Thus one of the most important part of the projections for the ensuing year is to estimate the energy requirement and identify the sources of power to meet this requirement.

The energy requirement (monthly demand) for 6 months of 2004-05 (October 2004 to March 2005) and the 12 months of 2005-06 has been estimated based on the monthly demand as projected by the respective licensees (*annexure 1*). The projected energy requirement of the individual licensees have been aggregated to find the total monthly power requirement of DTL for the next 18 months. Further, transmission loss within TRANSCO system has been estimated and added to the total power requirement of the licensees to arrive at the total energy requirement of DTL at its periphery.

2.2 Aggregate Energy Requirements

Using the above-mentioned methodology to forecast demand, the annual energy requirement at the TRANSCO periphery is estimated to be 9,659 MUs for the period October '04 to March '05 making the estimated energy requirement 21,365 MUs for FY 2004-05. The energy requirement for FY 2005-06 is estimated to be 22,251 MUs at the TRANSCO periphery. This demand includes a transmission loss of 2% in the TRANSCO system. In other words, the energy that would actually be available for sale to the various licensees for FY 2005-06 is 21,806 MUs, as projected by the licensees. For estimating the demand forecast for MES, a power factor (P.F) of 0.95 has been assumed while converting kVAh into kWh. The monthly energy requirement at TRANSCO periphery has been given hereunder.

Table 7: Energy Requirement at TRANSCO periphery

	FY 2003-04	FY 2004-05				FY 2005-06
					Growth	Growth over

Month	Actual	Actual	Projected	Total	over 03-04	Projected	04-05
	MUs	MUs	MUs	MUs		MUs	
APRIL	1647	1743	-	1743	5.83%	1,801	3.33%
MAY	1879	1933	-	1933	2.87%	2,036	5.33%
JUN	2011	1967	-	1967	-2.19%	2,136	8.59%
JUL	1919	2191	-	2191	14.17%	2,092	-4.52%
AUG	1955	1959	-	1959	0.20%	2,103	7.35%
SEPT	1836	1913	-	1913	4.19%	2,003	4.70%
OCT	1625	-	1685	1685	3.69%	1,759	4.39%
NOV	1419	-	1496	1496	5.43%	1,560	4.28%
DEC	1597	-	1642	1642	2.82%	1,714	4.38%
JAN	1748	-	1798	1798	2.86%	1,877	4.39%
FEB	1440	-	1483	1483	2.99%	1,545	4.18%
MAR	1536	-	1555	1555	1.24%	1,625	4.50%
TOTAL	20612	11706	9659	21365	3.65%	22251	4.15%

Source for past data: SLDC's records, for projections: Licensees demand schedules

The summary of the actual energy sold to the licensees is presented as **annexure 2a**.

It can be inferred from the above table that on the basis of the demand schedules as provided by the various licensees, the annual growth rate of energy requirement in FY 2005-06 would be 4.15% over the previous years' demand.

However, as the energy consumption pattern is not expected to remain uniform throughout the day and the fact that TRANSCO would not be able to fully utilise the allocated power during 10:30 PM to 5:30 AM in the months of October to March, TRANSCO proposes to sell the surplus energy to neighboring States/ capacity diversion from Dadri (Thermal) etc. or through Unscheduled Interchange (UI).

Further, in compliance with the directive 5.3.7 of the tariff order dt. 9th June, 2004 for FY 2004-05, the petitioner provides the details of the reactive energy drawl by each DISCOM enclosed as

annexure 2.

3 ENERGY PROCUREMENT

TRANSCO procures power from various sources in order to meet the power requirement of the three DISCOMs, NDMC and MES.

The various sources for power procurement are:

- Central Generating Companies - National Thermal Power Corporation (NTPC), National Hydel Power Corporation (NHPC), Satluj Jal Vidyut Nigam Limited (SJVN) and Nuclear Power Corporation (NPC).
- Badarpur Thermal Power Station (BTPS).
- Indraprastha Power Generating Company Limited (GENCO) which owns:
 - Indraprastha Power Station
 - Rajghat Power House
 - Gas Turbine Power House
- Pragati Power Company Limited (PPCL)
- Others, if any.

The energy availability from various sources for FY 2004-05 and FY 2005-06 is discussed further.

3.1 Energy from Central Generating Stations

3.1.1 Capacity Available to TRANSCO from Central Generating Stations

The total capacity of the various central generating stations and the share of DTL from the firm allocations have been taken from the data as listed on the website of Northern Regional

Electricity Board^{[1][1]} (*annexure 3*). However, in order to find the share of DTL from unallocated share of these Central Generating Stations, the data provided by the State Load Despatch Centre (SLDC) has been the source. The generating capacity of the various CGS plants, the share of TRANSCO from firm allocation and the total unallocated share of these plants are given in Table below:

Table 8: Capacity & share of DTL from Central Generating Stations

Station	FY 2004-05			FY 2005-06		
	Capacity (MW)	DTL's weighted average share of plant	Total Unallocated availability with plant	Capacity (MW)	DTL's weighted average share of plant	Total Unallocated availability with plant
NTPC						
Singrauli	2,000	7.50%	15.00%	2000	7.50%	15.00%
Anta	419	10.50%	15.04%	419	10.50%	15.04%
Rihand	1,000	10.00%	15.00%	1000	10.00%	15.00%
Aurya	663	10.86%	14.93%	663	10.86%	14.93%
Dadri Gas	830	10.96%	15.54%	830	10.96%	15.54%
Unchahar-1	420	5.71%	4.77%	420	5.71%	4.77%
Unchahar-2	420	11.19%	15.00%	420	11.19%	15.00%
Dadri Thermal	840	79.04%*	0.00%	840	83.15%**	0.00%
NHPC						
Bairasul	180	11.00%	0.00%	180	11.00%	0.00%
Salal	690	11.62%	0.00%	690	11.62%	0.00%
Tanakpur	95	12.81%	0.00%	94.5	12.81%	0.00%
Chamera-1	540	7.90%	0.00%	540	7.90%	0.00%
Chamera-2	300	13.33%	21.66%	300	13.33%	21.66%
Uri	480	11.04%	0.00%	480	11.04%	0.00%
NJPC	1,500	9.47%	9.93%	1500	9.47%	16.92%
NPC						
NAPP	440	10.68%	14.55%	440	10.68%	14.55%
RAPP3	220	0.00%	15.00%	220	0.00%	15.00%
RAPP4	220	20.00%	15.00%	220	20.00%	15.00%

* Average share for Oct '04 to Mar '05 ** Average share for FY 2005-06

The Government of India has decided to change the allocation pattern of Dadri (Thermal) and make the same on time slot basis, as requested by DTL, from 27th November 2004 to 31st March 2005. A copy of the communication is attached as **annexure 4**. According to the decision, 32.88% will be made available to Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRPVNL) and 42.88% to Uttar Pradesh Power Corporation Limited (UPPCL) during the off peak hours (2300 Hrs to 0530 Hrs) leaving the share available to TRANSCO during the period with 24.24%. This arrangement is also proposed to be implemented during November '05 to March '06 to dispense with the surplus available with TRANSCO during winter nights. The weighted average percentage allocation of Dadri (Thermal) has been worked out accordingly.

The Gol has decided to change the basis of allocation from unallocated shares of Central Generating Stations from 'round the clock' basis to 'time-slot' basis, according to the requirements. A copy of the communication received from Gol in this regard is attached as **annexure 5**. DTL's share from the unallocated capacity of the various generating stations of NTPC and NPC (except Dadri Thermal as there is no unallocated capacity) is expected to be as given below:

Table 9: Share of DTL from unallocated share of NTPC and NPC plants

Apr-Sep			Oct-Mar		
00-09, 23-24 hrs.	09-18 hrs.	18-23 hrs.	00-06, 12-18, 22-24 hrs.	06-12 hrs.	18-22 hrs.
0.0%	10.0%	20.0%	0.0%	20.0%	20.0%

Based on the firm and unallocated share of DTL, the weighted average capacity allocation for TRANSCO from each of the Central Generating Stations is given in Table below:

Table 10: Capacity Allocation of DTL from Central Generating Stations

Station	FY 2004-05			FY 2005-06		
	Capacity (MW)	DTL's weighted average share of plant	Capacity allocated to DTL (MW)	Capacity (MW)	DTL's weighted average share of plant	Capacity allocated to DTL (MW)
NTPC						

Singrauli	2000	8.75%	175	2000	8.72%	174
Anta	419	11.75%	49	419	11.72%	49
Rihand	1000	11.25%	113	1000	11.22%	112
Aurya	663	12.10%	80	663	12.07%	80
DadriGas	830	12.26%	102	830	12.22%	101
Unchahar-1	420	6.11%	26	420	6.10%	26
Unchahar-2	420	12.44%	52	420	12.41%	52
Dadri-Th	840	79.04%*	664	840	83.15%**	698
NHPC						
Bairasul	180	11.00%	20	180	11.00%	20
Salal	690	11.62%	80	690	11.62%	80
Tanakpur	94.5	12.81%	12	94.5	12.81%	12
Chamera-1	540	7.90%	43	540	7.90%	43
Chamera-2	300	17.68%	53	300	17.68%	53
Uri	480	11.04%	53	480	11.04%	53
NJPC	1500	11.15%	167	1500	11.15%	167
NPC						
NAPP	440	11.89%	52	440	11.86%	52
RAPP3	220	1.25%	3	220	1.22%	3
RAPP4	220	21.25%	47	220	21.22%	47
Total	11257	15.91%	1790	11257	16.19%	1823

* Average share for Oct '04 to Mar '05 ** Average share for FY 2005-06

3.1.2 Energy Available from Central Generating Stations

The Hon'ble Commission in its tariff order for FY 2004-05 had sourced the data pertaining to the Plant Load Factor (PLF) of the Thermal Central Generating Stations from CEA's guidelines for the Central Generating Stations. We have assumed the PLF of these generating plants for FY 2005-06 to be the same as the PLF considered by the Hon'ble Commission in its tariff order for FY 2004-05,

since the data for FY 2005-06 has not yet been prepared by the Central Electricity Authority (CEA).

For hydel plants, the energy available to DTL has been arrived at, using the power purchase figures for the corresponding months of last year or the design energy of the various hydel plants for FY 2005-06. For estimating the energy available from SJVNL, the design energy (**annexure 6**) has been taken into consideration for the remaining months of FY 2004-05 and for FY 2005-06 instead of past trends because the capacity diversion of the HP Government to DTL has been ceased on 31.10.04. Furthermore, during August 2004 the generation in the plant was quite low due to formation of an artificial lake in China causing closure of some units of the plant/ entire plant.

The estimation of the auxiliary consumption for the Central Generating Stations has been based on the Central Electricity Regulatory Commission's (CERC's) guidelines for central generating plants. The norms pertaining to the auxiliary consumption for different types of generating stations include:

- Thermal Generating plants : 9.5 % of Gross Generation
- Gas based generating plants : 3.0 % of Gross Generation
- Hydel Generating Station : 1.0 % of Gross Generation
- Atomic generating plants : 9.5 % of Gross Generation

Based on the capacity allocation as given above, the energy that will be available to TRANSCO from the Central Generating Stations is given in the Table below:

Table 11: Energy available for purchase from CGS in FY 2005-06

Station	Capacity (MW)	DTL Share (%)	PLF	DTL's share (MUs)	Aux. Cons (%)	Net Energy to DTL ex-bus (MUs)
NTPC						

Singrauli	2000	8.72%	85.60%	1,307.55	9.50%	1,183.33
Anta	419	11.72%	74.63%	321.09	9.50%	290.59
Rihand	1000	11.22%	86.80%	853.03	9.50%	771.99
Aurya	663	12.07%	76.17%	534.09	9.50%	483.35
DadriGas	830	12.22%	71.26%	633.27	3.00%	614.27
Unchahar-1	420	6.10%	85.59%	192.01	3.00%	186.25
Unchahar-2	420	12.41%	85.59%	390.75	3.00%	379.03
Dadri-Th	840	83.15%	84.30%	5,582.82	9.50%	4,667.90
NHPC						
Bairasul	180	11.00%				
Salal	690	11.62%				
Tanakpur	94.5	12.81%				
Chamera-1	540	7.90%				
Chamera-2	300	17.68%				
Uri	480	11.04%				
NJPC	1500	11.15%				
NPC						
NAPP	440	11.86%	66.70%	304.96	9.50%	275.99
RAPP3	220	1.22%	58.32%	13.70	9.50%	12.40
RAPP4	220	21.22%	58.32%	238.49	9.50%	215.83
Total	11257	16.19%				

The copies of the PPAs entered into between TRANSCO and various power producers have already been submitted with the petition for the tariff filing of FY 2002-03, FY 2003-04 and FY 2004-05. It is given to understand that the Tehri Hydro Development Corporation Limited (THDC) plant's units would be tentatively progressively commissioned from July 05 onwards. However, the energy generation plans could not be provided by THDC. Also allocation for the capacity from the station is yet to be decided by the Gol. Thus, the plant has not been considered while projecting the energy availability for the year 2005-06.

3.2 Energy from BTPS

The entire generation from BTPS is available to TRANSCO. The expected energy availability during FY 2005-06 for this station is estimated at 4,972 MU. The energy availability for BTPS has been arrived at on the basis of technical limits of the generating units and their performance in previous years.

3.3 Energy Available from GENCO & PPCL

3.3.1 Capacity Available to TRANSCO from GENCO

TRANSCO proposes to avail power from Indraprastha Power Station, Rajghat Power House, Gas Turbine Power House (which are owned by the Indraprastha Power Generating Co. Ltd.-GENCO) and Pragati Power Corporation Limited. The GENCO and PPCL have provided the monthly supply forecast. The same has been accepted by DTL for projections. However, 1/3 share from units 2, 3, 4 at Indraprastha Station to HVPNL has not been indicated in the generation schedule. After confirming from GENCO, the supply to HVPNL from Indraprastha Station is proposed to be 200 MU for FY 2004-05 and 250 MU for FY 2005-06. Monthly apportionment to DTL has been worked out accordingly.

Since GENCO has given the monthly schedule of gross generation (*annexure 7*), the average auxiliary consumption calculated from total gross and net generation has been assumed for each month.

3.3.2 Energy available to TRANSCO from GENCO

Based on the generation schedules as provided by the respective generating stations, it is estimated that the following energy units would be available for purchase from GENCO and PPCL during the year 2005-06:

- GENCO : 3130 MUs comprising 625 MUs of generation from Indraprastha power station, 807 MUs from Rajghat Power Station and 1698 MUs from Gas turbine Station
- PPCL : 2245 MUs

3.4 Energy From Other Sources

In addition to GENCO, central generating stations and BTPS discussed above, TRANSCO also obtains power from other sources as discussed below:

3.4.1 Himachal Pradesh State Electricity Board (HPSEB)

The TRANSCO has entered into power purchase agreement with the Himachal Pradesh State Electricity Board (HPSEB) for purchase of power during summer months of April to October. It is expected to obtain 1383.30 MUs for FY 2005-06 and 74.40 MUs during October 2004 from HPSEB at Rs.2.92 / kWh on 24 hour basis at DTL periphery. Also, an open access charge of Rs. 2 crores has to be paid, the details of which are discussed in the section on power purchase costs later. The calculations for the same have been shown as *annexure 8*.

3.4.2 Other Sources

In the period December '04 to March '05, there is a proposal to divert power to HVPNL during off peak hours (2300 Hrs to 0500 Hrs the next day). It is also proposed to purchase power to the extent of 250 MW from Haryana. Further, DTL proposes to enter into agreements with Tata Power, Reliance Energy Trading Limited, Power Trading Corporation and Adani exports, who participated in the tendering process by DTL for procurement of power during morning and evening peak hours. The energy balancing from December '04 to March '05 is accordingly worked out.

In order to meet the demand during peak hours in November '04, DTL had entered into an agreement for short term power purchase with Tata Power Limited for 100 MW for 6 hours (from 1700 hours to 2300 hours) per day during November 2004 at the rate of Rs. 2.92/kWh at Southern periphery of the Southern Western HVDC link. Also, an open access charge of Rs. 0.32 crores had to be paid, the details of which are discussed in the section on power purchase costs later. The PPA has already been submitted to the Hon'ble Commission. However, according to the latest scenario, 100 MW was received for the first 14 days only and 50 MW was received on 15th November. No more power is expected to be received during the rest of the month.

For FY 2005-06 also, it is proposed to purchase power to meet the peak deficit from other sources. The extent of peak deficit, the additional energy requirement and with the time during which the power estimated to be purchased is presented in the Table below:

Table 12: Winter Peak Requirement

Period	Peak Reqmt (in MW)	Energy (in MUs)	Time during which purchased
October '05	200	19.20	17:00 – 23:00 Hrs
November '05	100	18.00	17:00 – 23:00 Hrs
December '05	600	111.60	06:00 – 12:00 Hrs
December '05	500	93.00	17:00 – 23:00 Hrs
January '06	600	111.60	06:00 – 12:00 Hrs
January '06	500	93.00	17:00 – 23:00 Hrs
February '06	300	50.40	06:00 – 12:00 Hrs
February '06	200	33.60	17:00 – 23:00 Hrs
March '06	100	18.60	17:00 – 23:00 Hrs

3.5 Aggregate Energy Available to TRANSCO

Based on the energy availability, the total energy proposed to be purchased from each plant (ex-bus) at TRANSCO's periphery has been calculated. In the months when the energy availability is less than the energy requirement to meet the peak hour shortages, extra arrangements have to be made from other sources or through overdrawl. In the months when the Demand is lower than the energy available, arrangements would be made to sell the surplus power to other States. However, in case the revenue from the sale of power is lower than the variable cost, instead of selling the units would be backed down.

Month-wise energy availability from various sources is given in attached Form 1.3b1.

3.5.1 Transmission Losses within PGCIL's network

In order to find out the energy available at the periphery of TRANSCO for a particular month, the transmission losses in the PGCIL's network from the generating plant to TRANSCO's periphery have been assumed to be the same as the average transmission losses in PGCIL's network during the corresponding month in the last year. This data has been taken from the website of Northern Region Load Dispatch Centre^{[2][2]} for the period of 52 weeks starting from 20th October, 2003 (*annexure 9*). This loss is only applicable to the CGS plants and not to HPSEB, BTPS, GENCO or PPCL. For Other Sources, the transmission loss has been assumed to be 15% for power received from Southern region-Western region-Northern region link and 20.5% for power received from Eastern region available through the longest route as there is no surety of availability of the shortest route. The weighted average of the transmission losses in PGCIL's network are estimated to be 2.07%.

3.6 Power purchased by DTL

After ascertaining the total energy availability and the demand for the next 18 months, the energy to be purchased from individual plants during each of the months has been assessed. When the energy requirement is less than the energy available, TRANSCO will sell the excess power to other States or under UI mechanism. During peak hours, when the energy requirement is more than the energy availability, alternate sources to fulfill this gap need to be arranged. The following is the net energy proposed to be purchased by DTL from the various sources of power:

Table 13: Energy proposed to be purchased by TRANSCO

Source of Supply (in MUs)	FY 2004-05			FY 2005-06
	Actual Apr 04- Sept 04	Projected Oct 04- Mar 05	Total	Total
NTPC				
Singrauli	626	594	1219	1179
Anta	153	141	294	291

Rihand	410	387	797	772
Auriya	232	242	474	483
Dadri (G)	288	308	596	614
Unchahaar-I	94	93	187	186
Unchahaar-II	181	190	371	378
Dadri (Th)	2735	2140	4875	4303
NHPC				
Baira-Suil	57	19	76	76
Salal	282	96	377	377
Tanakpur	34	18	52	52
Chamera	107	36	143	143
Chamera-II	243	71	313	239
Uri	156	116	271	271
Naptha Jhakri	1087	189	1275	772
NPC				
Napp	125	138	263	276
Rapp`B'#3	65	6	71	12
Rapp`B'#4	112	108	220	216
BTPS	2581	2270	4851	4972
GENCO	1405	1240	2645	3130
Pragati	1226	1004	2230	2245
Other sources				
HPSEB	1052	74	1126	1383
Other sources		587	587	646
TOTAL	13,250	10,066	23,316	23,019

3.7 The Energy Balance

The energy balance for the first six months of FY 2004-05 and the projection period i.e. next 6 months of FY 2004-05 and for FY 2005-06 is given in Table 14 below:

Table 14: Energy Balance for FY 2004-05 and FY 2005-06

(in MUs)	FY 2004-05			FY 2005-06 Petitioned
	Apr-Sep '04	Oct '04-Mar '05	Total	
CGS Stations	6,986	4,891	11,877	10,643
GENCO	1,405	1,240	2,645	3,130
PPCL	1,226	1,004	2,230	2,245
BTPS	2,581	2,270	4,851	4,972
HPSEB	1,052	74	1,126	1,383
Other Sources	0	587	587	646
Total purchase	13,250	10,066	23,316	23,019
PGCIL Transmission Losses*	(239)	(279)	(518)	(477)
Energy Available	13,011	9,787	22,798	22,543
UI purchase / (sale)	(1,306)	54	(1,252)	(292)
Other Sales	0	(182)	(182)	0
Energy at DTL Periphery	11705	9659	21365	22251
Transmission Loss in DTL Network**	(102)	(193)	(295)	(445)
Energy Sold to Licencees	11,603	9,466	21,070	21,806
Demand Projected by Licencees		9466		21806

*Applicable to CGS Stations and Other Sources

** DTL losses have been assumed to be 2% of energy available

4 POWER PROCUREMENT COSTS

4.1 Power Procurement from GENCO

The power procurement costs from GENCO stations has been calculated on the basis of the generation tariff approved by DERC for FY 2004-05. It is a two part tariff. The fixed cost for FY 2004-05 is Rs. 183.93 crore. The variable costs have also been taken as approved by the Hon'ble Commission. For FY 2005-06, the fixed cost has been assumed to be Rs. 258.05 crores, as is being petitioned by GENCO. The variable cost as has been provided by GENCO is presented in the Table below:

Table 15: Variable cost of GENCO plants for forecast period

Plant	Oct '04 – Mar '05	FY 2005-06
	Rs./kWh	Rs./kWh
Indraprastha Power Station	1.84	2.18
Rajghat Power House	1.66	1.97
Gas turbine Power Station	1.29	1.70

4.2 Power Procurement from Central Generating Stations

With the implementation of Availability Based Tariff with effect from 1st December 2002, the beneficiaries have to pay:

- Capacity (fixed) charges based on capacity allocation
- Energy charges for scheduled allocation made by the RLDC as per the scheduling stipulations
- Unscheduled interchange charges for deviation of actual drawl with the scheduled drawl, based on average frequency during a block of 15 minutes.

The capacity charges as fixed by Central Electricity Regulatory Commission for each station as on 31.03.2004 have been adopted for FY 2004-05 to arrive at the power purchase cost from the Central Generating Stations for FY 2005-06. With regard to energy charges, the charges for FY 2005-06 are based on the average variable cost per unit paid to these generating stations for the period from April 2004 to September 2004, after adding an escalation of 5% for coal, atomic and hydel based stations and 7 % for gas based stations. This has been done keeping in view the inflation, WPI and CPI variations over the last year.

It may be noted that the tariff orders by the CERC of the generating plants and PGCIL for determination of tariff for the period 1st April, 2004 to 31st March, 2009 have not yet been finalised. The implementation of the new orders as and when they are issued by CERC may lead to power purchase costs that are at variance to the costs estimated in this petition. This variation may be considered for the truing up at an appropriate time.

4.3 Power procurement from Other Sources

4.3.1 HPSEB

As per the agreement entered into with HPSEB, DTL would avail power from HPSEB with a monthly varying quantum for the period from April to October during the years 2003 to 2005. As per the provisions of the PPA, the rate of supply is increased by 6% over the previous year. As such, the rate of supply of power would be Rs.2.92/ kWh during the months of April to October of FY 2005-06. Also, a component of Rs. 2 crores for payment of open access charges to HPSEB has to be paid.

The agreement with HPSEB was enacted on 13.02.2003. Subsequently w.e.f. 06.05.2004, the open access regulations for inter-state transmission were introduced in the entire country by CERC. The HPSEB insisted for absorption of the additional impact of the open access by DTL. However, DTL has indicated that it is agreeable only for a 50:50 ratio. A copy of the communication exchanged between HPSEB and DTL has been attached as **annexure 10**. The cost in this regard has been loaded to the cost of procuring power from HPSEB and the open access charges for HPSEB thus comes to Rs. 2 crores per annum. However, HPSEB's decision in this regard is still awaited. If HPSEB does not agree to DTL's proposition, then DTL would have no option but to agree for the

same as it cannot afford to loose this power in the absence of any other agreement to meet the peak hour shortage during summer months.

4.3.2 NJPC

The cost of energy @ Rs.2.35 / kWh is based on the provisional rates as decided in the NREB forum subject to adjustments as per CERC's notifications.

4.3.3 Badarpur TPS

The cost of power from Badarpur is charged on a provisional basis at the present single composite rate at Rs.2.47 per kWh for FY 2005-06, which is 5% higher than the FY 2004-05 rate. A petition by the BTPS for implementation of 2-part tariff is pending with CERC and any change in its tariff and its impact on DTL has to be incorporated through the truing up mechanism.

4.3.4 Pragati Power Company

For the period Oct '04 to March '05, PPCL charges have been taken on the basis of the tariff approved for the station by DERC. This is a two part tariff. The fixed cost has been taken to be half of Rs. 230.30 Crore for the period, which has changed from Rs. 222 Crore, and the variable cost has been taken to be Rs. 1.12/ kWh. For FY 2005-06 the fixed cost has been assumed to be Rs. 278.05 Crore and the variable Cost has been assumed to be Rs. 1.30/kWh. The basis for the assumption is the cost figure provided by Pragati Power Company for the forecast period.

4.3.5 Other Sources

The cost of power from other sources to meet the peak power requirement during winter months of FY 2004-05 has been estimated to be Rs. 2.82/ kWh based on the tendering process undertaken. Further, a sum of Rs. 15.24 crore has been estimated as Open Access Charges.

The cost of power from other sources to meet the peak power requirement during winter months of FY 2005-06 has been assumed to be Rs. 2.44/kWh for the morning hours and Rs. 3.14/kWh for the evening hours based on the anticipated market rate of energy. Further, a sum of Rs. 21.25 crore has been estimated as Open Access Charges.

4.4 Transmission Charges to Power Grid

The transmission wheeling charges payable to the Power Grid for the transmission of power from Central Generating Stations, are estimated based on the actual transmission charges paid to PGCIL from April 2004 to September 2004. These are based on the weighted average capacity allocation from the central stations to TRANSCO. The proportionate capacity charges are arrived on the annual fixed charges to be paid to Power Grid. The respective charges for:

FY 2004-05 : Rs. 159.23 crores

FY 2005-06 : Rs. 147.69 crores

The fixed and variable costs for purchase of power from Central Generating Stations and the transmission charges of PGCIL are subject to variation based on the tariff to be determined by CERC. The other wheeling charges are taken to be same as approved by the Hon'ble Commission in the Tariff order for FY 2004-05.

4.5 Other Wheeling Charges

In addition to the above TRANSCO has to pay to other agencies towards wheeling of power as the power flows through their system. These cost heads are shown below:

- Rental for Rothak Road Sub-station of BBMB @Rs.8.1 lakhs/month.
- Pooled losses for Rothak Road Sub-Station @ 10 lakh units per month for 12 months @BTPS rate of 247 Ps/kWh.
- UPPCL wheeling charges @1 Ps/unit for power wheeled through 220 kV BTPS Noida- Gazipur circuit @ 2.4 MUs per day
- Wheeling charges for Salal Power at 2.4 Ps/kWh for 377 MU payable to BBMB
- Wheeling charges to PGCIL for reimbursement to BBMB for Bairasuil Power (76 MU at 2.4 Ps / kWh)
- Wheeling charge in respect of Singrauli energy wheeled through Samaypur link @ 0.3 Ps/kWh

to be paid to BBMB for approx. 10% of Singrauli energy (1,183 MUs)

These other wheeling charges amount to Rs. 5.79 Crore for FY 2004-05 and Rs. 5.93 Crore for FY 2005-06.

The petitioner submits to the Honourable Commission to approve the amount to be paid under other wheeling charges.

4.6 Other Costs

4.6.1 Other charges and incentives

In addition to variable and fixed costs built into the tariff as discussed above, the Central Generating companies are claiming income tax and incentives from TRANSCO. In case of NTPC Plants, incentive has been calculated at the rate of 25 paise per unit produced at a PLF greater than 80% as per the norms notified by CERC on 21 March, 2004. The PLF for each plant has been assumed as approved in the Tariff Order for FY 2004-05 by the Hon'ble Commission. For NHPC plants, incentive has been calculated using the following formula as given in the above mentioned notification:

$$\text{Incentive} = 0.65 \times (\text{annual fixed cost}) \times (\text{weighted average capacity share of DTL}) \times [\text{Capacity Index}_{\text{achieved}} - \text{Capacity Index}_{\text{normative}}]$$

The Normative Capacity Index is 90% for all Run of the River hydel plants. The Achieved capacity Index for FY 2004-05 and FY 2005-06 has been taken to be same as the actual Capacity Index achieved by the plants during April - October 2004. The incentives are to be paid on the basis of capacity allocation on the same way as payment of fixed charges.

The incentive charges are thus estimated at Rs. 27.73 crores for the FY 2005-06. The details are mentioned in form 1.3b.

In order to arrive at the taxes, the per unit tax paid in the previous years has been taken as the base (**annexure 11**). Per unit tax paid has been calculated for each generating plant and the amount for 2005-06 has been arrived at based on the units purchased. The tax payable to PGCIL is based on the weighted average share of DTL in PGCIL's transmission capacity and the total tax claimed by PGCIL for the first 3 quarters of FY 2003-04. The tax payable to each plant has been

calculated as:

Table 16: Details of the assumptions for tax calculation

Plant	Tax rate (Rs. per kWh)	Basis of Calculation- Actual claim made during:
Singrauli	0.05	April '04 to September '04
Anta	0.03	April '04 to September '04
Rihand	0.11	April '04 to September '04
Auriya	0.04	April '04 to September '04
Dadri (Gas)	0.07	April '04 to September '04
Unchahar-I	0.05	April '04 to September '04
Dadri (Thermal)	0.02	April '04 to September '04
Baira- Suil	0.01	FY 2003-04
Salal	0.01	FY 2003-04
Tanakpur	0.02	FY 2003-04
Chimera I	0.06	FY 2003-04
Uri	0.04	FY 2003-04
Napp	0.09	FY 2002-03

On this basis the tax has been estimated to be Rs. 40 Crore for FY 2004-05 and Rs. 37 Crore for FY 2005-06.

4.6.2 Charges to RLDC

The charges reimbursable to NRLDC for the year 2005-06 by TRANSCO are estimated at Rs. 1.28 crores. These charges are based on the actual amounts paid from April 2004 to September 2004.

4.6.3 ULDC Charges

An amount of Rs.16.34 crores is estimated to be paid to PGCIL during FY 2005-06 towards fixed charges for ULDC. The estimation is based on the actual expenditure for six months from April 04 to September 04 towards ULDC for FY 2004-05.

4.7 Aggregate Procurement Costs

Based on the above and the quantum of energy to be purchased from each station / source and the applicable fixed, variable costs and other costs, the total cost of power procurement for FY 2005-06 are given below:

Table 17: Projected Power Purchase Costs for FY 2005- 06

Source	Purchase (MUs)	Cost (Rs. Cr)	Rs./ Kwh
CGS Stations	10643	2150	2.02
GENCO	3130	842	2.69
PPCL	2245	570	2.54
BTPS	4972	1227	2.47
HPSEB	1383	404	2.92
Other sources	646	180	2.79
Total purchase	23019	5373	2.33
UI purchase / (sale)	(292)	(61)	2.10
Other Sales	0	0	
Net Purchase	22727	5312	2.34
Transmission Charges		148	
Other Wheeling Charges		7	
RLDC Costs		1	
ULDC Costs		16	
Taxes		37	
Incentives		27	
Open Access Charges		21	
Total	22727	5569	2.45

For FY 2004-05, the energy purchased and the respective costs are as given below:

Table 18: Energy Purchase Costs for FY 2004- 05

	FY 2004-05 (Actual)	FY 2004-05 (Est.)	FY 2004-05

	(Apr '04 - Sept '04)			(Oct '04- Mar '05)					
Source	Units (MUs)	Cost (Rs. Crore)	Rs./ kWh	Units (MUs)	Cost (Rs. Crore)	Rs./ kWh	Units (MUs)	Cost (Rs. Crore)	Rs./ kWh
CGS Stations	6,986	1,354	1.94	4,891	964	1.97	11,877	2,317	1.95
GENCO	1,405	294	2.09	1,240	275	2.22	2,645	569	2.15
PPCL	1,226	246	2.00	1,004	229	2.28	2,230	474	2.13
BTPS	2,581	606	2.35	2,270	533	2.35	4,851	1,139	2.35
HPSEB	1,052	290	2.76	74	22	2.92	1,126	312	2.77
Other sources	0	0		587	166	2.82	587	166	2.82
Total purchase	13,250	2,789	2.10	10,066	2,188	2.17	23,316	4,977	2.13
UI purchase / (sale)	-1,306	-438	3.35	54	11	2.10	-1,252	-426	3.40
Other Sales	0	0		-182	-46	2.55	-182	-46	2.55
Net Purchase	11,944	2,351	1.97	9,938	2,153	2.17	21,882	4,505	2.06
Transmission Charges		87			73			159	
Other Wheeling Charges		0			7			7	
RLDC Costs		1			1			1	
ULDC Costs		8			8			16	
Taxes		20			20			40	
Incentives		16			19			35	
Open Access Charges		0			15			15	
Total	11,944	2,483	2.08	9,938	2,295	2.31	21,882	4,778	2.18

The UI rate has been higher in the first six months of FY 2004-05 due to delayed monsoon and increase in agricultural demand from Punjab, Haryana and UP (the main agricultural states). Hence, FY 2004-05 was an exceptional year in terms of higher revenue accruals on account of UI. However, the same may not be a benchmark for future years and hence, the unit sale price on account of UI has been taken on a lower side for the projection period.

For FY 2005-06, while the excess supply of energy has been assumed to be sold through UI mechanism, TRANSCO proposes to arrange bilateral arrangements and/ or sale to other states through firm PPAs before considering the option of UI.

5 OTHER EXPENSES

5.1 Capital Works in Progress

The petitioner envisages new investment of Rs 250 crores through planned loans from the State Government in the FY 2005-06 for capital expenditure in 220 kV substation constructions I & II, 400 kV substation and 400 kV and 220 kV lines. The detailed scheme wise proposed capital expenditure is attached as **annexure 12**.

An amount of Rs 151.49 crores is proposed to be capitalized in the FY2004-05 and Rs. 97.46 crores is proposed to be capitalized in FY 2005-06. The details of the CWIP are given in Forms 1.1e & 1.1e3. For the FY 2004-05, the amount capitalized is Rs. 151.49 crores.

The Hon'ble Commission may kindly approve Rs 97.46 crores as the amount to be capitalized for the FY 2005-06 on the basis of works proposed to be completed during FY 2005-06.

Table 19: Expenses capitalized during FY 2005- 06

	(in Rs. Crores)	
	Current Year FY 2004-05	Ensuing Year FY 2005-06
Opening Balance	232.59	216.10
Add: New Investment	135.00	250.00
Less: Investment Capitalised	151.49	97.46
Closing Balance	216.10	368.64

5.2 Depreciation

The Commission has allowed depreciation @ 3.75% on straight line method on the gross value of the fixed assets in the earlier order. The petitioner has estimated the same rate of depreciation in its petition for the FY 2005-06.

The gross fixed assets, at the beginning of the FY 2005-06 works out to be 891.34, after asset capitalization of Rs. 151.49 in the FY 2004-05 and purchase of vehicles, office equipment &

furnitures to the tune of Rs. 0.35 crores in the FY 2004-05. (Refer Form 1.1a). The depreciation for FY 2005-06 based on the above is estimated at Rs. 33.43 crore. The accumulated depreciation at the end of FY 2005-06 works out to be Rs. 279.27 crores (Refer form 1.1 b). The Hon'ble Commission may kindly approve the same.

5.3 Repairs and Maintenance (R&M) Expenses

The actual expenses towards Repairs & Maintenance (R&M) from April-September 2004 are given below along with the estimates for the next 6 months viz., October 2004 to March 2005 and for the 12 month period in FY 2005-06. The Hon'ble Commission had approved Rs 16.82 crores as R&M expenses for the FY 2004-05. The petitioner has incurred an expenditure of Rs 6.04 crores for the period April-Sept 04 and envisages incurring Rs 7.37 crores for the period Oct-March 05. A growth rate of 10%, as approved by the Hon'ble Commission in its previous order, has been applied to each of the components of the estimated R&M expenses for 2004-05 and accordingly the R&M expenses for FY 2005-06 are determined. As per the plans of the TRANSCO, major overhauling of transformers, breakers etc. is proposed in the FY 2005-06, and hence an additional R&M expense to the tune of Rs. 5 crores is envisaged in the Plant & Machinery head, for the FY 2005-06.

The R&M expenses for FY 2005-06 is estimated at Rs. 19.75 crores, which may kindly be approved by the Hon'ble Commission. (Refer form 1.3 e)

Table 20: R&M Expenses

Particulars	Actual FY 2003- 04	(in Rs. Crores) Current Year FY 2004-05			FY 2005-06
		Actual April- Sep	Estimated Oct- Mar	Total	
Land and rights	-	-	-	-	-
Buildings	4.09	2.05	2.25	4.30	4.73
Other civil works	-	0.02	0.03	0.05	0.06
Plant & machinery	4.47	3.24	3.56	6.79	12.47

Lines and cable (included in 4 above)	-	-	-	-	-
Vehicles	0.15	0.05	0.11	0.17	0.18
Furniture fixtures	0.61	-	0.67	0.67	0.74
Office equipment & others	-	0.68	0.75	1.43	1.58
Other items	-	0.00	0.00	0.00	0.00
Total	9.32	6.04	7.37	13.41	19.75

5.4 Employee Cost

TRANSCO is maintaining the employee costs component wise for all employees. The actual employee costs from April 2004 to September 2004 are given below along with the estimates for the next 6 months viz., October 2004 to March 2005 and for the 12 month period in FY 2005-06. A growth rate of 10% has been applied to the estimated employee costs in FY 2004-05 to project the employee costs for FY 2005-06. The 10% increase is projected to meet normal annual increments, fitment benefit to promoted employees and sanction of additional dearness allowance every year.

As per the accepted norms generally adopted, about 13% to 15% of the employees cost is capitalized. The employee cost capitalization rate for the year 2004-05 and for 2005-06 has been assumed to be 15% in line with the previous order of the Hon'ble Commission. Based on the above, the employee cost for FY 2005-06 is estimated at Rs. 53.13 crores before capitalization and Rs. 43.81 crores after capitalization.

It is requested that the Hon'ble Commission may kindly approve the net employees cost of Rs. 53.13 crores for the year 2005-06. The details of employee costs are furnished in Form 1.3c & Form 1.3c-1.

Table 21: Employee costs

Particulars (in Rs.)	Actual FY	Current Year FY 2004-05	FY
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Crore)	2003-04	Actual April- Sep	Estimated Oct- Mar	Total	2005- 06
Salaries	17.62	12.87	13.51	26.38	29.02
Overtime	2.99	1.86	1.95	3.81	4.19
Dearness Allowance	9.81	1.48	1.55	3.03	3.34
Other Allowances	7.20	4.85	5.09	9.94	10.94
Bonus/Ex-gratia	0.85	-	0.45	0.45	0.50
Staff Welfare Expenses	-	-	-	-	-
Adhoc payment on corporatisation	Included in 4 above				
Terminal benefits	4.76	1.34	1.41	2.75	3.02
Other Staff Costs	2.02	0.94	0.99	1.93	2.12
- Medical Expenses Reimbursement	1.62	0.72	0.76	1.48	1.62
- Leave Travel Assistance	0.11	0.07	0.07	0.14	0.16
- Earned Leave Encashment	-	-	-	-	-
- Leave Salary Contribution Deputationist	0.03	0.03	0.03	0.06	0.07
- Payment under Workmens Compensation Act	-	-	-	-	-
- others	0.26	0.12	0.13	0.25	0.27
Total	45.25	23.34	24.96	48.3	53.13
Less expenses capitalized	12.10	3.50	3.74	7.24	7.97
Less to be realized from DPCL	1.24	0.60	0.63	1.23	1.35

Total	31.91	19.24	20.58	39.82	43.81
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5.5 Administration and General Expenses

The Administration & General (A&G) expenses as per actuals from April 2004 to September 2004 are given below along with the estimates for the next 6 months viz., October 2004 to March 2005 and for the 12 month period in FY 2005-06. A growth rate of approximately 10% has been applied to the estimated A&G expenses for FY 2004-05 to project the A&G Expenses for FY 2005-06 in line with the previous order of the Hon'ble Commission.

As in the case of employees cost 15% of the expenditure under administrative and general charges is proposed for capitalization.

It may be mentioned here that the rebate given to DISCOMs on Sale of Energy has not been accounted in the A&G expenses and it is shown separately in the overall expenditure as other expenses. A copy of the details of rebate given to each of the DISCOMs.

Based on the above, the A&G expenses for 2005-06 is estimated at Rs. 16.11 crores before capitalization and Rs. 13.70 crores after capitalization. (Refer form 1.3 d)

The petitioner respectfully requests the Hon'ble Commission to approve the net A&G expenses of Rs. 16.11 crores for the year 2005-06.

Table 22: Administrative and General Expenses

Particulars (in Rs. Crore)	Actual FY 03-04	Current Year FY 2004-05			FY 2005-06
		Actual April- Sep	Estd Oct-Mar	Total	
Rent, Rates & Taxes	0.78	0.02	0.83	0.85	0.94
Insurance	0.01	-	0.01	0.01	0.01
Telephone Charges, Postages, Telegrams and	0.82	0.45	0.47	0.92	1.01

Telex Charges					
Consultancy Fees	0.51	0.32	0.34	0.66	0.73
Technical Fees	-	-	-	-	-
Other Professional Charges	0.66	0.47	0.49	0.96	1.06
Contribution to corpus fund of Northern region power tariff Board	-	-	-	-	-
Bijlee card	-	-	-	-	-
Conveyance and Travelling	1.35	0.66	0.69	1.35	1.49
Freight	-	-	-	-	-
Other Expenses	8.35	4.82	5.06	9.89	10.88
- Electricity & Water Charges	1.81	2.35	2.47	4.82	5.30
- Other material related expenses	0.37	1.24	1.31	2.55	2.80
- Others	6.17	1.23	1.29	2.52	2.77
Total expenses	12.47	6.75	7.90	14.65	16.11
<i>Less capitalized</i>	-	1.01	1.19	2.20	2.42
Total	12.47	5.73	6.72	12.45	13.70

5.6 Other Admissible Expenses

The actual figures claimed as rebate by the three DISCOMs for the months July to September 2004-05 have increased as per the tariff order dated 9 June, 2004. The projections of per month rebate for the next six months of FY 2004-05 is based on the average of the rebates claimed in July to September 2004-05. The rebates

estimated for FY 2005-06 have been calculated assuming 10% escalation on the average per month rebate assumed for the period October to March 2004-05. The rebate estimated to be claimed for FY 2005-06 is Rs. 22.66 Crore. Actual data from April '04 to Sept '04 attached as *annexure 13*.

Processing fee is to be paid to the DERC / CERC in respect of Power Purchase Agreements (PPAs), Tariff Filing and other petitions. These amounts are estimated at Rs. 0.75 Crore for FY 2004-05 and Rs. 0.75 Crore for FY 2005-06.

The petitioner requests the Commission to kindly approve an amount of Rs. 23.41 crores as expense for FY 2005-06.

5.7 Interest and Finance Charges

5.7.1 Domestic Loans And Debentures

As per the Transfer Scheme the outstanding loans are taken to the account of Holding company and the loan is apportioned to successor entities. The share of TRANSCO is indicated as Rs. 270 crores. The loan is to be paid within a period of 13 years with 12% interest per annum with a moratorium for four years for payment of interest and principal repayment. Further, a loan of Rs 180 crores has been taken from the holding company in FY 2004-05, out of which Rs 130 crores has been paid back in FY 2004-05. Balance remaining is Rs. 50 crore on which interest is payable.

The interest on the above loans of the holding company has been computed as Rs 7.38 crores for the year 2004-05 and Rs 5.50 crores for the year FY 2005-06.

Regarding the loans availed from GNCTD, as per the policy directions of GNCTD in the transfer scheme, an amount of Rs. 3,452 crores has been allotted to DTL for the purpose of meeting its revenue gap. Out of this amount DTL would have claimed Rs. 3,314 crores at the end of FY 2004-05. Balance of Rs 138 crores would be availed in the FY 2005-06. The detailed terms of the loan including the rate of interest are yet to be negotiated and have therefore not been included in estimation of annual interest charges although, there is a possibility of such liabilities to arise in future once GNCTD finalize the terms and conditions for the Government assistance.

Other than these, TRANSCO has also taken loans from GNCTD as planned funds for capital expenditure. The total outstanding at the end of FY 2004-05 would be Rs. 250 crores and at the end of FY 2005-06 would be Rs. 482 crores. The interest on the above mentioned loans from GNCTD for planned assistance works out to Rs. 14.60 crores in FY 2004-05 and Rs. 29.13 crores in FY 2005-06. (Refer form 1.1f)

Out of the above mentioned interest amount, the interest expense capitalized works out to be Rs. 16.01 crores for the FY 2004-05 and Rs. 6.83 crores for the FY 2005-06. Thus the net interest after capitalization works out to be Rs. 5.97 crores for the FY 2004-05 and Rs. 27.80 crores for the FY 2005-06. The Hon'ble Commission may kindly approve the same.

Table 23: Details of Loan and Interest

(in Rs. crore)	FY 2004-05		FY 2005-06	
	Closing Balance	Interest Amount	Closing Balance	Interest Amount
Transfer Scheme loan from GNCTD	3314	-	3452	-
Loan from planned funds from GNCTD	249.56	14.60	482.22	29.13
Holding Company Loan	320	7.38	320	5.50
Total	3883.56	21.98	4254.22	34.63
Interest Capitalized		16.01		6.83
Net Interest		5.97		27.80

5.7.2 Holding Cost of regulatory Assets

As ordered by the Hon'ble Commission in its review order the cost of holding the regulatory has been calculated based on the weighted average cost of capital for TRANSCO, which works out to

be 11%. Hence, the overall cost of carrying the regulatory asset has been assumed to be Rs. 11 crores for the regulatory asset of Rs. 100 crores for FY 2004-05. The regulatory asset is assumed to be amortized in FY 2005-06. Hence, the carrying cost of the same is taken to be zero for FY 2005-06.

5.7.3 Foreign Loans and Debentures

The information on Foreign Loan for the FY 2004-05 and FY 2005-06 is shown as nil as no such loans are proposed to be taken by TRANSCO.

5.7.4 Sale and Lease Back of Assets

There are no assets on this account for the FY 2004-05 and FY 2005-06.

5.8 Special Appropriations - Contingency Reserve

Para 4 of Sixth Schedule stipulated a minimum of 0.25 % of the original cost of the fixed assets and the contingency reserve requirement, which works out to Rs.2.22 crores on the opening balance of original cost of fixed assets of Rs. 891.34 crores for the FY 2005-06. The petitioner requests that the Hon'ble Commission may kindly approve Rs. 2.23 crores towards contingency reserve for the year 2005-06.

5.9 Reasonable Return

The Hon'ble Commission has considered the return on Capital Base for TRANSCO in accordance with Sixth Schedule of Electricity Supply Act 1948 and allowed a reasonable return on the capital base @ 16% per annum.

On the above basis, Return on Capital base of Rs. 290.55 crores in FY 2005-06 has been computed as Rs. 46.49 crores and the details are given in the Table below. The petitioner requests the Hon'ble Commission to approve an amount of Rs. 48.79 for FY 2004-05 and Rs. 46.49 for FY 2005-06. (Refer form 1.1).

Table 24: Return on capital Base

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Heads (in Rs. Crore)	End of FY 04-05	End of FY 05-06
Original cost of fixed assets (excluding consumers contributions)	891.34	985.69
The original costs of works in progress	216.10	368.64
Average cost of stores	7.00	7.70
Average cash and bank balance	9.00	9.90
<i>Sub- total of positive elements of Capital Base</i>	1123.43	1371.92
The amounts written off or set aside on account of depreciation of fixed/intangible assets	248.96	279.16
The amount of loan from State Government	249.56	482.22
The amount of any loans borrowed from organisations or institutions approved by the State Govt.(Holding Company)	320.00	320.00
<i>Sub-total of negative elements of Capital Base</i>	818.52	1081.38
Net Capital Base	304.91	290.55
Return on Cap Base @ 16%	48.79	46.49

5.10 Revenue from Non Tariff Income

Besides revenues from sale of power, non-tariff income aggregating Rs. 86.05 crores is expected in FY 2004-05 and Rs. 86.46 crores in FY 2005-06. (Form 1.4)

Non-tariff income comprises the following:

- Rebate from early payment of power purchase bills under one time settlement scheme (***annexure 14***)
- Interest on FDs etc
- Meter / other equipment rent

Table 25: Non tariff income

Particulars (in Rs. Crore)	Current year FY 2004-05			Ensuing year FY 2005-06
	Actual April-Sep	Estimated Oct- Mar	Total 12 months	
Rental of meters and other apparatus hired to consumers	0.03	0.03	0.07	0.07
Investments, fixed and call deposits and bank balances	1.41	2.60	4.01	4.41
Rebate under one time settlement scheme	40.99	40.99	81.97	81.97
Total	42.43	43.62	86.05	86.46

5.11 Aggregate Expenses for FY 2004-05 and FY 2005-06

The summary of the estimated expenses of DTL for FY 2004-05 and FY2005-06 is given in the Table below.

Table 26: Aggregate Expenses

(in Rs. Crore)			
Sl.No.	Description	2004-05	2005-06
I	Expenditure		
1	Purchase of energy	4778.13	5569.40
2	Employees costs	39.82	43.81
3	Administration and General Expenses	12.45	13.70
4	Repairs and Maintenance	13.41	19.75
5	Interest on loans from sources approved by the Government	5.97	27.80
6	Legal charges	Included in 3	Included in 3
7	Auditors fees	Included in 3	Included in 3

8	Depreciation	27.73	33.31
9	Processing fee for the Commission	0.75	0.75
10	Rebate to DISCOMs on sale of power	17.68	22.66
11	Holding cost of the regulatory assets	11.00	0.00
II	Reasonable Return	48.79	46.49
III	Other exp. (contingency reserve)	1.85	2.22
	Total Expenditure (I+II+III)	4957.58	5779.88

5.12 Estimated revenue and truing up for FY 2004-05

The estimated revenue at the existing tariffs and the net truing up required has been presented in the table below. In order to calculate the total estimated revenue for FY 2004-05, the actual revenues for the first six months and the estimated revenues for the next six months are estimated based on the demand forecast of the various licensees for FY 2004-05 have been taken.

Apart from the estimated expenditure and revenues, the truing up also involves the issue of past DVB arrears. The bulk supply tariffs for FY 2003-04 and for FY 2004-05 have been determined by the Hon'ble Commission after assuming additional revenue from the holding company (GNCTD) of Rs. 210 crores in FY 2003-04 and Rs. 103 crores in FY 2004-05 on account of the collection of the DVB period arrears by the DISCOMs being repatriated by the Holding Company to DTL. This revenue, however, was not repatriated by GNCTD to the Holding Company during FY 2003-04 and FY 2004-05 and thus have not been received by us.

The GNCTD vide its letter No. F.11(99)/2001/Power/Pt.1/2144 Dated August 12, 2004 (**annexure 15**) has reiterated that the assumption of passing Rs. 210 crores in the FY 2003-04 and Rs. 103 crore in the FY 2004-05 to TRANSCO on account of DVB arrears is not in line with the transfer scheme and the Transfer scheme should not be disturbed. It is further submitted that out of the total support of Rs. 690 crore for FY 2004-05, TRANSCO shall receive only Rs. 480 crore because Rs. 210 crore given by GNCTD in FY 2003-04 has been adjusted on this account.

The Hon'ble commission may kindly consider Rs. 210 Crore as a revenue requirement of TRANSCO while truing up for FY 2004-05. For FY 2004-05, Rs. 103 Crore has also not been received by TRANSCO from the holding company and hence has not been assumed to be a revenue stream while estimating the extent of truing up.

Further, the Hon'ble Commission had allowed Rs. 55 crore of revenue gap in FY 2003-04 as truing up in FY 2004-05. Hence, it has been taken as a revenue requirement.

Table 27: Truing up for FY 2004-05

Description	Rs. crores
Net Revenue Requirement	4958
Truing up as approved by DERC for FY 2003-04	55
Past DVB arrears for the FY 2003-04	210
Total Revenue Requirement	5223
<i>Actual Revenue from sale of power (Apr '04 - Sept '04)</i>	<i>2115</i>
<i>Estimated Revenue from sale of power (Oct'04 - Mar'05)</i>	<i>1888</i>
Total Revenue from Sale of Power	4003
Non- tariff income	86
Govt. Support	690
Regulatory asset	100
Total Revenue Flow	4879
Truing up required	344

The Hon'ble Commission may kindly approve the truing up of Rs. 344 crores for FY 2004-05 to while determining the ARR of DTL for FY 2005-06.

6 REVENUE PROJECTIONS FOR FY 2005-06

6.1 Tariff

6.1.1 Distribution Companies

Prevailing Bulk supply tariff to DISCOMS is as under

BSES Yamuna Power Limited (BYPL)	-	Ps. 156.47 / kWh
BSES Rajdhani Power Limited (BRPL)	-	Ps. 207.78 / kWh
North Delhi Power Limited (NDPL)	-	Ps. 211.56 / kWh

6.1.2 NDMC and MES

NDMC and MES are deemed licensees in their respective areas. TRANSCO has the responsibility of supplying bulk power to NDMC and MES for further distribution to the consumers in their respective areas. NDMC/ MES are being supplied electricity at 66 kV, 33 kV and 11 kV levels.

It is necessary to fix a separate tariff for NDMC and MES as these two licensees are not governed by the transfer scheme and Government policy directions on restructuring. The Hon'ble Commission had fixed a uniform rate of Rs. 2.57/kVAh for these two utilities in its order No.2/2002 dated 31st May 2002.

6.2 Revenue from Sale of Power at Prevailing Tariff

Based on the demand projections prepared as explained earlier, the energy expected to be procured in FY 2005-06 has been computed. The energy available for sale to the DISCOMS and MES, NDMC has been estimated after accounting for transmission losses within the TRANSCO system. This energy available for sale has been apportioned to the various DISCOMS, MES and NDMC based on the demand as projected by them and submitted to TRANSCO. The proportion of energy sale is as given under:

Table 28: Proportion of energy sale for FY 2005-06

Licensee	% sale
BYPL	26.37%
BRPL	41.61%
NDPL	25.48%
NDMC	5.28%
MES	1.26%

Considering the aforesaid quantity of energy sold to each of the Discoms and other licensees, the expected revenue of TRANSCO at the existing Bulk Supply Tariff in the ensuing year is as under:

6.2.1 Revenue from DISCOMs

Table 29: Revenues from DISCOMs

Company	Energy (MUs)		Tariff (Ps./kWh)		Revenue (Rs. Cr)	
	FY 2004-05	FY 2005-06	FY 2004-05	FY 2005-06	FY 2004-05	FY 2005-06
BYPL	5,466	5,730	156.47	156.47	817	897
BRPL	8,657	9,040	207.78	207.78	1,705	1,878
NDPL	5,529	5,535	211.56	211.56	1,100	1,171
Total	19,652	20,305			3,622	3,946

* Tariff applicable after 19th June 2004

6.2.2 Revenue from NDMC and MES

Table 30: Revenues from NDMC and MES

Company	Energy (MkVAh)		Tariff (Ps./ kVAh)		Revenue (Rs. Cr)	
	FY 2004-05	FY 2005-06	FY 2004-05	FY 2005-06	FY 2004-05	FY 2005-06
NDMC	1,226	1,276	257	257	314	328
MES	263	304	257	257	67	78
Total	1,489	1,580			381	406

6.2.3 Total Revenue from Sale of Power

Table 31: Total revenue from sale of power at existing tariffs

Company (in Rs. Crore)	Revenue	
	FY 2004-05	FY 2005-06
The three DISCOMs	3,622	3,946
NDMC and MES	381	406
Total	4,003	4,352

6.3 The Annual Revenue Requirement for FY 2005-06

The Annual Revenue Requirement for FY 2005-06 consists of the power purchase costs as mentioned in Chapter 4 and other expenses as mentioned in Chapter 5. Besides these, it also includes the following:

- Based on the tariff determined by the Commission for FY 2004-05, a revenue gap of Rs. 344 crores is estimated. This amount needs truing up in FY 2005-06.
- A sum of Rs. 100 crores receivable in FY 2004-05 was amortised as Regulatory Assets. The entire amount may kindly be amortised in FY 2005-06.
- The GNCTD support for FY 2005-06 as specified in the transfer scheme amounts to Rs. 138 crores.

Table 32: Total revenue requirement for FY 2005-06

S.No	Head	Rs.Crore
Expenditure		
1	Total Expenditure	5,780
2	Truing up on account of FY2004-05	344
3	Amortisation of regulatory Assets	100
	TOTAL	6,224
4	Non-tariff Income	86
Annual Revenue Requirement		6,138
Revenues		

1	Assistance from GNCTD	138
2	Revenue from sale of power at existing tariff	4,352
	TOTAL	4,490
	NET REVENUE GAP	1,648
	Sale of energy for FY05-06 (in MUs)	21,806
	Average Cost of supply (Rs./kWh)*	2.75

**Cost = (ARR - Govt. Assistance) / Sale of Energy*

6.4 Need for Revision in the Bulk Supply Tariff

The petitioner wishes to submit that TRANSCO will not been able to manage its finances in the FY 2005-06 in view of the low bulk supply tariff and high power purchase costs, which will put substantial strain on TRANSCO's finances.

Considering the above submission, in order to meet the shortfall of Rs. 1648 crore, a revision in the Bulk Supply Tariff is required.

7 SEPARATION OF THE FINANCIALS OF TRANSCO INTO VARIOUS FUNCTIONS

The financials of TRANSCO have been split into the functions:

- The function of energy purchase and sale thereof
- The Transmission function
- The function of operating SLDC

The rationale for splitting the financials of TRANSCO into the above functions is the fact that EA '03 clearly identifies the separation of the above functions into different entities.

Table 33: Break up of Expenditure into different functions

Expenditure (in Rs. Crore)	SLDC	Transmission	Sale/ Purchase	Total
Purchase of Energy	16	0	5553	5569
Salaries and wages	3	40	0	44
Administration & General Expenditure	1	12	0	14
Repair & Maintenance Expenditure	2	18	0	20
Interest on loans	1	21	6	28
Depreciation	1	32	0	33
Rebate to DISCOMs	0	0	23	23
Other Charges	0	3	0	3
Reasonable Return	1	46	0	46
NET EXPENDITURE	26	173	5581	5780
Opening Assets	24	865	0	888
Opening Loans	13	237	3634	3884

The Power purchase cost of Rs. 16 Crore has been allocated to SLDC on account of ULDC Charges. An asset base of Rs. 24 Crore for SLDC has been sourced from the Fixed Asset Register. The balance has been retained in the Transmission function. The interest expense of Rs. 1 crore to SLDC and Rs. 21 crore to the transmission function has been on account of the loans to finance capital expenditure. The interest of Rs. 6 crore towards the purchase and sale of power is on account of Rs. 50 crore loan taken in FY 2004-05 from the Holding Company. The total expenditure for the different functions along with the Opening assets and loans has been presented in the Table above

The net cost on account of the different functions for FY 2005-06 can be inferred from the Table presented below:

Table 34: The average cost on account of different functions

Expenditure	SLDC	Transmission	Sale/ Purchase	Total
Net Expenditure (Rs. Crore)	26	173	5581	5780
Truing up of 2004-05 (Rs. Crore)	0	0	344	344
Amortisation of Regulatory Assets (Rs. Crore)	0	0	100	100
<i>Less: Non Tariff Income</i> (Rs. Crore)	0	4	82	86
ARR (Rs. Crore)	26	169	5943	6138
No of units sold (in MUs)	21805	21805	21805	21805
Cost per unit (Rs./kWh)	0.012	0.080	2.660	2.752
Govt. Assistance (Rs. Crore)	0	0	138	138
Tariffs (Rs. Crore)	26	169	4157	4352
Net Revenue Gap (Rs. Crore)	0	0	1648	1648

It can be inferred from the above Table that the unit cost of power supply on account of the

different functions is approx 1.2 Ps/kWh sold for the SLDC function, 7.7 Ps/kWh for the Transmission function and 256.9 Ps/kWh for the function of purchase and sale of power thereof.

[1][1] Source -
<http://www.nreb.nic.in>

[2][2] Source: www.nrldc.org