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1. Background

1.1 Pragati Power Corporation Limited

The Pragati Power Corporation Limited (PPCL) is having a combined cycle Pragati Power Project with installed capacity of 330 MW comprising of two gas turbines each of 104 MW and one steam turbine of 122 MW. The first gas turbine unit was commissioned in the month of May 2002, the second gas turbine unit was commissioned in November 2002 and the combined cycle plant operation commenced in March 2003.

1.2 Transfer Scheme

Pursuant to the provisions of the Delhi Electricity Reform Act, 2000 (hereinafter referred to as 'DERA') the Government of National Capital Territory of Delhi (hereinafter referred to as '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'). Further, all the assets, liabilities, rights and interest of DVB in the Pragati Power project were transferred to PPCL.

1.3 Enactment of Electricity Act, 2003

The Electricity Act, 2003,(hereinafter referred to as 'EA 2003'), enacted in June 2003 repealed the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998.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

2003, vests the responsibility of determination of tariff with the Commission – the relevant portion of this Section is as follows;

" The State Commission shall discharge the following function namely –

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

Procedure envisaged in the EA 2003 for Tariff Order

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

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

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

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

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

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

1.4 About the Commission

The Delhi Electricity Regulatory Commission (hereinafter referred to as 'Commission') was constituted by the Government on March 3, 1999 and it became operational from December 10, 1999. In the journey from inception till date, the

Commission has issued twenty (20) Tariff Orders and notified thirteen (13) Regulations apart from discharging its other statutory functions.

1.4.1 Functions of the Commission

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

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

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

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

electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution Licensee;

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

1.5 Process of Tariff Determination

1.5.1 ARR & Tariff filing for FY 2006-07

1.5.1.1 *Filing of petitions*

The Petitioner (PPCL) filed its Petition for approval of ARR and determination of Tariff for FY 2006-07, on December 19, 2005.

1.5.1.2 *Interactions with the Petitioner*

The filing of the Petition was followed by a series of interactions, both written and oral, wherein, the Commission sought additional information/clarification and justifications on various issues critical for admissibility of the petitions. The Petitioner submitted its response on the issues raised through separate submissions on March 31, 2006. The petition was finally admitted by the Commission on 30th March 2006.

1.5.2 Public Notice and response from Stakeholders

1.5.2.1 *Publicity given to the Proposal*

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

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

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

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

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

1.5.3 Public Hearing and Response

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

1.5.4 Post admission interactions

1.5.4.1 *Discussions during technical sessions and presentation by the Petitioner*

After admission of the ARR Petition, the Commission held further technical sessions with the concerned staff of the Petitioner to seek additional information and clarifications. The Commission held various meetings and sought further details on project cost, proposed additional capitalization, station heat rate, plant operation, the depreciation schedule, loan repayment, rate of interest of loans after restructuring, working capital, and apportionment of Corporate Office expenses.

1.5.4.2 *Petitioner's responses to queries raised by the Commission*

In response to the queries of the Commission, the Petitioner made additional submissions on April 21, April 28, May 16, May 31, and June 8, 2006. The Petitioner also submitted the Provisional Annual Accounts for FY 2005-06 on April 21, 2006.

1.6 Summary of the Petition

A snapshot of the ARR and Tariff Petition submitted by the Petitioner is provided in the Table 1.1.

Table 1.1: Summary of ARR and Tariff of the Petitioner for FY 2006-07

Particulars	Units	FY 2006-07
Gross Generation	MU	2300
Net Generation	MU	2229
Total Fixed Cost	Rs. Crore	230.27
Total Variable Cost	Rs. Crore	247.52
Total Cost	Rs. Crore	477.79
Variable Cost per Unit	Rs/kWh	1.11
Total Cost per Unit	Rs/kWh	2.14

1.7 Court Order

The Discoms had filed appeals in the Appellate Tribunal for Electricity in respect of Tariff Orders for FY 2002-03, FY 2003-04 and FY 2004-05 issued by the Commission. The Appellate Tribunal had passed its order dated 24th May, 2006 allowing a higher rate of depreciation, while upholding certain other issues as decided by the Commission. The Commission has preferred an appeal before the Hon'ble Supreme Court of India vide Civil Appeal No. 2733 of 2006. The Hon'ble Supreme Court admitted the Appeal and referred the case to Appellate Tribunal for Electricity *to examine whether the conclusions of the Commission are supportable in facts and in Law*.

1.8 Layout of this Order

This Order is organised into 3 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. The third Chapter discusses the Annual Revenue Requirement and Approved Tariff for FY 2006-07 and other related issues.

2. Response from Stakeholders

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

2.1 Fixed Assets

2.1.1 *Objections*

The stakeholders have expressed concern that the financial closure of the project, in terms of total project cost, is yet to take place though different units of the plant came into commercial operation between July, 2002 and May, 2003. The Commission has been requested to advise the Petitioner to finalise the project cost and reflect the correct value of fixed assets in its books.

2.1.2 *Response of the Petitioner*

The Petitioner has submitted that in the Pragati Power Project, Reverse Osmosis (RO) water treatment plant has been installed which is a new technology. Further, the plant required certain modifications and expertise for the same, which is yet to be carried out by the Original Equipment Supplier (OES). Certain issues are also pending with the supplier of main plant equipment - M/s BHEL. Due to these reasons, the finalisation of the project cost is delayed. However, the Petitioner expects that all the issues will be sorted out shortly and project cost will be closed at the earliest.

2.1.3 *Commission's Views*

The Commission directs the Petitioner to submit the final project cost and that the books of accounts of the Petitioner should reflect the correct value of fixed assets before filing of the next tariff petition for the FY 2007-08.

2.2 Return on Equity

2.2.1 *Objections*

The stakeholders have submitted that return on equity has been calculated on figures which are provisional and this calls for better book keeping.

2.2.2 *Response of the Petitioner*

The Petitioner has submitted that the financing pattern of the project was with 30% equity and 70% debt. Since the project cost is yet to be finalised, the equity amount will be subject to finalisation of the project cost.

2.2.3 *Commission's Views*

The Commission has considered the equity based on debt-equity ratio of 70:30 as submitted by the Petitioner since the project cost is yet to be finalised.

2.3 Rebate on Timely Payment

2.3.1 *Objections*

The stakeholders have submitted that the Petitioner is allowing 2% rebate on timely payments to TRANSCO. Further, it has been enquired whether there is any provision for levy of penalty on TRANSCO for late payments.

2.3.2 *Response of the Petitioner*

The Petitioner has submitted that in the draft Power Purchase Agreement (PPA) there is a provision for levying penalty @ 1.5% per month for delayed payments beyond the due date. The Petitioner has requested the Commission to allow the rebates on its revenue earning in tariff to have a parity.

2.3.3 *Commission's Views*

The Commission is of the view that the rebate for timely payment is a commercial arrangement to expedite the receipt of payment. Therefore, the Commission has not considered any expense towards rebate on timely payment by TRANSCO while determining the ARR of the Petitioner.

2.4 O&M Cost

2.4.1 *Objections*

The stakeholders have submitted that the Petitioner has started using Dry Low NOX (DLN) burners on account of which it has to incur heavy expenditure and it is also spending a considerable amount on spares. It has been suggested that the Petitioner may approach some research institutions to explore if some new low cost technologies are available in this regard.

2.4.2 *Response of the Petitioner*

The Petitioner has submitted that while according clearance for Pragati Power Project, Ministry of Environment and Forest had directed for limiting the NOX Emission level to less than 35 PPM. To mitigate this problem, Dry Low NOX (DLN) burners were installed. These state–of- art technology burners are manufactured by GE, USA and these burners have different stages which require repair/replacement of parts during every periodic inspection i.e. after every 8000 hrs. The components of these burners are neither available nor repaired in the country.

2.4.3 *Commission's Views*

The Commission is in agreement with the views of the Petitioner. As this is a new technology for limiting the NOX Emission level, the repair/replacement cost of DLN burners is high. The Commission had recognised this fact in its tariff order dated July 7, 2005 and had specified that the same is required for the smooth operation of the plant and to achieve the target generation, especially when this is the only reliable plant in operation within Delhi.

2.5 Water Charges

2.5.1 *Objections*

The stakeholders have submitted that in view of significant water charges, the Petitioner may be advised to explore whether any alternatives are available.

2.5.2 *Response of the Petitioner*

The Petitioner has submitted that water is a must for a power plant. All the power stations draw water either from a river, a canal or from the sea. Due to non-availability of water, the Petitioner is using the sewage water after treating it at various stages before the same is used in the power station. Presently, there is no other alternative in the city of Delhi.

2.5.3 *Commission's Views*

As this is a special requirement for this plant and no fresh water is available for the plant at a cheaper rate, the Commission is in agreement with the views of the Petitioner. The Commission had also recognised this fact in its tariff order dated July 7, 2005 to allow expenditure on water charges as abnormal O&M expense as a special case for this Project.

2.6 Viability

2.6.1 *Objections*

The stakeholders have submitted that since the plant is marked by high running cost, uncertainties of availability of fuel, the Petitioner may examine the possibility of closing down the plant and shifting it somewhere else.

2.6.2 *Response of the Petitioner*

The Petitioner has submitted that the tariff allowed by DERC is Rs 2.06 per kWh which is quite comparable with the tariff of other similar stations.

The Petitioner has further submitted that there is no uncertainty in availability of fuel as there is a long term agreement with Gas Authority of India Limited (GAIL) for supply of gas. The present gas shortage is a temporary phenomenon. The Petitioner expects that the gas supply position will improve as the country is negotiating for gas with other countries as well as the gas discovered in the oil fields of the country would also be available in the near future. Further, the Government of India is exploring all possibilities for gas by sourcing from abroad and PPCL is also making best efforts to procure LNG by spot purchases from international markets through gas suppliers to meet the shortfall.

The Petitioner has stated that PPCL is one of the best performing stations in the country with a PLF of 79.53%, (deemed PLF being 83.62%) during FY 2005-06. Also there is no transmission loss and wheeling charges for the power available to Delhi from PPCL.

In view of above, the issue of closing down or shifting of the plant elsewhere has no merit as per the Petitioner.

2.6.3 *Commission's Views*

The Commission is in agreement with the views of the Petitioner. This power plant was fully commissioned recently during the year 2003-04 and has a useful life of 15 to 20 years. All the gas based power stations in the country are facing acute shortage of gas. Efforts are being made by various concerned agencies for arranging adequate supply of gas. Further, seeing the present scenario of acute power shortage in the country, it does not seem feasible to shut down the plant as proposed by some stakeholders.

2.7 Operational Norms

2.7.1 *Objections*

The stakeholders have submitted that the Petitioner should not be allowed to enjoy the benefit for inefficiency which ultimately affects the consumer tariff and that the norms should be in line with the CERC guidelines.

2.7.2 *Response of the Petitioner*

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

2.7.3 *Commission's Views*

The Commission has fixed the operational norms duly taking into consideration the norms prescribed by the Central Electricity Regulatory Commission (CERC) for similar Projects and the operating conditions of this particular power station.

2.8 Repair &Maintenance (R&M) Expenses

2.8.1 *Objections*

The stakeholders have submitted that the R&M expenses claimed by the Petitioner are on the higher side and have requested that R&M expenses may be allowed only as per the CERC norms.

2.8.2 *Response of the Petitioner*

The Petitioner has submitted that R&M expenses are incurred to have an enhanced and reliable generation.

2.8.3 *Commission's Views*

The Commission has allowed the R&M expenses as per the guidelines dated 26th March 2001 issued by CERC for the new generating stations by considering 2.5% of the project cost towards the O&M charges with escalation every year. The normal R&M expenses are the part of the O&M expenses. The Commission has recognised the need of additional R&M in the Project towards the requirement of DLN burners and for critical components of Gas Turbines for the smooth operation of the plant and to achieve the target generation. The Commission is also of the view that the insurance expenses shall be met out of the O&M expenses so permitted above and therefore, the same are not to be provided separately. This is in line with the industry practice followed in Indian power sector in the past.

2.9 Availability of Fuel

2.9.1 *Objections*

The stakeholders have submitted that it is the prime responsibility of the owner of generating stations to make arrangements for supply of adequate fuel. In case fuel is not available from the regular supplier, the Petitioner should explore the possibility of arranging the fuel from alternative sources including through a transparent bidding process. The Petitioner has not made any efforts for exploring any other alternate fuel supplier for its gas based power station other than GAIL.

2.9.2 *Response of the Petitioner*

The Petitioner has submitted that they have been taking up the matter for arranging gas with the Ministry of Petroleum & Natural Gas (MoPNG), Government of India. There were all out efforts on the part of PPCL to bridge the gap in the gas availability and in its efforts, a fall back arrangement was made with GAIL for supply of R-LNG for Pragati Power Station to meet the shortfall in APM gas supply on day - to -day basis. However, due to scarcity of gas in the country, the gas allocations to the power stations have been reduced by GAIL/MoPNG. The Petitioner has stated that in its tariff order of 2004, the Commission had expressed their reservations on use of high cost gas, hence the Petitioner had to restrain itself from sourcing gas at higher cost.

Presently, to meet the demand of power of the capital city, the Petitioner is making efforts to procure gas by way of bidding process to meet the shortfall. However, it is pertinent to mention that the gas available through the bidding process shall be costlier than the gas presently used by the Company.

2.9.3 *Commission's Views*

The Commission is of the view that even at present power is sourced at higher rates from outside Delhi and at times overdrawl from the Northern Grid is also resorted to. It will be necessary to fully utilise the existing resources. The Commission, therefore, directs the Petitioner to make all out efforts to arrange for additional gas at competitive rates to optimally utilise the installed capacity.

2.10 Incentive

2.10.1 *Objections*

The stakeholders have submitted that incentive for generation should be allowed to the Petitioner only if the achievements are beyond the norms specified by CERC.

2.10.2 *Petitioner's Response*

The Petitioner has submitted that for motivation to improve and achieve the purpose of reforms, incentive should be allowed beyond the targets fixed.

2.10.3 *Commission's Views*

The Commission has worked out the incentive to be allowed to the Petitioner as per the CERC guidelines. The PLF during the FY 2005-06 was 79.53% which is less than the stipulated level of 80%, hence no incentive is admissible.

2.11 Depreciation

2.11.1 *Objections*

The stakeholders have submitted that the depreciation may be charged in the Books of Accounts for the purpose of Income Tax and for the purpose of Registrar of Companies, but the same be excluded from the expenditure in ARR. However, one of the stakeholders has also suggested that depreciation and development cost should be included in ARR.

2.11.2 *Petitioner's Response*

The Petitioner has submitted that in their ARR Petition, depreciation has been included as part of the total cost for recovery on the tariff as per the CERC guidelines as well as National Tariff Policy. Further, depreciation is a charge against the revenue towards wear and tear of the fixed assets.

The Petitioner has clarified that no amount has been taken in the ARR as Development Cost. However, new additions in the fixed assets as well as major expenditure on improvements etc., which has the effect of extending the useful life of assets or increasing efficiency or decreasing operating cost, are capitalised according to the prescribed accounting standards.

2.11.3 *Commission's Views*

The Commission is of the view that 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. Further, 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 and is proportionately charged over the useful life of the asset The Commission has considered the depreciation in tariff computations as per the CERC guidelines.

2.12 Miscellaneous Issues

2.12.1 *Objections*

The stakeholders have submitted that the request of the Petitioner for allowing full fixed charges even for less availability of machines may not be considered as the Petitioner should have planned the preventive maintenance during the prolonged downtime of the plant.

2.12.2 *Petitioner's Response*

The Petitioner has submitted that the State Load Despatch Centre (SLDC) has certified the availability of the plant which may be considered for recovery of the fixed charges as per target availability specified by the Commission in its Tariff Order dated July 7, 2005.

2.12.3 *Commission's Views*

The Commission is of the view that the availability as certified by SLDC should be considered for the admissibility of fixed charges to the Petitioner as per the target availability so stipulated.

3. Analysis of ARR

3.1 Introduction

While analysing the ARR and Tariff Petition for FY 2006-07, the Commission, based on the submission made by the Petitioner asked for further details and supporting documents, which was submitted by the Petitioner. The Commission held various technical sessions with the Petitioner to validate the data submitted and the Petitioner was asked to submit the actuals for FY 2005-06 based on audited accounts. The Petitioner, however, submitted the actuals for FY 2005-06 based on provisional accounts.

Based on the Tariff Order dated July 7, 2005 for FY 2005-06 and the information provided by the Petitioner, the Commission has trued up the expenses and revenue for FY 2005-06. Further, the Commission has also trued up certain elements of ARR for FY 2004-05 based on the final audited accounts. The expenses to be trued up for FY 2004-05 have been discussed in Para 3.10.

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

3.2 Generation

3.2.1 Petitioner's Submission

The Petitioner has submitted that the capacity of the Station is 330 MW with two gas turbine units of 104 MW each and a steam turbine generator of 122 MW. As per the Petitioner's submission, gross generation was estimated as 2400 MU during FY 2005-06 which was same as approved by the Commission in its Tariff order dated July 7, 2005. However, during FY 2005-06, the Petitioner has actually generated 2299 MU on gross basis. This generation corresponds to PLF of 79.53%. The Petitioner has submitted that, on account of gas shortage, PLF of the plant would be affected during 2nd half of FY 2006-07. For FY 2006-07, the Petitioner has estimated the gross generation as 2300 MU.

3.2.2 Commission's Analysis

As per the details submitted by the Petitioner, the gross generation during FY 2005-06 was 2299 MU which corresponds to a PLF of 79.53%. However, the net generation certified by State Load Despatch Centre (SLDC) on Energy Sent Out (ESO) basis is 2227 MU. Considering the normative auxiliary power consumption of 3%, as approved in the Tariff Order for FY 2005-06, the gross generation works out to 2296 MU which has been considered for the purpose of this order. The Commission has deliberated the matter of the reduction in gross generation due to non-availability of gas as indicated by the Petitioner. The Commission in its Tariff order dated July 7, 2005 directed the Petitioner to arrange additional gas for meeting the shortages. The Commission is of the view that while gas shortage is widely prevalent in the country at present, the Petitioner shall make additional efforts to source the balance requirement of gas. For FY 2006-07, the Commission has considered the gross generation as per the generation target of 2450 MU prescribed by Central Electricity Authority (CEA). The generation details submitted by the Petitioner and that allowed by the Commission are given in Table 3.1 below.

Table 3.1 Gross Generation

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Installed Capacity (MW)	330	330	330	330	330	330
PLF	83.02%	83.02%	79.53%	79.42%	79.56%	84.75%
Gross Generation (MU)	2400	2400	2299	2296	2300	2450

The Commission directs that usage of gas between PPCL and IPGCL should be so coordinated so as to avail the full quantum of gas from the gas supplier viz. GAIL. If required, the contracts for supply of gas may be restructured or the restructuring of the generating companies may be considered, so as to include all generating assets based on gas to be combined under one company while coal based generation could

be under another company. This direction of the Commission is mainly to optimise the use of the gas in the gas based power plants.

3.2.3 Auxiliary Consumption

3.2.3.1 *Petitioner's Submission*

The Petitioner has estimated the Auxiliary Consumption for FY 2005-06 at 3.20%. For FY 2006-07, the Petitioner has estimated the Auxiliary Consumption at 3.10%.

3.2.3.2 *Commission's Analysis*

The Commission asked the Petitioner to submit the actual data for Auxiliary Consumption for FY 2005-06. As per the revised submission by the Petitioner, the auxiliary consumption for FY 2005-06 was 72.12 MU, which works out to 3.14%. However, as per the norms applicable for combined cycle Generating Plants, the Commission has allowed auxiliary consumption at 3% for FY 2005-06 and FY 2006-07. The Auxiliary Consumption details submitted by the Petitioner and that allowed by the Commission are given in Table 3.2 below.

Table 3.2 Auxiliary Consumption

Description	**FY 2005-06**				**FY 2006-07**	
	Order for FY 2005-06	**Revised Estimates**	**Actual**	**Commission**	**Petition**	**Commission**
Auxiliary Consumption	3.00%	3.20%	3.14%	3.00%	3.10%	3.00%

The Petitioner should make all efforts to bring down the auxiliary power consumption within the normative parameters allowed by the Commission.

3.2.4 Net Generation

The net generation allowed by the Commission is 2227 MU for FY 2005-06 as certified by the SLDC. For FY 2006-07, the Commission has arrived at a higher net generation of 2377 MU based on the gross generation target set by CEA and the normative auxiliary consumption vis-a-vis the Petitioner's estimates of 2229 MU. The details of net generation submitted by the Petitioner and that allowed by the Commission are given in Table 3.3 below.

Table 3.3 Net Generation

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Gross Generation (MU)	2400	2400	2299	2296	2300	2450
Auxiliary Consumption (MU)	72	77	72	69	71	74
Net Generation (MU)	2328	2323	2227	2227	2229	2377

3.3 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 Expenses
- Depreciation and Advance Against Depreciation
- Interest Charges
- Return on Equity
- Interest on Working Capital
- Fixed Fuel Costs

3.3.1 O&M Expenses

3.3.1.1 *Petitioner's Submission*

The Petitioner has proposed O&M charges of Rs. 61.12 Crore and Rs. 45.24 Crore for FY 2005-06 and FY 2006-07, respectively which comprises of Employee Expenses, apportioned Corporate Office expenses, Administrative and General (A&G) expenses, Repairs and Maintenance (R&M) expenses, Water Charges and other expenses.

As regards to R&M expenses, the Petitioner has re-iterated that the Company has used the technology of Dry Low NOX (DLN) Burners for the first time in India for reducing NOX pollution level in Delhi and that these burners are very costly. These burners require repairs every 8000 hours and are prone to damages. These burners have a maximum life of 24000 hours. The Petitioner further submitted that at the time of clearance of the project by the CEA, the capital spares required for the project were not included and now the Company is required to incur considerable amount on the procurement of these spares to replace the same in the annual maintenance. Further, two Hot Gas Path Inspections were carried out in FY 2005-06, hence, the expenditure on account of Repair and Maintenance will be higher as compared to the previous years.

As regards to water charges, the Petitioner has submitted that the Pragati Power Station is a unique station, sourcing its raw water requirement from the sewage treatment plant which runs on effluent and therefore, has to incur higher cost to get raw water, as compared to other similar stations operated elsewhere. The Petitioner has estimated the total cost on account of water charges as Rs 2.50 Crore and Rs 2.75 Crore for FY 2005-06 and FY 2006-07, respectively.

The Petitioner has further claimed Rs 3.90 Crore and Rs 4.04 Crore as charges for insurance for FY 2005-06 and FY 2006-07 respectively, as part of O&M expenses.

3.3.1.2 *Commission's Analysis*

The Commission in its Order dated July 7, 2005 on ARR and Tariff Petition of PPCL for FY 2005-06 has approved the base O&M expenses for FY 2005-06 as Rs 29.97 Crore by considering an escalation of 4% over the approved base O&M expenses of Rs. 28.82 Crore for FY 2004-05. For FY 2006-07, the Commission has considered an escalation of 4% over the approved base O&M expenses of FY 2005-06.

Regarding the insurance charges, the Commission is of the view that base O&M Expenses for first year of operation were computed at normative 2.5% of capital cost, which takes into account insurance charges as well and the same need not be provided separately in line with the industry practice followed in the power sector in the past.

As regard to additional water charges over and above the base O&M expenses, the Commission in its Order dated July 7, 2005 had discussed the issue in detail and had opined that this issue of additional O&M expenses (due to peculiar conditions) will be dealt with during the approval of the PPA between the TRANSCO and PPCL. The Commission reiterates that any variation in O&M expenses approved in the ARR with respect to the principles approved in the PPA would be considered by the Commission during the truing up process.

The Commission is of the opinion that sewage water treatment is a special requirement for this plant as no fresh water is available at a cheaper rate. Therefore, pending approval of the PPA between TRANSCO and PPCL, the Commission has decided to allow the expenditure on water charges as abnormal O&M expenses as a special case for FY 2005-06 as well as for FY 2006-07. The Commission has considered the actual water charges of Rs.2.45 Crore as submitted by the Petitioner for FY 2005-06 and has projected it at the same level for the FY 2006-07.

The Commission in its Order dated July 7, 2005 on ARR and Tariff Petition of PPCL for FY 2005-06 had also deliberated the matter of additional R&M expenses required for DLN Burners and for critical components of the Gas Turbines and approved the same as submitted by the Petitioner considering the requirement for smooth operation of the plant to achieve the target generation level. For FY 2005-06, the Commission had allowed Rs 15.80 Crore as additional R&M expenses. Further, for FY 2006-07, Commission has considered additional R&M expenses at Rs 10.00 Crore only keeping in line with the projections provided by Petitioner during finalization of tariff order for FY 2005-06.

The summary of O&M charges as estimated by the Petitioner and as approved by Commission for FY 2005-06 and FY 2006-07 is as given in Table 3.4 below:

Table 3.4 O&M Charges (Rs. Crore)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Total O & M Charges*	**48.27**	**61.12**	**56.20**	**48.22**	**45.24**	**43.62**

** Includes additional R&M expenses and water charges*

3.3.2 Depreciation

3.3.2.1 *Petitioner's Submission*

The Petitioner has submitted that the depreciation has been calculated @5.66% as per the rate approved by the Commission in the ARR for FY 2005-06. The Petitioner has further submitted that the capital spares of Rs. 32.02 Crore which were not included in the initial project cost have been capitalised and depreciated w.e.f. 01.04.2005. The Petitioner in its submission has considered depreciation as Rs. 59.27 Crore each for both the years i.e. FY 2005-06 and FY 2006-07.

3.3.2.2 *Commission's Analysis*

The Commission has deliberated the issue of depreciation in detail in its Order on ARR and Tariff Petition for FY 2005-06. In line with that Order, the Commission considers the rates of depreciation for the purpose of determination of ARR based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 for various classes of asset. The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the cost of the asset.

For determining the weighted average depreciation rate, the Commission has considered the asset break-up as available from the Provisional Accounts for FY 2005-06. The weighted average depreciation rate as estimated by the Commission works out to 5.66% for FY 2005-06 and FY 2006-07 and the details of same are given in Table 3.5 below:

Table 3.5: Depreciation Rates

S.No	Description of Assets	Asset Gross Block as at March 31, 2005 (Rs Crore)	Rate (%)	Asset Gross Block as at March 31, 2006 (Rs Crore)	Rate (%)
1	Buildings	1.92	1.80%	1.95	1.80%

S.No	Description of Assets	Asset Gross Block as at March 31, 2005 (Rs Crore)	Rate (%)	Asset Gross Block as at March 31, 2006 (Rs Crore)	Rate (%)
2	Roads	0.33	1.80%	0.33	1.80%
3	Other Bldgs	60.47	1.80%	60.47	1.80%
4	Comm. Eqpt	0.05	6.00%	0.05	6.00%
5	Gas Plant Bldg.	20.52	1.80%	20.52	1.80%
6	Gas Power Plant	930.87	6.00%	930.87	6.00%
7	Furniture & Fixture	0.82	6.00%	0.82	6.00%
8	Other Furnitures	0.00	6.00%	0.00	6.00%
9	Office Eqpmt	0.04	6.00%	0.04	6.00%
10	Computers	0.04	6.00%	0.04	6.00%
11	Office Eqpt	0.03	6.00%	0.04	6.00%
12	Portable AC	0.06	18.00%	0.08	18.00%
13	Other Vehicles	0.01	18.00%	0.01	18.00%
	Total	**1015.16**	**5.66%**	**1015.22**	**5.66%**

The Commission based on these principles approves the depreciation amount of Rs. 59.23 Crore each for the FY 2005-06 and FY 2006-07, considering the weighted average depreciation rate of 5.66% and notional capitalisation of capital spares of Rs 32.02 Crore. The depreciation estimated by the Petitioner and as approved by the Commission for FY 2005-06 and FY 2006-07 is given in Table 3.6 below:

Table 3.6 Depreciation (Rs. Crore)

Description	FY 2005-06			FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Commission	Petition	Commission
Depreciation	**61.00**	**59.27**	**59.23**	**59.27**	**59.23**

3.3.3 Interest Charges

3.3.3.1 *Petitioner's Submission*

The Petitioner has submitted that the Term Loans of Rs.670.53 Crore had been drawn from Power Finance Corporation (PFC) with interest rate varying from 9.75% to 12% against the sanctioned loan of Rs. 700 Crore. This loan is repayable over a period of 10 years starting FY 2003-04. The Petitioner has further submitted that a part of outstanding loan (1/3rd of the outstanding loan) from PFC was restructured with cut off date of 15th May, 2005 with interest rate @6.25% and balance portion of loan carries interest rate @ 8.25% p.a. A premium of Rs. 5.23 crore was paid towards interest rate restructuring which has been treated as part of interest cost during the FY 2005-06. The Petitioner has submitted that the loan from Government has since been repaid in the FY 2005-06 with the interest on loan computed @13.5% p.a.

Based on the above, the Petitioner has estimated interest expenses (excluding rebate on timely payment to TRANSCO) at Rs. 52.11 Crore and Rs. 48.68 Crore for FY 2005-06 and FY 2006-07, respectively.

Regarding the rebate on timely payment to TRANSCO, the Petitioner has submitted that 2% rebate on timely payment is being allowed to TRANSCO and requested the Commission to allow the same in the ARR. As per the Petitioner's submission, this rebate for FY 2005-06 works out to Rs. 9.49 Crore while the same is estimated at Rs. 9.54 Crore for FY 2006-07.

Therefore, the interest charges, including the rebate, work out to Rs 61.60 Crore and Rs 58.22 Crore for FY 2005-06 and FY 2006-07, respectively.

3.3.3.2 *Commission's Analysis*

The Commission has examined the means of finance and the associated interest charges estimated by the Petitioner. Subsequent to Commission's directives, the Petitioner submitted the actual interest expenses incurred during FY 2005-06 at Rs 52.12 Crore taking into account the interest of Rs. 52.09 Crore on loan from PFC and interest of Rs. 0.03 Crore on loan from Government. The Commission has accordingly considered the actual interest at Rs 52.12 Crore for FY 2005-06. For FY 2006-07, the Commission has estimated the interest charges considering the opening balance of loans, repayment proposed during the year and by applying an actual rate of interest for various components of the loan which ranges from 6.25% to 12%. The issue of rebate allowed by the Petitioner to TRANSCO for timely payment has been considered by the Commission in its Review Order on Tariff for FY 2005-06. The Commission has further considered the matter in detail and is of the view that the rebate offered by Petitioner to TRANSCO is a commercial arrangement so as to expedite receipt of payment. The Commission has considered receivables for 2 months based on the projected sales keeping in view the norms for realisation of payment for estimating the working capital requirement and the interest is allowed accordingly. The rebate on timely payment is, therefore, a trade-off with the interest on 2 months receivables considered in working capital requirement, hence does not merit any separate consideration. Therefore, the Commission has not allowed for rebate to TRANSCO on account of timely payment of Rs 9.49 Crore and Rs. 9.54 Crore for FY 2005-06 and FY 2006-07, respectively while computing the interest charges. The interest charges as estimated by the Petitioner and as approved by the Commission are given in Table 3.7 below:

Table 3.7 Interest Charges (Rs. Crore)

Description	**FY 2005-06**				**FY 2006-07**	
	Order for FY 2005-06	**Revised Estimates**	**Actual**	**Commission**	**Petition**	**Commission**
Interest on loans excluding rebate on timely payment to TRANSCO	**58.50**	**52.11**	**52.12**	**52.12**	**48.68**	**46.58**

3.3.4 Return on Equity

3.3.4.1 *Petitioner's Submission*

The Petitioner has estimated Return on Equity (ROE) @ 14% on Rs. 323 Crore equity of the Company, which works out to Rs 45.17 Crore per annum.

3.3.4.2 *Commission's Analysis*

The Commission in its earlier Order dated July 7, 2005 on ARR and Tariff Petition of PPCL for FY 2005-06 allowed RoE @14% in line with the Regulations issued by the Central Electricity Regulatory Commission (CERC). The CERC has issued the ***"Terms and Conditions of Tariff Regulations"*** during March 2004, in which CERC has revised the ROE norm from 16% to 14% for the Generating Companies and transmission licensees. The Commission, for the purpose of this Order, also has considered the same RoE for both FY 2005-06 and FY 2006-07. The Return on Equity as estimated by the Petitioner and as approved by the Commission is given in Table 3.8 below.

Table 3.8 Return on Equity (Rs. Crore)

Description	FY 2005-06			FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Commission	Petition	Commission
Return on Equity	**45.17**	**45.17**	**45.17**	**45.17**	**45.17**

3.3.5 Advance against Depreciation

3.3.5.1 *Petitioner's Submission*

The Petitioner has submitted that the Commission may consider the advance against depreciation in accordance with the CERC guidelines. To this effect, the Petitioner has requested the Commission to allow for an advance against depreciation of Rs. 7.78 Crore for both the years i.e. FY 2005-06 and FY 2006-07.

3.3.5.2 *Commission's Analysis*

The Commission has considered the issue of advance against depreciation as per relevant CERC guidelines. As per the details submitted by the Petitioner, the cumulative repayment made upto FY 2004-05 is of the order of Rs 133.36 Crore comprising Rs. 53.70 Crore to Government and Rs.79.66 Crore to PFC . The actual repayment made during FY 2005-06 is of the order of Rs 67.53 Crore. Thus, the cumulative repayment of the loan till FY 2005-06 works out to Rs 200.89 Crore. However, considering the depreciation allowed by the Commission in its Orders, the cumulative depreciation allowed by the Commission till FY 2005-06 works out to Rs 199.40 Crore.

In line with the principles of advance against depreciation, the Commission has allowed an advance against depreciation of Rs 1.48 Crore and Rs 7.82 Crore for FY 2005-06 and FY 2006-07, respectively.

Table 3.9 depicts the amount of advance against depreciation as submitted by the Petitioner and that approved by the Commission.

Table 3.9: Advance against depreciation (Rs Crore)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Advance Against Depreciation	6.82	7.78	13.40*	1.48	7.78	7.82

** Increase in AAD is due to consideration of notional capitalisation of initial spares of Rs 32.02 Crore.*

3.3.6 Interest on Working Capital

3.3.6.1 *Petitioner's Submission*

The Petitioner's submission on interest on working capital assumes the following norms for working capital;

- Fuel expenses for one month of operation at the projected PLF
- O&M expenses for one month
- Maintenance spares – 40% of O&M less 1/5th of initial capitalised spares
- Receivables for 2 months based on the projected sales.

The interest rate for working capital has been considered @ 10.75% p.a. based on the SBI PLR of 10.25% as on 01.04.2005 on monthly rest basis which works out to 10.75% on annualised basis and has been considered for FY 2005-06. The interest rate for working capital has been taken as 10.25% for FY 2006-07.

3.3.6.2 *Commission's Analysis*

The Commission has estimated the working capital requirement for generating companies based on the following norms approved by CERC in their ***"Terms and Conditions of Tariff" Regulations*** of March 2004

- Fuel cost for one month
- O&M expenses for one month

- Maintenance spares – 1% of the actual capital cost escalated @ 6% per annum from the date of commercial operation
- Receivables for 2 months based on the projected sales.

The Commission has considered interest rate at 10.25% which is the SBI PLR Rate for short term loans as on April 1, 2006, as the interest on working capital is a part of fixed cost which is recovered on monthly basis. This aspect had been clarified by the Commission in its Review Order on Tariff for FY 2005-06. The interest on working capital allowed by the Commission vis-a-vis as considered in the Petition is given in Table 3.10 below;

Table 3.10 Interest on Working Capital (Rs. Crore)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Interest on Working Capital	6.67	13.49	12.61	10.98	12.43	11.80

3.3.7 Fixed Fuel Cost

3.3.7.1 *Petitioner's Submission*

As per the Fuel Supply Agreement entered into between the Petitioner and GAIL, the Petitioner is required to pay fixed monthly transmission and other service charges of Rs. 15,54,682 for base year FY 2002-03, which is escalated @3% p.a. Based on the above rates, the Petitioner has estimated a fixed cost towards fuel supply at Rs. 2.10 Crore for FY 2005-06 and Rs. 2.16 Crore for FY 2006-07. .

3.3.7.2 *Commission's Analysis*

As these charges are integral part of the gas pricing and have to be paid irrespective of the quantum of gas bought by the Petitioner, the Commission has considered the same as the fixed cost instead of variable cost for the purpose of ARR calculations. The details of the fixed fuel cost is given in Table 3.11 below:

Table 3.11 Fixed Fuel Cost (Rs. Crore)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Fixed Fuel Cost	2.06	2.10	2.10	2.10	2.16	2.16

3.3.8 Total Fixed Cost

The total Fixed Cost for FY 2005-06 and FY 2006-07 as estimated by the Petitioner and as allowed by Commission is summarised in the Table 3.12 below.

Table 3.12 Total Fixed Cost (Rs. Crore)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
O & M Charges	48.27	61.12	56.20	48.22	45.24	43.62
Depreciation	61.00	59.27	53.65	59.23	59.27	59.23
Advance Against Depreciation	6.82	7.78	13.40	1.48	7.78	7.82
Rebate to TRANSCO for timely payment	0.00	9.85	9.49	0.00	9.54	0.00
Interest on Loans	58.50	52.11	52.12	52.12	48.68	46.58
Interest on Working Capital	6.67	13.49	12.61	10.98	12.43	11.80
Return on Equity	45.17	45.17	45.17	45.17	45.17	45.17
Fixed Fuel Cost	2.06	2.10	2.10	2.10	2.16	2.16
Total Fixed Cost	**228.51**	**250.89**	**244.74**	**219.30**	**230.27**	**216.38**

3.4 Variable (Fuel) Cost

The variable cost of the plant depends upon the operational and fuel parameters such as Gross Heat Rate, Auxiliary Consumption, Fuel Cost and Gross Calorific value of fuel.

The Petitioner has submitted the details of the operating parameters of the plant as a part of ARR. The Commission has analysed all the operational and fuel parameters.

3.4.1 Station Heat Rate

3.4.1.1 *Petitioner's Submission*

The Petitioner has assumed the Station Heat Rate for the combined cycle plant operation as 1827 kCal/kWh and 1849 kCal/kWh on Net Caloric Value (NCV) basis for the years FY 2005-06 and FY 2006-07, respectively. The Petitioner has submitted that the guaranteed design net heat rate of the plant at 100% generation is 1749 kCal/kWh and 1834 kCal/kWh at 50% load based on NCV of gas. In their subsequent submission, the Petitioner has requested the Commission to allow a combined cycle heat rate of 2075 kCal/kWh and open cycle heat rate of 3000 kCal/kWh on Gross Calorific Value (GCV) basis due to cuts imposed by GAIL in supply of gas and trippings encountered on grid disturbances resulting in low PLF.

3.4.1.2 *Commission's Analysis*

During the technical sessions , the Petitioner has submitted that the actual Station Heat Rate (on GCV) was 2018 kCal/kWh during FY 2005-06 and with possibly lower PLF for FY 2006-07, the estimated Station Heat Rate (on GCV basis) is 2052 kCal/kWh. The Station Heat Rate as per the Draft PPA between the TRANSCO and the Petitioner for combined cycle operation is 2000 kCal/kWh (on GCV basis) and the same has been considered by the Commission for FY 2005-06 and FY 2006-07. The same norm is followed by CERC for similar gas turbine power stations. Further, the Commission would like to clarify that the approved Station Heat Rate of 2000 kCal/kWh for combined cycle operation is based on Gross Calorific Value (GCV) of the fuel and not on the Net Calorific Value (NCV) of the fuel. The details of the Station Heat Rate are as given in the Table 3.13 below:

Table 3.13 Station Heat Rate (kCal/kWh)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Station Heat Rate on GCV Basis	2000	2028	2018	2000	2052	2000

3.4.2 Total Cost of Gas

3.4.2.1 *Petitioner's Submission*

The Petitioner has submitted that due to depleting gas reserves of ONGC, GAIL is imposing cuts on a day-to-day basis on the supply of CNG. The Petitioner is of the viewpoint that these cuts will increase progressively and has estimated cuts to the tune of 15% and 20% for FY 2005-06 and FY 2006-07, respectively. The shortage of CNG is being made up from Regassified LNG (R-LNG) supply. The Petitioner has submitted the cost of fuel as per the pricing mechanism of GAIL. The Petitioner has considered the rate of CNG at Rs. 4.33 per SCM and Rs. 4.48 per SCM for FY 2005-06 and FY 2006-07, respectively. The rate of PMT (Panna Mukta Tapti Oilfields) gas has been considered at Rs. 4.89 per SCM for FY 2005-06. The rate of R-LNG has been considered at Rs. 191.82 per MMBTU and Rs. 204.66 per MMBTU for FY 2005-06 and FY 2006-07, respectively.

3.4.2.2 *Commission's Analysis*

The Commission is aware of the shortage of gas in the country and believes that the Petitioner shall make adequate arrangements for the fuel to run its plant at the given capacity. The Commission had asked the Petitioner to submit the actual data for FY 2005-06 for quantity of different fuels used and the respective costs incurred. The Petitioner submitted these details. Based on the actual fuel prices, Gross Calorific Value and considering the station heat rate of 2000 kCal/kWh (on GCV basis) as approved in earlier Order dated July 7, 2005, the Commission has allowed the total variable cost of Rs 224.26 Crore for FY 2005-06.

As regards FY 2006-07, the Commission had asked the Petitioner to submit the details of gas allocation and the price. The details submitted by the Petitioner in this regard are as follows:

Table 3.14 : Details of Gas Allocation and Price as per the Petitioner for FY 2006-07

S.No	Gas Allocation	Gas Price
1.	CNG Gas – 1.22 MMSCMD per day	Rs 4482/1000 SCM on landed-cost basis

Based on above, the total fuel cost and variable cost as estimated by the Petitioner and as approved by the Commission for FY 2005-06 and FY 2006-07 is given in Table 3.15 below:

Table 3.15 Total Variable Cost

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	**Revised Estimates**	**Actual**	**Commission**	**Petition**	**Commission**
Gross Generation (MU)	2400	2400	2299	2296	2300	2450
Net Generation (MU)	2328	2323	2227	2227	2229	2377
Total Fuel Cost (Rs Cr)	**251.84**	**242.73**	**226.84**	**224.26**	**247.52**	**259.65**
Variable Cost (ESO basis) per Kwh	**1.08**	**1.04**	**1.02**	**1.01**	**1.11**	**1.09**

The computation of total variable cost for usage of different types of fuel is detailed in Table 3.16 below:

Table 3.16: Details of Variable Cost for different types of fuel for FY 2006-07

Particulars	**Unit**	**FY 2006-07**
APM Gas/ PMT Gas*		
Gross Generation	MU	2098.97
Gas Consumption	MMSCM	452.60
Gross Calorific Value	kCal/SCM	9275
Gas Price	Rs/1000 SCM	4482
Total Cost	Rs Crore	202.86
Variable Cost (ESO basis)	**Rs/kWh**	1.00
R LNG Gas		
Gross Generation	MU	351.03
Gas Consumption	MMBTU	2785714
Gross Calorifc Value	Kcal/SCM	9275
Gas Price	Rs/MMBTU	204.66
Total Cost	Rs Crore	57.01
Variable Cost (ESO basis)	**Rs/kWh**	1.67
Total Fuel Cost on Weighted Average Basis		
Total Cost	Rs Crore	259.65
Variable Cost (ESO Basis)	**Rs/kWh**	1.09

**** For the FY 2006-07, the Petitioner has informed that the price of APM & PMT gas shall be the same, as communicated by GAIL. The calculations have been made accordingly.***

3.5 Fixed Cost

In line with the Tariff Order dated July 7, 2005 issued by the Commission, the total annual Fixed Cost (Capacity Charges) shall be recovered at the target availability of 80% on an annual basis. Recovery of annual Fixed Cost below the level of target availability shall be on pro rata basis. At zero availability, no fixed cost shall be payable. For this purpose, the availability of the power station shall be certified by the SLDC. Any adjustment of recovery of the annual Fixed Charges shall be based on the cumulative availability as certified by the SLDC at the end of the year. Fixed Cost shall be recovered in 12 equal monthly instalments. The same procedure shall be continued for the FY 2006-07.

3.6 Variable Cost

The Variable Cost shall be billed by the Petitioner to TRANSCO on a monthly basis based on the actual power purchased during the month, as per the rates approved by the Commission. The Petitioner shall bill for the Variable Cost based on the Energy Sent Out (ESO) from the power station till the introduction of Intra State Availability Based Tariff (ABT) in the State of Delhi. The mechanism for recovery of Variable Cost after introduction of Intra State ABT in the State of Delhi shall be governed by the stipulations to be made at the time of its introduction.

3.7 Fuel Price Adjustment Formula

Apart from the approval of the ARR for FY 2006-07, the Petitioner has also requested for a Fuel Price Adjustment Formula as per CERC guidelines to compensate for the variation of fuel cost as the fuel price is subject to price variations.

3.7.1 Commission's Views

The Commission has considered the gas consumption mix and prevalent fuel prices while estimating the total fuel/variable cost and the Variable Charge. The Commission is of the opinion that there is no need for a Fuel Price Adjustment Formula at this stage. However any variation in the fuel prices during the year shall be considered during truing up at the end of the year. Further, the Commission proposes to discuss this issue during formulation of Terms & Conditions of Tariff (Multi Year Tariff) Regulations separately.

3.8 Open Cycle Tariff

The Petitioner has requested the Commission to fix tariff for Open Cycle operation of the plant due to the fact that at times the plant has to operate in open cycle mode on account of trippings occasioned by grid conditions.

3.8.1 Commission's Views

The Commission is of the opinion that the plant should always be 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 as a part of Terms and Conditions of Tariff Regulations. In the interim period, the heat rate for Open Cycle operation shall be taken as 2900 kCal/kWh based on Gross Calorific Value (GCV) of fuel. The Open Cycle operation shall be resorted to only under extreme/exceptional circumstances, if so warranted, by the directions of the SLDC. The duration of open cycle operation and the generation in this mode shall be certified by SLDC.

3.9 Incentive

In the Tariff Order dated July 7, 2005, the Commission had allowed Incentive @ 25 paise/kWh for the actual generation achieved beyond the generation level corresponding to target PLF of 80%.

The Commission is of the opinion that the improvement in performance with respect to actual generation over and above the normative level shall be incentivised. The Commission approves the incentive of 25 paise/kWh for the actual generation achieved beyond the level corresponding to target PLF of 80% on an annual basis for FY 2006-07. However, the PPCL shall comply with the SLDC instructions with respect to the backing down of the generation and such backing down shall not qualify for calculation of PLF for Incentive. Further, in case of non-compliance by PPCL to backing down instructions given by SLDC, generation during backing down period as instructed by SLDC shall not be considered for Incentive purpose. The SLDC shall at the end of the year, certify the generation level of PPCL which qualifies for Incentive purpose as per the above guidelines.

For the FY 2005-06, the Commission has not considered any Incentive as the actual PLF was below the target level of 80%.

3.10 Truing up for FY 2004-05

In the Tariff order dated July 7, 2005, the Commission has considered the Fixed Cost of Rs 224.14 Crore in the ARR of PPCL for FY 2004-05.

The Petitioner has submitted the Audited Accounts for FY 2004-05. Interest on Loans and fixed fuel cost has been considered for truing up based on the same. The Petitioner has also submitted the cumulative depreciation and cumulative loan repayment details upto FY 2004-05. The Closing Gross Block of fixed assets as per the audited accounts for FY 2004-05 is Rs.1015.17 Crore as against the Rs.1023.95 Crore as per Provisional Accounts. The Commission has, therefore, reworked the depreciation based on the revised Gross Block of fixed assets. Further, the Advance Against Depreciation (AAD) has been calculated based on revised information.

Accordingly as discussed above, the components of Fixed Cost so trued up for the FY 2004-05 is given in Table 3.17 below and the credit for same shall be given by the Petitioner to TRANSCO during FY 2006-07:

Table 3.17: Truing-up of Fixed Cost for FY 2004-05 (Rs Crore)

	FY 2004-05	
Description	**As per Order for FY 2005-06**	**Trued up Cost allowed by Commission**
Depreciation	53.90	50.76
Advance Against Depreciation (AAD)	13.70	0.00
Interest on Loans	65.57	64.70
Interest on Working Capital	6.14	6.02
Fixed Fuel Cost	2.01	2.04
Total	**141.32**	**123.52**

3.11 Summary of Fixed and Variable Costs for FY 2006-07

The Commission directs that the tariff applicable shall be on the basis of two-part tariff comprising fixed and variable cost components. The summary of the Fixed and Variable Costs as estimated by the Petitioner and that approved by the Commission is as given in Table 3.18.

Table 3.18 Summary of Fixed and Variable Costs as approved by the Commission for FY 2005-06 and FY 2006-07 (Rs Crore)

Description	FY 2005-06				FY 2006-07	
	Order for FY 2005-06	Revised Estimates	Actual	Commission	Petition	Commission
Total Fixed Cost	228.51	250.89	244.74	219.30	230.27	216.38
Total Variable Cost	251.84	242.73	226.84	224.26	247.52	259.65
Total Cost (ESO basis)	**480.35**	**493.62**	**471.58**	**443.56**	**477.79**	**476.03**

Apart from the above, all leviable statutory taxes, duties, cess etc. would be recoverable on actuals subject to presentation of requisite proof to the TRANSCO by the Petitioner.

Annexure 2

List of respondents on proposal for Annual Revenue Requirement for PPCL for Financial Year 2006-07

S.No.	Name	Designation	Address	Category
1.	Sh. P.L. Tuli		Bijli Consumer Society, 113, Old Gupta Colony, Delhi - 110009	Society
2.	Sh. Mallika Singh	Sr. Assistant Secretary	PHD Chamber of Commerce and Industry, PHD House, 4/2, Siri Institutional Area, August Kranti Marg, New Delhi - 110016	Commerce & Industry
3.	Sh. Vijay Kumar Gupta		BN 75. (W) Shalimar Bagh, Delhi - 110088	Individual
4.	Sh. M.P. Aggarwal	General Manager (Comml)	Delhi Transco Ltd., Shakti Sadan, Kotla Road, New delhi - 02	Transmission Licensee & Bulk Power Purchaser
5.	Sh. Ravi Dev Gupta	President – Delhi State Unit	Akhil Bhartiya Grahak Panchayat	Grahak Panchayat