1. Background, Procedural History and Description of ARR Filing

1.1 About the Commission

The Delhi Electricity Regulatory Commission (hereinafter referred to as 'Commission') was constituted by the Government of National Capital Territory of Delhi (hereinafter referred to as 'Government') on March 3, 1999 and it became operational from December 10, 1999.

1.1.1 Functions of the Commission

Major functions assigned to the Commission under the Delhi Electricity Reform Act 2000 (hereinafter referred to as '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
- 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

1.1.2 Issuance of Concept Paper on Tariff and Guidelines for Revenue and Tariff Filing

1.1.2.1 Concept Paper on Tariff

The Commission brought out a Concept Paper on Tariff in September 2000. The Concept Paper provided a historical background of the power sector in Delhi, gave the first tariff proposal of Delhi Vidyut Board (hereinafter referred to as 'DVB') and sought suggestions from various stakeholders on the conceptual issues on electricity tariff.

1.1.2.2 Guidelines for Revenue and Tariff Filing

The Commission sent 'Guidelines for Revenue and Tariff Filing' to the Delhi Vidyut Board in October 2000 for submission of their Annual Revenue Requirement and Tariff Petitions. It contained about 29 data forms with guidelines to get data from utilities.

1.1.3 Regulations and Orders issued by the Commission

In its journey from inception till date, the Commission has issued seven Tariff Orders and notified nine Regulations as given in Tables 1.1 and 1.2 respectively. The Orders were issued after following the due process and all stakeholders were given an opportunity to present their viewpoints. (Draft Regulations under EA 2003)

Table 1.1: Orders issued by the Commission

Sr. No.	Name of the Order	Date of issue
1.	Order on Rationalisation of Tariff for Delhi Vidyut Board (DVB)	16.1.2001
2.	Order on ARR for 2001-02 and Tariff Determination Principles for 2002-03 till 2005-06 for Delhi Vidyut Board	23.5.2001
3.	Order on Joint Petition for Determination BST and Opening Losses for DISCOMS	22.2.2002
4.	Order on ARR for July 2003 to March 2004 (9 months and Financial Year 2003-04) and determination of Retail supply tariffs for BSES – Yamuna Power Limited	26.06.2003
5.	Order on ARR for July 2003 to March 2004 (9 months and Financial Year 2003-04) and determination of Retail supply tariffs for BSES – Rajdhani Power Limited	26.06.2003
6.	Order on ARR for July 2003 to March 2004 (9 months and Financial Year 2003-04) and determination of Retail supply tariffs for BSES – New Delhi Power Limited	26.06.2003
7.	Order on ARR for July 2003 to March 2004 (9 months and Financial Year 2003-04) and determination of Bulk supply tariffs for Delhi TRANSCO Limited	26.06.2003

Table 1.2 : Regulations notified by the Commission

Sr. No.	Title of Regulations	Date of Notification
1.	Delhi Electricity Regulatory Commission Comprehensive (Conduct of Business) Regulations, 2001	9-3-2001
2.	Delhi Electricity Regulatory Commission (Management and Development of Human Resources) Regulations, 2001	16-4-2001
3.	Delhi Electricity Regulatory Commission (Appointment of Consultants) Regulations, 2001	6-8-2001
4.	Delhi Electricity Regulatory Commission (Delegation of Financial Powers) Regulations, 2001	6-8-2001
5.	Delhi Electricity Regulatory Commission (Grant of Consent for Captive Power Plants) Regulations, 2002	21-4-2002
6.	Delhi Electricity Regulatory Commission (Performance Standards – Metering & Billing) Regulations, 2002	19-8-2002
7	Delhi Electricity Regulatory Commission (Medical Attendance) Regulations, 2003	12-3-2003
8	Delhi Electricity Regulatory Commission (Redressal of Consumers' Grievances) Regulations, 2003	10-6-2003
9	Delhi Electricity Regulatory Commission (Guidelines for establishment of Forum for redressal of grievances of the consumer and Ombudsman) Regulations, 2003	11-3-2004

Further, in compliance to the provisions of Electricity Act 2003 the Commission has issued on 21st May 2004 the following Draft Regulations for public comments:

Table 1.3: Draft Regulations issued by the Commission

Sr. No.	Title of Regulation
1	Delhi Electricity Regulatory Commission (Conduct of Business) Regulation, 2004.
2	Delhi Electricity Regulatory Commission (Intra-state Electricity Trader) Regulations 2004.
3	Delhi Electricity Regulatory Commission (Treatment of income of Other Businesses of Transmission Licensees and Distribution Licensee) Regulation 2004.
4	Delhi Electricity Regulatory Commission (Procedure for filing appeal before the Appellate Authority) Regulation 2004.
5	Delhi Electricity Regulatory Commission (Terms and conditions for Open Access) Regulation, 2004.

1.1.4 Constitution of Commission Advisory Committee

The Commission has constituted the Commission Advisory Committee, vide notification dated March 27, 2003, to advise the Commission on major questions of policy related to electricity industry in the State and on matters such as quality of supply, continuity and extent of service provided by licensees and compliance by licensees with the conditions and requirements of their licences.

1.2 Background

1.2.1 Transfer Scheme

Pursuant to the provisions of the Act, the 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') and the existing distribution assets to three Distribution Companies (hereinafter collectively referred to as 'DISCOMs'). The generation assets were transferred to Indraprastha Power Generation Company Limited (IPGCL).

1.2.2 Indraprastha Power Generation Company Limited (IPGCL)

The Indraprastha Power Generation Company Limited (IPGCL) has 3 plants as detailed below:

- I.P. Station of total capacity of 247.5 MW with 3 units of 62.5 MW and one unit of 60 MW capacity using coal as fuel
- Rajghat Power Station with total capacity of 135 MW with two plants of 67.5 MW each using coal as fuel
- Gas Turbine Power Station with total capacity of 282 MW having 6 gas turbines of 30MW capacity each using CNG/LNG as fuel and 3 steam turbines of 34 MW capacity each.

1.2.3 ARR and Tariff Determination for FY 2002-03 and 2003-04

During the months of November and December 2002, the Transmission Company and three Distribution Companies filed their ARR and Tariff Petitions for the nine months of 2002-03 (July 2002 to March 2003) and for FY 2003-04. The TRANSCO Petition also contained the details about the generation companies, PPCL and IPGCL as no separate ARR filing was envisaged for generation companies under DERA. The Commission had a series of discussions with the TRANSCO and three DISCOMs wherein the Commission sought additional information, clarifications and justifications on various issues critical for admissibility of the Petitions. The DISCOMs filed the Consolidated Petitions based on the Commission's direction, during the first week of March 2003. The Commission admitted the Petition of TRANSCO and the Petitions of DISCOMs for further processing on March 6, 2003.

The Commission, based on the detailed scrutiny of the Petitions and additional information/clarifications submitted by the Petitioners and after following the due public process, issued its Orders on the ARR and Tariff Petitions of TRANSCO and DISCOMs for FY 2002-03 (9 months) and FY 2003-04 on June 26, 2003.

1.2.4 Enactment of Electricity Act 2003

The Electricity Act 2003 (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 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 there under 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."

1.3 Procedural History

1.3.1 ARR & Tariff filing by the Companies for FY 2004-05

1.3.1.1 Filing of Petitions

The Commission would like to highlight that the Petitioner submitted the statements of Annual Revenue Requirement for determination of generation tariff for FY 2004-05 on November 28, 2003.

Subsequently, the Commission sent the deficiency note to the Petitioner in which the Commission mentioned that the Petitioner has submitted the figures/details in the statements and has not submitted any write-up including the basis, assumptions, explanatory notes for the figures submitted in the Statements. The Commission directed the Petitioner to and provide detailed basis notes and assumptions in the Petition for estimating the various figures indicated in the Statements.

Based on the above instructions, the Petitioner filed their formal Petitions for approval of ARR and determination of Tariffs for FY 2004-05, on December 3, 2003. The Delhi Transco Ltd. (TRANSCO) and Pragati Power Corporation Limited (PPCL) also filed their ARR Petitions for determination of Tariffs for FY 2004-05. The cost of generation and the net generation by the generating units are inputs to the TRANSCO ARR and determination of tariff.

Further the Policy Directions envisage uniform retail tariffs across the DISCOMs and tariffs have to be determined so as to allow the DISCOMs to recover all permissible expenses and return for the year. This implies that the BST for the DISCOMs for a period cannot be determined in isolation for TRANSCO and further, one would have to take cognisance of the ARRs of the DISCOMs for further processing.

The Commission, therefore, directed the DISCOMs to file their respective ARR & Tariff Petitions for FY 2004-05. Thereafter, North Delhi Power Limited (NDPL) filed its Petition for ARR approval and determination of Retail Supply Tariff (RST) for FY 2004-05 on December 17, 2003. The other two DISCOMS, i.e., BSES Yamuna Power Limited (BYPL) and BSES Rajdhani Power Limited (BRPL) filed their ARR and Tariff Petition for determination of Retail Supply Tariff for FY 2004-05 on December 26, 2003.

The Petitioner, in its Petition, has projected a net generation of 2613 MU with a total fixed cost of Rs. 271 Crore and total variable cost of Rs. 483 Crore for FY 2004-05.

1.3.1.2 Interactions with the Petitioner

The submissions of the filings were 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 on January 22, 2004.

1.3.2 Public Notice and response from stakeholders

1.3.2.1 Publicity given to the Proposal

The Commission brought out a Public Notice on January 17, 2004 indicating the salient features of the Petitions for FY 2004-05, and to invite 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 The Economic Times in English;
- Punjab Kesri, Navbharat Times, 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 and 1a-3 respectively.

The Commission also published a Public Notice on February 14, 2004 requesting public response on the issues related to Tariff Rationalisation. The Public Notice indicated salient features of the suggestions made by the three DISCOMs on Tariff Rationalisation issues and other Tariff Rationalisation measures considered by the Commission. A copy of the Public Notice in English and Hindi soliciting comments on rationalisation of tariff and extension of time for submission of objections/suggestions is attached as Annexure 2b-1, 2b-2.

A detailed copy of the Petition of each Petitioner was also made available for purchase from the respective head-office of the Companies on any working day from January 19, 2004 onwards, between 11 a.m. to 4 p.m. on payment of Rs. 100/-. The Notice specified the deadline of February 17, 2004 for the receipt of responses/objections from the stakeholders. The complete copy of the Petitions was also put up on the website of the Commission, as well as that of the Petitioners.

1.3.3 Public Hearing

The Commission received 78 objections in all. Some objections were received after the deadline for submission of the responses. The Commission forwarded the objections to the Petitioner for submission of comments to the Commission with a copy to the respondent. A detailed list of the respondents is attached with this Order as Annexure 3a.

The Petitioner filed its responses to the comments/objections of the stakeholders by March 22, 2004. The Commission conducted the Public Hearings on the April 7, 8 and 10, 2004. All the stakeholders who had submitted responses/objections on the ARR Petitions were invited to express their views in the matter. A list of the respondents who participated in the Public Hearing process is attached with this Order as Annexure 3b. The entire proceeding was split across five different sessions catering to distinct groups of stakeholders as given in Table 1.4.

Table 1.4: Dates of Public Hearing

Date	Category
April 7, 2004 (Two Sessions)	Industrial Consumers and Associations
April 8, 2004 (Two Sessions)	Domestic, Co-operative Societies, NGO's and Commercial
April 10, 2004	Government Departments and Utilities

1.3.4 Post admission interactions

1.3.4.1 Discussions during technical sessions

After admission of the ARR Petition, the Commission held further technical sessions with the Petitioner to seek additional information and clarifications.

1.3.4.2 Petitioner's responses to queries raised by the Commission

The Petitioner submitted various details to the Commission on January 22, 2004. On March 12, 2004, the Petitioner submitted responses to the various queries raised during the public hearing and otherwise by the Commission.

An Activity Chart giving the details of various activities undertaken during the proceedings is attached as Annexure 3.

1.4 Summary of the Petition

The Petitioner has estimated the Annual Revenue Requirement (ARR) for FY 2004-05 at Rs. 485 Crore. A snapshot of the ARR and revenue gap at existing tariffs is provided in the Table 1.5.

Table 1.5 Summary of ARR of the Petitioner for FY 2004-05

Particulars	Units	IP Station	R.H.P	G.T.P.S.	Total
Gross Generation	MU	800	850	1200	2850
Net Generation	MU	704	745	1164	2613
Total Fixed Cost	Rs. Crore	101.45	77.44	92.15	271.04
Total Variable Cost	Rs. Crore	137.57	140.50	204.67	482.74
Total Cost	Rs. Crore	239.02	217.94	296.82	753.78
Variable Cost per Unit	Rs/kWh	1.95	1.89	1.76	1.85

Total Cost per Unit	Rs/kWh	3.39	2.93	2.55	2.88

1.5 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 a detailed account of responses from stakeholders, Petitioner's comments and Commission's views on the responses. Chapter 3 discusses the Annual Revenue Requirement while Chapter 4 focuses on the Tariff Philosophy.

2. Response from Stakeholders

The issues relevant to the said Petition have been dealt with in the following paragraphs:

These objections/responses mainly relate to Procedural Issues, Quality of Filing, Privatisation Policy and Reform Process, etc. The scope of this Order is limited to covering the issues directly connected with or incidental to the Annual Revenue Requirement of the Licensees and the Tariffs.

2.1 Quality of Filing and Additional Information

2.1.1 Objections

Shri Rajan Gupta has submitted that the Petitioner has filed incomplete, non-transparent and non-reliable estimates in the Petition. It has requested the Commission to obtain additional data from the Petitioner. The additional data asked for further scrutiny is as follows:

- Copy of Minutes of Meeting and Resolutions of the Board of Directors approving the Annual Revenue Requirements of the Petitioner for FY 2004-05
- Copy of the report of the Commission with regard to actual verification of the details and data of all the Petitioner and the methodology followed by the Commission towards actual verification of the data
- Copy of the Commission's approval for implementing VRS

Shri Rajan Gupta has also asked for additional time to submit responses based on compliance by the Petitioners to the above issues.

India Defence Foundation have stated that the information and data provided by the Generation, Transmission and Distribution Licensees is not adequate to evaluate whether these Licensees are properly discharging their public duties and are alive to their responsibilities. The objector has requested the Commission to consider involving C&AG for the test audit to determine causes and responsibilities for any lapses in the systems of these Licensees. The objector has further requested that the state of affairs during erstwhile DVB days and status of improvement achieved after the privatisation should be shared with the public. It has further suggested that the Commission, before entertaining any claim for increase in Tariff or any projection of loss in revenue, or excessive expenditure, may compare the Business Plan of the Licensees with the projections made in the Business Plan at the time of privatisation.

India Defence Foundation have suggested that the following comparative data should be obtained to evaluate the performance of the Licensees:

- Break up of expenditure per consumer
- Labour and management share of the output of the Utility

- Ratio and magnitude of direct labour to management staff including indirect labour, ratio of labour cost to management cost including advertisements and publicity
- Capital to Output ratio, Output to Investment ratio, Labour to Output ratio, Labour to Capital ratio
- Ratio of expenditure incurred in Indian Rupees to that incurred in foreign currency

Joint Committee of Residents Welfare Associations of Pitampura opined that there is lack of transparency in the accounts. The opinion stemmed out from reasons given by the Petitioners inability to provide data on meter rentals and penal charges, late payment charges, etc.

2.1.2 Response of the Petitioner

The Petitioner has stated that it has submitted the copies of the relevant Minutes of Meeting and Board Resolutions approving the Annual Revenue Requirements of the Petitioner for FY 2004-05.

The Petitioner has stated that it has submitted the Accounts for FY 2002-03 to the Commission and will submit the same for FY 2003-04 once the accounts are finalised after the end of the Financial Year. The Petitioner has further submitted that it has included the uncovered revenue gap for FY 2003-04 in the ARR for FY 2004-05, and will submit the necessary details at the end of the financial year. The Petitioner has also stated that it has submitted the details of O&M expenses for FY 2002-03 and FY 2003-04 to the Commission. The Petitioner has clarified that it has considered auxiliary consumption level for the generating stations based on actual auxiliary consumption for respective station.

2.2 Privatisation Policy and Reform Process

2.2.1 Objections

Some respondents have objected to the privatisation model and related parameters adopted by the Government of NCT of Delhi (GNCTD).

Delhi Power Consumers' Guild has expressed its concerns that power sector reforms in Delhi are failing because they are based on the incorrect philosophy that all losses of the power Utilities are due to theft of power by consumers. They have further mentioned that their study has revealed that the real cause is not the theft by consumers but subversion of the power supply system by the internal forces themselves or administrative lapses. They have requested for modification of the current reform processes in accordance with the ground realities so that it can serve some useful purpose.

India Defence Foundation expressed its displeasure with the state of affairs post privatisation and stated that the Licensees have not been ensuring any quality of service or guaranteeing efficient usage of resources or undertaking any cost cutting, except in reduction of manpower engaged in operation and maintenance. It has further stated that the Licensees have been supplying interrupted power supply repeatedly and have not yet succeeded in developing properly functioning complaint handling systems and have been imposing heavy financial burden on the consumer, who have no means of getting any corrective action or relief. In the rejoinder submitted before the Commission, the Foundation highlighted the issue of lack of coordination between DISCOMs and TRANSCO and mentioned that inspite of power availability, less power is being drawn from the grid thus resulting in power cuts. Mr. Arun Kumar Dutta stated that a PIL has been filed on restructuring and privatisation of Power Distribution Function in Delhi and the matter is subjudice with the Hon'ble High Court and hence the ARR Petitions should not be processed till the Hon'ble Court disposes off the matter.

Energywatch has argued that the Policy Directions of the GNCTD have brought in an unhealthy practice by introducing the AT&C concept which violates the provisions of the ERC Act, 1998, and has suggested that the Commission while deciding the Tariffs in accordance with the Policy Directions, should also compute the extra burden required for following the Policy Directions and the GNCTD should be made to pay this amount prior to implementation of the Tariff Order.

2.2.2 Response of the Petitioner

No specific response has been received from the Petitioner.

2.3 ARR

2.3.1 Objections

The major objection under this head relates to authentication of actual revenue and expenditure, restricting wasteful expenditure of the Companies, detailed examination of the accounts of the Petitioner by the Commission, establishing prudence, etc.

'Energywatch' argued that the Commission should not accept the expenses as mentioned in the audited accounts of the Petitioner, but should determine the ARR and Tariffs on the basis of "properly incurred expenditure", and should be guided by Section 28 of Delhi Electricity Reforms Act, 2000 and Section 29 of ERC Act, 1998, in this regard. Energywatch quoted from the Supreme Court judgement in this regard (SLP Nos. CC 6293/02 & CC 6307/02).

PHD Chamber of Commerce and Industry, Mr. Vijay K. Gupta have requested the Commission to conduct due diligence of the costs claimed by the Petitioners to ensure strict compliance with the Commission's previous Orders and rework the revenue gap before considering any increase in either BST or RST for FY 2004-05.

PHD Chamber of Commerce and Industry has pointed out that the Petitioner has indicated neither the tariff fixed by the Commission for its 3 power stations nor the amount of loss incurred in support of its claim that the Commission has adversely affected the finances of the Petitioner.

2.3.2 Response of the Petitioner

The Petitioner has replied that the tariff claimed is based on the facts and details submitted in the ARR, including the losses incurred in the Previous Year. The Petitioner has already undertaken various exercises to make the plants efficient and increase the PLF.

2.4 Generation Expenses

2.4.1 Objections

As regards the assumption of PLF of 69% for calculating generation of IP Gas Turbine Power Station for FY 2003-04 and FY 2004-05, PHD Chamber of Commerce and Industry has suggested that the PLF of less than 80% should not be considered for the purpose of estimation of generation as the Station has already stabilised.

PHD Chamber of Commerce and Industry has pointed out that the Petitioner has not taken into account blending of imported coal for estimation of fuel costs. It has requested the Petitioner to provide all relevant details of blending imported coal with Indian coal to enable the stakeholders to examine the proposals.

PHD Chamber of Commerce and Industry has pointed out that the Petitioner has assumed station auxiliary consumption at the rate of 13.18% for FY 2003-04 and 12% for FY 2004-05 for IP Power Station and 12.68% for Rajghat Power Station against the normative auxiliary consumption of about 9 to 10% and has requested the Commission to look into the relevant details.

PHD Chamber of Commerce and Industry has urged the Commission to go into the details and basis of generation target, gas consumption, and shortfall in generation as a result of the shortage in gas supplies for IP Gas Turbine Power Station. Mr. V. K. Gupta, Municipal Counsellor, MCD, has mentioned that the generation of the Petitioner has come down by 8.3% in FY 2003-04 over 2002-03, and requested the Commission to analyse the reasons for the same.

PHD Chamber of Commerce and Industry has requested the Commission to look into the details of the proposed R&M program and get the same duly vetted by the CEA, if considered appropriate, before according approval. Mr. V. K. Gupta, Municipal Counsellor, MCD, has indicated that the Fixed Cost of the Generating Companies is very high and the Commission needs to critically examine each head of expense, before according approval.

2.4.2 Response of the Petitioner

The Petitioner has stated that the cost of secondary oil and auxiliary consumption levels has been projected based on past trends.

The Petitioner has also mentioned that the use of imported coal for generation is being undertaken on a trial basis and has, therefore, not been included in the current Petition. The benefits will be analysed and decision on further usage will be taken.

The Petitioner has stated that it has submitted detailed project reports on the proposed R&M to the Commission and is awaiting its approval on the same. The Petitioner has mentioned that it expects its performance to improve and be at par with other Generating Companies after the completion of its R&M programme.

2.5 Depreciation charges

2.5.1 Objections

Mr. Vijay K. Gupta, in his objections submitted to the Commission and also during the public hearing process has suggested that depreciation should be excluded from expenditure for the purpose of ARR. He also suggested that depreciation approved in the past Tariff Orders should be disallowed. Alternatively, he suggested that the effect of any change in valuation of the assets after revaluation should be charged at the end of the Reform Period i.e. FY 2006-07 either to the tariff or to the account of the Holding Company.

Mr. S. K. Aggarwal and PHD Chamber of Commerce and Industry have requested the Commission to retain the depreciation rate as approved in its Order for FY 2003-04 for the purpose of approval of depreciation expense for FY 2003-04 and FY 2004-05 as against higher rates of depreciation adopted by the Petitioner on the basis of the Ministry of Power notification of March 1994.

PHD Chamber of Commerce and Industry has requested the Commission to adopt the depreciation rate indicated by the CERC in its Draft Regulations on Terms & Conditions for Tariff Fixation for the purposes of assessing depreciation expense to maintain uniformity in approach.

2.5.2 Response of the Petitioner

The Petitioner has replied that depreciation is a cost and is treated accordingly while estimating the ARR. The Petitioner has requested the Commission to allow depreciation as per the repealed Electricity (Supply) Act, 1948 till the time the new rates are notified by the Government under the Electricity Act, 2003. As regards the revaluation of the assets by the end of FY 2006-07, the Petitioner has stated that the assets of the Company have been valued as per the Delhi Electricity Reforms (Transfer Scheme Rules 2001) Act and accordingly bifurcated by a chartered accountant firm.

2.6 Employee Expenses

2.6.1 Objections

The Senior Citizens Forum has requested the Commission to critically examine whether the claimed revenue expenditure is necessary and to ensure that the Petitioner has undertaken adequate measures to reduce wasteful expenditure, improve productivity of labour and staff. While the objector has recognised that the Petitioner has inherited an inefficient and oversised organisation from erstwhile DVB, it has requested the Commission to ensure that the consumers are not made to pay for the failure of the Petitioner to improve productivity and efficiency.

Delhi Transco Limited has requested the Commission to scrutinise projected increase in the employees' cost despite considerable reduction of employee's strength through VRS schemes.

Vivekanand Puri Vikas Parishad have submitted that the Commission should reject the expense towards Special Voluntary Retirement Scheme (SVRS) indicated in the Petitions, since it would adversely affect the retail tariffs of the consumers. Mr. Vijay K. Gupta has suggested that the amount paid to employees under SVRS scheme should not be allowed under ARR, as benefit of this expense would be available to the Petitioner even beyond the Reform Period i.e. after FY 2006-07. Mr. Arun Kumar Datta has suggested that the SVRS expense should be borne by the Petitioner either from reserves or from his reasonable return. Senior Citizens Welfare Association has also requested the Commission to disallow the expenses related to SVRS. Several objectors during public hearing process, including Mr. Ved Kumar Gupta and Mr. Datta reiterated their concern over the VRS expenses and requested the Commission to disallow these expenses while approving the ARR.

2.6.2 Response of the Petitioner

The Petitioner has stated that it has introduced SVRS in FY 2003-04 to achieve economic viability by reducing the redundant work force. The SVRS is not a capital expenditure and has been charged to the P&L by the Petitioner. The Petitioner has opined that it is not required to take prior approval of the Commission, as there is no stipulation regarding the SVRS in the Delhi Electricity Reforms Act, 2000. The Petitioner has further stated that it has made provisional payment to DVB Employees Terminal Benefit Fund, and is committed towards payment of all its statutory liabilities as per law.

2.7 R&M Expenses

2.7.1 Objections

PHD Chamber of Commerce and Industry has requested the Commission to look into the details of O&M expenses and has expressed its opinion that the O&M expenses should be permitted within the normative levels of 3.5% of capital costs.

2.7.2 Response of the Petitioner

The Petitioner has stated that the O&M expenses as submitted to the Commission are within the normal levels.

2.8 Return on Equity

2.8.1 Objections

Energywatch has argued that the 16% returns is not sacrosanct and has requested the Commission to also consider other factors like, interest of consumers, efficiency, economic use of resources and good performance, which are mentioned in Section 29 of ERC Act, 1998 and Section 28 of Delhi Reforms Act, 2000.

Mayurdhwaj Residents Welfare Association has requested the Commission to reduce the ROE to 10% and abolish all other subsidies and grants.

Northern Railways have suggested that the Commission may review the rate of 16% return on equity in view of the general inflation rates of consumable commodities.

2.8.2 Response of the Petitioner

The Petitioner has stated that the fixation of rate of return is done by the Commission as per the statutory provisions.

2.9 Commission's Views

The Commission has taken a note of the various comments/objections made and appreciates the keen participation in the process by the various stakeholders to provide vital feedback to the Commission on various issues.

For instilling confidence in the utilities as well as to bring about a greater understanding and appreciation of the complexity of the issues involved, the Commission ever since its institution, has made conscious and continuous efforts to bring about transparency in the tariff setting process.

The Commission made a beginning in addressing the challenges brought in by the modifications in the regulatory framework due to Policy Directions through its BST Order dated February 22, 2002. The lack of institutional and policy precedents to provide the required guidance and support to effectively tackle the issues at the implementation level in the privatised and multi-year framework was an immediate challenge. At the same time, being the ERC at the National Capital heightened the challenge and demand as the Commission is being looked upon as a model for privatised distribution entities subsequent to restructuring and privatisation for other States to emulate. For setting high standard for others, it was quintessential to target high by considering global standards. The Commission, therefore, signed a MoU with the Public Services Commission of Maryland, USA on February 3, 2002 to tap international expertise available in the sector regulation, and had been interacting with them on various issues.

Further, the Commission also realised that the foundation stone of any meaningful regulation of the utilities is to have an effective platform for exchange of operational and performance related information with the utilities throughout the year, rather than the interactions being limited to year-end submission of filings. Accordingly, the Commission required the utilities to spell out detailed information/reasons for their state of affairs as well as the steps they proposed to undertake for improving the situation over an extended period. Information availability being the key to quicker processing of the Petitions, the Commission is in the process of developing and installing a Regulatory Information Management System (RIMS). A Consultant for developing the RIMS is being finalised. The RIMS aims at building an MIS with pre-defined information formats, accessible to the Utilities through the Internet for periodic updates. RIMS is expected to help the utilities and the Commission to come to a common understanding about the level, form and diversity of information to be made available for processing of the ARR Petitions among others. It would also ease the pressure placed on the utilities in the existing set-up to provide the desired information within a limited period for year-end review of operations.

With this background, the Commission now proceeds to provide its views on the various issues raised by the respondents in the previous Sections.

2.9.1 Quality of Filing and Additional Information

2.9.1.1 Adequacy of information

As regards the adequacy of information, the Commission would like to bring to the notice of the stakeholders that substantial data/information has been submitted by the companies during the process in order to fill the data gaps in the respective ARR Petitions, even after the admission of the Petitions. The Commission has also obtained the actual cost, revenue and investment related data for FY 2003-04 from the Petitioners.

The Commission is of the opinion that considering the substantial volume of data/information obtained from the Petitioners by the Commission during the processing of the Petitions; it is not feasible to provide a copy of the entire data/information to the Public along with the ARR Petition. Moreover, as specified in the Regulations of the Commission, any stakeholder can see the data by visiting the Commission's office and following due procedure for access to such data.

As regards the suggestion of providing copy of the Report of the Commission on the methodology followed by the Commission towards actual verification of the data, to the objector, the methodology followed by the Commission for scrutinising each and every element of the ARR has been deliberated in detail in Chapter 3 of the Order.

2.9.1.2 Time provided to stakeholders for response

The Commission is of the opinion that the time provided to the stakeholders for responding to the Petitions was reasonable, considering that the Public Notice in the newspapers was brought out by the Commission on January 17, 2004 and the last date of submission of objections/comments was further extended from February 17, 2004 to February 27, 2004.

2.9.2 Policy Directions and Reform Process

The Policy formulated and Directions issued by the Government in exercise of its powers under section 12 of the Delhi Electricity Reforms Act, 2000 are binding on the Commission. The Commission, therefore, does not have any further views in the matter. Furthermore, this aspect has been discussed and addressed in the Commission's Order on Bulk Supply Tariff and opening level of AT&C losses issued on February 22, 2002.

As regards improvement in the service quality, post restructuring and privatisation, the Commission would like to clarify that it monitors the performance of the Licensees on a regular basis with the objective of improving the quality of service and the Commission has issued several regulations namely Performance Standards (Metering and Billing) Regulations, Complaint Handling Procedure, Schedule of Miscellaneous charges, to provide the consumers with an opportunity to register their views in the matter. It may not be out of place to mention that the Commission has established Grievances Redressal Mechanism on June 10, 2003 to handle the complaints received from the consumers. The Commission has designated three Grievance Redressal Officers (GROs), one for each DISCOM for handling the billing complaints. Till date, the Commission have received 600 complaints from various consumers and most of these complaints have been resolved with the help of GROs.

Further, In accordance with the provisions of Section 42 (5) of the Electricity Act 2003, a Forum is being established soon to address the grievances of the consumers and the consumers should come forward with the metering and billing related issues for redressal of grievances.

Further the Commission will also appoint an Ombudsman to settle the grievances of any consumer who is aggrieved by non-redressal of his grievances by the Forum. The Commission will detail out the time frame and the manner in which these grievances will be addressed.

2.9.3 ARR

2.9.3.1 Scrutiny of expenditure and revenue components

The Commission would like to clarify that it has critically examined all the elements of expenditure and revenue, and has not merely gone by the actual expenses as provided by the Petitioner. The Commission considered the prudence of expenditure projected by the utilities, the actual expenditure in FY 2003-04. Detailed analysis of all the expenditure and the revenue components for their prudence, and the methodology of projection adopted by the Commission, has been provided in the relevant sections of Chapters 3.

2.9.4 Generation Expenses

The Commission has examined all the operational parameters such as Gross Generation, Auxiliary consumption, Heat Rate etc in detail in Chapter 3. Further, the Commission has gone into the details of every component of the fixed and variable cost before finalising the costs to be allowed, as discussed in Chapter 3.

2.9.5 Depreciation charges

The Commission has deliberated on this issue in detail in its Orders on ARR and Tariff Determination for FY 2002-03 and FY 2003-04 for TRANSCO. The Commission has adopted a rational approach in this regard and has allowed depreciation on the basis of the straight-line method of depreciation linked to useful life of the assets, instead of accelerated depreciation rates proposed by the Petitioner. Further, the Commission in its previous Orders has deliberated on the utilisation of amount available through depreciation for meeting the working capital requirement and capital investments in the absence of loan repayments. The extent of depreciation allowed by the Commission has been discussed in detail in Chapter 3 of the Order.

2.9.6 Employee Expenses and Voluntary Retirement Scheme (VRS)

The Commission has examined the employee expenses projected by the Petitioner and the actual employee expenses for FY 2003-04, while estimating the employee expenses for FY 2004-05.

The Commission has asked for further details of the VRS scheme and will take up this issue separately once the details are submitted by the Petitioner.

2.9.7 Repair & Maintenance Expenses

The Commission has examined all the components of expenses projected by the Petitioner and the actual O&M expenses in FY 2003-04 while approving the same. The details of expenses have been deliberated in Chapter 3 of the Order.

2.9.8 Return on Equity

The Petitioner has estimated ROE based on the GOI norms for the generation plants and the same has been considered by the Commission, while approving the ARR. However, the Commission will examine this issue in detail while approving the Power Purchase Agreement.

3. Analysis of ARR

3.1 Introduction

TRANSCO, vide a separate Petition has submitted the Power Purchase Agreement (PPA) entered into with Indraprastha Power Generation Company Limited (IPGCL) for the approval of the Commission. The Commission is dealing with the matter of approval of PPA separately.

In this Order, the Commission has analysed the ARR Petition filed by IPGCL for FY 2004-05 and has approved the ARR and generation tariff FY 2004-05. With regard to FY 2003-04 the Commission has taken up truing up of various expense elements based on the revised estimates submitted by the Petitioner.

3.2 Generation

IPGCL has three thermal power stations viz., Indraprastha Thermal Power Station (247.5 MW), Rajghat Thermal Power House (135 MW) and Indraprastha Gas Turbine power station (282 MW). The details of each of these stations are given below in Tables 3.1, 3.2 and 3.3;

Table:3.1 I.P. Station of total capacity of 247.5 MW with 3 units of 62.5 MW and one unit of 60 MW capacity using coal as fuel

Details	**Unit –2**	**Unit –3**	**Unit-4**	**Unit-5**
Capacity (MW)	62.5	62.5	62.5	60
Date of Commercial Operation	1.1.1968	1.3.1968	30.4.1968	1.1.1974
Fuel Used	Pulverised Coal			

Table:3.2 Rajghat Power Station with total capacity of 135 MW with two plants of 67.5 MW each using coal as fuel

Details	**Unit –1**	**Unit –1**
Capacity (MW)	67.5	67.5
Date of Stabilisation	May 1990	January 1990
Fuel Used	Coal	Coal

Table:3.3 Gas Turbine Power Station with total capacity of 282 MW having 6 gas turbines of 30MW capacity each using CNG/LNG as fuel and 3 steam turbines of 34 MW capacity each

Details	GT 1	GT 2	GT 3	GT 4	GT 5	GT 6	STG 1	STG 2	STG 3
Capacity (MW)	30	30	30	30	30	30	34	34	34
Date of Commercial Operation	17.6.86	20.6.86	11.8.86	3.9.86	11.11.86	20.11.86	25.4.96	12.8.97	27.12.96
Fuel Used	Gas /HSD	Gas /HSD	Gas /HSD	Gas /HSD	Gas /HSD	Gas /HSD			

The Petitioner has submitted the ARR estimates for FY 2003-04 and FY 2004-05 vide its petition dated January 13, 2004 wherein the Petitioner has submitted the ARR for each of the plant separately. However as all the three plants are part of the same company, the Commission has analysed the fixed cost on the aggregate basis for the company as a whole and the variable cost for each of the stations separately, in line with the earlier Tariff Order dated June 26, 2003 on ARR and Tariff Petition of TRANSCO for FY 2002-03 and FY 2003-04.

The Petitioner has submitted the ARR filing for FY 2004-05 along with the actual operating details of the plant for April –October period for FY 2004, the estimates for year ended FY 2003-04. The Petitioner in its filing has stated that the previous Tariff Orders have not been adequate to meet annual revenue requirement and pleaded with the Commission to permit appropriate tariff revision in the ensuing year within the overall tariff framework. The Petitioner also states that as this tariff increase needs to be examined in the light of its impact on downstream network, no specific tariff has been proposed in the present ARR filing. The Commission, based on the submission made by the Petitioner asked for further details and supporting documents, which was submitted by the Petitioner along with the actual expenses incurred in FY 2003-04. Based on these submissions, the Commission has finalised the ARR for FY 2003-04 and FY 2004-05.

3.3 Generation from IP Power Station (IP)

3.3.1 Petitioner's Submission

The Petitioner has submitted that in pursuance of understanding/agreement of earlier successive entities i.e. DESU & DVB with Haryana Government at the time of installation of units 2,3, & 4 of I.P Station, the Company is transferring 1/3rd of power being generated from these three units of IP station to Haryana.

The Petitioner in its ARR has submitted that the plant has generated 377 MU during FY 2003-04 till October and is expected to generate 800 MU by the end of the year with a PLF of 37%. For the FY 2004-05 the Petitioner has proposed the generation to be at the same level as per the target fixed by CEA. Further, vide a separate Petition dated May 7, 2004, the Petitioner submitted the actual generation of the plant for FY 2003-04 as 769 MU resulting in a PLF of 35.47%.

3.3.2 Commission's Analysis

The Commission has accepted the Gross Generation considered by the Petitioner for the purpose of fixing the ARR for FY 2003-04 at 769 MU based on actuals. For FY 2004-05, the Commission has considered the gross generation as per the generation target of 800 MU as prescribed by Central Electricity Authority (CEA). The generation details submitted by the Petitioner and that allowed by the Commission are given in Table 3.4 below.

Table:3.4 Generation

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Availability (MW)	247.5	247.5	247.5	247.5	247.5
PLF	28.30%	36.90%	35.47%	36.90%	36.90%
Gross Generation (MU)	614	800	769	800	800

3.4 Auxiliary Consumption IP Power Station (IP)

3.4.1 Petitioner's Submission

The Petitioner has estimated the actual Auxiliary Consumption for FY 2003-04 till October at 13.69% and has considered the auxiliary consumption of 13.18% and 12% for FY 2003-04 and FY 2004-05 respectively.

The Petitioner further submitted the actual Auxiliary Consumption of the station for FY 2003-04 at 13.04%. The Petitioner also submitted that the generation activities were not given due importance in the past as the whole emphasis used to be on distribution system. Therefore it has requested some breathing period for improving the Auxiliary Consumption of plants as necessary R&M activities are proposed to be undertaken in forthcoming years. The Petitioner further stated that based on the discussion held with the Commission on April 30, 2004, the Petitioner will try to achieve the Auxiliary Consumption approved by the Commission for the station in its Order dated June 26, 2003, I.e. 11.64% for FY 2004-05 also.

3.4.2 Commission's Analysis

As per the draft PPA submitted by TRANSCO along with the ARR Petition for FY 2004, the Petitioner had agreed to Auxiliary Consumption of 12.69%. Therefore the Auxiliary Consumption, which is higher than the level stipulated in PPA, cannot be considered. Further during the technical discussion with the Petitioner, the Petitioner agreed to the Auxiliary Consumption levels approved by the Commission in their previous Order of June 2003. Based on this the Commission maintains the Auxiliary Consumption at the same level as earlier Order, viz.11.64% for both FY 2003-04 and FY 2004-05.

Table:3.5 Auxiliary Consumption

Description	FY 2003-04			FY 2004-05	
%	TRANSCO Order	Petition	Commission	Petition	Commission
Auxiliary Consumption	11.64%	13.18%	11.64%	12.00%	11.64%

3.5 Net Generation from IP Power Station (IP)

The Commission has worked out the net generation based on the above gross generation and the Auxiliary Consumption allowed as discussed in the sections above. The net generation as submitted by the Petitioner and as estimated by the Commission is given in Table 3.6 below;

Table:3.6 Net Generation

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Gross Generation (MU)	614	800	769	800	800
Auxiliary Consumption	11.64%	13.18%	11.64%	12.00%	11.64%
Net Generation (MU)	543	695	679	704	707

3.6 Generation from Rajghat Thermal Power Station

3.6.1 Petitioner's Submission

The Petitioner in its ARR has submitted that the plant has generated 380 MU during FY 2003-04 till October and is expected to generate 792 MU by the end of the year with a PLF of 67%. For the FY 2004-05 the Petitioner has proposed a slight increase in generation to 850 MU as per the target fixed by CEA with a PLF of72%. Subsequently, the Petitioner submitted the actual generation of the plant for FY 2003-04 as 774 MU resulting in a PLF of 65.45%.

3.6.2 Commission's Analysis

The Commission has accepted the Gross Generation considered by the Petitioner for the purpose of fixing the ARR for FY 2003-04 at 774 MU based on actuals. For FY 2004-05, the Commission has considered the gross generation as per the generation target of 850 MU as prescribed by Central Electricity Authority (CEA). The generation details submitted by the Petitioner and that allowed by the Commission are given in Table 3.7 below.

Table:3.7 Generation

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Availability (MW)	135	135	135	135	135
PLF	71.70%	66.97%	65.45%	71.88%	71.88%
Gross Generation (MU)	847.9	792	774	850	850

3.7 Auxiliary Consumption for Rajghat Thermal Power Station

3.7.1 Petitioner's Submission

As per the draft PPA submitted by TRANSCO along with the ARR Petition for FY 2004, the Petitioner had agreed to Auxiliary Consumption of 11.53%. Therefore the Auxiliary Consumption, which is higher than the level stipulated in PPA, cannot be considered. Further during the technical discussion with the Petitioner, the Petitioner agreed to the Auxiliary Consumption levels approved by the Commission in their previous Order of June 2003. Based on this the Auxiliary Consumption approved by the Commission for the station in its Order dated June 26, 2003, i.e. 11.28% for FY 2004-05 also.

3.7.2 Commission's Analysis

The Petitioner has achieved a better Auxiliary Consumption level of 11.63% of gross generation as against 12.63% estimated in the ARR submission. In the Draft PPA between the Petitioner and TRANSCO the Auxiliary Consumption has been finalised at 12.68% and the Petitioner has requested the Commission in their ARR to consider the Auxiliary Consumption at these levels. However, the Petitioner in its subsequent submission has agreed to the Auxiliary Consumption levels approved by the Commission in their previous Order. Based on the above submission by the Petitioner the Commission maintains the Auxiliary Consumption at the same level as earlier Order, viz.11.28% for both FY 2003-04 and FY 2004-05. The details of the Auxiliary Consumption as per the submission of the Petitioner and allowed by the Commission is given in Table 3.8 below;

Table:3.8 Auxiliary Consumption in %

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Auxiliary Consumption	11.28%	12.63%	11.28%	12.35%	11.28%

3.8 Net Generation from Rajghat Thermal Power Station

The Commission has worked out the net generation based on the above gross generation and the Auxiliary Consumption allowed as discussed in the sections above. The net generation as submitted by the Petitioner and as estimated by the Commission is given in Table 3.9 below;

Table: 3.9 Net Generation

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Gross Generation (MU)	847.9	792	774	850	850
Auxiliary Consumption	11.28%	12.63%	11.28%	12.35%	11.28%
Net Generation (MU)	752	692	687	745	754

3.9 Generation from IP Gas Turbine Station

3.9.1 Petitioner's Submission

The Petitioner in its ARR has submitted that the plant has generated 659 MU during FY 2003-04 till October and is expected to generate 1200 MU by the end of the year with a PLF of 48.58 %. For the FY 2004-05 the Petitioner has proposed a generation of 1200 MU as per the target fixed by CEA. Further, vide a separate Petition dated May 7, 2004, the Petitioner submitted the actual generation of the plant for FY 2003-04 as 1214 MU resulting in a PLF of 49.14%.

3.9.2 Commission's Analysis

The Commission has accepted the Gross Generation considered by the Petitioner for the purpose of fixing the ARR for FY 2003-04 at 1214 MU based on actuals. For FY 2004-05, the Commission has considered the gross generation as per the generation target of 1200 MU as prescribed by Central Electricity Authority (CEA). The generation details submitted by the Petitioner and that allowed by the Commission are given in Table 3.10

Table:3.10 Generation

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Availability (MW)	282	282	282	282	282
PLF	48.58%	48.58%	49.14%	48.64%	48.58%
Gross Generation (MU)	1,200	1,200	1,214	1,200	1,200

3.10 Auxiliary Consumption for from IP Gas Turbine Station

3.10.1 Petitioner's Submission

The Petitioner has estimated the actual Auxiliary Consumption for FY 2003-04 till October at 2.13% and has considered the Auxiliary Consumption of 3% for both FY 2003-04 and FY 2004-05. Further on May 7, 2004 the Petitioner has submitted the actual Auxiliary Consumption of the station for FY 2003-04 at 2.14%. The Petitioner further requested the Commission to allow Auxiliary Consumption of 3% for FY 2004-05, as the plant will be operated in combined cycle mode during the year.

3.10.2 Commission's Analysis

The Petitioner has achieved a better Auxiliary Consumption level of 2.14% of gross generation as against 3% estimated in the ARR submission. Though the Petitioner has requested to maintain the Auxiliary Consumption level at 3%, based on the better performance of the plant, the Commission has considered the actual auxiliary consumption of 2.14% for FY 2003-04 2.19% for FY 2004-05 at the same level as earlier order. The Auxiliary Consumption details submitted by the Petitioner and that allowed by the Commission are given in Table 3.11

Table:3.11 Auxiliary Consumption in %

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Auxiliary Consumption	2.19%	3%	2.14%	3%	2.19%

3.11 Net Generation from IP Gas Turbine Station

The Commission has worked out the net generation based on the above gross generation and the Auxiliary Consumption allowed as discussed in the sections above. For FY 2003-04 the net generation estimated by the Commission is higher than the level estimated by the Petitioner in its ARR due to higher actual generation and lower Auxiliary Consumption allowance. The net generation details submitted by the Petitioner and that allowed by the Commission are given in Table 3.12 below.

Table:3.12 Net Generation

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Gross Generation (MU)	1,200	1,200	1,214	1,200	1,200
Auxiliary Consumption	2.19%	3%	2.19%	3%	2.19%
Net Generation (MU)	1,174	1,164	1,187	1,164	1,174

3.12 Total Generation by IPGCL

Based on the above analysis the total Gross Generation and net generation for the Company is as given in the Table 3.13 below;

Table:3.13 Total Generation for company

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Gross Generation (MU)	2,662	2,792	2,757	2,850	2,850
Net Generation (MU)	2,469	2,551	2,553	2,613	2,635

3.13 Fixed Costs

The Commission has examined in detail all the components of the Fixed Cost of PPCL. The fixed cost of PPCL includes the following elements:

- O&M Charges
- Depreciation
- Interest Charges
- Return on Equity
- Interest on Working Capital
- Fixed Fuel Costs

Further, the Petitioner has apportioned the Fixed Costs to different stations. However as present exercise to determine the ARR of the company as a whole the Commission has determined the Fixed Costs at the aggregate level and the same has not been allocated to individual stations.

3.13.1 O&M Charges

3.13.1.1 Petitioner's Submission

The Petitioner has submitted the actual O&M expenses for April to October 2003, estimates for FY 2003-04 and projections for FY 2004-05 in its ARR filing. The O&M expenses for FY 2003-04 was estimated at Rs. 126.62 Crore based on the actual expenses incurred till October 2003 and the FY 2004-05 expenses were projected at Rs. 139.83 Crore by considering an escalation factor of 10% over the previous year expenses. The actual O&M expenses incurred (excluding VRS expenses of Rs. 34 Crore) as per the subsequent submission, by the Petitioner, for FY 2003-04 is Rs. 154.08 Crore.

The Petitioner had submitted that the O&M expenses includes corporate office expenses which consists of expenses of key executive functionaries including Managing Director, Director (T), Director (F), Company Secretary, etc. This also includes the activities of administration, finance, stores, medical department, civil, etc. The Petitioner also submitted that these functions are common for both IPGCL and PPCL and as per the directive of Board of Directors of the company, these corporate office expenses shall be shared between the two companies. The corporate office expenses allocated to IPGCL has been further divided between the three plants by the company.

The O&M expenses also include the cess payable to Delhi Pollution Control Committee (DPCC) on the water withdrawn from the Yamuna River. Further the amount being paid to Haryana Irrigation Department for maintenance of barrage maintained by them for IPGCL is also included in O&M expenses.

The Petitioner has further stated that the company has created various executive posts in finance, administration, and engineering wings during FY 2003-04 for filling up the vacuum in the executive categories and the company has started the recruitment drive in these categories. Besides this, the company also proposes to give extensive training to its employees in the near future and to prepare them for competitive environment and to face challenges of the future. Hence the expenses of the company on account of trainings, seminars, etc. are likely to raise and company has fixed up a budget of Rs. 3.00 Crore for the same. The company is also planning to create in-house training facilities for its employees on the line of Power Management Institute of NTPC.

4.1.1.1 Commission's Analysis

The Commission in its previous Tariff Order of TRANSCO had allowed an O&M cost of Rs. 80.18 Crore for FY 2003-04 based on the past year expenses by providing necessary escalations. However as per the Petitioner's submission the actual expenses incurred is Rs. 154.08 Crore. As this is substantially higher the Commission held a meeting with senior management of IPGCL on April 30, 2004 to have a detailed discussion on this issue and other issues of concern such as Higher Heat Rate and Auxiliary Consumption for some of the stations. During this discussion, the Commission directed the Petitioner to get CEA's recommendation on the O&M cost and R&M expenses. Pending CEA study, the Commission allows an O&M cost of Rs. 80.18 Crore for FY 2003-04 as approved in the previous Tariff Order. For FY 2004-05, the Commission has considered an escalation of 4% in line with the CERC Regulations dated March 26, 2004 . Thus the Commission for FY 2004-05 has considered the O&M expenses at Rs. and Rs. 83.39 Crore. After receipt of the CEA report the Commission will take an appropriate view and any adjustment in O&M Expenses if required shall be considered during truing up of expenses.. However, as the matter has been referred to CEA, during the interim period the Commission allows a carrying coat @ 10% p.a. for the difference in the expenses estimated by the Petitioner and allowed by the Commission.

Table:3.14 O&M Charges in Rs. Crore

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
O&M Charges	80.18	126.62	80.18	139.83	83.39
Carrying Cost			2.92		8.57

3.13.2 Depreciation

3.13.2.1 Petitioner's Submission

The Petitioner has considered depreciation @ 7.84% for thermal station and 8.24% for gas station on straight-line method. The Petitioner has argued that the Commission in the BST order for FY 2001-02 had approved a weighted average depreciation rate of 7.84% and the same has been considered for the present fling. The Petitioner further stated that Commissioner had allowed a depreciation only @ 4% for FY 2003-04 while approving the tariff of IPGCL station in the Order on TRANSCO's ARR for FY 2002-03 and FY 2003-04. Petitioner further submitted that as per the provisions of the Electricity Act 2003 the power sector utilities may be required to follow Companies Act 1956 in the matter of depreciation. They further state that the draft tariff policy of Ministry of Power mentions that the depreciation rate applicable for tariff determination shall be as per Schedule XIV of Companies Act 1956 and considering the power plants as 'continuous process pants' the rate applicable could be 5.28%. In view of the pending notification of Tariff Policy by Government of India under the Electricity Act 2003, the Petitioner has requested the Commission to allow depreciation @ 8.24% for gas based plants and 7.84% for thermal power stations.

Further the Petitioner submitted that the depreciation on the additions during the financial year have been provided on the half of the amount assuming that the additions have been made evenly throughout the year. The Petitioner has submitted that there will be an addition to the gross block of Rs. 73.50 Crore and Rs. 192.86 Crore for FY 2003-04 and FY 2004-05 respectively.

4.1.1.2 Commission's Analysis

The Commission would like to highlight that the Petitioner submitted the statements of Annual Revenue Requirement for determination of generation tariff for FY 2004-05 on November 28, 2003.. The depreciation rate considered by the Petitioner in the statements of ARR was 5% per annum in line with the Commission's Order for FY 2003-04.

The Commission sent deficiency note to the Petitioner in which the Commission mentioned that the Petitioner has submitted the figures/details in the statements and has not submitted any write-up including the basis, assumptions, explanatory notes for the figures. The Commission directed the Petitioner to provide these details

Subsequently, the Petitioner has furnished the requisite details and it was noticed that the Petitioner has charged the depreciation @ 8.24% for gas based plants and 7.84% for thermal power plants as against the depreciation rate of 4% as considered while submitting the ARR statements on November 28, 2003.

The Commission has adequately discussed the issue of depreciation in its Tariff Order dated June 26, on TRANSCO's ARR Petition for FY 2002-03 and FY 2003-04 2003 and the Order on Review Petition filed by the TRANSCO. The Commission's view on the concept of depreciation both from an accounting perspective and from a regulatory perspective from its Review Order dated November 25, 2003 has been reproduced below for reference.

"*From an accounting perspective, Depreciation is a charge to the Profit and Loss account and represents a measure of the wearing out, consumption or other loss in value of an asset arising from use, efflux of time or obsolescence through technology and market changes. From a regulatory perspective, depreciation is a small amount of the original cost of the capital assets, built into the tariff computation every year with a view to providing the utility a source of funding to repay instalments of debt capital. As the asset is used over its operational life, Depreciation is proportionately charged over the useful life of the asset.*"

The Commission in its Order of June 26, 2003 has considered and applied the principle of depreciating the asset over its fair life such that 90% of the asset value is depreciated over the fair life of the asset. The average fair life of the gas turbines and steam turbine including other equipments has been considered as 15 years and 25 years respectively for the purpose of estimating the depreciation. In this method, the average depreciation will be in the range of 4%. Incidentally, the Petitioner in the original submission made on November 28,2003 has also considered the depreciation @4 %. Thus the depreciation approved by Commission for FY 2003-04 and FY 2004-05 is Rs. 21.38 Crore and Rs. 24.32 Crore respectively. The depreciation estimated by the Petitioner and as approved by the Commission for FY 2003-04 and FY 2004-05 is given in Table3.15 below.

Table:3.15 Depreciation in Rs. Crore

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Depreciation	20.40	46.12	21.38	56.72	24.32

4.1.2 Interest Charges

3.13.2.2 Petitioner's Submission

The petitioner submitted that as per the Delhi Electricity Reforms (Transfer Scheme) Rules 2001, the secured loans payable by IPGCL to holding company as on July 1, 2002 is Rs. 210 Crore. As per this Transfer Scheme, there is a moratorium of 4 years for payment of interest and principal. The Petitioner further submitted that has availed an additional loan of Rs. 48.80 Crore from Delhi Government under Plan Fund Loan Scheme, which has an interest rate of 13%. There is a further approval of Rs. 75 Crore under Plan Fund Scheme and the loans were taken at 11%.

The Petitioner has estimated interest based on the above assumptions at Rs. 10.38 Crore and Rs. 24.62 Crore for FY 2003-04 and FY 2004-05 respectively.

4.1.2.1 Commission's Analysis

Though the interest allowed for FY 2003-04 based on the TRANSCO submission was Rs. 4.72 Crore, the same shall be revised to Rs. 10.38 Crore based on the actual interest payment estimated by IPGCL. The Commission has estimated the interest expenses as Rs 24.62 Crore FY 2004-05 based on the interest and repayment schedule. The interest charges as estimated by the Petitioner and as approved by the Commission are given in Table 3.16 below.

Table:3.16 Interest Charges in Rs. Crore

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Interest	4.72	10.38	10.38	24.62	24.62

4.1.3 Return on Equity

3.13.2.3 Petitioner's Submission

As per Transfer Scheme dated July 1, 2002 the subscribed and paid up equity capital of the company was fixed at Rs. 140 Crore and the Petitioner has estimated the Return on Equity (ROE) @ 16% on this equity of the company.

4.1.3.1 Commission's Analysis

The Commission allows ROE @ 16% on equity component as per the applicable GoI norms as given in the Table 3.17 below.

Table:3.17 Return on Equity in Rs. Crore

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Return on Equity	22.40	22.40	22.40	22.40	22.40

4.1.4 Interest on Working Capital

3.13.2.4 Petitioner's Submission

The petitioner's submission on interest on working capital assumes the following working capital norms

- Fuel expenses for 1 month of operation at the projected PLF
- Coal inventory for 1 month
- Oil inventory for 2 months
- O&M expenses for 1 month
- Spares based on the company estimates
- Receivables for 2 months based on the projected sales.

The total working capital requirement estimated by the Petitioner based on the above is Rs. 206.15 Crore and Rs. 220.08 Crore respectively for FY 2003-04 and FY 2004-05. The interest is calculated @ 12.50% p.a. as allowed by DERC in its Tariff Order dated 26th June 2003.

4.1.4.1 Commission's Analysis

The Commission approves the working capital norms followed by the Petitioner as it is in line with GOI specified norms. However the total working capital requirement has been reworked by the Commission based on the gross generation and costs approved as discussed above. Based on this the working capital requirement of the company works out to be Rs. 154.50 Crore and Rs. 165.06 Crore for FY 2003-04 and FY 2004-05 respectively. Based on the interest rate of 12.5% p.a., the provision for interest on working works out to be Rs. 19.31 and Rs. 20.63 for FY 2003-04 and FY 2004-05 respectively as given in Table 3.18 below;

Table:3.18 Interest on Working Capital in Rs. Crore

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Interest on WC	14.39	25.77	19.31	27.51	20.63

4.1.5 Total Fixed Cost

The total fixed cost estimates as per the Petitioner's submission and as allowed by Commission is summarised in the Table 3.19 below.

Table:3.19 Total Fixed Cost in Rs. Crore

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
O&M Charges	80.18	126.62	80.18	139.83	83.39
Carrying Cost			2.92		8.57
Depreciation	20.40	46.12	21.38	56.72	24.32
Interest	4.72	10.38	10.38	24.62	24.62
Return on Equity	22.40	22.40	22.40	22.40	22.40
Interest on WC	14.39	25.77	19.31	27.51	20.63
Total Fixed Cost	**142.09**	**231.29**	**156.57**	**271.08**	**183.93**
Total Energy Supply (MU)	**2,469**	**2,551**	**2,553**	**2,613**	**2,635**
Fixed cost/Unit (Rs/kWh)	**0.58**	**0.91**	**1.00**	**1.04**	**0.70**

4.2 Fuel Cost

The variable cost of the plant depends upon the operational and fuel parameters such as Heat Rate, Auxiliary Consumption, Fuel Cost and Fuel Calorific value. The Petitioner has submitted the operating parameters of the plant as a part of ARR. The Petitioner has also submitted additional submission as required by the Commission. The Analysis of the Commission is as follows;

3.14 Station Heat Rate for IP Power Station (IP)

3.14.1.1 Petitioner's Submission

The Petitioner, in its ARR submission had estimated the Station Heat Rate of 3454 kCals/kWh till October 2003, and 3488 kCals/kWh and 3397 kCals/kWh for FY 2003-04 and FY 2004-05 respectively. Further on May 7, 2004 the Petitioner has submitted the actual Heat Rate of the station for FY 2003-04 as 3455 kCals/kWh, than the earlier estimates. The Petitioner also revised the projected Heat Rate for FY 2004-05 to 3400 kCals/kWh. In this submission the Petitioner has requested some breathing period for improving the Heat Rate of plants as necessary R&M activities are proposed to be undertaken in forthcoming years. The Petitioner has also agreed to get an assessment of Heat Rate done by CEA for FY 2004-05 as directed by the Commission.

3.14.2 Commission's Analysis

As per the draft PPA submitted by TRANSCO along with the ARR Petition for FY 2004, the Petitioner had agreed to Heat Rate of 3235 kCal/kWh and the same was approved by the Commission. Therefore the Commission cannot consider a Heat Rate, which is higher than the level stipulated in

PPA. Further during the technical discussion with the Petitioner, it was decided to get an assessment of Heat Rate done by CEA. Pending CEA assessment, the Commission has considered the heat rate for the station of 3235 kCals/kWh as per the previous tariff Order for FY 2003-04 and FY 2004-05. After receipt of the CEA report the Commission will take an appropriate view and any adjustment in O&M Expenses if required shall be considered during truing up of expenses. The details of the submission by the Petitioner and the allowed Heart Rate by the Commission is as given in the Table 3.20 below.

Table:3.20 Station Heat Rate in kCal/kWh

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Station Heat Rate	3235	3488	3235	3397	3235

3.15 Total Cost of fuel for IP Power Station (IP)

3.15.1.1 Petitioner's Submission

The Petitioner has submitted that as per the directions of Delhi Pollution Control Committee (DPCC), they are required to use imported coal for reducing pollution level. The Petitioner proposes to use imported coal on experimental basis by blending the same with the indigenous coal. If the same is found viable, the company might use imported coal for blending purpose in this power plant. However the cost factor on this account has not been accounted in the calculations submitted by the Petitioner.

Petitioner has submitted the expenses towards the annual fuel cost based on the estimated weighted average Calorific Value of the coal of 4100 kCals/kg that of oil of 10720 kCals/kl of fuel oil which is used as start up fuel. In the ARR submission the cost of coal per ton was considered at Rs. 1827.75 based on the last bill before the submission of ARR for FY 2003-04 and an increase of 5% was considered for FY 2004-05 projections. The total coal requirement is calculated based on the PLF projected and the Station Heat Rate. The specific oil consumption was estimated at 10.91ml/kWh and 10.88ml/kWh respectively for FY 2003-04 and FY 2004-05 respectively. Further the Petitioner has submitted the actual fuel cost for FY 2003-04 at Rs. 129.01 Crore.

4.2.1.1 Commission's Analysis

The Commission in its earlier Order on TRANSCO's ARR for FY 2003-04 had considered the coal price of Rs. 1674/kg. However the Petitioner has revised the same to Rs. 1827.75/kg in the ARR petition. Subsequently the Petitioner has submitted the actual fuel cost as Rs. 1785/MT and the same has been considered by the Commission. The specific oil consumption has been fixed at 10ml/kWh as approved in the previous Tariff Order. For FY 2004-05 the Commission has considered an escalation of 3% on the price of coal and 5% on oil price based on past trends. The details of the total fuel cost as submitted by the Petitioner and estimated by the Commission is give in Table 3.21 below.

Table:3.21 Total Fuel Cost

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Gross Generation (MU)	614	800	769	800	800
Net Generation (MU)	542	695	679	704	707
Calorific Value of coal (kCal/kg)	4190	4100	3979	4100	3979
Price of coal (Rs./kg)	1674	1827.75	1785	1919	1838
Calorific Value of Fuel Oil (FO) (kCal/l)	10670	10720	10720	10720	10720
Price of FO (Rs./kl)	15337	16145	17358	16952	18226
Total Fuel Cost (Rs. Crore)	**86.00**	**132.03**	**129.01**	**137.57**	**130.19**
Variable cost of generation (Rs./kWh)	**1.40**	**1.65**	**1.68**	**1.72**	**1.63**
Cost of energy sent out (Rs/kWh)	**1.58**	**1.90**	**1.90**	**1.95**	**1.84**

3.16 Station Heat Rate for Rajghat Power Station

3.16.1.1 Petitioner's Submission

The Petitioner, in its ARR submission had estimated the Station Heat Rate of 3460 kCals/kWh till October 2003, 3465 kCals/kWh and 3414 kCals/kWh for FY 2003-04 and FY 2004-05 respectively. Further on May 7, 2004 the Petitioner has submitted the actual Heat Rate of the station for FY 2003-04 as 3347 kCals/kWh, and the projected Heat Rate for FY 2004-05 at 3300 kCals/kWh. The Petitioner further stated that the Petitioner will be try to achieve the Heat Rate approved by the Commission for the station in its Order dated June 26, 2003 for FY 2004-05 also which was 3200 kCals/kWh.

3.16.2 Commission's Analysis

As per the draft PPA submitted by TRANSCO along with the ARR Petition for FY 2004, the Petitioner had agreed to Heat Rate of 3200 kCal/kWh and the same was approved by the Commission. Therefore the Commission cannot consider a Heat Rate, which is higher than the level stipulated in PPA. Further during the technical discussion with the Petitioner, the Petitioner agreed to the Heat Rate levels approved by the Commission in their previous Order of June 2003. The Commission has therefore considered the Heat Rate as 3200 kCals/kWh for both FY 2003-04 and FY 2004-05 as approved in the last Order as given in the Table 3.22 below.

Table:3.22 Station Heat Rate in KCals/kWh

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Station Heat Rate	3200	3460	3200	3414	3200

3.17 Total Cost of fuel for Rajghat Power Station

3.17.1.1 Petitioner's Submission

The Petitioner has submitted that as per the directions of Delhi Pollution Control Committee (DPCC), they are required to use imported coal for reducing pollution level. The Petitioner proposes to use imported coal on experimental basis by blending the same with the indigenous coal. If the same is found viable, the company might use imported coal for blending purpose in this power plant. However the cost factor on this account has not been accounted in the calculations submitted by the Petitioner.

In the ARR Petitioner, the cost of coal per ton was considered at Rs. 1827.75 based on the last bill before the submission of ARR for FY 2003-04 and an increase of 5% was considered for FY 2004-05 projections. The total coal requirement was calculated based on the PLF projected and the Station Heat Rate. Further the Petitioner has submitted the actual fuel cost for FY 2003-04 at Rs. 115.68 Crore.

4.2.1.2 Commission's Analysis

The Commission in its earlier Order on TRANSCO's Petition for FY 2003-04 had given an approval based on a coal price of Rs. 1675/kg. However the Petitioner has revised the same to Rs. 1827.75/kg in the ARR petition. Subsequently the Petitioner has submitted the actual fuel cost, quantum of primary and secondary fuel consumption and the same has been considered by the Commission. The specific oil consumption has been fixed at 1.27ml/kWh of LDO and 3.07gm/kWh of LSHS based on the actual consumption for FY 2003-04. For FY 2004-05 the Commission has considered an escalation of 3% on the price of coal and 5% on oil price based on past trends. The details of the total fuel cost as submitted by the Petitioner and estimated by the Commission is give in Table 3.23 below.

Table:3.23 Total Fuel Cost

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Gross Generation (MU)	858	792	774	850	850
Net Generation (MU)	752	692	687	745	754
Calorific Value of coal (kCal/kg)	4186	4117	4107	4117	4107

Price of coal (Rs./kg)	1675	1827.75	1784	1919	1838
Calorific Value of LSHS (kCal/kg)	10000	10000	10000	10000	10000
Calorific Value of LDO (kCal/l)	10000	10720	10720	10720	10720
Price of LSHS (Rs./MT)	11474	13006	12524	13657	13150
Price of LDO (Rs./kl)	16148	16145	17358	16952	18226
Total Fuel Cost (Rs. Crore)	**112.80**	**123.02**	**110.78**	**140.54**	**125.41**
Variable cost of generation (Rs./kWh)	**1.33**	**1.55**	**1.43**	**1.65**	**1.48**
Cost of energy sent out (Rs/kWh)	**1.50**	**1.78**	**1.61**	**1.89**	**1.66**

3.18 Station Heat Rate for IP Gas Turbine Station

3.18.1.1 Petitioner's Submission

The Petitioner had not estimated the Heat Rate for the plant in its ARR filing. However considering the calorific value of the CNG at the same levels as of previous TRANSCO Order, the Heat Rate achieved by the plant till October 2003 has been estimated at 2528 kCals/kWh and 2355 kCals/kWh and 2235 kCals/kWh for FY 2003-04 and FY 2004-05 respectively. For FY 2004-05 the Petitioner had also assumed partial usage of LNG instead of CNG. Further on May 7, 2004 the Petitioner has submitted the actual station Heat Rate for FY 2003-04 at 2418 kCals/kWh. The Petitioner also submitted revised estimates of gross generation and fuel mix for FY 2004-05 and the Heat Rate for the same works out to be 2343 kCals/kWh. In this submission the Petitioner has requested some breathing period for improving the Heat Rate of plants as necessary R&M activities are proposed to be undertaken in forthcoming years. The Petitioner further stated that it does not object to the Heat Rate approved by the Commission for the station in its Order dated June 26, 2003 for FY 2004-05 also, which was 2346 kCals/kWh.

3.18.2 Commission's Analysis

The Petitioner in its submission has agreed to the Heat Rate approved by the Commission in their previous Order of 2346 kCals/kWh. The Commission recognises the need for efficient operation of the plant for reducing the overall tariff levels to the consumers and maintains the Heat Rate at 2346 kCals/kWh as approved in the last Order as given in the Table 3.24 below.

Table:3.24 Station Heat Rate in kCals/kWh

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Station Heat Rate	2346	2346	2346	2346	2346

3.19 Total Cost of fuel for IP Gas Turbine Station

3.19.1.1 Petitioner's Submission

The Petitioner, in its ARR filing has submitted that it has entered into an agreement with GAIL for supply of LNG for meeting shortfall in CNG to its gas turbine units. After the supply of this LNG, the Petitioner proposes to stop using liquid fuel. The Petitioner stated that the LNG supply will start from March 2004 and requested the Commission to take note of this change of fuel at the time of framing tariff.

The Petitioner further in its May 7, 2004 submission stated that the supply of LNG has already commenced from mid March 2004 and the contracted quantity as per the Agreement entered into between the Petitioner and GAIL on January 7, 2004 is 0.6 MCDM. The Petitioner also started that it is obliged to bear the cost of this contracted quantity even if there is no off-take of supply. The Petitioner further stated that in view of this Agreement the company would first off-take the contracted supply of LNG before CNG. Accordingly the Petitioner revised its fuel cost estimated for F 2004-05.

As per Petitioner's original ARR submission the expenses towards the fuel cost based on CNG was Rs. 93.49 Crore and Rs. 167.61 Crore for April to October 2004 and FY 2003-04 respectively. The estimates for FY 2004-05 based on 101 million SCM CNG and 206 Million SCM LNG was Rs. 204.67 Crore. The CNG price was estimated at Rs. 4.32/SCM for FY 2003-04 and a 5% escalation was considered for FY 2004-05. The LNG price for FY 2004-05 was estimated at Rs. 7.70/SCM. Further the Petitioner has submitted the actual fuel cost for FY 2003-04 at Rs. 171.75 Crore with a mix of 339 million SCM of CNG and 9.56 million SCM of LNG at a price of Rs. 4.32/SCM for CNG and Rs. 7.70 per SCM of LNG.

The Petitioner in subsequent submission revised the Gross Generation estimated for FY 2004-05 to 1700 MU from the earlier estimates of 1200 MU and increased the LNG consumption to 206 million SCM.

4.2.1.3 Commission's Analysis

The Commission has taken serious note of the decision taken by the Petitioner in shifting over from CNG to LNG without prior approval by the Commission inspite of the fact that LNG is a costlier option and by switching from CNG to LNG the variable cost of generation increases substantially. In the original Petition filed by IPGCL, the generation level for FY 2004-05 was considered at same level of FY 2003-04 at 1200 MU. The Commission would like to highlight that when the generation target of around 1200 MU has been achieved by utilising CNG, the need of LNG for same generation level does not arise. During subsequent submissions, the Petitioner submitted that the

Petitioner has increased the generation target from 1200 MU to 1700 MU by utilising LNG. The Commission has examined the matter considering the demand supply position in the State of Delhi and has noticed that considering the firm sources of power available to TRANSCO, the surplus energy in unit terms is available to TRANSCO and the Commission has considered this surplus energy as sale by TRANSCO at average power purchase cost of Rs. 2.15/kWh. Considering all these aspects, the Commission is of the view that at this stage it may not be appropriate to consider the additional costlier generation from this station. . In view of above, the Commission has considered fuel cost based on CNG as fuel for FY 2004-05. Further the Commission restricts the gross generation for FY 2004-05 at CEA approved target of 1200 MU, which can be generated using CNG as fuel, and allows fuel cost on that basis. The details of the submission by Petitioner and estimation by Commission are given in Table 3.25 below.

Table:3.25 Total Fuel Cost

Description	FY 2003-04			FY 2004-05	
	TRANSCO Order	Petition	Commission	Petition	Commission
Gross Generation (MU)	1,200	1,200	1,214	1,200	1,200
Net Generation (MU)	1,174	1,164	1,187	1,164	1,174
Price of CNG (Rs./SCM)	4.00	4.32	4.32	4.54	4.54
Total Fuel Cost (Rs. Crore)	134	145	168	144	152
Variable cost of generation (Rs./kWh)	**1.11**	**1.21**	**1.38**	**1.20**	**1.27**
Cost of energy sent out (Rs/kWh)	**1.13**	**1.25**	**1.42**	**1.24**	**1.29**

3.20 Other Issues

3.20.1 Voluntary Retirement Scheme (VRS)

3.20.1.1 Petitioner's Submission

The Petitioner has submitted that, during FY 2003-04, the company has introduced the VRS Scheme for its employees in Category B, C & D in which 356 employees were given VRS in October 2003 with a cost of Rs. 18.62 Crore. The petitioner feels that some additional payment may have to be made on account of pension benefits to DVB Terminal Benbefit Trust as demanded by them. The Petitioner is most likely to offer to its employees in Category 'A' a voluntary retirement scheme before close of FY 2003-04. The Petitioner further states that similar VRS scheme is envisaged in near future in phased manner to the employees and requested Commission to keep in view the liability arising on account of VRS schemes already introduced or to be introduced by the Company, at the time of fixing the tariff.

Further, the Petitioner in its submission dated February 27, 2004, informed the Commission that it has received 34 applications from the employees in response to the scheme. Further it also submitted that these applications are under the process of scrutiny and the estimated liability towards this is Rs. 4 Crore. The Petitioner also submitted that it has received a demand notice for Rs. 15.66 Crore, on provisional basis, on account of VRS offered to B, C and D category employees earlier.

3.20.1.2 Commissioner's Response

The Commission directs the Petitioner to forward the entire scheme along with the detailed cost benefit analysis including computation of pay back period of implementing such scheme. Further the Commission would like to inform the Petitioner about the mechanism for treating the VRS expense in the ARR.

There are two options available for amortisation of costs of VRS:

- Option 1: Amortisation of entire VSS expense within 1 year
- Option 2: Amortisation of VSS expense by spreading it over next 2-3 years through savings in Employee Costs

Before examining these two options, the Commission would like to clarify that the acid test for implementation of any such scheme is that the implementation of scheme has to be tariff neutral to the consumers.

In case of Option 1, if the amortisation of entire VRS expenses is considered as part of ARR in one year, it will lead to substantial increase in ARR and revenue gap and in turn lead to tariff shock to the consumer. Considering this aspect, the Commission feels that the VRS cost cannot be considered in one year ARR and the cost of VRS needs to be spread over the next 2-3 years.

In case of option 2, the amortisation of VRS scheme is to be spread over 3-4 years. The Commission further opines that the expenditure on VRS, the borrowing cost, and increase in other expenses due to implementation of this scheme, if any, have to be met from the savings in Employee Costs over the future years. With this mechanism, once the cumulative savings on account of reduction in employees are equivalent to the one time VRS outgo after adjusting for the increase in the other expenses, the savings in employee expenses will be available for the purpose of ARR computations and thus in the tariff to the consumers.

Based on analysis of above two options, the Option II is to be considered for amortising the one time VRS outgo from the savings in future years as this will be tariff neutral to consumers till the cumulative savings are equivalent to VRS costs.

By implementing the VRS scheme, there will be savings in employee expenses, but the other expenses may increase on account of outsourcing of some activities due to reduction in number of employees. These expenses and the carrying cost of the VRS scheme should also be considered while arriving at the cost benefit analysis for the scheme. The payback period of the scheme should be in the range of 3-4 years so that the benefits post this period could flow to the consumers in the form of reduced tariff.

3.20.2 Renovation & Modernisation

3.20.2.1 Petitioner's Submission

In order to achieve reliability of the plants, efficiency, cost reduction, extended life and meet the present environment norms, the Renovation & Modernisation plans for all the power stations are envisaged by the Petitioner.

The Petitioner has already submitted the detailed project report in respect of Renovation & Modernisation activities of all the three plants of the company for consideration of the Commission. The cost benefit analysis of the proposed activities have been worked out in the project report, a summary of which was included along with the additional submission by the Petitioner. The Petitioner further pleads that the implementation of Renovation & Modernisation plans are a must for the company to achieve the above stated objectives. The company also expressed their willingness to have the plans assessed by CEA.

3.20.2.2 Commissioner's Response

The Commission has already directed the Petitioner to get the projects evaluated by CEA and will take necessary actions on submission of the CEA reports.

3.20.3 Incentives

3.20.3.1 Petitioner's Submission

The Petitioner through its supplementary submission requested the Commission to fix incentive norms for both IPGCL and PPCL as per CERC guidelines for generation over the PLF percentage fixed for recovery of full fixed cost.

3.20.3.2 Commissioner's Response

The Commission recognise the importance of fixing incentives for actual PLF over and above the PLF fixed for recovery of full fixed cost and the same shall be addressed during the finalisation of PPA between TRANSCO and the Petitioner.

3.20.4 Expenses on ash evacuation/utilisation

The Petitioner has estimated an expenditure of Rs. 1.10 Crore towards ash evacuation/utilisation for each thermal power station and requested for the inclusion of the same as a separate cost head in the Tariff Order as per the CEA notification No. 1/8/2003/TCD/703 dated April 22, 2003. As per this notification CEA states that the expenditure incurred by thermal power stations for evacuation/utilisation of ash, where such an expense was not a part of project cost, could be allowed under tariff. The notification has further listed the expenditure areas which can be allowed in the inclusion of tariff vide Annexure II.

3.20.4.1 Commissioner's Response

The Petitioner is directed to give details of the actual expenditure incurred by each plant along with the classification of the expenditure as per the Annexure II of the CEA notification, for the Commission to take appropriate view in the matter.

4. Generation Tariff Philosophy

TRANSCO, vide a separate Petition has submitted the Power Purchase Agreement (PPA) entered into with Indraprastha Power Generation Company Limited (IPGCL) for the approval of the Commission. The Commission is dealing with the matter of approval of PPA separately. In the absence of an approved PPA, the Commission would like to spell out its tariff philosophy for generating companies.

4.1 Two Part Tariff

Currently the tariff for the generation companies are fixed based on the 'Two Part Tariff Principles' announced by GoI, with modification from time to time. Under this principle the tariff is divided into two components (i) fixed component (ii) variable component.

4.1.1 Fixed Component of Tariff

The fixed component consists of all the costs incurred by the generating company irrespective of the generation (PLF) of the plant. This component typically includes;

- O&M cost
- interest payment
- depreciation
- interest on working capital
- tax payments
- return on equity

This could also include any fixed payment to be made by the generating company towards the purchase and transportation of fuel. As the capacity of the plant is dedicated to a utility, any fixed cost arising out of some contractual obligation of the generation company e.g. minimum fuel off-take guarantee, has to be paid by the power off taker.

The fixed costs are generally fixed based on pre-determined parameters. The generating company stands to gain if its performance parameters are better than the normative parameters agreed to between the generator and power off taker and loose if the operations are not up to the normative level. Generally the fixed costs are payable by the off taker at a particular contracted PLF level. The power off taker has to make the payment irrespective of despatch of power as long as the plant is available for generation at this agreed PLF. In some cases an incentive structure could also be worked out where the generating company shall be paid an incentive for deemed/actual generation over and above the contracted PLF. The total fixed cost shall be paid by the off-taker of the power on a monthly basis where each month payment shall be 1/12th of the total fixed cost.

4.2 Variable Component

Fuel cost is the variable component of the tariff, which, as the name suggests varies, based on the actual operation of the plant. Typically this includes primary fuel cost and secondary fuel cost.

The variable cost shall be paid by the off-taker based on the actual operation of the plant on a monthly basis. The variable cost shall be determined based on the pre-set operating parameters like Heat Rate of the plant and the Auxiliary Consumption norms. Under this principle the generator stands to gain if the performance is better that the pre-decided norms and stands to loose if the actual performance is below the norms. Generally the PPAs entered into between the generating company and the off takers of power specify the type of fuel used and the consumption norms. Generally it is the responsibility of the generating company to contract the necessary fuel for operating the plant.

4.3 Fuel Price Adjustment Formula

Apart from the approval of the ARR for FY 2004-05, the Petitioner has also requested for a Fuel Cost Adjustment Formula as discussed below.

4.3.1 Petitioner's Submission

The Petitioner has requested for an approval of appropriate Fuel Price Adjustment formula to compensate the variation of fuel cost as the fuel price is subject to price variations.

4.3.2 Commission's Response

The Petitioner has entered into a Fuel Supply Agreement with GAIL and as per the Agreement the fuel price is fixed as per the Ministry of Petroleum and Natural Gas, GOI notification on natural gas prices. As per this notification, the price would be determined and notified by GAIL with the approval of the Ministry for every quarter depending upon the average price of the basket of Fuel Oils based on the figures obtained from Platt's Oilgram for the previous quarter. As per the current notification the general price would vary between the floor price of Rs. 2150/MCM and ceiling price of Rs. 2850/MCM.

It can be seen from above paragraph, though the gas price is linked to the movement in prices of Fuel Oils, a cap has been prescribed beyond which the gas price will not increase irrespective of the increase on Fuel Oil prices. Further, the Commission has also considered an escalation factor of 5% on actual fuel price for FY 2003-04. Considering this the Commission feels that there is no need for a Fuel Price Adjustment Formula at this stage. However any variation in the fuel price beyond 5% increase during the year shall be considered during truing up at the end of the year.

4.4 Open Cycle Tariff

The Petitioner has requested the Commission to fix tariff for Open Cycle operation of the plant.

4.4.1 Commissioner's Response

The Commission is of the opinion that the plant should be always operated in the combined cycle mode, as the open cycle operations are very inefficient. However under unforeseen circumstances, which are beyond the control of the Petitioner, the plant may be forced to operate in Open Cycle mode. The Commission will approve the operational parameters for open cycle and the conditions for open cycle operation while approving the Power Purchase Agreement between TRANSCO and IPGCL.

Table of Contents