



Indraprastha Power Generation Company Limited

(An Undertaking of Govt. of NCT of Delhi)

Corporate Identity Number (CIN) – U40103DL2001SGC111530

(Regd. Off: "Himadri", Rajghat Power House Complex, New Delhi-110002)

No. IPGCL/Comml./F.12/156

Dt. 30th January, 2018

The Secretary
Delhi Electricity Regulatory Commission,
Vinnyamak Bhawan, C-Block,
Shivalik, Malviya Nagar,
NEW DELHI-110 017.



Subject: Filing of Petition under section 62 of the Electricity Act, 2003 for
Truing up of Tariff for FY 2016-17 and ARR for FY 2018-19 for
IPGCL Stations.

Sir,

Please find enclosed herewith the petition for Truing up of the Tariff for the
FY 2016-17 and ARR for FY 2018-19 of GTPS of IPGCL (Six sets) along with the
Bankers Check No 848835 dated 22.01.2018 as fee.

We shall be glad to provide any other information as may be desired by the
Hon'ble Commission from time to time.

Thanking you,

Yours faithfully,

(M. Shukla)

General Manager (Comml.)

Encl: As above

**BEFORE THE HON'BLE DELHI ELECTRICITY REGULATORY COMMISSION,
NEW DELHI**

Petition No:

IN THE MATTER OF Filing of Petition under section 62 of the Electricity Act,
2003 for Truing up of Tariff for the FY 2016-17 and ARR
for FY 2018-19 for IPGCL stations.

AND

IN THE MATTER OF Indraprastha Power Generation Company Limited
Regd. Office "Himadri", Rajghat Power House Complex,
New Delhi - 110 002
PETITIONER

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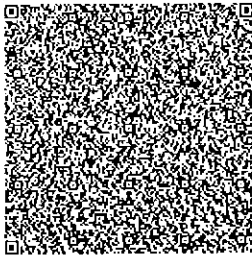
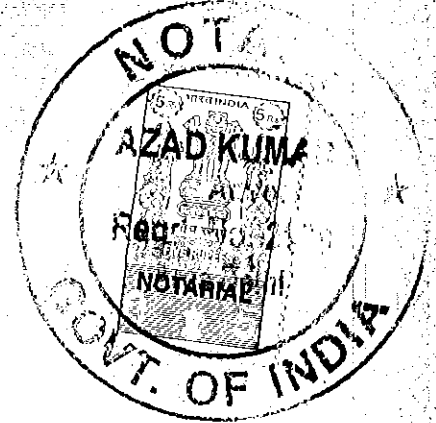
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Certificate No.	: IN-DL81816092239115Q
Certificate Issued Date	: 30-Jan-2018 11:59 AM
Account Reference	: IMPACC (IV)/ dl782603/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL78260366895182425649Q
Purchased by	: IPGCL
Description of Document	: Article 4 Affidavit
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: IPGCL
Second Party	: Not Applicable
Stamp Duty Paid By	: IPGCL
Stamp Duty Amount(Rs.)	: 10 (Ten only)



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BEFORE THE HON'BLE DELHI ELECTRICITY REGULATORY COMMISSION, NEW DELHI

Petition No:

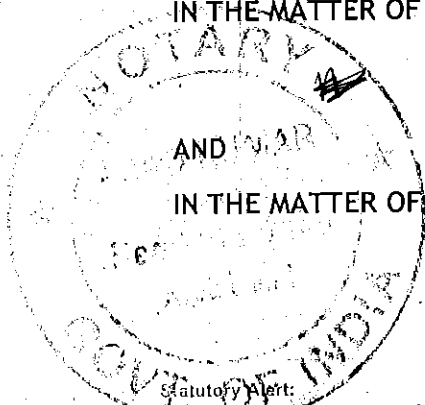
IN THE MATTER OF

Filing of Petition under section 62 of the Electricity Act, 2003 for Truing up of Tariff for the FY 2016-17 and ARR for FY 2018-19 for IPGCL Stations.

AND

IN THE MATTER OF

Indraprastha Power Generation Company Limited
Regd. Office "Himadri", Rajghat Power House Complex,
New Delhi - 110 002



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AFFIDAVIT VERIFYING DOCUMENTS/INFORMATION

I, Jagdish Kumar S/o Late Sh. Balbir Singh aged about 58 years, Residing at 190, IInd Floor, Avtar Enclave, Paschim Vihar, New Delhi-110 063, do hereby solemnly affirm and state as follows:

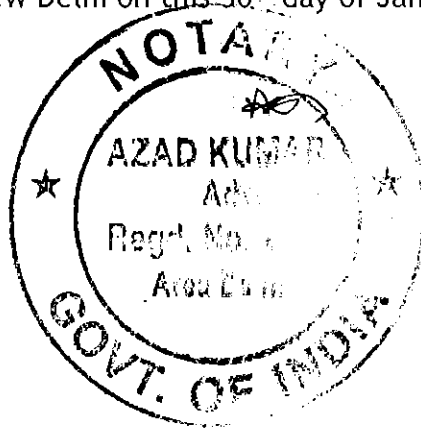
1. That I am Director (Technical) of Indraprastha Power Generation Company Limited and conversant with the facts of the case.
2. That the statements made in the petition are based on the records of the company except in the case of estimates wherever made in the said documents, are based on the assumptions and believed by me to be true to the best of my knowledge and be read as part and parcel of this affidavit and the same are not reproduced here for the sake of brevity and nothing has been concealed therefrom.

Jagdish
30/01/2018
DEPONENT

VERIFICATION:

It is solemnly affirmed that the contents of above affidavit are true to the best of my knowledge and belief. No part of it is false and nothing has been concealed therefrom.

Verified at New Delhi on this 30th day of January, 2018.



Jagdish
30/01/2018
DEPONENT

ATTESTED
Azad Kumar

BY NOTARY PUBLIC
NEW DELHI (INDIA)
AZAD KUMAR-Adv.

30 JAN 2018

CABIN No. 33
I.T.O. Lane, Anand Bhawan Road
New Delhi-110 002

BEFORE THE HON'BLE DELHI ELECTRICITY REGULATORY COMMISSION

Petition No:

IN THE MATTER OF Filing of Tariff Petition under section 62 of the Electricity Act, 2003 for Tariff Petition for true up of expenditure for FY 2016-17 as per DERC Generation Tariff Regulation, 2011 & Tariff petition for FY 2018-19 as per DERC Generation Tariff Regulation, 2017

AND

IN THE MATTER OF **Indraprastha Power Generation Company Limited**
Regd. Office "Himadri", Rajghat Power House Complex,
New Delhi – 110 002
PETITIONER

THE APPLICANT ABOVE NAMED RESPECTFULLY SUBMITS

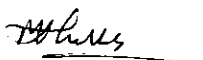



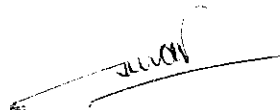
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Chapter 1 : Background

This Chapter deals with the background for this Petition.

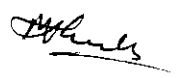
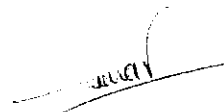
1.1 Introduction

The Electricity Act, 2003 was notified on 10th June, 2003 repealing the Indian Electricity Act-1910, the Electricity (Supply) Act, 1948 and the E.R.C. Act, 1998. Among the tariff related provisions, the State Electricity Regulatory Commission (SERC) has to be guided by National Electricity Policy, National Tariff Policy and Central Electricity Regulatory Commission (CERC). As per Section 86 (1)(a) of the Electricity Act, the State Commission shall discharge the function of determining the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail as the case may be within the state. The generation, transmission and distribution tariff have to be determined separately.

The Section 61 of the Electricity Act, 2003 provides as under in respect of Tariff Regulations:

"The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-

- (a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;*
- (b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;*
- (c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;*
- (d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;*
- (e) the principles rewarding efficiency in performance;*
- (f) multi year tariff principles;*
- (g) that the tariff progressively reflects the cost of supply of electricity and also, reduces cross-subsidies in the manner specified by the Appropriate Commission;*
- (h) the promotion of co-generation and generation of electricity from renewable sources of energy;*



(i) the National Electricity Policy and tariff policy:

Provided that the terms and conditions for determination of tariff under the Electricity (Supply) Act, 1948, the Electricity Regulatory Commission Act, 1998 and the enactments specified in the Schedule as they stood immediately before the appointed date, shall continue to apply for a period of one year or until the terms and conditions for tariff are specified under this section, whichever is earlier."

1. The Delhi Electricity Regulatory Commission (hereinafter referred as "Commission") has extended the DERC Tariff Regulation, 2011 for further one year i.e. FY 2016-17 vide its order No. F.11(1154)/DERC/14-15/4482 dt. 22.10.2014.
2. DERC has issued Tariff Regulation 2017. The Tariff Regulation is applicable w.e.f. 01.02.2017 till amended are re-appealed by the Commission (Part-I preliminary of DERC Regulation 2017). Further, as per clause 144, 145 & 146 of DERC Regulation 2017. Accordingly Petitioner is filing present petition for tariff determination of FY 2018-19.
3. As per clause 139 of tariff regulation 2017, true up of FY 2016-17 is to be carried out as per DERC regulation 2011, the relevant content of the clause has following clause:
" Performance review and adjustment of variations in the ARR and Revenue for the Utilities for FY 2016-17 shall be considered in accordance with the Delhi Electricity Regulatory Commission (Terms and conditions for Determination of Generation Tariff) Regulations, 2011 and Delhi Electricity Regulatory Commission (Terms and Conditions for determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011".

Accordingly, IPGCL is filing this petition for true up as per DERC tariff regulation 2011 with request to allow certain relaxations of Heat Rate and Auxiliary Power consumption. It is further submitted that IPGCL is requesting the Hon'ble Commission to invoke its power of relaxation wherever required in the petition.

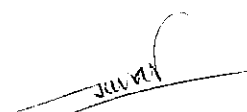
1.2 Brief Company Profile

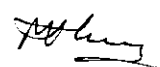
"Indraprastha Power Generation Company Limited" (IPGCL) is a Government Company engaged in Power Generation and is wholly owned by the Government of National Capital Territory of Delhi. Pursuant to the provisions of the Delhi

Electricity Reforms Act, 2000, the Government of National Capital Territory of Delhi undertook the reform and restructuring of the erstwhile Delhi Vidyut Board (DVB), which was implemented through a statutory transfer scheme. The Transfer Scheme provided for unbundling of the functions of Delhi Vidyut Board and the transfer of existing transmission assets of DVB to Delhi Transco Limited and distribution assets to three Distribution Companies. Further, all the assets, liabilities, rights and interest of DVB in the Indraprastha Power Station, Rajghat Power House and Gas Turbine Power Station were transferred to IPGCL.

The Indraprastha Power Generation Company Limited (IPGCL) has only one operational plant. The IP Stn. has been closed and under disposal. Whereas, RPH is not on the bar since June, 2015.

1. Indraprastha Power Station (IP) had total capacity of 247.5 MW with three units of 62.5 MW each and one unit of 60 MW capacity using coal as fuel. The station was closed down on 31.12.2009. The assets of the station are in the process of disposal.
2. Rajghat Power House (RPH) had a total capacity of 135 MW with two units of 67.5 MW each using coal as primary fuel. The station was set up in the FY 1989-90. In view of environment constraints, the station is non operational since June, 2015.
3. Gas Turbine Power Station (GTPS) has total capacity of 270 MW, having six gas turbines of 30 MW each, using NG/RLNG as fuel and three Waste Heat Recovery Steam Turbines of de-rated capacity each of 30 MW. The gas Turbines of the station were set up in the year 1985-86 to meet the peak load demand of Delhi. The station was retrofitted with Steam Turbines in the year 1996.




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Chapter 2 : Submissions

This Chapter deals with the modality of making submissions to the Hon'ble Commission in support of the Prayers.

2.1 Submission Plan

IPGCL proposes to make submissions to the Hon'ble Commission in support of this Petition as under:

- Operational Parameters
- Financial Parameters
- Capital Expenditure Plan
- Prayer

Detailed submissions on each of the above are made in the Chapters to follow.

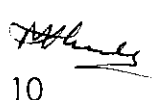
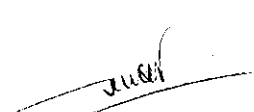
2.2 Brief of Submissions

The petitioner requests the Hon'ble Commission to give due considerations to the following facts while evaluating the present tariff petition:

The gas Turbines of GTPS have already completed its useful life of 25 years in 2011. In order to assess balance life of the plant, the Petitioner is working on to carry out RLA study of gas turbine Power Station. The work order for award of consultancy work is in advance stage of finalization. The details of the same will be submitted to Honorable commission as soon as same is finalized and recommendations are available.

It is further submitted that;

- a. SLDC Delhi has been backing down the generation of the station depending on the requirement of power in Delhi. SLDC Delhi has been giving instructions to back down partially, thus resulting in non optimization of fuel consumption and higher Station Heat Rate and Auxiliary Power Consumption. **Therefore, Hon'ble Commission is requested to direct SLDC Delhi to back down any of the complete block of the station only and not partially. Further, It is requested that frequent backing down should not be resorted by SLDC.**
- b. The petitioner prays to the Hon'ble Commission to consider and relax the operational and financial parameters as requested in the petition on account of partial loading of the station due to backing down.



Chapter 3 : Variable & Fixed Cost

3.1 Estimation of Variable Cost

3.1.1 Norms for Operation

Petitioner has taken into consideration actual performance parameters for FY 2016-17 & proposed for FY 2018-19 as per DERC Tariff and business plan Regulations, 2017.

Petitioner requests the Hon'ble Commission to take lenient and practical view while truing up norms of operation and financial parameters for FY 2016-17.

3.1.2 Availability

The actual Availability parameters for various stations of IPGCL during FY 2016-17 as per actual and & for FY 2018-19 are summarized in the under mentioned table 1.

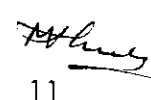
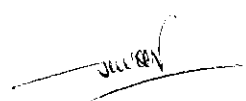
Table 1: Actual Availability (%)

Description	FY 2016-17 (actual)	FY 2018-19 (proposed)
Gas Turbine Power Station	82.84	80.00

3.1.2.1 I.P. Station

The station was more than 40 years old and was closed down on 31.12.2009. Earlier, Petitioner has submitted true up petition for FY 2007-08 to 2011-12 for IP Station and the Commission vide its order dated 31.07.2013 has trued up Rs.175.41 Cr. to be recovered by Petitioner due to approval of additional expenditure on various heads during the period by the Commission. However, Hon'ble Commission has not allowed to recover above amount from DISCOMs and have noted as under:

"3.92 However, as discussed earlier the same shall be allowed to be recovered once all the assets of IP Station are disposed off and the final amount of realization from sale of assets including land gets firmed up.



3.93 The Petitioner is directed to inform the Commission once the IP Station is completely disposed off and submit the details of assets disposed off along with salvage value realized on account of sale of assets.

3.95 However, as discussed earlier the same shall be allowed to be recovered once all the assets of IP Station are disposed off and the final amount of realization from sale of assets including land gets firmed up."

Further, as directed vide above order petitioner had submitted its reply vide letter No. IPGCL/Comml./IDRA/07-12/178 dt. 30.10.2013 and requested Hon'ble Commission not to link the recovery of above amount with final disposal of IP Station and the land due to following reasons:

1. The amount allowed by Hon'ble Commission after truing up is related to O&M expenses, depreciation, interest on loans, return on equity, interest on working capital allowed on account of relaxed norms considered for IP Station. Due to implementation of impact of various courts orders, actual operational conditions accepted and allowed by Hon'ble Commission in this regard. Therefore, Hon'ble Commission's decision to link above recovery with final asset disposal and land disposal is not justified.
2. The land was on a lease with notional lease rental and the same has already been handed over to GNCTD. Therefore, no actual disposal / sale of the land is possible. The accumulated depreciation of the IP Station up to the date of closure as allowed by Hon'ble Commission was not up to 90% of depreciation of the original cost of the assets as allowed in MYT regulation, 2007. Accordingly, Petitioner has requested Hon'ble Commission to depreciate the assets up to 90% in FY 2009-10. However, the Commission did not allow depreciation up to 90% with the remarks as under:

"3.74 The Commission has further considered the impact of additional capitalization while computing depreciation. However, with regards to the Petitioner's claim of balance depreciation to the extent of 90% of the GFA value, the Commission is of the view that the issue shall be dealt with once the assets of IP Stn. gets disposed off. The commission has therefore only allowed depreciation by

applying depreciation rates as specified in the DERC MYT Regulations, 2007 on the opening GFA for the year and on assets added during the year. Accordingly, the depreciation as approved by the Commission in its MYT Order dated December 14, 2007, as requested by the Petitioner and that allowed by the Commission."

Since the additional information has already been submitted by petitioner in this regard, therefore, the petitioner once again requests the Hon'ble Commission not to link the recovery of Rs.175.41 Cr. With final disposal of assets and land of IP Stn and allow the petitioner to allow above amount along with additional cost due to true up and further submission by petitioner vide its letter dt. 30.10.2013.

Honorable commission is therefore requested to allow recovery of Rs 175.41 without linking it to final disposal of Station as allowed expenditure is not related to assets value rather part of O&M expenditure allowed by DERC in respective years while carrying out true up for MYT period 2007-08-2011-12

3.1.2.2 Rajghat Power House

The power station is out of bar since June, 2015 in view of non scheduling of power by beneficiaries of the plant and order of Delhi Pollution Control Committee (DPCC).

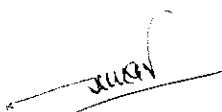
3.1.2.3 Gas Turbine Power Station

The actual availability as achieved by the station for last three years including FY 2016-17 is as under:

Table 2 : Availability (%) of GTPS

Financial Year	Availability (%)
2014-15	68.80
2015-16	74.81
2016-17	82.84

The availability of the station has been varying since its inception. The CERC has fixed the norm of 72% availability for similar station like Assam Gas based Station for the period FY 2014-15 to 2018-19 based on the average of actual availability achieved during the previous MYT period FY 2009-10 to 2013-14. It is further submitted that CERC while fixing the operational parameters has adopted the

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principle of average performance during previous MYT period and not the best of the parameters during that period. The petitioner would like to mention that the Gas Turbines of the station are more than 29 years old and no major Renovation and Modernization of the station has been undertaken so far. Therefore the Hon'ble Commission is requested to allow recovery of fixed charges for FY 2016-17 as per actual availability during the period in line with CERC regulation .

3.2 Station Heat Rate

The actual Station Heat Rate parameters for GTPS for the period FY 2016-17 and as projected for FY 2018-19 are summarized in the under mentioned table 3.

Table 3 : Station Heat Rates (kCal/kWh) for GTPS

Description	FY 2016-17	FY 2018-19
Station Heat Rate (Combined Cycle)	2463	2450
Station Heat rate (Open Cycle)	3443	3125

It is submitted that the turbines of the station are of 30 MW size and more than 29 years old. The STGs of IPGTPS were installed after retrofitting of waste Heat Recovery modules by M/s BHEL, after operation of GTs in open cycle mode for around 10 Years. It may be appreciated that retrofitting of the machines by any supplier other than by the supplier of GTs will have inherent problems.

The aging of the machines plays a major role, whereby the plants are not in a position to operate at its full rated capacity due to technical constraints which further affects the station heat rate as well as auxiliary power consumption. The guaranteed heat rate in simple cycle mode is 11688 kJ/kWh on NCV at compressor inlet temperature of 15°C and atmospheric pressure of 1.019 BAR. The guaranteed heat rate at site conditions of 31.5°C is approximately 3188 Kcal/Kwh. Further, taking into account the correction factor of 5.70% on the guaranteed heat rate as recommended by the CEA, the corrected heat rate for simple cycle mode works out to 3370 kCal/kWh.

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It is further submitted that CEA has also recommended technical standards on operational norms on Gas Turbine stations in their report of December, 2004. As per the recommendations, following simple cycle heat rate has been prescribed in reference to capacity of Gas Turbine applicable to IPGTPS.

Table 4 : Recommendation of Heat Rate by CEA in 2004

Capacity of GTs	Simple Cycle Heat rate (Kcal/Kwh)	
	Age less than 10 years	Age more than 10 years
Gas Turbines with Capacity less than 30 MW	3500	3550
Gas Turbines with capacity 30 MW or more but less than 100 MW	3200	3250

CEA has also recognized that the operation efficiency or heat rate and other performance parameters of a Thermal Power Station depends on a number of factors which can be broadly classified as under:-

- Technology and equipment
- Ambient Conditions
- Fuel Quality
- Plant operation and maintenance practices.
- Unit Sizes

Further, the Central Electricity Regulatory Commission in its latest tariff regulation for FY 2014-19 has fixed a heat rate of 3440 Kcal/Kwh in simple cycle mode for similar Assam gas station of NEEPCO having capacity of 291 MW (6 Gas Turbines of 33.5 MW and 3 STG of 30 MW), even though the station was commissioned in 1995-98. Even under the CERC Tariff Regulations, 2014, the heat rate allowed for this station was at a higher level than as allowed by DERC. Further, the Hon'ble Commission in the tariff Order dated 26.08.2011 for determination of aggregate Revenue Requirement for FY 2011-12 in respect of GTPS has also observed that CERC has provided a heat rate of 3440kCal/kWh for Assam Kathal Guri gas based station. However, the Hon'ble Commission has not admitted the contention of the petitioner on the basis that the station is expected to run in combined cycle mode most of the time and open cycle operation is rare. It is submitted that the station

runs in open cycle mode only as and when requisitioned by SLDC, Delhi. Further, CERC in its tariff regulation dated 21.02.2014 had allowed 3440 kCal/Kwh for Assam GPS for FY 2014-15 to 2018-19. The operation of IPGTPS in open cycle mode during the last years is as under:-

Table 5 : Open cycle (%) certified by SLDC

Year	Net Generation (MU)	Open cycle generation certified by SLDC (MU)	% Open Cycle
2012-13	1268.422	7.111	0.56
2013-14	1006.792	5.140	0.51
2014-15	904.208	15.966	1.76
2015-16	445.386	3.208	0.72
2016-17	672.330	4.862	0.72

Thus, there has been considerable open cycle operation in previous years. Even though the operation of IPGTPS is less in open cycle mode, there is a direct loss of around 10% on recovery of fuel cost when operated in open cycle mode. This loss in absolute terms is on higher side. Station will endeavour to run in combined cycle mode but when operated in open cycle mode on the request of SLDC, the station may be allowed higher heat rate of 3440kCal/kWh.

It is further submitted that two numbers of Gas Turbines were converted on Liquid Fuel. The Hon'ble Commission has allowed 2% excess heat rate over the allowed operative heat rate for newly set up gas turbine stations operating on liquid fuel. It is requested the Hon'ble Commission to consider and allow 2% excess heat rate over and above the allowed heat rate for operation on liquid fuel for even existing Gas Turbine Power Station.

Station Heat Rate of IPGTPS is also on higher side due to frequent backing by SLDC, resulting in partial operation. The backing down of the station resulted in partial operation of the units. It is further submitted that there has been substantial gap between Availability and PLF of the station due to backing down. The lower PLF has adversely affected the heat rate of the station.

Table 6 : Comparison of Availability & PLF for GTPS

Year	Availability (%)	PLF (%)
2012-13	84.22	55.29
2013-14	85.76	44.01
2014-15	68.80	39.59
2015-16	74.81	19.69
2016-17	82.84	29.41

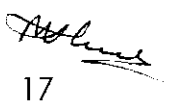
It is very much evident that PLF has been on much lower side as compared to availability which further affects the station heat rate and auxiliary power consumption of the station. It is further submitted that since, heat input is same for de-rated capacity of STGs, the combined cycle heat rate is impacted and need to be revised accordingly.

In view of the above, the Hon'ble Commission is requested to relax and allowed actual heat rate achieved by the Station in Combined Cycle mode and Open cycle mode for the MYT period For FY 2016-17 and relax norms for FY 2018-19.

3.3 Prayer in respect of Partial Backing Down of GTPS

It is submitted that SLDC Delhi has been backing down the generation of the station depending on the requirement of power in Delhi. IPGTPS consist of three blocks; each block consists of two Gas Turbines and one steam turbine. The capacity of each gas turbine is 30 MW and de-rated capacity of each steam turbine is also 30 MW. IPGTPS has been serving the dual purpose of base load as well as peak load. Many times, SLDC Delhi has been giving instructions to back down the blocks partially, thus resulting in non optimization of fuel consumption. The variation of backing down is enormous depending upon the load curve during the day, change in weather conditions. This partial backing down of the blocks further increases the heat rate and auxiliary power consumption.

Therefore, Hon'ble Commission is requested to direct SLDC Delhi to back down complete block of the station only. Further, it is requested that there should not be frequent backing down. The complete backing down of the block to some extent will help to control the heat rate and auxiliary Power consumption.



The above mentioned reasons for higher heat rate of the stations are beyond the control of the petitioner and therefore, the petitioner requests the Commission to adopt more liberal approach while trueing up expenditure for FY 2016-17 and approving ARR for FY 2018-19.

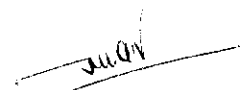
3.4 Auxiliary Power Consumption

The achieved parameter of the Auxiliary power Consumption by GTPS during FY 2016-17 is summarized in the under mentioned table below.

Table 7 : Auxiliary Power Consumption (%) in CC mode

Description	FY 2016-17
Auxiliary Consumption (%)	3.34

Petitioner therefore requests the Hon'ble Commission to allow auxiliary consumption as per actual for FY 2016-17 as the Gas Turbines of the station were commissioned in the year 1985-86 and the Waste Heat Recovery Units were retrofitted in the year 1995-96. The STGs of the station are not able to produce the rated output and hence the auxiliary power consumption of the station calculated in terms of percentage over the gross generation of the station increases. It is further mentioned that due to less system demand, the generation of the station gets backed down, resulting in partial loading of the units. Further, due to prolonged backing down, un-productive auxiliary consumption also increases percentage of total auxiliary consumption of the station. The percentage of auxiliary consumption as allowed for GTPS relates to the time when backing down due to merit order dispatched was not in the practice and the actual auxiliary consumption of the station was related to actual running up of plants & equipments during generation from the station. However, due to present practice of frequent and prolonged backing downs the station auxiliary consumption has increased substantially. This is also evident from difference in availability and PLF of the station. The year wise availability and PLF of the Station as certified by SLDC has been presented in the following table.



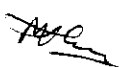


Table 8 : Comparison of Availability & PLF for GTPS

Year	Availability (%)	PLF (%)
2012-13	84.22	55.29
2013-14	85.76	44.01
2014-15	68.80	39.59
2015-16	74.81	19.69
2016-17	82.84	29.41

PLF indicates the actual generation of the station based upon the scheduled generation whereas the availability indicates the capacity of the station to inject the power into the system. The lower PLF has resulted into higher Auxiliary Power Consumption of the station.

3.5 Gross Generation and Net Generation

The details of gross and net generation during FY 2016-17 & FY 2018-19 for GTPS is as per following details:

Table 9 : Gross and Net Generation

Description	FY 2016-17	FY 2018-19
Gross Generation (MU)	695.577	1892.160
Auxiliary Consumption (%)	3.34	2.50
Net Generation (MU)	672.330	1844.856

The petitioner humbly requests the Commission to approve the gross and net generation of GTPS during FY 2016-17 as per actual. Accordingly, allow the recovery of capacity charges on actual availability as achieved by GTPS.

3.6 Variable Cost for operational parameters

GT Power Station of IPGCL runs on the Natural Gas being supplied by GAIL and Liquid Fuel supplied by IOCL. Earlier the total (APM+PMT+LNG) allocation

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for GTPS was 1.44 MMSCMD which was sufficient to run six gas turbines. This allocation was reduced to 1.32 MMSCMD during the FY 2006-07. Out of the total allocation of 1.32 MMSCMD, the contracted quantity of R-LNG is 0.60 MMSCMD and balance i.e. 0.72 MMSCMD comes from APM and PMT and these quantities are further subject to daily cuts in the range of 15% depending on the availability. In view of constrained in availability of fuel gas, Hon'ble Commission has approved the conversion of two Gas Turbines on dual fuel system in FY 2008-09. MoP&NG has further allocated 0.23 MMSCMD non-APM ONGC gas whose supply has been commenced from mid October, 2011.

The Petitioner has an agreement with GAIL for supply of 0.6 MMSCMD R-LNG. As per the agreement with GAIL, the contracted quantity is subject to Take or Pay clause. Accordingly, the cost of this contracted quantity has to be born even if there is no off take of fuel gas. Petitioner is also using spot R-LNG, subject to amount of power scheduled and requirement of RLNG to meet the instances of shortage of gas.

However Hon'ble Commission in its order dated 29-09-2015 disallowed the Take or pay charges to be recovered from beneficiary with following remark:

"The Commission also directs the petitioner to ensure that the fuel supply agreements do not contain the 'Minimum Off Take Guarantee' clause linked with "Take or Pay" obligation, so as to optimize the cost of generation. Any cost on account of such clause shall not be allowed to be billed to the beneficiaries and the liability on this shall be solely to the account of the petitioner. The petitioner shall be allowed to recover only the actual cost of fuel (including fuel price adjustment / Power Purchase Cost Adjustment, if any but excluding cost on account of "Minimum Off Take Guarantee" / "Take or Pay" obligation) from the respective beneficiaries."

In this regard petitioner may like to submit that the PPA signed between Petitioner and DTL, which was latter assigned to Delhi Discoms has following provisions:

"3.2 Minimum fuel off take charge

The transco shall reimburse the IPGCL for charges paid in respect of its failure to take delivery of minimum levels of fuels, but only if and to the extent that the IPGCL's failure to take such fuel is due to the Transco issuance of dispatch instructions requiring that the project be operated at a level less than the level of demand capacity set forth in any then applicable availability declaration or the Transco 's failure or inability to accept delivery of net electrical energy from the project (where due to force measure events or otherwise)".

Further all the fuel supply agreements with GAIL and Coal India, both Central Govt. Undertakings, have compulsory clause of MGO / ACQ. The provision of these clauses have also been mentioned in the initial PPA of the petitioner as given above and has been duly approved by State Commission and re-assigned to distribution companies vide State Commission's Order dt. 31.03.2007. Therefore petitioner aggrieved by above order of the Commission has challenged same in APTEL wide appeal number 284 of 2015. Therefore petitioner is filing this petition without prejudice to outcome of above appeal.

3.7 Actual Fuel Cost

The total Fuel cost on heat rate as given above are as per following details:

Table 10 : Total Gas Consumption for GT Power Station

Description		FY 2016-17
APM Gas	MMSCM	95.519619
PMT Gas	MMSCM	14.621256
R-LNG Gas	MMSCM	27.469695
NAPM Gas	MMSCM	44.543251
SPOT	MMSCM	0.041546
Total Gas Consumption	MMSCM	182.195379

further As per DERC (Terms and determination of Generation Tariff)(First Amendment) Regulations 2013, all relevant information in Form-27 are regularly made available to beneficiaries and are being being uploaded on petitioner website www.ipgcl-ppcl.gov.in. further

1. The details of total gas consumption, rate per SCM and total cost of the gas for FY 2016-17 as per actual and Fuel cost for FY 2018-19 as projected is depicted in the following Table.

Table 11 : Total Variable Cost

Particulars	Unit	Variable Cost	
		FY 2016-17	FY 2018-19
Total Gas Consumption	MMSCM	182.195379	491.60
Average Gas Price	Rs./SCM	11.455	14.342
Total Gas Cost	Rs. Crores	208.71	705.05
Net Generation	MU	672.330	1844.856
Variable Cost - CC	Rs./kWh	3.104	3.822

The fuel expenditure is inclusive of prevailing GST/CST, DVAT and service tax etc .

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3.8 Actual Fixed Cost

Fixed cost calculations consist of the following items:

- a. Operation & Maintenance Expenses
- b. Interest on loan
- c. Depreciation
- d. Return on Equity
- e. Interest on Working Capital
- f. Cost of secondary fuel oil (for coal based stations only)
- g. Income Tax

3.8.1 Operation & Maintenance Expenses

It is submitted that in the case of GTPS, Repair and Maintenance expenses are varying on year to year basis because of cyclic nature of maintenance activities of Gas Turbines. Normally, Combustion Inspection is carried out after every 8000 hours, Hot Gas Path Inspection after operation of machines for 24000 hours and Major Inspection after every 48000 Hours of Operation of Gas Turbines. In a cyclic period of six years gas turbine undergoes four Combustion Inspections, one Hot Gas Path Inspection, and one major Inspection. The station is having nine units (six Gas Turbines and three steam turbines). Therefore the repair and maintenance expenditure varies on year to year depending on the type of inspection carried out during the period in the machines.

It is further submitted that IPGTPS is having nine numbers of machines and the major inspection of one Gas Turbine costs around Rs. 12-15 Crore, Hot Gas Path Inspection of one Gas Turbine is around Rs. 6-7 Crore and cost of one Combustion Inspection is around Rs. 2-3 Crore. The petitioner would like to submit that in a cycle of six years, the average repair & maintenance expenditure of the station includes various inspections of GTs from time to time, repair & maintenance of STGs, HRSGs, balance of plant, civil work and share of headquarters. Honorable commission is therefore requested to consider above aspect while trueing up expenditure for FY 2016-17 allowing ARR for FY 2018-19.

3.8.2 RLA study of GTPS

The turbines of the station were commissioned in the year 1986-95. It is therefore proposed to carry out RLA study of the station to assess the further life of the plant. The Petitioner is already working on. The work of award of consultancy to carry out RLA study is in final stage of award. The detailed expenditure along with scope of work for life extension will be submitted to Hon'ble Commission in due course of time.

3.8.3 Water Charges and Property Tax

Earlier Barrage at ITO was being maintained by Haryana Irrigation Department for meeting the water requirements of IPGCL and its O&M expenses were shared /reimbursed by IPGCL. Besides this, water charges were also paid to Delhi Jal Board for domestic and industrial water consumption in the form of water charges. In the meantime as per Govt. of India Tariff Policy 2016 all the power plants falling within 50 Km radius of Municipality has to necessarily use sewage treated water for its raw water requirement. The content of the provisions are reproduced as under:

“(5). The thermal power plant (s) including the existing plants located within 50 KM radius of sewage treatment plant of Municipality / local bodies / similar organizations shall in order of their closeness to the sewage treatment plant, mandatorily use treated sewage water produced by these bodies and the associated cost on this account be allowed as a pass through in the tariff. Such thermal plants may also ensure back up source of water to meet their requirement in the event of shortage of supply by sewage treatment plant. The associated cost on this account shall be factored into the fixed cost so as not to disturb the merit order of such thermal plant. The shutdown of sewage treatment plant will be taken in consultation with the developer of the power plants.”

Accordingly, Central Electricity Regulatory Commission in its Tariff Regulations 2014, has already allowed water charges as additional charge under Regulation 29 (2). The relevant part of the same is reproduced as under:

“29(2) The water charges and capital spares for the thermal generating stations shall be allowed separately:

Provided that water charges shall be allowed based on water consumption depending upon the type of the plant, type of cooling water system etc., subject to prudence check.

The details regarding the same shall be furnished along with petition:

Provided that generating station shall submit the detail of year wise capital spares consumed at the time of true up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance are claimed as part of additional capitalization or consumption of stores and spares and renovation and modernization."

Accordingly, IPGCL is also working to arrange sewage water for GTPS in similar lines as had already been provided to PPS-I plant, one of its sister concern the Pragati Power Corporation Ltd. and Hon'ble Commission is already allowing recover of expenditure of sewage treated water for PPS-I since long. It is, therefore, requested to allow the same in case of GTPS from the date same is availed.

It is also submitted that Taxes and duties including water cess, property/ service charges etc. has been reimbursed from the beneficiaries during the previous years of MYT Control period on actual basis. Therefore Honorable is requested to allow the same for Current MYT period also.

3.8.4 Impact of 7th Pay Commission Implementation

Petitioner may like to further submit that pay and perks of employees of the petitioner Company is determined in line with Central Pay Commission Recommendations. The Central pay Commission's 7th pay recommendations are already notified and implemented at Central and State level employees. In case of petitioner company the same has been partially implemented in FY 2017-18. Therefore, the expenditure as given above does not include the impact of 7th Central Pay Commission implementation. The petitioner therefore requests the Hon'ble Commission to kindly consider the impact of 7th Pay Commission while deciding the ARR for the year 2018-19.

3.8.5 Summary of O&M cost

The units of GTPS are small in size and are also old in age; hence it will require more man power for operation as well as higher Repair & Maintenance expenses. This fact has also been appreciated by CERC for allowing the higher O&M expenses for small size and old age plants. **Accordingly, petitioner requests the Hon'ble**

Commission to approve the O&M costs for current MYT considering CERC Regulation 2014-19 for FY 2016-17. Further details of O&M Is as per following table:

Table 12 : Total Annual Fixed Cost

Particulars (Rs. Crores)	2016-17 (Normative)	2016-17 (Actual)	2018-19 (Estimated)
O&M Charges	113.40	56.57	84.56
Depreciation	10.95	10.95	14.35
Interest on Loans	16.17	16.17	15.58
Grossed of Return on Equity	21.46	21.46	21.76
Interest on Working Capital	38.03	38.03	36.27
Fixed APC (0.5% APC of Gross Gen.)	--	---	3.61
Total Fixed Cost	200.01	143.18	176.14
Net Generation (MU)	1835.400	672.330	1844.856
Fixed Cost Per Unit (Rs/Kwh)	1.090	2.130	0.954

3.8.6 Interest on Loan

Interest on loans depends on the outstanding loan, repayments, and applicable interest rates. Further, the capital additions funding also have a bearing on the interest cost.

3.8.7 Loan from Holding Company:

As per the Delhi Electricity Reforms (Transfer Scheme) Rules 2001, Rs. 210 Crore of unsecured loan was transferred to IPGCL as on July 1, 2002 and repayable to holding company. This loan has been bifurcated station wise, based on the gross fixed assets of the Company, as under:

Table 13 : Loan Bifurcation for IPGCL Plants

Power Stations	Rs. In Crore
GT Power Station	32.96
Total	32.96

3.8.8 Loan From Delhi Government

The Plan Funds Loan from Delhi Government was taken @ 13% interest in the FY 2002-03 & from FY 2003-04 and thereafter, the plan funds interest rate is @ 11.50%. A penal interest of 2.75% is payable in case of default in timely payment of interest on principal amount. The principal amount has been paid. However the interest is pending. The penal interest has been accounted in the ARR.

Further IPGCL has made certain capital additions during the Control period FY 2016-17. The same has been funded through internal accruals/ loan from GNCTD (There are no new loans from GNCTD in FY 2012-13 onwards) from GNCTD. As per Regulation, 70% of the capital additions have been considered to be funded through Loans. Accordingly, interest on this normative loan has been taken @ 13 % per annum.

3.8.9 Depreciation

Depreciation is charged on the basis of straight-line method, on the fixed assets. The depreciation is based on the original cost, estimated life and residual life. The depreciation rates applied are as per the Regulation notified by the Hon'ble Commission for respective period.

The Depreciation amount for FY 2016-17 and FY 2018-19 has been summarized as under:

Table 14 : Depreciation

Particulars (Rs Crores)	FY 2016-17	FY 2018-19
Depreciation as per books	10.95	14.35

3.8.10 Return on Equity

The subscribed and paid up equity capital of IPGCL was fixed at Rs. 140 Crore as on July 1, 2002 in accordance with the Transfer Scheme. The total equity was bifurcated plant wise, on the basis of Gross Fixed Assets of the Company, as under:

Table 15 : Equity Bifurcation for IPGCL Power Plants

Power Stations	Rs.in Crore
IP Power Station	1.20
Rajghat Power Station	59.56
GT Power Station	79.24
Total	140.00

The petitioner has taken values as given in DERC regulation for calculation of amount of ROE. It is further submitted that the petitioner has made certain Capital additions and 30% equivalent amount of the capital additions during current MYT period has been considered for computation of ROE. The details of the same are furnished as under:

Table 16 : ROE for GTPS

Particulars		FY 2016-17	FY 2018-19
Average Equity (Rs. Cr.)	A	120.58	122.29
Base Rate of return on equity i.e @ 14 (%)	B	16.88	17.12
Normal Income tax as considered by Hon'ble Commission	C	21.34	21.34
Gross up return on equity	$D = \text{base rate} / (1 - C)$	17.80	17.80
Return on equity (Rs. Cr.)	$E = (A \times D)$	21.46	21.76

3.8.10 Interest on working Capital

Interest on Working Capital has been computed as per the following norms for gas turbine:

- Cost of Gas for 1 month
- Cost of liquid fuel for gas station for 1/2 month
- O&M expenses for 1 month
- Receivables equivalent to 2 months average billing
- Maintenance Spares @ 30% of the O&M

Accordingly normative working capital and interest on working capital is as per following details:

Table 17 : Interest on working Capital of GTPS

	Loan Details	Unit	FY 2016-17	FY 2018-19
	Interest on Working Capital	Rs Crores		
	For Open-cycle Gas Turbine/ Combined Cycle thermal generating stations			
1	Fuel expenses for 1 month	Rs Crores	58.12	58.75
2	Liquid fuel stock for ½ month	Rs Crores	30.52	30.52
3	Maintenance spares @ 30% of O&M	Rs Crores	34.02	25.37
4	O&M expenses for 1 month	Rs Crores	9.45	7.05
5	Receivables equivalent to 2 months of capacity and energy charge	Rs Crores	149.57	146.97
	Total Working Capital	Rs Crores	281.68	268.66
	Rate of Interest	%	13.50%	13.50%
	Interest on Working Capital	Rs Crores	38.03	36.27

3.8.11 Summary of Fixed Cost

The total Fixed Cost for FY 2016-17 & FY 2018-19 is summarized as under:

Table 18 : Total Fixed Cost for Gas Turbine Power Station

Particulars (Rs. Crores)	FY 2016-17 (Normative)	FY 2016-17 (Actual)	FY 2018-19 (Estimated)
O&M Charges	113.40	56.57	84.56
Depreciation	10.95	10.95	14.35
Interest on Loans	16.17	16.17	15.58
Grossed of Return on Equity	21.46	21.46	21.76
Interest on Working Capital	38.03	38.03	36.27
Fixed APC(0.5 % APC of gross gen.)	--	--	3.61
Total Fixed Cost	200.01	143.18	176.14
Net Generation (MU)	1835.40	672.330	1844.85
Fixed Cost Per Unit (Rs/Kwh)	1.090	2.130	0.955

accordingly total cost of generation including fixed and variable cost are as per following table:

Table 19 : Total Cost of Generation for Gas Turbine Power Station

Particulars (Rs. Crores)	2016-17 (Normative)	2016-17 (Actual)	2018-19 (Estimated)
Total Fixed Cost	200.01	143.18	176.14
Total Variable Cost	697.46	208.71	705.05
Net Generation (MU)	1835.40	672.330	1844.856
Total Cost Per Unit (Rs/Kwh)	4.890	5.234	4.776

The Performa giving details of above as per DERC format are enclosed as **Annexure-A**. The petitioner would like to pray to the Hon'ble Commission to approve and true up above expenditure as per actual for FY 2016-17 & proposed for FY 2018-19.

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Chapter 4: Prayer

4. Prayer

IPGCL respectfully prays to the Hon'ble Commission;

- To admit this petition.
- To true up the expenditure and norms of operation as per actual for FY 2016-17 & allow as proposed for FY 2018-19.
- To approve the Station operating parameters viz. actual Auxiliary Power Consumption, Station Heat Rate for FY 2016-17.
- To allow the recovery of trued up amount of I.P Station of Rs.175.41 Cr. without linking it to final disposal of scrap material and land for I.P. Station.
- To allow additional submission at later stage to supplement its claim for relaxed norms and true up as per actual.
- To grant any other relief as Hon'ble Commission may consider appropriate. The petitioner craves leave of the Hon'ble Commission to allow further submissions, addition and alteration to this Petition as may be necessitating from time to time.
- Pass any other order as Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.


(JAGDISH KUMAR),
DIRECTOR (TECHNICAL)
INDRAPRASTHA POWER GENERATION COMPANY LIMITED
PETITIONER

Name of Company: **INDRAPRASTHA POWER GENERATION COMPANY LIMITED**
 Name of Plant/ Station: **CSP, Dabhol Power Station**

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Instructions for the Applicant

- 1) Electronic copy in the form of CD/ Floppy Disc shall also be furnished
- 2) These formats are indicative in nature and the utility may align the line items to its chart of accounts

Attn: Mr. ...

Name of Company

INDIA PRASAD POWER GENERATION COMPANY LIMITED

Name of Plant/ Station

GGS Indraprastha Power Station

Annual Revenue Requirement Summary

Form No

F1

		Form	2016-17 Normative	2016-17 Actual	2018-19 Estimated
A	Generation				
1	Gross Generation (MU)	F4	1892.16	695.577	1892.16
2	Aux Consumption (%)	F4	3%	3.34%	2.50%
3	Net Generation (MU)	F4	1835.4	672.330	1844.856
B	Capacity Charges (Annual Fixed Charges)				
1	O&M expenses		113.40	56.57	84.564
a	R&M Expense	F20		11.36	
b	Employee Expenses	F21		31.12	
c	A&G Expense	F22		14.09	
2	Depreciation	F23	10.95	10.95	14.35
3	Interest on Loans	F24	16.17	16.17	15.58
4	Return on Equity	F25	21.46	21.46	21.76
5	Interest on Working Capital	F26	38.03	38.03	36.27
6	Cost of secondary fuel (only for coal based stations)	F4		NA	
7	Fixed APC(0.5 % APC of Gross generation)				3.61
	Total		200.01	143.18	176.14
C	Variable Charges (Energy Charges)		697.46		
	Energy Charges from Primary Fuel (Rs Cr) ^{C1, C2, C3, C4}	F4		209.35	705.70
	Energy Charges from Gas (Rs. Cr.)			208.71	705.05
	Energy Charges from Primary Fuel (Rs/ kWh)	F4		3.10	3.82
	Energy Charges Rate (Rs/ kWh)-combined cycle	F4		3.09	3.82
	Energy Charges Rate (Rs/ kWh)-open cycle	F4		4.22	4.78

C1 - If multifuel is used simultaneously, energy charges to be given in respect of every fuel individually

C2 - Energy charge shall be computed for open cycle operation and combined cycle operation

C3 - Energy charge shall be worked out based on ex-bus energy scheduled to be sent out

Petitioner

Name of Company
Name of Plant / Station

INDIA RENEWABLE POWER GENERATION COMPANY LIMITED
(GAS TURBINE CO-FIRED STATION)

Plant Characteristics

Form No: F2

Unit(s)/ Block(s) Parameters		Unit I	Unit II	Unit III	Unit IV	Unit V	Unit VI
Pressure	kg/cm ²	NA	NA	NA	NA	NA	NA
Temperature							
- At Superheater Outlet	°C	NA	NA	NA	NA	NA	NA
- At Reheater Outlet	°C	NA	NA	NA	NA	NA	NA
Guaranteed Design Heat Rate-GCV	kCal/ kWh	3188	3188	3188	3188	3188	3188
Conditions on which guaranteed		Temp=31.5°C, Altitude 216m, Net Frequency 50 Hz					
% MCR		NA	NA	NA	NA	NA	NA
% Makeup		NA	NA	NA	NA	NA	NA
Design Fuel		NG, HSD, Naptha	NG, HSD, Naptha	NG, HSD, Naptha	NG, HSD, Naptha	NG, HSD, Naptha	NG, HSD, Naptha
Design cooling water temperature	°C	NA	NA	NA	NA	NA	NA
Back Pressure		NA	NA	NA	NA	NA	NA
Note: In case guaranteed unit heat rate is not available then furnish the guaranteed turbine cycle heat rate and guaranteed boiler efficiency separately along with condition of guarantee.							
Type of cooling Tower		NA	NA	NA	NA	NA	NA
Installed Capacity (IC)	MW	30	30	30	30	30	30
Date of Commercial Operation (COD)		14.05.1986	28.05.1986	24.05.1986	31.07.1986	31.08.1986	15.11.1986
Type of cooling system ¹		Closed circuit cooling					
Type of Boiler Feed Pump ²		NA	NA	NA	NA	NA	NA
Fuel Details ³							
- Primary Fuel		NG	NG	NG	NG	NG	NG
- Secondary Fuel		NA	NA	NA	NA	NA	NA
- Alternate Fuel		HSD	HSD	NA	NA	NA	NA
Special Features/ Site Specific Features ⁴		NA	NA	NA	NA	NA	NA
Special Technological Features ⁵		NA	NA	NA	NA	NA	NA
Environmental Regulation related features ⁶		NA	NA	NA	NA	NA	NA
Any other special features		NA	NA	NA	NA	NA	NA

¹ Closed circuit cooling, once through cooling, sea cooling, natural draft cooling, induced draft cooling etc.

² Motor driven, Steam turbine driven etc.

³ Coal or natural gas or naptha or lignite etc.

⁴ Any site specific feature such as Merry-Go-Round, Vicinity to sea, Intake /makeup water systems etc. scrubbers etc. Specify all such features.

⁵ Any Special Technological feature like Advanced class FA technology in Gas Turbines, etc

Note 1: In case of deviation from specified conditions in Regulation, correction curve of manufacturer may also be submitted.

Note 2: Heat Balance Diagrams has to be submitted along with above information incase of new stations.

Petitioner

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Name of company

INDIAN RAILWAYS POWER GENERATION COMPANY LIMITED

Name of plant/ station

GAS TURBINE POWER STATION

Plant Characteristics

Form No:

F2

Unit(s)/ Block(s) Parameters		Unit VII	Unit VIII	Unit IX
Pressure	kg/cm ²	40	40	40
Temperature				
- At Superheater Outlet	°C	500	500	500
- At Reheater Outlet	°C	NA	NA	NA
Guaranteed Design Heat Rate	kCal/ kWh	2805	2805	2805
Conditions on which guaranteed		NA	NA	NA
% MCR		32.62	32.62	32.62
% Makeup		NA	NA	NA
Design Fuel		GT Exhaust	GT Exhaust	GT Exhaust
Design cooling water temperature	°C	32.5	32.5	32.5
Back Pressure		NA	NA	NA
Note: In case guaranteed unit heat rate is not available then furnish the guaranteed turbine.				
Type of cooling Tower		Mechanical Induced Draft Type		
Installed Capacity (IC)	MW	30	30	30
Date of Commercial Operation (COD)		20.03.1995	31.10.1995	26.03.1996
Type of cooling system ¹		Closed Circuit Colling		
Type of Boiler Feed Pump ²		Motor Driven	Motor Driven	Motor Driven
Fuel Details ³				
- Primary Fuel		Natural gas	Natural gas	Natural gas
- Secondary Fuel		NA	NA	NA
- Alternate Fuel		NA	NA	NA
Special Features/ Site Specific Features ⁴		NA	NA	NA
Special Technological Features ⁵		NA	NA	NA
Environmental Regulation related features ⁶		NA	NA	NA
Any other special features		NA	NA	NA

¹ Closed circuit cooling, once through cooling, sea cooling, natural draft cooling, induced draft cooling etc.² Motor driven, Steam turbine driven etc.³ Coal or natural gas or naptha or lignite etc.⁴ Any site specific feature such as Merry-Go-Round, Vicinity to sea, Intake /makeup water systems etc. scrubbers etc. Specify all such features.⁵ Any Special Technological feature like Advanced class FA technology in Gas Turbines, etc

Note 1: In case of deviation from specified conditions in Regulation, correction curve of manufacturer may also be submitted.

Note 2: Heat Balance Diagrams has to be submitted along with above information incase of new stations.

Name of Company/

INDRAPRASTHA POWER GENERATION COMPANY LIMITED

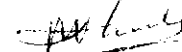
Name of Plant/ Station

GAS TURBINE POWER STATION

Normative Parameters Considered for Tariff Computations

	Particulars	Unit	FY 2016-17	FY 2018-19
			Actual	Estimated
1	Base Rate of Return on Equity	%	14.00%	14.00%
2	Tax Rate	%	NA	NA
3	Target Availability	%	80.00%	80.00%
4	Auxiliary Energy Consumption-CC	%	3.00%	2.50%
5	Gross Station Heat Rate-CC	kCal/ kWh	2450	2450
6	Specific Fuel Oil Consumption ml/kWh	ml/ kWh	NA	NA
7	Cost of Coal/ Lignite	Rs/ Ton	NA	NA
8	Cost of Main Secondary Fuel Oil	Rs/ kL	NA	NA
9	Cost of Gas	Rs/ SCM	11.45	14.34
10	Primary Fuel (Coal/ Lignite/ Gas) for Working Cap	in Months	1	1
11	Secondary Fuel for Working Capital	in Months	1/2	1/2
12	O&M Expenses	Rs Lakh/ MW	NA	NA
13	Maintenance Spares for Working Capital	Rs Crore	30.00%	30.00%
14	Receivables for Working Capital	in Months	2	2
15	Base Rate of SBI as on 01.04.2016	%	13.50%	13.50%

Petitioner



Generation Details and Variable Cost Form No. F4

	Particulars	Unit	2016-17 Actual	2018-19 Estimated
1	Installed Capacity	MW	270.00	270.00
2	Plant Load Factor	%	29.41%	60.00%
3	Gross Generation	MU	695.577	1892.16
4	Auxiliary Consumption	%	3.34%	2.50%
5	Auxiliary Consumption	MU	23.25	47.304
6	Net Generation	MU	672.33	1844.856
7	Station Heat Rate-CC	kCal/ kWh	2483.00	2450
8	Station Heat Rate-OC	kCal/ kWh	3443.00	3125
	Primary Fuel Consumption (Coal/ Lignite)			
9	GCV of Coal/ Lignite	kCal/ kg		
10	Quantity of Coal/ Lignite (Fired)	MT		
11	Specific Coal Consumption (Fired)	kg/ kWh		
12	Transit Loss	MT		
13	Transit Loss	%		
14	Gross Quantity of Coal (Purchased)	MT		
15	Rate of Coal/ Lignite	Rs/ Ton		
16	Cost of Coal/ Lignite	Rs Lakhs		
	Primary Fuel Consumption (Gas)			
17	GCV of Gas/ LNG/ Liquid Fuel	kCal/ SCM	9430	9430
18	Quantity of Gas/ LNG/ Liquid Fuel	MMSCM	162.20	491.60
19	Specific Fuel Consumption	SCM/ kWh	0.26	0.26
20	Rate of Gas/ LNG/ Liquid Fuel	Rs/ SCM	11.455	14.342
21	Cost of Gas/ LNG/ Liquid Fuel	Rs Crores	208.71	705.05
	Primary Fuel Consumption (Liquid)			
22	GCV of HSD (Liquid Fuel)	kCal/ kL	8946	8946
23	Quantity of HSD (Liquid Fuel)	kL	135.00	135.00
24	Rate of Secondary Fuel Oil	Rs/ kL	47895.00	47895.00
25	Cost of Secondary Fuel Oil	Rs Crores	0.65	0.65
	Primary Fuel Cost (Coal/ Lignite)	Rs Crores		
	Primary Fuel Cost (Gas & Liquid Fuel)	Rs Crores	208.36	705.70
	Primary Fuel Cost Gas only	Rs Crores	208.71	705.05
	Secondary Fuel Cost	Rs Crores	0.65	0.65
C	Variable Charges (Energy Charges)			
	Energy Charges from Primary Fuel (Coal/ Lignite)	Rs/ kWh	NA	NA
	Energy Charges from Primary Fuel (Gas/ LNG/ Liquid)	Rs/ kWh	3.104	3.822
	Energy Charges from Primary Fuel (Gas)-CC	Rs/ kWh	3.093	3.82
	Energy Charges from Primary Fuel (Gas)-OC	Rs/ kWh	4.221	4.78
Remarks	From FY 2016-17 to FY 2020-21, two modules on Gas and one module on Liquid Fuel for computation of working capital			

Petitioner

Name of Company	INFRACASTRA POWER GENERATION COMPANY LIMITED
Name of Plant/ Station	(Gen. Supply) Power Station

Abstract of admitted Capital Cost for the existing Project	Form No: F5
---	--------------------

	Particulars	Unit	Details
1	Capital Cost as admitted by DERC	Rs Crores	425.14
2	Capital cost admitted as on		01.04.2016
3	Foreign Component, if any (In Million US \$ or the relevant Currency)		0
4	Domestic Component	Rs Crores	425.14
5	Foreign Exchange rate considered for the admitted Capital cost		0
6	Hedging cost, if any, considered for the admitted Capital cost		0
7	Total Capital cost admitted	Rs Crores	425.14

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Petitioner

Details of Foreign Loans Form No: F6

Details only in respect of loans applicable to the project under petition												
Particulars	Date	Year 1			Date	Year 2			Date	Year 3 and so on		
		Amount (Foreign Currency)	Exchange Rate	Amount (Rs)		Amount (Foreign Currency)	Exchange Rate	Amount (Rs)		Amount (Foreign Currency)	Exchange Rate	Amount (Rs)
Currency ¹												
Date of loan draw ²												
Scheduled Principal Repayment												
Scheduled Interest payment												
Closing at the end of financial year												
In case of Hedging ³												
At the date of Hedging												
Period of hedging												
Cost of hedging												
Currency ²												
Date of loan draw ²												
Scheduled Principal Repayment												
Scheduled Interest payment												
Closing at the end of financial year												
In case of Hedging ³												
At the date of Hedging												
Period of hedging												
Cost of hedging												
Currency ³												
Date of loan draw ²												
Scheduled Principal Repayment												
Scheduled Interest payment												
Closing at the end of financial year												
In case of Hedging ³												
At the date of Hedging												
Period of hedging												
Cost of hedging												

Not Applicable

¹ Name of the currency to be mentioned e.g. US \$, DM, etc.

² In case of more than one drawl during the year, Exchange rate at the date of each drawl to be provided.

³ Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging to be provided.

[Signature]

Petitioner

Details of Foreign Equity												Form No: F7
Details only in respect of loans applicable to the project under petition												
Particulars	Date	Year 1			Year 2			Year 3 and so on				
		Amount (Foreign Currency)	Exchange Rate	Amount (Rs)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs)
Currency ¹												
1 Date of Infusion												
2												
3												
4												
Currency ²												
1 Date of Infusion												
2												
3												
4												
Currency ³												
1 Date of Infusion												
2												
3												
4												

Not Applicable

¹ Name of the currency to be mentioned e.g. US \$, DM, etc.

² In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be provided

[Signature]

Petitioner

Name of Company:
Name of Unit/ Station:

INDRA BHASINI POWER GENERATION COMPANY LIMITED
Gujarat Power Station

Capital Cost Estimates and Schedule of Commissioning for New projects

Form No: F8

Board of Director/ Agency approving the Capital cost estimates:			
Date of approval of the Capital cost estimates:			
Price level of approved estimates	Present Day Cost	Completed Cost	
	As of End of Qtr. Of the year	As on Scheduled COD of the Station	
Foreign Exchange rate considered for the Capital cost estimates			
Capital Cost excluding IDC & FC			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs. Crores)			
Capital cost excluding IDC & FC (Rs. Crores)			
IDC & FC			
Foreign Component, if any (In Million US \$ or the relevant Currency)		Not Applicable	
Domestic Component (Rs. Crores)			
Total IDC & FC (Rs. Crores)			
Rate of taxes & duties considered			
Capital cost Including IDC & FC			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs. Crores)			
Capital cost Including IDC & FC (Rs. Crores)			
Schedule of Commissioning			
COD of Unit-I/ Block-I			
COD of Unit-II/ Block-II			
COD of last Unit/ Block			

Note:

1. Copy of approval letter should be enclosed.
2. Details of Capital cost are to be furnished as per Form 9 or Form 10 as applicable.
3. Details of IDC & Financing Charges are to be furnished as per Form 12

At Limb
Petitioner

No	Break Down	As per original estimate	Rs. Crores			
			Actual capital expenditure as on COD	Liabilities/ provisions	Variation (B-C-D)	Reasons for Variation
	A	B	C	D	E	F
1	Cost of Land & Site Development					
1.1	Land					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site development					
	Total Land & Site Development					
2	Plant & Equipment					
2.1	Steam Generator Island					
2.2	Turbine Generator Island					
2.3	BOP Mechanical					
2.3.1	External water supply system					
2.3.2	CW system					
2.3.3	DM water Plant					
2.3.4	Clarification plant					
2.3.5	Chlorination Plant					
2.3.6	Fuel Handling & Storage system					
2.3.7	Ash Handling System					
2.3.8	Coal Handling Plant					
2.3.9	Rolling Stock and Locomotives					
2.3.10	MGR					
2.3.11	Air Compressor System					
2.3.12	Air Condition & Ventilation System					
2.3.13	Fire fighting System					
2.3.14	HP/LP Piping					
	Total BOP Mechanical					
2.4	BOP Electrical					
2.4.1	Switch Yard Package					
2.4.2	Transformers Package					
2.4.3	Switchgear Package					
2.4.4	Cables, Cable facilities & grounding					
2.4.5	Lighting					
2.4.6	Emergency D.G. set					
	Total BOP Electrical					
2.5	C & I Package					
	Total Plant & Equipment excl taxes & duties					
2.6	Taxes and Duties					
2.6.1	Custom Duty					
2.6.2	Other Taxes & Duties					
	Total Taxes & Duties					
	Total Plant & Equipment					
3	Initial spares					
4	Civil Works					
4.1	Main plant/Adm. Building					
4.2	CW system					
4.3	Cooling Towers					
4.4	DM water Plant					
4.5	Clarification plant					
4.6	chlorination plant					
4.7	Fuel Handling & Storage system					
4.8	Coal Handling Plant					
4.9	MGR & Marshalling Yard					
4.10	Ash Handling System					
4.11	Ash disposal area development					
4.12	Fire fighting System					
4.13	Township & Colony					
4.14	Temp. construction & enabling works					
4.15	Road & Drainage					
	Total Civil works					
5	Construction & Pre-Commissioning Expenses					
5.1	Erection Testing and commissioning					
5.2	Site supervision					
5.3	Operator's Training					
5.4	Construction Insurance					
5.5	Tools & Plant					
5.6	Start up fuel					
	Total Construction & Pre-Commissioning Expenses					
6	Overheads					
6.1	Establishment					
6.2	Design & Engineering					
6.3	Audit & Accounts					
6.4	Contingency					
	Total Overheads					
7	Capital cost excluding IDC & FC					
8	IDC, FC, FERV & Hedging Cost					
8.1	Interest During Construction (IDC)					
8.2	Financing Charges (FC)					
8.3	Foreign Exchange Rate Variation (FERV)					
8.4	Hedging Cost					
	Total of IDC, FC, FERV & Hedging Cost					
9	Capital cost including IDC, FC, FERV & Hedging Cost					

Not Applicable

Not Applicable

Note:

1. In case of time & Cost over run, a detailed note giving reasons of such time and cost over run should be submitted clearly bring out the agency responsible and whether such time & cost over run was beyond the control of the generating company.

Petitioner: 

Name of Company:

INDIA RASHTRA POWER GENERATION COMPANY LIMITED

Name of Plant/Station:

CH. K. J. (CH. K. J. STATION)

Break Up of Capital Cost for Gas/Liquid Fuel Based Projects

Form No: F10

Rs. Crores

No	Break Down	As per original estimates	Actual capital expenditure as on COD	Liabilities/provisions	Variation (B-C-D)	Reasons for Variation
	A	B	C	D	E	F
1	Cost of Land & Site Development					
1.1	Land					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site development					
	Total Land & Site Development					
2	Plant & Equipment					
2.1	Steam Turbine generator Island					
2.2	Turbine Generator Island					
2.3	WHRB Island					
2.4	BOP Mechanical					
2.4.1	Fuel Handling & Storage system					
2.4.2	External water supply system					
2.4.3	CW system					
2.4.4	Cooling Towers					
2.4.5	DM water Plant					
2.4.6	Clarification plant					
2.4.7	Chlorination Plant					
2.4.8	Air condition & Ventilation System					
2.4.9	Fire Fighting system					
2.4.10	HP/LP Piping					
	Total BOP Mechanical					
2.5	BOP Electrical					
2.5.1	Switch Yard Package					
2.5.2	Transformers Package					
2.5.3	Switchgear Package					
2.5.4	Cables, Cable facilities & grounding					
2.5.5	Lighting					
2.5.6	Emergency D.G. set					
	Total BOP Electrical					
2.6	C & I Package					
	Total Plant & Equipment excl taxes & duties					
2.7	Taxes and Duties					
2.7.1	Custom Duty					
2.7.2	Other Taxes & Duties					
	Total Taxes & Duties					
	Total Plant & Equipment					
3	Initial spares					
4	Civil Works					
4.1	Main plant/Adm. Building					
4.2	External water supply system					
4.3	CW system					
4.4	Cooling Towers					
4.5	DM water Plant					
4.6	Clarification plant					
4.7	Fuel Handling & Storage system					
4.8	Township & Colony					
4.9	Temp. construction & enabling works					
4.10	Road & Drainage					
4.11	Fire Fighting system					
	Total Civil works					

Not Applicable

5	Construction & Pre- Commissioning Expenses
5.1	Erection Testing and commissioning
5.2	Site supervision
5.3	Operator's Training
5.4	Construction Insurance
5.5	Tools & Plant
5.6	Start up fuel
	Total Construction & Pre- Commissioning Expenses
6	Overheads
6.1	Establishment
6.2	Design & Engineering
6.3	Audit & Accounts
6.4	Contingency
	Total Overheads
7	Capital cost excluding IDC & FC
8	IDC, FC, FERV & Hedging Cost
8.1	Interest During Construction (IDC)
8.2	Financing Charges (FC)
8.3	Foreign Exchange Rate Variation (FERV)
8.4	Hedging Cost
	Total of IDC, FC, FERV & Hedging Cost
8	Capital cost including IDC, FC, FERV & Hedging Cost

Not Applicable

Note:

1. In case of time & Cost over run, a detailed note giving reasons of such time and cost over run should be submitted clearly bring out the agency responsible and whether such time & cost over run was beyond the control of the generating company.

Petitioner

[Handwritten Signature]

Name of Company:
Name of Plant / Station

INDIAN RAILWAYS POWER GENERATION COMPANY LIMITED
G.T. COALFIELD POWER STATION

Break-up of Construction/ Supply/ Service packages

Form No: F11

	Particulars	1	2	3	4	5	6
1	Name/ No. of Construction / Supply / Service Package	Not Applicable						
2	Scope of works ¹ (in line with head of cost break-ups as applicable)							
3	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work							
4	No. of bids received							
5	Date of Award							
6	Date of Start of work							
7	Date of Completion of Work							
8	Value of Award ² in (Rs. Lakh)							
9	Firm or With Escalation in prices							
10	Actual capital expenditure till the completion or up to COD whichever is earlier (Rs. Cr.)							
11	Taxes & Duties and IEDC							
12	IDC & FC							
13	Sub -total (9+10+11)							

1 The scope of work in any package should be indicated in conformity of Capital cost break-up for the coal/lignite based plants in the Form 9 to the extent possible. In case of Gas/Liquid fuel based projects, break down in the similar manner in the relevant heads as per Form 10.

2 If there is any package, which need to be shown in Indian Rupee and foreign currency(ies), the same should be shown separately alongwith the currency, the exchange rate and the date e.g. Rs. 8000 Lakh + US\$50 mn = Rs.32000 Lakh at US\$ = Rs 48 as on say 1 April 2011

Petitioner

mt/lines

Name of Company
Name of Plant/ Station

INDRAPRASTHA POWER GENERATION COMPANY LIMITED
(a) Combined Power Station

Draw Down Schedule for Calculation of IDC & Financing Charges

Form No: F12

Rs. Crores

No	Draw Down Particulars	Quarter 1			Quarter 2			Quarter n (COD)		
		Quantum In Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee	Quantum in Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee	Quantum In Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan 1									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.2	Foreign Loan 2									
	Draw down Amount									
	IDC									
	Financing charges									
1.1.3	--									
	--									
	--									
	Total Foreign Loans									
	Draw down Amount	0	0	0	0	0	0	0	0	0
	IDC	0	0	0	0	0	0	0	0	0
	Financing charges	0	0	0	0	0	0	0	0	0
1.2	Indian Loans									
1.2.1	Indian Loan 1									
	Draw down Amount									
	IDC									
	Financing charges									
1.2.2	Indian Loan 2									
	Draw down Amount									
	IDC									
	Financing charges									
1.2.3	--									
	--									
	--									
	Total Indian Loans									
	Draw down Amount	0	0	0	0	0	0	0	0	0
	IDC	0	0	0	0	0	0	0	0	0
	Financing charges	0	0	0	0	0	0	0	0	0
	Total of Loans drawn	0	0	0	0	0	0	0	0	0
	IDC	0	0	0	0	0	0	0	0	0
	Financing charges	0	0	0	0	0	0	0	0	0
2	Equity									
2.1	Foreign equity drawn									
2.2	Indian equity drawn									
	Total equity deployed	0	0	0	0	0	0	0	0	0

Note: Drawal of debt and equity shall be on paripassu basis to meet the commissioning schedule. Drawal of higher equity in the beginning is permissible.

Petitioner

Name of Company: **INDRAPRASTHA POWER GENERATION COMPANY LIMITED**
 Name of Plant/ Station: **(GEP) Nubbia Power Station**

Financial Package Upto CoD **Form No: F13**

Project Cost as on COD¹

Date of Commercial Operation of the Station²

	Financial Package as Approved		Financial Package as on COD		As Admitted on COD	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans						
Loan-I	NA	NA	NA	NA	NA	NA
Loan-II	NA	NA	NA	NA	NA	NA
Loan-III	NA	NA	NA	NA	NA	NA
and so on	NA	NA	NA	NA	NA	NA
Total Loan		0		0		0
Equity						
Foreign	NA	NA	NA	NA	NA	NA
Domestic	NA	NA	NA	NA	NA	NA
Total Equity		0		0		0
Debt : Equity Ratio	NA	NA	NA	NA	NA	NA

¹ Say US \$ 200m + Rs.400 Cr or Rs.1360 Cr incl US \$200m at an exchange rate of 1US \$=Rs.48/-

² Date of Commercial Operation means Commercial Operation of the last unit

TT/14/15
 Petitioner

Name of Company	INDIA RASHI HYDROPOWER GENERATION COMPANY LIMITED
Name of Plant/ Station	CHS Turbine Power Station

Details of Project Specific Loans Form No: F14

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
Source of Loan ¹	No new Project undertaken					
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2011/ COD ^{3,4,5,13,15}						
Interest Type ⁶						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Are there any Caps/Floor ⁹	NA	NA	NA	NA	NA	NA
If above is yes, specify caps/floor	NA	NA	NA	NA	NA	NA
Moratorium Period ¹⁰	NA	NA	NA	NA	NA	NA
Moratorium effective from	NA	NA	NA	NA	NA	NA
Repayment Period ¹¹	NA	NA	NA	NA	NA	NA
Repayment effective from	NA	NA	NA	NA	NA	NA
Repayment Frequency ¹²	NA	NA	NA	NA	NA	NA
Repayment Instalment ^{13,14}	NA	NA	NA	NA	NA	NA
Base Exchange Rate ¹⁶	NA	NA	NA	NA	NA	NA
Are foreign currency loan hedged?	NA	NA	NA	NA	NA	NA
If above is yes, specify details ^{17, 18, 19}	NA	NA	NA	NA	NA	NA

¹ Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

² Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.

³ Details are to be submitted as on 31.03.2011 for existing assets and as on COD for the remaining assets.

⁴ Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.

⁵ If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately for all the units in

⁶ Interest type means whether the interest is fixed or floating.

⁷ Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

⁸ Margin means the points over and above the floating rate.

⁹ At times caps/ floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

¹⁰ Moratorium period refers to the period during which loan servicing liability is not required.

¹¹ Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

¹² Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly,

¹³ Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment may also be given

¹⁴ If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment

¹⁵ In case of Foreign loan, date of each drawal & repayment alongwith exchange rate at that date may be given.

¹⁶ Base exchange rate means the exchange rate prevailing as on 31.03.2011 for existing assets and as on COD for the remaining

¹⁷ In case of hedging, specify details like type of hedging, period of hedging, cost of heging, etc.

¹⁸ At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.

¹⁹ At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing


Petitioner

Name of Company:
Name of Plant/ Station:

INDIA RASHTRIYA POWER GENERATION COMPANY LIMITED
GGS Indira Power Station

Details of Allocation of corporate loans to various projects

Form No: F16

Particulars	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6
Source of Loan ¹	NA	NA	NA	NA	NA	NA
Currency ²	NA	NA	NA	NA	NA	NA
Amount of Loan sanctioned	NA	NA	NA	NA	NA	NA
Amount of Gross Loan drawn upto 31.03.2011/ COD ^{3,4,5,13,15}	NA	NA	NA	NA	NA	NA
Interest Type ⁶	NA	NA	NA	NA	NA	NA
Fixed Interest Rate, if applicable	NA	NA	NA	NA	NA	NA
Base Rate, if Floating Interest ⁷	NA	NA	NA	NA	NA	NA
Margin, if Floating Interest ⁸	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No
Are there any Caps/Floor ⁹	NA	NA	NA	NA	NA	NA
If above is yes, specify caps/floor	NA	NA	NA	NA	NA	NA
Moratorium Period ¹⁰	NA	NA	NA	NA	NA	NA
Moratorium effective from	NA	NA	NA	NA	NA	NA
Repayment Period ¹¹	NA	NA	NA	NA	NA	NA
Repayment effective from	NA	NA	NA	NA	NA	NA
Repayment Frequency ¹²	NA	NA	NA	NA	NA	NA
Repayment Instalment ^{13,14}	NA	NA	NA	NA	NA	NA
Base Exchange Rate ¹⁶	NA	NA	NA	NA	NA	NA
Are foreign currency loan hedged?	NA	NA	NA	NA	NA	NA
If above is yes, specify details ^{17, 18, 19}	NA	NA	NA	NA	NA	NA

Distribution of loan packages to various projects

Name of the Projects						Total
Project 1	NA	NA	NA	NA	NA	NA
Project 2	NA	NA	NA	NA	NA	NA
Project 3 and so on	NA	NA	NA	NA	NA	NA

¹ Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.

² Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.

³ Details are to be submitted as on 31.03.2011 for existing assets and as on COD for the remaining assets.

⁴ Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.

⁵ If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately for all the units in

⁶ Interest type means whether the interest is fixed or floating.

⁷ Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.

⁸ Margin means the points over and above the floating rate.

⁹ At times caps/ floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.

¹⁰ Moratorium period refers to the period during which loan servicing liability is not required.

¹¹ Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.

¹² Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly.

¹³ Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment may also be given

¹⁴ If the repayment instalment amount and repayment date can not be worked out from the data furnished above, the repayment

¹⁵ In case of Foreign loan, date of each drawal & repayment alongwith exchange rate at that date may be given.

¹⁶ Base exchange rate means the exchange rate prevailing as on 31.03.2011 for existing assets and as on COD for the remaining

¹⁷ In case of hedging, specify details like type of hedging, period of hedging, cost of heding, etc.

¹⁸ At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.

¹⁹ At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

Petitioner

Name of Company: **INTEGRATED POWER GENERATION COMPANY LIMITED**
 Name of Plant/ Station: **GER Turbine Power Station**

Statement of Additional Capitalisation after COD **Form No: F16**

Rs. Crores

No	Head of Work/ Equipment	Actual/ Projected additional capital expenditure claimed					Regulations under which claimed	Justification
						2016-17		
1	Diesel Elec & gas Plant						5.6, 5.7, 5.8 & 5.9 of DERC regulation 2011.	As per approval of DERC
2	EDP, WP machines							
3	Furniture and fixture							
4	Other Office Equipment							
5	P/M-Any Other Asset							
6	P/M-Capital Spares							
7	Safety & Secu Equipment							
8	STG & WHRU							
9	Vehicles							
10	Head quarter Share							
11	Communication equipment							
12	others							
13	Temporary Erection							
	Total					12.81	0.00	

Note:

1 Fill the form in chronological order year wise along with detailed justification clearly bring out the necessity and the benefits accruing to the

At 1/1/14
 Petitioner

Name of Company:	INDRA PRASADHA POWER GENERATION COMPANY LIMITED
Name of Plant/ Station	CHP Turbine Power Station

Financing of Additional Capitalisation

Financial Year (Starting from COD)	Actual
	2016-17
Amount capitalised in Work/ Equipment	
Financing Details	
Loan-1	NA
Loan-2	NA
Loan-3 and so on	NA
Total Loan ²	NA
Equity	NA
Internal Resources	11.35
Others	NA
Total	

¹ Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.

² Loan details for meeting the additional capitalisation requirement should be given as per Form 14 and Form 15

pt/m/14

Name of Company:	INDIA RASHTRA POWER CORPORATION LIMITED
Name of Plant/ Station:	CHD Double Power Station

Statement of Capital Cost		F18
		Rs. Crores
	Particulars	31.03.2017
A	a	Opening Gross Block Amount as per books
	b	Amount of capital liabilities in A(a) above
	c	Amount of IDC, FC, FERV & Hedging cost included in A(a) above
	d	Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a)
B	a	Addition Gross Block Amount as per books
	b	Amount of capital liabilities in B(a) above
	c	Amount of IDC, FC, FERV & Hedging cost included in B(a) above
	d	Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a)
B	a	Closing Gross Block Amount as per books
	b	Amount of capital liabilities in C(a) above
	c	Amount of IDC, FC, FERV & Hedging cost included in C(a) above
	d	Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a)

¹ Relevant date/s means date of COD of unit/s, station and financial year start date and end date

[Signature]
Petitioner

Statement of Capital Works in Progress Form No: F19
 Rs. Crores

		Particulars	As on relevant date ¹
A	a	Opening CWIP Amount as per books	NA
	b	Amount of capital liabilities in above	NA
	c	Amount of IDC, FC, FERV & Hedging cost included in a above	NA
B	a	Addition/Adjustment in CWIP Amount during the period	NA
	b	Amount of capital liabilities in above	NA
	c	Amount of IDC, FC, FERV & Hedging cost included in a above	NA
C	a	Capitalization/Transfer to Fixed asset of CWIP Amount during the period	NA
	b	Amount of capital liabilities in above	NA
	c	Amount of IDC, FC, FERV & Hedging cost included in a above	NA
D	a	Closing CWIP Amount as per books	NA
	b	Amount of capital liabilities in above	NA
	c	Amount of IDC, FC, FERV & Hedging cost included in a above	NA

¹ Relevant date/s means date of COD of unit/s, station and financial year start date and end date

[Signature]
 Petitioner

Name of Company	INDRAJEVACHYA POWER GENERATION COMPANY LIMITED
Name of Plant/ Station	Gas turbine Power Station

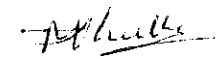
R&M Expenses		F20
		Rs in Crore
	Particulars	2016-17
		Actual
1	Plant and Machinery	9.63
2	Special Repair PM	
3	Building	0.62
4	Civil Works-HQ share	-
5	Special Repair - Civil	-
6	Hydraulic Works	-
7	Lines, Cables Net Works etc.	-
8	Vehicles	-
9	Furniture and Fixtures	-
10	Office Equipments	-
11	Station Supplies	-
12	Other R&M Charges	1.11
	Total	11.36
13	Any other items (Capitalisation)	
	Total	11.36

M. K. Kulkarni
Petitioner

Name of Company
Name of Plant/ Station

INDIA RASHTRA POWER & TRANSMISSION CO. LTD.
Gurgaon Power Station

Employee Expenses		F21	Rs In Crore
	Particulars	2016-17	
		Actual	
1	Salaries	31.12	
2	Additional Pay	inculded in above	
3	Dearness Allowance (DA)		
4	Other Allowances & Relief		
5	Addl. Pay & C. Off Encashment		
6	Interim Relief / Wage Revision		
7	Honorarium/Overtime		
8	Bonus/ Exgratia To Employees		
9	Medical Expenses Reimbursement		
10	Travelling Allowance(Conveyance Allowance)		
11	Leave Travel Assistance		
12	Earned Leave Encashment		
13	Payment Under Workman's Compensation And Gratuity		
14	Subsidised Electricity To Employees		
15	Any Other Item		
16	Staff Welfare Expenses		
17	Apprentice And Other Training Expenses		
18	Contribution To Terminal Benefits		
19	Provident Fund Contribution		
20	Provision for PF Fund		
21	Any Other Items		
	Total Employee Costs	31.12	
22	Less: Employee expenses capitalised		
	Net Employee expenses (D)-(E)	31.12	


Petitioner

Name of Company/
Name of Plant/ Station

INFRA-RASHI POWER GENERATION COMPANY LIMITED
(GPT) Bimane Power Station

Administration & General Expenses

F22

Rs in Crore

	Particulars	2016-17 Actual
1	Lease/ Rent	
2	Insurance	3.45
3	Revenue Stamp Expenses Account	
4	Telephone, Postage, Telegram & Telex Charges	
5	Incentive & Award To Employees/Outsiders	
6	Consultancy Charges	
7	Technical Fees	
8	Other Professional Charges	
9	Conveyance And Travelling	
10	License and Registration Fees	
11	Vehicle Expenses	
12	Security / Service Charges Paid To Outside Agencies	9.61
13	Fee And Subscriptions Books And Periodicals	
14	Printing And Stationery	
15	Advertisement Expenses	
16	Contributions/Donations To Outside Institutes / Associations	
17	Electricity Charges To Offices	
18	Water Charges	
19	Entertainment Charges	
20	Miscellaneous Expenses	1.03
21	Legal Charges	
22	Auditor's Fee	
23	Freight On Capital Equipments	
24	Purchase Related Advertisement Expenses	
25	Vehicle Running Expenses Truck / Delivery Van	
26	Vehicle Hiring Expenses Truck / Delivery Van	
27	Other Freight	
28	Transit Insurance	
29	Octroi	
30	Incidental Stores Expenses	
	ERP Expenses	
31	Fabrication Charges	
	Total A&G Expenses	14.09
	Less: A&G Expenses Capitalised	
	Total A&G Expenses	14.09

At/initials
Petitioner

NAME OF COMPANY: INDRAPRASTHA POWER GENERATION COMPANY LIMITED
NAME OF ASSET: 660 MW DURGAPUR SSION

Form No: F23

Fixed Assets and Depreciation

S No	Name of Asset	Depreciation rate ¹	Rs in Crore					Rs in Crore					Rs in Crore					
			2016-17					2017-18					2018-19					
			Actual					Estimated					Estimated					
			Opening	Addition	Adjustment & Deduction	Depreciation	Closing	Opening	Addition	Adjustment & Deduction	Depreciation	Closing	Opening	Addition	Adjustment & Deduction	Depreciation	Closing	
1	Plant & Machinery	5.28%		12.81	-1.46			436.49	0.00	0.00					0.00	0.00		
2	Main plant Building	3.34%																
3	Other Building	3.34%																
4	Self Propelled vehical	5.28%																
5	Office furniture	9.50%																
6	Communication Equipment	4.99%																
7	Office equipments	6.33%																
8	Computers	18.13%																
9	Softwares	15.00%																
10	HQ shares	33.33%																
11	Others	6.33%																
	Total		425.14	12.81	-1.46	10.95	436.49	436.49	0.00	0.00	10.95	436.49	436.49	0.00	0.00	14.35	436.49	

¹ Depreciation rates as per

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Petitioner

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Loan Details	Loan Tenure (yrs)	2016-17 Actual					2017-18 Estimated					2018-19 Estimated					Rs. Crores
		Rate of Interest	Opening Balance	Amount received	Principal repayment	Interest Due	Closing Balance	Rate of Interest	Opening Balance	Amount received	Principal repayment	Interest Due	Closing Balance	Rate of Interest	Opening Balance	Amount received	
A Secured Loans																	
Loan 1		13.00%	39.53		0.00	5.14	39.53	13.00%	39.53		0.00	5.14	39.53	13.00%	39.53		39.53
Loan 2(12-13)		13.00%	14.55		1.54	1.79	13.01	13.00%	13.01		1.54	1.54	11.47	13.00%	11.47		9.931
Loan 3(14-15)		13.00%	4.94		1.23	0.561	3.702	13.00%	3.70		1.23	0.401	2.468	13.00%	2.47		1.234
Loan 4(15-16)		13.00%	1.27		0.25	0.148	1.014	13.00%	1.01		0.00	0.132	1.014	13.00%	1.01		1.014
Loan 5(16-17)		13.00%		8.97	0.00	0.563	8.967	13.00%	8.97		2.24	1.020	6.725	13.00%	6.73		4.494
Sub-total			60.28	0.00	3.03	8.22	66.22		66.22	0.00	5.02	8.28	61.21		61.21	0.00	56.19
B Unsecured Loans																	
Loan 1		13.00%	10.15		0.00	1.32	10.15	13.00%	10.15		0.00	1.32	10.15	13.00%	10.15		10.15
Loan 2		11.50%	57.62		0.00	6.63	57.62	11.50%	57.62		0.00	6.63	57.62	11.50%	57.62		57.62
Sub-total			67.77	0.00	0.00	7.95	67.77		67.77	0.00	0.00	7.95	67.77		67.77	0.00	67.77
C Other Interest & Finance Charges																	
Cost of raising Finance / Bank Charges			0						0						0		
Interest on Security Deposits/Loans			0						0						0		
Penal interest Charges			0						0						0		
Lease Rentals			-0						0						0		
Sub-total			0	0	0	0	0		0	0	0	0	0		0	0	0
D Grand Total Of Interest & Finance Charges (A + B + C)																	
E Less: Interest & Finance Charges Capitalised			128.05	0.00	3.03	16.17	133.99		133.99	0.00	5.02	16.23	128.98		128.98	0.00	123.96
Net Total Of Interest & Finance Charges (D - E)		0.00	128.05	0.00	3.03	16.17	133.99	0.00	133.99	0.00	5.02	16.23	128.98	0.00	128.98	0.00	123.96

Net Total

Petitioner

Name of Company:

INDRAPRASTHA INDRA PRASTHA POWER GENERATION COMPANY LIMITED

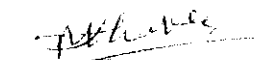
Name of Plant/ Station:

GEB 1000 MW Power Station

Return on Equity

F25

	Loan Details	Unit	2016-17	2017-18	2018-19
			Actual	Estimated	Estimated
1	Equity (Opening Balance)	Rs Crores	118.88	122.29	122.29
2	Net additions during the year	Rs Crores	3.41	0.00	0.00
3	Equity (Closing Balance)	Rs Crores	122.29	122.29	122.29
4	Average Equity	Rs Crores	120.58	122.29	122.29
5	Rate of Return on Equity	%	17.80%	17.80%	17.80%
6	Rate of Return on Equity	Rs Crores	21.46	21.76	21.76

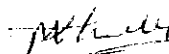


Petitioner

Name of Company	INDIA RASHTRA POWER GENERATION COMPANY LIMITED
Name of Plant/ Station	Gas Turbine Power Station

Working Capital Requirements	F26
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	Loan Details	Unit	FY 2016-17	FY 2018-19
			Normative	Normative
	For Coal Based Generating Stations			
1	Cost of Coal for 2 months	Rs Crores		
2	Cost of Secondary Fuel Oil for 2 months	Rs Crores		
3	Maintenance Spares @ 20% of O&M	Rs Crores		
4	O&M expenses for 1 month	Rs Crores		
5	Receivables equivalent to 2 months of capacity and energy charge	Rs Crores		
	Total Working Capital	Rs Crores		
	Rate of Interest	%		
	Interest on Working Capital	Rs Crores		
	For Open-cycle Gas Turbine/ Combined Cycle thermal generating stations			
1	Fuel expenses for 1 month	Rs Crores	58.12	58.75
2	Liquid fuel stock for ½ month	Rs Crores	30.52	30.52
3	Maintenance spares @ 30% of O&M	Rs Crores	34.02	25.37
4	O&M expenses for 1 month	Rs Crores	9.45	7.047
5	Receivables equivalent to 2 months of capacity and energy charge	Rs Crores	149.57	146.97
	Total Working Capital	Rs Crores	281.68	268.66
	Rate of Interest	%	13.50%	13.50%
	Interest on Working Capital	Rs Crores	38.03	36.27


Petitioner

GAS Turbine Power Station					Gas
FY 2016-17					
Computation of Gas consumption on Gross Generation					
S.No.	Description	Unit	Combined cycle	Open cycle	
1	Net Generation	MU	672.34	0.99	672.34
2	Normative Aux. Consumption	%	3.34%	1%	3.34%
		MU	23.23	0.01	23.23
3	Gross generation	MU	695.577	1.0	695.577
4	Actual Heat rate	Kcal/Kwh	2463	3443	2463
5	Av. GCV of Gas	Kcal/SCM	9430	9430	9430
6	Gas Cons.on gross gen.	MMSCM	181.68	0.37	181.68
7	Average Landed cost of Gas(Sept to Nov.11)	Rs./000SCM	11445.00	11445.00	11445.00
8	Total Fuel Cost	Rs.Crores	207.93	0.42	207.93
9	Energy Charge Rate	Rs./kWh	3.09	4.22	3.09

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GAS Turbine Power Station					FY 2016-17 Gas(Normative)
Computation of Gas consumption on Gross Generation					
S.No.	Description	Unit	Combined cycle	Open cycle	
1	Net Generation	MU	1835.40	1873.24	1835.40
2	Normative Aux. Consumption	%	3.00%	1%	3.00%
		MU	56.76	18.92	56.76
3	Gross generation	MU	1892.2	1892.2	1892.2
4	Actual Heat rate	Kcal/Kwh	2450	3125	2450
5	Av. GCV of Gas	Kcal/SCM	9526	9526	9526
6	Gas Cons.on gross gen.	MMSCM	486.65	620.72	486.65
7	Average Landed cost of Gas(Sept to Nov.11)	Rs./000SCM	14332.00	14332.00	14332.00
8	Total Fuel Cost	Rs.Crores	697.46	889.62	697.46
9	Energy Charge Rate	Rs./kWh	3.80	4.75	3.80

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GAS Turbine Power Station					FY 2018-19 Gas(Normative)
Computation of Gas consumption on Gross Generation					
S.No.	Description	Unit	Combined cycle	Open cycle	
1	Net Generation	MU	1844.86	1882.70	1844.86
2	Normative Aux. Consumption	%	2.50%	0.50%	2.50%
		MU	47.30	9.46	47.30
3	Gross generation	MU	1892.2	1892.2	1892.2
4	Actual Heat rate	Kcal/Kwh	2450	3125	2450
5	Av. GCV of Gas	Kcal/SCM	9430	9430	9430
6	Gas Cons.on gross gen.	MMSCM	491.60	627.04	491.60
7	Average Landed cost of Gas(Sept to Nov.11)	Rs./000SCM	14342.00	14342.00	14342.00
8	Total Fuel Cost	Rs.Crores	705.05	899.30	705.05
9	Energy Charge Rate	Rs./kWh	3.82	4.78	3.82

At Indus

Gas Turbine Power Station													
	Unit	January, 2016			February, 2016			March, 2016			(Jan.-March'16)		
		1st Fortnight	2nd Fortnight	Total	1st Fortnight	2nd Fortnight	Total	1st Fortnight	2nd Fortnight	Total	1st Fortnight	2nd Fortnight	Total
APM	Quantity	140000	390000	530000	1205000	1120000	2325000	1780000	1780000	3560000	1780000	1780000	3560000
	Value	1561480	4385920	5947400	13546798	12632132	26178930	20236344	20236344	40472688	20236344	20236344	40472688
	GCV	9469	9547	9508	9462	9492	9476	9551	9551	19102	9551	9551	19102
	Average Rate	11153	11246	11222	11242	11279	11260	11498	11498	22996	11498	11498	22996
PMT	Quantity	758983	859955	1618938	846075	768781	1614856	791338	791338	1582676	791338	791338	1582676
	Value	11470648	13090544	24561192	12830811	11778609	24609420	11831721	11831721	23663442	11831721	11831721	23663442
	GCV	9514	9523	9519	9455	9491	9472	9549	9549	19094	9549	9549	19094
	Average Rate	15113	15222	15171	15165	15321	15239	14952	14952	29904	14952	14952	29904
RLNG	Quantity	1681542	1153301	2834843	86742	2252	88994	462228	462228	931250	462228	462228	926456
	Value	38633657	26687820	65321477	1848775	47857	1896632	9057822	9057822	18024154	9057822	9057822	18024154
	GCV	9534	9515	9526	9396	9307	9354	9537	9537	19074	9537	9537	19074
	Average Rate	22875	23149	23046	21313	21251	21312	19596	19596	39192	19596	19596	39192
Spot- RLNG	Quantity	0	0	0	0	0	0	0	0	0	0	0	0
	Value	0	0	0	0	0	0	0	0	0	0	0	0
	GCV	0	0	0	0	0	0	0	0	0	0	0	0
	Average Rate	0	0	0	0	0	0	0	0	0	0	0	0
Non APM	Quantity	1836203	1692969	3529172	1722817	1675270	3398087	860882	860882	1721769	860882	860882	1721769
	Value	23789552	21417984	45207536	21771261	21271086	43042347	11129111	11129111	22858252	11129111	11129111	22858252
	GCV	9512	9523	9517	9445	9490	9467	9551	9551	19102	9551	9551	19102
	Average Rate	12829	12644	12636	12637	12697	12667	12928	12928	25932	12928	12928	25932
Total	Quantity	4416728	4097225	8513953	3860634	3566303	7426937	3874448	3874448	7748896	3874448	3874448	7748896
	Value	74855337	65592248	140447585	49997645	45725684	95727329	52254988	52254988	104509876	52254988	52254988	104509876
	GCV	9519	9523	9521	9451	9481	9470	9549	9549	19094	9549	9549	19094
	Average Rate	16948	16009	16496	12951	12823	12889	13487	13487	27132	13487	13487	27132

7A1

GTPS

Month	Natural GAS			spot gas			RLNG			NAPM			PMT			Total		
	QTY in 000'SCM	Value	Rate per 000 SCM	QTY in 000'SCM	Value	Rate per 000 SCM	QTY in 000'SCM	Value	Rate per 000 SCM	QTY in 000'SCM	Value	Rate per 000 SCM	QTY in 000'SCM	Value	Rate per 000 SCM	total QTY in 000'SCM	total Value	Rate per 000 SCM
Apr-15	4925.417	4,591,165.00	9,322.29	0.000			68.511	12,347,520.00	18,022.68	846.54	90,74,667.00	10,719.70	1126.300	1,68,29,874.00	14,942.621	6966.769	7,30,55,459.00	10,486.28
May-15	8430.465	7,72,55,821.00	9,163.89	0.000			4531.234	8,41,45,725.00	18,570.16	2584.86	2,73,55,001.00	10,582.78	1544.936	2,31,29,758.00	14,971.337	17091.5	21,18,86,305.00	12,397.18
Jun-15	7467.575	6,96,65,225.00	9,328.03	0.000			10098.412	20,56,43,229.00	20,361.90	3779.34	4,06,89,371.00	10,766.26	1389.208	2,11,88,178.00	15,251.984	22735.54	33,71,86,003.00	14,830.79
Jul-15	8250	7,75,99,905.00	9,406.05	0.000			5079.031	10,96,43,945.00	21,587.57	4251.05	4,61,02,630.00	10,845.01	1504.634	2,29,12,758.00	15,228.127	#####	25,62,59,238.00	13,427.46
Aug-15	8391.454	7,87,63,188.00	9,386.12	0.000			468.348	1,03,15,117.00	22,024.57	3367.10	3,64,61,750.00	10,828.82	1250.442	1,89,84,930.00	15,192.495	#####	14,45,24,895.00	10,723.54
Sep-15	11019.381	10,31,02,074.00	9,356.43	0.000			9.731	2,13,766.00	21,967.53	2019.09	2,17,99,045.00	10,796.48	801.084	1,21,55,513.00	15,173.831	13849.29	13,72,70,388.00	9,911.73
Oct-15	8980.000	6,70,39,519.00	7,462.43	0.000			337.143	67,14,880.00	19,917.01	4842.67	4,26,88,120.00	9,814.99	1388.070	1,98,47,631.00	14,298.725	15547.89	13,62,90,150.00	8,765.83
Nov-15	8210	6,24,44,121.00	7,605.86	0.000			214.000	471,653.00	22,039.8832	5236.04	4,71,25,455.00	9,000.21	1553.625	23,183,519.00	14,922.210	15213.67	13,74,89,630.00	9,035.93
Dec-15	7750	6,50,80,589.00	8,397.50	0.000			1624.519	391,504.62	24,099.7255	5130.66	5,02,60,246.00	9,796.05	1072.506	17,55,8632.00	16,371.593	15577.89	17,20,49,929.00	11,044.64
Jan-16	6660	5,49,97,667	8,257.91	41.545	1,46,705.1	35,312,336.0	2058.983	505,954.28	24,574,475.8	3963.06	3,82,88,488.00	9,861.34	602.384	9,77,95,36.00	16,233.061	13325.97	15,51,30,190.00	11,641.19048
Feb-16	7560	6,41,27,860	8,482.52	0.000			393.332	776,727.2	19,747,368.6	4943.49	4,89,71,956.00	9,906.35	1121.549	1,63,70,853	16,379.893	14018.37	13,92,27,961.00	9932.53792
Mar-16	7875.327	6,60,58,798	8,386.07	0.000			2585.443	654,853.16	25,328,470.2	3579.35	3,50,30,277.00	9,786.78	1266.509	201,46,624	15,907.210	15306.63	1,66,72,1015.00	12198.70571
Grand Total	95519.619	832050972	8,710,786.1	41.55	1,46,705.1	35,311,401.1	27,469.685	56,56,29,427.00	21,319,116.9	44,543.251	44,38,47,006.00	9,964.41	14621.247	22,40,67,06	15326.1008	182195.3	2,08,70,81,162.00	11,455.2

Gas Turbine Power Station													
				September, 2017			October, 2017			November, 2017			(Sep.-Nov.'17)
				1st Fortnight	2nd Fortnight	Total	1st Fortnight	2nd Fortnight	Total	1st Fortnight	2nd Fortnight	Total	Total
APM	Quantity	SCM		1950000	2310000	4260000	2850000	3735441	6585441	3844500	3900000	7744500	18589941
	Value	Rs.		15815167	19008285	34823452	27087218	34513930	61601148	36001580	36614840	72616420	169041020
	GCV	kCal/SCM		9304	9439	9377	9590	9323	9439	9370	9394	9382	9401
	Average Rate	Rs./1000SCM		8110	8229	8175	9504	9240	9354	9364	9388	9377	9093
PMT	Quantity	SCM		767550	756871	1524421	745768	390934	1136592	820405	551866	1372261	4033274
	Value	Rs.		12029816	12244789	24274605	12153395	6224047	18377442	12009796	8743542	20753338	63405385
	GCV	kCal/SCM		9303	9430	9366	9598	9395	9522	9174	9393	9262.071048	9374.518863
	Average Rate	Rs./1000SCM		15673	16178	15924	16297	15925	16169	14639	15844	15123	15721
RLNG	Quantity	SCM		5697942	4704167	10402109	3379371	64170	3443541	76636	231028	307664	14153314
	Value	Rs.		133603164	113032166	246635330	85708791	1601114	87309905	1979687	5907912	7887599	341832834
	GCV	kCal/SCM		9364	9441	9399	9639	9508	9637	9385	9391	9390	9456
	Average Rate	Rs./1000SCM		23448	24028	23710	25362	24951	25355	25892	25572	25637	24152
Spot- RLNG	Quantity	SCM		0	0	0	115963	399216	515179	0	20293	20293	535472
	Value	Rs.		0	0	0	2991514	11695286	14686800	0	632417	632417	15319217
	GCV	kCal/SCM		0	0	0	9791	9673	9700	0	9401	9401	9688
	Average Rate	Rs./1000SCM		#DIV/0!	#DIV/0!	#DIV/0!	25797	29296	28508	#DIV/0!	31164	31164	28609
Non APM	Quantity	SCM		2387960	3150000	5537960	3397222	813890	4211112	1812766	2845521	4658287	14407359
	Value	Rs.		23324733	31067620	54392353	37741582	8988663	46730245	19854211	31176319	51030530	152153128
	GCV	kCal/SCM		9337	9427	9388	9594	9538	9583	9390	9394	9392	9447
	Average Rate	Rs./1000SCM		9768	9863	9822	11110	11044	11097	10952	10956	10955	10561
Total	Quantity	SCM		10803452	10921038	21724490	10488314	5403551	15891865	6554307	7548698	14103005	51719360
	Value	Rs.		184772890	175352860	360125740	165682500	63023040	228705540	69845274	83075030	152920304	741751584
	GCV	kCal/SCM		9343	9436	9390	9609	9389	9534	9351	9394	9374	9430
	Average Rate	Rs./1000SCM		17103	16056	16577	15797	11663	14391	10656	11005	10843	14342

O & M Expenditure					
Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
Employee Cost	39.32	42.49	45.91	49.59	
R & M	36.49	37.68	38.88	38.11	
A & G	16.70	18.03	19.47	21.03	
Total O & M	92.51	98.20	104.26	108.73	113.39
		1.061506864	1.061710794	1.042873585	

Whitely