

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 122 of 2011

IN THE MATTER OF

Petition filed by Reliance Infrastructure Limited's Generation Business' (RInfra-G) for approval of truing up for FY 2009-10 and Annual Performance Review for FY 2010-11

Shri V. P. Raja, Chairman

Shri Vijay L. Sonavane, Member

Reliance Infrastructure Limited

.....Petitioner

Dated: February 27, 2012

ORDER

In accordance with the Tariff Regulations notified by the Maharashtra Electricity Regulatory Commission (hereinafter referred as "MERC" or "the Commission"), Reliance Infrastructure Limited's generation business (RInfra-G), submitted its application for final truing up of FY 2009-10 and Annual Performance Review (APR) for FY 2010-11 on August 12, 2011. Thereafter, in response to the data gaps identified by the Commission, RInfra-G modified their petition and submitted an amended petition on November 4, 2011. The Commission, in exercise of the powers vested in it under Section 61 and Section 62 of the Electricity Act, 2003 (EA 2003) and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by RInfra-G, all the objections and comments of the public, responses of RInfra-G, issues raised during the Public Hearing, and all other relevant material, carried out the final truing up of FY 2009-10 and reviewed the Annual Performance for FY 2010-11 in this Order.

Abbreviations

A&G	Administrative and General
APR	Annual Performance Review
ARR	Annual Revenue Requirement
ATE	Appellate Tribunal for Electricity
Commission/ MERC	Maharashtra Electricity Regulatory Commission
CPI	Consumer Price Index
CWIP	Capital Work In Progress
DPR	Detailed Project Report
DTPS	Dahanu Thermal Power Station
EA 2003	Electricity Act, 2003
FAC	Fuel Adjustment Cost
FGD	Flue Gas Desulphurisation
GFA	Gross Fixed Assets
IDC	Interest During Construction
IT	Income Tax
kW	Kilo Watt
LDO	Light Diesel Oil
MAT	Minimum Alternate Tax
MT	Metric Tonne
MW	Mega Watt
MYT	Multi Year Tariff
OEM	Original Equipment Manufacturer
O&M	Operation & Maintenance
PLF	Plant Load Factor
PLR	Prime Lending Rate
R&M	Repair & Maintenance
REC	Rate of Energy Charge
REL	Reliance Energy Limited
RInfra	Reliance Infrastructure Limited
RoE	Return on Equity
SBI	State Bank of India
SHR	Station Heat Rate
SLDC	State Load Despatch Centre
TVS	Technical Validation Session
WPI	Wholesale Price Index

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1. BACKGROUND

1.1. Background and salient features of the Order

- 1.1.1. This Order disposes of the petition filed by Reliance Infrastructure Limited for its Generation business (RInfra-G) for final truing up of expenses and revenue for FY 2009-10 and Annual Performance Review (APR) for FY 2010-11. RInfra (formerly known as BSES Ltd and Reliance Energy Limited [REL]) is a vertically integrated utility carrying out the functions of Generation, Transmission, Wheeling and Retail Supply of electricity in the suburbs of Mumbai. RInfra has a generating plant at Dahanu, Maharashtra (Dahanu Thermal Power Station- DTPS) with an installed capacity of 2 x 250 MW for supply of power to the city of Mumbai in the RInfra Licence area.
- 1.1.2. The Commission, in exercise of the powers conferred by the EA 2003, notified the Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005, (hereinafter referred to as the 'Tariff Regulations, 2005') on August 26, 2005.
- 1.1.3. **Commission's Order on MYT petition of REL-G for FY 2007-08 to FY 2009-10:** REL submitted its ARR and Multi Year Tariff (MYT) petition for its generation business (Case No. 74 of 2006) for the first Control Period from FY 2007-08 to FY 2009-10, on January 22, 2007. The Commission issued the MYT Order for REL-G, on April 18, 2007, which came into effect from April 18, 2007. As the Annual Performance Review for FY 2007-08 and Tariff determination for FY 2008-09 were under process, various utilities filed petitions for continuation of Tariff for FY 2007-08 till the time of issuance of the respective Orders for each utility. Accordingly, the Commission in its Order dated April 1, 2008 in Case No. 102 of 2007 extended the applicability of the aforesaid Tariff Orders till revised tariffs are determined for FY 2008-09 under the APR framework and Orders issued thereunder.
- 1.1.4. **Commission's Order on APR petition for REL-G for FY 2007-08 and Determination of Tariff for FY 2008-09:** REL-G submitted its petition for APR for FY 2007-08 and determination of tariff for FY 2008-09 for its generation business on
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November 30, 2007 (Case No. 65 of 2007). The Commission issued the APR Order for RInfra-G in Case No. 65 of 2007 on April 21, 2008, which came into effect from April 21, 2008, and the tariffs were initially valid upto March 31, 2009, which was later extended till the revised tariff was determined for FY 2009-10 vide Order dated April 15, 2009 in Case Nos. 152, 153 and 154 of 2008. REL-G appealed against the Order on APR for FY 2007-08 and determination of tariff for FY 2008-09, before the Hon'ble ATE (Appeal No. 111 of 2008). The Hon'ble ATE upheld the appeal of REL in its Judgment dated May 28, 2009 in the aforesaid appeal. REL-G (currently RInfra-G) has presented the impact of the Hon'ble ATE Judgment on truing up sections of FY 2006-07 and FY 2007-08 in the present petition. The submissions of RInfra-G and the rulings of the Commission in this respect are detailed in the subsequent sections of the present Order.

- 1.1.5. **Commission's Order on APR petition for REL-G for FY 2008-09 and Determination of Tariff for FY 2009-10:** RInfra-G submitted its petition for Annual Performance Review (APR) for FY 2008-09 and determination of Tariff for FY 2009-10 for its generation business on December 20, 2008 (Case No. 120 of 2008). The Commission issued the APR Order for RInfra-G in Case No. 120 of 2008 on May 28, 2009, which came into effect from June 1, 2009.
- 1.1.6. **Commission's Order on RInfra-G's petition for truing up for FY 2008-09, Annual Performance Review for FY 2009-10 and Determination of Tariff for FY 2010-11:** RInfra-G submitted its petition (Case No. 99 of 2009) for truing up for FY 2008-09, APR for FY 2009-10 and determination of tariff for FY 2010-11 for its generation business on December 20, 2009, based on actual audited expenditure for FY 2008-09, actual expenditure for the first half of FY 2009-10, i.e., from April to September 2009, and revised estimated expenses for October 2009 to March 2010, and projections for FY 2010-11. The Commission issued its Order in Case No. 99 of 2009 on September 8, 2010.
- 1.1.7. **Multi Year Tariff (MYT) Regulations, 2011:** On February 4, 2011, the Commission notified the MERC (Multi Year Tariff) Regulations, 2011 (hereinafter referred to as the "MYT Regulations, 2011"). These Regulations were to be applicable for determination of Tariff in all cases covered under these Regulations from April 1,

2011 and onwards up to FY 2015-16. These Regulations are applicable to all existing and future generating companies, transmission licensees and distribution licensees. These regulations came into force from April 1, 2011.

- 1.1.8. ***Exemption from MYT Regulations, 2011 (Case No. 45 of 2011):*** RInfra submitted a petition (Case No. 45 of 2011), wherein the company cited various operational difficulties associated with the Commission's MYT Regulations, 2011, and requested the Commission to amend the said Regulations, deferring the applicability of the MYT Regulations, 2011. An exemption on this petition was granted to RInfra, under Regulation 4.1 of the MYT Regulations, 2011, vide Order dated September 2, 2011 in Case No. 45 of 2011, for a period of one year (till March 31, 2012) from the determination of tariff under the MYT Regulations, 2011, as under.

“47. In light of the above, the Commission is of the view that it has become necessary to invoke the proviso to Regulation 4.1 of MYT Regulations, 2011 in order to exempt the determination of tariff of RInfra under the Multi-Year Tariff framework till March 31, 2012 (i.e., for a period of 1 year). The said exemption is hereby granted. The Commission is also empowered under Regulation 100 of the MYT Regulations, 2011 to remove any difficulty arising in giving effect to the provisions of MYT Regulations 2011. Accordingly, the Commission hereby directs RInfra to file the petition for determination of tariff for FY 2011-12 within 2 months time, i.e., on or before October 31, 2011. “

Furthermore, an amendment to the MYT Regulations, 2011 was notified on October 21, 2011, in which the licensees who have been exempted for certain periods from the determination of tariff under the MYT Regulations, 2011, were permitted to continue to file ARR and Tariff applications under the Tariff Regulations, 2005.

The Commission accordingly directed RInfra to file a separate petition for Tariff determination for FY 2011-12, under Tariff Regulations, 2005. The Petition for approval of Annual Revenue Requirement (ARR) for FY 2011-12 for RInfra-G is being adjudicated upon separately (Case No. 163 of 2011).

1.1.9. ***RInfra-G's petition for final truing up of FY 2009-10 and provisional truing Up of FY 2010-11:*** RInfra-G filed the present petition on August 12, 2011, under the guidance of the Commission's letter dated July 7, 2011 (Ref No MERC/ Tariff/ 20112012/ 00946), wherein the Commission directed the licensees in Maharashtra to submit their petitions for the final truing up of FY 2009-10 and provisional truing up of FY 2010-11. RInfra-G submitted in its revised petition on November 4, 2011 that the petition for FY 2009-10 and FY 2010-11 is based on actual and audited data. RInfra-G, in its petition, made the following prayers to the Commission:

“Admit this petition as submitted herewith.

- 1) Approve the Truing up for FY 2009-10.*
- 2) Approve the provisional truing up for FY 2010-11.*
- 3) Allow additions/ alterations/ changes/ modifications to the petition at a future date.*
- 4) Allow any Other Relief, order or direction, which the Honorable Commission deems fit to be issued.*
- 5) Condone any inadvertent Omissions/ errors/ rounding off difference/ shortcomings.*
- 6) Provide the working of detailed tariff computation used by the Hon'ble Commission.”*

1.2. Technical Validation Session (TVS)

1.2.1. The Commission, vide letter dated September 2, 2011 forwarded data gaps and information required from RInfra-G with respect to the final truing up for FY 2009-10 and provisional truing up for FY 2010-11. RInfra-G submitted a part of the required information on September 6, 2011.

1.2.2. The Commission scheduled a Technical Validation Session (TVS) on RInfra-G's petition for final truing up for FY 2009-10 and provisional truing up for FY 2010-11, on September 7, 2011, in the presence of Consumer Representatives authorised under Section 94(3) of the EA 2003 to represent the interest of consumers in the proceedings before the Commission. The list of individuals, who participated in the first TVS, is provided in Appendix -1A.

- 1.2.3. On September 7, 2011, i.e. on the day of the TVS, the Commission, forwarded additional data gaps and information required from RInfra-G with respect to the final truing up for FY 2009-10 and provisional truing up for FY 2010-11. The Commission scheduled another Technical Validation Session (TVS) on RInfra-G's petition for final truing up for FY 2009-10 and provisional truing up for FY 2010-11, on September 28, 2011. The list of individuals, who participated in the second TVS, is provided in Appendix – 1B.
- 1.2.4. RInfra-G submitted the required additional information on September 27, 2011. During the TVS of September 28, 2011, the Commission directed RInfra-G to provide additional information and clarifications on issues raised during the TVS.

1.3. Admission of petition and public process

- 1.3.1. On October 29, 2011, RInfra-G submitted its responses to the queries raised during the TVS, and submitted its revised petition to the Commission on November 4, 2011.
- 1.3.2. The Commission admitted the Petition on November 11, 2011. In accordance with Section 64 of the EA 2003, the Commission directed the company to publish the application in the prescribed abridged form and manner, to ensure public participation. The Commission also directed RInfra-G to reply expeditiously to all the suggestions and objections as received from the public and other stakeholders on its Petition.
- 1.3.3. RInfra-G published a public notice in newspapers inviting suggestions and objections from stakeholders on its petition. The public notice was published in two English newspapers, viz. The Times of India and Indian Express on November 16, 2011. The public notice was also published in two Marathi newspapers, viz. Loksatta and Saamna on November 17, 2011. Copies of the petition and its summary were made available for inspection/ purchase to members of the public at the company's offices and website (www.rinfra.com). A copy of the public notice and the executive summary of the petition were made available on the website of the Commission (www.mercindia.org.in) in a downloadable format. The public notice specified that the suggestions and objections, either in English or Marathi, may be filed in the form of affidavits along with proof of service on RInfra.
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- 1.3.4. The Commission received written suggestions and objections expressing concerns on fuel cost, operation and maintenance, income tax, etc., and a host of other issues.
- 1.3.5. The Public Hearing was held on December 14, 2011 at Rangsharda Natya Mandir, Bandra Reclamation, Bandra (W), Mumbai 400 050. The list of objectors and persons, who participated in the Public Hearing, is provided in Appendix- 2. The Commission has ensured that the due process contemplated under law to ensure transparency and public participation has been meticulously followed at every stage and adequate opportunity was given to all those who wanted to have their say in the matter.

1.4. Organisation of the Order

1.4.1. This Order deals with the final truing up for FY 2009-10 and provisional truing up for FY 2010-11 of RInfra's generation business. The Order is organised in the following sections:

- a) **Section 1** of the Order provides a brief history of the quasi-judicial regulatory process undertaken by the Commission.
- b) **Section 2** of the Order lists out the various suggestions and objections raised by the objectors in writing and during the Public Hearing. The suggestions and objections have been summarized, followed by the response of RInfra-G and the rulings of the Commission on each of them.
- c) **Section 3** of the Order details the truing up of expenses and revenue of RInfra-G for FY 2009-10, including sharing of efficiency gains/ losses due to controllable factors.
- d) **Section 4** of the Order comprises the review of performance for FY 2010-11 and the Commission's analysis of various components of Energy Charge and Annual Fixed Charge of RInfra-G's Dahanu Thermal Power Station (DTPS) for FY 2010-11.

2. SUGGESTIONS/ OBJECTIONS RECEIVED, RINFRA-G'S RESPONSE AND COMMISSION'S RULING

2.1. Reconciliation of Annual Revenue Requirement

Shri George John worked out the ARR for RInfra-G for FY 2010-11, as provided in the table below:

Particulars	Amount
ARR (Rs Crore.)	1127.8
Generation (MU)	4041
Average energy cost (Rs/ kWh)	2.53
Station heat rate (Benchmark 2500 kCal/ kWh)	2282
Auxiliary energy consumption (8.55% without FGD)	7.38%
ARR proposed	1127

He submitted that the ARR for FY 2010-11 for RInfra-G, as worked out above, does not reconcile with the ARR proposed by RInfra-G in its petition.

RInfra-G's response

RInfra-G submitted that the standalone ARR for FY 2010-11 for DTSP is Rs. 1,117.65 Crore. The revenue surplus considering the total revenue (Rs. 1,139.61 Crore) is Rs. 11.67 Crore. RInfra-G submitted that since the objector had not provided the working of the energy cost, it is unable to identify the rationale behind the same. Accordingly, RInfra-G submitted that the correct computation for ARR shall be as below:

Particulars	Details Provided by Objector	RInfra-G Details as per petition in Case 122 of 2011
ARR(Rs. Crore)	1,127.8	1,117.65
Generation (MU)	4,041	4,041.44
Energy cost (Rs/ kWh)	2.53	1.931

Particulars	Details Provided by Objector	RInfra-G Details as per petition in Case 122 of 2011
Station heat rate (Benchmark 2500 kCal/ kWh)	2,282	2,282
Auxiliary energy consumption (%)	7.38%	7.38% (without FGD) 8.64% (with FGD)
ARR proposed(Rs. Crore)	1,127	1,117.65

RInfra-G further submitted that the actual generating cost works out to Rs. 2.77/ kWh for FY 2010-11, as opposed to Rs. 2.53/ kWh as computed by the objector.

Commission's ruling

The Commission has noted RInfra-G's response. The objector has not provided the computation details to substantiate the stated ARR and other parameters as mentioned above. Therefore, the Commission is unable to take a view on this objection.

2.2. Revenue from sale of electricity and energy charges

Shri Raksh Pal Abrol submitted that the revenue from the sale of electricity for FY 2009-10 was lower than the expected at Rs. 1,018.76 Crore. This revenue should have been to the tune of Rs. 10,983.33 Crore. RInfra-G has indicated the revenue gap as Rs. 35.78 Crore. The energy charge approved by the Commission for FY 2009-10 stands at Rs. 2.055/ kWh whereas RInfra-G has indicated energy charge as Rs. 1.815/ kWh. For FY 2010-11, the Commission approved energy charge as Rs. 2.204/ kWh, whereas RInfra-G's actual energy charge is Rs. 1.931/ kWh.

RInfra-G's response

RInfra-G submitted that the revenue of DTPS is lower than approved by the Commission, on account of the fact that generation has been marginally lower compared to the projected performance. The energy charge approved by the Commission is Rs. 2.055/ kWh for FY 2009-10, however since the actual performance of DTPS is better than the norms specified, the actual cost of energy

at bus is much lower than the approved charges. This is because better performance has resulted in lower fuel cost than that approved by the Commission.

Commission's ruling

The Commission has addressed this issue in section 3 of this Order, while carrying out the final truing up for FY 2009-10 based on actual expenses and revenue.

2.3. Truing up process for FY 2009-10

Shri Raksh Pal Abrol submitted that power generation is not governed by the Electricity Act, 2003. However, as per the Power Purchase Agreement, RInfra-G is required to meet the parameters approved by the Commission for truing up process for FY 2009-10.

RInfra-G's response

RInfra-G submitted that even though under the Electricity Act, 2003 electricity generation is a non-licensed activity, if electricity is supplied to any distribution company, then power purchase cost of the distribution company needs the approval of the respective State Electricity Regulatory Commission. It is for this reason that RInfra-G submits a petition for Tariff determination to MERC. Further, the performance of RInfra-G is significantly better than the approved normative parameters.

Commission's ruling

The Commission has noted the response of RInfra-G and finds it to be in order.

2.4. Operational performance of DTSP

Shri N. Ponrathnam submitted that if a 500 MW power plant operates at 100% load factor, the energy generated annually would come to 4,340 MUs [500 x 1000 (kW) x 24 (hours) x 365 (days)]. However, RInfra-G in its petition has indicated the availability factor as 97.19% and PLF as 103%. Since all power plants shut

down for routine maintenance, RInfra-G should clarify whether its plant is operated without maintenance. Shri Ponrathnam asked RInfra-G to respond with a load graph so that the common consumers could understand the above.

Shri Raksh Pal Abrol submitted that RInfra-G has not disclosed the reason for not maintaining the operational performance of DTPS during FY 2009-10. He also submitted that RInfra-G's gross generation during FY 2009-10 was 4,481.89 MU compared to the normative target of 4525.91 MU.

RInfra-G's response

RInfra-G submitted that the availability of the plant indicated the period for which the plant would be available for the purpose of electricity generation and PLF represents the load on the plant for the period it was available for generating electricity.

RInfra-G submitted that the availability of DTPS during FY 2009-10 was 97.19% considering outages for the planned maintenance and forced outages. However, because of the best O&M practices followed at DTPS, the plant can operate at more than 100% loading for the period it is available. RInfra-G also submitted the load graph for FY 2009-10 as asked for by the objector.

RInfra-G further submitted that DTPS normally operates units with a loading factor of nearly 105% keeping all parameters within the limits specified by OEM, for the period the plant is available. The drop in the station load in the graph submitted indicates the period during which the plant was shut down to address either the forced outages or planned outages. RInfra-G submitted that the Commission may appreciate that despite the outages, restoration period for DTPS was significantly lower than that for other thermal utilities across the state, reflecting the best O&M practices of DTPS.

RInfra-G submitted that the operational performance of DTPS is significantly higher than the normative target specified in the MERC (Terms and Conditions of Tariff) Regulations, 2005. RInfra-G submitted that DTPS had experienced total outages of 10.29 days (246.92 hours) and 12.85 days (308.23 hours) considering

the planned and forced outages, respectively, during FY 2009-10. This has also been submitted as Form 2.6 of Annexure A of the Petition. RInfra-G further submitted that the performance of DTPS is the highest among the thermal power plants in the country.

RInfra-G submitted that the generation of DTPS was 4,481.89 MU compared to the normative target of 4,525.91 MU on account of the outages experienced by the plant.

Commission's ruling

The Commission has noted RInfra-G's response and finds it in order.

3. TRUING UP OF AGGREGATE REVENUE REQUIREMENT FOR FY 2009-10

3.1. RInfra-G's petition for final truing up for FY 2009-10

- 3.1.1. RInfra-G submitted an amended petition on November 4, 2011 after the TVS, wherein it included its responses to the data gaps identified by the Commission, and submitted the actual expenses incurred and revenues earned for FY 2009-10 based on the actual audited accounts for the FY 2009-10. The petition also presented the comparison of expenditures and revenues approved by the Commission vis-à-vis ex-post audited performance for RInfra-G.
- 3.1.2. Accordingly, the Commission in this section has analysed all the elements of actual expenses and revenue for RInfra-G for FY 2009-10, and has carried out the truing up of expenses and revenue after prudence check. Further, for FY 2009-10, the Commission has approved the sharing of gains and losses on account of controllable and uncontrollable factors between RInfra-G and the Distribution Licensee, in accordance with Regulation 19 of the Tariff Regulations, 2005.

3.2. Availability and gross generation

- 3.2.1. RInfra-G submitted that 4481.892 MUs were generated in FY 2009-10 at an availability of 97.18%. It submitted that the following details about the outages and availability in DTPS.

Table 1: Availability for FY 2009-10

S. No.	Particulars	April-March (Audited)
A.	Planned outages	
	No of days of outage	7.97
	Period of outage	Nov-09
	Reasons for outage	16 days for major overhaul of Unit 2

S. No.	Particulars	April-March (Audited)
B.	Forced outages	
	No of days of outage	2.32
	Period of outage	
	Reasons for outage	Boiler Tube Leakage (Unit - I & II) & System Problem
	Total outage (days)	10.29
	Availability	97.18%

3.2.2. RInfra-G also submitted a certificate from SLDC dated May 16, 2011 as evidence of DTSPs' availability. However, in the certificate, the availability was shown at 102.62%. On being asked by the Commission, RInfra-G submitted that SLDC considers the availability (%) equal to the plant load factor (PLF) corresponding to scheduled generation (%). As per the certificate of SLDC the scheduled generation was 4057.6445 MUs. Corresponding to this scheduled generation the certificate showed an availability of 102.62%.

3.2.3. The Commission has accepted the availability and gross generation as submitted by RInfra-G. The generation was higher than the quantum approved by the Commission in the Order dated September 8, 2010, in Case No. 99 of 2010.

Table 2: Gross generation and availability for FY 2009-10

Particulars	APR Order	Actual	Approved after final truing up
Availability (%)	94.25%	97.18%	97.18%
Gross generation (MUs)	4340.00	4481.892	4481.892

3.3. Net generation, plant load factor and auxiliary energy consumption

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- 3.3.1. RInfra-G submitted that it despatched 4085.300 MUs during FY 2009-10 corresponding to scheduled generation of 4057.6445 MUs. This was also verified from the SLDC certificate.
- 3.3.2. RInfra-G submitted that since the Commission has not approved net generation in the APR Order in Case No. 99 of 2009 dated September 8, 2010, it has computed the approved net generation as 3891 MU based on the gross generation as approved in the same Order and auxiliary energy consumption as approved in the APR Order for FY 2008-09 in Case No. 120 of 2008 dated May 28, 2009.
- 3.3.3. The Commission's Tariff Regulations, 2005 provides for computation of PLF on the basis of net generation, i.e. actual energy despatched by a generating station. Accordingly, RInfra-G submitted that the PLF achieved by it in FY 2009-10 was 103.33%. The Commission verified the computation and found it to be correct. Therefore, the Commission has accepted RInfra-G's claim of PLF at 103.33%.
- 3.3.4. Accordingly, RInfra-G submitted that the total Auxiliary energy consumption for DPTS was 396.592 MUs which was to 8.85% of the gross generation. The auxiliary energy consumption for the FGD plant was 55.909 MUs, i.e. 1.25% of the gross generation. Therefore, the total auxiliary energy consumption (excluding FGD) was 340.683 MUs, i.e. 7.60% of the gross generation for FY 2009-10, which is less than the normative limit of 8.5% specified in the Tariff Regulations, 2005.
- 3.3.5. The Commission has considered the auxiliary energy consumption as a controllable parameter and hence, difference between the normative auxiliary energy consumption of 8.5% for FY 2009-10 plus the actual consumption of 55.909 MU of the FGD plant for FY 2009-10 has been considered for computing the sharing of efficiency gains with the consumers. The summary of auxiliary energy consumption approved in the previous APR Order, actual auxiliary energy consumption and auxiliary energy consumption considered for truing up for FY 2009-10 are given in the following Table.

Table 3: Auxiliary energy consumption and PLF for FY 2009-10

Particulars	APR Order	Actual	Approved after final truing up
Auxiliary energy consumption excluding FGD (%)	8.50%	7.60%	8.50%
Additional auxiliary energy consumption of FGD plant (MUs)	57	55.909	55.909
Auxiliary energy consumption including FGD (%)	9.82%	8.85%	9.74%
Net generation (MU)	-	4085.300	4085.300
PLF (%)	94.25%	103.33%	103.33%

3.4. Station heat rate

3.4.1. RInfra-G, in its petition, submitted that the station heat rate (SHR) achieved by DTSP was 2288 kCal/ kWh as compared to the norm of 2500 kCal/ kWh specified in the Tariff Regulations, 2005.

3.4.2. The Commission, while accepting the normative SHR for truing up, has considered the difference between the normative SHR and the actual SHR for FY 2009-10 for computing the efficiency gains. The summary of SHR approved in the previous APR Order, actual SHR and SHR considered by the Commission for truing up for FY 2009-10 is given in the following table:

Table 4: Station heat rate for FY 2009-10

Particulars	APR Order	Actual	Approved after final truing up
Station heat rate (kCal/ kWh)	2500	2288	2500

3.5. Secondary fuel oil consumption

- 3.5.1. RInfra-G submitted that the secondary fuel oil consumption for FY 2009-10 was 0.141 ml/ kWh as against the normative performance of 2 ml/ kWh specified in the Tariff Regulations, 2005.
- 3.5.2. The Commission has considered the normative secondary fuel oil consumption as specified in the Tariff Regulations, i.e., 2 ml/ kWh, for the purpose of the truing up for FY 2009-10. The difference between the actual secondary fuel oil consumption of 0.141 ml/ kWh and the normative secondary fuel oil consumption of 2 ml/ kWh has been considered for computing the efficiency gain due to controllable factors. The summary of actual secondary fuel oil consumption for FY 2009-10, and secondary fuel oil consumption as considered by the Commission for truing up is given in the following table:

Table 5: Secondary fuel oil consumption for FY 2009-10

Particulars	APR Order	Actual	Approved after final truing up
Secondary fuel oil consumption (ml/ kWh)	2.00	0.141	2.00

3.6. Blending of coal, fuel price, transit loss and fuel calorific value

- 3.6.1. RInfra-G submitted that during FY 2009-10, it has used a blend of washed coal, raw coal (F Grade) and imported coal as primary fuel.
- 3.6.2. In its petition, RInfra-G stated that the Commission, in its previous Orders, pertaining to FY 2007-08 and FY 2008-09 truing up did not permit transit losses on imported coal, holding that the imported coal needed to be contracted on delivery basis. Further, in its Appeal before the Hon'ble ATE, in Appeal No. 148 of 2009, RInfra-G has contended that the Tariff Regulations of the Commission permit transit losses of 0.8% for non-pit head stations. As DTPS is non-pit-head, transit losses should be permitted.
- 3.6.3. RInfra-G further stated, *“Furthermore, Hon’ble Commission itself prescribed a trajectory for transit losses starting with 1.79% for FY 06-07 and reducing 0.25% thereafter to reach 0.8% for non-pit head stations. Accordingly, RInfra-G’s contention is that Transit Losses, which are actually incurred while transporting coal*

from overseas should be permitted by the Hon'ble Commission. While RInfra-G's appeal mentioned above pertains to Hon'ble Commission's truing up of FY 07-08, the issue, being a matter of principle, when decided by the Hon'ble ATE shall have impact on the same as well as future financial years also as the Hon'ble Commission, even for FY 08-09, has not allowed transit losses on imported coal. Accordingly, when the Judgement is pronounced by the Hon'ble ATE, RInfra-G shall appropriately present the impact of the same in its future petition(s)".

- 3.6.4. Clearly, the Judgement of the Hon'ble ATE is pending in this matter. However, irrespective of the above observations, RInfra-G considered a transit loss of 1.04% for washed coal and 0.8% for imported coal in its petition.
- 3.6.5. However, as observed in the Order in Case No. 99 of 2009, dated September 8, 2010, the Commission maintains that since the Tariff Regulations, 2005 do not provide for any transit loss on imported coal, the Commission is of the view that RInfra-G should have entered into contracts to get imported coal on delivery basis and hence, the Commission has not considered any transit loss for imported coal.
- 3.6.6. For washed coal and raw coal, the Commission has considered the normative transit loss of 0.80% for truing up purposes. RInfra-G submitted data on the actual fuel prices and calorific value of respective fuels for FY 2009-10. For the purpose of truing up of fuel prices (variable cost of generation) for FY 2009-10, the Commission has considered the actual fuel prices with normative transit losses and actual calorific value, as given in the table below:

Table 6: Price and calorific value for primary fuel for FY 2009-10

Particular	APR Order	Actual	Approved after final truing up
A. Fuel price (Rs/ MT)			
Washed coal	2409	2516	2486
Raw (F Grade) coal	1995	2313	2293
Imported coal	3938	3832	3820

Particular	APR Order	Actual	Approved after final truing up
B. Calorific Value (kCal/ kg)			
Washed coal	3741	3689	3689
Raw (F Grade) coal	3505	3104	3104
Imported coal	4846	4739	4739

3.6.7. The fuel price and calorific value for secondary fuel oil for RInfra-G have been approved as per actual details submitted by RInfra-G.

Table 7: Price and calorific value for secondary fuel oil for FY 2009-10

Particular	APR Order	Actual	Approved after final truing up
A. Fuel price (Rs/ kL)			
LDO		37,435	37,435
B. Calorific value (kCal/ kg)			
LDO		10,777	10,777

3.7. Fuel cost

3.7.1. RInfra-G, in its petition submitted that the actual total fuel cost for FY 2009-10 was Rs. 741.31 Crore.

3.7.2. Based on the normative performance parameters, fuel prices and fuel calorific value as discussed in the above paragraphs, the total fuel cost and variable cost of generation approved for FY 2009-10 are summarised in the following table.

Table 8: Fuel cost for FY 2009-10*(Rs. Crore)*

Particular	Actual	Based on Normative Parameters – RInfra-G	Based on Normative Parameters – Approved after truing up
Cost of primary fuel (coal)	738.95	805.71	802.35
Cost of secondary fuel oil	2.36	33.89	33.89
Total cost	741.31	839.60	836.24

3.8. Operation & maintenance expenses

3.8.1. The Operation and Maintenance (O&M) expenditure comprises employee related expenditure, administrative and general (A&G) expenditure, and repair and maintenance (R&M) expenditure. RInfra-G's submissions on each of these expenditure heads, and the Commission's ruling on the truing up of the O&M expenditure heads are detailed below.

3.8.2. RInfra-G submitted that it incurred Rs. 93.48 Crore towards O&M expenses in FY 2009-10 compared to Rs. 77.30 Crore as approved by the Commission in the APR Order dated September 8, 2010 in Case No. 99 of 2010.

3.8.3. RInfra-G submitted that it has already highlighted in the past that the Commission's methodology of O&M expense approval resulted in suppressed base expenses and with inflationary escalation thereafter, continued to remain suppressed in subsequent years.

3.8.4. RInfra-G further submitted that it has brought about major changes in the operations and management of the plant, instituted processes and systems and has also carried out a number of technological improvements towards improving the plant performance. This required incurring higher O&M expenses, but resulted in vast improvements in plant performance parameters such as SHR, PLF, availability, etc.

As per RInfra-G, these improvements have provided the benefit of electricity at a lower cost to the consumers of suburban Mumbai.

3.8.5. RInfra-G submitted that its estimate of O&M expense was higher than the amount approved by the Commission in the previous APR Order, on the following grounds:

- a) Underestimation of base expenses by the Commission on account of averaging of base expenses before and after FY 2003-04, when generating stations were performing poorly because of inadequate O&M expenses. In this regard, RInfra-G submitted,

“Hon’ble Commission would appreciate that the performance of DTPS has significantly improved over pre 2003-04 period. This is primarily due to better O&M practice adopted by RInfra-G with deployment of more skilled and professional workforce. Hon’ble Commission is aware that DTPS operations are regarded as benchmark in the country and RInfra-D consumers have benefited with better operations by RInfra-G as also highlighted in Table-6 above. Hence RInfra-G is of view that it is entitled to receive allowance of actual expenses on O&M.”

- b) Normative escalation considered by the Commission to approve O&M expenses over and above the base expenses is not in line with the yearly escalation in CPI and WPI Indices.

3.8.6. RInfra-G further submitted,

“Further, as the Hon’ble Commission would appreciate, the very fact that year-on-year increase in actual expenses is a meager 2.4% is testimony to the changes in cost structuring, management and control of costs being brought about by RInfra-G, particularly considering the fact that annual inflation between FY 09 and FY 10 itself has been 8.82% for CPI and 7.86% for WPI, RInfra-G requests the Hon’ble Commission to kindly acknowledge RInfra-G’s efforts and grant actual expenses for truing up of FY 09-10.”

3.9. Employee expenses

3.9.1. RInfra-G submitted that the actual employee expenses, net of capitalisation, for FY 2009-10 were Rs. 42.59 Crore.

3.10. Administrative and general (A&G) expenses

3.10.1. RInfra-G submitted that the A&G expenses for FY 2009-10 according to its audited accounts were Rs. 16.84 Crore. The main components of A&G expenses were water charges (Rs. 4.13 Crore) and insurance (Rs. 6.81 Crore).

3.11. Repair and maintenance (R&M) expenses

3.11.1. RInfra-G submitted that the R&M expenses for FY 2009-10, as per its audited accounts, were Rs. 34.05 Crore. R&M expense as a percentage of GFA was 2.17% for FY 2009-10.

3.11.2. The summary of the O&M expenses as submitted by the RInfra-G has been shown in the following table:

Table 9: O&M expenses for FY 2009-10 as submitted by RInfra-G

(Rs Crore)

Particulars	APR Order	Actual
O&M expenses	67.01	93.48
Impact of wage revision (including increase in terminal benefits)	7.29	NA
Additional R&M expense for FGD	6.90	6.94
Total O&M expenses	81.19	93.48

3.11.3. The Commission, while carrying out the final truing up of O&M expenses for RInfra-G for FY 2008-09, in the Order dated September 8, 2010 (Case No. 99 of 2009), had observed the following:

“As regards RInfra’s arguments that the O&M expenses for FY 2003-2004 represented the normal expenses and the actual O&M expenses of FY 2000-2001 were lower on account of lower performance levels, the Commission would like to clarify that the Tariff Regulations stipulates the normative availability of 80% for fixed charge recovery and target PLF of 80% for incentive computations. RInfra-G is entitled to incentive @ 25 paise/ kWh for net generation in excess of 80% PLF. It is important to note that PLF increased to more than 100.30% in FY 2003-04 and the O&M expenses in 2003-04 were also much higher than the O&M expenses in FY 2001-02. As elaborated by RInfra-G, the main reason for increase in O&M expenses is higher PLF, i.e., higher generation. In case RInfra-G’s argument that the Commission should not have considered the abnormal expenses while arriving at the O&M expenses as per norms were to be accepted, it will be more appropriate not to consider the O&M expenses for FY 2003-04, as the PLF during FY 2003-04 was more than 100% as against normative PLF of 80%. Further, as submitted by RInfra-G, during FY 2002-03, DTSP plant was affected by flooding due to which the O&M expenses in FY 2002-03 were higher as compared to O&M expenses of previous years. Therefore, the increased level O&M expenses for FY 2002-03 and FY 2003-04, which has been considered by RInfra-G as normal O&M expenses can be categorised as abnormal expenses, as in FY 2002-03, there were one-time expenses due to flooding and O&M expenses in FY 2003-04 were higher due to higher generation, for which RInfra-G is entitled for an incentive. Based on actual performance, it is observed that RInfra-G has been earning PLF incentive of around Rs. 20 Crore every year, for generation in excess of target PLF. The additional cost incurred for earning PLF incentive cannot be passed on to consumers and hence, correcting the base O&M expenses, which were arrived by averaging the O&M expenses for five years from FY 1998-99 to FY 2003-04 with actual O&M expenses in FY 2002-03 and FY 2003-04 will not be appropriate.

The Commission has therefore, considered the O&M expenses as approved in the APR Order for FY 2008-09 for computing the sharing of gains and losses.”

3.11.4. Accordingly, the Commission has considered O&M expenses as approved in the APR Order for FY 2009-10 for the purpose of sharing of gains and losses.

3.11.5. The Commission, while carrying out the analysis of annual fixed charges for FY 2009-10, in the Order dated September 8, 2010 (Case No. 99 of 2009), had accepted RInfra-G's contention that it required more expenses for FGD plant maintenance due to tightening of emission norms by the Maharashtra Pollution Control Board (MPCB). Accordingly, the Commission accepted RInfra-G's estimate of additional R&M expense of Rs. 6.90 Crore for FGD plant and clarified that the same would be considered for final truing up. However, RInfra-G has submitted that the actual R&M expense for FGD plant has been Rs. 6.94 Crore, and true up has been sought for the entire amount. Observing that the deviation in actual additional expense for FGD plant is only Rs. 0.04 Crore, the Commission has approved the actual R&M expenditure on FGD for FY 2009-10. Summary of the O&M expenses approved in the APR Order for FY 2009-10, actual O&M expenses and O&M expenses considered by the Commission for computing sharing of losses is provided in the table below:

Table 10: Operations & maintenance expenses for FY 2009-10

(Rs. Crore)

Particulars	APR Order	Actual	Approved after final truing up
O&M expense for FY 2009-10	67.01	93.48	67.01
Impact of wage revision	5.50		5.50
Increased liability on terminal benefit on account of wage revision not considered in APR Order	1.77		1.77
Additional R&M expense for FGD	6.90		6.94
Total O&M expenses	81.19		93.48

3.12. Capital expenditure and capitalisation for FY 2009-10

3.12.1. RInfra-G submitted that the total capital expenditure in FY 2009-10 was Rs. 41.63 Crore across all the schemes. RInfra-G submitted that the capitalisation for FY 2009-10 was Rs. 48.25 Crore. Out of the total capitalisation, Rs. 29.97 Crore was on account of DPR schemes, Rs. 8.36 Crores on account of purchase of spare 'brushless excitation system' for generator and other Rs. 9.92 Crores for all the other schemes. Summary of the various capital expenditure schemes, capital expenditure and Capitalisation are described below:

- a) HP Turbine Module was capitalized during Nov 2009 and total capitalization (including IDC) is Rs 22.70 Crore. The project completion report has been received by the Commission;
- b) RInfra-G has bundled several non-DPR projects into DPR projects as per the Commission's directives in its Tariff Order in Case No. 120 of 2009 dated May 28, 2009. This included renovation & modernization and reliability improvement projects at an estimated cost of Rs. 25.96 Crore. However, to reduce the impact of Tariff, RInfra-G has decided to phase this expenditure and related capitalization over the ensuing years as well;
- c) RInfra-G submitted that adopting a similar manner a DPR was submitted bundling Renovation of township area at DTPS and construction of boundary wall at an estimated cost of Rs. 16.30 Crore. However, in order to reduce the impact, the capitalization was phased out in the ensuing years. The capitalization corresponding to this scheme for the FY 2009-10 was Rs. 0.17 Crore;
- d) RInfra-G submitted that the non-DPR projects of total estimated cost of Rs. 18.28 Crore was capitalized in FY 2009-10. Details of these schemes have already been received by the Commission; and
- e) The major expenditure for FY 2009-10 was under the 'spare turbine module' scheme, which amounted to Rs. 19.47 Crore; and 'procurement of spare brushless excitation system for generator', which amounted to Rs. 8.36 Crore.

3.12.2. RInfra-G had already submitted the details of the various schemes as described in the Order dated September 8, 2010 (Case No. 99 of 2009). However, many of the DPR

schemes submitted by RInfra-G are under scrutiny, pending in-principle approval. For the purpose of Final Truing up for FY 2009-10, the Commission has not considered any capitalisation of such DPR schemes where in-principle approval of the Commission is yet to be accorded. The Commission is of the view that the proposed benefits of such schemes need to be examined and until it is ascertained that the projected benefits will actually accrue to the consumers, it would not be appropriate to allow such expenses. Accordingly, the Commission has restricted capitalisation of such schemes as part of final truing up of FY 2009-10. Once, in-principle approval is granted by the Commission, the same may be considered in future Orders subject to prudence check.

3.12.3. The table below summarises the capitalisation as approved by the Commission for FY 2009-10.

Table 11: Capitalisation for FY 2009-10

(Rs. Crore)

Particulars	APR Order	Actual	Approved after final truing up
DPR schemes submitted and approved	-	22.70	22.70
DPR schemes pending approval	-	7.26	-
Non-DPR schemes	-	18.28	18.28
Total capitalisation(Rs. Crore)	50.78	48.25	40.99

3.13. Interest on long-term debt for FY 2009-10

3.13.1. RInfra-G submitted that it had not taken any actual debt for the capital expenditure schemes. It submitted that the interest on long-term debt for FY 2009-10 was computed based on a normative debt of 70% as specified in the Tariff Regulations, 2005. Therefore, RInfra-G has considered addition to debt as 70% of the actual capitalisation of Rs. 48.25 Crore, which is Rs. 33.78 Crore.

- 3.13.2. The Commission noticed that the Allocation Statements as submitted by RInfra-G for FY 2009-10 mentioned actual interest and finance charges of Rs. 98.18 Crore for its generation business. This observation is in sharp contrast with RInfra-G's claim of not taking any actual debt for FY 2009-10. In light of above observation, the Commission asked RInfra to clarify why these charges are allocated against generation business when RInfra has claimed that it has not taken any actual debt.
- 3.13.3. In response to queries raised and meeting held at the Commission's office on January 30, 2012, RInfra responded that there was no borrowing specifically against capital expenditure or working capital requirement of Generation, Transmission and Distribution business and the corporate funding is being used, part of which is through borrowing from external sources. It is possible that RInfra corporate would have arranged funds through internal or external sources. In view of this, RInfra has continued to reflect normative debt and working capital and normative interest rate applicable for the same in the ARR.
- 3.13.4. The Commission does not find any merit in RInfra's explanation. RInfra-G is the generation business of a legal entity named as Reliance Infrastructure Limited. Any borrowing, if taken for RInfra-G, would still be on the name of Reliance Infrastructure Limited and it will appear on the financial statements of the said company. Moreover, RInfra-G has submitted certificate from the Chartered Accounts, Pathak H. D. & Associates allocating a part of such external borrowing to generation business.
- 3.13.5. From the certificate from the Chartered Accountants, as submitted by RInfra-G, has allocated a part of such external borrowing to generation business. Still, RInfra-G continued its submission that there was no borrowing specifically against capital expenditure or working capital requirement of Generation, Transmission and Distribution business. In light of the above, the Commission does not find RInfra-G's contention tenable in this matter.
- 3.13.6. In the Commission's view, if the corporate entity resorts to external borrowing and funds its businesses through such proceeds, it can't be construed as a debt funded through internal accruals. In case of RInfra-G, it appears that the external borrowings have been routed through corporate entity and termed as normative debt. Moreover,

RInfra-G has added back interest expense on account of such normative debt while claiming income tax. As a result of such mechanism, the Consumers, in spite of having served such debt through interest expenses, would be deprived of tax shield which would be available if there was an actual debt. Moreover, as submitted by RInfra-G in its Petition, adding back normative interest expense has increased income tax of RInfra-G while it was stated that such interest income was earned by the corporate entity. The Commission views that such practice of passing tax burden on RInfra-G while taking away earning by corporate entity is not fair to the consumers.

3.13.7. In the absence of proper explanations from RInfra-G, the Commission cannot firm up its opinion in this matter. For the purpose of final Truing up for FY 2009-10, the Commission has proceeded assuming the claim of RInfra-G stating all debts have been funded through internal accruals and no part of external borrowing is used for funding investments in generation business so far. However, the Commission directs RInfra-G to submit information related to the utilisation of externally borrowed funds allocated to the generation business immediately within 1 month from the date of issue of this Order, failing to do so may lead the Commission to rollback of respective amounts in the next Order on Tariff matters for RInfra-G.

3.13.8. Without prejudice to above, the Commission has computed the interest on long-term debt was computed based on the following:

- a) A normative interest rate of 10% p.a. was considered towards interest expense for projects initiated during FY 2004-05 and FY 2005-06;
- b) A normative interest rate of 8% p.a. has been considered towards the interest expense for projects initiated during FY 2006-07 and FY 2007-08; and
- c) A normative interest rate of 9% p.a. has been considered towards the interest expense for projects initiated during FY 2008-09 onwards in accordance with the tariff Order dated May 28, 2009.

3.13.9. RInfra-G has considered a normative loan repayment tenure of 10 years for loans drawn during FY 2004-05 and FY 2005-06 and 20 years for loans drawn during FY 2006-07 and afterwards. However, the MERC Tariff Regulations 2005, state that normative repayment for a year shall be equal to the amount of depreciation on the

fixed asset to which such loan relates. The relevant extract of the said regulations is quoted as below:

“32.2 The loan capital calculated using the normative debt:equity ratio under Regulation 31.2, Regulation 31.3 and Regulation 31.4 above shall be assumed to be repaid each year based on a normative repayment schedule:

Provided that the amount of such normative repayment for a year shall be equal to the amount of depreciation on the fixed asset to which such loan relates:

Provided further that where the outstanding normative loan balance is less than the amount of normative loan repayment calculated as above, the repayment shall be assumed to be equal to the outstanding normative loan balance and no further amount shall be permitted on account of such loan:

Provided also that all normative repayments are assumed to be made on September 30th of each financial year.”

3.13.10. In line with provisions of the stated Tariff Regulations, the Commission has considered repayment of the outstanding normative loans as equal to the amount of depreciation. The Commission has considered repayment of the outstanding loans in proportion to their balance at the beginning of the year FY 2009-10.

3.13.11. Considering the above normative interest rates and repayment, the Commission has computed the interest on long-term debt for FY 2009-10 as shown in the table below.

Table 12: Interest on long-term debt for FY 2009-10

(Rs. Crore)

Particulars	APR Order	Actual	Approved after final truing up
Opening balance of loan	178.52	178.71	178.52
Additions during the year	35.54	33.78	28.69
Repayments during the year	(13.97)	(12.21)	(14.96)
Closing balance of loan	200.10	200.28	192.26

Particulars	APR Order	Actual	Approved after final truing up
Gross interest expense	15.53	15.56	15.25
Less: IDC	-	(1.65)	(1.65)
Net interest expense	15.53	13.91	13.60
Average interest rate (%)	8.20%	8.21%	8.23%

3.14. Depreciation for FY 2009-10

3.14.1. RInfra-G has submitted that depreciation for FY 2009-10 was Rs. 15 Crore based on the rates provided in the Tariff Regulations, 2005 for calculation of depreciation. For FY 2009-10, the depreciation as a percentage of the average GFA for FY 2009-10 was 0.94%. Since, the opening GFA, as approved in Order dated September 8, 2010 (Case No. 99 of 2009) was lower than the actual GFA submitted by RInfra-G, and the capitalisation approved is lower than actual, the depreciation approved by the Commission is lower than that claimed by RInfra-G.

Table 13: Depreciation for FY 2009-10

(Rs. Crore)

Particulars	APR Order	Actual	Approved after final truing up
Opening GFA	1,570.82	1,571.46	1,570.82
Addition of assets during the year	50.78	48.25	40.99
Retirement of assets during the year	-	(2.91)	(2.91)
Closing GFA	1,621.59	1,616.80	1,608.90
Depreciation (as a % of Average GFA)	0.91%	0.94%	0.94%

Particulars	APR Order	Actual	Approved after final truing up
Depreciation	14.55	15.00	14.96

3.15. Interest on working capital for FY 2009-10

3.15.1. RInfra-G had not paid any amount towards interest on working capital. However, RInfra-G submitted that it attempted to determine its actual working capital requirement of Rs. 131.73 Crore and accordingly computed the actual interest on working capital considering a normative interest rate (the SBI PLR) of 13%. The interest on working capital according to this computation worked out to Rs. 17.12 Crore. RInfra-G has also computed the interest on working capital on normative basis as Rs. 10.36 Crore and has proposed sharing of losses on account of the difference of Rs. 6.76 Crore.

3.15.2. The Commission notes that the Hon'ble ATE, in its Judgment in Appeal No. 111 of 2008, ruled as under:

“7) The Commission observed that in actual fact no amount has been paid towards interest. Therefore, the entire interest on Working Capital granted as pass through in tariff has been treated as efficiency gain. It is true that internal funds also deserve interest in as much as the internal fund when employed as Working Capital loses the interest it could have earned by investment elsewhere. Further the licensee can never have any funds which has no cost. The internal accruals are not like some reserve which does not carry any cost. Internal accruals could have been inter corporate deposits, as suggested on behalf of the appellant. In that case the same would also carry the cost of interest. When the Commission observed that the REL had actually not incurred any expenditure towards interest on Working Capital it should have also considered if the internal accruals had to bear some costs themselves. The Commission could have looked into the source of such internal accruals or funds could be less or more than the normative interest. In arriving at whether there was a gain or loss the Commission was required to take the total picture into consideration which the Commission

has not done. It cannot be said that simply because internal accruals were used and there was no outflow of funds by way of interest on Working Capital and hence the entire interest on working capital was gain which could be shared as per Regulation No. 19. Accordingly, the claim of the appellant that it has wrongly been made to share the interest on Working Capital as per Regulation 19 has merit.

15. b): The interest on Working Capital, for the year in question, shall not be treated as efficiency gain.”

3.15.3. The Hon’ble ATE has ruled that internal accruals have a cost attached to them and the same should be considered when computing interest on working capital. RInfra-G submitted that the actual working capital maintained is Rs. 131.73 Crore. RInfra-G has submitted that there are no actual payables for the coal or the secondary fuel, and has considered the same as NIL for the purpose of computing the working capital requirement.

3.15.4. In this context, it is pertinent to mention that in the APR Order in Case No. 99 of 2009, the Commission had observed the following under the same context:

“Accordingly, for the recent year, i.e., FY 2008-09, the Commission asked RInfra-G to provide clarity regarding whether the working capital requirement has been met from the cash flows of RInfra-G and/or cash flows from any other business. Further, RInfra-G was also asked to submit the cash flow statement indicating as to how the working capital requirement has been met for RInfra-G, RInfra-T and RInfra -D, respectively. In reply, RInfra-G submitted that it has been operating on a common balance sheet for RInfra as a whole. Hence, it is virtually impossible to segregate the cash flows of RInfra-G from the rest of RInfra. RInfra-G submitted that as generating company needs working capital for operations in order to maintain fuel stock, meet expenses on operations and maintenance, maintain spares, etc., the same is managed through availability of internal treasury funds of RInfra. RInfra-G submitted that the internal treasury funds are utilised primarily because of ease of availability, no administrative or processing charges,

commission, etc., which otherwise are issues to deal with if actual capital is borrowed from lending agencies

Since, RInfra-G has not been able to satisfactorily address the Commission's queries in this matter for FY 2008-09, it is obvious that there is no substantiation of the actual working capital interest on funds used for meeting working capital requirement, for the previous years as well. The Commission is of the view that by implication, RInfra-G has managed to meet its working capital requirements by its own operational efficiency, and has minimised the working capital requirement itself, and not actually relied on any funds to meet its working capital requirement. Moreover, it is incorrect to say that the entire working capital interest has not been allowed. The Commission has allowed the entire working capital interest on normative basis, however, since working capital interest is a controllable factor as per the MERC Tariff Regulations, the efficiency gains/losses on this account need to be shared with the consumers. Since, as per Regulation 17.6.2 (d) of the MERC (Terms and Conditions of Tariff) Regulations, 2005, variation in working capital requirement is a controllable factor, the Commission rules that the entire normative working capital interest has to be considered as an efficiency gain, and the sharing of gains has to be computed in accordance with Regulation 19.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005."

3.15.5. In the present petition also RInfra-G has not demonstrated the actual usage of cash flows to meet its working capital requirement. Therefore, in the absence of documentary evidence, the Commission is unable to consider RInfra-G's claim for amount of working capital requirement. Since, there is no substantiation of the actual working capital interest on funds used for meeting working capital requirement, the Commission is of the view that by implication, RInfra-G has managed to meet its working capital requirements by its own operational efficiency, and has minimised the working capital requirement itself, and not actually relied on any funds to meet its working capital requirement.

3.15.6. For the purpose of final truing up, the Commission has considered that the actual interest on working capital is nil. On a normative basis, the working capital has been

computed by the Commission as Rs. 78.42 Crore based on the expenses approved in this Order, and the interest on it as Rs. 10.19 Crore. The Commission has allowed interest on working capital on normative basis. However, since interest on working capital is a controllable factor as per Tariff Regulations, 2005, the efficiency gains/losses on this account need to be shared with the consumers in accordance with Regulation 19.1 of the Tariff Regulations, 2005.

Table 14: Interest on working capital for FY 2009-10

(Rs. Crore)

Particulars	APR Order	As Estimated by RInfra-G	Approved after final truing up
Working capital			
Cost of coal/ lignite (2 month)		100.62	110.08
Cost of secondary fuel oil (1 month)		1.35	4.65
O & M expenses (1 month)		7.79	7.79
Maintenance spares		21.97	14.29
Less: Payables for one month fuel at targeted availability		0.00	(57.37)
Total working capital		131.73	78.42
Interest rate (SBI PLR)		13.00%	13.00%
Interest on working capital	6.32	17.12	10.19

3.16. Return on equity for FY 2009-10

3.16.1. RInfra-G submitted that it had computed the return on equity (RoE) for FY 2009-10 for its generation business in accordance with the Tariff Regulations, 2005 which stipulates a 14% return on equity per annum on the regulatory equity at the beginning of the financial year.

3.16.2. The Commission noticed that there were retirements of assets to the tune of Rs. 2.91 Crore in FY 2009-10. Assets which are retired from the regulated business do not provide any benefit to the consumers. Since the intent of the Tariff Regulations, 2005 is to allow return on equity only on assets put to use the equity corresponding to the retired assets also needs to be reduced from the regulatory equity.

3.16.3. Therefore, the Commission has subtracted 30% of the GFA of the retired assets while computing closing level of Regulatory equity for FY 2009-10. The Commission had approved Rs. 519.91 Crore as the regulated equity at the beginning of FY 2009-10. Accordingly, the Commission has computed the RoE for FY 2009-10 on the opening balance of equity in accordance with the Tariff Regulations, 2005 as applicable for the generation business. The summary of RoE as projected by RInfra-G and approved by the Commission for FY 2009-10 is summarised in the following table:

Table 15: Return on equity for FY 2009-10

(Rs. Crore)

Particulars	APR Order	Actual	Approved after final truing up
Regulatory equity at beginning of year	519.91	519.91	519.91
Equity portion of Capitalisation	15.23	14.48	12.30
Less: Equity portion of retired assets	-	-	(0.87)
Regulatory equity at the end of the year	535.14	534.39	531.34
Total return on regulated Equity	72.79	72.79	72.79

3.17. Income tax for FY 2009-10

3.17.1. RInfra-G submitted that the benefit of section 80IA will not be available to the Dahanu Thermal Power Station. Accordingly, the tax liability has been computed at

the corporate tax rate of 33.99%. RInfra-G submitted that the income tax liability for FY 2009-10 was Rs. 25.70 Crore, as against Rs. 14.38 Crore approved by the Commission in the APR Order for FY 2009-10.

3.17.2. RInfra-G submitted that as per the Hon'ble ATE's Judgement in Appeal No. 173 of 2009, return on equity needs to be replaced by regulated profit before tax based on income less permissible expenses. Accordingly, RInfra-G has computed the income tax for FY 2009-10 based on the methodology of income less expense as shown below.

Table 16: Income tax as submitted by RInfra-G for FY 2009-10

(Rs. Crore)

Particulars	APR Order	As submitted by RInfra-G
Profit Before Tax (Regulatory)	72.79	151.29
Add: depreciation as per APR	14.54	15.00
Less: depreciation as per IT	(18.23)	(45.46)
Add: normative interest on long term loan	15.53	13.91
Add: normative interest on working capital	0.00	14.87
Profit Before Tax (IT)	84.63	149.61
Corporate tax rate	33.99%	33.99%
Income tax	28.77	50.85
MAT rate	16.99%	16.99%
MAT payable	14.38	25.70
MAT credit to be carried forward		
Opening balance of MAT credit	34.08	34.08
MAT credit utilized	14.39	25.15

Particulars	APR Order	As submitted by RInfra-G
Total tax liability	28.77	50.85
Less: MAT tax credit	14.39	25.15
Closing balance of MAT credit	19.69	8.93
Net income tax liability	14.38	25.70

3.17.3. However, in this respect it is pertinent to refer to Regulation 34 of the Tariff Regulations, 2005, which deals with the income tax matter. The said Regulation is quoted below:

“34.2 Income-tax

34.2.1 Income-tax on the income of the Generating Business of the Generating Company shall be allowed for inclusion in the annual fixed charges:

Provided that any change in such income-tax liability on account of assessment under the Income-tax Act, 1961, as certified by the statutory auditors, shall be allowed to be adjusted each year in the annual fixed charges:

Provided further that any change in such income-tax liability on account of change in income of the Generating Business of the Generating Company from the approved forecast shall be attributed to the same controllable or uncontrollable factors as have resulted in the change in income and shall be dealt with accordingly:

Provided further that the generating station-wise profit before tax as estimated for a financial year in advance shall constitute the basis for the distribution of the corporate tax liability to all generating stations of a Generating Company:

34.2.2 The benefits of any income-tax holiday, credit for unabsorbed losses or unabsorbed depreciation shall be taken into account in calculation of the income-tax liability of the generating station of the Generating Company:

Provided that where such benefits cannot be directly attributed to a generating station, they shall be allocated across the generating stations of a Generating Company in the proportion of the generating station-wise profit before tax.”

3.17.4. As mentioned before, RInfra is a company under the Companies Act and it is engaged in several businesses including Generation (G), Transmission (T) and Distribution (D) of electricity in an integrated manner. Allocation of tax liability to the regulated businesses in Mumbai, viz., G, T and D, particularly the method of income tax calculations, has in the past been a complex issue. The key issue was to arrive at the correct base.

3.17.5. The treatment of income tax came to be analysed in **Appeals No. 173/2009 and 174/2009** before the Hon’ble ATE. In its Judgment dated February 15, 2011 in Appeal No. 173/2009, the Hon’ble ATE examined the following issue:-

“Whether the State Commission is justified in computing the entitlement of income tax to be recovered from the consumers considering the return on equity as the regulatory profit before tax and disallowing tax on incentives on the ground that the expenses incurred for achieving better performance has already been allowed?”

3.17.6. The Hon’ble ATE held as follows:-

“...the State Commission is directed to compute the income tax entitlement of the Appellant by replacing Return on Equity by Regulatory Profit Before Tax i.e. income less permissible expenses.”

3.17.7. Since, the Hon’ble ATE inter alia held that the actual income shall form the basis for computation of income tax, hypothetical bases cannot be considered. The Hon’ble ATE has discarded the theory of any treatment on notional basis.

3.17.8. The Commission is of the view that every base tried earlier, whether normative RoE or hypothetical Profit Before Tax (PBT) was presumptive in nature and did not indisputably demonstrate the relation with actual tax liability. Normative RoE was clearly not the only income that would constitute taxable profits of the utilities; it would also include incentives etc. Further hypothetical PBT was by very nature

hypothetical. The income allocation and expense allocation has to be as per actual taxable incomes and expenses calculated as per the Income Tax Act, 1961. The approach has to be actual taxable income of regulated business minus actual sanctioned tax deductible expenses of regulated business as directed by the Hon'ble ATE.

3.17.9. Further, an issue was dealt with in the Hon'ble ATE's Judgement dated May 28, 2009 in **Appeal no. 111/2008** in case of RInfra which related to non-inclusion of PLF incentive in regulated business segment in the taxable income and therefore non-inclusion of income tax on the incentive on the ground that it would be a burden on consumers. The Hon'ble ATE directed that the actual and factual income tax impact had to be considered and it was no case that such actual impact would be a burden on the consumers.

3.17.10. Taking into account the aforesaid Judgements of the Hon'ble ATE, the Commission is of the opinion that the Hon'ble ATE has held that the base should be the factual tax liability and there is no scope for presumptive disallowances/hypothetical calculations.

3.17.11. At paragraph 14 of the Hon'ble ATE's Judgement dated February 14, 2011 in the matter of TPC-T, the Hon'ble ATE has clarified inter alia as follows:-

“Thus the intent of the Regulations is that the actual income tax paid by the transmission licensee in the business of transmission is included in the ARR and the licensee does not gain or lose on account of income tax which is a pass through in tariff.”

3.17.12. Thus, principles have been laid down by the Hon'ble ATE on the subject. Thus, from the various pronouncements of the Hon'ble ATE, the principle that clearly emerges is that the income tax of a utility that should be passed through in the tariff is to be based on the actual tax impact. For working out actual tax impact, working out the segmental income is necessary. Income tax emerges from segmental working and that leads to segmental calculations. Segmental calculations should be based on regulated income if tax is actually paid on regulated income. If income tax is actually calculated and paid by the utility company on book profits under MAT method then

the segmental division has to be based on book profit and not on regulated profit; because regulated profit is not what has suffered actual tax but book profit has suffered the actual tax.

3.17.13. In case of true up applications the claim has to be sanctioned on the basis of actual tax payments because all the details are available by that time. The Commission accordingly sought the information related to actual tax payments made by the petitioner to determine the correct claim. The information sought was basic information such as copy of income tax return filed; the statement of computation of income and other relevant information like break up of various additions and deductions claimed in tax computation in G-T-D and other segments.

3.17.14. The Commission is of the view that appropriate claim for actual income tax paid by the company cannot be found out without these very basic documents viz. copy of income tax return filed; the statement of computation of along with some other relevant information like break up of various additions and deductions claimed in tax computation in G-T-D and other segments.

3.17.15. Till date RInfra has not submitted the above basic documents asked for, RInfra has also not submitted underlying break-up of allowances/ disallowances for tax purposes into G-T-D and other segments.

3.17.16. In fact, the above basic information was sought from the petitioner during the TVS for RInfra-G dated September 27, 2011. In reply to this requirement, the petitioner had provided the following explanation:

“RInfra-G submits that for the FY 2009-10, Income Tax Return was filed considering the scheme of de-merger dated May 9, 2009 envisaging transfer of various operating division of the company as wholly owned subsidiaries, subject to the requisite approvals. However, the scheme was withdrawn due to changes in the business environment and the scheme is thus no longer relevant. In view, for FY 2009-10, revised income tax return for RInfra as whole is yet to be filed. RInfra-G submits that for the FY 2010-11, the income tax return shall be filed by Sept 30, 2011.”

.....

“RInfra-G submits that the Income Tax paid by the company as a whole is of no relevance to regulatory allowances where Income Tax allowance is determined separately for regulated businesses as explained in response to query 16 above”

3.17.17. Thereafter, the Commission had followed up with the petitioner on several occasions seeking the required information for determining the claim for income tax reimbursement. However, the said information was not provided. The detailed chronological sequence in which the information was sought and the responses obtained is as under:

I. Computation of income and income tax return sought in meeting held on October 8, 2011.

Response obtained: *Will be provided soon.*

II. Computation of income and income tax return sought in meeting held on October 25, 2011.

Response obtained: *Will be provided soon.*

III. Detailed computation of income for the year 2009-2010 and 2010-2011:

Reply dated October 14, 2011,

“The tax returns of FY 09-10 are being filed again due to withdrawal of de-merger scheme. Also, our auditors are travelling and consequently not available at present. We request more time for submission of Tax Audit Reports.

IV. Reply dated October 25, 2011 – Information sought:

a) Copy of income tax return filed for the year 2009-2010 and 2010-2011.

b) Computation of Income for the year 2009-2010 and 2010-2011

Response: *“It has been stated in our responses filed on October 4, 2011 and on October 14, 2011 that Income Tax Return for FY 2009-2010 was filed for de-merged entities –generation, transmission and distribution, anticipating the de-merger of RInfra. However, as the de-merger scheme was later withdrawn, the*

revised Tax returns for FY 2009-10 for RInfra as a whole are yet to be filed with the IT department.”

V. Reply dated November 4, 2011

Same as reply dated October 25, 2011.

VI. Additional Clarification sought letter dated January 22, 2012:

a) Computation of Income for the year 2009-2010:

RInfra Response: “With reference to the response sent earlier, RInfra-D would like to re-iterate that revised Income Tax Returns for FY 2009-10 due to withdrawal of demerger scheme is yet to be filed. The relevant documents shall be furnished to the Hon’ble Commission, as and when the returns are filed.”

b) Even if the revised return is not yet filed, the separate return filed for de-merged entities –generation, transmission and distribution should be submitted.

RInfra Response: Not responded.

c) Copy of income tax assessment order for the financial year 2007-2008 and 2009-2010 should be submitted.

RInfra Response: Refer to response for clause a)

d) The petitioner had provided the ‘Computation of Income’ for the year 2010-2011 for the company as a whole.

In this regard, please provide the breakup of the ‘Computation of total Income’ and ‘MAT working’

- Mumbai Licensed area operations (G-T-D segment wise – including HO/SS allocation),

- Other than Mumbai license area operations,

- Total operations.

RInfra Response:

The book profit of the Company is arrived at after considering all the business activities as a whole. The book profit cannot be computed separately for Generation or Transmission or Distribution for the purpose of Income Tax

Returns, as per section 115 JB of the Income Tax Act. The relevant extracts are reproduced herein below for ready reference:

VII. Additional Clarification sought letter dated February 7, 2012.

No response.

VIII. Additional Clarification sought letter dated February 10, 2012.

Required Information not provided.

IX. E-mail received on February 11, 2012.

“As I understand we have given answers to all the queries of Mr nikumbh on Income tax. As you can see from our responses that we are following ATE Judgement and MERC orders of the past which is well settled position. However it appears from the repeating queries of mr nikumbh that he wants to deviate from ATE Judgement and MERC orders. In my view he is unable to distinguish company's financial accounting (for all businesses) and regulatory accounting for licensed business which is adequately addressed by ATE Judgement and adopted by MERC in toto. In such a circumstance we hope that Hon'ble commission may guide him on the issue.”

3.17.18. It is apparent that the entire focus of RInfra's contentions is on the method, which as per RInfra, “has been established” for calculating tax, and based on that the contention that the data on actual should not be insisted upon. It is critical to note the basic principle as laid by the Hon'ble ATE is at paragraph 14 of the Hon'ble ATE's Judgement dated February 14, 2011 in the matter of TPC-T, which reads as under:-

“Thus the intent of the Regulations is that the actual income tax paid by the transmission licensee in the business of transmission is included in the ARR and the licensee does not gain or lose on account of income tax which is a pass through in tariff.”

3.17.19. The Commission is of the opinion that it is not an objective of any of the authorities to establish method but the objective is to determine the actual tax impact on the business of a utility and allow that as expense. The method comes in play only to determine this actual tax impact as means to achieve the said fundamental goal and

method itself is not the end goal in itself. It is clear that RInfra's insistence on assuming that the methodology is end goal is misplaced and denial of information based on such self presumption is unwarranted.

3.17.20. From the limited records submitted prima-facie there are carried forward losses in some segments, MAT payments and MAT credit utilization all of which have tax impact which cannot be calculated without details called for. It is relevant to note here that if losses in any regulated segment have been used as tax shield in the other segments there will be in fact tax recovery from the company for that regulated business following converse of the Hon'ble ATE Judgement wherein tax shield of non-regulated business was mandated to be added as tax impact of regulated business.

3.17.21. As can be seen there has been fair amount of follow up on this issue with RInfra. Considering the fact that out of information sought; statement of computation of tax, income tax return filed is really mandatory statutory filings and the segmental break up is obviously the base on which utilities would have staked their claim for reimbursement. The inability of RInfra to produce these evidentiary documents is incomprehensible. Further from the mail dated February 11, 2012, as quoted above, it is apparent that the RInfra has gone to the extent of advising the Commission on the course of action rather than to take efforts for submission of the information sought. The approach of RInfra clearly appears to be stonewalling the fact finding on tax issue and therefore prima-facie presumption is against RInfra on that count.

3.17.22. However in spite of this apparently defiant attitude, to be just and fair to RInfra-G, considering that it may have some issues in retrieving records, the Commission is of the opinion that RInfra-G should claim income tax after it is able to produce the information sought for, because the present Orders cannot be held back on this account.

3.17.23. The income tax approved by the Commission for FY 2009-10 is shown in the table below.

Table 17: Income tax for FY 2009-10

(Rs. Crore)

Particulars	APR Order	As submitted by RInfra-G	Approved after final truing up
Income tax	14.38	25.70	-----

3.18. Non-tariff income

3.18.1. RInfra-G submitted that the actual non-Tariff income for FY 2009-10 was Rs. 11.10 Crore, out of which Rs. 8.27 Crore was the revenue from 'sale of scrap'. The Commission has verified this from the reconciliation statement dated September 28, 2011. The Commission approves the actual non-Tariff income as submitted by RInfra-G for FY 2009-10.

Table 18: Non-tariff income for FY 2009-10

(Rs. Crore)

Particulars	APR Order	Actual	Approved after final truing up
Non-tariff income	6.17	11.10	11.10

3.19. Revenue from sale of electricity

3.19.1. RInfra-G submitted that the revenue from sale of electricity for FY 2009-10 was Rs. 1,018.76 Crore. Further, RInfra-G has considered PLF incentive receivable on actual net generation (PLF in excess of 80%) and fuel surcharge payable for difference between Rate of Energy Charge (REC) at actual calorific values estimated and REC determined by the Commission.

3.19.2. RInfra-G submitted that it is entitled for incentive on account of higher thermal generation than the normative PLF of 80%. The incentive due to RInfra-G for FY 2009-10 is as shown below:

Table 19: PLF incentive for FY 2009-10

Unit	Actual Generation (MUs)	Net Generation at 80% PLF (MU)	Energy available for incentive (MU)	Rate of incentive(Rs. per unit)	Incentive(Rs. Crore)
DTPS	4,085.3	3,162.5	922.43	0.25	23.06

3.19.3. The Commission has approved the PLF incentive as submitted by RInfra-G. The Commission has considered the revenue for FY 2009-10 for RInfra-G based on the fixed cost and rate of energy charge as submitted by RInfra-G.

Table 20: Revenue from sale of electricity for FY 2009-10

Particular	Unit	As submitted by RInfra-G	Approved by the Commission
Fixed Cost	Rs. Crore/ Year	156.09	156.09
Rate of Energy Charge	Rs./kWh	2.08	2.08
Energy Charge	Rs. Crore	849.74	849.74
PLF Incentive	Rs. Crore	23.06	23.06
Fuel Surcharge	Rs. Crore	(10.13)	(10.13)
Revenue from existing tariff	Rs. Crore	1,018.76	1,018.76

3.20. Sharing of gains/ losses for FY 2009-10

3.20.1. RInfra-G has categorised the expenditures as controllable and uncontrollable and computed the gains and losses for the controllable expenditure and shared the same with the distribution licensee in accordance with the Tariff Regulations, 2005. The relevant provisions under the Tariff Regulations, 2005 stipulating sharing of gains/ losses due to controllable factors are reproduced below:

“17.6.2 Some illustrative variations or expected variations in the performance of the applicant which may be attributed by the Commission to controllable factors include, but are not limited to, the following:

(a) Variations in capital expenditure on account of time and/ or cost overruns/ efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;

(b) Variations in technical and commercial losses, including bad debts;

(c) Variations in the number or mix of consumers or quantities of electricity supplied to consumers as specified in the first and second proviso to clause (b) of Regulation 17.6.1;

(d) Variations in working capital requirements;

(e) Failure to meet the standards specified in the Standards of Performance Regulations, except where exempted in accordance with those Regulations;

(f) Variations in labour productivity;

(g) Variations in any variable other than those stipulated by the Commission under Regulation 15.6 above, except where reviewed by the Commission under the second proviso to this Regulation 17.6.

.....

19.1 The approved aggregate gain to the Generating Company or Licensee on account of controllable factors shall be dealt with in the following manner:

(a) One-third of the amount of such gain shall be passed on as a rebate in tariffs over such period as may be specified in the Order of the Commission under Regulation 17.10;

(b) In case of a Licensee, one-third of the amount of such gain shall be retained in a special reserve for the purpose of absorbing the impact of any future losses on account of controllable factors under clause (b) of Regulation 19.2; and

(c) The balance amount of gain may be utilized at the discretion of the Generating Company or Licensee.

19.2 The approved aggregate loss to the Generating Company or Licensee on account of controllable factors shall be dealt with in the following manner:

(a) One-third of the amount of such loss may be passed on as an additional charge in tariffs over such period as may be specified in the Order of the Commission under Regulation 17.10; and

(b) The balance amount of loss shall be absorbed by the Generating Company or Licensee.”

3.20.2. The Commission has considered the performance parameters and expenses for computing the sharing of gains/ losses in accordance with the provisions of the Tariff Regulations, 2005, as elaborated below.

Fuel cost

3.20.3. RInfra-G submitted that the variation in fuel cost is due to variation in the operational parameters such as heat rate, auxiliary energy consumption, specific secondary fuel oil consumption and transit loss for imported coal of the DTPS, which are controllable factors. RInfra-G computed the fuel cost based on the approved operational norms of heat rate and secondary fuel oil consumption and estimated a total efficiency gain of Rs. 98.28 Crore for FY 2009-10, which it proposed to share with the Distribution Licensee to the extent of Rs 32.76 Crore (one-third of Rs. 98.36). The Commission, has recalculated the efficiency gains considering the transit losses on imported coal at 0% and transit losses on washed coal as 0.8% as specified in the Tariff Regulations, 2005. Due to the difference in transit losses considered, the cost of fuel works out to Rs. 836.24 Crore as against Rs. 839.60 Crore submitted by RInfra-G. Summary of the parameters considered for computing the efficiency gains is as below:

Table 21: Parameters for computing efficiency gains on account of fuel for FY 2009-10

Particulars	Units	RInfra-G Actual	As per Tariff Regulations, 2005
Availability	%	97.18%	80%

Particulars	Units	RInfra-G Actual	As per Tariff Regulations, 2005
PLF	%	103.33%	80%
Station heat rate	kCal/ kWh	2,287.82	2500
Auxiliary energy consumption (excluding FGD plant)	%	7.60%	8.50%
Auxiliary energy consumption (including FGD plant)	%	8.85%	9.74%
Secondary fuel oil Consumption	ml/ kWh	0.141	2
Gross Generation	MU	4,481.89	4,525.91
Net Generation	MU	4,085.30	4,085.30
Cost of fuel	Rs. Crore	741.31	836.24
Energy Charges (variable cost @ ex bus)	Rs./ kWh	1.815	2.047

3.20.4. The efficiency gain on account of fuel cost as proposed by RInfra-G and approved by the Commission has been shown in the table below. Two-thirds of the computed efficiency gain has been allowed to be retained by RInfra-G as specified in the Tariff Regulations, 2005.

Table 22: Sharing of gains/ losses on account of fuel parameters for FY 2009-10

Particulars	Units	As submitted by RInfra-G	Approved by the Commission
Energy charge (as per norms in Tariff Regulations, 2005)	Rs./ unit	2.055	2.047
Actual variable cost	Rs./ unit	1.815	1.815

Particulars	Units	As submitted by RInfra-G	Approved by the Commission
Net generation	MU	4,085.30	4,085.30
Efficiency gains	Rs. Crore	98.28	94.93
To be passed on to Distribution Licensee (Consumers)	Rs. Crore	32.76	31.64
To be retained by RInfra-G	Rs. Crore	65.52	63.28

O&M expenses

3.20.5. As regards the sharing of gains and losses for O&M expenses, RInfra-G has requested the Commission to allow the O&M expenses on actuals, citing uncontrollable factors. However, the Commission has clearly stipulated that the O&M expenses as approved in the APR Order in Case No. 99 of 2009 would form the basis for computing the sharing of gains and losses. The O&M expenses for FY 2009-10 allowed by the Commission after truing up have been elaborated in section 3.8. Accordingly, the Commission has considered the difference between the actual O&M expenses and O&M expenses allowed after truing up for computing efficiency losses, and one-third of the losses have been passed on the distribution licensee, i.e., RInfra-D, while two thirds of the losses have to be borne by RInfra-G.

Interest on working capital

3.20.6. As discussed in the above paragraphs, the actual interest on working capital incurred by RInfra-G during FY 2009-10 is nil and the normative interest on working capital approved by the Commission considering other elements of expenses approved after truing up, works out to Rs. 10.19 Crore. As the actual expenditure under this head is zero, the Commission has considered the entire normative interest on working capital as efficiency gains, and one third of the gains have been shared with the distribution licensee, i.e., RInfra-D, while two thirds of the gain have been retained by RInfra-G. Accordingly, net entitlement of RInfra-G towards interest on working capital works to Rs 6.80 Crore and efficiency gain to be shared with distribution licensee works out to Rs 3.40 Crore.

3.21. Gap/ (surplus) for FY 2009-10 based on truing up and sharing of efficiency gain/ losses

3.21.1. Based on the above computations for truing up of various elements of expenses and revenue and sharing of efficiency gains/ losses, the Commission has estimated the total revenue surplus as Rs. 8.75 Crore for RInfra-G for FY 2009-10. The summary of the net ARR and efficiency gains as approved by the Commission for FY 2009-10 is given in the following table:

Table 23: Summary of truing up for FY 2009-10

(Rs. Crore)

S. No.	Particulars	APR Order	Actual	Entitlement as per Regulations/ Order	Deviation	Efficiency (Gain)/ loss shared with Distribution Licensee	Net Entitlement
A	Expenditure						
1	Fuel Related Expenses	815.23	741.31	836.24	94.93	31.64	804.60
2	Operation & Maintenance Expenses	77.3	93.48	81.23	(12.25)	(4.08)	85.31
3	Depreciation, including advance against depreciation	14.54	15.00	14.96	-	-	14.96
4	Interest on Long-term Loan Capital	15.53	13.91	13.60	-	-	13.60
5	Interest on working capital	6.32	17.12	10.19	10.19	3.40	6.80
6	Income tax	14.38	25.70	-	-	-	-
	Total Expenditure	943.30	906.53	956.22	-	-	925.26
B	Return on Equity	72.79	72.79	72.79	-	-	72.79
C	Incentive for Higher PLF	0	23.06	23.06	-	-	23.06
D	Total including expenditure +RoE +Incentive	1,016.09	1,002.37	1,052.07			1,021.11
E	Revenue						

S. No.	Particulars	APR Order	Actual	Entitlement as per Regulations/ Order	Deviation	Efficiency (Gain)/ loss shared with Distribution Licensee	Net Entitlement
1	Revenue from sale of electricity	1,018.76	1,018.76	1,018.76			1,018.76
2	Non-tariff income	6.17	11.10	11.10			11.10
	Total Revenue	1,024.93	1,029.86	1,029.86			1,029.86
F	Total Revenue Revenue (Gap)/ Surplus						8.75

4. ANALYSIS OF ENERGY AVAILABILITY, ENERGY CHARGES AND ANNUAL FIXED CHARGE FOR FY 2010-11

4.1. RInfra-G's petition for Annual Performance Review for FY 2010-11

- 4.1.1. RInfra-G, in its APR petition, submitted its performance parameters for FY 2010-11 based on the actual performance for the year, i.e., April 2010 to March 2011. RInfra-G submitted the comparison of each element of expenditure and revenue for FY 2010-11 with that approved by the Commission in its APR Order dated September 8, 2010 in Case No. 99 of 2009. RInfra-G, in its petition, asked for Annual Performance Review and provisional truing up of FY 2010-11.
- 4.1.2. RInfra-G requested the Commission to provisionally true up expenses and revenue for FY 2010-11. The Commission will undertake the final truing up of the revenue requirement for FY 2010-11 when RInfra-G submits a petition for the same to the Commission.
- 4.1.3. As regards the provisional truing up requirement for FY 2010-11 for RInfra-G, the Commission is of the view that the provisional truing up for generation companies is not required as the generation companies are able to recover increase in fuel costs, which comprise the bulk of their revenue requirement, through fuel adjustment cost (FAC) mechanism. Moreover, based on the analysis of expenditure for FY 2010-11, it is observed that the variation in other elements of expenditure except fuel cost is not substantial and there is no change in principles/ methodology. Accordingly, the Commission in this Order on final truing up for FY 2009-10 and APR for FY 2010-11 has not considered the provisional truing up of elements of the revenue requirement for FY 2010-11.

4.2. Availability and gross generation

4.2.1. RInfra-G submitted that 4423.66 MUs were generated in FY 2010-11 at a PLF of 103.33% and an availability of 96.48%.

Table 24: Availability for FY 2010-11

S. No.	Particulars	April-March (Audited)
A.	Planned Outages	
	No of days of outage	9.78
	Period of Outage	Nov-10 and Dec-10
	Reasons for Outage	16 days for major overhaul of Unit 1
B.	Forced Outages	
	No of days of outage	3.07
	Period of Outage	
	Reasons for Outage	Boiler Tube Leakage (Unit - I & II) & System Problem
	Total Outage (Days)	12.85
	Availability	96.48%

4.2.2. RInfra-G also submitted a certificate from SLDC dated November 8, 2011 as evidence of its claimed availability. However, in the certificate, the availability was shown at 102.08%. On being asked by the Commission, RInfra-G submitted that SLDC considers the availability (%) equal to the plant load factor (PLF) corresponding to scheduled generation (%). As per the certificate of SLDC the scheduled generation was 4035.5273 MUs. Corresponding to this scheduled generation the certificate showed an availability of 102.08%.

4.2.3. The Commission has accepted the availability and gross generation as submitted by RInfra-G. The generation was higher than the quantum approved by the Commission.

Table 25: Gross generation and availability for FY 2010-11

Particulars	APR Order	Actual

Particulars	APR Order	Actual
Availability (%)	95.89%	96.48%
Gross generation (MUs)	4200.00	4223.66

4.3. Net generation, plant load factor and auxiliary energy consumption

- 4.3.1. RInfra-G submitted that it despatched 4041.4400 MUs during FY 2010-11 corresponding to scheduled generation of 4035.5273 MUs. This was also verified from the SLDC certificate dated November 8, 2011.
- 4.3.2. Tariff Regulations, 2005 provide for computation of PLF on the basis of net generation, i.e. actual energy despatched by a generating station. Accordingly, RInfra-G submitted that the PLF achieved by it in FY 2010-11 was 102.23%. The Commission verified the computation and found it to be correct. Therefore, the Commission has accepted RInfra-G's claim of PLF at 102.23%.
- 4.3.3. Accordingly, RInfra-G submitted that the total auxiliary energy consumption for DPTS was 382.22 MUs at 8.64% of the gross generation. The auxiliary energy consumption for the FGD plant was 55.78 MUs, i.e. 1.26% of the gross generation. Therefore, the total auxiliary energy consumption (excluding FGD) was 326.44 MUs, i.e. 7.38% of the gross generation for FY 2010-11, which is less than the normative limit of 8.5% specified in the Tariff Regulations, 2005.
- 4.3.4. The Commission considers the auxiliary energy consumption as a controllable parameter and hence, difference between the normative auxiliary energy consumption of 8.5% for FY 2010-11 plus the actual consumption of 55.78 MUs of the FGD plant for FY 2010-11 will be considered for computing the sharing of efficiency gains with the consumers, when RInfra-G will submit its petition for final truing up. The summary of auxiliary energy consumption approved in the previous ARR Order, and actual auxiliary energy consumption for FY 2010-11 are given in the following table.

Table 26: Auxiliary energy consumption for FY 2010-11

Particulars	APR Order	Actual
Auxiliary energy consumption excluding FGD (%)	8.50%	7.38%
Additional auxiliary energy consumption of FGD plant (MUs)	57.00	55.78
Auxiliary energy consumption including FGD (%)	9.86%	8.64%
Net generation (MU)	3786.00	4041.44
PLF	-	102.23%

4.4. Station heat rate

4.4.1. RInfra-G submitted in its petition that the station heat rate (SHR) achieved by DTSP was 2282 kCal/ kWh as compared to the norm of 2500 kCal/ kWh specified in the Tariff Regulations, 2005.

4.4.2. The Commission accepts the SHR as submitted by RInfra-G. Accordingly, the difference between the normative heat rate and the actual heat rate for FY 2010-11 will be considered for computing the efficiency gains, when RInfra-G submits the petition for final truing up. Summary of heat rate approved in the previous APR Order, and actual heat rate for FY 2010-11 is given in the following table:

Table 27: Station heat rate for FY 2010-11

Particulars	APR Order	Actual
Station heat rate (kCal/ kWh)	2500	2282

4.5. Secondary fuel oil consumption

4.5.1. RInfra-G submitted in that the secondary fuel consumption for FY 2010-11 was 0.135 ml/ kWh as against the normative performance of 2 ml/ kWh specified in the Tariff Regulations, 2005.

4.5.2. The Commission accepts the secondary fuel oil consumption as submitted by RInfra-G. However, the normative secondary fuel oil consumption as specified in the Tariff Regulations, will be considered for truing up for FY 2010-11. The difference between the actual secondary fuel oil consumption of 0.135 ml/ kWh and the normative secondary fuel oil consumption will be considered for computing the efficiency gain due to controllable factors. The summary of actual secondary fuel oil consumption for FY 2010-11, and secondary fuel oil consumption as submitted by RInfra-G is given in the following table:

Table 28: Secondary fuel oil consumption for FY 2010-11

Particulars	APR Order	Actual
Secondary fuel oil consumption (ml/ kWh)	2.00	0.135

4.6. Blending of coal, fuel price and fuel calorific value

- 4.6.1. RInfra-G submitted that during FY 2010-11, it has used a blend of washed coal, raw coal (F Grade) and imported coal as primary fuel.
- 4.6.2. In its petition, RInfra-G stated that the Commission, in its previous Orders, pertaining to truing up for FY 2007-08 and FY 2008-09 did not permit transit losses on imported coal, holding that the imported coal needed to be contracted on delivery basis. Further, in its Appeal before the Hon'ble ATE, in Appeal No. 148 of 2009, RInfra-G has contended that Tariff Regulations permit transit losses of 0.8% for non-pit head stations. As DTPS is non-pit-head station, transit losses should be permitted as per RInfra-G.
- 4.6.3. RInfra-G further stated, *“Furthermore, Hon’ble Commission itself prescribed a trajectory for transit losses starting with 1.79% for FY 2006-07 and reducing 0.25% thereafter to reach 0.8% for non-pit head stations. Accordingly, RInfra-G’s contention is that Transit Losses, which are actually incurred while transporting coal from overseas should be permitted by the Hon’ble Commission. While RInfra-G’s appeal mentioned above pertains to Hon’ble Commission’s truing up of FY 2007-08, the issue, being a matter of principle, when decided by the Hon’ble ATE shall have*

impact on the same as well as future financial years also as the Hon'ble Commission, even for FY 2008-09, has not allowed transit losses on imported coal. Accordingly, when the Judgement is pronounced by the Hon'ble ATE, RInfra-G shall appropriately present the impact of the same in its future petition(s)".

- 4.6.4. The Judgement of the Hon'ble ATE is pending in this matter. However, irrespective of the above observations, RInfra-G considered a transit loss of 0.8% for imported coal in its petition, while estimating the cost of imported coal for FY 2010-11.
- 4.6.5. However, as observed in the Order in Case No. 99 of 2009, dated September 8, 2010, since Tariff Regulations, 2005 do not provide for any transit loss on imported coal, the Commission is of the view that RInfra-G should have entered into contracts to get imported coal on delivery basis and hence, the Commission will not consider any transit loss for imported coal, while doing the final truing up for FY 2010-11.
- 4.6.6. Based on the above considerations, RInfra-G submitted data on the actual fuel prices and calorific value of respective fuels for FY 2010-11, as given in the table below:

Table 29: Price and calorific value for primary fuel for FY 2010-11

Particular	APR Order	Actual
A. Fuel Price (Rs/ MT)		
Washed coal		2664
Raw (F Grade) coal		2340
Imported coal		3430
B. Calorific Value (kCal/ kg)		
Washed coal		3467
Raw (F Grade) coal		2860
Imported coal		4544

- 4.6.7. The actual fuel price and calorific value for secondary fuel oil during FY 2010-11, as submitted by RInfra-G is given in the table below.

Table 30: Price and calorific value for secondary fuel oil for FY 2010-11

Particular	APR Order	Actual
A. Fuel Price (Rs/ kL)		
LDO		42,525
B. Calorific Value (kCal/ kg)		
LDO		10,742

4.7. Fuel cost

4.7.1. RInfra-G, in its petition submitted that the actual total fuel cost for FY 2010-11 was Rs. 780.51 Crore.

4.7.2. Based on the normative performance parameters, fuel prices and fuel calorific value as discussed in the above paragraphs, the total fuel cost and variable cost of generation for FY 2010-11, as submitted by RInfra-G are summarised in the following table.

Table 31: Fuel cost for FY 2010-11*(Rs. Crore)*

Particular	Actual	Based on Normative Parameters – RInfra-G
Cost of primary fuel (coal)	777.97	852.46
Cost of secondary fuel oil	2.54	38.08
Total cost	780.51	890.55

4.8. O&M expenses for FY 2010-11

4.8.1. RInfra-G submitted that the actual O&M expenses incurred during FY 2010-11 is Rs. 93.45 Crore compared to Rs 82.99 Crore approved by the Commission in the previous APR Order. RInfra-G submitted that the actual O&M expenses are lower than the revised estimates submitted to the Commission. RInfra-G further submitted that

compromising O&M expenses would result in the deterioration of plant performance indices such as SHR, PLF, availability, etc., thereby resulting in a higher cost of power.

4.8.2. RInfra-G submitted that the O&M expenses pertaining to FGD are Rs. 7.50 Crore for FY 2010-11.

4.8.3. RInfra-G requested the Commission to note that the actual O&M expenses for FY 2010-11 were significantly lower than what had been projected on the basis of yearly escalation in inflation indices such as WPI and CPI. This has been the result of deferment of various preventive and scheduled maintenance activities, for curtailing the O&M expenses. However, these activities cannot be deferred for a significant period of time. Consequently, RInfra-G submitted that O&M expenses for FY 2011-12 would likely be higher.

4.8.4. The various components of O&M Expenses are elaborated below:

Employee expenses

4.8.5. RInfra-G submitted that the employee expenses, net of capitalisation, for FY 2010-11 were Rs. 45.28 Crore as per the audited accounts. The same was verified by the Commission with the auditor's certified statement showing allocation of expenses across the various businesses of RInfra.

Administrative and general (A&G) expenses

4.8.6. RInfra-G submitted that the A&G expenses for FY 2010-11 according to its audited accounts were Rs. 17.30 Crore. The main components of A&G expenses were water charges (Rs. 3.84 Crore) and insurance (Rs. 6.49 Crore).

Repair and maintenance (R&M) expenses

4.8.7. RInfra-G submitted that the R&M expenses for FY 2010-11, as per its audited accounts, were Rs. 30.87 Crore. R&M expense as a percentage of GFA was 1.91% for FY 2010-11.

4.8.8. The summary of the O&M expenses as submitted by the RInfra-G has been shown in the following table:

Table 32: O&M expenses for FY 2010-11 as submitted by RInfra-G*(Rs Crore)*

Particulars	APR Order	Actual	Approved
O&M expenses	74.99	93.45	74.99
Additional R&M expense for FGD	8.00		7.50
Total O&M Expenses	82.99	93.45	82.49

4.8.9. The Commission has not carried out any provisional truing up of O&M expenses of FY 2010-11 for RInfra-G. The Commission will take up the final truing up of O&M expenses of FY 2010-11 when RInfra-G submits a petition for the same.

4.9. Capital expenditure and capitalisation for FY 2010-11

4.9.1. RInfra-G submitted that the total capital expenditure in FY 2010-11 was Rs. 18.07 Crore across all the schemes. RInfra-G submitted that the capitalisation for FY 2010-11 was Rs. 14.15 Crore against Rs. 70.66 Crore approved by the Commission. Out of the total capitalisation, Rs. 9.05 Crore was on account of DPR schemes and Rs. 5.10 Crore on account of non-DPR schemes. The reason for deviation in capitalisation, as submitted by RInfra-G are as follows:

4.9.2. Even though it received the in-principle approval from the Commission for the capital expenditure scheme for coarse ash grinding unit at DTSP, the same could not be implemented in time as it also required statutory permissions from the Ministry of Environment and Forest. Furthermore RInfra-G submitted that since the technology required for this scheme is unique in nature, it conducted a pilot study before the actual implementation of the scheme. The same had also been highlighted in the DPR submitted to the Commission. RInfra-G submitted that this scheme is expected to be partly capitalized during FY 2011-12.

4.9.3. RInfra-G had submitted a DPR bundling renovation of township area at DTSP and construction of boundary wall at an estimated cost of Rs. 16.30 Crore. In order to reduce the Tariff impact on consumers, RInfra-G has phased the total expenditure for this scheme over 4-5 years. It further submitted that though capitalisation for FY

2009-10 and FY 2010-11 was considered in the previous Tariff Order dated September 8, 2010, in-principle clearance for the project is still awaited.

- 4.9.4. RInfra-G submitted that it has bundled several smaller projects into a DPR project as per directions of the Commission under its Order dated May 28, 2009. These include few R&M and reliability improvement projects (RInfra-G/DPR/FY11/01) at an estimated cost of Rs. 25.11 Crore. In order to reduce the impact on tariff, RInfra-G has phased the total expenditure for these schemes over 4-5 years. It submitted that though capitalization for FY 2010-11 was considered in the MERC Tariff Order dated September 8, 2010, in principle clearance for complete project is awaited.
- 4.9.5. RInfra-G has submitted the details of various DPR schemes for FY 2010-11. However, many DPR schemes submitted by RInfra-G are under scrutiny pending in-principle approval. For the purpose of provisional truing up for FY 2010-11, the Commission has not considered any capitalisation of such DPR schemes where in-principle approval of the Commission is yet to be accorded. The Commission is of the view that the proposed benefits of such schemes need to be examined and until it is ascertained that the projected benefits will actually accrue to the consumers, it would not be appropriate to allow such expenses. Accordingly, the Commission has restricted capitalisation of such schemes as part of provisional truing up of FY 2010-11. Once, in-principle approval is granted by the Commission, the same may be considered in future Orders subject to prudence check.
- 4.9.6. The actual capitalisation, as submitted by RInfra-G for FY 2010-11, and as considered by the Commission is summarised in the table below.

Table 33: Capitalisation for FY 2010-11

(Rs. Crore)

Particulars	APR Order	Actual	Approved
DPR schemes submitted and approved	-	2.18	2.18
DPR schemes pending approval	-	6.87	-
Non-DPR schemes	-	5.10	5.10

Particulars	APR Order	Actual	Approved
Total capitalisation(Rs. Crore)	70.66	14.15	7.28

4.10. Interest on long-term debt for FY 2010-11

4.10.1. RInfra-G submitted that it has not taken any actual debt for capital expenditure schemes in FY 2010-11. It submitted that the interest on long-term debt for FY 2010-11 was computed based on a normative debt of 70% as specified in the Tariff Regulations, 2005. Therefore, it has considered addition to debt as 70% of the proposed capitalisation.

4.10.2. The Commission noticed that the Allocation Statements as submitted by RInfra-G for FY 2010-11 mentioned actual interest and finance charges of Rs. 98.18 Crore for its generation business. This observation is in sharp contrast with RInfra-G's claim of not taking any actual debt for FY 2010-11. In light of above observation, the Commission asked RInfra to clarify why these charges are allocated against generation business when RInfra has claimed that it has not taken any actual debt.

4.10.3. In response to queries raised and meeting held at the Commission's office on January 30, 2012, RInfra responded that there was no borrowing specifically against capital expenditure or working capital requirement of Generation, Transmission and Distribution business and the corporate funding is being used, part of which is through borrowing from external sources. It is possible that RInfra corporate would have arranged funds through internal or external sources. In view of this, RInfra has continued to reflect normative debt and working capital and normative interest rate applicable for the same in the ARR.

4.10.4. The Commission does not find any merit in RInfra's explanation. RInfra-G is the generation business of a legal entity named as Reliance Infrastructure Limited. Any borrowing, if taken for RInfra-G, would still be on the name of Reliance Infrastructure Limited and it will appear on the financial statements of the said company. Moreover, RInfra-G has submitted certificate from the Chartered Accounts, Pathak H. D. & Associates allocating a part of such external borrowing to generation business.

- 4.10.5. From the certificate from the Chartered Accountants, as submitted by RInfra-G, has allocated a part of such external borrowing to generation business. Still, RInfra-G continued its submission that there was no borrowing specifically against capital expenditure or working capital requirement of Generation, Transmission and Distribution business. In light of the above, the Commission does not find RInfra-G's contention tenable in this matter.
- 4.10.6. In the Commission's view, if the corporate entity resorts to external borrowing and funds its businesses through such proceeds, it can't be construed as a debt funded through internal accruals. In case of RInfra-G, it appears that the external borrowings have been routed through corporate entity and termed as normative debt. Moreover, RInfra-G has added back interest expense on account of such normative debt while claiming income tax. As a result of such mechanism, the Consumers, in spite of having served such debt through interest expenses, would be deprived of tax shield which would be available if there was an actual debt. Moreover, as submitted by RInfra-G in its Petition, adding back normative interest expense has increased income tax of RInfra-G while it was stated that such interest income was earned by the corporate entity. The Commission views that such practice of passing tax burden on RInfra-G while taking away earning by corporate entity is not fair to the consumers.
- 4.10.7. In the absence of proper explanations from RInfra-G, the Commission cannot firm up its opinion in this matter. For the purpose of provisional Truing up for FY 2010-11, the Commission has proceeded assuming the claim of RInfra-G stating all debts have been funded through internal accruals and no part of external borrowing is used for funding investments in generation business so far. However, the Commission directs RInfra-G to submit information related to the utilisation of externally borrowed funds allocated to generation business immediately within 1 month from the date of issue of this Order, failing to do so may lead the Commission to rollback of respective amounts in the next Order on Tariff matters for RInfra-G.
- 4.10.8. Without prejudice to the above, the Commission has considered interest on long-term debt, computed based on the following:
- a) A normative interest rate of 10% p.a. was considered towards interest expense for projects initiated during FY 2004-05 and FY 2005-06;

- b) A normative interest rate of 8% p.a. has been considered towards the interest expense for projects initiated during FY 2006-07 and FY 2007-08; and
- c) A normative interest rate of 9% p.a. has been considered towards the interest expense for projects initiated during FY 2008-09 onwards in accordance with the Tariff Order dated May 28, 2009.

4.10.9. RInfra-G has considered a normative loan repayment tenure of 10 years for loans drawn during FY 2004-05 and FY 2005-06 and 20 years for loans drawn during FY 2006-07 and afterwards. However, the MERC Tariff Regulations 2005, state that normative repayment for a year shall be equal to the amount of depreciation on the fixed asset to which such loan relates. The relevant extract of the said regulations is quoted as below:

“32.2 The loan capital calculated using the normative debt:equity ratio under Regulation 31.2, Regulation 31.3 and Regulation 31.4 above shall be assumed to be repaid each year based on a normative repayment schedule:

Provided that the amount of such normative repayment for a year shall be equal to the amount of depreciation on the fixed asset to which such loan relates:

Provided further that where the outstanding normative loan balance is less than the amount of normative loan repayment calculated as above, the repayment shall be assumed to be equal to the outstanding normative loan balance and no further amount shall be permitted on account of such loan:

Provided also that all normative repayments are assumed to be made on September 30th of each financial year.”

4.10.10. In line with the provisions of the stated Tariff Regulations, the Commission has considered repayment of the outstanding normative loans as equal to the amount of depreciation on the fixed asset to which such loans relate. The Commission has considered repayment of the outstanding loans in proportion to their balance at the beginning of the year FY 2010-11.

4.10.11. Considering the above normative interest rates and repayment, the Commission has computed the interest on long-term debt for FY 2010-11 as shown in the table below.

Table 34: Interest on long-term debt for FY 2010-11

(Rs. Crore)

Particulars	APR Order	Actual	Approved
Opening balance of loan	200.10	200.28	192.26
Additions during the year	49.46	9.90	5.10
Repayments during the year	(17.14)	(12.68)	(15.87)
Closing balance of loan	232.41	197.50	181.48
Gross interest expense	18.04	16.43	15.46
Less: IDC	-	(0.10)	-
Net interest expense	18.04	16.32	15.46
Average interest rate (%)	8.34%	8.26%	8.27%

4.11. Depreciation for FY 2010-11

4.11.1. RInfra-G has submitted that the depreciation for FY 2010-11 was Rs. 15.98 Crore based on the depreciation rates provided in the Tariff Regulations, 2005. It submitted that it has considered depreciation for the assets added during FY 2010-11 pursuant to the Judgement of the Hon'ble ATE in Appeal No. 137 of 2008 dated July 15, 2009. The depreciation as a percentage of the average GFA for FY 2010-11 was 0.98%. Depreciation for FY 2010-11, as submitted by RInfra-G, and as considered by the Commission is as below.

Table 35: Depreciation for FY 2010-11

(Rs. Crore)

Particulars	APR Order	Actual	Approved
Opening GFA	1,621.59	1,616.80	1,608.90
Addition of assets during the year	70.66	14.15	7.28

Particulars	APR Order	Actual	Approved
Retirement of assets during the year	-	(1.86)	(1.86)
Closing GFA	1,692.25	1,629.09	1,614.31
Depreciation (as a % of Average GFA)	1.03%	0.98%	0.98%
Depreciation	17.14	15.98	15.87

4.12. Return on equity for FY 2010-11

4.12.1. RInfra-G submitted that it had computed the return on equity (RoE) for FY 2010-11 for its generation business in accordance with the Tariff Regulations, 2005, which stipulates a 14% return on equity per annum on the regulatory equity at the beginning of the financial year.

4.12.2. The Commission noticed that there were retirements of assets to the tune of Rs. 2.91 Crore in FY 2010-11. Assets which are retired from the regulated business are no longer put to use for the regulated business. Since the intent of the Tariff Regulations, 2005 is to allow return on equity only on assets put to use the equity corresponding to the retired assets also needs to be reduced from the regulatory equity. Therefore, the Commission has subtracted 30% of the GFA of the retired assets while computing closing level of Regulatory equity for FY 2010-11.

4.12.3. The Commission had approved Rs. 531.34 Crore as the regulated equity at the beginning of FY 2010-11. Accordingly, the Commission has computed the RoE for FY 2010-11 on the opening balance of equity in accordance with the Tariff Regulations, 2005 as applicable for the generation business. The summary of RoE as projected by RInfra-G and as considered by the Commission for FY 2010-11 is summarised in the following table:

Table 36: Return on equity for FY 2010-11

(Rs. Crore)

Particulars	APR Order	Actual	Approved
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Particulars	APR Order	Actual	Approved
Regulatory equity at beginning of year	535.14	534.39	531.34
Equity portion of capitalisation	21.20	4.24	2.18
Less: Equity portion of retired assets	-	-	(0.56)
Regulatory equity at the end of the year	556.34	538.63	532.96
Total return on regulated equity	74.92	74.81	74.39

4.13. Interest on working capital for FY 2010-11

4.13.1. RInfra-G did not pay any amount towards interest on working capital. However, RInfra-G submitted that it attempted to determine its actual working capital requirement and accordingly computed the actual interest on working capital considering a normative interest rate (the SBI PLR) of 11.75%. The interest on working capital according to this computation worked out to Rs. 17.08 Crore. RInfra-G has also computed the interest on working capital on normative basis as Rs. 9.87 Crore and has proposed sharing of losses on account of the difference of Rs. 7.21 Crore.

4.13.2. The Commission has estimated the working capital requirement of RInfra-G for FY 2010-11 after considering the provisional expenditure of various heads for FY 2010-11. The Commission has considered the short-term SBI PLR of 11.75% prevalent at the time of RInfra-G filing its petition for determination of tariff for FY 2010-11. The Commission has estimated the interest on working capital for FY 2010-11 as Rs. 9.74 Crore. The Commission will consider the sharing of gains/ losses under this head at the time of final Truing Up of FY 2010-11.

Table 37: Interest on working capital for FY 2010-11

(Rs. Crore)

Particulars	APR Order	As Estimated by RInfra-G	Approved
Working Capital			
Cost of Coal/Lignite (2 month)		110.92	117.50
Cost of Secondary Fuel Oil (1 month)		1.45	5.26
O & M expenses (1 month)		7.79	6.87
Maintenance Spares		25.25	14.63
Less: Payables for one month fuel at targeted Availability		-	(61.38)
Total Working Capital		145.40	82.88
Interest rate (SBI PLR)		11.75%	11.75%
Interest on Working Capital	9.29	17.08	9.74

4.14. Income tax for FY 2010-11

4.14.1. RInfra-G submitted that from FY 2009-10 onwards, the benefit of section 80(I) A, under the Income Tax Act, 1961, will not be available to DTSP. Accordingly, the income tax liability is computed at corporate tax rate of 33.99%.

4.14.2. RInfra-G submitted that income tax has been computed by grossing up RoE for FY 2010-11. Further, the balance MAT credit of Rs. 8.93 Crore has been adjusted in computing the income tax for FY 2010-11. Moreover, PLF incentive for FY 2010-11 has been added for determining the income tax for the period of FY 2010-11.

4.14.3. Accordingly, RInfra-G submitted that income tax payable by RInfra-G for FY 2010-11 works out to Rs. 36.85 Crore (after fully offsetting the MAT credit available) as against Rs. 17.02 Crore allowed in the Tariff Order for FY 2010-11 on September 8, 2010.

Table 38: Income tax for FY 2010-11 as submitted by RInfra-G

Particulars	RInfra-G
Return on equity	74.81
Income tax rate (%)	33.22%
Profit before tax	134.00*
Add: depreciation as per ARR	15.98
Less: depreciation as per IT	43.17
Add: normative interest on long term capital	16.32
Add: normative interest on working capital	14.68
Total profit	137.81
Income tax rate (%)	33.22%
Income tax	45.78
MAT rate (%)	16.99%
MAT payable	22.77
Less: MAT credit utilized	8.93
Net income tax liability	36.85

4.14.4. For the purpose of estimating the income tax for FY 2010-11, as discussed in section 3.17, the Commission is of the opinion that it is not an objective of any of the authorities to establish method but the objective is to determine the actual tax impact on the business of petitioner and allow that as expense. The method comes in play only to determine this actual tax impact as means to achieve the said fundamental goal and method itself is not the end goal in itself. From the limited records submitted prima-facie there are carried forward losses in some segments, MAT payments and MAT credit utilization all of which have tax impact which cannot be calculated without details called for.

4.14.5. The objective at the APR stage is to assess the gap between actual and provisional revenue sanctioned at ARR stage based on unaudited/ unadopted results. APR is an interim stage where the petitioners are supposed to submit all the data available with them on actuals but it is still recognized that the final figures may vary on audit/final adoption. The mechanism does not absolve petitioners from furnishing actual data at

APR stage on an unaudited/ unadopted basis. In fact there is clear presumption that only those aspects where the petitioner can demonstrate the variations from ARR stage based on actual data available would form part of APR and all other aspects where actual data is yet to be frozen would be considered at final True Up stage which is in fact meant for those aspects. From the limited records submitted prima-facie there are carried forward losses in some segments, MAT payments and MAT credit utilization all of which have tax impact which cannot be calculated without details called for.

4.14.6. It is clear that the petitioner's insistence on assuming that the methodology is end goal is misplaced and denial of information based on such self presumption is unwarranted.

4.14.7. As can be seen from section 3.17 of this Order, there has been fair amount of follow up on the issue of income tax with the petitioner. Considering the fact that out of information sought; statement of computation of tax and income tax return are mandatory statutory filings and the segmental break up is obviously the base on which the petitioner would have staked its claim for reimbursement. The inability of the petitioner to produce these evidentiary documents is incomprehensible.

4.14.8. Further from the mail dated 11th February, 2012 as quoted in paragraph 3.17.17 above, it is apparent that the petitioner has gone to the extent of advising the Commission on course of action rather than to take efforts for submission of the relevant information sought. The approach of the petitioner clearly appears to be stonewalling the fact finding on tax issue and thereby prima-facie presumption is against the petitioner on that count. However in spite of this apparently defiant attitude, to be just and fair to the petitioner considering that they may have some issues in record retrieving, the Commission is of the opinion that the petitioner should claim income tax during the final true up stage after the petitioner is able to produce the relevant information sought for.

4.14.9. The summary of income tax approved for FY 2010-11 by the Commission is provided below:

Table 39: Income tax for FY 2010-11*(Rs. Crore)*

Particulars	APR Order	As Estimated by RInfra-G	Approved
Income tax(Rs. Crore)	9.79	36.85	-----

4.15. Non-tariff income for FY 2010-11

4.15.1. RInfra-G submitted that the actual non-tariff income for FY 2010-11 was Rs. 10.29 Crore, out of which Rs. 8.22 Crore was the revenue from 'Sale of Scrap'. The Commission has verified this from the reconciliation statement dated November 4, 2011. The Commission has considered the actual non-Tariff income as submitted by RInfra-G for FY 2010-11.

Table 40: Non-tariff income for FY 2010-11*(Rs. Crore)*

Particulars	APR Order	As Estimated by RInfra-G	Approved
Non-tariff income(Rs. Crore)	5.00	10.29	10.29

4.16. Revenue from sale of electricity

4.16.1. RInfra-G submitted that the revenue from sale of electricity for FY 2010-11 was Rs. 1,129.32 Crore. Further, RInfra-G has considered PLF incentive receivable on actual net generation and fuel surcharge payable for difference between Rate of Energy Charge (REC) at actual calorific values estimated and REC determined by the Commission.

4.16.2. RInfra-G, in its petition, submitted that it is entitled for incentive on account of higher thermal generation than normative PLF of 80%. The incentive due to RInfra-G for FY 2010-11 is as shown below:

Table 41: PLF incentive for FY 2010-11

Unit	Actual Generation (MUs)	Net generation at 80% PLF (MU)	Energy available for incentive (MU)	Rate of incentive(Rs. per unit)	Incentive(Rs. Crore)
DTPS	4,041.4	3,162.5	878.9	0.25	21.97

4.16.3. The revenue for FY 2010-11 for RInfra-G based on the fixed cost and rate of energy charge as submitted by RInfra-G is as below.

Table 42: Revenue from sale of electricity for FY 2010-11

Particular	Unit	RInfra-G	Approved
Fixed cost	Rs. Crore/ Year	216.61	216.61
Rate of energy Charge	Rs./kWh	2.12	2.12
Energy charge	Rs. Crore	856.79	856.79
PLF incentive	Rs. Crore	21.97	21.97
Fuel surcharge	Rs. Crore	33.95	33.95
Revenue from existing tariff	Rs. Crore	1,129.32	1,129.32

4.16.4. However, the Commission will approve the actual revenue and PLF incentive at the time of final truing up of FY 2010-11.

4.17. Summary of Annual Fixed Charges for DTPS for FY 2010-11

4.17.1. Based on analysis of each element discussed above, the summary of Annual Fixed Charge of RInfra-G for FY 2010-11 approved by the Commission in its APR Order,

as estimated by RInfra-G in the present petition, and revised estimates of the Commission in this Order is given in the following table:

Table 43: Summary of Annual Fixed Charges for RInfra-G for FY 2010-11

(Rs. Crore)

S. No.	Particulars	Approved (APR Order)	Revised estimate by RInfra-G	Revised estimate by Commission
1	Operation & maintenance expenses	77.3	93.48	82.49
2	Depreciation, including advance against depreciation	14.21	15.98	15.87
3	Interest on long-term loan capital	13.91	16.32	15.46
4	Interest on working capital	6.32	17.08	9.74
5	Income tax	9.79	36.85	-----
6	Return on equity	72.46	74.81	74.39
7	Less: Non-tariff income	6.17	10.29	10.29
	Annual Fixed charges	187.82	244.24	187.66

4.17.2. As observed from the above table, the variation in Annual Fixed Charge for FY 2010-11 as approved in the APR Order and revised estimated Annual Fixed Charge for FY 2010-11 is not substantial. Hence, the Commission has not carried out the provisional truing up for FY 2010-11.

4.18. Applicability of Order

4.18.1. This Order shall come into force with immediate effect. However, the revenue gap/surplus determined in this Order would be considered while determining the tariff for the subsequent year(s).

Sd/-
(Vijay L. Sonavane)
Member

Sd/-
(V.P. Raja)
Chairman

APPENDIX – 1**Appendix 1A: List of persons who attended the Technical Validation Session held on September 7, 2011**

S. No.	Name
	RInfra Officials
1	Shri. Shri. R. R. Mehta
2	Shri. P. S. Pandya
3	Shri. Kapil Sharma
4	Shri. Vivek Mishra
5	Shri. Rohan Kale
6	Shri. M. S. Rao
7	Shri. Pravin G. Phokmare
8	Shri. Bhuvanesh Mehta
9	Shri. Himanshu Mishra
10	Shri. Amirkumar Samant
11	Shri. Vikas Sonar
12	Shri. Ganesh B.
	Others
13	Shri. Rakshpal Abrol, CR

Appendix 1B: List of persons who attended the Technical Validation Session held on September 28, 2011

S. No.	Name of the person
1	Shri R.R.Mehta,R Infra
2	Shri P.S.Pandya,R Infra
3	Shri Kapil Sharma,R Infra
4	Shri Vivek Mishra,R Infra
5	Shri Narendra Manja,R Infra
6	Shri Dinesh Mantri,R Infra
7	Shri Anup Ghosh,R Infra
8	Shri Sharad Nath,R Infra
9	Shri A.Vijay,R Infra
10	Shri Anvesh Jain,R Infra
11	Shri Ganesh. B, R Infra
12	Shri P.G.Phokmare,R Infra
13	Shri Bhuvanesh Mehta,R Infra
14	Shri Amirkumar Samant,R Infra
15	Shri Rohan Kale,R Infra

S. No.	Name of the person
16	Shri Vikas Sonar,R Infra
17	Dr. S.L.Patil,TBIA, Consumer Representative
18	Dr. Ashok Pendse,TBIA, Consumer Representative
19	Shri Rakshpal Abrol, Consumer Representative
20	Shri K. Sridhar,R Infra
21	Smt Varsha Nijsure,R Infra
22	Smt Vijaya Bhatwadkar,R Infra

APPENDIX – 2**Appendix – 2A: List of Objectors**

S. No.	Name of the person	Institution
1	Shri Ashok Pendse	Thane Belapur Industries Association, Consumer Representative (CR)
2	Shri Sandeep N. Ohri	Individual , CR
3	Shri N. Ponrathanam	CR
4	Shri Raksh Pal Abrol	Bharitya Udhami Avam Upbhokta Sangh, CR
5	Shri George John	Individual
6	Shri Sachin H. Parab	Individual
7	-	Urja Prabodhan Kendra
8	Shri Kamal Shah	Individual
9	Shri Jude G. Tandon	Individual
10	Shri Shujaulhad	Individual

Appendix 2B: List of persons participated in the Public Hearing

S. No.	Name of the person
1	Shri Vivek Mishra (RInfra)
2	Shri Ashok Pendse, CR
3	Shri Raksh Pal Abrol, CR
4	Shri Sandeep N. Ohri, CR
5	Shri N. Ponarathanam, CR
6	Shri Shujaulhad
7	Shri George John
8	Shri Jude G. Tandon