Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 1 of 2013

IN THE MATTER OF
Petition filed by Reliance Infrastructure Limited for its generation business (RInfra-G) for approval of Annual Revenue Requirement (ARR) and determination of Tariff for MYT Second Control Period from FY 2012-13 to FY 2015-16

Shri V. P. Raja, Chairman
Shri Vijay L. Sonavane, Member

Reliance Infrastructure Limited ……..……Petitioner

Dated: 13 June, 2013

ORDER

Reliance Infrastructure Limited (RInfra) submitted a Petition for approval of Annual Revenue Requirement (ARR) and determination of Tariff for MYT Second Control Period from FY 2012-13 to FY 2015-16 for its generation business. 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, is approving the Aggregate Revenue Requirement and determining the Tariff for the Second Control Period from FY 2012-13 and FY 2015-16 in this Order after considering all the submissions made by RInfra-G, all the objections and comments received from the public, issues raised during the public hearing, and all other relevant materials placed on record.

Abbreviations

A&G	Administrative and General
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal for Electricity
CAGR	Compounded Annual Growth Rate
CERC	Central Electricity Regulatory Commission
CIL	Coal India Limited
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
FGD	Flue Gas Desulphurisation
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
HFO	Heavy Fuel Oil
IDC	Interest During Construction
IT	Income Tax
kCal	Kilo Calories
kJ	Kilo Joule
kl	Kilo Litre
kW	Kilo Watt
LDO	Light Diesel Oil
MAT	Minimum Alternate Tax
MT	Metric Tonne
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
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
SERC	State Electricity Regulatory Commission
SHR	Station Heat Rate
TVS	Technical Validation Session
WPI	Wholesale Price Index

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1. BACKGROUND

1.1. Background of the Case

1.1.1. This Order disposes of the Petition filed by Reliance Infrastructure Limited (RInfra) for its generation business (RInfra-G) for approval of Annual Revenue Requirement (ARR) and determination of Tariff for the Second Control Period from FY 2012-13 to FY 2015-16. RInfra, which was formerly known as BSES Limited and Reliance Energy Limited, is a vertically integrated utility carrying out the functions of generation, transmission, wheeling and retail supply of electricity in the suburbs of Mumbai. It owns a coal fired thermal generating plant at Dahanu with an installed capacity of 2 x 250 MW for supply of power to the city of Mumbai in RInfra's Licence area.

1.1.2. ***Tariff Regulations, 2005:*** The Commission notified the Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005 ("Tariff Regulations, 2005") on 26 August, 2005. RInfra had submitted all Tariff Petitions prior to FY 2012-13 under the provisions of the Sections 86 and 62 of the Electricity Act, 2003 and the Tariff Regulations, 2005.

1.1.3. ***MERC (Multi Year Tariff) Regulations, 2011:***The Commission notified the MERC (Multi Year Tariff) Regulations, 2011 ("MYT Regulations, 2011") on 4 February, 2011. These Regulations were to be applicable for determination of Tariff in all cases covered under these Regulations from 1 April, 2011 and onwards up to FY 2015-16. These Regulations are applicable to all existing and future generating companies, transmission licensees and distribution licensees.

1.1.4. ***Exemption from MYT Regulations, 2011:*** In Case No. 45 of 2011, RInfra submitted a Petition requesting amendment of several provisions of the MYT Regulations, 2011, citing various operational difficulties associated with its generation business as well as licensed businesses. In that Petition, it also requested the Commission to defer the applicability of the MYT Regulations, 2011. Exemption was granted to RInfra-G, under Regulation 4.1 of the MYT Regulations, 2011, vide Order dated 2 September, 2011, for a period of one year (till 31 March, 2012), from determination of Tariff under the MYT Regulations, 2011.

1.1.5. ***Amendment to the MYT Regulations, 2011:*** An amendment to the MYT Regulations, 2011 was notified on 21 October, 2011, in which the generating companies and licensees were 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 for the exempted period.

1.1.6. ***Commission's Order on RInfra-G's Petition for approval of Aggregate Revenue Requirement for FY 2011-12:*** In Case No. 163 of 2011 RInfra submitted its Petition for approval of ARR for FY 2011-12 for its generation business under the provisions of the Tariff Regulations, 2005 as per the requirement of the amended MYT

Regulations, 2011. Though the Petition was based on actual audited accounts for FY 2011-12, RInfra did not seek for Truing up of the ARR. The Commission determined the ARR of RInfra-G for FY 2011-12 and issued the Order in this Case on 16 May, 2012.

1.1.7. ***Commission's Order on RInfra-G's Petition for approval of Business Plan for the MYT control period:*** In Case No. 156 of 2011, RInfra submitted its Petition for approval of business plan for the Second Control Period from FY 2012-13 to FY 2105-16 for its generation business under the provisions of the MYT Regulations, 2011. The Commission issued the Order in this Case on 25 October, 2012.

1.2. RInfra-G's Petition for approval of ARR and determination of Tariff for Second Control Period from FY 2012-13 to FY 2015-16

1.2.1. ***Submission of Petition:*** RInfra filed the present Petition on 31 December, 2012 for approval of ARR and determination of Tariff for MYT control period from FY 2012-13 to FY 2015-16 for its generation business. It had filed its present Petition under the provisions of MYT Regulations, 2011.

1.2.2. ***Technical Validation Session (TVS):*** The Commission scheduled a Technical Validation Session (TVS) on RInfra-G's Petition on 21 January, 2013 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 TVS, is provided in Annexure - 1.

1.2.3. During the TVS, RInfra submitted that certain errors in its Petition needed to be rectified, based on the data gaps identified by the Commission. RInfra submitted that the Petition would be corrected and a revised Petition would be submitted later.

1.2.4. ***Submission of amended Petition:*** In response to the data gaps identified by the Commission and subsequent changes required, RInfra submitted an amended Petition on 28 January, 2013. In this Petition, RInfra-G, made the following prayers to the Commission:

"

1) *Approved the ARR forecast and Tariff for FY 2012-13 to FY 2015-16, as contained in this Petition;*
2) *Approve the deviations from norms prescribed in the MYT Regulations, as sought in this Petition;*
3) *Allow additions/ alterations/ changes/ modifications to the petition at a future date;*
4) *Allow any Other Relief, order or direction, which the Hon'ble Commission deems fit to be issued;*

5) *Condone any inadvertent Omissions / errors / rounding off differences, etc. as may be there in the Petition.*

"

1.2.5. ***Admission of the Petition:*** The Commission admitted the Petition of RInfra-G on 1 February, 2013. In accordance with Section 64 of the EA 2003, RInfra was directed to publish the Petition to solicit suggestions and objections from the public. For publishing the notice, an abridged form was prescribed by the Commission to capture relevant information about this Petition. In accordance with Regulation 90 of the MERC (Conduct of Business) Regulations, 2004, the Commission also directed RInfra to publish the notice in at least two local Marathi and English daily newspapers, which have wide circulation in Mumbai licence area. The Commission also directed RInfra to reply expeditiously to all the suggestions and objections received from the public and other stakeholders on its Petition.

1.2.6. ***Public Notice:*** RInfra-G published its Petition in the prescribed abridged form in local newspapers inviting suggestions and objections from public. It was published in two daily English newspapers, viz. Hindustan Times and The Indian Express and two daily Marathi newspapers, viz. Loksatta and Samana on 26 February, 2013. Copies of the Petition and its summary were made available at the company's offices for inspection/ purchase by members of the public. It was also made available on RInfra's website www.rinfra.com. A copy of the public notice and the executive summary of the Petition were also made available on the website of the Commission (www.mercindia.org.in) in a downloadable format.

1.2.7. ***Public Hearing:*** A public hearing in the matter was held on 5 April, 2013 at Centrum Hall, Centre 1, World Trade Centre, Cuffe Parade, Mumbai. The list of the objectors and the persons, who participated in the hearing, is provided in Annexure- 2. The Commission ensured that the due process contemplated under law is followed at every stage to ensure transparency and public participation and to provide adequate opportunity to all those who wanted to express their opinion in this matter.

1.2.8. The Commission received written suggestions and objections as well as verbal submissions during the public hearing.

1.3. Organisation of the Order

1.3.1. This Order deals with the determination of ARR and Tariff for the Second Control Period of MYT for RInfra's generation business. It is organised in the following sections:

a) **Section 1** of the Order provides the background and brief description of the regulatory process undertaken by the Commission.

b) **Section 2** of the Order lists out the various suggestions and objections raised by objectors before or during the public hearing 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 compliance of RInfra-G to the various directives issued by the Commission in the Business Plan Order dated 25 October, 2012.

d) **Section 4** of the Order details the Commission's analysis of various components of the ARR of RInfra-G's Dahanu Thermal Power Station (DTPS) for the Second Control Period from FY 2012-13 to FY 2015-16. This section also details out the treatment of the various adjustments required due to the Order dated 22 March, 2013 pertaining to years prior to FY 2012-13.

e) **Section 5** of the Order provides the Tariff approved for RInfra-G for the Second Control Period.

f) **Section 6** of the Order lists out the directives to RInfra-G and discusses the applicability of the Order.

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

2.1. Information Requirement

Shri George John requested information relating to the performance parameters of DTPS from RInfra-G including Station Heat Rate (SHR), availability, projected energy generation, etc. He sought the information in a prescribed format.

RInfra-G's response

RInfra-G submitted that the details of projected energy generation by RInfra-G and the average rate of energy charges for each year of the control period FY 2012-13 to FY 2015-16 are indicated in the Form 2.1 of the RInfra-G MYT Financial Model submitted as Exhibit A to the RInfra-G MYT Petition. RInfra-G further submitted the information required in the prescribed format.

Commission's ruling

The Commission has noted the response of RInfra-G.

2.2. Improvement in Performance

Shri George John appreciated the performance of RInfra-G with respect to SHR and suggested the following:

- RInfra-G can bring down the auxiliary energy consumption below 8.5%, which has been projected for the Second Control Period.
- RInfra-G should strive to reduce the interest rate on loans taken and in-line with the interest rates of RInfra-T. RInfra-T had shown their interest expense for FY 2011-12 as 6.85%.
- O&M expense for RInfra-G should not be allowed more than the norms specified in the MYT Regulations, 2011.

RInfra-G's response

RInfra-G submitted the following:

- The auxiliary energy consumption as shown in this Petition is as per the norms specified in MYT Regulations, 2011. The actual auxiliary energy consumption of the plant has been historically lower.
- In a separate response under Case No. 141 of 2012, RInfra-T has clarified that the interest rate of 6.85% is incorrect as it only considers the interest expensed out in the ARR. Instead, all interest outgo, whether charged to revenue or capital should be considered for working out the effective interest rate for any given loan.
- The base O&M norms as approved by the Commission have been considered. The additional expenses are sought only for the FGD plant and

allocation of corporate expenses for which justification has been provided in the Petition.

Commission's ruling

RInfra-G has considered the SHR and auxiliary energy consumption according to the MYT Regulations, 2011 and does not reflect actual performance. The actual performance of RInfra-G will be considered during the mid-term review and final Truing up. Regarding interest rates, since RInfra-G has not taken any actual loans, the Commission has been allowing a particular interest rate for each of the years. The same has been elaborated in Section 4 of this Order. With regard to O&M expense, the Commission has analysed the same in Section 4 of this Order.

2.3. Appeal against Case No. 156 of 2011

Shri Rakshpal Abrol submitted that RInfra has filed an Appeal (Appeal No. 57 of 2013) against the Order No. 156 of 2011 under Section 111 (1) with the Hon'ble ATE. He submitted that he has been mentioned as Respondent No. 8 in the said Appeal but has not been served a copy of the Appeal. He submitted that any Appeal filed by RInfra should be made available in Public domain.

RInfra-G's response

RInfra-G submitted that the objection is not relevant to the present proceedings.

Commission's ruling

The objection raised is not relating to the proceedings in this case.

2.4. Power generation is not a licensed business

Shri Rakshpal Abrol submitted that power generation does not fall under any Regulations as it is delinked from licensing control after the Electricity Act, 2003 has come into force.

RInfra-G's response

RInfra submitted that even though generation is delicensed, the Commission is required to determine Tariff for a generating company selling power to a distribution licensee under Section 62 of the Electricity Act, 2003. The Petition is filed for such Tariff approval.

Commission's ruling

Under the provisions of Regulation 3.1(i) of the MYT Tariff Regulations, 2011, the Commission is required to determine Tariff for generating companies, which are selling power to distribution licensees.

2.5. Additional power generation

Shri Rakshpal Abrol submitted that RInfra-G should have proposed further power generation in the period from FY 2012-13 to FY 2015-16. He submitted that the plant has completed 25 years and needs further capacity addition.

RInfra-G's response

RInfra submitted that the present Petition pertains to the present generation plant of 500 MW at Dahanu and all generation from DTPS has been indicated in the Petition. RInfra-G submitted that the issue of capacity addition is beyond the purview of the present proceedings.

Commission's ruling

The Petition has been filed by RInfra-G for determination of the Tariff for its 500 MW DTPS, which is supplying power to RInfra-D. The present Petition is for determination of ARR and Tariff for the Second Control Period and the issue raised by the objector is not pertinent to the present case.

3. COMPLIANCE TO DIRECTIVES

The Commission issued the Business Plan Order of RInfra-G in Case No. 156 of 2011 on 25 October, 2012. In the said Order, the Commission issued certain directives to RInfra-G. The list of directives and the response of RInfra-G is elaborated below.

3.1. Directive on Retirement of Assets

The Commission directed RInfra-G to submit the description of assets proposed to be retired along with original cost of such assets to be retired over the Second Control Period. The Commission also directed RInfra-G to submit the details of equity and loan that would be retired along with these assets.

RInfra-G’s response

RInfra-G submitted that it would be very difficult to actually identify the assets proposed to be retired in each year of the MYT Period, so much in advance. It contended that there are certain schemes in the proposed capital expenditure plan which intend to replace certain old and obsolete equipment with new equipment, but whether the assets so replaced will be completely retired from service or will be used as spare or replaced from one unit, refurbished and used in another are operational issues and cannot be forecasted at this time. Accordingly, for the purpose of the petition, RInfra-G has submitted that it has estimated an amount towards retirement of assets based on the actual retirement of assets in FY 2010-11 (being the year with annual overhaul as opposed to FY 2011-12 where no annual overhaul was taken by DTPS).

Commission’s ruling

In the absence of any forecast on retirement of assets by RInfra-G, the Commission has considered the actual retirement of assets in FY 2010-11 for each year of the Second Control Period. Further, the Commission has considered the debt to equity ratio as 70:30 and would consider the actual debt and equity component at the time of Truing-up.

3.2. Directive on O&M Expenses

The Commission directed RInfra-G to submit the details on abnormal O&M expense for FY 2007-08 to FY 2009-10, if any, in the MYT Petition for the Second Control Period.

RInfra-G’s response

RInfra-G submitted that the operation & maintenance expense as submitted during respective Truing up petitions of the first control period were based on audited results and reflected the expenses incurred in a business as usual scenario i.e. there are no abnormal expenses in the same. RInfra-G further submitted that all the three years, i.e. FY 2007-08 to FY 2009-10 were normal years of operation where usual overhaul was taken and there were no incidents which could have caused any increase of expenses.

Commission's ruling

The Commission has noted RInfra-G's submission in this regard while approving the O&M expense in Section 4 of this Order.

3.3. Directive on Depreciation

The Commission directed RInfra-G to submit the correct computation of depreciation for the period FY 2012-13 to FY 2015-16 in the MYT Petition for the Second Control Period.

RInfra-G's response

RInfra-G submitted that the depreciation calculation has been provided in Exhibit B of the Petition. RInfra-G submitted that the depreciation is based on the projected capitalisation and the methodology adopted has been duly explained in section 4.2.5 of the Petition.

Commission's ruling

The Commission has analysed the submission made by RInfra-G as Exhibit B in the petition and had found certain errors in the submission. The Commission has dealt with the issue of computation of depreciation in Section 4 of this Order.

3.4. Directive on Fuel Price

The Commission directed RInfra-G to consider the current exchange rates for projections of the fuel prices while filing the MYT Petition for the Second Control Period.

RInfra-G's response

RInfra-G submitted that the fuel quality, fuel price and landed cost along with the fuel cost are based on actual data for FY 2012-13 and hence considers the current exchange rate.

Commission's ruling

The Commission has analysed the submissions of RInfra-G in Section 3.2 of its petition. The Commission has dealt with fuel expenses in Section 4 of this Order.

4. AGGREGATE REVENUE REQUIREMENT AND DETERMINATION OF TARIFF FOR FY 2012-13 TO FY 2015-16

4.1. RInfra-G's Petition for ARR and Tariff Determination for FY 2012-13 to FY 2015-16

4.1.1. The Commission had approved the Business plan for RInfra-G for the Second Control Period in Case No. 156 of 2011 vide Order dated 25 October, 2012 and directed RInfra-G to file its MYT Petition for the Second Control Period within sixty (60) days from the date of that Order. RInfra-G submitted its application for approval of ARR and determination of Tariff for the Second Control Period, i.e. FY 2012-13 to FY 2015-16 on 31 December, 2012.

4.1.2. In this section, the Commission has examined all the elements of ARR of RInfra's generation business for the Second Control Period and has approved the ARR in accordance with MYT Regulations, 2011.

4.2. Availability, PLF and gross generation

4.2.1. For FY 2012-13, RInfra-G has considered the actual net generation for the eight (8) month period from April to November, 2012 and has estimated the generation for the remaining four (4) months of FY 2012-13 to be the same as that in November, 2012. RInfra-G has grossed up the net generation by the normative auxiliary energy consumption to arrive at the gross generation for FY 2012-13. RInfra-G submitted that it has considered the availability of DTPS at 95.90% as against the norm of 85% for each year of the Second Control Period, considering an estimated non-availability of 4.10% for regular planned outages and unforeseen outages, if any.

4.2.2. RInfra-G has projected the PLF for each of the years from FY 2013-14 to FY 2015-16 to be equal to the availability (considering 100% loading of the plant). The Commission has considered the actual generation for FY 2012-13 and approves the availability and PLF for FY 2013-14 to FY 2015-16 as approved in the Business Plan Order in Case No. 156 of 2011.

Table 1. Availability and gross generation for the Second Control Period

Particular	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G				
Availability	95.89%	95.89%	95.89%	95.90%
PLF	NA	95.90%	95.90%	95.90%
Gross generation	4,429.67	4,200.42	4,200.42	4,211.93
Approved by the Commission				
Availability	95.89%	95.89%	95.89%	95.90%
PLF	101%	95.90%	95.90%	95.90%
Gross generation	4,429.67	4,200.42	4,200.42	4,211.93

4.3. Auxiliary energy consumption and net generation

4.3.1. RInfra-G submitted that it has considered an auxiliary energy consumption of 8.5% in line with the MYT Regulations, 2011 and as approved in the Business Plan Order in Case No. 156 of 2011. RInfra-G submitted that the MYT Regulations, 2011 do not specify any norms for auxiliary energy consumption for the FGD plant, and hence has considered an additional 55.78 MUs for auxiliary energy consumption by the FGD plant, based on the actual auxiliary energy consumption of FY 2011-12. The Commission had approved the auxiliary energy consumption for DTPS as 8.5% (excluding FGD consumption) in accordance with the MYT Regulations, 2011 in the Business Plan Order in Case No. 156 of 2011. Accordingly, it is approving the same in this Order. Further, the Commission has considered an additional consumption of 55.78 MUs, which was the actual auxiliary energy consumption of the FGD plant in FY 2011-12 for each year in the Second Control Period.

4.3.2. The following table summarises the Commission's approval of auxiliary energy consumption and net generation for RInfra-G.

Table 2. Auxiliary energy consumption and net generation for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Gross generation	MU	4,429.67	4,200.42	4,200.42	4,211.93
Auxiliary energy consumption - excluding FGD	MU	376.52	357.04	357.04	358.01
	%	8.50%	8.50%	8.50%	8.50%
Auxiliary energy consumption – FGD	MU	55.78	55.78	55.78	55.78
Total auxiliary energy consumption	MU	432.30	412.82	412.82	413.79
	%	9.76%	9.83%	9.83%	9.82%
Net generation	MU	3,997.37	3,787.60	3,787.60	3,798.13
As approved by the Commission					
Gross generation	MU	4,429.67	4,200.42	4,200.42	4,211.93
Auxiliary energy consumption - excluding FGD	MU	376.52	357.04	357.04	358.01
	%	8.50%	8.50%	8.50%	8.50%
Auxiliary energy consumption – FGD	MU	55.78	55.78	55.78	55.78
Total auxiliary energy consumption	MU	432.30	412.82	412.82	413.79
	%	9.76%	9.83%	9.83%	9.82%
Net generation	MU	3,997.37	3,787.60	3,787.60	3,798.13

4.4. Secondary fuel oil consumption

4.4.1. RInfra submitted that it has considered the secondary oil consumption of 1 ml/ kWh in accordance with Regulation 44.4 of the MYT Regulations, 2011. Since it is in accordance with the MYT Regulations, 2011, the Commission approves the same.

4.4.2. The following table summarises the Commission's approval of specific secondary fuel oil consumption for RInfra-G for the Second Control Period.

Table 3. Specific secondary fuel oil consumption for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Secondary fuel oil consumption	ml/kWh	1.00	1.00	1.00	1.00
Approved by the Commission					
Secondary fuel oil consumption	ml/kWh	1.00	1.00	1.00	1.00

4.5. Station heat rate

4.5.1. RInfra submitted that the norms specified in the MYT Regulations, 2011 for the station heat rate for DTPS are based on the historical performances, which are much tighter compared to the norms specified by the CERC and other SERCs for similar technology and vintage plants. In this regard, RInfra-G had, in its petition in Case No. 45 of 2011, requested the Commission not to discriminate RInfra-G compared to other generating stations in state/country and reconsider its decision of significantly reducing the rightful incentive for better operational performance.

4.5.2. RInfra-G submitted that the Commission while passing the Order in Case No. 156 of 2011 has ruled that the benchmark has been derived considering the past performance in order to provide motivation to the generating company to run the plant with as much efficiency as done in the past. It submitted that the view taken by the Commission is itself the very reason why there should be sufficient incentive available in the regulatory framework. By tightening the norms specifically for DTPS, way more than the industry-wide norms, the regulatory framework significantly reduce the available incentives. RInfra-G submitted that in a performance based regulatory framework, it is the lure of incentives and the deterrence of penalties that drive the companies to perform. RInfra-G also submitted that due to the worsening of coal mix and the fact that the situation is not likely to improve in future and the SHR achieved in the past will be very difficult to sustain in future.

4.5.3. The Commission has already taken a view on the SHR norms for RInfra-G in its Business plan Order in Case No. 156 of 2011. The Commission stated that if the SHR benchmark was derived only considering the industry wide performance and not considering the past performance of the generation plant and capital expenditure incurred, the generating company may not have sufficient motivation to continue to operate as efficiently as in the past. The Commission further stated that the MYT Regulations, 2011 have been finalised after following an appropriate regulatory process. The relevant extract is shown below:

"4.5.6 The Commission is of the view that norms can be fixed station wise based on the historical performance of the plant. The SHR of the plant is dependent on the age of the plant, the technology used, the capital expenditure incurred overhauling the plant, regular repair & maintenance expenditure incurred and various other factors. Hence, there could be wide variations in SHR across plants.

Further, if the Commission derives the benchmark considering only the industry-wide performance and does not consider the past performance of the generating plant, including the capital and operating expenditures incurred, the generating company may not have sufficient motivation to continue to operate as efficiently as it had been in the past. Therefore, a balanced approach is to provide a target which will adequately motivate the generating plant to perform at existing levels or better and still have rooms for earning incentives. Moreover, the MYT Regulations, 2011 have been finalised after following appropriate regulatory process after considering and deliberating on the views of all stakeholders on various issues. Considering all the facts discussed above, the Commission does not find any merit in altering the MYT norms for SHR. Therefore, though RInfra-G has proposed a SHR of 2,450 kCal/kWh, the Commission has considered the SHR as per the MYT Regulations, 2011."

4.5.4. Further, RInfra-G has appealed against the SHR approved by the Commission in the Business plan Order in Case No. 156 of 2011 before the Hon'ble ATE in Appeal No. 4 of 2013. In this Petition, RInfra-G submitted that it has considered the SHR according to the MYT Regulations, 2011 and this consideration is without prejudice to RInfra-G's contentions expressed in Appeal No. 4 of 2013. The Judgement in the matter is still pending. Therefore, the Commission is not revisiting the issue in this Order and approves the SHR in accordance with the MYT Regulations, 2011.

4.5.5. The following table summarises the Commission's approval of SHR for RInfra-G.

Table 4. Station heat rate for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Station Heat Rate	kCal/kWh	2,355	2,360	2,365	2,370
Approved by the Commission					
Station Heat Rate	kCal/kWh	2,355	2,360	2,365	2,370

4.6. Transit loss

4.6.1. RInfra has considered a transit loss of 0.8% on the landed cost of coal for raw, washed and imported coal. The transit loss considered by RInfra-G is in accordance with Regulation 44.6 of the MYT Regulations, 2011 and is hence the same is being approved by the Commission.

4.6.2. The following table summarises the Commission's approval of transit loss for RInfra-G.

Table 5. Transit losses for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Transit loss on washed coal	%	0.80%	0.80%	0.80%	0.80%

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Transit loss on raw coal	%	0.80%	0.80%	0.80%	0.80%
Transit loss on imported coal	%	0.80%	0.80%	0.80%	0.80%
Approved by the Commission					
Transit loss on washed coal	%	0.80%	0.80%	0.80%	0.80%
Transit loss on raw coal	%	0.80%	0.80%	0.80%	0.80%
Transit loss on imported coal	%	0.80%	0.80%	0.80%	0.80%

4.7. Coal price

4.7.1. RInfra submitted that the landed cost of coal is affected by the price notifications of Ministry of Railways, royalty rates on coal are impacted by both state and central government notifications and even the basic price of coal is impacted by the price notifications of Coal India Limited (CIL) issued from time to time. RInfra-G added that in addition to the same, changes in above mentioned parameters are adhoc and there is no fixed periodicity involved. Therefore, RInfra-G submitted that any projection of such variations made by the generating plant for future years may significantly differ from the actual scenario.

4.7.2. RInfra-G submitted that the GCV of coal has been assumed to remain same at the level presently being realised during FY 2012-13 and since the price depends on GCV of coal received, the projection of basic price should also remain same as actually realised (i.e. average of the basic price of coal during the period from April to November of FY 2012-13). Accordingly RInfra-G assumed the following for projecting the landed cost of coal:

- Actual landed cost of each fuel type in Rs. /MT as per the average actual during the period from April to November of FY 2012-13 and assumed same for the remaining period of the year. Thereafter from FY 13-14 onwards:
- Basic price of washed coal for each year of the Second Control Period considered same as actual monthly average during the period from April to November of FY 2012-13.
- Basic price of raw coal for each year of MYT Period considered same as actual of FY 2011-12, since there was no actual consumption of raw coal in FY 2012-13 (till November 2012).
- Freight charges on coal have been projected considering escalation rate based on previous 6 year CAGR of railway freight and same applied on estimated prices of FY 2012-13.
- Other charges on coal considered same as actual monthly average during the period from April to November of FY 2012-13.
- Landed cost of imported coal has been projected at the same rate as average actuals during the period from April to November of FY 2012-13.

4.7.3. The Commission asked RInfra-G to provide bills for the purchase of coal and related costs. RInfra-G submitted sample bills for April 2012 and November 2012. The

Commission is of the view that given the scenario of changing price of coal, it would be appropriate to consider the latest available prices for coal for the purpose of determination of ARR. Any variation in the price of coal would be adjusted through the FAC mechanism. Therefore, the Commission has considered RInfra-G's submission and approves the cost of coal as per the actual cost of coal for the eight (8) month period from April to November, 2012.

4.7.4. For the cost of freight, the Ministry of Railways has issued a notification for revised freight rates, which would be applicable from 1 April, 2013. The freight rates have been increased by about 5.8% for a distance of 1,300 km, which is the approximate distance from the SECL coal mines, where RInfra-G receives its coal from, to the Dahanu plant. Therefore, the Commission has considered a 5.8% increase in the freight as against 4.37% (6 year CAGR) projected by RInfra-G for FY 2013-14. For FY 2014-15 and FY 2015-16, the Commission has considered an increase in freight rate of 4.37% per year as estimated by RInfra-G.

4.7.5. The landed cost of coal as submitted by RInfra-G and approved by the Commission is given in the table below.

Table 6. Price for primary fuel for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Washed Coal	Rs./MT	3,361.15	3,438.67	3,519.58	3,604.02
Raw Coal	Rs./MT	2,785.81	2,863.33	2,944.23	3,028.67
Imported Coal	Rs./MT	5,188.00	5,188.00	5,188.00	5,188.00
Approved by the Commission					
Washed Coal	Rs./MT	3,361.15	3,464.04	3,546.05	3,631.65
Raw Coal	Rs./MT	2,785.81	2,888.69	2,970.71	3,056.31
Imported Coal	Rs./MT	5,188.00	5,188.00	5,188.00	5,188.00

4.8. Calorific Value of Coal

4.8.1. RInfra-G submitted that it has no control on the quality of coal received from CIL. It has assumed that the average GCV of the washed and imported coal, actually received during the period from April to November of FY 2012-13 to remain same for each year of the Second Control Period. RInfra-G submitted that in absence of raw coal usage during FY 2012-13, the fuel quality of raw coal as actually received during FY 2011-12 has been assumed to remain same for each year of the Second Control Period. The Commission analysed the GCV of coal received by RInfra-G from CIL for the last five (5) years and has found that the GCV has been varying significantly as observed from the table below.

Table 7. Historical GCV of coal received from CIL

Particular	Unit	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13
Washed Coal	kCal/kg	3,741	3,689	2,632	3,450	3,423

Particular	Unit	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13
Raw Coal	kCal/kg	3,505	3,104	2,329	2,838	NA

4.8.2. Given that there has been a large variation in GCV over the last 5 years, the Commission, at this stage has considered the actual GCV of the coal received by RInfra-G for the eight (8) month period from April to November, 2012 for the Second Control Period.

Table 8. Calorific value for coal for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Washed Coal	kCal/kg	3,423.38	3,423.38	3,423.38	3,423.38
Raw Coal	kCal/kg	2,838.03	2,838.03	2,838.03	2,838.03
Imported Coal	kCal/kg	4,258.13	4,258.13	4,258.13	4,258.13
Approved by the Commission					
Washed Coal	kCal/kg	3,423.38	3,423.38	3,423.38	3,423.38
Raw Coal	kCal/kg	2,838.03	2,838.03	2,838.03	2,838.03
Imported Coal	kCal/kg	4,258.13	4,258.13	4,258.13	4,258.13

4.9. Secondary fuel oil – price and calorific value

4.9.1. For estimating the price of LDO for the Second Control Period, RInfra-G has analysed the price of LDO for the last three (3) years. The CAGR over the last three (3) years was 7.12%. According to the Petition, RInfra-G has considered this escalation rate for the Second Control Period, considering the base price of LDO to be that of FY 2012-13 and applying escalation from FY 2013-14 onwards. However, in Form 2.1, RInfra-G has considered escalation for FY 2012-13 as well. Hence, the Commission raised a query as to why it has considered an escalation rate for FY 2012-13. RInfra-G replied that the price for FY 2012-13 has been considered as the base for the projecting the price of LDO for the period of FY 2013-14 to FY 2015-16. Therefore, the Commission has considered FY 2012-13 as the base price and considered an escalation only from FY 2013-14, instead of considering an escalation from FY 2012-13, which had been considered by RInfra-G in Form 2.1.

4.9.2. The Commission has considered the price of LDO of FY 2012-13 as the base and applied an escalation of 7.12%, for estimating the cost for FY 2013-14 to FY 2015-16.

4.9.3. Regarding the GCV of LDO, RInfra-G has submitted it has considered the actual GCV of LDO for the eight (8) month period from April-November 2012 for each year in the Second Control Period. The Commission has considered the same.

4.9.4. The cost of secondary fuel oil and the GCV of secondary fuel approved for the Second Control Period are summarised in the following table.

Table 9. Secondary fuel oil cost and GCV for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Cost of secondary fuel oil	Rs./kl	57,110.27	61,175.84	65,530.83	70,195.84
GCV of secondary fuel oil	kCal/kg	10,745.13	10,745.13	10,745.13	10,745.13
Approved by the Commission					
Cost of secondary fuel oil	Rs./kl	53,314.88	57,110.27	61,175.84	65,530.83
GCV of secondary fuel oil	kCal/kg	10,745.13	10,745.13	10,745.13	10,745.13

4.10. Energy charge and rate of energy charge

4.10.1. Based on the above approved fuel cost, GCV and performance parameters, the energy charge and total cost of fuel for the Second Control Period is summarised below.

Table 10. Energy charge and rate of energy charge for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Cost of coal	Rs. Crore	1,102.00	1,062.89	1,081.58	1,104.06
Cost of secondary fuel oil	Rs. Crore	25.30	25.70	27.53	29.57
Total cost of fuel	Rs. Crore	1,127.30	1,088.59	1,109.10	1,133.63
Net generation	MUs	3,997.37	3,787.60	3,787.60	3,798.13
Cost of coal	Rs./kWh	2.76	2.81	2.86	2.91
Cost of secondary fuel oil	Rs./kWh	0.06	0.07	0.07	0.08
Energy charge	Rs./kWh	2.82	2.87	2.93	2.98
Approved by the Commission					
Cost of coal	Rs. Crore	1,102.00	1,068.03	1,086.95	1,109.70
Cost of secondary fuel oil	Rs. Crore	23.62	23.99	25.70	27.60
Total cost of fuel	Rs. Crore	1,125.61	1,092.02	1,112.65	1,137.30
Net generation	MUs	3,997.37	3,787.60	3,787.60	3,798.13
Cost of coal	Rs./kWh	2.76	2.82	2.87	2.92
Cost of secondary fuel oil	Rs./kWh	0.06	0.06	0.07	0.07
Energy charge	Rs./kWh	2.82	2.88	2.94	2.99

4.11. Operation & maintenance expense

4.11.1. Operation and maintenance (O&M) expense comprises employee related expenses, administrative and general (A&G) expenses and repair and maintenance (R&M) expenses.

4.11.2. With regard to O&M expense, the Regulation 32.1 of MYT Regulations, 2011 provides:

"45.1 Existing Generating Stations a) The Operation and Maintenance expenses including insurance shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending

March 31, 2010, based on the audited financial statements, excluding abnormal Operation and Maintenance expenses, if any, subject to prudence check by the Commission. b) The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31, 2009 and shall be escalated based on the escalation factor as approved by the Commission for the respective years to arrive at operation and maintenance expenses for the base year commencing April 1, 2011. c) The O&M expenses for each subsequent year shall be determined by escalating the base expenses determined above for FY 2010-11, at the escalation factor 5.72% to arrive at permissible O&M expenses for each year of the Control Period.....”

4.11.3. The Commission had approved the O&M expense in line with the MYT Regulations, 2011 in the Business plan Order dated 25 October, 2012. RInfra-G has also considered the same in accordance with the Business Plan Order. However, RInfra submitted that the actual R&M expense for FGD plant has been Rs. 7.50 Crore in FY 2010-11 against Rs. 6.94 Crore approved by the Commission.

4.11.4. RInfra-G submitted that in accordance with the directives issued in Case No. 180 of 2011, corporate expense allocation has been considered for the generation business separately. It has considered the corporate expense allocation same as that in FY 2011-12.

4.11.5. In the Business plan Order dated 25 October, 2012; the Commission has considered the actual O&M expense for the period for FY 2007-08 to FY 2009-10 to arrive at the O&M expense for the Second Control Period. Further, the Commission had directed RInfra-G to submit the details of any abnormal O&M expense in the period of FY 2007-08 to FY 2009-10. RInfra-G, in this Petition, submitted that there was no abnormal O&M expense in the period for FY 2007-08 to FY 2009-10.

4.11.6. Regarding the R&M expense for the FGD plant, the Commission had approved R&M expense for FGD as Rs. 6.94 Crore for each year of the second control period in the Business plan Order dated 25 October, 2012. For projecting the R&M expense for FGD for the second control period, the Commission has considered the actual R&M expense on account of FGD in FY 2010-11, for each of the years of the second control period instead of the actual R&M expense on account of FGD in FY 2011-12 during which annual overhaul was deferred. As regards corporate expense, the base O&M expense of FY 2007-08 to FY 2009-10 did not consist of any corporate expenses, since all corporate expenses were allocated only to the distribution business. However, the Commission directed RInfra to in Case no. 180 of 2011 (RInfra-D Order dated June 15, 2012), whereby RInfra was asked to allocate the corporate expenses to all the 3 businesses (generation, transmission and distribution) and not just the distribution business. Therefore, it has resulted in an additional allocation of corporate expenses the generation business. Hence, the Commission has considered the actual corporate expense of FY 2011-12 as approved in Order No. 122 of 2012 dated 22 March, 2013. The summary of the O&M expense claimed by RInfra-G and approved for the Second Control Period is shown in the following table:

Table 11. Operation & maintenance expenses for Second Control Period

Particular	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G					
Base O&M expense	Rs. Crore	108.92	115.13	121.72	128.68
Additional O&M expense for FGD	Rs. Crore	7.50	7.50	7.50	7.50
Add: allocation of corporate expenses	Rs. Crore	8.33	8.33	8.33	8.33
Total	Rs. Crore	124.75	130.96	137.55	144.51
Approved by the Commission					
Base O&M expense	Rs. Crore	108.90	115.13	121.72	128.68
Additional O&M expense for FGD	Rs. Crore	7.50	7.50	7.50	7.50
Add: allocation of corporate expenses	Rs. Crore	8.33	8.33	8.33	8.33
Total O&M expense	Rs. Crore	124.73	130.96	137.55	144.51

4.12. Capital expenditure and capitalisation

4.12.1. RInfra-G submitted that capital expenditure plan for the Second Control Period is developed to meet the requirements of the generating station for the following:

- Renovation & Modernization (R&M) of plant equipment on account of technological obsolescence, lack of OEM support, wear and tear, etc.;
- Reliability Improvement (RI) consisting largely of replacing technologically obsolete equipment;
- Legal & Regulatory Compliances such as safety guidelines, environmental compliances, etc.; and
- Augmentation and Strengthening (A&S) of plant equipment

4.12.2. RInfra-G submitted that DTPS would be completing 20 years in FY 2015-16 and hence there is a need of various capital expenditure schemes to meet its operational standards. RInfra-G submitted that there are various schemes that need to be implemented because either the OEM of respective equipment has withdrawn inventory or service support or the technology has become obsolete and there will be no OEM support in future for such equipment. Therefore, in such situations if the equipment is not upgraded to existing or upcoming technology, its failure and lack of spares or possibility of repair would mean forced shutdown of the generating station and loss of reliability and availability.

4.12.3. RInfra-G submitted that all DPRs pertaining to the proposed capital expenditure plan have been submitted to the Commission for in-principle approval. RInfra-G submitted that 14 DPRs of various capital expenditure schemes having capitalisation during the Second Control Period have been submitted to the Commission for in-principle approval at the time of the Business plan Order dated 25 October, 2012. Further, in addition to the fourteen (14) schemes, two (2) new capital expenditure schemes, which had been identified during the annual overhaul, have been submitted to the Commission for approval for the Second Control Period. Further, one more DPR pertaining to various non-DPR schemes was submitted on 8 February, 2013.

4.12.4. The Commission has scrutinised the various DPRs, and has accorded in-principle approval to a total of 15 of the 17 capital expenditure schemes submitted by RInfra-G for in-principle approval. Based on the scrutiny of the various schemes, the capital expenditure approved for each of the schemes is shown in the table below.

Table 12. Capital expenditure schemes for which in-principle approval has been accorded by the Commission

S. No.	DPR Name	Approval amount (Rs. Crore)
1	Bundled DPR for Non-DPR Capex Schemes of Renovation & Modernization Projects at DTPS for FY 2010-11	18.18
2	Bundled DPR for Non-DPR Capex schemes for Renovation & Modernization of Ash Handling System	21.18
3	Bundled DPR for Non-DPR Capex schemes for Renovation & Modernization of Turbine and Its Auxiliaries	51.70
4	Bundled DPR for Non-DPR Capex schemes for Renovation & Modernization of Boiler and Boiler Auxiliaries	22.90
5	Bundled DPR for Non-DPR Capex schemes for Renovation & Modernization for Offsite Plant Auxiliaries	15.49
6	Bundled DPR for Non-DPR Capex Schemes of DTPS	19.79
7	Procurement of Spare Generator Rotor	29.00
8	Procurement of Generator Transformer	16.00
9	Bundled DPR for Non-DPR Capex Schemes for Energy Conservation in Main Plant Auxiliaries and BOP	11.60
10	Strengthening of Electrical System	24.40
11	Renovation & Modernisation of Control & Instrumentation System of Main Plant	60.00
12	Renovation of Coal Handling System	23.05

S. No.	DPR Name	Approval amount (Rs. Crore)
13	Installation of Electro Chlorination Plant	11.00
14	Installation of Tube Conveyer from Jetty to Coal Yard	50.00
15	Procurement and Installation of IP and LP turbine Module in Unit # 2	96.28
	Total	**470.57**

4.12.5. Apart from the above schemes, the Commission has also considered capitalisation on account of previously approved schemes. The following DPRs are under scrutiny by the Commission and would be considered based on the approval of the Commission in the mid-term review of RInfra-G.

Table 13. Capital expenditure schemes under scrutiny by the Commission

S. No.	DPR Name
1	Refurbishment of Civil Structure at DTPS based on RLA Study
2	DPR for schemes not approved as a part on in-principle approval process

4.12.6. Since, the capital expenditure approved in-principle by the Commission is different from that submitted by RInfra-G; the Commission has considered only such approved capital expenditure for the Second Control Period. The Commission asked RInfra-G to provide the details of actual (provisional) capitalisation for FY 2012-13. RInfra-G submitted that the actual capitalisation was only Rs. 35.63 Crore as compared to Rs. 152.61 Crore projected in its Petition. Therefore, RInfra-G submitted a revised phasing of capitalisation on 29 April, 2013, which is summarised below.

Table 14. Revised phasing of capitalisation submitted by RInfra-G

Rs. Crore

Particular	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G in the Petition				
DPR schemes	136.76	217.61	95.07	81.72
Non-DPR schemes	15.85	25.26	15.34	9.86
Total	152.61	242.87	110.41	91.58
Revised submission by RInfra-G				
DPR schemes (including IDC)	31.73	155.13	148.41	186.13
Non-DPR schemes	4.33	28.90	25.73	17.13
Total	36.06	184.03	174.14	203.26

4.12.7. The Commission has accepted the revised phasing of capital expenditure as submitted by RInfra-G, which is lower in FY 2012-13 and FY 2013-14 and higher in FY 2014-15 and FY 2015-16. The total capitalisation has, however, remained the same, i.e. Rs.

597 Crore. The Commission has considered the revised phasing as submitted by RInfra-G, but has restricted the total capitalisation to the amount approved in-principle by the Commission for the Second Control Period. The actual capitalisation in a particular year will be verified during the mid-term review.

4.12.8. In addition to the approved DPR schemes, the Commission has considered the projected capitalisation on account of Non-DPR schemes as submitted by RInfra-G. The Commission will scrutinise the capitalisation on account of Non-DPR during the mid-term review.

4.12.9. The following table summarises the approval of capitalisation for the Second Control Period.

Table 15. Summary of capital expenditure and capitalisation for Second Control Period

Rs. Crore

Particular	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Revised submission by RInfra-G				
DPR schemes	31.73	155.13	148.41	186.13
Non-DPR schemes	4.33	28.90	25.73	17.13
Total	36.06	184.03	174.14	203.26
Approval by the Commission				
DPR schemes	31.63	155.12	148.41	173.35
Non-DPR schemes	4.33	28.90	25.73	17.13
Total	35.96	184.02	174.14	190.48

4.13. Interest on long-term debt

4.13.1. As a part of its Business plan Petition, RInfra-G submitted that the proposed capital expenditure will be undertaken from the funds available from internal corpus only and there are presently no plans to draw any actual debt to meet its capital expenditure requirements. RInfra-G had submitted that if any actual external loan is subsequently availed during the course of the Second Control Period, the details of the same will be submitted during mid-term review or review at the end of control period, as the case may be.

4.13.2. Given that the funding for capital expenditure is through internal accruals, RInfra-G has considered a debt to equity ratio of 70:30 in accordance with Regulation 30 of the MYT Regulations, 2011.

4.13.3. As regards resetting the interest rates of outstanding normative debt as on 1 April, 2011, RInfra-G had provided its rationale in the Business plan Petition (Case No. 156 of 2011) and in its Petition for ARR of FY 2011-12 (Case No. 163 of 2011). However, the Commission had rejected RInfra's contention on resetting the interest rates in both the Orders. The said ruling in Case No. 163 of 2011 has been appealed against by RInfra-G before the Hon'ble ATE in Appeal No. 138 of 2012.

4.13.4. In this Petition, RInfra-G submitted that it has considered the rates as previously approved by the Commission and this consideration is without prejudice to RInfra-

G's contentions expressed in Appeal No. 138 of 2012. With regard to the interest rates for FY 2011-12 and the Second Control Period, RInfra-G submitted that it has considered the interest rate of 11.50% approved by the Commission.

4.13.5. The interest rates considered by RInfra-G in the Petition are as below:

Table 16. Interest rates considered by RInfra-G on long-term loans

Particular	Interest rate
Projects completed & capitalised during 2003-04	10.0%
Projects started in FY 2004-05	10.0%
Projects started in FY 2005-06	10.0%
Projects started in FY 2006-07	8.0%
Projects started in FY 2007-08	8.0%
Projects started in FY 2008-09	9.0%
Projects started in FY 2009-10	9.0%
Projects started in FY 2010-11	9.0%
Projects started in FY 2011-12	11.5%
Projects started in FY 2012-13	11.5%
Projects started in FY 2013-14	11.5%
Projects started in FY 2014-15	11.5%
Projects started in FY 2015-16	11.5%

4.13.6. Regulation 33 of the MYT Regulations, 2011 specifies that the rate of interest used for calculation of interest on long-term loans shall be weighted average rate of interest on the basis of actual loan portfolio at the beginning of each year. Further, the interest should be calculated on the normative average loan availed in a particular year.

4.13.7. However, the RInfra-G has considered only normative loans for the Second Control Period. Hence, as per the 2nd proviso to Regulation 33.5 of MYT Regulations, 2011, if the generation company does not have any actual borrowings, then the weighted average interest of the generating company or transmission licensee or distribution licensee as a whole needs to be considered.

4.13.8. The Commission attempted to arrive at the weighted average interest rate of actual borrowings in accordance with the Regulations quoted above. Therefore, the Commission computed the weighted average interest rate of RInfra as a whole and has considered the interest so computed for calculating interest expense of RInfra-G. To compute weighted average interest of RInfra as a whole, all the long term loans availed by RInfra as provided in the latest audited financial statements, i.e., for FY 2011-12 has been considered. However, the loans disallowed by the Commission in the respective Orders for RInfra-D (Case No. 158 of 2011) and RInfra-T (Case. No. 141 of 2012) have not been considered for computation of weighted average interest rate. The weighted average interest rate of RInfra as computed is provided below:

Table 17. Weighted average interest rate of RInfra as computed by the Commission

SL No	Particulars of long term borrowing	Amount (Rs crore)	Yearly interest (Rs crore)
1	6.35% secured NCD	250	15.88
2	6.70% secured NCD	125	8.38
3	5.95% secured NCD	100	5.95
4	5.60% secured NCD	150	8.4
5	11.55% secured NCD	850	98.18
6	ECB in foreign currency unsecured	763.12	50.59
7	Central bank of India	300	35.4
	Total	2,538.12	222.77
	Weighted average interest rate		8.78%

4.13.9. The Commission has applied interest rate on the average of opening balance and closing balance of loan for each year in order to compute the interest expense on long-term loans admitted during the MYT second control period for each of the year from FY 2012-13 to FY 2015-16.

4.13.10. The Commission has approved addition in loans for each of the years as per the capitalisation approved. The repayment of loans for the particular year has been considered equal to depreciation in accordance with Regulation 33 of the MYT Regulations, 2011.

4.13.11. The total interest expense claimed by RInfra and approved by the Commission for the Second Control Period is summarised in the table below:

Table 18. Interest on long-term loans for the Second Control Period

Rs. Crore

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G				
Opening balance of loan	186.61	265.93	406.10	457.00
Addition in loan	106.83	170.01	77.28	64.11
Repayment of loan	(27.50)	(29.84)	(26.38)	(24.59)
Closing balance of loan	265.93	406.10	457.00	496.52
Gross interest expense	20.75	33.90	45.24	50.68
Less: IDC	0.00	0.00	0.00	0.00
Net interest expenses	20.75	33.90	45.24	50.68
Average interest rate	9.17%	10.09%	10.48%	10.63%
As approved by the Commission				
Opening balance of loan	176.45	180.71	279.75	372.07
Addition in loan	25.17	128.81	121.90	133.33
Repayment of loan	(20.91)	(29.77)	(29.58)	(30.28)
Closing balance of loan	180.71	279.75	372.07	475.12
Gross interest expense	15.68	20.21	28.61	37.19
Less: IDC	0.00	0.00	0.00	0.00
Net interest expenses	15.68	20.21	28.61	37.19
Average interest rate	8.78%	8.78%	8.78%	8.78%

4.14. Depreciation

4.14.1. For computation of depreciation, RInfra-G submitted that it has considered the rates specified in the MYT Regulations, 2011. The rates for depreciation under the MYT Regulations, 2011 apply to assets upto 70% of the original cost and thereafter, the remaining depreciation shall be spread out over the balance useful life of the asset. The Commission in the proceedings of Case No. 156 of 2011 clarified that for the assets for which the depreciation rates are not provided for in the MYT Regulations, 2011, the rates as per Companies Act, 1956 can be considered. RInfra-G submitted that the same has been considered for computing depreciation over the Second Control Period.

4.14.2. RInfra-G provided a detailed working of the depreciation as Exhibit 'B' to its Petition. The Commission verified the depreciation working provided by RInfra-G. However, the Commission noticed that the computation of depreciation as provided by RInfra-G was incorrect as there were certain mistakes in the formulae and hence asked RInfra-G to correct the same. RInfra-G submitted vide letter dated 10 April, 2013 that there was an inadvertent hyper linking error in the Exhibit 'B' and mentioned that it would submit the revised computation after factoring in the revised capitalisation amount for the Second Control Period. RInfra-G submitted the revised computation of depreciation on 2 May, 2013. However, the formulae used for determination were incorrect and the life of the assets (for depreciation beyond 70%) has not been considered in the computation. Therefore, the Commission directs RInfra-G to provide a detailed computation of depreciation, along with an explanatory note on how the depreciation has been computed during the mid-term review of the Second Control Period.

4.14.3. RInfra-G has computed IDC for the Second Control Period based on a normative interest rate of 11.5%. However, the Commission has recomputed IDC based on the approved interest rate of 8.78% for the Second Control Period. For the purpose of computation of depreciation for the Second Control Period, the Commission has considered the overall depreciation rate based on the revised submission of RInfra-G and may consider a revised depreciation rate during the mid-term review based on the detailed computation of depreciation to be submitted by RInfra-G. The Commission has approved the depreciation for each year considering the average depreciation rate based on opening and closing GFA.

4.14.4. The depreciation as submitted by RInfra-G and approved by the Commission for the Second Control Period is presented in the table below:

Table 19. Depreciation for Second Control Period

Rs. Crore

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G				
Opening GFA	1,644.91	1,673.67	1,855.84	2,028.13
Addition during year	36.06	184.03	174.14	203.26

Rs. Crore

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Write-off / retirement during the year	(7.30)	(1.86)	(1.86)	(1.86)
Closing GFA	1,673.67	1,855.84	2,028.13	2,229.53
Depreciation	21.11	30.04	29.82	30.60
Average GFA	1,659.29	1,764.76	1,941.98	2,128.83
Depn as % of average GFA	1.27%	1.70%	1.54%	1.44%
As approved by the Commission				
Opening GFA	1,629.26	1,657.92	1,840.08	2,012.36
Addition during year	35.96	184.02	174.14	190.48
Write-off / retirement during the year	(7.30)	(1.86)	(1.86)	(1.86)
Closing GFA	1,657.92	1,840.08	2,012.36	2,200.97
Depreciation	20.91	29.77	29.58	30.28
Average GFA	1,643.59	1,749.00	1,926.22	2,106.66
Depn as % of average GFA	1.27%	1.70%	1.54%	1.44%

4.15. Interest on working capital

4.15.1. Regulation 35.1 of the MYT Regulations provide for the following with respect to the determination of working capital requirement and interest rate for working capital.

"35.1 Generation:
(a) In case of coal based/oil-based/lignite-fired Generating Stations, working capital shall cover:
(i) Cost of coal or lignite for one and half months (1½) for pit-head Generating Stations and two (2) months for non-pit-head Generating Stations, corresponding to target availability;
(ii) Cost of oil for two (2) months corresponding to target availability;
(iii) Cost of secondary fuel oil for two (2) months corresponding to target availability;
(iv) Operation and Maintenance expenses for one (1) month;
(v) Maintenance spares at one (1) per cent of the historical cost; and
(vi) Receivables for sale of electricity equivalent to two (2) months of the sum of annual fixed charges and energy charges calculated on target availability; minus
(vii) Payables for fuel (including oil and secondary fuel oil) to the extent of one (1) month of the cost of fuel calculated on target availability…..
……….
(d) In case of own Generating Stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.

(e) Rate of interest on working capital shall be on normative basis and shall be equal to the State Bank Advance Rate (SBAR) of State Bank of India as on the date on which the application for determination of tariff is made."

4.15.2. RInfra-G submitted the interest rate considered for interest of working capital has been considered as 14.50% for FY 2012-13, which was the SBAR as on the date of filing the Petition and 13% for the remaining years of the Second Control Period since it expects the interest rates to come down going forward. However, in the forms submitted, RInfra-G has considered 14.50% for all the years in the Second Control Period. The Commission asked RInfra-G to clarify this discrepancy. RInfra-G replied that the interest rate of 13% mentioned in the Petition was a typographical error, which may be ignored by the Commission. The Commission verified the SBAR from the website of SBI (www.sbi.co.in) and found the SBAR to be accurate. As regards the other years in the Second Control Period, the Commission is approving the same interest rate (14.50%), which was the SBAR at the time of RInfra-G filing the present Petition.

4.15.3. RInfra-G had considered the cost of fuel and secondary fuel oil considering a target availability of 80%. However, the Commission has computed the cost of fuel and secondary fuel oil considering a target availability of 85% in-line with the Regulation 44 of the MYT Regulations, 2011. Following the norms specified in Regulation 35 of the MYT Regulations, 2011, the Commission has computed the interest on working capital based on the approved fuel cost, O&M expense, and GFA. RInfra-G's application and the Commission's approval for interest on working capital is summarised in the table below:

Table 20. Interest on working capital for Second Control Period

Rs. Crore

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G				
Working capital	103.66	102.82	107.02	110.27
Interest rate considered	14.50%	14.50%	14.50%	14.50%
Interest on working capital	15.03	14.91	15.52	15.99
As approved by the Commission				
Working capital	113.21	111.36	115.21	119.24
Interest rate considered	14.50%	14.50%	14.50%	14.50%
Interest on working capital	16.42	16.15	16.70	17.29

4.16. Return on equity

4.16.1. RInfra-G has computed the Return on equity (ROE) as 15.50% on the opening balance of regulatory equity for each year of the Second Control Period. Regulation 32.1 of the MYT Regulations, 2011 provides:

"32.1 Generation

32.1.1 ***Return on equity capital shall be computed on the equity capital determined in accordance with Regulation 30 at the rate of 15.5 per cent per annum in Indian Rupee terms****:*

Provided that in case of projects commissioned on or after 1st April, 2011, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in Annexure-III:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever…." ***(emphasis added)***

4.16.2. Since the financing for the capital expenditure has the debt to equity ratio of 70:30, the Commission has considered 30% of the approved capitalisation as regulatory equity. The Commission has computed RoE for RInfra-G for each year in the Second Control Period at a rate of 15.50% of the opening level of regulatory equity and approves the same as per the following table.

Table 21. Return on equity for Second Control Period

Rs. Crore

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G				
Reg. equity at beginning of year	541.95	587.18	659.48	692.05
Equity portion of capitalised assets	45.78	72.86	33.12	27.47
Less: Reduction in equity due to retirement of assets	(0.56)	(0.56)	(0.56)	(0.56)
Reg. equity at the end of the year	587.18	659.48	692.05	718.96
Return on reg. equity at beginning of year	15.50%	15.50%	15.50%	15.50%
Total Return on regulated equity	84.00	91.01	102.22	107.27
As approved by the Commission				
Reg. equity at beginning of year	537.44	546.04	600.69	652.37
Equity portion of capitalised assets	10.79	55.21	52.24	57.14
Less: Reduction in equity due to retirement of assets	(2.19)	(0.56)	(0.56)	(0.56)
Reg. equity at the end of the year	546.04	600.69	652.37	708.96
Return on reg. equity at beginning of year	15.50%	15.50%	15.50%	15.50%
Total Return on regulated equity	83.30	84.64	93.11	101.12

4.17. Tax on Income

4.17.1. In the Order for Truing-up for FY 2010-11 and FY 2011-12 in Case No. 122 of 2012, dated 22 March, 2013, RInfra's claim towards income tax reimbursement was kept in abeyance for FY 2011-12 because RInfra-G did not submit the basic documents on the basis of which the claim could be assessed by the Commission. After considering all the submission available with the Commission, the income tax approved for FY 2010-11 and FY 2011-12 by the Commission was Rs. 17.80 Crore and Rs. 0 Crore respectively.

4.17.2. As regards computation of Income-Tax for FY 2012-13 to FY 2015-16, the MYT Regulations, 2011 specify that the Commission shall provisionally approve Income Tax payable for each year of the Control Period based on the actual Income Tax payable as per the latest audited accounts as allowed by the Commission subject to prudence check, and the variation between the actual and approved Income Tax shall be reimbursed at the time of Mid Term Performance Review. The said Regulation is reproduced below for reference:

"34.1 The Commission, in its MYT Order, shall provisionally approve Income Tax payable for each year of the Control Period, if any, based on the actual income tax paid on permissible return as allowed by the Commission relating to the electricity business regulated by the Commission, as per latest Audited Accounts available for the applicant, subject to prudence check:

Provided that no Income Tax shall be considered on the amount of efficiency gains and incentive earned by the Generating Companies, Transmission Licensees and Distribution Licensees.

Provided further that the Generating Company, Transmission Licensee and Distribution Licensee shall bill the Income Tax under a separate head called "Income Tax Reimbursement" in their respective bills

….

34.2 Variation between Income Tax actually paid and approved, if any, on the income stream of the regulated business of Generating companies, Transmission licensees and Distribution licensees shall be reimbursed to/recovered from the Generating Companies, Transmission Licensees and Distribution Licensees, based on the documentary evidence submitted at the time of Mid-term Performance Review and MYT Order for the third Control Period, subject to prudence check."

4.17.3. Since, the recovery of the Income Tax through the ARR and tariffs will be viewed as income by the Income Tax authorities, the Income Tax component for FY 2011-12 has to be duly grossed up by the applicable tax rate (Corporate tax rate of 33.99% or MAT rate of 20.96%) in the year of recovery, in accordance with the various Judgments issued by the Hon'ble ATE in this regard. Accordingly, the Income Tax amount of Rs. 0 Crore considered for recovery for FY 2011-12, has been grossed up by the applicable tax rate, thereby, resulting in an amount of Rs. 0 Crore to be allowed for recovery, in the next tariff period when it is actually offered to tax.

4.17.4. In accordance with the MYT Regulations, 2011, the Income Tax for FY 2012-13 to FY 2015-16 will have to be considered at the same level as approved by the Commission for FY 2011-12 (Rs 0 Crore), which has been grossed up for income tax, since that is the latest year for which audited accounts/ information has been submitted and prudence check has been undertaken by the Commission. Further, the true up based on actual Income Tax paid by RInfra-G shall be considered at the time of Mid-Term Review by the Commission.

4.17.5. Further, as per Regulation 34 of the MYT Regulations, 2011, the generating company is required to bill the income tax under a separate head called "Income Tax Reimbursement". However, if income tax is allowed as separate reimbursement, it may lead to certain issues relating to claiming expenses with income tax authorities. In view of this, the Commission, in exercise of its powers under Regulation 100 "Power to remove difficulties" of the MYT Regulations, 2011 hereby orders that the difficulty in implementing Regulation 34 stands removed by allowing the inclusion of income tax expense as a part of the annual fixed charges.

Table 22. Income Tax for Second Control Period

Rs. Crore

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G				
Income Tax	17.80	17.80	17.80	17.80
As approved by the Commission				
Income Tax	0.0	0.0	0.0	0.0

4.18. Non-tariff income

4.18.1. RInfra-G has estimated the non-tariff income as Rs. 15.91 Crore for FY 2012-13 and has considered the non-tariff income to be the same for the Second Control Period. The Commission has noticed the non-tariff income has increased significantly from FY 2011-12, when the non-tariff income was Rs. 11.89 Crore due to additional revenue from fly ash and income from sale of scrap. The Commission has considered an increase in non-tariff income at 5% per annum for the second control period.

Table 23. Non-tariff income for Second Control Period

Rs. Crore

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G				
Non-tariff income	15.91	15.91	15.91	15.91
As approved by the Commission				
Non-tariff income	15.91	16.71	17.54	18.42

4.19. Revenue from sale of electricity for FY 2012-13

4.19.1. Since FY 2012-13 has come to an end, RInfra-G has estimated the revenue from sale of electricity for FY 2012-13 and computed the revenue gap for FY 2012-13. The revenue estimate of RInfra-G for FY 2012-13 is based on actual data for the months of April to November, 2012 and for the remaining 4 months, the revenue has been assumed to be the same as that for November, 2012. The Commission accepts the revenue projections for FY 2012-13 since it is based on actual data for 8 months and will consider any deviation in revenue during the mid-term review of the Second Control Period.

4.19.2. The following table presents the break-up of revenue reported by RInfra-G and accepted by the Commission.

Table 24. Revenue from sale of electricity in FY 2012-13

Rs. Crore

Particulars	Amount
Revenue from fixed charges	216.61
Revenue from variable charges	847.44
Revenue from FAC	239.62
Total Revenue	**1,303.67**

4.20. Adjustments due to prior period revenue gap/ surplus

4.20.1. RInfra-G, in this Petition had considered the projected revenue gap/ surplus as stated in its Petition in Case No. 122 of 2012. However, on 22 March, 2013, the Commission has issued its Order pertaining to the Truing up of FY 2010-11 and FY 2011-12. In the said Order, the Commission has also dealt with the claims of RInfra-G from FY 2006-07 to FY 2008-09 as well. The following is the summary of the approval of revenue gap/ surplus as approved by the Commission is Case No. 122 of 2012.

Table 25. Total revenue gap/ (surplus) as approved in Case No. 122 of 2012

Rs. Crore

Particulars	RInfra claim	Approved after Truing up
Adjustments related to past periods	12.40	10.76
Revenue gap/ (surplus) for FY 2010-11	2.81	(45.02)
Revenue gap/ (surplus) for FY 2011-12	15.67	(58.00)
Total adjustment required	**30.87**	**(92.26)**

4.20.2. The year-wise breakup of the claim of RInfra-G and the approval of the Commission in Case No. 122 of 2012 for each of the years is shown below.

Table 26. Prior period revenue gap/(surplus)

Rs. Crore

Particulars	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	Total
As submitted by RInfra-G							
IoWC to be allowed pursuant with Hon'ble ATE Judgment	2.12	1.93	3.05	3.40	-	-	10.50
Revenue Gap	-	-	-	1.91	2.81	15.67	20.39
Total	2.12	1.93	3.05	5.31	2.81	15.67	30.88
As approved by the Commission							
IoWC approved in Case No. 122 of 2012	2.12	1.93	3.05	3.40	-	-	10.50
Revenue Gap	-	-	-	0.26	(45.02)	(58.00)	(102.76)

Rs. Crore

Particulars	**FY 06-07**	**FY 07-08**	**FY 08-09**	**FY 09-10**	**FY 10-11**	**FY 11-12**	**Total**
Total	2.12	1.93	3.05	3.66	(45.02)	(58.00)	(92.26)

4.20.3. RInfra-G, in its Petition had considered a carrying cost of Rs. (8.55) Crore for the revenue surplus of Rs. 12.81 Crore in FY 2008-09. However, the amount of Rs. 12.81 Crore had already been passed on to the Tariff in FY 2010-11 in Case No. 99 of 2009. The Commission asked RInfra-G to clarify as to why this cost has been considered. RInfra-G submitted that it was an error in the Petition and the same should not have been considered for computing the carrying cost. Hence, the Commission has not considered the carrying cost of the revenue surplus in FY 2008-09.

4.20.4. To estimate the carrying cost for the revenue gap/ surplus accumulated over the years, the Commission has considered the interest rate for working capital approved for each of the years. The Commission has considered the revenue gap to be applicable from the year of the occurrence of revenue gap/ surplus upto FY 2012-13. For example, for the gap of Rs. 1.93 Crore in FY 2007-08, the Commission has considered interest for five (5) years from FY 2008-09 to FY 2012-13 and half a year for FY 2013-14, the year in which the recovery is expected to occur. The following is the claim of RInfra-G and the approval of the Commission for the revenue gap/ surplus including the carrying cost for each of the years. The approved revenue gap of prior periods from FY 2006-07 to FY 2011-12 is shown below.

Rs. Crore

Particulars	**FY 06-07**	**FY 07-08**	**FY 08-09**	**FY 09-10**	**FY 10-11**	**FY 11-12**	**Total**
As submitted by RInfra-G							
Revenue Gap	2.12	1.93	3.05	5.31	2.81	15.67	30.88
Interest rate	10.75%	11.50%	12.75%	13.00%	11.75%	14.75%	
Add: Carrying cost	1.89	1.51	2.04	2.87	1.15	4.58	14.03
Total	4.01	3.43	5.09	8.17	3.96	20.25	44.92
As approved by the Commission							
Revenue Gap	2.12	1.93	3.05	3.66	(45.02)	(58.00)	(92.26)
Interest rate	10.75%	11.50%	12.75%	13.00%	11.75%	14.75%	
Add: Carrying cost	1.82	1.43	1.87	1.76	(16.43)	(12.62)	(22.17)
Total	3.94	3.35	4.92	5.42	(61.45)	(70.62)	(114.44)

4.21. Summary of Aggregate Revenue Requirement of RInfra-G for Second Control Period

4.21.1. Based on the estimate of different components of ARR carried out in the previous paragraphs, the following table summarises the total ARR of RInfra-G for the

Second Control Period. Since FY 2012-13 has been completed, the provisional revenue gap for FY 2012-13 has been considered in the ARR of FY 2013-14.

Table 27. Summary of ARR of RInfra-G for Second Control Period

Rs. Crore

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
As submitted by RInfra-G				
Fuel Expenses	1,127.30	1,088.59	1,109.10	1,133.63
Operation & Maintenance Expenses	124.75	130.96	137.55	144.51
Depreciation (revised submission)	21.11	30.04	29.82	30.60
Interest on Long-term Loan Capital	20.75	33.90	45.24	50.68
Interest on Working Capital	15.03	14.91	15.52	15.99
Other Expenses	-	-	-	-
Income Tax	17.80	17.80	17.80	17.80
Previous years Revenue Gap	-	44.92	-	-
Provisional Revenue Gap for FY 12-13	-	91.17	-	-
Total Revenue Expenditure	**1,326.74**	**1,452.28**	**1,355.03**	**1,393.20**
Add: Return on Equity Capital	84.00	91.01	102.22	107.27
Add: Entitlement for Incentive for Higher PLF	-	-	-	-
Less: Non-tariff income	15.91	15.91	15.91	15.91
Aggregate Revenue Requirement	**1,394.83**	**1,527.38**	**1,441.34**	**1,484.56**
As approved by the Commission				
Fuel Expenses	1,125.61	1,092.02	1,112.65	1,137.30
Operation & Maintenance Expenses	124.73	130.96	137.55	144.51
Depreciation	20.91	29.77	29.58	30.28
Interest on Long-term Loan Capital	15.68	20.21	28.61	37.19
Interest on Working Capital	16.42	16.15	16.70	17.29
Other Expenses	-	-	-	-
Income Tax	-	-	-	-
Previous years Revenue Gap	-	(114.44)	-	-
Provisional Revenue Gap for FY 12-13	-	67.08	-	-
Total Revenue Expenditure	**1,303.36**	**1,241.75**	**1,325.09**	**1,366.57**
Add: Return on Equity Capital	83.30	84.64	93.11	101.12
Add: Entitlement for Incentive for Higher PLF	-	-	-	-
Less: Non-tariff income	15.91	16.71	17.54	18.42
Aggregate Revenue Requirement	**1,370.75**	**1,309.68**	**1,400.66**	**1,449.27**

5. TARIFF OF RINFRA-G FOR THE SECOND CONTROL PERIOD

5.1. Actual cost and revenue for FY 2012-13

5.1.1. In this Order the Commission has considered the actual cost and revenue of RInfra-G for FY 2012-13 as has been submitted by it only for the purpose of Tariff determination. However, RInfra is yet to submit the audited data for the same. Therefore, actual verification of these data along with required corrections, if any, will be undertaken by the Commission during mid-term review.

5.2. Annual fixed charge for DTPS

5.2.1. Regulation 32 of the MYT Regulations, 2011 states that the Tariff for sale of electricity shall consist of the annual fixed charges and energy charges (for recovery of primary and secondary fuel cost).

5.2.2. The annual fixed charges as approved by the Commission in the previous section are shown below. Since FY 2012-13 has been completed, the provisional revenue gap for FY 2012-13 has been considered in FY 2013-14 as discussed in the previous section. The annual fixed charges for the remaining three (3) years of the Second Control Period are shown below.

Table 28. Approved Annual fixed charges of RInfra-G for Second Control Period

Rs. Crore

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Operation & Maintenance Expenses	130.96	137.55	144.51
Depreciation	29.77	29.58	30.28
Interest on Long-term Loan Capital	20.21	28.61	37.19
Interest on Working Capital	16.15	16.70	17.29
Income Tax	-	-	-
Other Expenses	-	-	-
Previous years Revenue Gap	(114.44)	-	-
Provisional Revenue Gap for FY 12-13	67.08	-	-
Total Revenue Expenditure	149.73	212.45	229.27
Add: Return on Equity Capital	84.64	93.11	101.12
Add: Entitlement for Incentive for Higher PLF	-	-	-
Less: Non-tariff Income	16.71	17.54	18.42
Annual fixed charges	**217.66**	**288.01**	**311.97**

5.3. Energy charge for DTPS

5.3.1. The energy charge shall consist of the cost of both the primary and the secondary fuel. Since FY 2012-13 has been completed the Tariff for FY 2012-13 is not being shown here. The total cost of fuel approved, the net generation and the approved energy charge for the remaining three (3) years of the Second Control Period are shown below.

Table 29. Approved Energy charge for Second Control Period

Particulars	Unit	FY 2013-14	FY 2014-15	FY 2015-16
Total cost of fuel	Rs. Crore	1,092.02	1,112.65	1,137.30
Net generation	MU	3787.60	3787.60	3798.13
Energy charge	**Rs./ kWh**	**2.88**	**2.94**	**2.99**

6. APPLICABILITY OF ORDER

6.1.1. This Order on the ARR and Tariff for RInfra-G for the Second Control Period from FY 2012-13 to FY 2015-16 shall come into force with effect from its date of issuance and shall continue to be in force for the entire control period till 31 March, 2016. The Commission will undertake the mid-term review of RInfra-G's performance during the third quarter of FY 2014-15. RInfra-G is directed to submit its Petition for mid-term review of its performance during the third quarter of FY 2014-15, with detailed reasons for deviation in performance, latest by 30 November, 2014.

Sd/-	Sd/-
(Vijay L. Sonavane) Member	(V.P. Raja) Chairman

Annexure – 1: List of persons who attended the Technical Validation Session held on 21 January, 2013

Sl. No.	Name	Organisation
1	Shri Kapil Sharma	R-Infra
2	Shri Vivek Mishra	R-Infra
3	Shri Deepak C Patel	R-Infra
4	Shri Kishor Patil	R-Infra
5	Shri Vikrant K Salpekar	R-Infra
6	Shri Rajendra Joshi	R-Infra
7	Shri R. R. Mehta	R-Infra
8	Shri Arpan Garg	R-Infra
9	Shri. Himanshu Mishra	R-Infra
10	Shri. P. S. Jalkote	R-Infra
11	Shri. Anup K. Ghosh	R-Infra
12	Shri Rakshpal Abrol	Consumer Representative, BUAUS
13	Shri. M. C. Wallce	MSETCL-STU
14	Shri. Jayant Kulkarni	MSLDC

Annexure – 2: List of persons participated in the Public Hearing on 5 April, 2013

Sr. No.	Name of the participant	Organisation
1.	Shri. R Nandi	R-Infra
2.	Shri. Atul Joshi	R-Infra
3.	Shri. Kishor Patil	R-Infra
4.	Shri. K. R. Nerkar	R-Infra
5.	Shri. S. G. Huprikar	R-Infra
6.	Shri. P. G. Phokman	R-Infra
7.	Shri. Himanshu Mishra	R-Infra
8.	Shri. Vivek Mishra	R-Infra
9.	Shri. K. Sridhar	R-Infra
10.	Shri. Ganesh Balasubramanian	R-Infra
11.	Shri. Jalkote P.S.	R-Infra
12.	Shri. Rakesh Raj	R-Infra
13.	Shri. M.S.Rao	R-Infra
14.	Shri. Rakesh Raj	R-Infra
15.	Shri. Mohammad Shahid	R-Infra
16.	Shri. Kapil Sharma	R-Infra
17.	Shri. Sapna Purohit	R-Infra
18.	Shri. Gaurav Khandelwal	R-Infra
19.	Shri. P. Stanley	R-Infra
20.	Shri. Anand Kadam	BEST
21.	Shri.Vinayak Kamat	BEST
22.	Shri.Nitean Bhandari	BEST
23.	Shri.A. R. Talyonkar	BEST
24.	Shri. G. J. Thakkar	BEST
25.	Shri.S. A. Bakre	BEST
26.	Shri.R. K. Kamble	BEST
27.	Shri.Karthik Krishnan	Tata Power
28.	Shri. K.K Chopra	Consumer
29.	Shri. N. Ponarathnam	Consumer Representative
30.	Shri. Rakshpal Abrol	Consumer Representative
31.	Shri. George John	Consumer