

Table of Contents

1	<i>Background.....</i>	3
1.1	Delhi Transco Limited	3
1.2	Transfer Scheme.....	3
1.3	Enactment of Electricity Act, 2003	3
1.4	About the Commission.....	4
1.5	Constitution of Coordination Forum	6
1.6	Process of Tariff Determination - ARR & Tariff filing for FY 2006-07.....	9
1.7	Summary of the Petition.....	11
1.8	Court Order	12
1.9	Layout of this Order	12
2	<i>Response from stakeholders</i>	13
2.1	Power Purchase	13
2.2	Transmission Loss.....	15
2.3	DVB Arrears	16
2.4	Expenses.....	17
2.5	Interest and Finance Charges	18
2.6	Reasonable Return	19
2.7	Revenue.....	20
2.8	UI Purchases and Peak Purchase Rates	21
2.9	Metering of bulk Supply to Licensees.....	22
2.10	Incentives	23
2.11	Income Tax.....	23
2.12	Miscellaneous Issues	24
3	<i>Analysis of Annual Revenue Requirement</i>	25
3.1	Power Purchase Quantum and Costs	27
3.2	Power Purchase Costs	27
3.3	Employee Expenses	53
3.4	Administrative and General Expense (A&G).....	56
3.5	Other Admissible Expenses	57
3.6	Repairs and Maintenance (R&M)	58
3.7	Investments	59
3.8	Asset Capitalisation.....	62
3.9	Depreciation	63
3.10	Means of Finance	67
3.11	Transitional Loan Support.....	68
3.12	Interest and Finance Charges.....	69
3.13	Contingency Reserve.....	71
3.14	Taxes on Income and Fringe Benefit Tax.....	72
3.15	Reasonable Return.....	73
3.16	Total Expenditure	75
3.17	Non Tariff Income (NTI).....	76
3.18	Summary of Truing up Expenses for FY 2004-05	76
3.19	Revenue Requirement	78
4	<i>Treatment of Revenue Gap/Surplus and Bulk Supply Tariff Design</i>	82
4.1	Introduction	82
4.2	Order of Appellate Tribunal for Electricity.....	83
4.3	Order of the Hon'ble Supreme Court	83
4.4	Revenue Gap/Surplus at existing tariff	84
4.5	Overall Sector Gap/Surplus for FY 2006-07.....	86
4.6	Approved Bulk Supply Tariff for FY 2006-07.....	89
5	<i>Directives.....</i>	91

5.1	Introduction	91
5.2	Investments and Monitoring of Investments	91
5.3	R&M Works.....	92
5.4	A&G Expenses.....	93
5.5	Optimisation of energy balance.....	93
5.6	Cost Audit	94
5.7	List of new directives	94

1 Background

1.1 Delhi Transco Limited

The Delhi Transco Limited (hereinafter referred to as 'TRANSCO') is a company incorporated under the Companies Act, 1956 which is entrusted with the business of procurement, transmission and bulk supply of electrical energy within the geographic area in National Capital Territory of Delhi. Further, the function of State Transmission Utility (STU) has also been assigned to TRANSCO.

1.2 Transfer Scheme

Pursuant to the provisions of the Delhi Electricity Reform Act, 2000 (hereinafter referred to as 'DERA') the Government of National Capital Territory of Delhi (hereinafter referred to as 'GNCTD' or 'Government') notified the Delhi Electricity Reform (Transfer Scheme) Rules, 2001 (hereinafter referred to as 'Transfer Scheme') on November 20, 2001. The Transfer Scheme provided for unbundling of the functions of Delhi Vidyut Board (hereinafter referred to as "DVB") and the transfer of existing transmission assets of DVB to Delhi Transco Limited (formerly known as Delhi Power Supply Company Limited and hereinafter referred to as 'TRANSCO'). Further the existing distribution assets of DVB were transferred to three Distribution Companies (hereinafter collectively referred to as 'DISCOMs'). Apart from this, the assets, liabilities, rights and interest of DVB in generation projects were assigned to Indraprastha Power Generation Company Limited (IPGCL) and Pragati Power Corporation Limited (PPCL).

1.3 Enactment of Electricity Act, 2003

The Electricity Act, 2003 (hereinafter referred to as 'EA 2003'), enacted in June 2003 repealed the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. It provides for increased competition in the sector by facilitating open access (permission to use the existing power transfer facilities) for transmission and distribution, power trading, and also allows setting up of captive power plants without any restriction. Further Section 86 (1) (a) of the EA 2003

vests the responsibility of determination of tariff with the Commission – the relevant portion of this Section is as follows:

“The State Commission shall discharge the following function namely –

(a) determine the tariff for generation, supply, transmission and wheeling of electricity, whole sale, bulk or retail, as the case may be within the State: ...”.

Procedure envisaged in the EA 2003 for Tariff Order

Section 64 of the EA 2003 specifies the procedure to be followed for issuance of a tariff order. Sub-sections (1) and (3) of this Section of EA 2003 state as follows:

Sub-section (1): *“An application for determination of tariff under section 62 shall be made by a generating company or licensee in such manner and accompanied by such fee, as may be determined by regulations”.*

Subsection (3): *“The Appropriate Commission, shall within one hundred and twenty days from receipt of an application under sub-section (1) and after considering all suggestions and objections received from the public-*

(a) issue a tariff order accepting the application with such modifications or such conditions as may be specified in that order;

(b) reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of this Act and the rules and regulations made thereunder or the provisions of any other law for the time being in force:

PROVIDED that an applicant shall be given a reasonable opportunity of being heard before rejecting his application.”

1.4 About the Commission

The Delhi Electricity Regulatory Commission (hereinafter referred to as ‘Commission’) was constituted by the Government on March 3, 1999 and it became operational from December 10, 1999. In the journey from inception till date, the Commission has issued twenty (20) Tariff Orders and notified thirteen (13) Regulations apart from discharging its other statutory functions.

1.4.1 Functions of the Commission

Major functions assigned to the Commission under the DERA are as follows:

- to determine the tariff for electricity, wholesale, bulk, grid or retail and for the use of the transmission facilities
- to regulate power purchase, transmission, distribution, sale and supply of electricity
- to promote competition, efficiency and economy in the activities of the electricity industry in the National Capital Territory of Delhi
- to aid and advise the Government on power policy
- to collect and publish data and forecasts
- to regulate the assets and properties so as to safeguard the public interest
- to issue licenses for transmission, bulk supply, distribution or supply of electricity
- to regulate the working of the licensees
- to adjudicate upon the disputes and differences between licensees

Major functions assigned to the Commission under the EA 2003 are as follows:

- determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State;
- regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
- facilitate intra-state transmission and wheeling of electricity;
- issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
- promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution Licensee;

- adjudicate upon the disputes between the licensees, and generating companies and to refer any dispute for arbitration;
- levy fee for the purposes of this Act;
- specify State Grid Code consistent with the Grid Code specified under clause (h) of sub-section (1) of section 79;
- specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
- fix the trading margin in the intra-State trading of electricity, if considered, necessary; and
- discharge such other functions as may be assigned to it under this Act.

1.5 Constitution of Coordination Forum

The Commission wrote to GNCTD on 1st April, 2005 to constitute the Coordination Forum consisting of the Chairperson of the State Commission and the Members thereof, representatives of the generating companies, transmission licensees, and distribution licensees engaged in generation, transmission and distribution etc. in accordance with section 166(4) of the Electricity Act, 2003.

GNCTD vide notification No. F.11/36/2005/Power/1789 dated 16.06.2005 constituted the Coordination Forum, comprising of Chairperson and Members of DERC, CMD, DTL, Managing Director, IPGCL/PPCI, CEOs of NDPL, BYPL and BRPL with Secretary, DERC as the Member Secretary. Since the Committee constituted did not include NDMC and MES, who also distribute power in Delhi, the Commission had decided to invite them for all the meetings. The Commission had so far held 9 meetings on the following dates:

1 st Meeting	-	29.08.2005
2 nd Meeting	-	25.10.2005
3 rd Meeting	-	20.12.2005
4 th Meeting	-	20.01.2006
5 th Meeting	-	01.03.2006
6 th Meeting	-	17.04.2006
7 th Meeting	-	15.05.2006
8 th Meeting	-	14.06.2006
9 th Meeting	-	23.08.2006

In the above referred meetings, issues relating to arranging power to meet the demand of Delhi up to 2010-11 as well as other issues of common interests to ensure overall development of the power sector in Delhi were discussed. In this process, arrangements for power for meeting the future demand of Delhi from the following stations were made:

Table 1-1 Arrangement of Power for Delhi on Long Term Basis

S.No.	Name of the Project	Capacity Allocated to Delhi
1.	Koldam Hydroelectric project of NTPC	83 MW
2.	Tehri Hydroelectric project of THDC	95 MW
3.	Dhauliganga HEP of NHPC	42 MW
4.	Sewa-III HEP of NHPC	10 MW
5.	Unchahar-III TPS of NTPC	24 MW
6.	RAPP Unit 5 & 6 of NPC	50 MW
7.	Parbati-II HEP of NHPC	65 MW
8.	Bawana – CCGT Plant of IPGCL	1000 MW
9.	Pragati Power-II Project-II of PPCL	330 MW
10.	NCRTTP Dadri Extension of NTPC	440 MW
11.	Tehri Pumped Storage Power Plant of THDC	600 MW
12.	Kahalgaoon Stage-II of NTPC	95 MW
13.	Barh TPS of NTPC	155 MW
14.	North Karanpura TPS of NTPC	157 MW
15.	Koteshwar HEP of THDC	40 MW
16.	Dulhasti HEP of NHPC	34 MW
	Total	3220 MW

The above projects are likely to provide power with their gradual commissioning commencing immediately and up to 2009-10.

All the above projects are being developed by various CPSUs and accordingly their tariff would be regulated by the Central Electricity Regulatory Commission (CERC). Further, Delhi has been allocated 200 MW power from Tala HEP presently under commissioning in Bhutan.

Besides the above projects from which power has been tied up, the Coordination Forum has also discussed projects like Combined Cycle Gas Project in Tripura, setting up of 2000 MW plant by Delhi in Chattisgarh, Maithon Thermal Station of Tata Power etc. but no final decision could be arrived at in view of the present status of these projects being

at the conceptual stage. These projects can be discussed at an appropriate time when sufficient development takes place.

Consequent to taking over of Badarpur Power Station by NTPC, an effort is also being made to install additional two units of 500 MW each at Badarpur for meeting the demand of Delhi subject to technical feasibility and environmental clearance for the project. Further, power from addition of one more unit of 490 MW at NCRTTP, Dadri of NTPC and 750 MW from the 1500 MW joint venture project which is to be set up with Haryana, has been agreed to by Coordination Forum in the last meeting. Apart from this, the Corordination Forum has authorised TRANSCO to enter into long term agreement with DVC for procurement of power with the quantum of 100 MW from December 2006 to September 2007 and gradually going upto 2500 MW on round the clock basis from DVC for a period of 25 years from the commissioning of the respective new generating units.

The Commission had also worked through the Coordination Forum to remove bottlenecks in the execution of various major schemes such as setting up of 2 nos. 220 KV sub-station by NDMC in Electric Lane and Trauma Centre at AIIMS, Ridge Valley Sub-station with 220 KV GIS etc.

The Coordination Forum in its meeting held on 25.10.2005 decided that DISCOMs will jointly move a common proposal for seeking bids for procurement of power on short-term as well as long term basis immediately. The document for short/medium term power procurement received in the Commission in the end of March, 2006, was subsequently discussed in various Coordination Forum meetings. The DISCOMs were authorized to invite bids during August, 2006 after detailed deliberations on various issues involved in the procurement process and approval of the Commission to the bid document for short/medium term power procurement finally submitted by the DISCOMs. This exercise is in compliance with the National Electricity Policy/Tariff Policy which mandates the distribution companies to procure power through competitive bidding.

The approval of procurement of power by the DISCOMs on long term basis will be taken up after the receipt of the document from the DISCOMs. The Coordination Forum has also taken up issues like Introduction of Intrastate availability based tariff, procurement of power from ultra mega power projects (Delhi is proposing to buy 500 MW of power

from one of the ultra mega project) etc. The Commission would like to impress upon all concerned to monitor the progress of various projects from which power is arranged for Delhi at regular intervals and take appropriate actions in case of delays so that arrangements for power supply is properly ensured.

1.6 Process of Tariff Determination - ARR & Tariff filing for FY 2006-07

1.6.1 Filing of petitions

The Petitioner (TRANSCO) filed its Petition for approval of ARR and determination of Tariff for FY 2006-07, on December 29, 2005.

1.6.2 Interactions with the Petitioner

The filing of the Petition was followed by a series of interactions, both written and oral, wherein the Commission sought additional information/clarification and justifications on various issues critical for admissibility of the petitions. The Petitioner submitted its response on the issues raised through separate submissions in the month of March, 2006. The petition was finally admitted by the Commission on 30th March 2006.

1.6.3 Public Notice and response from stakeholders

1.6.3.1 Publicity given to the Proposal

The Petitioner brought out a Public Notice on April 7, 2006 indicating the salient features of their Petition, and inviting responses from the consumers and other stakeholders. The Commission also brought out a Public Notice on April 11, 2006 indicating the salient features of all the Petitions for FY 2006-07, inviting responses from the consumers and other stakeholders on the Petitions submitted by NDPL, BRPL, BYPL, TRANSCO, IPGCL and PPCL, in accordance with the provisions of the Delhi Electricity Regulatory Commission Comprehensive (Conduct of Business) Regulations, 2001. The Public Notice was published in several dailies such as:

- The Hindustan Times ,The Times of India and Indian Express in English;
- Hindustan in Hindi; and
- Daily Milap in Urdu.

A copy of the Public Notice in English, Hindi and Urdu is attached as Annexure 1a-1, 1a-2, 1a-3, 1-b and 1-c, respectively.

Detailed copy of the Petition was also made available for purchase from the respective head-office of the Companies on any working day from April 7, 2006 onwards, between 11 A.M. and 4 P.M. on payment of Rs. 100/-. The Notice specified the deadline of April 24, 2006 for the receipt of responses/objections from the stakeholders which was subsequently extended till May 10, 2006. The complete copy of the Petition was also put up on the website of the Commission, as well as that of the Petitioner.

In the past the Commission had received requests that the Commission may extend help to the consumers in understanding the ARR Petitions and also help them in filing their comments in this regard. The Commission had considered the request on merits and accordingly for this year the services of three Joint Directors of the Commission were made available to the consumers to extend necessary assistance. The services of the officers of Commission were available to all the interested stakeholders for discussion on ARR Petition and related matters between 3 P.M. to 5 P.M. on all working days from April 12, 2006 to May 10, 2006. This was duly highlighted in the Public Notices brought out by the Commission on April 11, 2006 and April 24, 2006.

1.6.3.2 Public Hearing and Response

The Commission received twelve objections in all. A detailed list of the respondents is attached with this Order as Annexure 2. The Commission forwarded the objections to the Petitioner for submission of comments to the Commission with a copy to the Respondent. The Petitioner filed its responses to the comments/objections of the stakeholders by May 20, 2006. The Commission conducted the Public Hearing for the TRANSCO on May 22, 2006 in the forenoon session. All the stakeholders who had submitted responses/objections on the ARR Petitions were invited to express their views in the matter.

1.6.4 Post admission interactions

1.6.4.1 Discussions during technical sessions and presentation by the Petitioner

After admission of the ARR Petition, the Commission held further technical sessions with the concerned staff of the Petitioner to seek additional information and clarifications. The Commission held various meetings and sought further details on power purchase, capital investment in transmission schemes, progress of ongoing capital

schemes, proposed capitalization, the depreciation schedule, loan repayment, rate of interest on loans, expenses for the FY 2006-07 and related matters. Further, the data in various submissions was reconciled.

1.6.4.2 Petitioner's responses to queries raised by the Commission

In response to the queries of the Commission, the Petitioner made additional submissions on March 30, April 12, April 26, May 4, June 7, June 9 and June 13, 2006. The Petitioner also submitted the Provisional Annual Accounts for FY 2005-06 on April 26, 2006.

1.7 Summary of the Petition

The Petitioner has estimated the Annual Revenue Requirement (ARR) and Revenue Gap for FY 2006-07 at Rs. 5236.42 Crore and Rs. 1303 Crore respectively. The Petitioner, while estimating the ARR for FY 2006-07 has also included certain elements of difference in expenses and revenue for FY 2004-05 and FY 2005-06 under the truing up mechanism. The total amount of truing up included in the ARR for FY 2004-05 and FY 2005-06 is of the order of Rs. 33 Crore surplus and Rs 390 Crore gap respectively. A snapshot of the ARR and revenue gap at existing tariffs is provided in the Table 1.2.

Table 1-2: Summary of ARR and Revenue of the Petitioner at existing BST and RST

Item	Unit	FY 2006-07
A. Power purchase cost	Rs Crore	5105.81
B. Expenditure other than power purchase cost	Rs Crore	192.22
C. Total Expenditure (A+B)	Rs Crore	5298.03
D. Reasonable Return	Rs Crore	28.60
E. Annual Revenue Requirement (C+D)	Rs Crore	5326.63
F. Less: Non Tariff Income	Rs Crore	90.21
G. Aggregate Revenue Requirement(ARR)	Rs Crore	5236.42
H. Less: Revenue at existing tariff	Rs Crore	4500.00
I. Revenue Gap for FY 2006-07 at Existing Tariffs excluding Revenue Gap/(surplus) for FY 2004-05 & FY 2005-06	Rs Crore	736.42
J. DVB Arrears for FY 2002-03 & 2003-04	Rs Crore	210.00
K. Revenue Gap/(Surplus) for FY 2004-05	Rs Crore	(33.33)
L. Revenue Gap for FY 2005-06	Rs Crore	390.08
M. Net Revenue Gap	Rs Crore	1303.16

1.8 Court Order

The DISCOMs had filed appeals in the Hon'ble Appellate Tribunal for Electricity in respect of Tariff Orders for FY 2002-03, FY 2003-04 and FY 2004-05 issued by the Commission. The Hon'ble Appellate Tribunal had passed its order dated 24th May 2006 in appeal no. 38-39, 122 of 2005 and 48 of 2006. The Commission had preferred an appeal against the said order of the Hon'ble Appellate Tribunal for Electricity before the Hon'ble Supreme Court vide Civil Appeal No. 2733 of 2006. The Hon'ble Supreme Court had admitted the Appeal vide its Order dated 23rd August 2006 and referred the case to the Hon'ble Appellate Tribunal for Electricity *to examine whether the conclusions of the Commission are supportable in facts and in Law.*

1.9 Layout of this Order

This Order is organised into 4 Chapters. While the current Chapter gives the information about the Commission, the historical background and summary of the Petition, the second Chapter gives detailed account of responses from stakeholders, Petitioner's comments and Commission's views on the responses. Chapter 3 discusses the analysis of Annual Revenue Requirement for FY 2006-07. Chapter 4 discusses revenues from existing tariff, approved bulk supply tariff (BST), overall sector revenue gap/surplus position based on revenues from the proposed tariff and treatment of regulatory assets. Chapter 5 deals with compliance by Petitioner with Commission's Directives in Tariff Order dated July 7, 2005 and lists down the new directives issued in this order.

2 Response from stakeholders

The objections received from stakeholders, response of the Petitioner on the specific issues and Commission's views on the same are enumerated hereunder.

2.1 Power Purchase

2.1.1 Objections

The stakeholders have asked for the source wise quantity and cost of power purchased. It has been submitted that 2194 MU of power sold to Power Trading Corporation (PTC) can be utilised for Delhi itself since PTC is charging almost four times from the Petitioner for electricity procured from Orissa.

The stakeholders have submitted that the Petitioner has projected an increase of 2% in energy demand over the corresponding months of the year 2005-06. On the basis of price of power purchased from different sources, the total power purchase cost comes out to Rs 5105.81 Crore. The stakeholders have suggested that power purchased from various sources at different rates needs rationalisation. The production cost of IPGCL is abnormally high and such sources should be avoided, as far as possible and Principle of Least Cost Power must be applied.

It has been highlighted that power purchase costs have risen considerably over the previous year and apart from procurement of power from 'other sources' at Rs. 4.10 per unit, there will also be UI purchases to meet peak demand, hence the actual procurement cost will be much more than the projected rate of Rs. 2.30 per unit. The stakeholders have requested the Commission to direct the TRANSCO/ DISCOMs (as the case may be) to submit plans for long-term power requirements to optimize power purchase costs to avoid the cascading effect on retail tariffs.

2.1.2 Response of the Petitioner

The Petitioner has submitted that the details regarding cost and quantity of energy purchased from various utilities is tabulated at Table 4 on Page – 10 of Volume I of the TRANSCO petition.

As regards the energy purchased from PTC, the Petitioner has submitted that Delhi has a peculiar load curve wherein there is considerable gap in peak and off-peak power requirement. There are shortages during peak hours and surplus power during off-peak hours. Therefore, in order to meet the peak demand of Delhi, there is no other alternative except to purchase power from other sources, wherever available, to avoid load shedding. As per the Petitioner, there is shortage of power in Northern Grid and TRANSCO purchases power from other sources including GRIDCO/Orissa through power traders such as PTC, NTPC Vidut Vyapar Nigam (NVVN), Tata Power, Reliance Energy, etc. The trading margin of 4 paise/unit has been fixed by CERC whereas the cost of power is determined by the market forces. It has been explained that the off-peak power surplus cannot be utilised for meeting the peak shortages and the cost of power during peak hours is more than the off-peak hours.

The Petitioner has further submitted that all the stations of erstwhile DVB besides Badarpur Thermal Power Station located in Delhi, are dedicated for meeting the requirement of Delhi. The power generated by these stations is required to be absorbed in Delhi itself. The average cost of supply from different sources located within Delhi is lower than the average cost of supply from outside sources, which is evident from the fact that the average power purchase cost from IPGCL is Rs 2.20/unit as against Rs 3.26/unit of power procured by TRANSCO from outside sources through bilateral arrangements. The Petitioner has explained that the allocation of power from various sources i.e., Central Power Generating Stations is fixed by the Government of India and the tariff is determined by CERC. Each state is entitled to procure power from various sources as per their allocation only and the balance requirement is to be met by purchase through other sources.

2.1.3 Commission's Views

The Commission has examined the actual power purchase cost for FY 2005-06 and the power purchase cost projected by the Petitioner for FY 2006-07 has been approved based on the merit order despatch. The details of power purchase costs have been deliberated upon in Chapter 3 of this Order.

2.2 Transmission Loss

2.2.1 Objections

The stakeholders have expressed that the total energy purchased by TRANSCO is 24352 MU with external and internal transmission losses being 544 MU and 281 MU respectively. It has been stated that as per energy balance the said transmission losses of 825 MU are to the tune of 30% which is very high and should be reviewed. It has been mentioned that there is a gap of 1547 MU between the energy available for sale and energy input to DISCOMs which needs justification, when transmission losses are already accounted for.

The stakeholders have also submitted that TRANSCO must be paying for net energy received and, therefore, external losses have to be borne by Generating/Transmitting entities which will save Rs 114.24 Crore.

The stakeholders have highlighted that the system loss estimated for the second half of FY 2005-06 is more than double the loss reported in the first half despite the total energy requirement for the second half being only 9164 MU against actuals of 11719 MU in the first half and there is little justification for the same. The actual loss in the first half of FY 2005-06 is reported as only 0.78% but a total loss of 1.3% has been assumed within the TRANSCO system for FY 2006-07. This is stated to be unrealistic and stakeholders have suggested for pegging the anticipated loss at 0.78% in the ARR of 2006-07 according to which the energy requirement will correspondingly be lower at 21500 MUs.

2.2.2 Response of the Petitioner

The Petitioner has submitted that the losses of 825 MU work out to only 3.38% of the total energy purchased by TRANSCO i.e. 24352 MU. The actual power purchased by TRANSCO in FY 2005-06 is 23639 MU out of which 527 MU is loss in Power Grid Corporation of India Limited (PGCIL) system, 152 MU is the loss in TRANSCO system and 1928 MU is sold to other states. The balance 21032 MU was sold to DISCOMs, NDMC and MES and the losses in TRANSCO system are 0.72% only which cannot be considered high by any standard.

As regards the external losses to be borne by Generating/Transmitting entities, the Petitioner has submitted that in respect of power purchased by TRANSCO the metering and billing is done at the bus bar of the generating station. The losses in transmission system from the source of supply upto Delhi periphery can not be avoided and are external losses which do occur in any transmission system.

2.2.3 Commission's Views

The submission of the Petitioner is in order. The Commission has examined the actual transmission losses for FY 2005-06 in external network and the losses in the own network of the Petitioner. The relevant aspects have been considered while examining the energy balance for FY 2005-06 and FY 2006-07 in Chapter 3 of this Order.

2.3 DVB Arrears

2.3.1 Objections

The stakeholders have submitted that the revenue gap of TRANSCO is Rs 736 Crore, but with the addition of DVB arrears (Rs. 210 Crore) and the truing up, the same nearly doubles to Rs. 1303 Crore. It has been expressed that the DVB Arrears should be wiped off once for all and the Commission must direct the Holding Company to release the amount of DVB Arrears (Rs 210 Crore and Rs 119 Crore for FY 2002-03 and FY 2003-04 respectively) immediately. Further, this amount must be taken as a source of revenue while calculating the revenue requirement for FY 2006-07.

DPCL has submitted that the Transfer Scheme does not permit the ploughing back of DVB period receivables (to the account of Holding Company) into the sector. The letter and spirit of the Transfer Scheme is paramount in the facts and circumstances of the case according to which the Holding Company is the sole recipient of the dues/receivables for the DVB period. The Commission has been requested to take note of this for taking appropriate remedial steps to bring the position in consonance with the Transfer Scheme

2.3.2 Response of the Petitioner

The Petitioner has submitted that DVB arrears indicated in the ARR petition are in fact the amount received by DPCL out of the DVB period consumer arrears which the

Commission has been considering in revenue receipt of TRANSCO. The Petitioner is of the view that as per the Transfer Scheme, this amount belongs to DPCL whereas the Commission has considered the same in the revenue receipt of TRANSCO but the said amount has not been received by TRANSCO from DPCL till date. TRANSCO has requested the Commission to make available to TRANSCO the amount of DVB arrears considered in revenue receipt of TRANSCO in the previous years.

2.3.3 Commission's Views

The Commission is of the considered view that the total revenue realised from DVB arrears should remain within the sector and accordingly has maintained a consistent view that the collected DVB arrears should be treated as revenue to TRANSCO. This has been elaborated upon in Chapter 3 of this Order.

2.4 Expenses

2.4.1 Objections

The stakeholders have submitted that the expenses shown by TRANSCO at Rs 192 Crore for transmission of 2162 Crore units is extremely high and the expenses should not be more than Rs 110 Crore annually. The details of total number of employees of the Petitioner have been sought. It has been opined that revenue shortfall is due to supplying power to the DISCOMs at a rate lower than the power purchase cost. The stakeholders have requested the Commission to direct the distributors/DISCOMs to increase efficiency of collection and the surplus amount may be transferred to the Petitioner. Further, the deficit may be made up by increasing BST to private DISCOMs.

The stakeholders have complimented the Petitioner for keeping R&M Expenses within reasonable limits.

2.4.2 Response of the Petitioner

The Petitioner has submitted that the total expenses of TRANSCO other than those incurred in power purchase are Rs. 174.28 Crore only in FY 2005-06, which works out to 3.45% of the total expenses and cannot be considered as high. Further, the basis for working out the amount of Rs. 110 Crore, which is suggested to be allowed to TRANSCO annually for meeting its expenses, has not been provided by the stakeholders.

The Petitioner has clarified that the Commission considers prudence of all the projected expenses while determining the ARRs.

In regard to the revenue deficit, the Petitioner has explained that its revenue requirement is to be met out of the revenue realised from DISCOMs through BST determined by the Commission in accordance with the Policy Directions and there is no provision of any reform assistance during FY 2006-07.

2.4.3 Commission's Views

The Commission has allowed the expenses of TRANSCO relating to other than power purchase cost after careful examination of all the elements of expenditure and subjecting the same to prudence check. The accounts and audited Balance Sheets of the Petitioner are also analysed to allow for reasonable expenses. The approach adopted by the Commission and detailed analysis of all the expenditure has been deliberated in Chapter 3 of the Order.

As per the Policy Directions issued by GNCTD, the Bulk Supply Tariff shall have to be fixed based on the paying capacity of each DISCOM to ensure uniform retail tariff and the Commission accordingly works out the Bulk and Retail Supply Tariff of the DISCOMs.

2.5 Interest and Finance Charges

2.5.1 Objections

The stakeholders have expressed that in view of the huge gap in its revenue and expenses, the Petitioner may seek extension of moratorium period for repayment of Transfer Scheme Loan of Rs 270 Crore by another 4 - 5 years.

The stakeholders have also submitted that since terms of interest payment and repayment of Government Reform Loan Assistance to the tune of Rs 3452 Crore are yet to be finalised, the Petitioner may be asked to submit a plan for repayment of the same with adequate moratorium period to make it possible for it to repay the loan without any major impact on BST.

It has also been pointed out that the Petitioner has availed plan loans at 11.5% rate of interest and there is even a loan at 13% interest with which the interest payment is estimated at Rs. 35.38 Crore for FY 2006-07. With the interest rates having gone down substantially in the last few years, the stakeholders have requested the Commission to direct the Petitioner to swap the current GNCTD loans for cheaper loans benchmarked to the SBI prime lending rate.

2.5.2 Response of the Petitioner

The Petitioner has not submitted any specific response in this regard.

2.5.3 Commission's Views

The Commission has analysed the interest expenses proposed by TRANSCO and admitted interest on loans availed specifically for funding capital expenditure as well as opening Balance Sheet Loan of Rs. 270 Crore. With regard to Government Reform Loan Assistance of Rs 3452 Crore from GNCTD, the Commission had in its Tariff Order dated July 7, 2005 directed the Petitioner to take up the matter with Appropriate Authority to make arrangement for serving the loan without affecting the ARR in future years. The approach adopted by the Commission with respect to interest on loans has been further deliberated in Chapter 3 of the Order.

2.6 Reasonable Return

2.6.1 Objections

The stakeholders have submitted that the 16% return to the Petitioner should be reduced at best to 10%.

2.6.2 Response of the Petitioner

The Petitioner has not submitted any specific response in this regard.

2.6.3 Commission's Views

The issue has been considered by the Commission as per the Policy framework envisaged by the Government and a consistent approach has been adopted for estimating the Capital Base and reasonable return during the Reforms period from FY 2002-03 to FY 2006-07 as reflected in Tariff Orders of the Commission.

2.7 Revenue

2.7.1 Objections

The stakeholders have sought details about the projection of 21334 MU for Retail Supply/Sale and procurement of 19687 MU. It has been submitted that at existing BST of 219 paise/kwh, the total Sale Price of Rs. 4223 Crore is sufficient. As per the stakeholders the power tariff in Delhi is very high, no enhancement of tariff should be allowed as that would lead to unbearable increase in retail tariff to be paid by consumers. The deficit be made up from increased collection and increased BST to private DISCOMs.

The stakeholders have also stated that bulk supply tariff for DISCOMs is discriminatory, with BRPL at Rs 2.21/ kwh, BYPL at Rs 1.77/ kwh and NDPL at Rs 2.11/ kwh. It has been suggested that a uniform tariff of Rs 2.21/kWh will give Rs 232 Crore from BYPL and Rs 58 Crore from NDPL, i.e. a total of Rs 290 Crore and the practicality of this may be considered. Further, the sale to PTC and other states appears to be at Rs 2/kwh and a uniform tariff of Rs 2.21/kwh would fetch another Rs 4.60 Crore for TRANSCO.

Another issue raised is that the Petitioner has mentioned only three sources of revenue from non-tariff income which has been projected at Rs 91.21 Crore. The Petitioner has been suggested to explore more sources of raising non-tariff income further such as by advertisement hoardings/panels on the TRANSCO grid stations, sub stations, buildings etc which may yield income of Rs 20 Crore through this measure alone.

2.7.2 Response of the Petitioner

The Petitioner has submitted that of the actual power purchase of 23639 MU during FY 2005-06, 527 MU are PGCIL losses, 152 MU is loss in TRANSCO System, 1928 MU is sale to other states/UI and the remaining 21032 MU is sold to DISCOMs, NDMC and MES. The combined transmission loss of PGCIL and TRANSCO systems is less than 3%.

The Petitioner has further submitted that the total expenses of TRANSCO including power purchase cost for FY 2006-07 comes to Rs. 5326.63 Crore as shown in Table-5 at

Page-12 of Volume I of the petition. Major portion of expenses are towards power purchase on which TRANSCO has no control. The revenue realised from BST should be sufficient to meet the ARR requirement, hence the amount of Rs. 4223 Crore will be insufficient.

In regard to the revenue deficit, the Petitioner has explained that its revenue requirement is to be met out of the revenue realised from DISCOMs through BST determined by the Commission in accordance with the Policy Directions and there is no provision of any reform assistance during FY 2006-07.

On the issue of uniform BST for all the DISCOMs, the Petitioner has submitted that the Policy Directions issued under the Transfer Scheme which was the basis of unbundling of DVB provide for differential bulk supply tariff to various DISCOMs during the transition period with a uniform retail supply tariff. The Commission determines the tariff in accordance with the Policy Directions.

As regards the sale of power to PTC, the Petitioner has submitted that the sale to PTC and other states is the off-peak surplus power only and has no connection to the sale to the DISCOMs. The Petitioner has clarified that the stated rate of Rs.2 per unit for sale through PTC and to other states worked out by the stakeholder, is not correct as the average rate in the FY 2005-06 works out to Rs 3.26 per unit.

2.7.3 Commission's Views

As per the Policy Directions issued by GNCTD, the Bulk Supply Tariff shall have to be fixed based on the paying capacity of each DISCOM to ensure uniform retail tariff and the Commission accordingly works out the Bulk Supply Tariff applicable for each DISCOM. The issue with regard to Non-tariff income has been deliberated in Chapter 3 of the order.

2.8 UI Purchases and Peak Purchase Rates

2.8.1 Objections

The stakeholders have submitted that as per details of UI purchases for FY 2005-06 submitted by the Petitioner, as many as 990 MU out of the total 1195 MU are claimed to have been purchased between 1200-2400 hours which is too long a stretch to be

considered peak to justify the high unit cost claimed thereof. The Commission has been requested to direct the Petitioner to present figures by further splitting this time-period into shorter intervals of half hour each to ascertain the justification of peak rates paid for this UI purchases. Further, the estimates of peak requirement for FY 2006-07 could be based on such half hour data.

2.8.2 Response of the Petitioner

The Petitioner has not submitted any specific response in this regard.

2.8.3 Commission's Views

Under the existing Availability Based Tariff (ABT) mechanism, overdrawl/underdrawl from the grid vis-à-vis scheduled drawal is termed as Unscheduled Interchange (UI). The rates for such UI is not related to time but related to the average grid frequency prevailing in the 15 minute time block at the time of unscheduled interchange. Therefore, the rate for UI drawls/sales is to be considered at actuals. In the present scenario of shortages, the procurement of power can not be strictly limited to peak period as it is determined by the availability of power and therefore, to meet the peak period requirement the conditions posed by the sellers have to be accepted or resort to load shedding. The Commission would like to urge all categories of consumers to resort to energy conservation. This would enable the utilities to control procurement of costlier power as well as avoid overdrawl from the grid at higher UI rates. This will inturn benefit all the consumers by preventing increase in tariff to the extent of energy conserved. The DTL and the DISCOMs shall undertake campaigns for educating the consumers regarding energy conservation and efficient use of energy.

2.9 Metering of bulk Supply to Licensees

2.9.1 Objections

The stakeholders have submitted that as per the Petitioner feeder meters have been installed at the delivery points to MES and NDMC and therefore, billing is now being done on the basis of delivered energy and received energy. The Commission has been requested to accept the Petitioner's request so that there is greater transparency in the level of AT&C losses by the two licensees.

2.9.2 Response of the Petitioner

The Petitioner has not submitted any specific response in this regard.

2.9.3 Commission's Views

The actuals of billed energy and revenue receipts as submitted by the Petitioner, are being taken into consideration for the ARR. The issue of AT&C losses is not related to the ARR of TRANSCO, hence the same has not been deliberated in this Order.

2.10 Incentives

2.10.1 Objections

The stakeholders have requested for reconciliation of the actual incentive payments made by the Petitioner to generating companies for availability over and above the normative levels of availability.

The stakeholders have pointed out discrepancy in calculations of anticipated incentives for FY 2005-06 in case of PPCL wherein the energy has been taken as 2213 MU in energy balance but while calculating the incentive charged by PPCL this value has been wrongly considered as 2321 MU. This was required to be reconciled.

As per the stakeholders, TRANSCO has considered incentive as an additional cost ignoring the fact that additional generation shall result in reduction in fixed cost per unit of GENCO.

2.10.2 Response of the Petitioner

The Petitioner has not submitted any specific response in this regard.

2.10.3 Commission's Views

The Incentive payable to Central Generating Stations and PPCL for the FY 2005-06 has been considered by the Commission based on actuals.

2.11 Income Tax

2.11.1 Objections

The stakeholders have submitted that NAPP and NJPC have been considered in Table 27 (details of Income Tax) while computing the anticipated Income Tax for TRANSCO, but in Table 26 (details of assumptions for tax calculations), NAPP and NJPC have not been considered. This was to be reconciled.

2.11.2 Response of the Petitioner

The Petitioner has not submitted any specific response in this regard.

2.11.3 Commission's Views

The Income-tax payable to Central Generating Stations and other utilities for the FY 2005-06 has been considered by the Commission based on actuals and reasonable estimates for FY 2006-07 submitted by the Petitioner.

2.12 Miscellaneous Issues

2.12.1 Objections

The stakeholders have submitted that electricity tax @ 5% for street lights should be dispensed with as the same is a part of MCD services, but the street light accounting should be projected appropriately.

2.12.2 Response of the Petitioner

The Petitioner has not submitted any specific response on this issue.

2.12.3 Commission's Views

The issue of levy of electricity duty is outside the purview of the Commission. Since the electricity duty is levied under the Municipal Corporation of Delhi (MCD) Act, 1956 the MCD would be the appropriate authority to deal with the issue.

3 Analysis of Annual Revenue Requirement

The Petitioner submitted the Petition for Aggregate Revenue Requirement (ARR) and Tariff Determination for FY 2006-07 in the prescribed formats as per the revised guidelines of August 2002 issued by the Commission for filing of ARR. The Commission has analysed the ARR and Tariff petition as submitted by the Petitioner in detail. The Commission held various technical sessions with the Petitioner to validate the data submitted and the Petitioner was asked to submit the actuals for FY 2005-06 based on audited account. The Petitioner, however, submitted the actuals for FY 2005-06 based on provisional accounts.

Based on the Tariff Order dated July 7, 2005 for FY 2005-06, the information provided and Commission's analysis, the Commission has trued up the expenses and revenue for FY 2005-06. Further, the Commission has also trued up certain elements for FY 2004-05 based on the final audited accounts and the truing up mechanism prescribed in the previous tariff orders. The expenses to be trued up for FY 2004-05 have been discussed in Para 3.18

The Commission would like to highlight that the approval of the capital schemes has to be undertaken separately from ARR and Tariff Determination process, as it requires significant time and resources of the Commission.

The Commission has considered various submissions made by the Petitioner during the course of the ARR and tariff determination process and has carefully analysed the different heads of expenditure to arrive at the revenue requirement for FY 2006-07.

Table 3.1 gives a snapshot of the total revenue gap/surplus as allowed by the Commission for FY 2006-07.

Table 3-1: Summary of Revenue Gap/(Surplus) (Rs Crore)

Description	2005-06 - As per petition for FY 2006-07			FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Commission's Approval	Petition	Commission's Approval

Description	2005-06 - As per petition for FY 2006-07			FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Commission's Approval	Petition	Commission's Approval
Net Revenue Requirement (A)	4625	4865	4865	5236	4773
Revenue at Existing Tariffs (B)	4150	4337	4366	4500	4473
Assistance from Government (C)	138	138	138	0	0
DVB Arrears - Non -Govt (D)	119	0	119	210	0
DVB Arrears - Govt (E)			100		
Regulatory Asset (F)	0	0	0	0	0
Revenue Gap					
Revenue Gap/(Surplus)	218	390	142	946	300
Truing up for FY 2004-05				(33.33)	(87.11)
Truing up for FY 2005-06				390	141.69
Overall Revenue Gap				1303	355

The methodology followed for arriving at various elements of ARR as allowed by the Commission has been discussed in detail in the following paragraphs.

Typically, the Annual Revenue Requirement of the transmission licensee consists of the following major items: -

- a) Power Purchase Cost
- b) Expenses: -
 - Employee expenses
 - Administrative and General expenses
 - Repairs and Maintenance expenses
 - Interest expenditure

- Depreciation
- c) Return
- d) Taxes on Income
- e) Non Tariff Income

In the following paragraphs, the various elements of Annual Revenue Requirement are discussed:-

3.1 Power Purchase Quantum and Costs

The power purchase cost comprises more than 95% of the total estimated revenue requirement of the transmission company (TRANSCO). Hence, it is imperative that this element of cost is estimated with utmost care based on the most efficient way of procuring power from the successor generating company of DVB and other generating stations/bilateral purchases.

The Commission during the technical validation sessions has directed TRANSCO to submit the actual power purchase from all the sources and the power purchase cost for FY 2005-06. The Commission while approving the quantum of power purchase and power purchase cost has duly considered the actual details submitted by the TRANSCO.

3.2 Power Purchase Costs

The various sources of power from where TRANSCO purchased power are:

- Indraprastha Power Generating Company Limited (IPGCL)
- Pragati Power Corporation Limited (PPCL)
- Badarpur Thermal Power Station (BTPS)
- Central Generating Stations of NTPC, NHPC, NJPC and NPC
- Tehri and Tala Hydro Electric Power Stations
- Power Trading Companies viz., Power Trading Corporation etc.
- Bilateral Purchases from Other States like Orissa, Himachal Pradesh etc.

The actual energy purchased from various sources during FY 2005-06 and availability of energy for the year 2006-07 is discussed below.

3.2.1 Power Purchase from GENCO and PPCL Stations

Petitioner's Submission

The Petitioner has estimated the energy availability from Genco and PPCL stations based on monthly generation programme for FY 2005-06 and FY 2006-07 provided by GENCO and PPCL. As per existing arrangements, one-third share from units 2, 3 & 4 at Indraprastha Station has been allocated to HVPNL and hence not considered as available to TRANSCO. The fixed costs for Genco and PPCL for FY 2005-06 and FY 2006-07 have been estimated on the basis of two-part generation tariff as approved for the station by DERC. For the period before the issue of the Order dated July 7, 2005, the costs have been considered based on the Order for FY 2004-05. The variable costs have been estimated on the principle of using the October 2005 costs for the months of November 2005 to March 2005 and an increase of 4% over the average rate for FY 2005-06 for estimating the variable costs for FY 2006-07.

Commission's Analysis

The Commission has examined the ARR and Tariff Petitions of GENCO and PPCL for FY 2006-07 and has approved the generation from these stations and the fixed and variable costs in the Order issued on ARR and Tariff Petitions of GENCO and PPCL. The Commission has considered the power purchase from these sources based on the generation targets approved by Central Electricity Authority (CEA). For FY 2005-06, the Commission has obtained the details of actual power purchase from GENCO and PPCL and has considered the same.

Based on the above said orders of GENCO and PPCL, the summary of power purchase and total cost of power purchase from GENCO and PPCL as estimated in the Petition and as approved by the Commission is summarised in Tables 3.2 and 3.3 given below:

Table 3-2: Power Purchase from GENCO stations

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Actual	Commission	Petition	Commission
Units Purchased (MU)	2993	2947	2797	2796	3214	2774
Total Cost (Rs. Crore)	665	662	626	641	737	690
Cost per unit (Rs/kwh)	2.22	2.25	2.24	2.29	2.29	2.49

Table 3-3: Cost of Power Purchase from PPCL

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Actual	Commission	Petition	Commission
Units Purchased (MU)	2328	2213	2221	2227	2251	2377
Total Cost (Rs. Crore)	483	464	466	444	479	476
Cost per unit (Rs/kwh)	2.07	2.10	2.10	1.99	2.13	2.00

3.2.2 Badarpur Thermal Power Station (BTPS)**Petitioner's Submission**

The TRANSCO has estimated the energy availability from BTPS at 4639 MUs and 4606 MUs for FY 2005-06 and FY 2006-07 respectively on the basis of technical limits of the generating units and Load Generation Balance Report. The fixed costs for FY 2005-06 and FY 2006-07 have been taken based on the two-part tariff structure approved provisionally by CERC. For FY 2006-07, the variable cost has been escalated by 4% over the average variable cost for FY 2005-06. The total costs (fixed and variable costs) for

FY 2005-06 and FY 2006-07 payable for power from the BTPS as estimated by the Petitioner are Rs. 1119.08 Crore and Rs. 1148.41 Crore respectively.

Commission's Analysis

For FY 2005-06, the Commission has gone by the actual power purchase and the cost of power purchase. For FY 2006-07, the Commission has estimated the quantum of power purchase based on generation targets approved by CEA. For estimating the power purchase cost for FY 2006-07, the Commission has considered the fixed charges as approved by Central Electricity Regulatory Commission (CERC) for BTPS for FY 2006-07 in Tariff Order dated May 2006 for the period of FY 2004-05 to FY 2008-09 and the variable charges has been worked out based on 3% escalation over the actual variable cost of BTPS which was Rs. 1.96 /kwh. The summary of power purchase and power purchase cost as estimated in the Petition and as estimated by the Commission for BTPS is given in the Table 3.4 given below:

Table 3-4: Cost of Power Purchase from Badarpur Thermal Power Station

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Actual	Commission	Petition	Commission
Units Purchased (MU)	4740	4639	4871	4871	4606	4628
Total Cost (Rs. Crore)	1077	1119	1172	1172	1148	1151
Cost per unit (Rs/kwh)	2.27	2.41	2.41	2.41	2.49	2.49

3.2.3 Power Purchase from Central Generating Stations

Petitioner's Submission

TRANSCO has a firm share in the Central Generating Stations. In addition to the firm share allocation, most of the NTPC stations have 15% unallocated power. The distribution of this unallocated power among the constituents of Northern Region is decided by the Central Electricity Authority (CEA) from time to time based on power

requirement and power shortage in different States. TRANSCO also gets a substantial portion of the unallocated share.

3.2.3.1 *Energy Purchased during FY 2005-06*

Based on its allocated share from various Central Generating Stations, TRANSCO has estimated the power purchase for FY 2005-06 taking into account the following changes in the allocations:

- Allocation from Satluj Jal Vidyut Nigam Ltd's (SJVN) Nathpa-Jhakri HEP has been revised with effect from April 1, 2005
- Allocation from Government of Himachal Pradesh share has been withdrawn from November 1, 2005 onwards

Commission's Analysis

During the technical validation sessions, the Commission directed TRANSCO to submit the details of actual power purchased and power purchase cost from all the sources for FY 2005-06. Subsequently, TRANSCO submitted these details to the Commission. The actual energy purchased from CGS during FY 2005-06 by TRANSCO has been considered by the Commission.

The energy purchases from the Central Generating Stations proposed by the Petitioner and as approved by the Commission for FY 2005-06 is provided in the Table 3.5 given below:

Table 3-5 Energy purchased from Central Generating Stations for FY 2005-06 (MU)

FY 2005-06				
Sl. No.	Station	Rev. Est. (Petition)	Actual	Commission
I	NTPC			
1	Singrauli	1227	1253	1253
2	Anta	297	299	299
3	Rihand -I	787	750	750
4	Auriya	413	435	435
5	Dadri Gas	551	551	551
6	Unchahar – I	190	196	196

FY 2005-06				
Sl. No.	Station	Rev. Est. (Petition)	Actual	Commission
7	Unchahar – II	378	392	392
8	Dadri (thermal)	5337	5504	5504
9	Rihand II	354	370	370
II	NHPC			
1	Bairasiul	86	86	86
2	Salal	380	400	400
3	Tanakpur	56	52	52
4	Chamera- I	181	182	182
5	Chamera – II	236	227	227
6	Uri	273	293	293
7	Dhauliganga	35	47	47
III	NPC			
1	NAPP	241	223	223
2	RAPP B#3	41	27	27
3	RAPP B#4	40	26	26
IV	NJPC	736	711	711
	Total	11839	12024	12024

3.2.3.2 Energy Availability for FY 2006-07

Petitioner's Submission

The Petitioner has considered the firm allocated share for CGS stations similar to that taken for FY 2005-06. The unallocated share during summer months from April 2006 to October 2006 has been assumed at 15% during day peak i.e. 11.00 hours to 19.00 hours and 25% during evening peak i.e. 19.00 hours to 24.00 hours. The allocation for the rest of the period of the year is assumed at 15% during morning peak hours i.e. 06.00 hours to 12.00 hours and 25% during evening peak hours i.e. 18.00 hours to 23.00 hours. The Petitioner has further submitted that it has to schedule power from liquid fuel fired generation from NTPC gas stations. In addition to this it has to schedule power from unrequisioned share of other states to meet the peaking shortages in spite of prohibitive

cost. This is as per the decision taken in the meeting convened by Secretary Power, GoI on October 8, 2005 and December 2, 2005 to review the power supply position of Delhi.

Commission's Analysis

For estimating the energy availability from various Central Generating Stations, the Commission has considered the firm share as applicable for each Station as notified by CEA for estimating the TRANSCO's effective share. The share of TRANSCO in unallocated share of CGS/other stations has been taken as notified by CEA applicable from 01-04-06 to 31-10-06. For the period November 2006 to March 2007, it has been assumed that the TRANSCO's share in unallocated quota of CGS will follow a similar pattern as specified by CEA for April 2006 to October 2006.

The effective share in Central Generating Stations/others for FY 2006-07 as considered by the Commission is shown in the Table 3.6 given below:

Table 3-6 Effective Share of TRANSCO in Central Generating Stations /Others for FY 2006-07

Sl. No.	Station	Capacity (MW)	Firm Share (%)	Share in unallocated quota (%)	Effective Share (%)
I	NTPC				
1	Singrauli	2000	7.50%	1.28%	8.78%
2	Anta	419	10.50%	1.29%	11.79%
3	Rihand-I	1000	10.00%	1.28%	11.28%
4	Auriya	663	10.86%	0.89%	11.75%
5	Dadri - Gas	830	10.96%	0.60%	11.56%
6	Unchahar – I	420	5.71%	0.41%	6.12%
7	Unchahar – II	420	11.19%	1.28%	12.47%
8	Unchahar – III	210	13.81%	0.00%	13.81%
9	Dadri (thermal)	840	90.00%	0.00%	90.00%
10	Rihand II	1000	12.60%	1.28%	13.88%
11	Kahalgaoon -II	660	15.00%	0.00%	15.00%
II	NHPC				
1	Bairasiul	180	11.00%	0.00%	11.00%
2	Salal	690	11.62%	0.00%	11.62%
3	Tanakpur	94	12.81%	0.00%	12.81%

Sl. No.	Station	Capacity (MW)	Firm Share (%)	Share in unallocated quota (%)	Effective Share (%)
4	Chamera- I	540	7.90%	0.00%	7.90%
5	Chamera – II	300	13.33%	1.54%	14.87%
6	Uri	480	11.04%	0.00%	11.04%
7	Dhauliganga	280	13.21%	1.28%	14.49%
III	NPC				
1	NAPP	440	10.68%	1.24%	11.92%
2	RAPP B#3	220	0.00%	1.98%	1.98%
3	RAPP B#4	220	0.00%	1.98%	1.98%
IV	Nathpa Jhakri	1500	9.47%	0.86%	10.33%
V	Tehri	1000	10.40%	0.00%	10.40%
VI	Tala HEP	1020	18.14%	0.00%	18.14%

Generation, Plant Load Factor and Auxiliary Consumption

Petitioner's Submission

The Petitioner has assumed the PLF for NTPC stations for FY 2005-06 and FY 2006-07 based on past trends as the report for plants performance for FY 2006-07 is currently not available from CEA. For hydel plants, the energy available to TRANSCO has been arrived at, using the design energy of the various hydel plants for the second half of FY 2005-06 and FY 2006-07.

The Petitioner has considered the auxiliary consumption of the Central Generating Stations based on the norms approved in the CERC guidelines as follows:

- Thermal generating plants: 7.5 % to 9.5 % of Gross Generation
- Gas based generating plants: 3.0 % of Gross Generation
- Atomic generating plants: 9.5 % of Gross Generation

Commission's Analysis

The Commission has considered the generation from NTPC, NHPC and NPC stations based on the generation targets prescribed by CEA for FY 2006-07. The auxiliary consumption for each of the NTPC and NPC stations has been considered based on the

norms approved in the CERC/Government guidelines. For 2005-06, the generation from CGS plants has been taken as per actuals submitted by TRANSCO.

The effective share of TRANSCO is applied on the Energy Sent Out to estimate the energy purchases from the respective Stations. Table 3.7 given below provides the values of the key parameters considered by the Commission to project the energy available from the Central Generating Stations during FY 2006-07 and TRANSCO's share of energy in each station.

Table 3-7: Energy Availability from Central Generating Stations for FY 2006-07

Station	Capacity (MW)	Gross Gen (MU)	ESO (MU)	TRANSCO Share %	TRANSCO's share in ESO (MU)	
					Petition	Commission's Approval
NTPC						
Singrauli	2000	14750	13607	8.78%	1242	1195
Anta	419	2770	2687	11.79%	311	317
Rihand-I	1000	7475	6840	11.28%	747	771
Auriya	663	4300	4171	11.75%	429	490
Dadri - Gas	830	5350	5190	11.56%	597	600
Unchahar – I	420	2752	2504	6.12%	187	153
Unchahar – II	420	2752	2504	12.47%	362	312
Unchahar – III	210	1376	1252	13.81%	0	173
Dadri Thermal	840	6340	5769	90.00%	5458	5192
Rihand II	1000	7475	6877	13.88%	1026	955
Kahalgaon -II	660	1209	1100	15.00%	0	165
sub-total	8462	56549	52501		10360	10323
NHPC						
Bairasiul	180	738	734	11.00%	85	81
Salal	690	3082	3067	11.62%	355	356
Tanakpur	94	452	450	12.81%	57	58
Chamera I	540	2100	2090	7.90%	130	165
Chamera II	300	1500	1493	14.87%	228	222
Uri	480	2587	2574	11.04%	282	284
Dhauliganga	280	1134	1128	14.49%	168	164
sub-total	2564	11593	11535		1304	1329
NPC						
NAPP	440	324	293	11.92%	290	35
RAPP#3	220	1264	1144	1.98%	57	23

Station	Capacity (MW)	Gross Gen (MU)	ESO (MU)	TRANSCO Share %	TRANSCO's share in ESO (MU)	
RAPP#4	220	1264	1144	1.98%	57	23
sub-total	880	2852	2581		404	80
Naptha Jhakri	1500	6400	6368	10.33%	726	658
Tehri	1000	1384	1377	10.40%	139	143
sub-total	14407	78778	74362		12933	12534
Tala HEP	1020	2431	2419	18.14%	0	439
Gross Total	15427	81209	76781		12933	12973

3.2.3.3 Cost of Power Purchase from Central Generating Stations

Petitioner's Submission

The annual fixed charges considered by TRANSCO for CGS stations for FY 2005-06 and FY 2006-07 is based on fixed charges as approved by CERC for each station as on March 31, 2004. With regard to energy charges, the charges for period from Nov 2005 to March 2006 are assumed to be same as of October 2005. The variable cost for FY 2006-07 has been based on the average variable cost per unit paid to these generating stations for the period FY 2005-06 with an escalation of 4% for coal and gas based stations. This has been done keeping in view the inflation, WPI and CPI variations over the last year.

Commission's Analysis

The Commission has considered the cost of power purchase from CGS stations for FY 2005-06 based on actual fixed and variable charges submitted by TRANSCO. The summary of total energy purchased, fixed costs, variable costs and total costs as considered by the Commission based on actual costs during the FY 2005-06 are provided in Table 3.8 given below:

Table 3-8: Actual Fixed and Variable Cost of CGS Stations for FY 2005-06

Station	Power Purchase	Capacity Charges	Energy Charges	Energy Charges	Total	Total
	MU	Rs. Crore		Rs/kwh	Rs. Crore	Rs/kwh
NTPC						
Singrauli	1253	31.43	107.00	0.85	138	1.10

Station	Power Purchase	Capacity Charges	Energy Charges	Energy Charges	Total	Total
Anta	299	9.69	53.64	1.79	63	2.12
Rihand-I	750	56.27	62.45	0.83	119	1.58
Auriya	435	17.29	86.06	1.98	103	2.38
Dadri - Gas	551	24.21	111.65	2.03	136	2.46
Unchahar-1	196	11.83	23.14	1.18	35	1.79
Unchahar-2	392	26.43	45.98	1.17	72	1.85
Dadri Thermal	5504	325.62	886.58	1.61	1212	2.20
Rihand II	370	21.31	34.78	0.94	56	1.52
sub-total	9750	524	1411	1.45	1935	1.99
NHPC						
Bairasiul	86	0.00	5.91	0.69	6	0.69
Salal	400	0.00	26.61	0.66	27	0.66
Tanakpur	52	1.96	3.83	0.74	6	1.12
Chamera I	182	9.30	13.41	0.74	23	1.25
Chamera II	227	0.00	51.71	2.28	52	2.28
Uri	293	43.96	21.62	0.74	66	2.24
Dhauliganga	47	10.83	3.17	0.68	14	2.99
sub-total	1286	66	126	0.98	192	1.50
NPC						
NAPP	223	47.37	0.00	2.12	47	2.12
RAPP#3	27	7.38	0.00	2.71	7	2.71
RAPP#4	26	7.23	0.00	2.74	7	2.74
sub-total	277	62	0.00	0.00	62	2.24
Naptha Jhakri	711	202.15	0.00	0.00	202	2.84
Total CGS	12024	854	1538	1.28	2392	1.99

The annual fixed charges for FY 2006-07 for NTPC and NHPC generating stations have been calculated based on CERC's Tariff Orders issued in May 2006 for the period FY 2004-05 to FY 2008-09 for NTPC and NHPC generating stations except for Rihand STPS –Stage I of NTPC. The Commission has considered the annual fixed charges for Rihand STPS –Stage I of NTPC based on the CERC's Tariff Order issued in May 2006 for the FY 2003-04. In case of Unchahar-Stage-III and Kahalgaon-II of NTPC, the Commission has considered the provisional Tariff @ Rs. 2.19/kwh and @ Rs. 1.79/kwh ,

respectively for the FY 2006-07 as submitted by the Petitioner in their subsequent submission.

The annual fixed charges thus arrived at for NTPC and NHPC stations have been allocated to TRANSCO in proportion to its allocated share in the CGS stations. The following Table 3.9 shows the TRANSCO's effective share allocation and fixed cost in NTPC stations considered for FY 2006-07.

Table 3-9: Fixed Costs for NTPC stations for FY 2006-07

Station	Annual Fixed Charges	Effective Share	Fixed Charges for TRANSCO
	Rs. Cr.	%	Rs. Cr.
NTPC			
Singrauli	339.46	8.78%	29.81
Anta	76.01	11.79%	8.96
Rihand-I	365.24	11.28%	41.18
Auriya	112.89	11.75%	13.26
Dadri Gas	190.26	11.56%	21.99
Unchahar – I	138.25	6.12%	8.46
Unchahar – II	177.24	12.47%	22.10
Unchahar – III	0.00	13.81%	0.00
Dadri Thermal	311.46	90.00%	280.31
Rihand II	229.25	13.88%	31.82
Kahalgaon -II	0.00	15.00%	0.00
Total			457.90

The Commission has considered an additional amount of Rs. 56.97 Crore towards adjustment requested by the Petitioner for FY 2005-06 on account of power purchase from Central Sector Stations due to revision of fixed and other charges for the past years.

Apart from the above, the Commission has also considered adjustment towards power purchase for an amount of Rs. 60.36 Crore received by the Petitioner on account of disputed claims for the FY 2005-06. An amount of Rs.16.83 Crore on this account has already been considered while working out the power purchase for the FY 2004-05.

To arrive at the variable charges for NTPC stations for FY 2006-07, the actual variable charges for FY 2005-06 as submitted by TRANSCO have been escalated by 3% for coal-based plants and 5% for gas-based plants. The summary of variable cost as estimated in the Petition and as considered by the Commission is given in the Table 3.10 given below:

Table 3-10: Variable Costs for FY 2006-07 (Rs/kwh)

Station	Petition	Commission's Approval
Singrauli	0.92	0.88
Anta	2.52	1.88
Rihand -I	0.88	0.86
Auriya	2.49	2.08
Dadri Gas	2.49	2.13
Unchahar – I	1.22	1.22
Unchahar – II	1.21	1.21
Unchahar – III*	0.00	2.19
Dadri Thermal	1.66	1.66
Rihand II	0.99	0.97
Kahalgaon –II*	0.00	1.79

* Provisional Tariff including Fixed and Variable Costs

In line with the CERC Orders, the energy charges for NHPC stations have been estimated at 86 paise/kWh (100 % of the lowest variable cost of thermal stations in the region i.e. Rihand I). The Capacity Charge for each NHPC station has been estimated by deducting the total energy charges from the Annual Fixed Charges. The annual fixed charges of NHPC stations, Energy Charges, Capacity Charges, TRANSCO's effective share allocation and estimated annual fixed cost for TRANSCO for FY 2006-07 is summarised in Table 3.11 given below:

Table 3-11: Annual Capacity Charges for NHPC Stations for FY 2006-07

Station	Annual Fixed Charge	Effective Allocation of TRANSCO	Annual Fixed Charges for TRANSCO	Total Energy Charge	Total Capacity Charge
	(Rs. Crore)	%	(Rs. Crore)	(Rs. Crore)	(Rs. Crore)
Salal	49.92	11.00%	5.49	5.49	0.00

	Annual Fixed Charge	Effective Allocation of TRANSCO	Annual Fixed Charges for TRANSCO	Total Energy Charge	Total Capacity Charge
Bairasiul	169.98	11.62%	19.75	19.75	0.00
Tanakpur	47.49	12.81%	6.08	4.94	1.14
Chamera I	187.42	7.90%	14.81	14.16	0.64
Chamera II	333.55	14.87%	49.59	19.04	30.55
Uri	469.32	11.04%	51.81	24.38	27.43
Dhauliganga	180.55	14.49%	26.16	14.03	12.14
Total			173.70	101.80	71.90

For NPC Stations, the Commission has estimated the power purchase cost considering the rates approved by the CEA, GoI for FY 2006-07. For Nathpa Jhakri and Tehri hydro electric projects the Commission has calculated the power purchase costs based on provisional tariff fixed by CERC. In case of power from Tala HEP the Commission has considered the power purchase costs @Rs 2.25/kWh which is estimated as the cost of equivalent power to be made available from Central Sector thermal stations of Eastern Region. The summary of power purchase from Central Generating Stations and the total fixed and variable cost as projected in the Petition and as considered by the Commission is given in the Table 3.12 below:

Table 3-12: Power Purchase Cost from CGS/Tala HEP for FY 2006-07

Station	Energy Purchase (MU)		Total Cost (Fixed & Variable) (Rs. Crore)		Total Cost (Rs./kWh)	
	Petition	Commission	Petition	Commission	Petition	Commission
NTPC						
Singrauli	1242	1195	146	135	1.17	1.13
Anta	311	317	88	69	2.84	2.17
Rihand-I	747	771	123	107	1.65	1.39
Auriya	429	490	124	115	2.89	2.35
Dadri - Gas	597	600	173	150	2.90	2.49
Unchahar – I	187	153	35	27	1.86	1.77
Unchahar – II	362	312	71	60	1.95	1.91
Unchahar – III	0	173	0	38	0.00	2.19
Dadri Thermal	5458	5192	1229	1142	2.25	2.20
Rihand II	1026	955	134	124	1.31	1.30

Station	Energy Purchase (MU)		Total Cost (Fixed & Variable) (Rs. Crore)		Total Cost (Rs./kWh)	
	Petition	Commission	Petition	Commission	Petition	Commission
Kahalgaon -II	0	165	0	30	0.00	1.79
sub-total	10360	10323	2122	1996	2.05	1.93
NHPC						
Bairasiul	85	81	5	5	0.61	0.68
Salal	355	356	21	20	0.58	0.55
Tanakpur	57	58	6	6	1.01	1.06
Chamera I	130	165	17	15	1.28	0.90
Chamera II	228	222	52	50	2.28	2.23
Uri	282	284	57	52	2.02	1.82
Dhauliganga	168	164	31	26	1.83	1.60
sub-total	1304	1329	188	174	1.44	1.31
NPC						
NAPP	290	35	67	9	2.30	2.53
RAPP# 3	57	23	16	6	2.75	2.80
RAPP# 4	57	23	16	6	2.75	2.80
sub-total	404	80	98	21	2.43	2.68
Naptha Jhakri	726	658	171	155	2.35	2.35
Tehri	139	143	42	43	3.00	3.00
sub-total	12933	12534	2621	2389	2.03	1.91
Tala HEP	0	439	0	99	0.00	2.25
Total	12933	12973	2621	2487	2.03	1.92

Other costs of CGS – Income Tax and Incentives

Petitioner's Submission

The Petitioner submitted that the income tax for Central Generating Stations for FY 2005-06 and FY 2006-07 has been estimated based on per unit tax paid in the previous years and units purchased for FY 2005-06 and FY 2006-07. The Petitioner has considered a total income tax of Rs 66.28 Crore and Rs 75.90 Crore for FY 2005-06 and FY 2006-07 respectively.

The Petitioner has submitted that for NTPC stations, incentive for FY 2005-06 and FY 2006-07 has been calculated as per CERC norms i.e. at the rate of 25 paise per unit for energy produced above the 80% PLF arrived on scheduled generation. For NHPC plants, the incentive has been calculated based on capacity index formula in accordance with

CERC norms. For computing the incentive for NHPC stations, the achieved capacity index for FY 2005-06 and FY 2006-07 has been taken to be same as the actual Capacity Index achieved by the plants during April to September 2005. The Petitioner has considered incentives at Rs 46.05 Crore and Rs 50.33 Crore for FY 2005-06 and FY 2006-07 respectively.

Commission's Analysis

The Commission has examined the approach adopted by the Petitioner for estimating the Income Tax and Incentives for FY 2006-07 and has found the same reasonable. Therefore, for FY 2006-07, the Commission has considered the income tax and incentive as estimated by the Petitioner which is given in Table No.3.16.

3.2.4 Power Purchase from other sources

3.2.4.1 Power Purchase from other Sources for FY 2005-06

Petitioner's Submission

The Petitioner has submitted that it is also purchasing power from HPSEB with which it has entered into a banking agreement, Tata Power Company Ltd, Rajasthan and Haryana (with whom it has entered into a bilateral agreement) and Southern Region (PTC). It is also resorting to overdrawals from the grid to meet the real-time demand supply gap to the extent possible while adhering to the Grid discipline in accordance with the provisions of IEGC.

Commission's Analysis

For FY 2005-06, the Commission has considered the actual costs as submitted by TRANSCO for purchase of power from other sources. The energy purchases from the Other Sources and the power purchase cost as approved by the Commission based on actual for FY 2005-06 is provided in Table 3.13 given below:

Table 3-13: Power Purchase from other sources during FY 2005-06

Source	Power Purchase (MUs)	Total Fixed & Variable Cost (Rs Crore)	Rate (Rs/kwh)
PTC	321	123	3.84

Source	Power Purchase (MUs)	Total Fixed & Variable Cost (Rs Crore)	Rate (Rs/kwh)
HPGCL	37	14	3.92
HPSEB	1171	342	2.92
NVVN	3	2	6.39
TPTCL	30	10	3.32
RETL	5	2	3.65
RPPC	52	20	3.92

3.2.4.2 Power Purchase from other Sources for FY 2006-07

Commission's Analysis

For FY 2006-07, the Commission has considered power availability of 153 MU from HPSEB as per banking agreement. The TRANSCO has submitted that as per the said agreement with HPSEB, this transaction would be without any financial implications since TRANSCO had already supplied this quantum of power to HPSEB during the period of December 2005 to February 2006. Further, the Commission has also considered the purchase of 664 MU from GRIDCO/other sources. Considering the demand pattern of Delhi and the total power purchase being effected from various sources, the Commission is of the view that with the estimated availability of energy from its own resources, CGS and bilateral tie ups with HPSEB/others; TRANSCO shall be surplus during off-peak hours during FY 2006-07 based on Load-generation balance.

The summary of power purchase and costs from other sources for FY 2006-07 as considered by the Commission based on TRANSCO's submission is given in Table 3.14 below:

Table 3-14: Power Purchase from other sources for FY 2006-07

Source	Power Purchase (MUs)	Total Cost (Rs Crore)	Rate (Rs/kwh)
Gridco/Other sources	664	272	4.10
HPSEB	153	0	0.00

3.2.5 Transmission Charges, other wheeling charges and Open Access Charges

The Petitioner has submitted that the transmission charges payable to the Power Grid for the transmission of power from Central Generating Stations have been estimated based on the actual transmission charges paid to PGCIL from April 2005 to September 2005. These are based on the weighted average capacity allocation from the central stations to TRANSCO. The proportionate capacity charges are arrived based on the annual fixed charges to be paid to Power Grid. The transmission charges for FY 2005-06 and FY 2006-07 are estimated by the Petitioner at Rs. 149.81 Crore and Rs. 150 Crore, respectively.

In addition to the above, the Petitioner has submitted that it has to pay to other agencies towards wheeling of power as the power flows through their system. The various items under these are as shown below:

- Rental for Rohtak Road Sub-station of BBMB @Rs.8.1 lakhs/month;
- UPPCL wheeling charges @1 Ps/unit for power wheeled through 220 kV BTPS Noida- Gazipur circuit @ 3.0 MUs per day;
- Wheeling charges to PGCIL for reimbursement to BBMB for Bairasiul Power (85 MU at 240 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 (1,242 MUs);

The above wheeling charges amount to Rs. 5.99 Crore and Rs. 2.45 Crore for FY 2005-06 and FY 2006-07, respectively. The open access charges for FY 2005-06 are estimated by the Petitioner at Rs. 1.49 Crore and Nil for FY 2006-07.

Commission's Analysis

For FY 2005-06, the Commission has considered the actual transmission & wheeling charges and open access charges as submitted by the Petitioner as given in Table No. 3.16. For FY 2006-07, the Commission has considered the transmission & wheeling

charges payable to PGCIL and open access charges at the same level as submitted by the Petitioner as given in Table No. 3.16.

3.2.6 RLDC and ULDC charges

3.2.6.1 Petitioner's Submission

The Petitioner has submitted that fees and charges as approved by CERC are payable to RLDC for undertaking Load Despatch functions. Further, under Unified Load Despatch and Communication (ULDC) Scheme executed by PGCIL, equipments with associated facilities including communication network have been installed at SLDC for which ULDC charges are payable.

The Petitioner has estimated the RLDC and ULDC charges for FY 2005-06 and FY 2006-07 based on the actual amounts paid from April 2005 to September 2005. The RLDC charges reimbursable to NRLDC by TRANSCO are estimated at Rs. 1.14 Crore and Rs. 3.62 Crore for FY 2005-06 and FY 2006-07 respectively. The ULDC charges payable to PGCIL have been estimated at Rs 13.58 Crore and Rs. 13.50 Crore for FY 2005-06 and FY 2006-07, respectively.

3.2.6.2 Commission's Analysis

The Commission has taken the details of actual payment made by TRANSCO for RLDC and ULDC charges. For FY 2005-06, the Commission has considered the RLDC and ULDC charges on actuals as submitted by the Petitioner at Rs 0.57 Crore and Rs 12.25 Crore, respectively which amount to a total of Rs. 12.82 Crore. For FY 2006-07, the Commission has considered the same as estimated at Rs. 12.60 Crore in line with Order dated September 2, 2005 issued by CERC for finalisation of these charges.

The Commission has further examined the total admissible RLDC and ULDC charges for the period July 2002 to March 2006 as per the final charges approved by the CERC vide its Order dated September 2, 2005. On comparison of the same with the total RLDC and ULDC charges allowed by the Commission in its various Tariff Orders, the excess charges of Rs. 3.45 Crore allowed to TRANSCO as per Table 3.15 below has been adjusted while processing the ARR of the Petitioner for the FY 2006-07.

Table 3-15: Adjustment of RLDC and ULDC Charges (Rs Crore)

	Amount Allowed by Commission in various Tariff Orders	RLDC & ULDC charges finalised as per CERC Order dated 02.09.2005	Excess Amount Allowed to TRANSCO being adjusted in FY 2006-07
2002-03 (9 months)	8.57	8.92	-0.35
2003-04	18.75	14.39	4.36
2004-05	12.47	13.25	-0.78
2005-06	12.82	12.60	0.22
Total	52.61	49.16	3.45

Table 3-16: Transmission Charges and Other Charges payable to PGCIL/CGS (Rs Crore)

Particulars	FY 2005-06			FY 2006-07	
	Petition	Actual	Commission's Approval	Petition	Commission's Approval
Transmission Charges	149.81	144.77	144.77	150.00	150.00
RLDC & ULDC Charges	14.72	12.82	12.82	17.12	12.60
Other Wheeling Charges	5.99	2.16	2.16	2.45	2.45
Incentive to CGS	46.05	44.04	44.04	50.33	50.33
Income tax to CGS	66.28	93.61	93.61	75.90	75.90
Open Access Charges	1.49	8.50	8.50	0.00	0.00
Total	284.34	305.90	305.90	295.80	291.28

3.2.7 Transmission Losses**Petitioner's Submission**

The TRANSCO in the Petition has submitted that the transmission losses in the PGCIL's network (for CGS stations only) have been assumed to be the same as the average transmission losses in PGCIL's network during the corresponding month in the last year (average loss for the year was 3.47%) based on data available at Northern Regional Load Dispatch Centre website for the last 52 weeks. The Petitioner further submitted that these

losses are applicable only to the CGS plants and not to HPSEB, BTPS, GENCO or PPCL. For other sources, the transmission loss has been assumed to be 9% for power received from Southern region, 9% for power received from Gridco (PTC) and 13% for power received from Tata Power.

For external transmission network losses, the TRANSCO has estimated a figure of 3.25 % and 3.54% for FY 2005-06 and FY 2006-07, respectively.

Commission's Analysis

TRANSCO has submitted the total energy purchased, energy sold during the year and the transmission losses in TRANSCO system. For FY 2005-06, the actual external transmission losses as submitted by the Petitioner are 2.71%. Accordingly, the Commission has considered the external transmission losses as 2.71% for FY 2005-06 and considered at the same level as of FY 2005-06 for FY 2006-07.

The actual transmission losses in TRANSCO system for FY 2005-06 as per the details provided by TRANSCO works out to be 0.72%. Therefore, for FY 2005-06, the Commission has considered the transmission losses of 0.72% in TRANSCO system based on actual losses for FY 2005-06 and considered at the same level as of FY 2005-06 for FY 2006-07.

3.2.8 Expected Refunds from Central Generating stations

Commission's Analysis

The Central Electricity Regulatory Commission (CERC) has approved the annual fixed charges vide its tariff orders issued in the month of May 2006 for the generating stations of NTPC (Singrauli, Anta, Auriya, Dadri (Gas), Unchahar –1 & 2, Dadri (Thermal) and Rihand-Stage 2) and NHPC (Bairasul, Salal, Tanakpur, Chamara –1 & 2, Uri and Dhauliganga) for the period FY 2004-05 to FY 2008-09. The CERC has also approved the annual fixed charges vide its tariff orders issued in the month of May 2006 for the Rihand-Stage 1 of NTPC for the period FY 2001-02 to FY 2003-04 and order for the period FY 2004-05 to FY 2008-09 is awaited.

The Government of India has approved the tariff for various Atomic Power Stations of Nuclear Power Corporation (NPC) (Narora APS –units 1 & 2 - w.e.f. 01.04.2001 to

31.03.06, Rajasthan APS – units 2, 3 & 4 - w.e.f. 01.04.2004 to 30.11.08) vide notification dated October 16, 2005.

Based on the above approved annual fixed charges for the various generating stations, the Commission has worked out the expected refunds due to the Petitioner for FY 2004-05 and FY 2005-06 excluding Rihand-Stage 1 of NTPC as compared to the amount allowed by the Commission in its previous tariff order on actual basis for the FY 2004-05. For the FY 2005-06, the Commission has considered the power purchase cost based on actual basis. For the purpose of refunds, CERC's orders have been considered to work out the refunds. The Commission has worked out the expected refund on power purchase from Rihand-Stage 1 of NTPC for the period FY 2002-03 (9 months) and FY 2003-04 as compared to the amount allowed by the Commission by its previous tariff order on the actual basis.

The Commission has estimated the expected refunds as Rs.210 Crore which is due to the Petitioner and adjusted the same while processing the ARR of the Petitioner for the FY 2006-07 by reducing the gap of FY 2006-07. Refunds actually received from the CPSUs on account of the Orders issued by CERC for the period 2004-09 shall be reviewed at the time of truing up. The power purchase cost for FY 2006-07 however considered the rates approved by CERC for FY 2006-07 as such without taking into account any refunds of prior period.

3.2.9 Energy Requirement

Petitioners Submission

The TRANSCO in its Petition has submitted that the energy requirement for FY 2005-06 has been estimated based on the monthly demand as projected by the Licensees. Based on this methodology, the TRANSCO has estimated the total energy requirement of 21156 MU during FY 2005-06 and 21615 MU during FY 2006-07 at TRANSCO periphery. The energy available for sale to the various licensees for FY 2005-06 and FY 2006-07 is 20882 MU and 21334 MU, respectively. This estimated energy requirement also includes a transmission loss of 1.30% in the TRANSCO system. The Petitioner further submitted that for estimating the demand forecast for NDMC and MES, based on the past trends, a power factor of 0.91 has been assumed while converting kVAh into kWh. The Petitioner

has submitted the details of month-wise energy requirement. The Petitioner further submitted that on the basis of demand schedules as provided by various licensees, the annual growth rate of energy requirement in FY 2006-07 would be 2.17% over the previous year's demand.

The Petitioner further submitted that as the energy consumption pattern is not expected to remain uniform throughout the day, the Petitioner proposes to sell the surplus power during off peak hours through bilateral agreements, competitive biddings and through other means to the extent possible.

Commission's Analysis

The Commission has observed that against the energy requirement of 21156 MU for FY 2005-06 as estimated by TRANSCO, the actual energy supplied to DISCOMs, NDMC and MES is 21242 MU.

For FY 2006-07, the Commission has also observed the total energy requirement as projected by DISCOMs in their ARR Petitions is lower than the energy requirement as estimated by TRANSCO. This is due to the reason that DISCOMs will be able to meet growth in energy requirement from the reduction in losses during FY 2006-07.

The total energy requirement of DISCOMs, NDMC and MES for FY 2006-07 as estimated by the Commission works out to 21367 MU considering the external transmission losses and TRANSCO system losses as against 21333 MU as estimated by TRANSCO.

The Commission has not reduced the quantum of power purchase proposed by TRANSCO and has considered that the surplus energy shall be sold through Bilateral/competitive bidding/other means as proposed by the Petitioner.

3.2.10 Sale to Other States and Underdrawals

Petitioner's Submission

For FY 2005-06, TRANSCO has proposed to sell the surplus off-peak power to the extent of 1751 MU to other neighbouring states either through the bilateral arrangements or through UI at an average rate of Rs. 3.21/kWh.

For FY 2006-07, TRANSCO has proposed to sell the surplus off-peak power to the extent of 2194 MU to other neighbouring states and as UI at an average rate of Rs. 3.26 /kWh.

Commission's Analysis

The Petitioner provided the details of actual energy sold to other States, revenue from sale of power to Other States and UI Charges. The actual energy sold by TRANSCO including UI during FY 2005-06 is 1918 MU and the revenue earned by TRANSCO from this sale is Rs. 686 Crore including reactive energy drawal of Rs.5.01 Crore and Rs.0.97 Crore rent paid to BBMB. These two item i.e. reactive energy drawal and rent paid to BBMB is considered as non-tariff income. Thus, the average rate for sale of energy to other States works out to Rs. 3.56/kWh. The Commission has considered the actual revenue of Rs 682 Crore from sale to other States and UI charges while estimating the Power Purchase Cost of FY 2005-06.

For FY 2006-07, the Commission has considered the entire surplus energy available as difference between the energy available and estimated energy sales to Licensees in Delhi as sale of power to other States. The Commission expects that the TRANSCO will be able to sell the entire surplus energy available during off peak hours to other States. The Commission directs the TRANSCO to optimise its energy balance and try to sell the entire surplus energy available during off peak hours or schedule dispatches from various stations most optimally. In case, TRANSCO is unable to sell the surplus energy, TRANSCO should back down the generating stations of Delhi including BTPS, PPCL and GENCO duly taking into account the merit order based on the variable cost of various sources of power purchase, operating conditions etc. TRANSCO is further directed not to surrender any cheaper power except in case of unavoidable circumstances.

The Commission observes that the average frequency of the grid has improved / stabilised considerably after the integration/synchronisation of the Northern grid with Central grid in August 2006. The improved grid frequency would effectively reduce the rate for unscheduled interchange (UI). In view of the above, the Commission has considered an average rate of Rs. 3.00/kWh for bilateral transactions as against the rate of

Rs. 3.26/kWh considered by the Petitioner, for projecting the revenue from sale to other States for FY 2006-07.

3.2.11 Energy Balancing

Based on the net energy purchased from each source, transmission losses, sale to other States and Underdrawals, the Energy Balance for FY 2005-06 and FY 2006-07 as estimated in the Petition and as considered by the Commission is provided in Table 3.17 below:

Table 3-17: Energy Balance (MUs)

Particulars	FY 2005-06 - as per petition for 2006-07				FY 2006-07	
	Comm's Order dt 07.07.05	Rev. Est. (petition)	Actual	Commission	Petition	Commission
Purchase from CGS and other Sources	13152	13549	13643	13643	14281	13790
Losses in PGCIL network	(473.00)	(440.00)	(371.05)	(371.02)	(544.00)	(373.70)
Balance	12679	13109	13272	13272	13737	13416
Purchase from Genco, PPCL, BTPS, etc	10062	9799	9890	9894	10071	9778
Energy Available at periphery	22740	22907	23161	23165	23808	23194
TRANSCO losses	(373.00)	(274.00)	(152.95)	(152.98)	(280.98)	(154.96)
UI & Sale to Other States	(1784.00)	(1751.00)	(1917.81)	(1917.81)	(2193.81)	(1671.99)
Energy for Sale in Delhi	20583	20882	21090	21094	21333	21367

3.2.12 Summary of Power Purchase and Power Purchase Costs

The total power purchase from various sources and power purchase cost as estimated in the Petition and as considered by the Commission for the period for FY 2005-06 and FY 2006-07 is summarised in the Table 3.18 and Table 3.19 respectively, as under:

Table 3-18: Summary of Power Purchase and Power Purchase Costs for FY 2005-06

Source	Units Purchased (MU)				Total Price (Rs. Cr)				Price/unit (Rs./kWh)			
	Order for FY 2005-06	Rev estimate	Actual	Commission	Order - 07.07.05	Petition	Actual	Commission	Order - 07.07.05	Petition	Actual	Commission
CGS, NJPC & Tehri	11705	11839	12024	12024	2236	2351	2392	2392	1.91	1.99	1.99	1.99
Other Sources	64	533	448	448	23	195	172	172	3.59	3.66	3.84	3.84
HPSEB	1383	1177	1171	1171	404	342	342	342	2.92	2.91	2.92	2.92
BTPS	4740	4639	4871	4871	1077	1119	1172	1172	2.27	2.41	2.41	2.41
IP Genco	2993	2947	2797	2796	664	662	626	641	2.22	2.25	2.24	2.29
PPCL	2328	2213	2221	2227	483	464	466	444	2.07	2.10	2.10	1.99
Sub-total	23214	23347	23532	23536	4886	5134	5169	5162	2.10	2.20	2.20	2.19
UI & Sale to other States	(1784)	(1751)	(1918)	(1918)	(566)	(562)	(686)	(682)	3.17	3.21	3.58	3.56
Power Purchase Adjustments							57	57				
Total Power Purchase	21430	21596	21614	21618	4320	4572	4540	4537	2.02	2.12	2.10	2.10
Other Costs												
Transmission Charges					155.00	149.81	144.77	144.77				
RLDC and ULDC Charges					12.47	14.72	12.82	12.82				
Other Wheeling Charges					5.69	5.99	2.16	2.16				
Incentive					22.00	46.05	44.04	44.04				
Income tax					37.00	66.28	93.61	93.61				
Open Access Charges					7.70	1.49	8.50	8.50				
Sub-total					240	284	306	306				
Total Power Purchase Cost					4560	4856	4846	4843	2.13	2.25	2.24	2.24

Table 3-19: Summary of Power Purchase and Power Purchase Costs for FY 2006-07

Source	Units Purchased (MU)		Total Price (Rs. Cr)		Price/unit (Rs./kWh)	
	Petition	Commission	Petition	Commission	Petition	Commission
CGS, NJPC & Tehri	12933	12534	2621	2389	2.03	1.91
Tala	0	439	0	99	0.00	2.25
Other Sources	1195	664	490	272	4.10	4.10
HPSEB	153	153	51	0	3.32	0.00
BTPS	4606	4628	1148	1151	2.49	2.49
Genco	3214	2774	737	690	2.29	2.49
PPCL	2251	2377	479	476	2.13	2.00
Sub-total	24352	23568	5525	5077	2.27	2.15
Sale to other States	(2194)	(1672)	(715)	(502)	3.26	3.00
Total Power Purchase	22158	21896	4810	4575	2.17	2.09
Other Costs						
Transmission Charges			150	150		
RLDC and ULDC Charges			17	13		
Other Wheeling Charges			2	2		
Incentive and Income Tax			50	50		
Income tax			76	76		
Open Access Charges			0	0		
Sub-total			296	291		
Total Power Purchase Cost			5106	4867	2.30	2.22

3.3 Employee Expenses

3.3.1 Petitioner's Submission

The TRANSCO, in its ARR and Tariff Petition for FY 2006-07, provided the revised estimates for FY 2005-06 based on employee cost incurred during the first half of 2005-

06 along with estimates for the second half of FY 2005-06. The TRANSCO has estimated gross employee expense of Rs. 51.90 Crore for FY 2005-06, as compared with the Commission's approval of Rs. 46.85 Crore. The TRANSCO has estimated to capitalize employee expenses to the extent of Rs 6.60 Crore for FY 2005-06.

For FY 2006-07, the TRANSCO has projected gross employee expenses at Rs. 53.75 Crore and capitalization of Rs 3.70 Crore, thereby resulting in a net employee cost of Rs. 50.05 Crore. The TRANSCO has estimated the employee expenses for FY 2005-06 and FY 2006-07 by applying the following growth rate to the salary components:

Components	FY 05-06	FY 06-07	Reason
Salaries, Overtime & Bonus	3%	3%	Based on the annual increment as per service conditions.
Dearness Allowance	6%	6%	Based on the increases in a typical year as per the service conditions
All Other Allowances	4%	4%	To counter the effect of inflation

The estimates for second half of FY 2005-06 have been arrived at after deducting the actuals for first half of FY 2005-06 from the total value for the year.

3.3.2 Commission's Analysis

The Commission has analysed the employee expenses proposed by the TRANSCO along with the methodology adopted for estimation of the employee expenses. During the technical sessions, the Commission directed the TRANSCO to submit the actual employee expenditure incurred during FY 2005-06.

Accordingly, the TRANSCO submitted the details of actual employee expenses for FY 2005-06. The total gross actual employee expenses for FY 2005-06 as submitted by the TRANSCO are Rs 52.80 Crore.

The actual employee expenses of the TRANSCO during the FY 2005-06 are marginally higher than the employee costs approved by the Commission in its Order on ARR for FY 2005-06. On scrutiny of the actual employees cost, the Commission observed that the Petitioner has included Rs. 36 lacs towards the salary of Holding Company's employees (DPCL). Since this expense is not pertaining to the Petitioner, the Commission has not considered this amount. Further, overtime provision made amounting Rs. 45 lacs has not

been considered as it is only a provision made by the Petitioner. Therefore, the Commission has considered the balance actual employee expenses for FY 2005-06. The Commission considered capitalisation on proportionate basis based on approved capital expenditure vis-s-vis capital expense incurred/projected by the Petitioner. Based on this, the employee expenses capitalised during the year as considered by the Commission works out to Rs. 5.53 Crore and the same has been considered by the Commission while approving the net employee expenses of Rs.46.46 Crore for FY 2005-06.

For estimating the employee expenses for FY 2006-07, the Commission has made the following assumptions:

Basic Salary: Growth of 3% on Basic Salary.

- Dearness Allowance: Increase in DA by 6%
- Other Allowances: Considered as proportion to the Basic, as these components are linked to the Basic Salary.
- Other components: Other heads such as staff welfare, other allowances, medical reimbursements, and bonus/ex-gratia, considered on proportionate basis linked to the basic salary as these components are linked to the basic salary.

Based on the above assumptions, the employee expenses for FY 2006-07 has been approved at Rs. 53.71 Crore as against Rs. 53.75 Crore as proposed by the TRANSCO for FY 2006-07. The Commission has considered capitalisation on proportionate basis based on approved capital expenditure vis-s-vis capital expense incurred/projected by the Petitioner.

The Table 3.20 provides a snapshot view of the employee expenses as proposed by TRANSCO in the Petition and as approved by the Commission.

Table 3-20: Employee Expenses (Rs. Crore)

Particulars	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Actual	Commission	Petition	Commission
Salaries	23.45	25.55	25.33	24.97	26.32	25.72
Dearness Allowance	3.30	3.81	5.18	5.18	4.03	5.49
Terminal Benefits	5.07	5.67	5.86	5.86	5.89	6.04
Other Costs	15.04	16.87	16.43	15.98	17.51	16.46
Total	46.85	51.90	52.80	51.99	53.75	53.71
less expenses capitalised	7.03	6.60	7.82	5.53	3.70	3.11
Total	39.82	45.30	44.98	46.46	50.05	50.60

3.4 Administrative and General Expense (A&G)

3.4.1 Petitioner's Submission

In its Petition for FY 2006-07, the TRANSCO has estimated gross A&G expenses for FY 2005-06 as Rs. 10.06 Crore based on actuals incurred during the first half of 2005-06 and estimates made for the second half of 2005-06. TRANSCO has proposed to capitalise expenses to the extent of Rs 1.28 Crore for FY 2005-06.

For FY 2006-07, the TRANSCO has projected a gross A&G expenses at Rs. 10.99 Crore, assuming a growth of 10% over the estimated A&G expenses for FY 2005-06. The TRANSCO has also considered capitalisation of A&G expenses to the extent of Rs 0.76 Crore for FY 2006-07.

3.4.2 Commission's Analysis

TRANSCO submitted the actual A&G expenses incurred during FY 2005-06 at Rs. 9.10 Crore. The Commission accepts the actual as provided by the TRANSCO. The Commission has thus approved a gross A&G expense of Rs 9.10 Crore for FY 2005-06. The Commission considered capitalisation on proportionate basis based on approved capital expenditure vis-à-vis capital expense incurred/projected by the Petitioner.

For FY 2006-07, the Commission has separately projected individual components of A&G expenses, considering a growth rate of 4%, over the actual expenses incurred in FY 2005-06. Accordingly, the total A&G expenses for FY 2006-07 estimated by the Commission works out to Rs. 9.46 Crore. The Commission considered capitalisation on proportionate basis based on approved capital expenditure vis-à-vis capital expenditure incurred/projected by the Petitioner.

Table 3.21 provides a summary of A&G expenses as proposed by the TRANSCO and as approved by the Commission.

Table 3-21: Administrative and General Expenses (Rs. Crore)

Particulars	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Actual	Commission	Petition	Commission
Expenses excluding Rebate	10.06	10.06	9.10	9.10	10.99	9.46
Less capitalised	1.52	1.28	0.00	0.00	0.76	0.64
Net Expenses excluding Rebate	8.54	8.78	9.10	9.10	10.23	8.82

The Commission directs the Petitioner to take prior approval for any increase in A&G expenses during the FY 2006-07 beyond approved A&G expenses before committing/incurred such additional A&G expenses.

3.5 Other Admissible Expenses

3.5.1 Petitioner's Submission

In its Petition for FY 2006-07, the TRANSCO has estimated expenses towards rebate to DISCOMs on power purchase at Rs. 31.36 Crore and Rs. 33 Crore for FY 2005-06 and FY 2006-07 respectively.

3.5.2 Commission's Analysis

The Commission has considered the component of rebate on sale of energy to DISCOMs & others as expense for the Petitioner for FY 2005-06 and FY 2006-07 as per actuals/estimated by the Petitioner.

Table 3-22: Rebate (Rs Crore)

Particulars	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Actual	Commission	Petition	Commission
Rebate	12.37	31.36	33.53	33.53	33.00	33.00

3.6 Repairs and Maintenance (R&M)

3.6.1 Petitioner's Submission

The TRANSCO, in its ARR and Tariff Petition for FY 2006-07, submitted that against an approved R&M expense of Rs. 14.17 Crore for FY 2005-06, the revised estimates for FY 2005-06 are Rs. 15.61 Crore. The TRANSCO has estimated expenses for FY 2005-06 by considering the actuals for first six months and as estimated for the balance six months. The TRANSCO has projected R&M expense of Rs. 17.17 Crore for FY 2006-07 by applying a growth rate of 10% to each of the component in FY 2005-06. The increase is proposed primarily on account of inflation, levy of new taxes and the increased asset base.

3.6.2 Commission's Analysis

The Petitioner submitted that the actual R&M for FY 2005-06 is Rs. 17.26 Crore. The Commission approves R&M expenses for FY 2005-06 at Rs. 17.26 Crore based on the actual.

For FY 2006-07, the Commission has estimated the R&M expenses at Rs. 17.17 Crore as proposed by the Petitioner.

The Commission, in its previous Order on ARR for FY 2005-06 dated July 7, 2005, had reiterated its direction to the Petitioner to maintain a separate record of the items issued from the Stores for R&M works, and submit the same to the Commission along with the

details of the actual R&M Works carried out at the end of each quarter. This direction would continue to be in force in FY 2006-07 as well.

The Commission also directs the Petitioner to take prior approval for any increase in R&M expense during FY 2006-07 beyond the approved R&M expense before committing/incurred an expense.

Table 3.23 provides a summary of R&M expenses as proposed by the TRANSCO and as approved by the Commission.

Table 3-23: Repairs and Maintenance Expenses (Rs. Crore)

Particulars	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Total	14.17	15.61	17.26	17.26	17.17	17.17

3.7 Investments

3.7.1 Petitioners Submission

In its Petition, TRANSCO has estimated an investment of Rs. 99.37 Crore & Rs. 119.08 Crore for FY 2005-06 and FY 2006-07, respectively through Plan loans from the GNCTD for construction of 400 kV substation/lines and 220 kV substation/lines. The Commission had approved capital expenditure of Rs. 250 Crore (including capitalisation of establishment and interest expense) in the ARR and Tariff Order for FY 2005-06. The Petitioner has submitted the scheme-wise details of the proposed investments.

During the Technical Sessions, the Petitioner has submitted scheme-wise physical and financial progress report for the capital works undertaken during FY 2005-06. The Petitioner has indicated that it has funded the investments through the Plan Assistance from the GNCTD in FY 2005-06. In the subsequent submissions, The Petitioner has submitted that it has incurred actual capital expenditure of Rs. 90.57 Crore excluding capitalisation of interest and establishment expenses as against the investment of Rs. 250 Crore considered by the Commission in the Tariff Order dated July 7, 2005.

As regards the cost benefit analysis of the investment made in FY 2005-06 and as proposed for FY 2006-07, TRANSCO has submitted that the plan schemes are for system

improvement/augmentation, primarily meant for improving reliability of supply and meeting the load requirements of the DISCOMs. The Petitioner has further submitted that the Schemes for establishment of substations including installation of additional transformers have been prepared in accordance with System Planning Studies issued by CEA based on (n-1) criteria. The Petitioner has also submitted that the proposed Schemes would be funded through Plan Fund Assistance from the GNCTD. In the subsequent submissions, TRANSCO has submitted that the GNCTD has sanctioned a Plan Assistance of Rs. 120 Crore for FY 2006-07 for funding the proposed capital works schemes.

3.7.2 Commission's Analysis

The Commission is of the opinion that there should not be any gaps in the transmission system, which may impede the supply to DISCOMs. In case, the additional investments are required for strengthening and improving the transmission system to ensure reliable power supply to DISCOMs, the TRANSCO shall prepare the plans for these works and submit it to the Commission for approval. Further, TRANSCO shall expeditiously take up these works and arrange the additional funds accordingly.

The Commission had earlier directed the Petitioner to submit a consolidated Project Report covering all works proposed to be undertaken during FY 2005-06 and FY 2006-07 along with the following details:

- Scope of Work
- Single line diagram of substation works
- Full justification along with peak load incident on the substation during last three years and report of load flow studies corresponding to FY 2006-07 / FY 2011-12 conditions
- Commissioning schedule of the Scheme
- Pattern of financing
- Detailed cost estimates for electrical and civil works
- Power Map of Delhi System showing existing, approved and proposed system in different colours.

In line with the Commission's direction, TRANSCO had submitted the consolidated Project Report for the works proposed in FY 2005-06 and FY 2006-07 and the approval for investment was accorded for the necessary works.

As per submission of the Petitioner, the actual capital investment during FY 2005-06 was Rs. 90.57 Crore excluding IDC and establishment expenses. On scrutiny of the scheme wise details of actual expenditure submitted by the Petitioner, it was observed that the payment for RLDC and ULDC charges has been effected from Plan Fund Assistance of GNCTD even though the same is not falling under the category of Capital Investment. The Commission is of the view that RLDC and ULDC charges are to be considered under the Revenue account. Accordingly, the Capital Investment for FY 2005-06 is being taken on actuals at Rs.75.28 Crore after excluding the payment for RLDC and ULDC charges.

The Commission has noted that the Petitioner has obtained sanction of Rs. 120 Crore from GNCTD under the Plan Fund Assistance for FY 2006-07. Considering the progress of the various on going capital schemes and the works proposed to be undertaken for the FY 2006-07, the Commission has considered an investment of Rs. 100 Crore for the purpose of determination of ARR and Tariff. The Petitioner is directed to seek approval of the Commission for the proposed schemes as per the Terms and Conditions of the Licence.

The summary of the Capital Investment as proposed in the Petition and as considered by the Commission for FY 2005-06 and FY 2006-07 is provided in the Table 3.24.

Table 3-24 Capital Investment (Rs. Crore)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Actuals	Commission	Petition	Commission
Total Investments	250.00	99.37	90.57	75.28	119.08	100.00

3.8 Asset Capitalisation

3.8.1 Petitioner's Submission

In its Petition, the TRANSCO has proposed to capitalize Rs 137.86 Crore and Rs 80.59 Crore of investment for FY 2005-06 and FY 2006-07, respectively. In the subsequent submissions, the Petitioner has mentioned actual capitalisation of Rs.52.23 Crore for FY 2005-06 as per the provisional accounts.

3.8.2 Commission's Analysis

The Commission has analysed the philosophy of asset capitalization being followed by the Petitioner as reflected in their Books of Accounts/ financial records. It has been noted that the entire transmission scheme is being executed through various Work Orders issued for different elements of civil & electrical works. The capitalization is accordingly considered by the Petitioner on completion of respective Work Orders even though the scheme/asset as a whole is commissioned at a later date. During the Technical Sessions the Petitioner has submitted that there is also a delay in submission of the Completion Reports by the various divisions within TRANSCO, thereby the capitalization as reflected in the financial records is not reflective of the factual position. This certainly distorts the logical mechanism of capitalization for transmission assets.

The Commission is of the view that the transmission scheme comprising specified transmission lines, sub-stations with associated equipment and works as defined in the scope, needs to be considered for capitalization only on its commercial operation / charging to rated voltage level after obtaining the statutory clearance of Electrical Inspector etc. and compliance with the safety Rules /Regulations/Standards in vogue. **The Commission hereby directs TRANSCO to organize for scheme-wise completion and consequent capitalization of the assets in consonance with the commissioning/commercial operation of the respective scheme which would be certified by the State Load Despatch Centre (SLDC) and considered as an element for calculation of transmission system availability of TRANSCO. It is further directed that in future the relevant information be furnished by TRANSCO in the formats separately prescribed by the Commission for capitalization of assets. The**

said formats are to be submitted alongwith the necessary statutory clearances/certificates of Electrical Inspector etc for all EHV & HV works and certificate of SLDC for commissioning/ commercial operation. The capital expenditure incurred for deferred liabilities, residual works etc. within the original scope of scheme may be admitted by the Commission on merits and prudence check.

Based on the analysis in line with the methodology elaborated above, the Commission has approved capitalisation of Rs 18.35 Crore for FY 2004-05. Further, keeping in view the progress of ongoing capital schemes, the proposed new investments and the schedule of completion of the various schemes, the Commission has considered provisional capitalisation of Rs.48.57 Crore for FY 2005-06 and Rs 60.43 Crore for FY 2006-07.

The summary of opening balance of fixed assets, asset capitalisation during the year and the closing balance of fixed assets at the end of the Financial Year as proposed in the Petition and as considered by the Commission is summarised in the Table 3.26 in para 3.9.

3.9 Depreciation

3.9.1.1 *Petitioner's Submission*

TRANSCO has proposed depreciation charges based on the weighted average depreciation rate of 3.75%, approved by the Commission in the last Tariff Order. Based on the opening block of Gross Fixed Assets, the Petitioner has estimated the depreciation charge at Rs. 30.27 Crore and Rs. 35.44 Crore for FY 2005-06 and FY 2006-07, respectively.

3.9.1.2 *Commission's Analysis*

The Commission has adequately deliberated and discussed the issue of depreciation calculation in its Tariff Order dated June 26, 2003 on TRANSCO's ARR Petition for FY 2002-03 and FY 2003-04 and the Order on Review Petition filed by the TRANSCO.

The Electricity Act 2003 envisages that the terms & conditions of tariff of CERC will act as principles & guidelines for other Commissions. Accordingly, the Commission has again considered the rates of depreciation for the purpose of determination of ARR based on straight line method over the useful life of the asset and at the rates prescribed in the

Appendix II to the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 for various asset. For the FY 2005-06, the residual life of the asset was considered as 10% and depreciation to be allowed up to maximum of 90% of the capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the cost of the asset. The same procedure shall be followed for FY 2006-07 as well.

The Commission in its tariff order for FY 2005-06 had estimated the weighted average depreciation at 3.53% based on audited accounts for FY 2003-04 and had directed the Petitioner to submit the break-up of opening block of assets and assets capitalized during the year as per the classification specified while submitting the Petition for FY 2006-07. Accordingly, the Petitioner has submitted this information and the Commission has calculated the weighted average depreciation rate for FY 2005-06 & FY 2006-07 at 3.40% based on closing value of assets for FY 2004-05 and FY 2005-06 as shown in Table 3.25 below:

Table 3-25: Depreciation Rates (Rs Lacs)

S.No.	Depreciation of Assets	Asset Gross Block as at March 31, 2005	Rate (%)	Asset Gross Block as at March 31, 2006	Rate (%)
1	Land and land rights	3222	0.00%	3222	0.00%
2	Buildings (sub-station)	1916	3.60%	1916	3.60%
3	Buildings (office and residential colonies)	1343	1.80%	1379	1.80%
4	Bays of 400 kV	1163	3.60%	1163	3.60%
5	Other civil works	4652	1.80%	5501	1.80%
6	Plant & Machinery	42251	3.60%	46482	3.60%
7	SCADA and PLCC	5095	3.60%	5101	3.60%
8	Lines, cables, network, etc	20225	3.60%	20230	3.60%
9	Furniture and fixtures	243	6.00%	290	6.00%
10	Vehicles	328	18.00%	333	18.00%
11	Office equipment	281	6.00%	324	6.00%

S.No.	Depreciation of Assets	Asset Gross Block as at March 31, 2005	Rate (%)	Asset Gross Block as at March 31, 2006	Rate (%)
12	Total	80719	3.40%	85941	3.40%

The Commission has computed the depreciation for FY 2005-06 and FY 2006-07 based on the average of the opening and closing gross fixed assets of FY 2005-06 and FY 2006-07 by applying the weighted average depreciation rate at 3.40%.

The Commission has observed that as per the Transfer Scheme notified by GNCTD the opening gross block of the fixed assets as on 1st July 2002 was Rs.650.00 Crore. However, as per the audited accounts of TRANSCO for the FY 2002-03, opening gross block of the fixed assets as on 1st July 2002 has been taken as Rs.670.14 Crore and the subsequent additions have been based on the said value of the opening gross block. The Commission is of the view that the Transfer Scheme is guiding principal and therefore, the opening gross block of the fixed assets as on 1st July 2002 is to be considered as Rs.650.00 Crore instead of Rs. 670.14 Crore. The opening gross block of fixed assets for FY 2005-06 has been modified accordingly for the purpose of calculation of depreciation by the Commission.

The Table 3.26 provide a summary of Depreciation as proposed by the Petitioner and as approved by the Commission for FY 2005-06 and FY 2006-07.

Table 3-26: Depreciation (Rs Crore)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Actual	Commission	Petition	Commission
Opening balance of fixed assets	759.26	807.19	807.19	743.90	945.05	792.47
Addition during the year -others	82.09	137.86	52.23	48.57	80.59	60.43

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Actual	Commission	Petition	Commission
Retirement during the year	0.00	0.00	0.00	0.00	0.00	0.00
Closing balance of fixed assets	841.35	945.05	859.42	792.47	1025.63	852.90
Average Fixed Assets	800.30	876.12	833.30	768.19	985.34	822.69
Depreciation	28.22	30.27	30.27	26.09	35.44	27.94

The complete asset wise details of prorata depreciation alongwith actual usage/operation (in number of days) for each asset for the FY 2005-06, is not available. In the absence of complete details, the Commission has continued with the same approach of capitalisation of assets on average basis in the middle of the year.

3.9.1.3 Depreciation Utilisation

The priority of utilisation of depreciation as per Commission's philosophy is as mentioned below:

- Loan Repayment, if any
- Working Capital Requirement
- Capital Investment

For FY 2005-06, the Commission has considered the funding of working capital requirement through depreciation in line with the philosophy adopted in the Tariff Order for FY 2005-06. The Working Capital requirement has been estimated by considering two months Stores (R&M expenses) and one month cash expenses i.e. salary, A&G and R&M expenses. While providing funds for working capital, funds provided towards working capital for the period from FY 2002-03 to FY 2004-05 are also considered as available to meet working capital requirement of FY 2005-06 and FY 2006-07. The Commission has provided funding to the tune of Rs 27.23 Crore towards working capital requirement by allowing to utilise depreciation of Rs. 9.05 Crore in FY 2002-03, Rs. 9.11

Crore in FY 2003-04 and Rs. 9.07 Crore in FY 2004-05 towards Working Capital requirement. Since net requirement of working capital for FY 2005-06 is lower than cumulative funding provided, no additional funding was considered by the Commission towards working capital requirement for FY 2005-06. Keeping in line with the same philosophy, no additional funding has been considered towards working capital requirement for FY 2006-07.

As such, the Commission has considered utilisation of depreciation for meeting the loan repayment requirement and funding capital investments.

The Commission has considered the actual loan repayment period of 15 years for FY 2005-06 and FY 2006-07. The Commission has considered the actual loan drawal restricted to the financing approved for the FY 2005-06 and FY 2006-07. The utilisation of depreciation as considered by the Commission is summarised in the Table 3.27.

Table 3-27: Utilisation of Depreciation

Description	FY 2005-06		FY 2006-07
	Order for FY 2005-06	Commission – as revised	Commission
For debt repayment	15.98	14.31	27.94
For working capital requirement	0.00	0.00	0.00
For capital investment	12.24	11.78	0.00
Total depreciation	28.22	26.09	27.94

3.10 Means of Finance

3.10.1 Petitioner's Submission

The Petitioner has proposed funding of the investments through the Plan Assistance provided by the GNCTD in FY 2005-06 and FY 2006-07. Under the Plan Assistance, the Petitioner has estimated outstanding amount of plan funds at the end of FY 2005-06 as Rs 304 Crore and Rs. 403 Crore at the end of FY 2006-07.

The Petitioner has also submitted that it has borrowed short-term loan of Rs 50 Crore from DPCL which is assumed to be repaid by the end of the year.

3.10.2 Commission's Analysis

As elaborated earlier, the Commission has considered the unutilised depreciation as a source of funding for the capital investments. The Commission has thus considered the means of finance to be a mix of unutilised depreciation and Plan funds from State Government for funding the investments.

The means of finance considered by the Commission for funding capital works is summarised in the Table 3.28 below:

Table 3-28: Means of Finance (Rs Crore)

Description	FY 2005-06		FY 2006-07
	Order for FY 2005-06	Commission - – as revised	Commission
Unutilised depreciation	12.13	11.78	0.00
Loan from GNCTD for Plan Assistance	237.87	63.50	100.00
Internal Accruals	0.00	0.00	0.00
Commercial Debt	0.00	0.00	0.00
Total	250.00	75.28	100.00

3.11 Transitional Loan Support

3.11.1 Petitioner's Submission

The Petitioner has submitted that an amount of Rs. 3,452 Crore has been provided to TRANSCO, as per the Policy Directions of GNCTD, for the purpose of meeting its revenue gap and has to be treated as loan. As per the schedule of payment, entire amount of this loan would be drawn by TRANSCO by the end of FY 2005-06. The TRANSCO has submitted that it has not considered any interest charge on the loans availed from GNCTD for meeting the revenue gap as per the Policy Directions issued by GNCTD as the detailed terms and conditions of this loan including the rate of interest are not finalised.

3.11.2 Commission's Analysis

With respect to the reform transition support loan of Rs.3452 Crore, GNCTD vide its letter dated May 24th, 2006 has conveyed to the Petitioner the terms of principal repayment and interest, which is given below:-

- i. Moratorium of four years on the repayment of principal and interest in respect of the power sector reform loan of Rs. 3452 Crore by GNCTD to TRANSCO to bridge the gap between its revenue requirements and bulk supply tariff which it may receive from the distribution licensees.
- ii. After the moratorium period of four years, from the date of transfer, the power sector reform loan may be converted to an interest free soft loan with a repayment term of 15 years.

Since the loan is being converted to be an interest free soft loan, the Commission has not considered any interest liability on this account while determining the interest expenses for FY 2006-07.

With regard to the repayment of the principal, the Petitioner has not considered the same in the ARR. The Commission is of the opinion that in case the repayment of this loan is to be considered in the ARR of the Petitioner, the overall sectoral revenue gap may increase substantially, which in turn will result in additional tariff burden to the consumers. Thus, it will be difficult at any stage to service this outstanding loan through the ARR of TRANSCO. The Commission has been expressing this view since its Order dated June 26, 2003. Hence, the Commission is of the considered view that the burden of the entire transitional loan support to TRANSCO can not be passed on to the consumers and that the Government of GNCTD may consider converting this loan in to a grant. The Commission has also conveyed this view to the GNCTD as a statutory advice u/s 86(2) of the EA 2003 vide letter no F.3(131)/Tariff/DERC/2006-07/1341 dated July 7, 2006.

3.12 Interest and Finance Charges

3.12.1 Petitioner's Submission

TRANSCO has submitted that the moratorium period for Transfer Scheme Loan of Rs 270 Crore from GNCTD is expiring in Dec 2006 and the interest payment @ 12% and

loan repayment is at Rs 16.2 Crore and Rs 15 Crore respectively for FY 2006-07. Power Sector Reform Loans availed from GNCTD for meeting the revenue gap as per Policy Directions issued by GNCTD have not been considered as the detailed terms of the loan are yet to be finalized.

The Petitioner has projected an interest on the loans from GNCTD under plan assistance at Rs 26.79 Crore in FY 2005-06 and Rs 35.38 Crore for FY 2006-07. In addition to this, short term loan of Rs 50 Crore has been taken from M/s DPCL in FY 2005-06 which is assumed to be repaid by the end of the year. The interest on this loan is charged @ 6.75% p.a. at Rs 1.91 Crore for FY 2005-06.

3.12.2 Commission's Analysis

The Commission has analysed the interest expenses proposed by TRANSCO for both FY 2005-06 (on actual basis) and FY 2006-07. For the purpose of determination of ARR, the Commission has admitted the interest on loans availed under the Plan Fund Assistance which are utilised specifically for funding capital expenditure. The Commission has considered the fact that the execution of Bawana DSIDC-1 grid sub-station is being implemented by TRANSCO as a 100% deposit work for DSIDC and this aspect has been taken into consideration while estimating the Plan Fund Assistance which was required for the capital expenditure of TRANSCO.

The Commission has considered the means of finance to fund the capital expenditure for FY 2004-05, FY 2005-06 and FY 2006-07 as explained earlier in this chapter. Based on the approved means of finance, the Commission has worked out the loan requirement of the Petitioner taking into account actual repayment period of 15 years and the interest rate @ 11.50% p.a.

The Commission has considered the interest amount of Rs. 18.98 Crore and Rs.51.91 Crore net of interest capitalised for FY 2005-06 and FY 2006-07, respectively.

As regards the outstanding loan of Rs 270 Crore from the Holding Company, the loan is to be paid within a period of 13 years with 12% interest per annum after a moratorium for four years for payment of interest and principal repayment. The moratorium period is completed in July 2006 and the interest payment becomes due during FY 2006-07 and as such the same has been considered. The Petitioner has submitted in their subsequent

submissions the revised estimates of Rs.23.88 Crore towards interest on loan from Holding Company.

For FY 2005-06, the Commission has capitalised the interest amount proportionately based on the approved capital expenditure. For FY 2006-07 also, the Commission has capitalised the interest proportionately based on the approved capital expenditure. The summary of the interest charges as proposed by the Petitioner and as approved by the Commission is provided in the Table 3.29 given below:

Table 3-29: Interest Expenditure (Rs Crore)

Description	FY 2005-06			FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Commission	Petition	Commission
Loan under Plan Fund Assistance from GNCTD	26.79	26.79	27.47	35.38	34.42
Opening Balance Sheet Loan from Holding Company	0.00	0.00	0.00	16.20	23.88
Other Loan from Holding Company	0.00	1.91	0.00	0.00	0.00
Interest Expenditure	26.79	28.70	27.47	51.58	58.30
Interest capitalised	9.70	15.72	8.49	7.61	6.39
Interest charged to revenue	17.09	12.98	18.98	43.97	51.91

3.13 Contingency Reserve

3.13.1 Petitioner's Submission

The Petitioner has proposed to contribute 0.25% of the opening balance of original cost of fixed assets as contingency reserve amounting to Rs 2.02 Crore and Rs 2.36 Crore for FY 2005-06 and FY 2006-07, respectively.

3.13.2 Commission's Analysis

The Commission would like to mention that the creation of contingency reserve was mandated in the Sixth Schedule to the Electricity (Supply) Act, 1948 which was in force before the repeal of the said Act by the EA 2003. The EA 2003, however, does not provide for the creation of contingency reserve. Therefore, in accordance with the EA 2003, the Commission did not approve any expenses with respect to contingency reserve for FY 2005-06 in its last tariff order. Keeping in line with the same philosophy, the Commission has not allowed any contingency reserve for FY 2006-07.

Contingency reserve created upto FY 2004-05 amounting to Rs. 5.48 Crore exists in the Accounts of the Petitioner. Treatment of contingency reserve shall be dealt with in the Regulations under preparation by the Commission.

The following Table 3.30 summarises the Contribution to Contingency Reserves as proposed by the Petitioner and as considered by the Commission for FY 2005-06 and FY 2006-07:

Table 3-30: Contingency Reserves (Rs. Crore)

Component	FY 2005-06			FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Commission	Petition	Commission
Contribution to Contingency Reserves	0.00	2.02	0.00	2.36	0.00

3.14 Taxes on Income and Fringe Benefit Tax

3.14.1 Petitioner's Submission

In the Petition, the Petitioner has not estimated any taxes on income and profit for FY 2005-06 and FY 2006-07.

The Petitioner also stated that the Fringe Benefit Tax be allowed as a pass through in the tariff and an estimation of Rs. 0.49 Crore has been made for the FY 2005-06.

3.14.2 Commission's Analysis

In line with the Petitioner's submission, the Commission has not considered taxes on income for FY 2005-06 and FY 2006-07.

The Commission has considered the amount of Rs. 0.32 Crore towards Fringe Benefit Tax (FBT) for the FY 2005-06 as per actual based on the provisional accounts. For the FY 2006-07, the Commission has not considered the Fringe Benefit Tax as the Petitioner has not proposed any FBT. The Commission will consider the same at the time of true up for FY 2006-07.

3.15 Reasonable Return

3.15.1 Petitioner's Submission

The Petitioner has estimated return based on the methodology adopted by the Commission in its previous tariff orders in accordance with the Sixth Schedule of Electricity Supply Act, 1948 @ 16% on net capital base. Based on this, the Petitioner has estimated the reasonable return at Rs 27.96 Crore on a capital base of Rs 174.74 Crore for FY 2005-06 and Rs 28.6 Crore on a capital base of Rs 178.73 Crore for FY 2006-07.

3.15.2 Commission's Analysis

The Commission continues with the same methodology for estimating the Capital Base and Reasonable Return during FY 2006-07 as was adopted for the period from FY 2002-03 to FY 2005-06.

The summary of Capital Base and Reasonable Return as estimated by the Petitioner and as approved by the Commission is provided in Table 3.31 given below:

Table 3-31: Capital Base and Reasonable Return (Rs Crore)

	FY 2005-06			FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Commission	Petition	Commission
Original cost of fixed assets (excl consumer contribution)	842	945	792	1026	853
Cost of intangible assets	0	0	0	0	0

	FY 2005-06			FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Commission	Petition	Commission
Original cost of WIP	328	65	162	104	202
Compulsory investments	0	0	0	0	0
Amount of working capital as sum of:					
Average cost of stores	8	8	8	9	8
Average cash & bank balance	10	35	35	38	35
Sub- total	1188	1053	997	1177	1097
Amount written off or set aside on account of depreciation of fixed / intangible assets	273	304	269	340	297
Amount of loan from State Govt	462	304	253	403	334
Loan from Holding Company	270	270	270	255	255
Debenture issues/commercial loan	0	0	0	0	0
Amounts deposited in cash with licensee by consumer by way of security	0	0	0	0	0
Sub-total	1006	878	792	998	886
Net Capital Base	182	175	206	179	211
16% return on capital base	29	28	33	29	34
Return on borrowed funds	4	0	0	0	0
Total Reasonable Return	33	28	33	29	34

3.16 Total Expenditure

Table 3.32 given below provides a summary view of the various expenses as proposed by the Petitioner and as approved by the Commission for FY 2005-06 and FY 2006-07. Detailed analysis of each expense head has already been provided in the above sections.

Table 3-32: Total Expenditure (Rs Crore)

Particulars	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (Petition)	Actual	Commission	Petition	Commission
Power Purchase Expenses	4560.06	4856.38	4846.04	4842.95	5105.81	4866.65
Estimated refunds from CPSUs	0.00	(77.00)	0.00	(60.00)	0.00	(210.00)
Excess RLDC & ULDC charges allowed	0.00	0.00	0.00	0.00	0.00	(3.45)
Employee expenses	39.82	45.29	44.98	46.46	50.05	50.60
A&G expenses	8.56	8.78	9.10	9.10	10.23	8.82
R&M expenses	14.17	15.61	17.26	17.26	17.17	17.17
Depreciation	28.22	30.27	30.27	26.09	35.44	27.94
Prior Period Expenses & Preliminary Exp	0.00	0.00	-1.09	0.00	0.00	0.00
Interest Expense	14.74	12.98	20.57	18.98	43.97	51.91
Carrying cost on truing up	0.00	0.00	0.00	0.00	0.00	0.00
Rebate to DISCOMs	12.37	31.36	33.53	33.53	33.00	33.00
Total Expenditure	4677.95	4923.67	5000.66	4934.36	5295.67	4842.17
Contribution to contingency reserves	0.00	2.02	2.02	0.00	2.36	0.00
Income Tax & FBT	0.00	0.00	0.32	0.32	0.00	0.00
Net expenditure including special appropriations	4677.95	4925.69	5003.00	4934.68	5298.03	4842.17

3.17 Non Tariff Income (NTI)

3.17.1 Petitioner's Submission

The Petitioner has submitted revised estimates of non-tariff income for FY 2005-06 at Rs. 88.57 Crore against an approved Non Tariff Income of Rs. 86.45 Crore for FY 2005-06. The non-tariff income comprises of the following:

- Rebate from early payment of power purchase bills to generating stations, interest on FDs and meter/other equipment rent.
- The Petitioner has projected non-tariff income of Rs 90.21 Crore for FY 2006-07.

3.17.2 Commission's Analysis

The Commission has taken the actuals submitted by the Petitioner for FY 2005-06 for approving non-tariff income for FY 2005-06 and also considered the reactive drawl of Rs.5.01 Crore as non-tariff income and Rs 0.97 Crore towards rent paid to BBMB. For FY 2006-07, the Commission has considered the non-tariff income at the same level of Rs. 102.57 as approved for FY 2005-06. Table 3.33 provides a summary of the Non-tariff Income, as proposed by the Petitioner and as approved by the Commission.

Table 3-33 Non Tariff Income (Rs. Crore)

Particulars	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Actual	Commission	Petition	Commission
Total Non Tariff Income	86.45	88.57	98.53	102.57	90.21	102.57

3.18 Summary of Truing up Expenses for FY 2004-05

3.18.1 Petitioner's Submission

The Petitioner, in its petition for FY 2006-07 requested the Commission to consider the true up of FY 2004-05 based on the audited financial accounts while determining the BST tariff for FY 2006-07. The Petitioner further requested the Commission to consider the true up of FY 2005-06 based on the revised estimates and actual submitted.

3.18.2 Commission's Analysis

The Commission has discussed the truing up mechanism in the Tariff Order dated July 7, 2005 and followed the same mechanism to true up the expenses & revenues for the FY 2004-05 and FY 2005-06.

As regard to the truing up of expenses for FY 2004-05, the Commission has considered the revenue surplus of Rs 87 Crore for FY 2004-05 after truing up the expenses and revenue based on audited accounts as against the estimated revenue gap of zero in the Order for FY 2005-06. Further, the Commission has considered this revenue surplus as a part of total revenue gap/surplus of FY 2006-07 to be utilised during the year 2006-07.

As regard to the truing up of expenses for FY 2005-06, the Commission has considered the revenue gap of Rs 142 Crore for FY 2005-06 after truing up the expenses and revenue based on provisional accounts as per Table 4.2 against the estimated revenue gap of Rs 218 Crore in the Order for FY 2005-06.

Further, the Commission in its Order on ARR Petition for FY 2005-06 has clearly specified that it would allow the carrying cost for truing up of expenses at a weighted average cost of funds considering debt:equity ratio of 70:30.

Regarding the prior period expenses and preliminary expenses, the Commission has analysed each component and found that it includes Rs. 33.28 Crore towards power purchase, Rs.1.20 Crore towards general expenses, Rs. 9.11 Crore towards Business & Administration expenses and other miscellaneous expenses. The Commission had already considered all these expenses including power purchase cost on actual basis in FY 2002-03 and FY 2003-04 and accordingly the Commission has not considered these items of prior period expenses and preliminary expenses in the true up for the FY 2004-05.

Regarding the rebate allowed on power purchase to DISCOMs, the Commission has considered the same as per actuals submitted by the Petitioner.

The Commission has while determining the ARR and revenue gap/surplus for FY 2004-05 has analysed each component of expense and revenue separately and has worked out the revenue gap/surplus for FY 2004-05 based on audited annual accounts for FY 2004-

05. Following Table showing the expenses claimed by the Petitioner and as approved by the Commission.

Table 3-34 Summary of True up for FY 2004-05 (Rs Crore)

Description	FY 2004-05	
	Petition	Commission
Interest on Loans	23.51	17.64
Depreciation	27.73	24.64
Prior Period Expenses & Preliminary Exp	44.65	0.00
Contribution to contingency reserve	2.02	1.85
DVB Arrears	0.00	0
Total	97.91	44.14
Corresponding Revenue Gap/(Surplus)	(33)	(87)
Surplus as per Petitioner		(33)
Disallowed Items		
i) Interest on Loans		(6)
ii) Depreciation		(3)
iii) Prior Period Exp & Preliminary Exp		(45)
iv) Contribution to contingency reserve		(0)
v) DVB Arrears		0
Total Revenue Gap (Surplus)		(87)

3.19 Revenue Requirement

According to the provisions of the Transfer Scheme, the amount of DVB arrears realised by the DISCOM shall be shared between the Holding Company and DISCOM in the ratio of 80:20. The Commission in its previous Tariff Order dated June 26, 2003 has deliberated on this issue and the Commission's views on this issue as mentioned in Tariff Order dated June 26, 2003 are as follows:

“In the Transfer Scheme, notified by the Government of NCT of Delhi on 20th November 2001, the following has been stated:

“All the receivables from sale of power to consumers of the erstwhile Board other than to the extent specifically included in Schedules D, E and F shall be to the account of Holding Company. The DISCOMs will be authorised to realise the receivables of the Holding Company in their respective area of supply. Upon realisation of such receivables of the Holding Company the same shall be shared between the Holding Company and the DISCOMs in the ratio 80:20”.

In the amendment to the Transfer Scheme, notified by the Government of NCT of Delhi on 26th June 2002, the following has been further stated:

Provided however in respect of receivables due for period till 31st March 2002 from Municipal Corporation of Delhi and Departments, Body Corporates and Institutions owned and / or controlled by GNCTD, the Holding Company shall be entitled to waive or notify that it will enter into any other arrangement for recovery of dues, instead of the arrangement of recovery through DISCOMs.”

It is the considered view of the Commission that the 80% of the receivables, which is going to the Holding Company, should, in fact, go to Delhi Transco Ltd., to be ploughed back into the sector. This would be the most logical course of action since at the time of the calculation of the Bulk Supply Tariff in February, 2002, the entire receivables was taken into account as an income being generated within the sector. It is to be borne in mind that, as mentioned above, in case 80% of the receivables is repatriated to the Holding Company, the consumers of Delhi would have to incur the burden by way of an enhanced tariff shock. In this context, the Commission also notes that in determination of AT&C losses, no distinction is made between the amounts realised against current billing and amounts realised against the past receivables.

The Commission felt that it would be equitable and fair if the revenue realised on account of recovery of arrears remain in the sector and as recommended in the Tariff Order dated June 26, 2003, are passed on to the Delhi Transco Limited, instead of the Holding Company.

The Commission in its Order dated June 9, 2004 has opined as follows:

“The Commission is of the opinion that it will not be fair at all to pass on the burden of past receivables of the sector to consumers of Delhi as also this will warrant huge tariff shock to consumers. Accordingly, the Commission while estimating the ARR and Revenue Gap for FY 2004-05 considered 80% of the collected arrears remaining within the sector as revenue to TRANSCO”.

The TRANSCO raised the issue of DVB arrears in the Review Petition filed on July 22, 2004. The Commission on October 29, 2004 issued the Order on Review Petition filed by TRANSCO and the Commission in its Order on Review Petition had not admitted the issue of remittance of DVB Arrears to Holding Company instead of remittance to TRANSCO for review.

After further examination, the Commission in its Tariff Order dated July 7, 2005 has expressed the following:

“This issue has been further examined by the Commission in light of Policy Directions regarding treatment of efficiency gains with respect to over achievement and under achievement of AT&C loss reduction during the period FY 2002-03 to FY 2006-07. According to the arrangement as stipulated in the Policy Directions, the benefits of over-achievement by the DISCOMs in AT&C losses which is calculated by taking into account the past DVB arrears has to be passed on to consumers fully if the AT&C loss reduction is upto minimum level and if the AT&C loss level reduction is beyond the minimum level, revenue realised on account of AT&C loss reduction between the Minimum level and actual level has to be equally shared between the consumers and the Licensees. The additional revenue to be passed on to consumers due to over-achievement has to be taken into account for the purpose of determination of ARR for next year. In case, the DVB arrears are passed on to the Holding Company, the arrangement proposed for treatment of over achievement of efficiency targets in the Policy Direction is not implementable. Therefore, the Commission while estimating the ARR and Revenue Gap for FY 2005-06 has considered 80% of the collected DVB arrears remaining within the sector as revenue to TRANSCO, in line with the practice followed in previous years.”

Continuing with the same approach, the Commission has considered DVB arrears of Rs.119 Crore received through DISCOMs and Rs 100 Crore recived directly from Delhi

Jal Board, for FY 2005-06 as revenue to TRANSCO. Based on the expenses, return and non-tariff income estimated in above sections, the total Revenue Requirement as given in the Petition and as considered by the Commission is summarised in Table 3.35:

Table 3-35: Revenue Requirement and Revenue Gap (Rs. Crore)

Description	FY 2005-06		FY 2006-07	
	Petition	Commission	Petition	Commission
Expenses	4926	4935	5298	4842
Return	28	33	29	34
Less Non-Tariff Income	89	103	90	103
Net Requirement	4865	4865	5236	4773
Past DVB Arrears	0.00	(119.00)	210	0
Govt Support	(138.00)	(138.00)	0	0
Truing up for FY 2004-05	0	0	(33.33)	(87.11)
Truing up for FY 2005-06	0	0	390	142
Amortisation of Regulatory Asset	0	0	0	0
DVB Arrears directly to DPCL		(100.00)		0
Revenue Requirement	4727	4508	5803	4828

4 Treatment of Revenue Gap/Surplus and Bulk Supply Tariff Design

4.1 Introduction

The Policy Directions issued by the GNCTD mandate that the retail tariff for the three distribution licensees shall be identical till the end of FY 2006-07, i.e., consumers of a particular category shall pay the same retail tariff irrespective of their geographical location. As a result of this requirement of uniform retail tariff across all the DISCOMs, the process for determination of tariff for the DISCOMs in Delhi and its approval by the Commission differs somewhat from the conventional methodology being followed in other States. Unlike the conventional system where a utility files its ARR and tariff proposal for a particular period and proposes tariffs to bridge any projected revenue gap at existing tariffs, the DISCOMs in Delhi submit only their respective ARR proposals, leaving the tariff determination to the Commission.

The Commission in its tariff order of FY 2005-06 had considered the Regulatory Asset at Rs. 548 Crore for three DISCOMs together i.e. BRPL, BYPL and NDPL after amortising the Regulatory Asset of TRANSCO. With the truing-up of the figures for FY 2004-05 in the present order, the Regulatory Asset for the three DISCOMs together has been recalculated by the Commission and has been estimated at Rs. 518 Crore as of FY 2004-05. Out of this, Rs. 211 Crore has been amortized on account of over-achievement in FY 2004-05 leaving the balance unamortized portion at Rs. 307 Crore. The amount of over-achievement during FY 2004-05 has been revised from Rs. 205 Crore considered by the Commission in its tariff order of FY 2005-06 to Rs. 211 Crore in the present order. Out of the balance unamortized regulatory asset of Rs. 307 Crore, Rs. 210 Crore has been amortized by the Commission through the available surplus for FY 2005-06 as worked out by the Commission after true-up for three DISCOMs together and adjusted the balance unamortized regulatory asset of each of the DISCOMs (totalling to Rs. 96 Crore) in calculating their paying capacity to work out the bulk supply tariff for the FY 2006-07 for each of the DISCOMs. Thus, the Regulatory Asset created by the Commission in the Tariff Order for FY 2004-05 has been fully amortized.

The revised revenue gap for FY 2004-05 and FY 2005-06 for the three DISCOMs and the Delhi TRANSCO Limited as estimated by the Petitioner, and as approved by the

Commission in this Order is detailed in Table 4.3 & 4.4 and discussed in subsequent paras.

The total sector revenue surplus for FY 2006-07 as estimated by the Commission, works out to Rs. 195.42 Crore as detailed in Table 4.5. After considering the balance Revenue Gap of Rs.55 Crore of TRANSCO based on truing up for FY 2004-05 and FY 2005-06 as discussed in subsequent paras of this Section of the Order and the treatment of balance Revenue Gap of Rs.96 Crore of the DISCOMs together in calculating their paying capacity to work out the bulk supply tariff for the FY 2006-07 for each of the DISCOMs as discussed above, the net revenue surplus for the FY 2006-07 works out to Rs 45 Crore as summarised in Table 4.6. This Section focuses on the treatment of the revenue surplus keeping in mind the appeal filed by the Commission in the Hon'ble Supreme Court against the order of the Appellate Tribunal for Electricity regarding the issue of depreciation rate for the years FY 2002-03, 2003-04 and 2004-05.

4.2 Order of Appellate Tribunal for Electricity

The order issued by the Appellate Tribunal for Electricity on the issue of depreciation rate is discussed in the para 1.8 of this Order.

4.3 Order of the Hon'ble Supreme Court

On the appeal filed by the Commission, the Hon'ble Supreme Court in its Order dated 13th June 2006 directed the Commission as under:

“The appellant may continue the process of determination as directed by the Appellate Tribunal for Electricity but no final decision shall be taken without the leave of this Court.”

Further after the hearing on 23rd August 2006, the Hon'ble Supreme Court had passed the following order on 28th August 2006:

“..... we feel it would be appropriate for the Appellate Tribunal to consider the conclusions of the Commission as if they were good and sufficient for the purpose of making a departure from the Schedule VI rates. The basic issue involved in this appeal is whether the Appellate Tribunal was justified in its view that the Commission had not indicated any reason for deviating from Schedule VI rates. This direction is being given

because the Commission was of the view that no reasons have been indicated. Without expressing any final opinion, we direct the Tribunal to examine whether any conclusions of the Commission are supportable in facts and in Law. However, we make it clear that we have not expressed any opinion on the merits of the case. The exercise to be undertaken by the Appellate Tribunal shall be only on the question of depreciation.

It is clarified that order dated 13th June 2006, we had permitted the process of determination to be continued by the appellant as directed by the Appellate Tribunal. The final decision may be taken, but the same shall be open to challenge by the affected parties.

It is, however, made clear that we have not given any interim protection for any period other than the period to which the present appeal relates to.”

Keeping the above directions of the Hon’ble Supreme Court in view, the Commission has decided to maintain the surplus in **Tariff Control Reserve** to meet any contingent liability arising out of the order of Hon’ble Supreme Court or any other costs arising on account of power purchase during the FY 2006-07. The entire **Tariff Control Reserve** is parked with the TRANSCO. Apart from the said Tariff Control Reserve, any revenue surplus arising out of the refunds from Central Utilities as per the Orders of CERC, higher earnings through bilateral sales to other States and any overachievement of the DISCOMs with regard to reduction of AT&C losses, would also be considered for meeting out the contingent liabilities cited above. The final impact of the Order of the Hon’ble Supreme Court will be considered in the ARR of the DISCOMs and TRANSCO for the FY 2007-08 or under the proposed multi year tariff (MYT) from FY 2007-08 under the trueing up mechanism as elaborated in this section of the Order.

4.4 Revenue Gap/Surplus at existing tariff

4.4.1 Existing Bulk Supply Tariff

The Commission in its Tariff Order dated July 7, 2005 approved the following bulk supply tariff to determine the revenue of TRANSCO for the FY 2005-06 and to bridge the revenue gap of TRANSCO for FY 2005-06.

Table 4-1: Bulk Supply Tariff (Rs per Unit)

	Upto 14.07.05	w.e.f. 15.07.05
BRPL (Rs/Kwh)	2.0778	2.2101
BYPL (Rs/Kwh)	1.5647	1.7704
NDPL (Rs/Kwh)	2.1156	2.1121
NDMC (Rs/KVAh)	2.57	2.57
MES (Rs/KVAh)	2.57	2.57

4.4.2 Revenue from existing tariff

For FY 2005-06, the Commission has considered the actual revenue of TRANSCO. For FY 2006-07, the Commission has estimated the total revenue of TRANSCO based on the existing bulk supply tariff for Sale to DISCOMs and existing tariff applicable to NDMC and MES. Further as discussed in earlier section, the Commission has also considered the 80% of the DVB arrears – non-government and 100% of the DVB arrears – government consumers as revenue to TRANSCO. Considering the total estimated revenue requirement, revenue at existing tariffs and the DVB arrears as specified above as revenue to TRANSCO, the estimated Revenue Gap/Surplus for FY 2006-07 is given in Table 4.2

Revenue from existing tariff is required to be estimated to assess whether the annual revenue requirement is met with the existing tariff at the approved sales. If a revenue gap exists, the same needs to be bridged by means such as tariff increase, support from the Government by way of loan, grant, subsidy etc.

Table 4-2: Revenue of the Petitioner (Rs Crore)

Description	FY 2005-06			FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Commission	Petition	Commission
Net Revenue Requirement (A)	4625	4865	4865	5236	4773
Revenue at Existing Tariffs (B)	4150	4337	4366	4500	4473
Assistance from Government (C)	138	138	138	0	0

Description	FY 2005-06			FY 2006-07	
	Order for FY 2005-06	Rev. Est. (petition)	Commission	Petition	Commission
DVB Arrears - Non -Govt (D)	119	0	119	210	0
DVB Arrears - Govt (E)			100		
Regulatory Asset (F)	0	0	0	0	0
Revenue Gap					
Revenue Gap/(Surplus)	218	390	142	946	300
Truing up for FY 2004-05				(33.33)	(87.11)
Truing up for FY 2005-06				390	141.69
Overall Revenue Gap				1303	355

4.5 Overall Sector Gap/Surplus for FY 2006-07

4.5.1 'Truing up' Mechanism

The Commission has discussed the truing up mechanism in the Tariff Order dated July 7, 2005 and followed the same mechanism to true up the expenses & revenues for the FY 2004-05 and FY 2005-06.

4.5.2 Impact of Truing up for FY 2004-05 and FY 2005-06 for the Sector as a Whole

The truing up for FY 2004-05 based on audited accounts and for FY 2005-06 based on the provisional accounts after prudence check by the Commission has revealed that the actual gap between revenue and revenue requirement is lesser than that estimated by the Commission at the time of the Tariff Order for FY 2005-06. The revised revenue gap for FY 2004-05 and FY 2005-06 for the sector as a whole as estimated by the Petitioner, the other DISCOMs and the Delhi TRANSCO Limited and as approved by the Commission in this Order is given in Table 4.3 & 4.4 below:

Table 4-3: Revised Revenue Gap for FY 2004-05 based on truing up (Rs Crore)

	2004-05	
	Petition	Commission
NDPL	273.98	202.94
BRPL	254.29	214.69
BYPL	168.59	100.43
Total for DISCOMs	696.86	518.07
DTL	(33.33)	(87.11)

Table 4-4: Revised Revenue Gap/(Surplus) for FY 2005-06 based on truing up(Rs Crore)

	2005-06	
	Petition	Commission
NDPL	(5.40)	(72.60)
BRPL	(6.53)	(64.31)
BYPL	(23.58)	(73.45)
Total for DISCOMs	(35.51)	(210.35)
DTL	390.08	141.69

4.5.3 Consolidated Sector Revenue Gap/Surplus for FY 2006-07

The total consolidated sector revenue surplus for FY 2006-07 as approved by the Commission works out to **Rs 195.42 Crore**. No Government support is available for the FY 2006-07.

Table 4-5: Proposed and Approved Revenue Gap for FY 2006-07 (Rs Crore)

	2006-07	
	Petition	Commission
NDPL	(30.71)	(100.00)
BRPL	(5.02)	(255.14)
BYPL	(51.02)	(140.47)
DTL	946.42*	300.18
Total	859.65	(195.42)

***includes the DVB arrears of Rs.210 Crore of FY 2002-03 and FY 2003-04.**

The overall net revenue surplus for the sector as a whole after amortisation of Regulatory Asset for the FY 2006-07 is given in Table 4.6 below:

Table 4-6 Reconciliation Statement of Net Revenue Surplus of Rs. 45 Crore for FY 2006-07 (Rs Crore)

	Commission
(A) Revised Regulatory Assets of DISCOMs as on FY 2004-05	518
(B) Amortisation of Regulatory Assets of DISCOMs out of overachievement during FY 2004-05	(211)
(C) Balance Regulatory Asset of DISCOMs - after adjusting over -achievement amount (A+B)	307
(D) Revenue Gap/(Surplus) of DISCOMs for FY 2005-06	(210)
(E) Balance Regulatory Asset of DISCOMs (C+D)	96
(F) Revenue Gap/(Surplus) of DTL for FY 2004-05	(87)
(G) Revenue Gap/(Surplus) of DTL for FY 2005-06	142
(H) Overall Revenue Gap/(Surplus) for FY 2006-07	(195)
(I) Net Revenue Gap/(Surplus) for FY 2006-07 (E+F+G+H)	(45)

While issuing the Policy Directions, the GNCTD has committed to provide Rs. 3450 Crore during the period FY 2002-03 to FY 2006-07 as a loan to TRANSCO, which is to be used to bridge the gap between its revenue requirement and the bulk supply price that it receives from the Distribution Licensees. Table 4.7 below shows the committed level of Government support for the period FY 2002-03 to FY 2006-07, as given in the Financial Restructuring Plan approved by the GNCTD.

Table 4-7: Committed GNCTD Support (Rs. Crore)

Year	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	Total
GNCTD Support	1364	1260	690	138	0	3452 (say 3450)

4.6 Approved Bulk Supply Tariff for FY 2006-07

The paying capacity of each DISCOM in FY 06-07 (amount available for power purchase) has been estimated based on the projected Revenue Realisation at the approved tariffs for the FY 2006-07 and the Revenue Requirement excluding power purchase cost. The Bulk Supply Tariff for each DISCOM has been computed based on the total amount available for power purchase and the total units input to the respective DISCOM.

Based on the revenues projected at approved tariff, apportioned regulatory asset, estimated total revenue requirement of each DISCOM excluding power purchase cost and the estimated total units input to each DISCOM, the Bulk Supply Tariff for each DISCOM has been computed and is shown in Table 4.8 below:

Table 4-8: Bulk Supply Tariff for FY 2006-07 (Paise/kWh)

	NDPL	BRPL	BYPL
ARR of DISCOMs excluding Power Purchase Cost (Rs Cr)	449	497	278
Revenue at Proposed Tariff incl ED(Rs Cr)	1880	2798	1447
Electricity Duty(Rs Cr)	88	124	64
Net Revenue available(Rs Cr)	1792	2675	1383
Net Revenue Gap/(Surplus) for FY 05-06(Rs Cr)	2	79	15
Amount available for Power Purchase(Rs Cr)	1340	2099	1090
Units input to DISCOM (MU)	5882	8701	5448
Approved Bulk Supply Tariff for FY 2006-07 (Paise/kWh)	227.83	241.22	200.11
Existing Bulk Supply Tariff for FY 2005-06 (Paise/kWh)	211.21	221.01	177.04

4.6.1 NDMC and MES Tariff

The existing BST of Rs. 2.57 per kVAh for NDMC and MES is based on the Order issued by the Commission on May 31, 2002. The Commission had asked the erstwhile

DVB to identify the 33 kV feeders supplying power to NDMC and MES and submit the details to the Commission vide its letter dated November 11, 2001 to Govt. of NCT of Delhi. This would have enabled the Commission to assess the losses and the wheeling charges applicable for the NDMC and MES. However, requisite details are not available with the Commission. NDMC has submitted the ARR and Tariff Petition for FY 2006-07 and the Commission is separately processing the same. The Commission is of the opinion that in such a situation, it would not be proper to either increase or decrease the tariffs applicable for NDMC and MES, and has hence retained the existing tariffs for NDMC and MES at Rs. 2.57 per kVAh in this Order.

4.6.2 Revenue Requirement and Revenue for FY 2006-07

The TRANSCO's revenue requirement and revenue for FY 2006-07 as determined by the Commission is summarised in Table 4.9.

Table 4.9: Revenue Requirement and Revenue of TRANSCO for FY 2006-07 (Rs Crore)

Particular	FY 2006-07
Net Revenue Requirement	4828
Revenues	
NDPL	1340
BRPL	2099
BYPL	1090
NDMC and MES	344
Total	4873
Net Surplus to DTL	45

5 Directives

5.1 Introduction

In the Order on the ARR and Tariff Petition for FY 2005-06 dated July 7, 2005, the Commission had issued a number of directives to the Utilities in Delhi with the objective of attaining operational efficiency and streamlining the flow of information, which would be beneficial for the Sector both in short and long term. These directives are aimed at creating an enabling environment for the Utilities to provide reasonable quality of electricity supply and service to the consumers of Delhi at optimal cost. The Commission derives powers to issue such directives under the Delhi Electricity Reform Act 2000 (DERA), which mandates the Commission to promote competition, efficiency and economy in the activities of the electricity industry. DERA also mandates the Commission to regulate the working of the licensees in the National Capital Territory of Delhi, and to promote their working in an efficient, economical and equitable manner. In the issuance of directives, the Commission is also guided by Section 61 of EA 2003 which mentions that the Commission shall be guided by the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments in specifying the terms and conditions of determination of tariff.

This section discusses the compliance status of all directions given by the Commission to the Petitioner in the Order on ARR and Determination of Bulk Supply Tariff Petition of DTL for FY 2005-06 dated July 7, 2005.

5.2 Investments and Monitoring of Investments

The Commission had directed the Petitioner to submit the complete schemes alongwith cost-benefit analysis for obtaining the scheme-wise investment approval from the Commission for schemes proposed for FY 2005-06 and FY 2006-07 as per the terms and conditions of the License for Transmission and Bulk Supply of Electricity. The Commission had further directed the Petitioner to submit the quarterly progress reports for the schemes implemented during FY 2005-06.

The Commission notes that the Petitioner has complied with the directives of the Commission and the quarterly progress reports of capital investment schemes implemented during FY 2005-06 was submitted on a regular basis to the Commission.

The Commission directs the Petitioner to submit the complete details of the investments, DPR alongwith cost benefit analysis for all the schemes with investment equal to or exceeding Rs.5 Crore which are proposed for implementation during FY 2006-07 and FY 2007-08 by November, 2006 for obtaining the scheme wise investment approval from the Commission in terms of Clause 10 of the Licence for Transmission and Bulk Supply of Electricity issued to the Petitioner. Any new schemes not covered by the said investment plan would be considered by the Commission on merits.

The Commission further directs the Petitioner to submit the quarterly progress reports for the schemes being implemented during FY 2006-07 within 15 days of the end of each quarter.

5.3 R&M Works

The Commission had directed the Petitioner to maintain a separate record of the items issued from the Stores for R&M works, and submit the same to the Commission along with the details of the actual R&M Works carried out at the end of each quarter. The report on transformer failure was also to be submitted on a quarterly basis alongwith the above data on the R&M items issued. The Commission had also directed the Petitioner to obtain prior approval for any increase in R&M expense during FY 2005-06 beyond the approved R&M expense before committing/incurred such additional R&M expense.

The Petitioner has complied with the directives of the Commission and has been regularly submitting the quarterly reports on R&M expenditure along with the statement of items issued from the stores and the transformer failure report.

The actual R&M expenditure incurred by the Petitioner for FY 2005-06 is higher than that approved by the Commission in the Order dated July 7, 2005. After examination of the appropriate details, the Commission has approved the actual R&M expenses of FY 2005-06 for trueing up.

The Commission reiterates its direction to the Petitioner to maintain a separate record of the items issued from the Stores for R&M works, and submit the same to the Commission along with the details of the actual R&M Works carried out at the end of each quarter. The Report on transformer failure rate should also be submitted on a quarterly basis along with the above data on the R&M items issued.

The Commission also directs the Petitioner to take prior approval for any increase in R&M expense during FY 2006-07 beyond the approved R&M expense before committing/incurred such additional R&M expenses.

5.4 A&G Expenses

The Commission had directed the Petitioner to take prior approval for any increase in A&G expenses excluding rebate during the FY 2005-06 beyond A&G expenses excluding rebate approved before committing/incurred such additional A&G expenses.

The Petitioner, in its Petition had submitted that it would obtain prior approval of the Commission if the need arises.

However, the actual A&G expenditure incurred by the Petitioner during FY 2005-06 is lower than that approved by the Commission in the Order dated July 7, 2005. Therefore, the need to take prior approval for increase in A&G expenses during FY 2005-06 did not arise.

The Commission directs the Petitioner to take prior approval for any increase in A&G expenses excluding rebate during the FY 2006-07 beyond A&G expenses excluding rebate approved before committing/incurred such additional A&G expenses.

5.5 Optimisation of energy balance

The Commission had directed the TRANSCO to optimise its energy balance and try to sell the entire surplus energy available during off peak hours. In case, TRANSCO was unable to sell the surplus energy, TRANSCO should back down the generating stations of Delhi including Badarpur, PPCL and GENCO duly taking into account the merit order based on the variable cost of various sources of power purchase, operating conditions

etc.. TRANSCO was further directed not to surrender the cheaper power available from CGS except in case of unavoidable circumstances.

During the discussions, the Petitioner has confirmed having observed the directives of the Commission during real time operation of the power system. **The Commission reiterates its directive in this regard for FY 2006-07 as well.**

5.6 Cost Audit

The Commission had directed that the Cost Accounting Record Rules for electricity industry prescribed by the Govt. of India, be complied with by the Licensee and separate accounts be maintained and submitted to the Commission since the introduction of these Rules.

The Petitioner has submitted that the directions given by the Commission are being complied with and TRANSCO is in the process of maintaining its records as per the Cost Accounting Record Rules of GoI. **The Commission reiterates its direction for submission of these records/accounts by the Petitioner.**

5.7 List of new directives

The Commission has issued certain new directives in this Tariff Order, which have been detailed in the respective sections and have been listed below for easy reference:

5.7.1 Capitalisation of Assets

(Ref. Section 3.8.2) The Commission hereby directs TRANSCO to organize for scheme-wise completion and consequent capitalization of the assets in consonance with the commissioning/commercial operation of the respective scheme which would be certified by the State Load Despatch Centre (SLDC) and considered as an element for calculation of transmission system availability of TRANSCO.

The Commission further directs that, in future, the relevant information be furnished by TRANSCO in the formats separately prescribed by the Commission for capitalization of assets. The said formats are to be submitted alongwith the necessary statutory clearances/certificates of Electrical Inspector etc, for all EHV and HV works and certificate of SLDC for commissioning/ commercial operation. The information in respect of FY 2005-06 shall be furnished by October 2006.