Before the

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

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Case No. 158 of 2011

IN THE MATTER OF

Approval of Multi Year Tariff Business Plan of Reliance Infrastructure Limited's Distribution Business (RInfra-D) for the second Control Period from FY 2011-12 to FY 2015-16

Shri V. P. Raja, Chairman

Shri Vijay L. Sonavane, Member

Reliance Infrastructure Limited .... Petitioner

23 November, 2012

ORDER

Upon directions from the Maharashtra Electricity Regulatory Commission (Commission or MERC), the Reliance Infrastructure Ltd.'s Distribution Business (RInfra-D), submitted its application for approval of the Multi Year Tariff (MYT) Business Plan for its distribution business for the second Control Period from FY 2011-12 to FY 2015-16, on affidavit.

The Commission, in its first amendment notified on 21 October 2011 to Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011, has specified that for the generating company or transmission licensee or distribution licensee for whom there is an Order on exemption from Regulation 4.1 of MERC (MYT) Regulations, 2011 shall file annual Petitions for approval of ARR and Tariff during the period of exemption, in accordance with the MERC (Terms and Conditions of Tariff) Regulations, 2005.

The Commission issued an Order in Case No. 45 of 2011, dated September 2, 2011 wherein the Commission invoked the proviso to Regulation 4.1 of MERC (MYT) Regulations, 2011 and allowed deferment of MERC MYT Regulations, 2011 by a period of one year . The Commission also directed RInfra_D in above mentioned Order to submit its Petition for approval of ARR for FY 2011-12 as per MERC (Terms and Conditions of Tariff) Regulations, 2005. Thus, for FY 2011-12, the MERC (Terms and Conditions of Tariff) Regulations, 2005 applies, while for the period FY 2012-13 to FY 2015-16, the MERC (MYT) Regulations, 2011 shall be applicable for RInfra-D.

The Commission also notes that RInfra-D has filed a separate Petition for truing up of ARR for FY 2010-11 and FY 2011-12, as per the MERC (Terms and Conditions of Tariff) Regulations, 2005.

In view of the above, 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-D, issues raised during the public hearing, and all other relevant material, approves the MYT business plan for RInfra-D for the second Control Period from FY 2012-13 to FY 2015-16 as under.

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List of Abbreviations

Sr. No.	Particulars	Full Form
1.	A&G	Administrative and General
2.	ACoS	Average Cost of Supply
3.	AMR	Automatic Meter Reading
4.	APR	Annual Performance Review
5.	ARR	Aggregate Revenue Requirement
6.	ATE	Appellate Tribunal for Electricity
7.	BEST	Brihanmumbai Electric Supply and Transport Undertaking
8.	CAGR	Compounded Annual Growth Rate
9.	COD	Commercial Operation Date
10.	CPD	Coincident Peak Demand
11.	CPI	Consumer Price Index
12.	CSD	Consumer Security Deposit
13.	CSR	Corporate Social Responsibility
14.	CSS	Cross Subsidy Surcharge
15.	DPR	Detailed Project Report
16.	DSM	Demand Side Management
17.	DSPPL	Dahanu Solar Power Private Limited
18.	DTPS	Dahanu Thermal Power Station
19.	EHV	Extra High Voltage
20.	EMS	Environmental Management System
21.	EPC	Engineering Procurement and Construction
22.	FAC	Fuel Adjustment Charge
23.	GFA	Gross Fixed Asset
24.	GIS	Geographical Information System
25.	HT	High Tension
26.	IDC	Interest During Construction
27.	IEEMA	Indian Electrical and Electronics Manufacturers Association
28.	IITB	Indian Institute of Technology – Bombay
29.	InSTS	Intra State Transmission System
30.	ISO	International Organisation for Standardisation
31.	IT	Information Technology

Sr. No.	Particulars	Full Form
32.	LT	Low Tension
33.	kVA	Kilo Volt Ampere
34.	kW	Kilo Watt
35.	kWh	Kilo Watt hour
36.	kWp	Kilo Watt peak
37.	MCGM	Municipal Corporation of Greater Mumbai
38.	MERC	Maharashtra Electricity Regulatory Commission
39.	MERC Tariff Regulations	MERC (Terms and Conditions of Tariff) Regulations, 2005
40.	MERC MYT Regulations, 2011	MERC (Multi Year Tariff) Regulations, 2011
41.	MSEDCL	Maharashtra State Electricity Distribution Company Limited
42.	MSETCL	Maharashtra State Electricity Transmission Company Limited
43.	MU	Million Units
44.	MVA	Million Volt-Ampere
45.	MYT	Multi Year Tariff
46.	NCPD	Non-Coincident Peak Demand
47.	NTI	Non Tariff Income
48.	O&M	Operation and Maintenance
49.	PPA	Power Purchase Agreement
50.	R&M	Renovation and Modernisation
51.	RA	Regulatory Asset
52.	REC	Renewable Energy Certificate
53.	RInfra	Reliance Infrastructure Limited
54.	RInfra-D	Reliance Infrastructure Limited– Distribution
55.	RInfra-G	Reliance Infrastructure Limited– Generation
56.	RInfra-T	Reliance Infrastructure Limited– Transmission
57.	RoE	Return on Equity
58.	RPO	Renewable Purchase Obligation
59.	RPO Regulations	MERC (Renewable Purchase Obligation, its Compliance and implementation of REC framework) Regulations, 2010

Sr. No.	Particulars	Full Form
60.	RPS	Renewable Purchase Specification
61.	SAP	Systems Applications and Products
62.	SMP	System Marginal price
63.	SLDC	State Load Despatch Centre
64.	TPC-D	Tata Power Company – Distribution
65.	TVS	Technical Validation Session
66.	VIPL	Vidarbha Industries Power Limited
67.	WPCL	Wardha Power Company Limited
68.	WPI	Wholesale Price Index

1. INTRODUCTION

Reliance Infrastructure Limited, an electricity Distribution Licensee in the Suburbs of Mumbai and areas under the Mira Bhayinder Municipal Corporation, was granted a licence to distribute electricity by the Commission for a period of 25 years with effect from August 16, 2011. Prior to this, RInfra was a deemed distribution licensee having a licence to distribute electricity in the suburbs of Mumbai, under the terms of the Electricity Act 2003. The distribution business of RInfra shall be, hereafter referred to as RInfra-D.

RInfra has a Generating Station at Dahanu, Maharashtra (Dahanu Thermal Generating Station – DTPS) with a total installed capacity of 500 MW (2 x 250 MW). Power generated at DTPS is transmitted to RInfra-D's licensed area of Mumbai. The power is evacuated from 220/33 kV substations at Aarey, Versova, Ghodbunder, Goregaon, Saki, Gorai and Borivali of RInfra's Transmission Network.

RInfra-D is currently catering to electricity needs of approximately 2.8 million consumers in its licensed area (in and around suburbs of Mumbai) spread over 400 Sq. Kms with energy input requirement of more than 9 billion units per annum and coincident Max. Demand in the range of 1650 MVA. As on 31st March 2012, the distribution system of RInfra-D includes 5775 Nos of 11kV Substations, 4519 ckt-kms. of HT cable and 4202 ckt-kms of LT Cable, as per the information submitted by RInfra-D.

RInfra Infrastructure Limited (RInfra) filed a Petition for approval of the MYT Business Plan for its Distribution Busines (RInfra-D), for the second Control Period from FY 2011-12 to FY 2015-16, in accordance with Regulation 7.1 of Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011.

1.1 Maharashtra Electricity Regulatory Commission (MYT) Regulations, 2011

The Commission notified Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011 on February 4, 2011. These Regulations are applicable for determination of Tariff in all cases covered under these Regulations from April 1, 2011 onwards up to FY 2015-16. These Regulations are applicable to all existing and future Generating Companies, Transmission Licensees and Distribution Licensees within the State of Maharashtra.

RInfra-D filed a Petition numbered as Case No. 45 of 2011 before the Commission on March 25, 2011, under Section 94 (2) of the Electricity Act, 2003 (EA 2003), Regulation 85 (a) of the MERC (Conduct of Business) Regulations, 2004, and Regulations 4.1, 99 and 100 of the MERC Multi Year Tariff (MYT) Regulations, 2011, seeking deferment of the implementation of MYT Regulations, 2011.

The Commission vide its Order dated September 2, 2011 in the said Case No. 45 of 2011, allowed the deferment of applicability of MERC (MYT) Regulations, 2011 for a period of 1 year for RInfra-D, till March 31, 2012. The Commission directed RInfra-D to file the Petition for determination of tariff for FY 2011-12 under the provisions of Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005, on or before October 31, 2011. The relevant extracts from the Order are as under:

> *"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."*

The Commission amended the MYT Regulations vide its notification dated October 21, 2011; notified as Maharashtra Electricity Regulatory Commission (Multi Year Tariff) (First Amendment) Regulations, 2011. The Commission in this amendment specified, as under:

> *"Provided in case an Order of exemption has been issued under Regulation 4.1 then the concerned Generating Company, Transmission Licencee or Distribution Licencee*

shall file annual Petitions for approval of ARR and tariff during the period of exemption, in accordance with MERC (Terms and Conditions of Tariff) Regulations, 2005."

In view of the above amendment, RInfra-D filed a Petition for approval of Aggregate Revenue Requirement and determination of tariff for FY 2011-12 on February 21, 2012, in Case No. 180 of 2011. The Order in Case 180 of 2011 was issued by the Commission on June 15, 2012, whereby the Commission approved the ARR for FY 2011-12 and the provisional revenue gap for FY 2011-12. The Commission also notes that RInfra-D has filed a separate Petition for truing up of ARR for FY 2010-11 and FY 2011-12, as per the MERC (Terms and Conditions of Tariff) Regulations, 2005.

The Commission exercising its powers vested under Section 61 and 62 of the Electricity Act, 2003 and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by RInfra-D, issues raised during the Public Hearing, and all other relevant material and in view of the above, approves the MYT Business Plan for RInfra-D for the second Control Period from FY 2012-13 to FY 2015-16.

As the ARR for FY 2011-12 has already been approved by the Commission and the truing-up shall be undertaken by the Commission separately. The Commission has made its computations for the ARR estimates to the period FY 2012-13 to FY 2015-16 in this Order.

1.2 Petition for Multi Year Tariff Business Plan and the Public Hearing Process

In compliance with the Commission's directives, RInfra-D submitted its Petition on Affidavit for approval of its MYT Business Plan for FY 2011-12 to FY 2015-16 on November 11, 2011. Subsequently, the Commission vide its email dated December 26, 2011 and December 27, 2011 raised the preliminary data gaps on the said Business Plan. The Commission scheduled a Technical Validation Session (TVS) on RInfra-D's Business Plan Petition on Wednesday, December 28, 2011 in presence of the consumer representatives authorised under Section 94 (3) of EA 2003 vide its notice No. MERC/Case No. 158 of 2011/02092 dated November 23, 2011. The list of individuals who participated in the TVS on December

28, 2011 is given in Appendix 1. RInfra-D submitted its response on the preliminary data gaps vide its file Ref: RInfra/MERC/2012/Distribution/Case 158 of 2011 dated January 14, 2012.

Further, the Commission vide its email dated March 01, 2012, communicated additional data gaps (Part-2) in the Business Plan Petition to RInfra-D asking for additional clarifications and information. RInfra-D responded to the data gaps vide its file Ref: RInfra/MERC/2012/Distribution/Case 158 of 2011 dated March 07, 2012. Subsequently, the Commission communicated additional data gaps (Part-3) in the Business Plan Petition to RInfra-D vide its email dated July 10, 2012, to which RInfra-D replied vide its letter reference no: RInfra/MERC/Business Plan/Distribution/003 dated July 13, 2012. Part 4 of the data gaps were communicated by the Commission to RInfra-D vide its email dated July 14, 2012. RInfra-D responded to these data gaps vide its letter reference no: RInfra/MERC/Business Plan/Distribution/004 dated July 18, 2012.

RInfra-D filed its revised MYT Business Plan Petition on July 20, 2012 after incorporating the comments as communicated by the Commission.

RInfra-D submitted following prayers in its MYT Business Plan Petition.

> *"1. Approve the Business Plan for the period FY 2011-12 to FY2015-16 as contained in the Petition.*
>
> *2. Approve the deviation in norms prescribed in MYT Regulations 2011 and provisions thereof, as sought in this Petition, during the period of FY 2012-13 to FY2015-16, over which MYT Regulations, 2011 are applicable.*
>
> *3. Allow additions/alterations/ modifications/changes to the Petition at a future date.*
>
> *4. All any other relief, order or direction, which the Hon'ble Commission deems fit to be issued.*
>
> *5. Condone any inadvertent errors/inconsistencies/omissions/rounding off differences etc as may be there in the Petition."*

The MYT Business Plan Petition for the second Control Period was admitted by the Commission vide its letter **Ref: No. MERC/TARIFF/20122013/00932**, dated July 23, 2012 under Section 51 of the MERC (Conduct of Business) Regulations, 2004 for further processing and conduct of Public Hearing. In the same letter, RInfra-D was directed to publish the approved public notice latest by Thursday, July 26, 2012. Also, RInfra-D was directed to host the executive summary of its Business Plan (Both in English and Marathi) and the Petition documents on its website for easy download by the interested stakeholders. RInfra-D was also directed to make available the hard copy of the Petition to the interested stakeholders with specified annexure, on written request at charges specified by the Commission. The Public Hearing was scheduled to be held at Rangasharda Natya Mandir, Bandra Reclamation, Bandra (W), Mumbai 400050 on Thursday, August 23, 2012 at 10:00 Hours.

RInfra-D invited suggestions/objections from the stakeholders on its MYT Business Plan Petition by publishing a Public Notice as per the direction of the Commission. The Public Notice was published on July 26, 2012 in 3 English and 2 Marathi newspapers namely,

1) The Indian Express
2) Hindustan Times
3) DNA
4) Loksatta (Marathi) and
5) Saamna (Marathi)

The licensee also hosted the Public Notice on its website (www.rinfra.com) for inviting suggestions/objections on its Business Plan Petition for FY2012-13 to FY2015-16. The Commission received suggestions/objections to be heard in the Public hearing from various consumers/consumer organisations. The names of the consumers/consumer organisations who attended the public hearing for presenting their suggestions/objections are given in ***Appendix 2***. The Commission has ensured a transparent procedure during the Public Hearing and provided fair opportunity to each and every objector present during the Public Hearing to put forth their submissions in the matter. A chapter on the major issues raised by the objectors vide their written submissions/ submissions during the public hearing, along with the response of RInfra-D and Commission's ruling, are included in this Order.

1.3 Structure of the Order

This Order contains Five Chapters (excluding the Appendix) as outlined below:

Chapter 1 – Introduction (present chapter).

Chapter 2 – Suggestions/objections received, RInfra-D's response and Commission's Rulings

Chapter 3 – Salient features of RInfra-D's Petition

Chapter 4 – ARR projections for the second Control Period FY 2012-13 to FY 2015-16

Chapter 5- Directions for filing MYT Petition for the second Control Period

2. SUGGESTIONS / OBJECTIONS RECEIVED, RINFRA-D'S RESPONSE AND COMMISSION'S RULINGS

2.1 Capital Expenditure in Transmission Network and its usage and Distribution Loss

Shri Ponrathnam submitted that there has been a 30 times increase in capital expenditure and capitalisation in transmission network during the period from FY2007-08 to FY2011-12. This should have facilitated the improvement in the distribution loss by reducing the length of low voltage distribution lines. It was further pointed out that the transmission capacity declared in RInfra-T Business Plan is 1651 MVA, while the coincidental maximum demand of RInfra-D is about 1650 MVA. He also enquired as to whether their transmission infrastructure is used alone by them or by others as well and also if RInfra-D utilise transmission infrastructure of any other licencee.

RInfra-D's Response

RInfra-D submitted that there are changes in distribution losses on account of growth of load and HT/LT mix of assets depending on consumers existing, added or subtracted from the distribution system. RInfra-D further submitted that the distribution losses are maintained by timely Capex interventions on various fronts and with all these interventions, RInfra-D has proposed in the Business Plan that the distribution losses would undergo reduction in later years of the Business Plan.

On the issue of mismatch in demand numbers, RInfra-D, clarified that the maximum demand of 1650 MVA refers to the total demand on the distribution system of RInfra-D, including the demand of changeover consumers.

On the issue of transmission infrastructure usage, RInfra-D submitted that the Transmission Infrastructure of RInfra is a part of Intra State Transmission System (InSTS) of Maharashtra, which includes the transmission system of TPC and MSETCL, also and all Distribution Licensees in Maharashtra use the InSTS as a whole for the purpose of power transmission.

Commission's Ruling

The Commission notes that Transmission Infrastructure of RInfra-Transmission, along with TPC-Transmission, MSETCL and other State Transmission licensees constitutes the Intra State Transmission System (InSTS) of Maharashtra. All Distribution Licensees in Maharashtra, including RInfra-D share the InSTS for the purpose of transmission of their power.

2.2 Distribution Loss

Shri Ponrathnam pointed out that the Commission is not able to assess the veracity of the findings in technical loss study report submitted by RInfra-D. Thus the Commission may like to consider appointing an independent agency for assessing the actual level of technical and commercial losses in RInfra-D's system. He also enquired about the basis for of the statement of RInfra-D's statement in the proceedings before Hon'ble ATE that 65% consumers come under the category of non-slum and 35% are slum dwellers and that the distribution loss of the non-slum dwellers is less than 1%, while losses in slum areas vary from 15% to 70% with an average of 22%. He also asked RInfra-D to provide a road map for reducing the distribution loss upto a level of 1% or below, in its Business Plan.

RInfra-D's Response

RInfra-D submitted that the submissions of losses in the slum and the non slum areas were made by RInfra-D during FY2006-07 which led to the MYT first Control Period Order. At that time the average loss prevailing in such unorganised slum dwelling was around 22%. RInfra-D futher submittes that due to strict vigilance and capex interventions by RInfra-D, the losses have come down, since then and as the distribution loss in such areas is predominantly commercial, the Business Plan does not factor in reduction in the same.

Commission's Ruling

The Commission has discussed the distribution loss trajectory for RInfra-D in Section 4.2 of this Order.

2.3 Wheeling Loss

Shri Ponrathnam submitted that the non slum technical losses being less than 1% are also charged at 9% loss, as all LT consumers are charged 9% wheeling loss; while HT consumers are charged HT wheeling loss of 1.94%. Further, it was also submitted that the reduction in distribution loss shown from 9.05% to 8.95% during the Control Period is very low.

RInfra-D's Response

RInfra-D further clarified that distribution losses of RInfra-D's system of 9% despite having about 400 sq km of area and a poor HT/LT ratio is a national benchmark and it requires quite a bit of capex for just maintaining the losses at such levels. RInfra-D clarified that notwithstanding the proposed distribution loss trajectory, it would undertake efforts to bring about further loss reduction in the distribution system.

RInfra-D further submitted that the present tariff design system being based on the average cost of supply, losses are pooled and socialised and therefore they continuously encourage their customers to report the cases of theft to RInfra.

Commission's Ruling

The Commission has discussed the wheeling losses in Section 4.3 of this Order.

2.4 Wheeling Charge/Losses Based on Voltage

It was submitted by Shri Ponrathnam that the wheeling charges should be determined for different voltages as per ATE's recent judgment and section 5.3 of MERC (Standards of Performance of Distribution Licencee, Period for giving Supply and Determination of

Compensation) Regulations, 2005. He further submitted that wheeling losses should be determined for different voltages as given in section 5.3 of MERC (Standards of Performance of Distribution Licencee, Period for giving Supply and Determination of Compensation) Regulations, 2005.

TPC submitted that the computation of wheeling charges payable by changeover consumers do not include expenses of certain cost centers which should be included while computing it. TPC also submitted that the computations of wheeling charges is according to the Regulations and no charges could be added beyond what is specified in the Regulations.

RInfra-D's Response

RInfra-D submitted that the present methodology of Tariff determination is based on the average cost of supply; and whenever the Commission directs the Utilities to move to category wise/voltage wise cost of supply, the same shall be implemented by RInfra-D. It also submitted that the wheeling charges and losses for HT and LT are already defined separately.

Commission's Ruling

This issue is related to tariff design, which is outside the purview of present exercise.

2.5 Power Arrangements of RInfra-D

It was pointed out by Shri. Ponrathnam that RInfra-D has only one long term contract of 500 MW with DTPS and the other three medium term contracts which RInfra-D has entered are under dispute. Hence it was asked whether RInfra-D have enough contracted power to supply the demand from its consumers.

RInfra-D's Response

RInfra-D submitted that apart from getting supply from DTPS, it has tied up enough power for its consumers and that despite the disputes with one of the medium term supplier, RInfra-D is availing supply from it and then it will enter into additional medium term/long term contracts depending on the requirement. RInfra-D further submitted that their uncertainity in the demand that would remain with RInfra-D and the cost of overly contracted capacity will also burden the consumers.

Commission's Ruling

The Commission has analysed the power purchase for RInfra-D in Section 4.6 of the Order.

2.6 Planning of Power Purchase

i. Shri Ponrathnam pointed that higher Average Cost of Supply (ACOS) for RInfra-D is due to its poor planning of power purchase and thus, the consumers have to bear higher cost of power.

ii. Shri Abrol submitted that RInfra-D has not entered into sufficient long term PPA to supply power to its consumers and utilising high cost short term power.

RInfra-D's Response

i. RInfra-D submitted that all power procurement proposed in the Business Plan, has been considered at the rates approved by the Commission. In the realistic scenario, if CSS is reseted by the Commission, the Tariff for RInfra-D consumers might come down. RInfra-D further submitted that the power purchase cost of RInfra-D is lower than its immediate competitor, but it still did not translate to lower Tariffs, as RInfra-D serves predominantly low end consumers with very low specific consumption.

ii. RInfra-D also submitted that in FY2011-12, RInfra-D had procured power from DTPS and approved medium term sources. The procurement from short term market is always necessitated in a system like RInfra-D, where significant variation due seasonality factors and also Intra-Day variations between day and night loads existed.

Commission's Ruling

The Commission has analysed the power procurement plan submitted by RInfra-D in Section 4.6 of the Order.

2.7 Road Re-instatement charges

Shri Ponrathnam suggested that appropriate technology should be adopted for cable laying e.g. cables put in pipes, etc. which will reduce the requirement of digging which leads to increase in re-instatement costs.

RInfra-D's Response

RInfra-D submitted that if the cables are put in pipes, their capacity is de-rated as an electric field is created which opposes the flow of current leading to heating. Therefore it is technically not feasible to put cables in pipes.

Commission's Ruling

The Commission has taken a note of RInfra-D's submissions.

2.8 Recovery of Corporate Social Responsibilty (CSR) Cost

It was submitted by Shri Ponrathnam that the Petitioner should not recover CSR cost in its ARR.

RInfra-D's Response

RInfra-D submitted that the CSR cost has not been included in the ARR. The CSR activities are included in the Business Overview chapter, in order to appraise the consumers and public at large about the activities taken by RInfra for the benefit of the Society.

Commission's Ruling

Commission has taken a note of RInfra-D's submissions in this regard.

2.9 Recovery of Past Revenue Gap and CSS

It was suggested by Shri Ponrathnam that recovery of past revenue gap, recovery of cross subsidy surcharge being tariff issues should not be the part of this Business Plan.

It was pointed out by TPC that the issues related to recovery of Regulatory Assets/Past Revenue Gaps of RInfra-D changeover consumers are pending with Hon'ble ATE. Thus, any approval of such recovery may not be correct.

Further it was also submitted by TPC that RInfra-D's method of spreading the Regulatory Assets/Past Revenue Gaps over the sales of its own consumers and the changeover consumers is not justifiable. The recovery of Regulatory Assets is not a revenue source for RInfra-D and therefore it cannot be recovered from all the changeover consumers.

TPC gave following formulation for recovery of Regulatory Assets from the changeover consumers of RInfra-D.

- *"Identify the set of changeover consumers who have benefited from the creation of Regulatory Assets vis-à-vis the relevant tariff period.*
- *Determine the per unit charge recoverable from a changeover consumer with respect to each tariff year during which he was receiving supply from RInfra-D on the basis of total sales made by RInfra-D, units consumed by the concerned consumer and the total Regulatory Assets created in the particular tariff year."*

It was pointed out that RInfra-D's proposal to recover outstanding Regulatory Asset (RA) amount from the changeover consumer creates an exit barrier for the consumer wishing to changeover because it has to make an advance payment on its outstanding RA liability and also, that consumer has to pay RA charge as he is a Group II consumer. TPC and Shri. Mohammed Afzal submitted that, carrying cost on the Regulatory Assets cannot be claimed by RInfra-D as it was pure RInfra-D's business decision, not to claim for such recovery in their past tariff Orders.

Shri. Ulhas Choudhary submitted that out that a total revenue gap, approximately Rs. 1400 Crore have been created till FY12-13 due to low CSS. This gap of Rs. 1400 Crore should first be allowed to be recovered and then the Commission should go for suo motu proceedings under Case No. 50 of 2012.

Indian Hotel & Restaurant Association submitted that the proposal of RInfra-D for the recovery of Regulatory Assets from changeover consumers should be rejected as they reflect their operational inefficiencies over the years.

RInfra-D's Response

RInfra-D submitted that the issue of recovery of past revenue gap is important to the sustainability of business and thus forms part of the business plan. The actual per unit charges to recover regulatory assets shall be proposed in the MYT Petition.

RInfra-D submitted that the issue of CSS is filed before Hon'ble ATE, however, throughout the proceedings, Hon'ble ATE has not issued any stay and the Commission is not bound to keep the matter in abeyance.

Commission's Ruling

Recovery of Past revenue gap and resetting of CSS are the issues related to tariff design and hence, does not come under the purview of present exercise.

The Commission is also of the view that these issues need to be dealt on holistic basis and can only be undertaken during the evaluation of tariff proposal filed by RInfra-D at the time of consideration of RInfra-D's MYT Petition.

2.10 Difference Between Coincidental Peak Demand and Total Demand

The difference between the coincidental maximum demand in the range of 1650 MVA and the total demand of 1060 MVA was sought by Shri Ponrathnam.

RInfra-D's Response

RInfra-D submitted its clarification on this issue and pointed out two differences between the two numbers:

a. 1060 MVA is the average demand not the maximum demand of RInfra-D's own supply consumers and

b. 1650 MW is the peak demand of RInfra-D system comprising of both changeover as well as own consumers.

Commission's Ruling

The Commission has taken a note of RInfra-D's submissions.

2.11 Interest Rate

It was suggested by Shri Ponrathnam that the normative interest rate of 8% or the actual interest paid by RInfra-D, whichever is lower should be considered by the Commission.

RInfra-D's Response

RInfra-D submitted that based on the present market condition, 11.5% interest is sought on the normative debt as also is approved by the Commission in its Order in Case No. 180 of 2011. RInfra-D further submitted that there has not been any change in market condition since the approval in Case No. 180 of 2011 and the scenario going forward is anticipated to be the same.

Commission's Ruling

The Commission has analysed the Interest expenses on long term loans for RInfra-D in Section 4.13 of the Order.

2.12 Segregation of Income Tax

It was suggested by Shri Ponrathnam that RInfra should give segregation of Income Tax for all its businesses so that MERC can allow the amount which is actually paid.

RInfra-D's Response

RInfra-D submitted that Income Tax is paid by the company as a whole as per the Income Tax law which cannot be violated. However, segmental income tax can be calculated based on segmental income/expenses and the same has been claimed by RInfra-D in truing up. As regards, ex-ante allowance of Income tax, as profit is not known at the start of the year, ROE is considered as allowable profit and Income tax is determined on the same. The same is consistent with the views of Hon'ble ATE in appeal nos. 173 and 174 of 2009.

Commission's Ruling

The Commission has addressed the issue of Income Tax for RInfra-D in Section 4.21 of the Order.

2.13 Fitting of Automatic Power Factor Correction Panel

It was submitted by Shri Ponrathnam that fitting of Automatic Power Factor Correction Panel should not be asked to small consumers above 20 kW.

RInfra-D's Response

It was submitted that this issue is not relevant to the present proceeding.

Commission's Ruling

The matter is not within the scope of the current Petition, which is for the approval of RInfra-D's MYT Business Plan.

2.14 Information on Power Receiving Stations

It was pointed out by Shri Rakshpal Abrol that information on power receiving stations connected with DTPS transmission lines of 200 kV have not been provided in the Business Plan Petition.

RInfra-D's Response

RInfra-D submitted that such information has already been provided in the Business Plan of RInfra-Transmission.

Commission's Ruling

The matter is not within the scope of the current Petition, which is for the approval of RInfra-D's MYT Business Plan.

2.15 Sales and Peak Demand

It was submitted by Shri Rakshpal Abrol that the category wise changeover sales projection by RInfra-D is not justifiable.

It was pointed out by Shri Abrol that for FY 2011-12, the details of sales and peak demand given by RInfra-D are same for all the scenarios given.

RInfra-D's Response

RInfra-D submitted that the detailed methodology for working out sales projection and assumptions under each scenario are provided in the Business Plan and Financial Models.

RInfra-D submitted that as FY2011-12 is already over and sales are available as provisional actuals, there is no relevance of scenarios for FY2011-12. RInfra-D further submitted that the distribution loss reduction has only been proposed in commercial losses in plan period, while the technical losses are proposed to be maintained at the level of 1.94% and 9% for HT and LT consumers respectively for each year of Business Plan period. RInfra-D also submitted that the Commission would appreciate RInfra-D's distribution loss projections at 9.05% are already a benchmark considering the extent of slums and LT network in the area and geographical expanse of the network.

Commission's Ruling

The Commission has analysed the Sales forecast for RInfra-D in Section 4.1 of the Order.

2.16 Data Requirement

i. Shri Rakshpal Abrol sought for the data on distribution system length established from various receiving stations after obtaining licence for power generation at DTPS and the length of their own transmission line which is catering to 2.8 million consumers. Also, data on the length of 33kV and 22kV cables added after taking approval from the Commission for Capex in the first MYT Control Period for HT supply to Industrial, Commercial and Residential consumers was sought.

ii. Shri Abrol asked for the data on the no of MU decreased since October 15, 2009 for retail supply after the issue of Interim Order in Case No. 50 of 2009.

iii. The data on number of consumers removed and inducted after the Order on changeover was passed.

iv. He also sougth data on number of consumer centers established by RInfra-D prior to MYT first control period, during the MYT first Control Period and projection for MYT second Control Period.

v. The data on the number of Industrial estates covered for supply of electricity to the premises defined as Industry or Commercial and Residential under LT category under Regulation 13 of MERC (Electricity Supply Code and other Conditions of Supply) was asked to be submitted in the Business Plan by Shri Abrol. It was also pointed that the said distribution system should have 11 kV cables only.

vi. Shri Abrol also asked for the number of bill collection centers established after August 20, 2008.

vii. The number of persons employed to distribute power from DTPS (500 MW) was also sought by Shri Abrol.

RInfra-D's Response

i. RInfra-D submitted that the total distribution system statistics, including length of HT lines, number of transformers, etc. has always been provided in the annual ARR Petitions and the details as on March 31, 2012 have also been provided in the Business Plan.

ii. RInfra-D submitted that energy consumed by changeover consumers in FY10, FY11 and FY12 is 208 MU, 1559 MU and 2658 MU, respectively; which can be considered as sales reduction from RInfra-D's own supply system.

iii. RInfra-D responded that the decisions on reduction in workforce are taken depending upon the scale of operations and on various other factors as well including union arrangements. The scale of operation has not reduced as RInfra-D undertakes all activities except bill printing and collection even for changeover consumers.

iv. RInfra-D responded that prior to MYT first Control Period RInfra had established 6 nos. of consumer care centers, another 2 nos. of consumer care centers were established between April 2007 and March 2012. At present RInfra thus, has 8 nos. of consumer care centers in Mumbai Suburbs including Mira Bhayander Municipal Corporation. RInfra-D submitted that no new consumer care centers are proposed to be established in second control period as yet.

v. RInfra-D responded that category wise sales projections are contained in the Business Plan and actual for FY12 have also been provided in the format approved by the Commission.

vi. RInfra-D responded that no new bill collecting centers have been established by RInfra after August 20, 2008.

vii. RInfra-D submitted that the distribution system does not employ separate workforce exclusively for distribution of 500 MW from DTPS and that the people in different categories and cadres are employed to carry out the distribution business as a whole.

Commission's Ruling

The Commission has taken a note of RInfra-D's submissions in this regard.

2.17 Performance of DTPS

It was pointed out by Shri Abrol that total energy balance shows energy requirement of 7405 MU in FY 12 which would increase to 8942 MU in FY16. However, the DTPS is likely to deteriorate over time and its production would come down. In such a case, the plant is not likely to produce more units at that time.

RInfra-D's Reply

RInfra-D submitted that the power purchase by them is not just limited from DTPS, but also from other sources as submitted in the Business Plan.

Commission's Ruling

The Commission has analysed the energy balance and power procurement for RInfra-D in Section 4.6 of the Order.

2.18 Load Growth

Shri Rakshpal Abrol suggested that RInfra should disclose the future load to be added for various categories, which has not been provided in the Business Plan, for which new transmission and distribution system shall be required.

RInfra-D's Response

RInfra-D submitted that the overall growth in demand and the requirement of various receiving stations and associated distribution network is presented in the Multi Year Detailed Project Report for capital expenditure approval of the Commission. Further, category wise sales projections are provided in the Business Plan.

Commission's Ruling

The Commission has analysed the Sales forecast of RInfra-D in Section 4.1 of the Order.

2.19 Security Deposit from Consumers

It was submitted by Shri Rakshpal Abrol that the Business Plan should contain the information on the amount of security deposits held from 27 lakh consumers and the amount of refund given to the changeover consumers as it was necessary as per Companies Act, 1956.

RInfra-D's Response

RInfra-D submitted that the interest on security deposit as forecasted, for each year is presented in the Business Plan. This is the interest on security deposit of RInfra-D consumers and not of changeover consumers, which is refunded. The security deposit of consumers changed over to TPC is refunded after adjusting it in their final bill.

Commission's Ruling

The Commission has taken a note of RInfra-D's submissions in this regard.

2.20 Non-compliance of Regulations

It was alleged by Shri Rakshpal Abrol that RInfra-D has not yet followed the Regulation 5.3 of MERC (Standards of Performance of Distribution Licencee, Period for giving Supply and Determination of Compensation) Regulations, 2005. Further, the voltage for low tension and high tension as defined under Regulations and Indian Electricity Rules, 1956 has not been abided by RInfra-D.

RInfra-D's Response

RInfra-D submitted that these issues are not germane to the present proceedings.

Commission's Ruling

The Objector has not provided sufficient clarity and details in his submissions. Further, the matter is not within the scope of the current Petition for approval of Business Plan of RInfra-D.

2.21 Revenue from CSS

TPC submitted that the issue of legality and validity of the Cross-Subsidy Surcharge by RInfra-D on its changeover consumers is pending before Hon'ble ATE. Hence, this matter cannot be taken in this Petition.

RInfra-D's Response

RInfra-D has not responded to the objection of TPC.

Commission's Ruling

The Commission has already determined the Cross Subsidy Surcharge for RInfra-D changeover/open access consumers in Case No. 43 of 2010 in the matter of Petition filed by Maharashtra State Electricity Distribution Company Limited regarding Cross Subsidy Surcharge and Stand by Charges for Open Access consumers, and in the matter of De novo re-determination of Cross Subsidy Surcharge and issues related to Open Access, vide its Order dated 9th September 2011.

The Commission is also of the view this issue needs to be dealt on holistic basis and can only be undertaken during the evaluation of tariff proposal filed by RInfra-D at the time of consideration of RInfra-D's MYT Petition.

2.22 Standby Charges

On the issue of RInfra-D's proposal that the stand-by charges should not be calculated on the basis of share in peak demand but on the ratio of capacity enjoying stand-by, TPC submitted that the present methodology is appropriate as stand-by is enjoyed by a Discom and not by a Generating company. TPC proposed that present methodology may be continued or each Discom should be asked to have a separate stand-by arrangement with MSEDCL.

RInfra-D's Response

RInfra-D has not responded to this objection of TPC.

Commission's Ruling

The Commission is of the view that all the parties to the current Standby arrangement, viz., MSEDCL, RInfra-G, BEST, TPC-G and TPC-D, which may be affected on account of the arrangement as proposed by RInfra-D should be heard before taking any view in the matter.

Therefore, Commission has not considered the RInfra-D's proposal in this Order.

2.23 Tariff for low-end consumers and imbalance of cross-subsidy

Shri Arun Jagtap (Shivsena) and Siddhi Electricals requested the Commission to reduce the tariff for economically weaker residential category consumers, falling under the supply of RInfra-D and that the CSS should be decided in such a manner that low end consumers do not bear the brunt of it. Shri Mahesh Vaswani (Advocate); Shri. Ravindra K. Kadam Shri Sunil Chavan, Shri Vijay Vaidya, Shri Narayan Gharat, Shri. Rajnath Yadav, Shri Freddy Divecha and Shri. Soumen Mukherjee said that due to migration of high end consumers of RInfra-D to TPC, the major chunk of residential consumers of RInfra-D are facing the brunt of tariff hike as the subsidising consumers of RInfra-D are getting lesser and lesser in numbers. Thus, required steps should be taken to stop this. It was requested by Kalika Electrical Enterprises that the Commission should direct TPC to connect atleast 10 lakh residential consumers of RInfra-D on their network which will balance the cross subsidy burden of RInfra-D.

RInfra-D's Response

RInfra-D responded that they have already filed a Petition for redetermination of CSS for the benefit of poor consumers.

Commission's Ruling

The issue is not within the scope of the present Petition, which has been filed by RInfra-D for approval of its MYT Business Plan.

2.24 CSS recovery from Changeover consumers

Shri. Mohammed Afzal objected to RInfra-D's method and proposal for recovery of CSS from changeover consumers stating a consumer is not liable to pay after ending its contract with RInfra-D pay for its past recovery. He added that it was never informed to the consumers in the beginning. Indian Hotel & Restaurant Association submitted that the proposal of RInfra-D for the recovery CSS from changeover consumers should be rejected as they reflect their operational inefficiencies over the years.

RInfra-D's Response

RInfra-D has not responded to this objection.

Commission's Ruling

The issue is not within the scope of the present Petition, which has been filed by RInfra-D for approval of its MYT Business Plan.

2.25 Announcement of Public Hearing

Shri Mahesh Vaswani and Shri Sujaul Hasan suggested to the Commission that the Public Notice/Hearing should be circulated/announced in such a way that it should reach all the consumers including the consumers residing in the slums.

RInfra-D's Response

RInfra-D responded that they are willing to circulate/announce the public notice/hearing as per the directions of the Commission.

Commission's Ruling

The Commission has noted the suggestion of the consumer.

2.26 Uniform Retail Tariffs and quality of service

Shri Gautam S. Jadhav and Shri. Santosh Sawant (Shivgrjana Grahanirman Housing Society (Part 2)) suggested the Commission to keep uniform tariff for both RInfra-D and TPC-D. Shri. Jadhav also pointed that the quality of service for low end consumers in TPC is very poor, hence it is very difficult for such consumers of RInfra-D to switchover/changeover to TPC's supply. He also suggested the Commission that power from TPC-G can be sold to RInfra-D to reduce the cost of power for consumers coming under RInfra-D's supply. M/s Mayur Overseer and Shri Shukla requested the Commission to form uniform tariff structure throughout Mumbai City and Maharashtra, respectively.

RInfra-D's Response

RInfra-D has not responded to this objection.

Commission's Ruling

The Commission is of the view that this suggestion is not relevant to the present Petition, which is for approval of MYT Business Plan. Moreover, this issue has been debated at length on other occasions also, and the Commission has clearly stated that in view of the different consumer mix and consumption mix as well as differences in the power purchase costs and other expenses across different Distribution Licensees in the city of Mumbai.

2.27 Effect of Competition

Shri Narayan Gharat pointed out that although Commission has introduced competition in electricity sector by allowing RInfra-D's consumer to migrate to TPC, the benefit has not percolated down to the consumers and it is observed that in the area of BEST, where no competition exists, the electricity charges are comparatively low.

RInfra-D's Response

RInfra-D has not responded to this.

Commission's Ruling

Tariffs and Charges for a Distribution Licensee are determined in accordance with MERC Tariff Regulations, as amended from time to time, and the tariff structure of a particular Distribution Licensee depends on the cost structure, sales mix, etc.. However, the Commission notes that the introduction of competition has enabled consumers to exercise its choice to choose between two Distribution Licensee.

2.28 Separate Category for Schools

Smt. Yasmeen Pardiwalla (Teacher at M N English High School, Goregaon (W)) requested the Commission to formulate a separate category for Schools and determine the tariff at lower than commercial rates.

RInfra-D's Response

RInfra-D has not responded to this objection.

Commission's Ruling

The present Petition is for approval of RInfra-D's MYT Business Plan. The issue raised, relates to determination of Tariff and hence not applicable to the present proceedings.

2.29 Quality of Service

Shri Dipak S. Saknarkar submitted that the quality of service of TPC-D should be same as that of RInfra-D's. Further, Smt. Yasmeen Pardiwalla pointed out that even after making repeated applications to TPC-D for changeover they have failed to get the acceptance after being cited various reasons by TPC to them. Shri. Soumen Mukherjee submitted that TPC-D is proactively asking the commercial and industrial consumers to changeover and rejecting the application of slum dwellers citing different reasons. Siddhi Electricals requested the Commission to develop a transparent mechanism through which changeover application of all the category of consumers is accepted by TPC. Further, Shri. Deepak Israni pointed out that TPC is not following Universal Service Obligation (USO) by not serving low end consumers residing in slums.

RInfra-D's Response

RInfra-D has not responded to this objection.

Commission's Ruling

The issue is not within the scope of the current Petition, which is for the approval of MYT Business Plan of RInfra-D.

2.30 Consumer Mix

Kalika Electrical Enterprises submitted that the allocation of consumer mix across all the Utilities should be same. This would prevent the tariff shock to any particular consumer category.

RInfra-D's Response

RInfra-D has not responded to this objection.

Commission's Ruling

The issue is not within the scope of the current Petition, which is for the approval of MYT Business Plan of RInfra-D.

2.31 Solar Power

Shri Ulhas Chaudhary pointed out that if Solar power is promoted in the State and each consumer installs Solar panels on their roof tops, there shall not be any purchase of the power from the existing generating stations. He suggested that no decision on such matters should be taken until the policy decision on efficient utilisation of electricity and electricity equipment is undertaken.

RInfra-D's Response

RInfra-D has not responded on this objection.

Commission's Ruling

These issues are not within the scope of the current Petition, which is for the approval of MYT Business plan of RInfra-D.

3. SALIENT FEATURES OF THE MYT BUSINESS PLAN PETITION

3.1 Business Overview of RInfra-D

3.1.1 Company Profile

RInfra-D submitted that Reliance Infrastructure Limited, is a part of Reliance Anil Dhirbhai Ambaini Group, one of the India's largest infrastructure company with total revenues of about Rs. 28,270 Crore as on March 31, 2011. It submitted that Reliance Infrastructure Limited is India’s leading Utility company having presence across the value chain of electricity business i.e. Generation, Transmission, Distribution, EPC and Trading and also the largest infrastructure company by developing projects in all high growth areas in infrastructure sector i.e. Roads, Highways, Metro Rails, Airports and Specialty Real Estate. It submitted that RInfra’s presence spans across the following three verticals:

3.1.1.1 Engineering, Procurement and Construction

RInfra-D submitted that EPC division offers a single point solution to the execution of power plants including project engineering, procurement, construction and commissioning for its clients. RInfra also submitted that it manages power plants on a turnkey basis and provide industry specialist services such as fuel management advice and fiscal advice. The income of the division was Rs 3609 Crore. (US$ 809 million) and order book position of over Rs 29,635 Crore. (US$ 6.6 billion) as on March 31, 2011.

3.1.1.2 Energy

RInfra-D submitted that RInfra’s core competency in energy extends to generation, transmission, distribution and trading. RInfra-D submitted that it distributes more than 36 billion units of electricity to 30 million consumers and generates 941 MW of electricity from

RInfra's power stations in India. Further, RInfra's transmission division is developing 5 transmission projects, with total project outlay of Rs 7,000 Crore.

3.1.1.3 Infrastructure

RInfra-D submitted that RInfra has a significant presence in the construction of roads, metros, airports and real estate.

3.1.2 RInfra-D's Mumbai Distribution Business

RInfra-D submitted that Bombay Suburban Electric Supply Ltd. was established in 1929. Bombay Suburban Electric Supply Ltd. was granted a licence, termed "The Bombay Suburban Electric Licence, 1926", by the Government of Maharashtra under Section 3 of the erstwhile Indian Electricity Act 1910. The said Licence was thereafter amended from time to time. The name of the Company "Bombay Suburban Electricity Supply Ltd." was changed to BSES Ltd. on December 23, 1992 and the name was again changed to Reliance Energy Ltd. on February 24, 2004, and further on April 28, 2008 was changed to Reliance Infrastructure Ltd.

RInfra-D further submitted that Reliance Infrastructure Ltd. is an electricity Distribution Licensee in the Suburbs of Mumbai and areas under the Mira Bhayinder Municipal Corporation, granted a licence to distribute electricity by the Commission for 25 years with effect from August 16, 2011. Prior to this, RInfra was a deemed distribution licensee having a licence to distribute electricity in the suburbs of Mumbai, under the terms of the Electricity Act 2003.

RInfra-D submitted that it is currently catering to electricity needs of approximately **2.8 million consumers** in its licensed area (in and around suburbs of Mumbai) spread over **400 Sq. Kms** with energy input requirement of more than 9 billion units per annum and coincident Max. Demand in the range of 1650 MVA. As on **31 March 2012**, the distribution system of RInfra-D comprises of 5775 Nos of 11kV Substations, 4519 ckt-kms. of HT cable & 4202 ckt-kms. of LT Cable.

Further, RInfra-D submitted that RInfra has a generating station at Dahanu, Maharashtra (Dahanu Thermal Generating Station – DTPS) with a total installed capacity of 500 MW (2 x 250 MW). Power generated at DTPS is transmitted to RInfra-D's licensed area of Mumbai. The power is evacuated from 220/33 kV substations viz. Aarey, Versova, Ghodbunder, Goregaon, Saki, Gorai and Brolivali of RInfra-T.

3.2 Operational and Financial Performance

3.2.1 Historical Performance of RInfra Distribution

RInfra-D submitted that in terms of customer base, Distribution System, etc., it is the largest power distributor in the city of Mumbai. Its Distribution System in Mumbai has been consistently operating at 99.98% reliability for past few years. RInfra-D further submitted that the Company was recognised as the best among 20 urban Utilities across the Country for "Excellence in Power Distribution – Urban" at the prestigious IEEMA National Awards 2009.

RInfra-D submitted that strengthening and modernising the distribution network is a constant endeavor at RInfra, with a view to meet the expectations of RInfra's customers, in terms of providing state of the art services and world-class reliability and continuity of supply. RInfra-D also submitted that the reliability indices of RInfra-D system are comparable to international utilities. The advanced technologies for distribution management employed by RInfra-D make it possible to correctly monitor supply interruptions at all voltage levels, right down to the Point of Supply for every customer. RInfra-D submitted that the distribution losses in their area are among the lowest in the Country and have been reducing for past five years.

3.2.2 Customer and Sales growth

RInfra-D submitted that the number of customers and sales volume of the distribution business has steadily grown at a rate of about 3% CAGR and 5% CAGR, respectively.

3.2.3 Growth in Network Expanse

RInfra-D submitted that the steady growth in customers and demand in the past few years has led RInfra to constantly expand its distribution system in a manner that all customers are served optimally. It submitted that the planning of distribution system is done with a view to not only maintain reliability levels, reduce losses and other key parameters but improve upon them on year to year basis.

3.2.4 Capital Expenditure

RInfra-D submitted that a growing business requires infusion of capital to enable it to sustain growth. In electricity networks, the capital infusion is done primarily to enable the distribution company to develop its network assets, carry out additions, augmentations and alterations to the distribution system depending upon the need of its existing and prospective customers. RInfra-D submitted that the capital expenditure in its licensed area of supply has been driven by the following factors:

3.2.4.1 Load growth:

Representing the Capex incurred on expansion and strengthening of network to meet new loads as well as natural growth in consumption of existing consumers. The infrastructure development to meet the new loads may also relieve some of the the existing network due to network configuration changes, which helps in reduction in losses.

3.2.4.2 Reliability:

RInfra-D submitted that the Capex requirement under this component is generally for Network Augmentation and Replacement of cable sections/lines and equipments, which suffer wear and tear. This requirement is for **‘continuous’** activities.

3.2.4.3 IT and Automation:

RInfra-D submitted that the Capex under this head includes expenditures on latest IT tools like SAP / ISU-CCS, GIS, AMR, load forecasting along with advanced network technological systems like SCADA and DMS. RInfra-D also submitted that IT & Automation to meet the information, analytical requirement under Tariff determination and Compliance of Regulation including Standard of Performance Regulation. RInfra-D further submitted that the requirement also arises due to necessity of exploring all possible technological advancements and implementing most useful and cost-effective techniques for improvising the performance of the system and to become an IT driven organisation.

3.2.4.4 Other Developmental Works and Streetlights:

RInfra-D submitted that this includes Capex utilised for Instruments, tools, vehicles, furniture, safety and statutory requirements like Street lighting. New objectives introduced in this category are ‘Disaster Management Plans’ and ‘Demand Side Management’.

3.2.4.5 Operating Expenditure

RInfra-D submitted that Operating expenditure includes the expenses incurred on salaries and wages of the employees of the organisation, the expenses incurred on repairs and maintenance of various network equipment of RInfra-D used for supply of electricity to consumers and administrative and general expenses incurred for day-to-day operations of RInfra-D.

3.2.4.6 Process Performance

RInfra-D submitted that the processes at RInfra have been reengineered to suit the requirements of its consumers and have been automated, for maximising operational excellence and saving cost, Processes are duly documented and standardised in the form of ISO documentation, Regular reviews of process capabilities is carried out. Internal Turn-

Around-Times (TAT) have been configured in the system and exception reports on performance are generated for further improvement.

3.2.4.7 Customer Service Initiatives

RInfra-D submitted that it is constantly endeavoring to improve its customer service and has launched a variety of service initiatives for its customers with the objective of providing greater convenience to customers during their various interactions with the Utility – whether with regard to meter reading and bill payment or with regard to any other enquiries, service requests, complaints, etc.

3.3 Environmental Policy and Initiatives

RInfra-D submitted that it is one of the largest private sector enterprises in power Utility and infrastructure business and is committed to provide an uninterrupted, affordable, quality, reliable and clean power to millions of its customers. RInfra-D mentioned that preservation and promotion of environment is of fundamental concern in all the business activities of Company. RInfra-D submitted that a Company with sound Environment Policy in place, continually strives towards creating, conserving and ascertaining safe and clean environment for sustainable development.

EMS Establishment & Implementation: Commitment to the Environment

RInfra-D submitted that it is first electric supply Utility in the Country to establish an effective and integrated ISO-9001:2000 Quality Management System; with the first and only ISO 14001 certified Indian Power Plant at Dahanu namely Dahanu Thermal Power Station.

3.3.1 Operational Control Improvements

RInfra-D submitted that the company has identified environmental aspects associated with its business activities and determined significant environmental aspects, for which it has implemented / proposed to implement appropriate operational controls to avoid or to minimise any adverse impact on the environment.

3.3.2 Environmental Objectives, Targets & Programs

RInfra-D submitted that in accordance with Environmental Policy, wherever feasible, measurable Environmental Objectives, Targets and Program(s) have been established and implemented by relevant Departments and Functions. RInfra-D also submitted that Environmental aspects/impacts and applicable legal and other requirements have been duly considered while establishing environmental objectives..

3.4 Corporate Social Responsibility

RInfra-D submitted that RInfra carries out several Corporate Social Responsibility (CSR) initiatives. RInfra submitted that it conducts blood donation camps, rain-water harvesting programs, aiding in education such as providing uniform, student desks, etc.

3.5 Past Revenue Gap and Regulatory Asset Recovery

RInfra-D has also submitted its plan for the recovery of Regulatory Assets recovery in its Petition. The same has been discussed in the subsequent chapter.

3.6 ARR estimates for the Second Control Period

In its Business plan Petition, RInfra-D has submitted its forecast for each of the ARR component including estimated Sales and Power procurement. RInfra-D's submissions are dicussed in detail in the subsequent chapter. RInfra-D has also included optimistic and pessimistic scenarios for ARR in its business plan Petition.

The Commission has made a note of the above submissions of RInfra-D.

4. AGGREGATE REVENUE REQUIREMENT (ARR) FOR FY 2012-13 TO FY 2015-16

4.1 Sales

RInfra-D submitted that it has projected its energy sales for the Business Plan Period under the assumption that re-determination of Cross Subsidy Surcharge, based on the projections of various elements of surcharge as contained in its Business Plan Petition, and approval of Regulatory Asset Recovery from changeover consumers, would reduce consumer changeover. RInfra-D also submitted that it has not considered any further significant migration from FY 2012-13 onwards. RInfra-D further clarified that if there were any residual migration after the application of revised Surcharge together with levy of regulatory asset recovery charge it would be mostly on account of differences in service level offerings of the two licensees i.e. Tata Power-D and RInfra-D.

While forecasting the sales for the plan period, RInfra-D has considered the actual (provisional) sales to its own and changeover consumers for FY 2011-12.

Thereafter, RInfra-D has forecasted its sales over the plan period in the following manner:

- **Consideration of category-wise CAGR**

RInfra-D has considered category-wise CAGR for its forecast. The category-wise changeover consumption in the years FY 2009-10, FY 2010-11 and FY 2011-12 was added to its own sales to arrive at the total sales for that year for the computation of CAGR forecast. RInfra-D submitted that it has taken CAGR which is best suitable trend for that consumer category. The category-wise CAGR considered by RInfra-D is indicated below:

Table 4.1: Category-wise CAGR considered by RInfra-D

Consumer Category	CAGR Considered for Sales Forecasting
LT Residential	6 Year
LT Commercial	6 Year
LT Industrial	6 Year
LT Advertisements and Hoardings	6 Year
LT Temporary (Others)	2 Year
LT Street Light	6 Year
HT Industrial	2 Year
HT Commercial	6 Year
HT Housing	3 Year

- **Determination of Seasonality Factors:**

  RInfra-D has determined the Seasonality factor as the ratio of each month's total sales in FY 2011-12 bears to the total sales in the month of March 2012.

- **Determination of RInfra-D Total Sales:**.

  RInfra-D submitted that the pattern of sales indicated in the month of March of a particular financial year will be reflected for each category in the successive financial years. Thus, from the estimated RInfra-D's sales in the month of March 2012, March month sales of each successive financial year is determined by applying the CAGR as determined earlier. Thereafter, by applying the seasonality factors each of the remaining months' sales in the FY 2012-13 to FY 2015-16 is determined and aggregated to work out total annual sales of RInfra-D.

- **Determination of Change Over Sales:**

  RInfra-D has not considered any incremental migration from FY 2013 onwards and accordingly, the cumulative migration till March 2012, was considered for the period FY2012-13 to FY2015-16. RInfra-D has further considered the increase in consumption of already migrated consumers as 2% per annum.

- **Determination of RInfra-D Own Sales:** The Net Sales or RInfra-D Own sales is determined as the difference of total sales calculated in earlier step and incremental changeover sales, as projected for that month.

Later on, RInfra-D revised its sales forecast considering the actual migration till June'12, in response to the details sought by the Commission.

The final Own Sales and Change over Sales as projected by RInfra-D is provided in the table below:

Table 4.2:Own Sales over the MYT Period projected by RInfra-D (MU)

Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16
LT I - Below Poverty Line	0.06	0.06	0.06	0.06
LT -I Residential (Single Phase)	0.00	0.00	0.00	0.00
0-100	1,745.34	1,801.16	1,863.86	1,928.73
101-300	1,035.60	1,067.85	1,105.02	1,143.48
301-500	135.85	146.39	151.48	156.75
500and above	45.86	49.94	51.68	53.48
LT -I Residential Three phase	0.00	0.00	0.00	0.00
0-100	130.67	133.81	138.47	143.29
101-300	207.53	210.89	218.23	225.83
301-500	117.18	119.39	123.54	127.85
500and above	281.44	297.96	308.33	319.06
LT II (a) - 0-20 kW	1,235.56	1,312.50	1,396.89	1,486.71
LT II (a) TOD Option	0.01	0.01	0.01	0.01
LT II (b) - 20-50 kW	121.82	129.16	137.46	146.30
LT II (c) - above 50 kW	188.66	197.65	210.36	223.89
LT III - LT Industrial upto 20 kW	123.99	127.41	130.71	134.11
LT IV - LT Industrial above 20 kW	192.33	197.60	202.73	207.99
LT-V : LT- Advertisements and Hoardings	3.27	3.52	3.78	4.05
LT VI: LT -Street Lights	59.51	62.51	65.66	68.97
LT-VII (A): LT -Temporary Supply Religious	1.57	1.57	1.57	1.57
LT-VII (B): LT -Temporary Supply Others	104.55	108.29	112.07	115.98
LT VIII: LT - Crematorium & Burial Grounds	0.75	0.74	0.74	0.74
LT IX: LT –Agriculture	0.04	0.04	0.04	0.04

Category	FY2012-13	FY2013-14	FY2014-15	FY2015-16
HT I: HT-Industry	58.50	59.57	61.21	62.90
HTII : HT- Commercial	96.63	89.34	97.04	105.40
HT III: HT-Group Housing Society	20.05	21.22	22.34	23.52
HTIV : HT - Temporary Supply	6.26	6.58	6.58	6.58
Total LT Sales	5731.58	5968.43	6222.69	6488.89
Total HT Sales	181.45	176.70	187.17	198.40
Grand Total	**5913.03**	**6145.13**	**6409.85**	**6687.29**

Table 4.3: Changeover Sales over the MYT Period projected by RInfra-D (MU)

Category	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Total LT Sales	1,830.60	2,358.47	2,411.06	2,459.72	2,509.37
Total HT Sales	827.14	934.84	956.17	975.46	995.15
Grand Total	2,657.74	3,293.31	3,367.22	3,435.19	3,504.42

The Commission has projected RInfra-D own sales considering the sales for the month of March' 12 as the base and forecasted the RInfra-D Own Sales in the following manner:

1. **Determination of CAGR:** The Commission has considered 5 year CAGR (over the period FY 2007-08 to FY 2011-12) for all the categories except for LT VII (Temporary Religious and Temporary others), as the Commission is opinion of 5 year is reasonably long-term trend and considering that normally practice of using odd numbers year for avearing purpose, viz., 5 year CAGR, 3 year CAGR or Year or Year Growth rates are c . However, the Commission noted that the 5 year CAGR for LT VII, was indicating an unsustainable trend, the Commision has considered the growth rate considered by RInfra-D. Based on the category-wise RInfra-own sales for March-12 and the 5-Year CAGR, sales for month of March of each succeeding financial year is estimated. Similar, to the methodology adopted by RInfra-D the ratio of total sales (own sales together with changeover sales) for FY 2011-12, to the total sales (own sales together with changeover sales) for the month of March'12 has been computed.

The ratio is then applied to sales of the month of March for any financial year to arrive at the annual sales for that particular financial year.

2. **Determination of Seasonality Factor:**
   Based on the month-wise total Sales (own sales together with changeover sales) for FY2011-12, the Commission has computed the ratio of each month's sales to the total sales for the year. The same correlation is assumed to continue over the plan period for RInfra-D own sales.

3. **Determination of RInfra-D Own Sales:** Using the Seasonality factors as mentioned above, the month-wise sales for respective financial years, has been computed.

The Commission, in its Order dated August 22, 2012 in **Case no. 151 of 2011**, has allowed changeover of consumers from RInfra-D to TPC-D, only for the residential category consumers who consume electricity upto 300 units per month, for a period of one year from the issuance of the said Order. The relevant extract has been reproduced here under:

"….. Prospectively, from the date of this Order, consumer changeover will be allowed from RInfra-D to TPC-D only for the residential category of consumers and that too only for the consumers who consume electricity upto 300 units a month."

Further, the Commission has in its Order dated August 26, 2012 in **Case No. 165 of 2011** in the matter of approval of MYT Business Plan of TPC-D from FY2012-13 to FY2015-16, has already computed the Changeover Sales from RInfra-D, as tabulated below:

Table 4.4: Computed Change Over Sales in Case no. 165 of 2011 (MU)

Changeover Sales	FY2012-13	FY2013-14	FY2014-15	FY2015-16
LT-I Residential	808.12	859.64	913.43	970.59
LT-II Commercial	730.72	702.78	679.01	663.45

Changeover Sales	FY2012-13	FY2013-14	FY2014-15	FY2015-16
LT Industry	433.83	421.64	411.14	403.80
LT-V Advertisement	0.11	0.11	0.11	0.11
LT-VII Temporary Supply	1.11	1.11	1.11	1.11
HT-I Industry	219.07	212.91	207.62	203.91
HT-II Commercial	666.41	640.93	619.26	605.06
HT-III Group Housing Society	11.53	11.53	11.53	11.53
HT-VI Temporary Supply	1.43	1.43	1.43	1.43
Total	**2872.34**	**2852.08**	**2844.65**	**2860.98**

The same changeover sales at the distribution periphery of RInfra-D has been considered for RInfra-D during the period FY 2012-13 to FY 2015-16. In line with the Commission's ruling in Case No. 151 of 2011, the incremental migration during FY 2012-13 to FY 2015-16 is deducted from LT -I Residential under the slabs of 0-300 units, projected for the period.

The net sales projected by Commission for RInfra-D (after considering the incremental migration) for the period from FY2012-13 to FY2015-16 is provided in the table below:

Table 4.5: RInfra-D own sales computed by the Commission (MU)

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
LT I - Below Poverty Line	0.06	0.06	0.06	0.06
LT -I Residential (Single Phase)				
0-100	1,873.52	1,930.30	1,988.78	2,049.00
101-300	1,038.86	1,070.35	1,102.78	1,136.17
301-500	112.57	115.93	119.39	122.96
500and above	34.42	35.44	36.50	37.59
LT -I Residential Three phase	0.00	0.00	0.00	0.00
0-100	204.95	211.18	217.60	224.21
101-300	290.94	299.79	308.91	318.30
301-500	133.35	137.33	141.43	145.66
500and above	212.74	219.09	225.63	232.37
LT II (a) - 0-20 kW	1,271.06	1,326.42	1,384.19	1,444.47
LT II (a) TOD Option	0.00	0.00	0.00	0.00
LT II (b) - 20-50 kW	136.97	142.93	149.16	155.65
LT II (c) - above 50 kW	241.79	252.32	263.31	274.77

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
LT III - LT Industrial upto 20 kW	126.36	129.71	133.16	136.69
LT IV - LT Industrial above 20 kW	197.49	202.73	208.11	213.64
LT-V : LT- Advertisements and Hoardings	3.14	3.31	3.48	3.67
LT VI: LT -Street Lights	57.86	59.11	60.37	61.67
LT-VII (A): LT -Temporary Supply Religious	1.60	1.64	1.67	1.71
LT-VII (B): LT -Temporary Supply Others	103.90	107.52	111.27	115.16
LT VIII: LT - Crematorium & Burial Grounds	0.93	0.95	0.97	0.99
LT IX: LT -Agriculture	0.04	0.04	0.05	0.05
Total LT Sales	**6,043**	**6,246**	**6,457**	**6,675**
HT I: HT-Industry	86.06	87.88	89.74	91.63
HTII : HT- Commercial	187.61	204.58	223.09	243.27
HT III: HT-Group Housing Society	21.99	22.44	22.90	23.37
HTIV : HT - Temporary Supply	4.93	4.93	4.93	4.93
Total HT Sales	**301**	**320**	**341**	**363**
Grand Total	**6,343**	**6,566**	**6,797**	**7,038**

DSM Inititatives

RInfra-D was directed by Commission to submit information regarding various DSM activities, investments made in such activities and quantum of energy savings achieved. RInfra-D submitted the details as given in the table below:

Table 4.6: DSM details provided by RInfra-D

Name of the program	Details of the Program	Program Status as of 31st March 2012	Expenditure (Rs lakhs)	Savings Achieved (FY 11-12)
Load Research (11-12)	Survey conducted for sample size of 2000 consumers, out of which 1800 from residential category and 200 from Commercial category.	Completed the Load Research for 2000 Nos.	9	NA
T5 FTL Program	In this pilot program, the existing lighting fixtures of commercial and Residential consumers are replaced with more efficient T5 FTL technology, which in turn will help in reducing energy consumption and system peak demand.	Installations completed for 3939 Nos.	27.25	0.15MU

Name of the program	Details of the Program	Program Status as of 31st March 2012	Expenditure (Rs lakhs)	Savings Achieved (FY 11-12)
5 Star Ceiling Fan program	A pilot program for replacing inefficient Ceiling Fans of residential consumers by 5-star rated Ceiling Fans. Designed to create awareness on the benefits of using energy efficient appliances and to remove barriers on its purchase.	Installations completed for 3766 Nos.	9.14	0.20MU
5 Star Split AC program	Pilot program is designed for switching over to 5-star rated split AC's from existing window units. It will help to reduce energy consumption with decrease in peak demand.	Installations completed for 50 Nos	3.16	0.058MU

As RInfra-D has not provided the details about the impact of various DSM initiatives for the period FY 2012-13 to FY 2015-16, the Commission has not considered the impact of DSM benefits in this Business plan Order. RInfra-D is however directed to include in its MYT Petition details of the planned DSM activities during FY 2012-13 to FY 2015-16 and the expected savings in MW/MU for the same period.

Further in its reply to query raised by the Commission on the anticipated impact of letter of Ministry of Power's dated November 30, 2011, on open access for consumers with load greater than 1 MW along with the load of such consumers, RInfra-D submitted as follows:

> *"The total number of consumer remaining with RInfra-D who have contracted demand greater than 1 MW are 45, with aggregated contract demand as 62614 kVA or about 63 MVA.*
>
> *As regards, impact of the abovesaid intent of the Ministry of Power is concerned, no impact of the same is presently considered in the Business Plan, as there is no clarity at the moment as to how the same shall play out. There is no clarity on whether tariffs would be determined by the SERC or not.*
>
> *If not, consumption and power requirement of such consumers would not be considered in regulated ARR. Further, how would cross-subsidy surcharge be determined for such consumers is not clear as well. We understand that more clarity will emerge on these questions in the coming days and accordingly, RInfra-D shall*

incorporate the effect of the same in its future Petitions as directed by the Hon'ble Commission."

4.2 Distribution Losses

RInfra-D submitted in its business plan that the distribution losses of FY 2011-12 are considered as 9.05%, which are same as the actual losses of FY 2010-11 and also that further, no reduction in base losses of 9.05% is anticipated till FY 2013-14 while assuming that losses may reduce by 0.05% in the last two years to reach 8.95% in FY 2015-16.

Further, RInfra-D submitted that even to maintain distribution losses at existing levels, a large amount of capital expenditure is required. RInfra-D also mentioned that the impact of incremental capex during the plan period will only be realised towards the end of the Plan Period after the schemes are put into commissioning and loss reduction from present levels is considered in the last two years of the Plan Period. RInfra-D further clarified that it would undertake all steps to bring about loss reduction in distribution system, notwithstanding the trajectory proposed. The distribution loss trajectory as projected by RInfra-D is tabulated below:

Table 4.7: Distribution Losses projected by RInfra-D (%)

Loss Levels	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Distribution Losses	9.05%	9.05%	9.05%	9.00%	8.95%

In the Order in Case No. 180 of 2011, dated June 15, 2012, the Commission directed RInfra-D to conduct a study on technical losses of its distribution network through an independent third party. RInfra-D is directed to provide the status of the compliance of Commission's directive in this regard. RInfra-D is also directed to consider the findings of the third party study report, while submitting the loss trajectory in its MYT Petition. For the purpose of the Business Plan, the Commission has considered the loss trajectory as submitted by RInfra-D for the period FY2012-13 to FY 2015-16.

Table 4.8: Distribution Losses projected by Commission (%)

Loss Levels	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Distribution Losses	9.05%	9.05%	9.00%	8.95%

4.3 Wheeling Losses

While submitting the trajectory for wheeling losses, RInfra-D submitted that losses in the distribution system consider total output i.e. total energy, irrespective of whether sold to own consumers or to changeover consumers. RInfra-D further submitted that under the present framework, the increase would not be recognised as a performance deficiency of the Supply Distribution Licensee (SDL), as he is protected by fixing wheeling losses at a pre determined level. RInfra-D requested the Commission to consider applying the same level of distribution losses on changeover consumers as applicable for its own consumers, rather than fixing them at a lower level, more particularly when the Commission has fixed metering responsibility on the SDL.

RInfra-D further submitted that the Commission approved only levy of technical wheeling losses i.e. 1.94% for HT and 9% for LT as submitted by RInfra-D, in Case 180 of 2011 and same has been considered in Business Plan Petition by RInfra-D.

RInfra-D has prepared the energy balance and power purchase forecast considering the approval of the Commission in the Order in Case No. 180 of 2011. Therefore, the wheeling losses are considered at 9% for LT and 1.94% for HT for all years of the Plan Period.

Table 4.9: HT and LT wheeling loss submitted by RInfra-D

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
HT Wheeling loss	1.94%	1.94%	1.94%	1.94%
LT Wheeling loss	9.00%	9.00%	9.00%	9.00%

The Commission has already elaborated its observations on Hon'ble ATE judgment in its Order in Case No. 180 of 2011. The extracts are reproduced as under:

3.2.10 The Commission also noted ruling of Hon'ble ATE in its judgment under RInfra-D's Appeal No. 150 of 2009 on March 23, 2012. The relevant part of the said Judgement is reproduced below.

> *"We have examined the issue in detail. The Losses in LT system and losses attributable to LT consumers are two different propositions. Appellant's submission in its ARR Petition that losses in its LT system were of the order of 9% would not mean that losses attributable to LT consumers migrating to TPC would also be 9%. Admittedly power is generated at remote generating station and transmitted to load centers on EHT transmission system. At load centers power is stepped down to 33 kV and 11 kV and distributed in bulk. It is again stepped down to LT Voltage (400 Volts) for retail supply. Therefore, a consumer who avails supply at LT level is liable to bear losses occurred in the system i.e. from generating end to its premises. Thus a consumer connected at LT level to Appellant's system is paying for system losses for LT system as well as for HT system. Therefore, a migrating consumer at LT level has to pay for losses in LT system and HT system. Otherwise the differential losses would be loaded on the remaining consumers of the Appellant.*
>
> *36. In view of the reasoning given above, the submissions made by the Appellant appear to be correct and tenable. Accordingly, the same is accepted and the State Commission is directed to carryout necessary amendment in the impugned order."*

3.2.11 The Commission observes that the Hon'ble ATE has opined that LT system losses needs to be grossed up with HT system losses for arriving at losses attributable to LT changeover consumers. Hence, the Commission has accepted the technical losses in HT and LT system as the wheeling losses to be levied on migrated / open access consumers, based on the submission of RInfra-D.

The Commission therefore, has clearly elaborated the interpretation of ATE judgment and same philosophy has been adopted for this Order as well. The Commission has considered the HT and LT technical wheeling losses, as submitted by RInfra-D, subject to the pending technical loss study by the independent party. The HT and LT wheeling losses considered by the Commission are tabulated below:

Table4.10: HT and LT Wheeling loss considered by Commision

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
HT Wheeling loss	1.94%	1.94%	1.94%	1.94%
LT Wheeling loss	9.00%	9.00%	9.00%	9.00%

4.4 Transmission Losses

For FY 2011-12, RInfra-D has considered the transmission losses same as that approved by the Commission in Case No. 180 of 2011 i.e. 4.26%. As regards FY 2012-13 onwards, the transmission losses are projected at 4.50% for every year .

The Commission has considered the transmission losses of 4.85%, as approved in its Order dated September 10, 2010 as a normative loss for InSTS.

Table 4.11: Transmission loss considered by Commission

Loss Levels	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Transmission Loss	4.85%	4.85%	4.85%	4.85%

4.5 Energy Balance for RInfra-D

Based on the sales forecast, distribution and wheeling losses trajectory, RInfra-D has submitted its energy required as provided in the table below:

Table 4.12: Energy Requirement during Plan period as projected by RInfra-D

Particulars	UoM	Notation	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Migrated HT sales	MU	A	935	956	975	995
HT Loss	%	B	1.94%	1.94%	1.94%	1.94%
HT grossed up energy at T-D boundary	MU	C = A/(1-B)	953	975	995	1,015
Migrated LT sale	MU	D	2,358	2,411	2,460	2,509
LT loss	%	E	9.00%	9.00%	9.00%	9.00%

Particulars	UoM	Notation	FY2012-13	FY2013-14	FY2014-15	FY2015-16
LT grossed up energy at T-D boundary	MU	F = D/(1-E)	2,592	2,650	2,703	2,758
Total T-D energy attributable to TPC-D sale	MU	G = C+F	3,545.06	3,624.59	3,697.75	3,772.39
Net T-D energy attributable to RInfra-D sale	MU		6,577	6,834	7,121	7,421
InSTS losses %	%		4.50%	4.50%	4.50%	4.50%
Total power purchase requirement of RInfra-D (MU)	MU		6,887	7,156	7,457	7,771

The total energy requirement projected by the Commission for the Control Period from FY 2012-13 to FY 2015-16, based on its analysis in the preceding sections is as below:

Table 4.13:Energy Requirement during Plan period as projected by the Commission

Particulars	Units	FY 13	FY 14	FY 15	FY 16
Changeover HT sales (at consumer end)	MU	881	850	824	806
HT Losses	%	1.94%	1.94%	1.94%	1.94%
Changeover HT sales at Distrbution Periphery	MU	898	867	840	822
Changeover LT sales (at consumer end)	MU	1796	1807	1824	1856
LT losses	%	9.00%	9.00%	9.00%	9.00%
Changeover LT sales at Distrbution Periphery	MU	1974	1985	2005	2039
Total Energy attributable to Changeover sales at Distrbution Periphery	MU	2872	2852	2845	2861
RInfra-D Own Sales	MU	6343	6566	6797	7038
Total Changeover Sales (at consumer end)	MU	2677	2657	2648	2662
Total System Sales for the consumers connected to RInfra-D system (at consumer end)	MU	9020	9223	9445	9700
Distribution Loss	%	9.05%	9.05%	9.00%	8.95%
Energy handled to RInfra-D Distribution System	MU	9918	10140	10380	10653
Total Energy attributable to changeover sales at T-D Interface	MU	2872	2852	2845	2861
Energy requirement of RInfra-D sale at Transmission Periphery	MU	7046	7288	7535	7792
Intra-State Tranmsision System (InSTS) losses %	%	4.85%	4.85%	4.85%	4.85%
Total power purchase requirement of RInfra-D	**MU**	**7405**	**7660**	**7919**	**8189**

4.6 Power Purchase Plan

RInfra-D submitted that it has prepared its power procurement plan for the Plan Period, giving due regard to its present and planned long-term contracts, proposed medium term plan and short-term plan based on price forecast of short-term power in the market. Further, for FY 2011-12, energy purchase data for various sources is based on the provisional accounts/billing data. RInfra-D stated that based on the energy forecast at G<>T interface attributable to RInfra-D, as worked out in its energy balance, the total RInfra-D Load and its segregation into Base Load and Peak Load for each year of the Plan Period has been considered as below:

Table 4.14:Demand forecast for RInfra-D

Demand	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Base Load (MW)	820	850	890	920
Peake Load (MW)	240	280	290	310
Total (MW)	**1060**	**1130**	**1180**	**1230**

RInfra-D submitted that it has estimated a peak load for each year of the business plan period, as above. RInfra-D also submitted that peak load supply availability of only 80% has been considered (to factor in the balance 20% as day ahead purchases, banked returns, if any, etc., which could not be foreseen, and to take care of uncertainty).

The Commission asked RInfra-D to submit the detailed methodology for its demand forecast. In response to the Commission's query, RInfra-D submitted its detailed methodology as below:

"RInfra-D has forecast Base Load and Peak Load in MW on the basis of its sales forecast. The detailed sales forecast is part of the Business Plan financial model and the methodology employed for the same is also detailed in the business plan document. Using the energy input at G<>T in MU interface forecast in the Business Plan, the same is converted to average demand in MW first and from the same peak demand is obtained by applying a representative system load factor.

Further, Base Demand has been considered as 75% of Peak Demand. This is an assumption in absence of any accepted definition of Base Load. Base Load could be considered as the lowest requirement as per the Load Duration Curve or it could be considered as the load, which is incident on the system for majority of time. However, RInfra-D's load duration curve varies significantly between day and night hours and over seasons. For instance, in winters, load goes down to as low as 350-400 MW in late night hours, whereas in peak summers, minimum load would hover around 900 MW. Monsoon season is in between the two.

Hence, there is no single Base Load or Peak Load value for RInfra-D's system. Therefore, for the purpose of Business Plan, we have estimated Peak Load the way it is described above and the Base Load is considered at 75% of the same, as the same would represent majority of the year. However, as the salesforecast for each year of the Business Plan is now revised considering further migration during FY 12-13, the Peak Load and Base Load figures are also revised to some extent. The revised figures are incorporated in the financial model, being submitted herewith.

In the first year of business plan i.e. FY 12-13, the peak load estimates are kept on a lower side compared to what is obtained from above-said methodology. This is on account of uncertainty prevailing on the extent of migration, as the same is likely to resolve only during the course of FY 12-13 with the determination of retail tariffs of RInfra-D and TPC-D and the settlement on issues of CSS and wheeling charges.

In the Form 12(2) of the financial model, what is presented as Peak Load in MW is actually only the incremental demand over the Base Demand in MW.

The detailed assumptions of RInfra-D has been tabulated below:

Table 4.15:Assumptions of RInfra-D for its Demand forecast

Year	FY13	FY14	FY15	FY16
Annual Energy as per Business plan (MU)	6884	7149	7446	7757
Representative system LF	72%	72%	72%	72%

Year	FY13	FY14	FY15	FY16
Avg. Demand (MW)	786	816	850	885
Peak Demand (MW)	1091	1133	1181	1230
Base Demand (@ 75% of Peak Demand)	819	850	885	922
Base Load in MW (rounded off)	820	850	890	920
Peak Load in MW (rounded off)	1060	1130	1180	1230
Incremental peak demand over Base (MW)	240	280	290	310

4.6.1 Long Term Power Purchase

RInfra-D submitted that it has entered into a 10-year power purchase arrangement with its own generating station at Dahanu (DTPS or RInfra-G). RInfra-D added that the arrangement has been approved by the Commission vide its Order in Case No. 8 of 2008 and it is a firm long-term contract for delivery of all generated energy to RInfra-D from 2 X 250 MW units at the tariff determined under a separate regulatory process for RInfra-G.

RInfra-D also submitted that the generating station has been in service for more than 14 years, no decline in availability is forecasted for the Plan Period and is thus assumed at about 95.89% available on a loading of 100% based on the Business Plan of RInfra-G. RInfra-D submitted that for FY2011-12, the provisional number corresponding to the energy as delivered to RInfra-D by RInfra-G has been considered. RInfra-D has considered the fixed charges and energy charges in case of procurement from RInfra-G as the levels forecasted by RInfra-G in its Business Plan for each year of the Plan Period, except for FY 2011-2012 where Fixed Charges are considered as per FY2010 Tariff Order of RInfra-G and Energy Charges are considered as per provisional accounts. The summary of the power procurement from Dahanu Power Plant as projected by RInfra-D is provided in the table below:

Table 4.16:Quantum and Cost of Power Purchase from Dahanu Power Plant projected by RInfra-D

Particulars	Units	FY2011-12	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Energy Availability from RInfra-G	MUs	3974	3786	3786	3786	3797
Fixed Charges	Rs Crore	217	304	326	365	386
Energy Charges	Rs/unit	2.59	2.65	2.69	2.74	2.79
Total Variable Cost	Rs Crore	1031	1002	1019	1037	1058
Total cost of power purchase	Rs Crore	1247	1306	1345	1401	1444
Avg Cost of Energy	Rs/kWh	3.14	3.45	3.55	3.70	3.80

The Commission has considered the fixed and energy charges same as those approved while determining Tariff for RInfra-G for FY 2010-11 in the Order in Case 99 of 2009. i.e. fixed charges of Rs. 216.61 Crore and energy charges at Rs. 2.12 per unit, for the purpose of this Order on provisional basis and the Commission shall consider the year-wise rate and fixed charges approved in RInfra-G's MYT Petition, while issuing the Order on RInfra-D's MYT Petition.

Table 4.17:Quantum and Cost of Power Purchase from RInfra-G

Particulars	Units	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Energy Availability from RInfra-G	MUs	3786	3786	3786	3797
Fixed Charges	Rs Crore	216.61	216.61	216.61	216.61
Energy Charges	Rs/unit	2.12	2.12	2.12	2.12

4.6.2 Medium Term Power Purchase

RInfra-D submitted that pursuant to its erstwhile licence conditions, it could not have procured power from any person other than the Bulk Licensee in the Area of Supply , i.e., TPC. RInfra-D futher submitted that immediately after Commission issued Specific Licence Conditions on August 20, 2008, relieving RInfra-D from the said obligations, RInfra-D filed a Petition bearing Case No.94 of 2008 before Commission for approval of proposed quantum of power for Medium Term Power Procurement through Competitive Bidding Route through Case 1 and approval of bid documents. RInfra-D also submitted that Petition was filed in consonance with the Guidelines issued by the Ministry of Power, Government of India for determination of tariff for procurement of power by Distribution Licensees through competitive bidding. The said Petition was disposed-off by Commission by its Order dated July 21, 2009. The quantum of power approved by the Commission on medium-term basis through competitive bidding process under Case-1 Bidding for different supply periods (FY12 to FY14) were as follows:

Table 4.18:Approved Quantum for Medium term Power Procurement

Scheduled Delivery Date	RTC Quantum (MW)	Peak Quantum (MW)
1st April 2011 to 31 March 2012	1000	300
1st April 2012 to 31 March 2013	1200	300
1st April 2013 to 31 March 2014	1200	300

RInfra-D submitted that after issuance of Request for Proposal for procurement of power through competitive bidding process, it had received four bids for supply of power, which is given in the table below:

Table 4.19: Bids received by RInfra for Medium term Power supply

Bidder	Quantum offered (MW)	Levelised Tariff (Rs/kWh)	Commencement
Wardha Power Company Ltd	260 MW	5.25	Nov-10
JSW Ratnagiri	270 MW	5.94	Apr-12
Reliance Power Ltd.	134 MW	5.22	Apr-12
Abhijeet MNEPL	55 MW	5.47	Apr-11

The negotiated rates with the bidders as submitted by RInfra-D are provided in the table below:

Table 4.20: Negotiated rates for Medium Term Power Procurement projected by RInfra-D

Bidder	Quantum offered (MW)	Levelised Tariff (Rs/kWh)	Commencement
Wardha Power Company Ltd (WPCL)	260 MW	4.85	Apr-11
Reliance Power Ltd. (VIPL)	134 MW	4.80	Apr-12

Bidder	Quantum offered (MW)	Levelised Tariff (Rs/kWh)	Commencement
Abhijeet MNEPL	55 MW	4.80	Apr-11

As a condition subsequent to the execution of these agreements, RInfra-D was required to approach the Commission for adoption of tariff. Further, the bidders were also required to furnish copies of Fuel Supply Agreement to RInfra-D under the terms of the PPA within a period of 6 months of signing of PPA, with three months extension as per terms of PPA. RInfra-D submitted that the Commission, by its notice dated October 6, 2010, issued Expression of Interest (EoI) for prospective applicants to indicate their interest in undertaking distribution of electricity in RInfra-D's licensed area.

RInfra-D submitted that it had informed the qualified bidders WPCL, Abhijeet and RPower of the uncertainties related to its distribution licence arising out of EOI process initiated by the Commission and its inability to proceed further on Condition Subsequent, i.e., that of executing Escrow and Hypothecation Agreements and approaching the Commission for adoption of tariff.

RInfra-D submitted that in response, RPower agreed to amend the PPA in order to absolve RInfra-D of any compensation due to events on account of unforeseen and adverse licence related outcomes as a result of the EoI process. Meanwhile, due to non-submission of Fuel Supply Agreement by Wardha Power Company Ltd., RInfra-D, under the terms of the PPA, terminated the same.

RInfra-D submitted that it requested RPower/(VIPL) to reduce the price keeping in view the prevailing market condition. VIPL offered a levelised tariff of Rs.4.24 per kWh from their Butibori Project to supply a maximum of 404 MW of power under Medium Term Power Procurement by RInfra starting on April 1, 2012 as against the PPA term of levelised tariff of Rs.4.80 per kWh for supply of 134 MW. In view of amended PPA, RInfra-D submitted a Petition to the Commission for adoption of tariff.

WPCL filed a dispute Petition with the Commission, bearing **Case No. 11 of 2011** in view that RInfra-D not approaching the Commission for adoption of tariff and that RInfra-D had terminated the PPA with WPCL due to non-submission of Fuel Supply Agreement,. Further, Abhijeet MADC (AMNEPL) also filed a Petition with the Commission, bearing **Case No. 42 of 2011** seeking directions to RInfra-D to approach the Commission for adoption of tariff.

In its Order in **Case No. 11 of 2011,** issued on May 31, 2011, the Commission directed RInfra-D to give effect to the PPA with WPCL and approach the Commission for adoption of tariff. Further, in Order in Case No. 42 of 2011, the Commission directed RInfra to give effect to the PPA with AMNEPL. In the case of tariff adoption of VIPL, the Commission, in its Order dated May 31, 2011 approved 134 MW as quantum to be purchased from VIPL, at a renegotiated rate of Rs. 4.24 per unit.

RInfra-D submitted that it filed an Appeal in the **Hon'ble ATE bearing Nos. 115 of 2011** wherein RInfra-D had challenged Commission's intervention for approval of PPA on the ground that the termination of PPA by RInfra-D was in terms of the PPA and RInfra-D was within its rights to terminate the PPA. However, the Hon'ble ATE has, in its judgment dated March 23, 2012, held that the termination of PPA by RInfra was not valid in law and the Commission's direction to off-take power from WPCL was justified.

RInfra-D further submitted that VIPL also filed an Appeal with the **Hon'ble ATE bearing No. 106 of 2011** wherein VIPL was against the Commission's Order approving 134 MW of purchase by RInfra-D at Rs. 4.24 per unit from VIPL's Butibori power plant and sought that the same should be considered as Rs. 4.80 per unit in accordance with the PPA. In its judgment delivered on March 23, 2012, the Hon'ble ATE has upheld the contention of VIPL.

RInfra-D submitted that it has considered power purchase from VIPL in accordance with the judgment of the Hon'ble ATE, considered procurement of 134 MW from April 1, 2012 up to 31 March 2014 at a levelised tariff of Rs. 4.80 per unit.

RInfra-D submitted that it considered the provisional actual figures for procurement from WPCL and AMNEPL, including purchase of in-firm energy from AMNEPL for FY2011-12. Further, for the years FY2012-13 to FY2015-16, the quantum of procurement from WPCL, AMNEPL and VIPL is estimated based on the installed capacity and number of days of operation and the cost as per the PPAs.

The quantum of power and the tariff from these sources over the Business Plan period is estimated by RInfra-D and the summary is given in the table below:

Table 4.21: Medium term power procurement plan projected by RInfra-D

Sources	Quantum (MW)	Generation (MU)	Tariff (Rs/kWh)	Power Procurement Cost (Rs. Crore)
FY2012-13				
Wardha Power Company Ltd (WPCL)	260	1,935.72	4.92	952.38
Abhijeet MADC, Nagpur	55	409.53	4.81	197.07
Reliance Power Ltd. (VIPL)	134	997.76	5.00	498.88
FY2013-14				
Wardha Power Company Ltd (WPCL)	260	1,935.72	4.03	779.13
Abhijeet MADC, Nagpur	55	409.53	4.35	177.94
Reliance Power Ltd. (VIPL)	134	997.76	5.00	498.88

RInfra-D submitted that it filed a Petition bearing Case No. 29 of 2011 before the Commission for in-principle approval for procurement of 300 MW from Global Energy Private Ltd. However, Commission in its Order dated September 23, 2011 ruled that the offer from GEPL did not come through competitive bidding process.

The Commission directed RInfra-D to undertake competitive bidding for procurement of balance power in order to bridge the gap considering the quantum contracted with WPCL, AMNEPL and VIPL as against the total quantum approved by the Commission under medium term in its Order in Case No. 94 of 2008.

RInfra-D submitted that due to commencement of migration around 600 MW of load has already been shifted to TPC-D. In view of the same, balance requirement of power as approved by Commission in its Order dated July 21, 2009 has reduced to that extent.

RInfra-D further submitted that its Medium Term PPAs would end by March 31, 2014 and RInfra-D may have to procure Medium Term power for the period FY2014-15 and FY2015-16 andmay have to invite bids for procurement of power through competitive bidding process. RInfra-D submitted that the actual quantum of procurement and the rate thereon would depend on a large number of factors, including competition in retail supply, country-wide demand-supply position, general growth in consumer demand, etc.

RInfra-D has submitted that for the purpose of Business Plan, it has assumed that about 500 MW of power would be procured for FY2014-15 and FY2015-16 and the rate of procurement for the same is assumed at Rs. 3.90 per unit, which is given in the table below:

Table 4.22: Additional Medium Term Procurement projected by RInfra-D

Financial Year	Quantum (MW)	Generation (MU)	Tariff (Rs/kWh)	Power Procurement Cost (Rs. Crore)
FY2014-15	500	3,723	3.90	1,451.97
FY2015-16	500	3,723	3.90	1,451.97

The Commission has accepted the submissions of RInfra-D about the quantum and rate for the energy procured from WPCL, Abhijeet MNEPL and VIPL, for the purpose of this Order.

For the approval of Business plan, the Commission has accepted RInfra-D's submissions for the quantum (MW) and rate as projected. However, for the additional quantum of 500 MW proposed to be procured through the Competitive-bidding route, the Commission directs RInfra-D to initiate the process.

The Commission has considered the Quantum and Rate of Energy to be procured from Medium Term as provided in the table below:

Table 4.23: Medium Term rates and quantum projected by Commission

Particulars	FY2012-13		FY2013-14	
	Quantum (MU)	Rate (Rs/kWh)	Quantum (MU)	Rate (Rs/kWh)
Wardha Power Company Limited	1935.72	4.92	1935.72	4.03
Abhijeet MNEPL.	409.53	4.81	409.53	4.35
VIPL	997.76	5.00	997.76	5.00

Particulars	FY2014-15		FY2015-16	
	Quantum (MU)	Rate (Rs/kWh)	Quantum (MU)	Rate (Rs/kWh)
MTPP (expected)	3723.00	3.90	3733.20	3.90

4.6.3 Renewable Purchase Obligation

RInfra-D submitted that to meet the Solar RPO, it has signed an Energy Purchase Agreement (EPA), dated March 28, 2011, for purchase of 40 MW solar power (PV) with Dahanu Solar Power Private Limited (DSPPL). RInfra-D informed in the Business Plan Petition that the plant is commissioned on March 28, 2012 and solar power generated is being scheduled to RInfra-D.

RInfra-D submitted that the State of Maharashtra has negligible Solar installed capacity and it is difficult to meet the annual Solar RPO targets for FY2010-11 and FY2011-12. In view of the above constraints for meeting solar RPO for FY 2010-11 and FY 2011-12, RInfra-D filed a separate Petition (Case No. 57 of 2011) to allow to meet its solar RPO on a cumulative basis for the entire Control Period i.e. FY2010-11 to FY 2015-16. RInfra-D submitted that in the Order on the said Petition, the Commission ruled that a view on cumulative adjustment may be taken at the end of FY2011-12. RInfra-D also submitted that it has not been able to procure any solar power or solar REC in order to comply with the Solar RPO in FY2011-12.

RInfra-D requested the Commission to consider RInfra-D's solar RPO compliance either cumulative for the entire Control Period or waive the same for FY 2010-11 and FY 2011-12.

The details of the Solar Power Procument plan as submitted by RInfra-D are provided in table below:

Table 4.24: Solar Power Procurement projected by RInfra-D

Financial Year	Gross Input (MU)	Solar Target (%)	Solar Target (MU)	Solar Procurement (MU)	Cost of Solar Procurement (Rs. Crore)	Avg. Rate (Rs. /kWh)
FY2011-12	7405	0.25	19	0.46	0.82	17.91
FY2012-13	6,887	0.25	17	42	75.78	17.91
FY2013-14	7156	0.50	36	42	75.78	17.91
FY2014-15	7457	0.50	37	42	75.78	17.91
FY2015-16	7771	0.50	39	42	75.78	17.91

RInfra-D submitted that the cumulative target of Solar RPO over the period FY2010-11 to FY2015- 16 would be about 169 MU, while the cumulative procurement over this period due to RInfra-D's contract with DSPPL is projected to be about 60 MU per annum from FY 2012-13 onwards. If the cumulative target of 169 MU is spread over the availability period of FY 13 to FY 16, it is about 42 MU per year from FY2012-13.

RInfra-D mentioned in the Petition that DSPPL's 40 MW solar plant has been supplying power from March 8, 2012 onwards at the Commission determined preferential tariff.

RInfra-D submitted that the balance available energy shall be banked appropriately each year and it shall be utilised to meet the target in the subsequent year and so on. For the purpose of Business Plan, RInfra-D has considered quantum and cost of solar RE based on its cumulative RPO target of 169 MU, while not considering the cost of estimated banked energy, which shall be considered when the energy is returned.

As response to data gaps, RInfra-D appraised the Commission with the updated status of its expected solar contracts as followed:

Table 4.25: Information update on RInfra-D's solar contracts

Developer /Site	FY13			FY14			FY15			FY16		
	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)
Dahanu Solar Power Private Limited	40	42	17.91	40	42	17.91	40	42	17.91	40	42	17.91

The Commission has considered the procurement from solar sources in accordance with the Regulation 7.1 of the Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, its Compliance and Implementation of REC Framework) Regulations, 2010. The same is given in the table below:

Table 4.26: Solar Power Procurement computed by Commission

Financial Year	Gross Input (MU)	Solar Target (%)	Solar Target (MU)	Solar Procurement (MU)	Cost of Solar Procurement (Rs. Crore)	Avg. Rate (Rs. /kWh)
FY2012-13	7405	0.25	19	19	33.15	17.91
FY2013-14	7660	0.50	38	38	68.59	17.91
FY2014-15	7919	0.50	40	40	70.91	17.91
FY2015-16	8189	0.50	41	41	73.33	17.91

As regards the Non-Solar Renewable Power, RInfra-D submitted that purchase of energy from Non-Solar sources would be at preferential tariff rates (Commission approved) through Renewable Energy Purchase Agreements already entered into by RInfra-D and contracts to be entered into by RInfra-D in future. The details of the Non-Solar Renewable Power as submitted by RInfra-D are given in table below:

Table 4.27: Non-Solar Power Procurement projected by RInfra-D

Financial Year	Gross Input (MU)	Non-Solar Target (%)	Non Solar Target (MU)	Non Solar Availability (MU)	Cost of Non Solar tied up (Rs. Crore)	Avg. Rate (Rs. /kWh)	Shortfall (MU)
FY2011-12	7405	6.75%	500	262	112.94	4.31	238
FY2012-13	6,887	7.75%	534	304	145.08	4.77	230

Financial Year	Gross Input (MU)	Non-Solar Target (%)	Non Solar Target (MU)	Non Solar Availability (MU)	Cost of Non Solar tied up (Rs. Crore)	Avg. Rate (Rs. /kWh)	Shortfall (MU)
FY2013-14	7,156	8.50%	608	400	199.94	5.00	208
FY2014-15	7,457	8.50%	634	400	201.88	5.04	234
FY2015-16	7,771	8.50%	661	400	203.81	5.09	260

RInfra-D has submitted that based on the existing contracts of RInfra-D and the purchase thereon, the Non-solar RPO target for FY2011-12 is not met. RInfra-D has endeavored to make up for the shortfall by purchase of Renewable Energy Certificates.

RInfra-D has submitted that in the "Realistic" scenario of the Business Plan, the projected shortfall in RE procurement in FY 2012-13 is assumed to be met 50% by way of procurement of additional Renewable power through long-term tie-ups (at weighted average rate of RE procurement in the year), while the balance is considered as met by way of purchase of RECs at forbearance price of Rs. 3300 per MWh. The same is given in the table below:

Table 4.28: REC procurement as projected by RInfra-D

Year	Short fall	Energy Procurement	Energy Procurement Rate	Energy Procurement Cost	REC Procurement	REC Procurement Rate	REC Procurement Cost
	MU	MU	Rs /Unit	Rs Crore	MU	Rs /Unit	Rs Crore
FY2011-12	238			0.00	88.00	2.50	22.00
FY2012-13	230	115	4.77	54.87	114.93	3.30	37.93
FY2013-14	208	208	5.00	103.92	0.00	0.00	0
FY2014-15	234	234	5.04	117.81	0.00	0.00	0
FY2015-16	260	260	5.09	132.55	0.00	0.00	0
Total	**1170**	**817**		**409**	**203**		**59.93**

In reply to the data gaps about existing contracts for Non-Solar Power in FY2011-12, RInfra-D has provided the information as given in the table below:

Table 4.29: Actual Non-Solar procurement for FY2011-12 submitted by RInfra-D

Supplier	Installed Capacity (MW)	Contracted Capacity (MW)	RES (Wind /SHP/Biomass etc)	Date of Contract	Period (No. of Years)	CoD	Energy Purchased in FY12 (MU)	Tariff for FY12 (Rs/kWh)
Reliance Innoventures	45	45	Wind	06/03/2007	13	01/04/2009	82.15	3.8
AAA Sons Enterprises	3.375	3.375	Wind	07/10/2008	13	31/03/2009	3.31	3.8
Jindal Steel and Power Limited	18	18	Wind	25/03/2009	13	31/03/2010	44.01	3.8
Jindal Steel and Power Limited	6	6	Wind	20/04/2010	13	28/04/2010	14.08	5.07
Tembhu Power Private Limited	4.5	4.5	Small Hydro	20/12/2010	35	21/04/2010	2.03	4.26
Urjaankur Shree Datta Power Company limited	36	36	Bagasse	08/07/2011	Infirm till CoD		82.78	4.79
Gangakheda Sugar and Energy Limited	30	30	Bagasse	25/03/2011	13	01/07/2010	33.58	4.79

In response to data gaps, RInfra-D submitted the updated status of its Non- Solar contracts as under:

Table 4.30: Status update provided by RInfra-D on its non-solar renewable contracts

Supplier	Capacity (MW)	RES	From	To	Status Update
Reliance Innoventures	45	Wind	April 2009	March 2022	
AAA Sons Enterprises	3.375	Wind	March 2009	March 2022	
JSPL	18	Wind	March 2009	March 2022	
JSPL	6	Wind	April 2010	April 2023	
Tembhu Hydro	4.5	Small Hydro	April 2010	April 2045	
Gangakheda	30	Cogen	April 2011	March 2024	Terminated by Gangakheda due to Sugarcane Purchase Tax issue

Supplier	Capacity (MW)	RES	From	To	Status Update
MVNL	10	Biomass	Sept 2011	August 2024	Delayed due to ROW issues for transmission towers. PPA terminated
Ratnagiri Wind Power Pvt Ltd	65	Wind	Dec 2011	Dec 2024	COD to be achieved within 365 Days of Signing Agreement (29th Dec 2010)-Delayed due to Land related issues. PPA terminated
Reliance Clean Power Pvt. Ltd.	200	Wind	Sept 2012	Sept 2025	COD-75 MW: 31st March 2012; 75 MW:30th June 2012; 50 MW:30th Sep 2012-Delayed due to Land related issues-Quantum reduced to 45 MW

Further, the Commission asked RInfra-D to provide the source-wise non-solar procurement based on the latest available estimates. The information provided by RInfra-D is tabulated below:

Table 4.31: Information update on RInfra-D's Non-solar contracts

Developer /Site	Source (Wind/SHP /Biomass etc)	FY13			FY14			FY15			FY16		
		Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)
Reliance Innoventures	Wind	45	90.67	3.95	45	90.67	4.1	45	90.67	4.25	45	90.67	4.4
AAA Sons Enterprises	Wind	3.375	6.8	3.95	3.375	6.8	4.1	3.375	6.8	4.25	3.375	6.8	4.4
Jindal Steel and Power Limited	Wind	18	31.54	3.95	18	31.54	4.1	18	31.54	4.25	18	31.54	4.4
Jindal Steel and Power Limited	Wind	6	10.51	5.07	6	10.51	5.07	6	10.51	5.07	6	10.51	5.07
Tembhu Power Private Limited	Small Hydro	4.5	8	4.26	4.5	8	4.26	4.5	8	4.26	4.5	8	4.26

Developer /Site	Source (Wind/SHP	FY13			FY14			FY15			FY16		
Reliance Clean Power Pvt Ltd	Wind	45	39.42	5.67	45	78.84	5.67	45	78.84	5.67	45	78.84	5.67

With regards to the information provided by RInfra-D on the contracts in place for the period FY 2012-13 to FY 2015-16, the Commission has considered:

a) For the wind generation projects commissioned before FY 2010-11, the RInfra-D submission has been considered.

b) For the wind generation project (JSPL) commissioned in FY 10-11, the rate of Rs 5.07 per kWh has been accepted as submitted by RInfra-D based on levelised tariff approved in Case 20 of 2010 for the wind projects commissioned in FY 2010-11 and not availed Accelerated depreciation benefit.

c) For the Small hydro power project, Tembhu Power Private limited commissioned in FY 10-11, the rate of Rs 3.70 per kWh has been considered by the Commission based on levelised tariff approved in Case 20 of 2010 for the wind projects commissioned in FY 2010-11 and assumed that project has availed Accelerated depreciation benefit (in absence of any documentary evidence to ascertain whether project has not availed AD benefit). RInfra-D at the time of filing of MYT Petition, may submit necessary documentary evidence to ascertain that this project has availed AD benefit or not and based on prudence check, the Commisison may consider the same at the finalisation of MYT Order.

d) For the Wind power project, Reliance Clean Power Pvt Ltd commissioned in FY 2012-13, the rate of Rs 4.86 per kWh has been considered by the Commission based on levelised tariff approved in Case 10 of 2012 for the wind projects commissioned in FY 2012-13 and assumed that availed Accelerated depreciation benefit (in absence of any documentary evidence to ascertain that project has not availed AD benefit). RInfra-D at the time of filing of MYT Petition, may submit necessary documentary evidence to ascertain whether this project has availed AD benefit or not and based on prudence check, the Commisison may consider the same at the finalisation of MYT Order.

Table 4.32: Procurement rates as computed by the Commission

Developer /Site	Source	FY13			FY14			FY15			FY16		
		Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)	Capacity (MW)	Quantum (MU)	Rate (Rs/kWh)
Reliance Innoventures	Wind	45	90.67	3.95	45	90.67	4.1	45	90.67	4.25	45	90.67	4.4
AAA Sons Enterprises	Wind	3.375	6.8	3.95	3.375	6.8	4.1	3.375	6.8	4.25	3.375	6.8	4.4
Jindal Steel and Power Limited	Wind	18	31.54	3.95	18	31.54	4.1	18	31.54	4.25	18	31.54	4.4
Jindal Steel and Power Limited	Wind	6	10.51	5.07	6	10.51	5.07	6	10.51	5.07	6	10.51	5.07
Tembhu Power Private Limited	Small Hydro	4.5	8	3.70	4.5	8	3.70	4.5	8	3.70	4.5	8	3.70
Reliance Clean Power Pvt Ltd	Wind	45	39.42	4.86	45	78.84	4.86	45	78.84	4.86	45	78.84	4.86

The Commission has considered the year-wise average rate of the available Renewable Energy tied up, as indicated in the above table for Non-Solar procurement to determine the cost of power purchase for the period FY 2012-13 to FY 2015-16. The quantum of the energy purchased to meet the Renewable Purchase Obligations (RPO), in line with the MERC (Renewable Purchase Obligation, Its Compliance and Implementation of REC Framework) Regulations 2010, which specifies the following percentage of minimum purchases from renewable energy:

"7.1 Every "Obligated Entity" shall procure electricity generated from eligible renewable energy sources at the percentages as per the following schedule:

Year	*Minimum Quantum of purchase (in %) from renewable energy sources (in terms of energy equivalent in kWh)*		
	Solar	*Non- Solar (other RE)*	*Total*
2010-11	*0.25%*	*5.75%*	*6.0%*
2011-12	*0.25%*	*6.75%*	*7.0%*
2012-13	*0.25%*	*7.75%*	*8.0%*
2013-14	*0.50%*	*8.50%*	*9.0%*
2014-15	*0.50%*	*8.50%*	*9.0%*
2015-16	*0.50%*	*8.50%*	*9.0%*

Provided that Distribution Licensee(s) shall meet 0.1% per year of its Non Solar including mini and micro hydro (other RE) RPO obligation for the period from FY 2010-11 to FY 2012-13 and up to 0.2% of its Non Solar (other RE) RPO obligation for the period from FY 2013-14 to FY 2015-16 by way of purchase from Mini Hydro or Micro Hydro power project."

The Non-Solar Renewable Power Procurement as computed by the Commission is given in the table below:

Table 4.33: Non-Solar Power Procurement computed by Commission

Financial Year	Gross Input (MU)	Non-Solar Target (%)	Non Solar Target (MU)	Cost (Rs. Crore)	Avg. Rate (Rs. /kWh)
FY2012-13	7405	7.75%	574	240.69	4.19
FY2013-14	7660	8.50%	651	273.07	4.40
FY2014-15	7919	8.50%	673	282.31	4.48
FY2015-16	8189	8.50%	696	291.95	4.57

The Commission in the Daily Order in Case 101 of 2012 directed RInfra-D as under:

"RInfra-D is directed to full fill its RPO target for Solar and Non-Solar RPO for FY 2010-11, FY 2011-12 and FY 2012-13 cumulatively before 31 March, 2013."

The Commission notes that the RInfra-D prayed to consider RInfra-D's solar RPO compliance either cumulatively for the entire RPO Control Period or to waive the same for FY 2010-11 and FY 2011-12. The Commission further notes that the impact of directives of the Commission in Case 101 of 2012 is not factored in the present Petition of RInfra-D. Hence, the Commission directs RInfra-D to incorporate the impact of directives of the Commmission in Case 101 of 2012 in its MYT Petition for the approval of the Commission.

4.6.4 Short term Procurement

RInfra-D submitted that it has considered actuals (provisional) for bilateral contracts, procurement of energy by way of stand-by power from MSEDCL, and through imbalance pool for FY 2011-12. For FY 2012-13 to FY 2015-16, RInfra-D has assumed short-term contracts, wherefrom power is likely to be available for 8 hours a day and for 275 days in a year.

RInfra-D submitted that as regards FY 2012-13 onwards, all energy required after exhausting availability from the long-term, medium-term and RE sources, shall be procured on Short-Term basis from the external market, through the Mumbai Power Management Group (MPMG) as well as through separate contracting by RInfra-D from traders, Energy Exchanges, merchant power plants, CPPs, as well as absorption of surplus power available in the State Imbalance Pool.

The table given below lists out the balance short-term power (projected) with the rates as projected by RInfra-D:

Table 4.34: Short Term Power Purchase Quantum and Rate projected by RInfra-D

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Short term Power Purchase Quantum (MU)	422.40	492.80	510.40	545.60
Short term Rate (Rs/kWh)	4.25	4.00	4.00	4.00

RInfra-D further submitted that any additional surplus energy would be utilised by RInfra-D for sale outside the Licence area, after fully meeting the demand of its customers. RInfra-D clarified that the revenue from the sale of surplus power is then adjusted against the gross power procurement cost. RInfra-D mentioned that its approach is consistent with the methodology adopted by the Commisison in its Tariff Orders for other Utilities in Maharashtra, where surplus (if any) is considered to be sold at the prevailing short-term market rates for power. RInfra-D indicated that it has considered the same rate for sale of this power, as assumed for the short-term procurement.

Table 4.35: Surplus energy and revenue projected by RInfra-D

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Surplus Energy (MU)	1,125.73	1,116.55	1,239.01	997.04
Rate for Sale of Surplus Power (Rs/kWh)	4.25	4.00	4.00	4.00
Revenue from Sale of Surplus Power (Rs Crore)	**478.43**	**446.62**	**495.61**	**398.82**

The Commission has accepted the short-term rates (for procurement or sale of surplus) as projected by RInfra-D in the business plan for the period FY 2012-13 to FY 2015-16 and utilised the same for computing the cost of power purchase and the same is given in the table below:

Table 4.36: Short Term Rates considered by Commission

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Short term Rate (Rs/kWh)	4.25	4.00	4.00	4.00

The Commission has re-computed the surplus power based on the Power Purchase requirement and energy availability computed by the Commission in this Order, which is shown in table below and the revenue therefrom and accordingly adjusted the Gross power purchase cost. The revenue from sale of surplus power computed by the Commission is also tabulated below:

Table 4.37: Surplus power and revenue computed by the Commission

In MU

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Total Power Purchase Requirement	**7,404.77**	**7,659.70**	**7,918.99**	**8,189.14**
Source:				
Dahanu Thermal Power Station	3,786.00	3,786.00	3,786.00	3,797.00
Wardha Power Company Limited	1,935.72	1,935.72	-	-
Abhijeet MADC Nagpur Energy Pvt Ltd.	409.53	409.53	-	-
VIPL	997.76	997.76	-	-
MTPP-2			3,723.00	3,733.20
Renewable – Solar	18.51	38.30	39.59	40.95
Renewable - Non-Solar	573.87	651.07	673.11	696.08
Contracted	422.40	492.80	510.40	545.60
Total Power Purchase	**8,143.80**	**8,311.19**	**8,732.11**	**8,812.82**
Shortfall/(Surplus)	**(739.03)**	**(651.49)**	**(813.12)**	**(623.68)**

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Surplus Energy (MU)	739.03	651.49	813.12	623.68
Rate for Sale of Surplus Power (Rs/kWh)	4.25	4.00	4.00	4.00
Revenue from Sale of Surplus Power (Rs Crore)	**314.09**	**260.60**	**325.25**	**249.47**

4.7 Standby charges

RInfra-D submitted that in its previous Petitions it has highlighted the fact that stand-by support of 550 MVA available from MSEDCL is only towards outage of 2377 MW i.e. RInfra's DTPS (500MW) and that of TPC Generation (1877MW). This support is not available in case there is lack of power availability from any other source, including RInfra-D's present Medium Term contracts and RInfra-D does not have allocation in TPC generation capacity any more.

RInfra-D further submitted that the Commission has so far adopted the approach that Stand-by charges ought to be shared by Mumbai distribution licensees in the ratio of their respective share in peak demand of Mumbai i.e., Coincident Peak Demand (CPD) share in total Mumbai demand. RInfra-D submitted that the coincident peak demand of Mumbai licensees has no nexus with stand-by support available from MSEDCL as the same is restricted to 550 MVA, notwithstanding how much generation out of 2377 MW goes on outage and thus how much demand of licensees needs back-up support.

RInfra-D submitted that from FY 2012-13 onwards, it has worked out stand-by charges applicable to RInfra-D for each year of the Plan Period based on its share of 500 MW out of total 2377 MW for which the support is provided (i.e. total stand-by charges of MSEDCL, multiplied by a factor of 500/2377). RInfra-D requested the Commission to modify the mechanism of sharing of stand-by charges considering the above submissions.

Based on the above rationale, the stand-by charges projected by RInfra-D are shown in the table below:

Table 4.38: Stand-by Charges projected by RInfra-D

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Annual Charges paid by RInfra-D (Rs Crore)	83.30	83.30	83.30	83.30

The Commission is of the view that all the parties to the current Standby arrangement, viz., MSEDCL, RInfra-G, RInfra-D, BEST, TPC-G and TPC-D, which may be affected on account of the arrangement as proposed by RInfra-D should be heard before taking any view in the matter. Therefore, the Commission is of the view that modification of present methodology cannot be addressed through the present Business Plan Order.

As regards Standby Charges under the MYT Business Plan, the Commission has revised the contribution of TPC-D, BEST and RInfra-D based on the average of Coincident Peak Demand and Non-Coincident Peak Demand used for sharing the Total Transmission System Charges (TTSC) for FY 2012-13 in its Order dated 21 May, 2012 in Case No. 51 of 2012. The Commission had considered the same contribution to average of Coincident Peak Demand and Non-Coincident Peak Demand as summarised in the following Table:

Table 4.39: Share of average of coincident peak demand and non-coincident peak demand

Particulars	**Share of avg. of CPD and NCPD**	**% share of avg. of CPD and NCPD**
Distribution Licensees	(MW)	(%)
TPC-D	1013	35.48%
RInfra-D	1036	36.29%
BEST	806	28.23%
Total	**2855**	**100%**

Accordingly, 36.29% of the Standby Charges payable to MSEDCL have been allocated to RInfra-D for FY 2012-13, which works out to Rs.143.70 Crore. For the purpose of this MYT Business Plan, the Commission has considered the same Standby Charges for the Control Period.

4.8 Transmission charges

The Commission, vide its Order dated 21 May, 2012 in Case No. 51 of 2012, has suo motu determined the Transmission Tariff for Intra-State Transmission System (InSTS) for FY2012-13 of the second MYT Control Period, which is applicable from 1 June 2012. For FY 2012-13, the Commission has considered Transmission Tariff as per the said Order. From FY 2013-14 onwards, Transmission Tariff determined in the said Order, has been escalated at the rate of 5% per annum. The Intra-State Transmission charges computed by the Commission are as under:

Table 4.40:Transmission Charges computed by the Commission

Particulars	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**
Transmission Charges (Rs Crore)	265.39	278.66	292.59	307.22

4.9 SLDC charges

The Commission has determined the SLDC charges in its Order dated 30 March, 2012 in Case No. 181 of 2011 for FY 2012-13. For the purpose of this MYT Business Plan, the

Commission has considered SLDC Charges from the said Order for FY 2012-13 and escalated it at the rate of 5% for the remaining Control Period. The SLDC charges computed by the Commission are as under:

Table 4.41:SLDC Charges computed by the Commission

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
SLDC Charges (Rs Crore)	1.05	1.10	1.15	1.21

4.10 Summary of the Power Purchase Quantum and Cost

The table below gives the summary of power purchase quantum as projected by RInfra-D for the Business Plan period.

Table 4.42:Power Purchase Quantum projected by RInfra-D (in MU)

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Total Power Purchase Requirement	**6886.82**	**7155.84**	**7456.52**	**7770.94**
Source:				
Dahanu Thermal Power Station	3786.01	3786.01	3786.01	3796.54
Wardha Power Companyt Limited	1935.72	1935.72	-	-
Abhijeet MADC Nagpur Energy Pvt Ltd.	409.53	409.53	-	-
VIPL	997.76	997.76	-	-
MTPP	-	-	3723.00	3723.00
Renewable – Solar	42.31	42.31	42.31	42.31
Renewable - Non-Solar	418.80	608.25	633.80	660.53
Short-term Power Purchase	422.40	492.80	510.40	545.60
Total Power Purchase	**8012.54**	**8272.39**	**8695.53**	**8767.99**
Shortfall/(Surplus)	(1,125.73)	(1,116.55)	(1,239.01)	(997.04)

The table below gives the summary of power purchase cost, as projected by RInfra-D for the Business Plan Period.

Table 4.43:Power Purchase Cost projected by RInfra-D (in Rs. Crore)

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Dahanu Thermal Power Station	1306.00	1345.07	1401.45	1444.44

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Wardha Power Companyt Limited	952.38	779.13	-	-
Abhijeet MADC Nagpur Energy Pvt Ltd.	197.07	177.94	-	-
VIPL	498.88	498.88	-	-
MTPP	-	-	1451.97	1451.97
Renewable - Solar	75.78	75.78	75.78	75.78
Renewable - Non-Solar	199.95	303.86	319.69	336.37
Short-term Power Purchase	179.52	197.12	204.16	218.24
Revenue from Sale of Surplus Power	(478.43)	(446.62)	(495.61)	(398.82)
REC Purchase for Non-Solar Compliance	37.93	0.00	0.00	0.00
Stand-by Charges	83.30	83.30	83.30	83.30
SLDC Charges	1.05	1.05	1.05	1.05
Total (Rs. Crore)	**3053.41**	**3015.51**	**3041.80**	**3212.33**
Power Purchase Quantum	**6886.82**	**7155.84**	**7456.52**	**7770.94**
Average Cost of Power Purchase	**4.43**	**4.21**	**4.08**	**4.13**

The summary of Power Purchase Quantum and Cost computed by the Commission is given in the tables below:

Table 4.44: Total Power Purchase Quantum (MU) computed by Commission

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Total Power Purchase Requirement	**7,404.77**	**7,659.70**	**7,918.99**	**8,189.14**
Source:				
Dahanu Thermal Power Station	3,786.00	3,786.00	3,786.00	3,797.00
Wardha Power Company Limited	1,935.72	1,935.72	-	-
Abhijeet MADC Nagpur Energy Pvt Ltd.	409.53	409.53	-	-
VIPL	997.76	997.76	-	-
MTPP			3,723.00	3,733.20
Renewable – Solar	18.51	38.30	39.59	40.95
Renewable - Non-Solar	573.87	651.07	673.11	696.08
Short-term power procurement	422.40	492.80	510.40	545.60
Total Power Purchase	**8,143.80**	**8,311.19**	**8,732.11**	**8,812.82**
Shortfall/(Surplus)	**(739.03)**	**(651.49)**	**(813.12)**	**(623.68)**

Table 4.45: Total Power Purchase Cost (Rs Crore) computed by Commisison

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Dahanu Thermal Power Station	1,019.24	1,019.24	1,019.24	1,021.57
Wardha Power Company Limited	952.38	779.13	-	-
Abhijeet MADC Nagpur Energy Pvt Ltd.	197.07	177.94	-	-
VIPL	498.88	498.88	-	-
MTPP	-	-	1,451.97	1,455.95
Renewable - Solar	33.15	68.59	70.91	73.33
Renewable - Non-Solar	240.69	273.07	282.31	291.95
Short-term power procurement	179.52	197.12	204.16	218.24
Revenue from sale of surplus power	**-314.09**	**-260.60**	**-325.25**	**-249.47**
REC Purchase for Non-Solar Compliance	0.00	0.00	0.00	0.00
Stand-by Charges	143.70	143.70	143.70	143.70
SLDC Charges	1.05	1.10	1.15	1.21
Total (Rs. Crore)	2,951.59	2,898.18	2,848.21	2,956.48
Power Purchase Quantum	7,404.77	7,659.70	7,918.99	8,189.14
Average Cost of Power Purchase	**3.99**	**3.78**	**3.60**	**3.61**

4.11 Operation & Maintenance Expenses

RInfra-D has submitted that norms specified in Regulation 78.4 of the MERC MYT Regulations, 2011 are insufficient to capture the O&M expenses actually incurred by RInfra-D. In its Petition filed in Case 45 of 2011, RInfra-D had expressed operational difficulties in managing with the O&M expenses, by the Commission with the usage of the specified norms.

RInfra-D further submitted that by adopting the norms specified in MYT Regulations 2011, RInfra-D would have to incur loss on account of O&M costs of nearly Rs 200 Crore in FY2012-13.

RInfra-D submitted that even though its retail supply business is witnessing competition and consumer migration at present, the O&M expenses shall be reduced marginally over the Plan

Period. RInfra-D indicated that it is still carrying out a number of its usual business activities even for changeover consumers. RInfra-D submitted that these activities primarily include:

1. Regular monthly meter reading of changeover consumers to validate the consumption data being shared by Tata Power Co as RInfra-D is responsible for maintaining the distribution system losses. RInfra-D contended that the migrated consumers are required to pay in kind only normative distribution system losses and not the actual. As per RInfra-D, any increase in distribution losses would result in RInfra-D procuring energy at its marginal price the burden of which would be entirely borne by RInfra-D consumers.

   RInfra-D submitted that in light of the above, RInfra-D continues to do metering.
2. Meter replacement during Joint Meter Reading (JMR), if consumer wants SDL (Supply Distribution Licensee) meter.
3. Accompanying SDL representative for recovery of arrears and disconnect the supply if TPC dues are not paid by the changeover consumers ;
4. Accompanying SDL representatives for on-site activities such as meter testing, meter replacement, consumer complaints related to meter/metering equipment, etc;
5. Continued (and increased) vigilance efforts for changeover consumers, as SDL is unaffected by such theft as its losses are fixed at normative level which not even include commercial losses including theft of electricity;
6. Follow-up activities such as monitoring and improvement of power factor, etc. for changeover consumers, RInfra-D added that while poor PF of the changeover consumers overload the distribution of WDL, however it is SDL who retains PF surcharge recovered from the changeover consumers
7. Coordinating with SDL for jobs such as service shifting, load enhancement, etc. such as monitoring and power factor improvement for changeover consumers, etc.

RInfra-D further submitted that 40% of the changeover consumers have opted for RInfra-D's meters, which form part of the Retail Supply business assets and not the Wire business. RInfra-D contended that the wheeling charges payable by changeover consumers do not include such expenses.

RInfra-D also submitted that the Commission has itself permitted about Rs. 683.45 Crore as O&M expenses for FY 2010-11 (Order in Case 126 of 2011), against which the actuals are Rs. 706 Crore, without separately allowing for RI charges in R&M expenses as claimed by RInfra-D in its Petition. Thus, considering the fact that there is little or no reduction in expenses even in the face of changeover, it is only natural that the expenses of FY 11-12 onwards can at the very least not be less than the actuals of previous year and also cannot be approved at a level lower than approved for previous year.

RInfra-D submitted that the O&M expense allowance resulting from the norms must, at the very minimum, include the impact of inflation over and above the actual expenses of immediately preceding year, in addition to including the impact of growth in business drivers. RInfra-D considered the O&M expenses for FY 2011-12 as available from provisional accounts and forecasted for FY 2012-13 onwards considering FY 2011-12 level as Base Expenses, which are escalated with inflation indices going forward for each year thereafter. RInfra-D submitted that the inflation data for CPI was taken from the website of the Labour Bureau, Govt. of India and the data for WPI was taken from the Office of Economic Advisor, Govt. of India. CPI has been taken as Inflation Factor for Employee expenses and WPI for R&M expenses, while for A&G expenses, a mix of 60% CPI and 40% WPI has been considered.

Table 4.46:Inflation indices for Retail business projected by RInfra-D

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Employee Expenses	9.28%	9.28%	9.28%	9.28%
A&G Expenses	8.38%	8.38%	8.38%	8.38%
R&M Expenses	7.02%	7.02%	7.02%	7.02%

Based on the above inflation indices RInfra-D has submitted the O&M expenses for the retail business which is given in the table below:

Table 4.47:O&M expenses projected by RInfra-D (Rs Crore)

Particulars	FY2012-13	FY2013-14	FY2014-15	FY2015-16
Employee Expenses	475.65	519.79	568.03	620.74
A&G Expenses	156.85	169.99	184.24	199.68
R&M Expenses	180.04	192.68	206.2	220.68
Total O&M Expenses	**812.54**	**882.46**	**958.47**	**1,041.10**

RInfra-D requested to take a considerate view on the same and allow increases in expenses on account of such uncontrollable factors, on actual basis.

Based on the above submissions, RInfra-D requested the Commission to approve the trajectory of expenses as forecast during the Plan Period, by relaxing the MYT norms.

The Commission has estimated the O&M expenses for FY 2012-13 to FY 2015-16 in accordance with the O&M norms specified in MERC MYT Regulations, 2011 and applying norms to the computed sales and wheeled energy for FY 2012-13 to FY 2015-16 along with the GFA projected by the Commission during the years starting from FY 2012-13. Based on the above, the Commission has estimated the O&M expense for the Control Period for Wires Business and Supply Business as under:

Table 4.48:Supply Business: O&M expenses computed by Commission (Rs Crore)

S.No	Particulars	FY 13	FY 14	FY 15	FY 16
a)	**O&M Charges Norm specified by the Commission**				
	For Sales in Supply Business (Paise/kWh)	8.47	8.95	9.46	10.00
	For Consumers in Supply Business (Rs Lakh/'000 Consumer)	5.00	4.78	5.05	5.34
	R&M Expenses (% of Opening GFA)	0.50%	0.50%	0.50%	0.50%
b)	**Parameters for O&M Expenses**				
	Sales (MU)	6,343	6,566	6,797	7,038
	No. of Consumers in Supply Business ('000 Consumers)	2,627	2,729	2,837	2,948
	Opening GFA (Rs Crore)	340	334	327	321
B)	**Total O&M Expenses**	**187**	**191**	**209**	**229**

Table 4.49:Wires Business: O&M expenses computed by Commission (Rs Crore)

S.No	Particulars	FY 13	FY 14	FY 15	FY 16
a)	**O&M Charges Norm specified by the Commission**				
	For Wheeled Energy (paise/kWh)	11.37	12.02	12.71	13.44
	For No. of Consumers in Wires Busines (Rs Lakh/ '000 Consumers)	6.07	6.42	6.78	7.17
	R&M Expenses (% of GFA)	4.00%	4.00%	4.00%	4.00%
b)	**Parameters for O&M Expenses**				
	Wheeled Energy (MU)	9,918	10,140	10,380	10,653
	No. of Consumers in Wires Business ('000 Consumers)	2,889	3,042	3,199	3,361
	Opening GFA (Rs Crore)	3,083	3,351	3,523	3,621
B)	**Total O&M Expenses**	**411**	**451**	**490**	**529**

4.12 Capital Expenditure and Capitalisation

RInfra-D submitted that the Detailed Project Reports (DPR) of capital expenditure schemes planned to commence during the period FY 12-13 to FY 15-16 shall be submitted shortly after submission of this Business Plan. With regards to the schemes for FY2011-12, the DPR have been submitted to the Commission for in-principal approval, vide RInfra's letter dated January 25, 2012, RInfra-D has provided its capital expenditure and capitalisation plan for the Business Plan period as shown in the table below. For FY2011-12, actual capex and capitalisation details up to December 2011 were taken from RInfra-D's provisional accounts, based on which RInfra-D estimated capex for entire year.

Table 4.50: Capital Expenditure forecasted by RInfra-D (Rs. Crore.)

Schemes	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Wires Business	195.29	390.16	392.66	401.47	400.76
Retail Supply Business	34.86	33.74	34.93	36.58	40.03
Total Capex	**230.15**	**423.90**	**427.59**	**438.05**	**440.79**

Table 4.51: Capitalisation forecast provided by RInfra-D (Rs. Crore.)

Schemes	Proposed Capitalisation (without IDC)					
	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16	Total
Ongoing Schemes spilling over into plan period	123.94	133.51	97.83	49.29	7.41	411.98
33-22/11 kV Receiving Station Schemes	5.48	20.04	22.42	33.97	55.93	137.84
33kV Network reconfiguration for new EHV Stations	3.01	8.52	5.56	4.6	14.21	35.9
11kV Network Strengthening Schemes	12.41	37.67	50.89	64.69	113.24	278.9
LT Mains Schemes	11.92	30.91	51.35	57.54	59.76	211.48
Services Schemes	27.86	52.03	51.75	47.64	63	242.28
Metering Schemes	28.73	33.74	34.93	36.58	40.03	174.01
Street Lighting Schemes	8.26	17.13	17.72	15.79	18.96	77.86
11kV Oil Type RMU Replacement	0	5.6	13.3	27.98	27.94	74.82
Other DPRs	5.52	36.3	55.05	93.86	0	190.73
Non DPR Schemes	9.68	24.62	38.31	38.11	39.53	150.25
Total	**236.81**	**400.07**	**439.11**	**470.05**	**440.01**	**1986.05**

Table 4.52: Capitalisation (including IDC) forecasted by RInfra-D (Rs. Crore.)

Schemes	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Wires Business	230.37	395.07	433.10	460.64	425.90
Retail Supply Business	34.86	33.74	34.93	36.58	40.03
Total	**265.22**	**428.81**	**468.03**	**497.23**	**465.93**

The aforesaid capital expenditure consists of about Rs. 973 Crore. of planned capex on fresh schemes and about Rs. 1013 Crore. of expenditure on schemes ongoing from previous period and spilling into the Business Plan period. The total capitalisation in each year of the Business Plan has been considered after taking into account both, the existing schemes whose commissioning will spill over the Business Plan period and the commissioning of new schemes.

RInfra-D submitted that it has projected the capital expenditure plan for FY 2012-13 to FY 2015-16 based on the forecast of system maximum demand, anticipated new developments in the supply area and also the developments at transmission level. RInfra-D has taken the projections provided by IIT Bombay as the base for their demand projections. IIT Bombay have estimated the system maximum demand of about 2022 MVA, by the end of FY 2015-16 which currently is of the order of 1650 MVA.

The Commission has analysed the projected Capital Expenditure Plan of RInfra-D with respect to the in-principle approved schemes and has approved the capex for the purpose of MYT Business Plan projections. Regulatory provisions of MERC MYT Regulations, 2011 for capital expenditure along with various submissions made by RInfra-D during the regulatory process have been taken due care of by the Commission while estimating the capex plan.

As FY 2011-12 is already over, the Commission had asked RInfra-D to submit the status of actual capitalisation as on 31 March, 2012. In this context, RInfra-D submitted that the actual capitalisation achieved (unaudited) for FY 2011-12 was Rs. 183.67 Crore. for DPR schemes and Rs. 2.37 Crore. for Non-DPR Schemes compared to total estimate of Rs 248.27 Crore. submitted in the MYT Business Plan Petition.

Accordingly, for the purpose of MYT Business Plan estimation, the Commission has considered the following year-wise capitalisation for the period from FY 2012-13 to FY 2015-16. Scheme-wise monitoring of capital expenditure is opined by the Commission as otherwise the on-time completion of these capex schemes would be very difficult.

With reference to table 26 and table 27 of RInfra-D's Business Plan Petition, the Commission had raised the query that the year wise amount of capex for new schemes given in table 27 does not match with that of table 26. RInfra-D responded that the table 26 corresponds to the new schemes (DPR) originating in that particular year. Hence, the amount of capex for FY12, in the table 26 refers to the total capex forecast during the plan period, against the schemes starting in FY12.

The Commission observed that the details of the physical progress of the capex schemes were missing in Form 4 of the excel model submitted along with the Business Plan Petition. RInfra-D was thus asked to submit the same. RInfra-D responded that within a particular DPR related to 11kV and LT Schemes, generally there are large number of individual projects (hundreds and sometimes may be in thousands), and hence quantification of the bundle of such numerous schemes, as a composite % number becomes extremely difficult. Further RInfra-D submitted that most of the Distribution Schemes, except for Schemes such as HT and Receiving Stations, get completed within the year. Mostly, Receiving Stations and HT Schemes get phased out over years. It submitted that the progress of a capital investment scheme in percentage is better determined in terms of financial capitalisation, which indicates that works amounting to capitalisation have been commissioned and are usable or ready to be used by consumer.

The Commission while estimating the capitalisation for DPR schemes has considered those schemes which have been granted in-principle approval by the Commission. The list of schemes for which in-principle approval is already given by the Commission is given in Appendix 3 of this Order. Additional 20% (of the approved DPR capitalisation) capitalisation has been considered towards unplanned expenditure duing each year in accordance with MERC MYT Regulations, 2011. The summary of capitalisation considered by the Commission is shown in the tables below:

Table 4.53: Capitalisation considered by the Commission (Rs. Crore.)

Capex schemes	FY12-13	FY13-14	FY14-15	FY15-16
DPR Schemes	229.48	148.24	87.79	95.68
Non DPR Schemes	45.90	29.65	17.56	19.14
Total	**275.37**	**177.89**	**105.35**	**114.82**

With relation to Regulation 27 of the MERC MYT Regulations, 2011 (Capital cost and capital structure), it is clarified by the Commission that for the Capital Expediture schemes which are under process of getting in-principle approval, RInfra-D may include in its MYT Petition, the capitalisation pertaining to the in-principle approved schemes. The Commission also notes that the schemes for Retail Supply business of RInfra-D are yet to receive in-principle approval. RInfra-D may include those schemes as well in their MYT Petition if they are approved before filing of the same. The Commission further notes that some of the schemes have exceeded the cost, as approved by MERC, the variance shall be looked into at the time of final true up of respective years.

4.13 Depreciation

RInfra-D submitted that for FY2011-12, the depreciation has been worked out as per the terms of MERC MYT Regulations, 2005. It has maintainted the opening asset base as on 31 March 2011, as submitted in its Petition in Case No. 180 of 2011. The additions during FY2011-12 have been estimated as per actual estimated additions (based on actual additions till December 2011). As regards FY2012-13 onwards, RInfra-D submitted in its Petition that the depreciation rates are considered as per the MYT Regulations 2011 and useful life is taken from MYT Regulations for assets mentioned therein i.e. AC and DC Sub-station – 25 years and Distribution Line – 35 years. For asset types not mentioned in the MYT Regulations, useful life is considered as per the Companies Act, 1956. In accordance with the MYT Regulations, 2011, for the assets reaching 70% of their book value during the MYT Period, the balance value has been spread over the balance useful life, where useful life is considered as described above. Further, RInfra-D submitted that depreciation for each year of the Plan period has been computed on new assets added in a given year considering midyear capitalisation as per MERC MYT Regulations, 2011. The same is shown in the table below:

Table 4.54: Depreciation as Submitted by RInfra-D – Wires (Rs. Crore.)

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Opening GFA	3,310	3,528	3,916	4,343	4,797
Closing GFA	3,528	3,916	4,343	4,797	5,216
Average Balance	3,419	3,722	4,129	4,570	5,006
Depreciation	105.10	166.99	189.14	210.63	231.67
Depreciation (as % of Average Bal)	3.07%	4.49%	4.58%	4.61%	4.63%

Table 4.55: Depreciation as Submitted by RInfra-D – Retail Supply (Rs. Crore.)

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Opening GFA	458	490	519	549	580
Closing GFA	490	519	549	580	615
Average Balance	474	504	534	564	598

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Depreciation	23.43	23.50	25.35	27.25	29.29
Depreciation (as % of Average Bal)	4.94%	4.66%	4.75%	4.83%	4.90%

The Commission had asked RInfra-D to provide the rationale for depreciating the remaining life of the asset in a single year (if the accumulated depreciation crosses 70%). RInfra-D responded that it had calculated the depreciation based on the aforesaid assumption in the absence of definition of useful life for assets other than Distribution line and for AC/DC Sub-station in the MYT Regulations, 2011. RInfra-D submitted that in its Petition it has requested the Commission to clarify the issue, while approving the Business Plan. However, as suggested by the Commission during TVS, the Useful Life of assets not mentioned in the MYT Regulations, 2011 has been taken as per the Companies Act provisions. RInfra-D provided the revised workings of Depreciation in the post-TVS Business Plan.

The depreciation workings provided by RInfra-D was without proper linkages and formulae. Therefore, RInfra-D was asked to resubmit the workings ofdepreciation with proper linkages and formulae. In response to which, RInfra-D provided its methodology for the workings for depreciation as followed:

"RInfra-D wishes to submit that on the basis of actual asset addition during FY 12, the opening GFA as on FY 13 is arrived at. As per MYT Regulations, 2011, the depreciation is to be worked out using the rates specified therein for upto 70% of original cost and balance depreciable value is required to be spread over the balance useful life of the asset. In order to comply with this requirement, the depreciation on opening balance of assets as on 1st April 2012 (i.e. start of applicability of MYT Regulations) is determined each year from FY 13 to FY 16 using depreciation rates of MYT Regulations, but only upto 70% of original cost. If any asset from such opening balance reaches 70% during the MYT Period, the balance value is spread over the balance useful life provided in MYT Regulations for AC and DC Sub-station and Distribution Line and for useful life not provided in the Regulations, same is considered as per the Companies Act, 1956. Since this logic is built in the SAP system itself, its output is straightway punched in the format. To this value, the depreciation

on new asset addition each year is to be added, which is simply computed considering mid-point addition for such year, plus full year depreciation of previous year. This would be correct as no asset added from FY 13 onwards is likely to depreciate upto 70% during the course of MYT Period."

RInfra-D further clarified that on account of actual asset addition during FY 12 and also on account of certain other errors identified in the earlier depreciation values provided in the Business Plan, the forecast of depreciation has undergone a change. RInfra-D provided the revised depreciation as under:

Table 4.56: Revised Depreciation workings provided by RInfra-D as part of Response to data gaps (Rs Crore)

Particulars	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Wires	168.49	190.73	213.20	234.67
Retail Supply	16.70	18.55	20.42	22.36
Total	**185.19**	**209.28**	**233.62**	**257.03**

However, the revised workings of depreciation have not been considered in this Order, as the workings could not be verified, in absence of appropriate information and justification. RInfra-D may submit its revised depreciation workings with relevant supporting in its MYT Petition, for the consideration of the Commission.

For the wires business, the opening GFA as submitted by RInfra-D was Rs. 3,310.16 Crore. for FY 2011-12. However, the Commission, vide the Order in Case No. 180 of 2011, had approved an opening GFA of Rs. 3,033.38 Crore. for FY 2011-12. Hence, the Commission has considered the opening GFA of FY2011-12 as Rs. 3,033.38 Crore. for the Wires business. For the retail business, the opening GFA as submitted by RInfra-D was Rs. 458.44 Crore. for FY 2011-12. However, the Commission, vide the Order in Case No. 180 of 2011, had approved a opening GFA of Rs. 337.85 Crore. for FY2011-12. Hence, the Commission has considered the opening GFA of FY 2011-12 as Rs. 337.85 Crore for the retail business.

For FY 2012-13, the depreciation rate for each asset category has been computed by dividing the depreciation amount claimed by RInfra-D, by the average of the opening and closing GFA as submitted by RInfra-D. The approved capitalisation for the plan period has been considered as the addition to GFA during the year. The depreciation allowed has been computed by multiplying this derived depreciation rate on the average of the approved GFA for wires and retail businesses separately. The GFA addition and retirement during FY2011-12 are considered at the same level as approved in Case 180 of 2011. Further, the revised capitalisation for subsequent years in the Control Period has been considered for the purpose of computation of depreciation. The Commission, for the purpose of the present MYT Business Plan Order, has computed depreciation for the years under consideration of the second Control Period starting from FY2012-13. The total depreciation computed for each year of the plan period, is shown separately for wires and the retail businesses, in the following tables:

Table 4.57: Depreciation computed by the Commission – Wires (Rs. Crore.)

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Opening GFA	3,082.82	3,351.21	3,522.61	3,621.24
Closing GFA	3,351.21	3,522.61	3,621.24	3,729.45
Average Balance	3,217.02	3,436.91	3,571.92	3,675.34
Depreciation	144.50	154.26	160.24	164.82
Depreciation (as % of Average Bal)	4.49%	4.49%	4.49%	4.48%

Table 4.58: Depreciation computed by the Commission – Retail Supply (Rs. Crore.)

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Opening GFA	339.94	333.55	327.46	321.22
Closing GFA	333.55	327.46	321.22	315.06
Average Balance	336.74	330.51	324.34	318.14
Depreciation	15.71	15.41	15.11	14.81
Depreciation (as % of Average Bal)	4.66%	4.66%	4.66%	4.65%

4.14 Interest Expenses

RInfra-D submitted that it has raised Rs. 1000 Crore. by issuing secured Non-Convertible Debentures (NCD) during FY2011-12 in two tranches of Rs. 635 Crore. and Rs. 365 Crore. (issue subscribed by various agencies – LIC, New India Assurance, GIC, Yes Bank, Pension funds, etc.). RInfra further submitted that these NCDs are secured by creating a charge on the distribution business assets of RInfra. RInfra-D said that they have intimated the creation of such charge on its distribution assets to the Commission vide their letter dated April 24, 2012 as required under the terms of MERC (General Conditions of Distribution License) Regulations, 2006. It submitted that the capital raised through these NCDs is to be used towards refinancing of equity infused by RInfra-D over the years in their distribution business for creation of assets; which is so far considered by Commission as normative debt. RInfra-D submitted that the normative debt, based on actual capitalisation as on 1st April 2011 of over Rs. 1300 Crore. is thus refinanced to the extent of Rs. 1000 Crore by way of these NCDs.

RInfra-D submitted in its Business Plan Petition that the Commission has so far approved interest rate of 8% to 10% on normative debt, which RInfra-D had prayed to be reset to 11.5% as per its Petition in Case No. 180 of 2011. It submitted that as now RInfra-D has actually refinanced its outstanding normative debt as on 31st March 2011 to the extent of Rs. 1000 Crore; the interest rate applicable on such refinanced debt is considered as the actual Coupon Rate of the NCD’s. RInfra-D prayed that the same may be considered by the Commission for allowing interest on opening level of admitted debt as on 1st April 2011 (to the extent of Rs. 1000 Crore). RInfra-D further said that for the purpose of calculating the interest chargeable to the revenue account, it has considered the actual redemption schedule of these NCD’s for each year of this Business Plan. RInfra-D submitted that the balance outstanding debt as on April 01, 2012 after subtracting Rs. 1000 Crore. for NCDs, have been considered as normative debt and 11.5% interest is charged on such debt.

RInfra-D submitted that it has further drawn Rs. 350 Crore. term loan from Central Bank of India for fresh capex during FY2011-12 and thereafter. RInfra-D submitted that the said loan bears an interest rate of 11.80% at present and a repayment schedule of 6.5 years, with half year moratorium, which has been considered as such for determining interest chargeable to revenue account.

RInfra-D submitted that all other capex during the plan period is considered financed by way of normative debt and equity. The interest rate of such normative debt has been assumed as 11.5% with a repayment period of 13 years as also the debt available from financial institutions for funding the capex is generally payable over a tenure of 12-15 years only which justifies the repayment period considered. With these information and assumptions, RInfra-D projected its interest expense for the plan period as given in the table below.

Table 4.59: Interest Expense (Rs. Crore.) projected by RInfra-D

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Interest on Loans - Retail	19.33	21.46	23.37	25.16	26.00
Interest on Loans – Wires	138.77	159.42	186.33	211.97	227.41
Interest on Loans – Total	158.10	180.88	209.70	237.13	253.41

RInfra-D has considered normative loan repayment tenure of 13 years for all capex financed through normative debt. However, the Tariff Regulations 2005, and MERC MYT Regulations, 2011 prescribe that normative debt repayment for a year shall be equal to the amount of depreciation on the fixed asset to which such loan relates. In line with provisions of the MERC MYT Regulations, 2011, 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 are related. The Commission has considered repayment of the outstanding loans in proportion to their balance at the beginning of the year.

Further, the Commission noted that RInfra-D has not considered the approved numbers for opening balance of normative debt for FY 2011-12 as per the Order in Case No. 180 of 2011.

The Opening loan for FY2011-12 has been sourced by the Commission from its Order in Case No. 180 of 2011 and considering the loan addition and repayment during FY2011-12 as submitted by RInfra-D. The loan addition and repayment during FY2011-12 have been considered at level approved in Order in Case No. 180 of 2011.

For computation of interest expenses for the period FY 2012-13 to FY 2015-16, the Commission has used the following approach, in consonance with the MYT Regulations 2011:

- **Normative Loans existing till close of FY 2010-11**

These normative loans have already been approved by the Commission in its previous Orders. The allowable interest rates for such loan additions during any financial year, has also been provided by the Commission in its Orders. For the purpose of computation of interest expenses for these loans, the Commission has considered the same rates of interest for the period FY 2012-13 to FY 2015-16.

- **Loan Additions during FY 2011-12**

RInfra-D has submitted that it has drawn Rs. 350 Crore term loan from Central Bank of India for fresh capex during FY 11-12 and thereafter. The said loan is secured against charge created on RInfra distribution business assets and carries an interest rate of Base Rate of Central Bank of India, plus 1.05%, which works out to 11.80% at present and a repayment schedule of 6.5 years, with half year moratorium.

The Commission shall consider the above loan after detailed scrutiny during the truing-up process for FY 2011-12. However, for the purpose of the business plan, the Commission has provisionally considered an interest rate of 11.5% for these loans, for estimating the interest expenses for FY 2012-13 to FY 2015-16. The interest rate of 11.5% considered by the Commission is in line with the RInfra-D's proposal for the normative loans for FY 2012-13 to FY 2015-16.

- **Loan Additions for the period FY 2012-13 to FY 2015-16**

The Commission has considered the interest rate of 11.5% for the normative loan addition during the period. The same interest rate has been proposed by RInfra-D in its Business Plan

The Regulation 33.1 of MERC (MYT) Regulations 2011 provides:

Provided that in case of retirement or replacement of assets, the loan capital approved as mentioned above, shall be reduced to the extent of 70% (or actual loan component based on documentary evidence, if it is higher than 70%) of the original cost of the retired or replaced assets.

The Commission directs RInfra-D to provide the details of the retired assets for the period of FY 2012-13 to FY 2015-16, in it MYT Tariff Petition, so as to enable the Commission to appropriately adjust the loan capital in line with the Regulation 33.1 of MERC (MYT) Regulations 2011.

The summary of computed interest expenses are thus tabulated below:

Table 4.60: Interest Expense on Loans (Rs Crore) as computed by the Commission

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Interest on Loans – Retail	6.14	4.70	3.29	1.91
Interest on Loans – Wires	83.41	85.69	79.62	69.97
Interest on Loans – Total	**89.55**	**90.39**	**82.92**	**71.89**

4.15 Return on Equity

RInfra-D submitted that Return on Equity has been worked out based on the capitalisation plan shown in this Business Plan, corresponding to the opening equity and 50% of additional equity at 15.5% per annum for distribution wires business and 17.5% per annum for retail supply business in accordance with the terms of the MERC MYT Regulations, 2011 for the period FY2012-13 to FY2015-16. RInfra-D submitted that for FY2011-12, RoE has been worked out as per the terms of Tariff Regulations 2005 i.e. at 16% on equity corresponding to capitalized assets eligible for return. The Commission has noted that RInfra-D has considered the Regulatory Equity at the beginning of FY2011-12 as per its Petition in Case No. 180 of 2011.

The Regulation 30.2 of MERC (MYT) Regulations 2011 provides as under:

Provided that in case of retirement or replacement of the assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of the retired or replaced asset

The Commission noticed that RInfra-D has not reduced the Regulatory equity to the extent of 30% of the retired assets considered by RInfra-D in its Petition. In this regard, the Commission has asked RInfra-D the treatment undertaken by RInfra-D for the retired assets. RInfra-D responded that the assets were removed out of the system/discarded as soon as they were retired. The retired assets were kept in scrap-yard, till the time it is not sold. The scrapped assets/scraps are generally sold in batches/lots (and not individually) and their sale is also subjected to availability of vendor needed for their disposal. The tables below provides the computation for RoE as submitted by RInfra-D for each year of the Plan Period separately for retail supply and wires business respectively:

Table 4.61: Return on Equity – Retail Supply as submitted by RInfra-D (Rs. Crore.)

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Regulatory Equity at the beginning of the year	145	156	167	177	189
Capitalisation during the year	36	35	36	38	41
Equity portion of capitalisation during the year	11	10	11	11	12
Regulatory Equity at the end of the year	156	167	177	189	201
Total Return on Regulatory Equity	24	28	30	32	34

Table 4.62: Return on Equity – Wires as submitted by RInfra-D (Rs. Crore.)

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Regulatory Equity at the beginning of the year	1,330	1,392	1,503	1,624	1,753
Capitalisation during the year	230	395	433	461	426
Consumer Contribution	23	26	28	31	34
Equity portion of capitalisation during the year	62	111	121	129	117
Regulatory Equity at the end of the year	1,392	1,503	1,624	1,753	1,870
Total Return on Regulatory Equity	218	224	242	262	281

For the purpose of the Business Plan, the Commission has considered the closing balance of equity as approved in its Order in Case No. 180 of 2011, and has computed the RoE as per

MERC (MYT) Regulations 2011. The Commission directs RInfra-D to provide the details of the retired assets for the period of FY 2012-13 to FY 2015-16, in it MYT Tariff Petition.

The Commission for the purpose of Business Plan computations has reduced the equity balance at the end of a year by an amount equivalent to 30% of the Original cost of retired assets.

The Commission has considered the consumer contribution as submitted by RInfra-D on pro-rata basis of the approved Capitalisation vis-a-vis Capitalisation as submitted by RInfra-D.

The summary of RoE computed by the Commission for the Business Plan period is summarised in the following tables:

Table 4.63: Return on Equity as computed by Commission– Retail Supply (Rs. Crore.)

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Total Return on Regulatory Equity	20.64	20.30	19.98	19.65

Table 4.64: Return on Equity as computed by Commission – Wires (Rs. Crore.)

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Total Return on Regulatory Equity	199.50	209.03	214.87	219.30

4.16 Other Expenses

RInfra-D has not projected other expenses for the period FY 2012-13 to FY 2105-16.

4.17 Provision for Bad and Doubtful debts

RInfra-D has not projected any provision for Bad and doubtful debts.

4.18 Contribution to Contingency Reserve:

RInfra-D submitted that the projections for Contingency Reserve Contributions during the Plan Period have been made based on the provisions of the new MYT Regulations.

Accordingly, based on their GFA forecast, RInfra-D had projected Contributions to Contingency Reserve during the Plan Period as shown below:

Table 4.65: Contribution to Contingency Reserves – Retail Supply (Rs. Crore.)

Rs. Crore	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Opening balance of GFA	458	490	519	549	580
% Contribution	0.25%	0.25%	0.25%	0.25%	0.25%
Contribution to Contingency Reserve	1.15	1.32	1.30	1.37	1.45

Table 4.66: Contribution to Contingency Reserves – Wires (Rs. Crore.)

Rs. Crore	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Opening balance of GFA	3,310	3,528	3,916	4,343	4,797
% Contribution	0.25%	0.25%	0.25%	0.25%	0.25%
Contribution to Contingency Reserve	8.28	8.82	9.79	10.86	11.99

The Commission has considered a contribution to contingency reserves as 0.25% of opening GFA for any year. The computations as done by Commission are provided below:

Table 4.67: Contribution to Conginency Reserves as Computed by Commission – Retail Supply (Rs. Crore.)

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Opening balance of GFA	339.94	333.55	327.46	321.22
% Contribution	0.25%	0.25%	0.25%	0.25%
Contribution to Contingency Reserve	0.85	0.83	0.82	0.80

Table 4.68: Contribution to Conginency Reserves as Computed by Commission – Wires (Rs. Crore.)

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Opening balance of GFA	3082.82	3351.21	3522.61	3621.24
% Contribution	0.25%	0.25%	0.25%	0.25%
Contribution to Contingency Reserve	7.71	8.38	8.81	9.05

4.19 Interest on Consumer Security Deposit:

RInfra-D has projected interest on CSD by considering 9.5% rate of interest (the current Bank Rate) on the then existing (FY 10-11) average balance of CSD. For FY 11-12, the provisional actual details have been provided. Following is RInfra-D's computation:

Table 4.69: Interest on Consumer Security Deposit (Rs. Crore.)

Rs. Crore	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
CSD	287.02	287.02	287.02	287.02	287.02
Interest on CSD	13.93	27.27	27.27	27.27	27.27

The bank rate of 9.5% notified by Reserve Bank of India (RBI) was effective from February 13, 2012. Further, RBI decided that with effect from the close of business on February 13, 2012, the Bank Rate will stand aligned with the Marginal Standing Facility(MSF) rate with the one-time technical adjustment. The MSF rate has a spread of 100 bps above the repo rate. The repo rate was reduced to 8% with effect from April 17,2012. Hence, the prevalent Bank rate and MSF rate stands at 9%. The same has been considered by the Commission for computation of Interest on Consumer Security Deposits. The Commission directs RInfra-D to provide details on actual Interest paid to the consumers on their security deposits, vis-à-vis the prevalent bank rate.

The Commission has accepted the value of consumer security deposit as submitted by RInfra-D and allowed the interest on it as follows:

Table 4.70: Interest on Consumer Security Deposit(CSD) as Computed by Commission (Rs. Crore.)

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
CSD	287.02	287.02	287.02	287.02
Interest Rate	9%	9%	9%	9%
Interest on CSD	25.83	25.83	25.83	25.83

4.20 Interest on Working Capital:

RInfra-D submitted that the Interest on Working Capital, for each year of the Plan Period, has been determined based on the formula prescribed in the MERC(MYT) Regulations 2011. Further, it submitted that for FY 11-12 and FY 12-13 the prevailing SBAR of 14.75% is considered, whereas 13% is considered from FY 13-14 onwards. RInfra submitted that for working out receivables for wires and retail businesses, prevailing wheeling charges and prevailing retail tariffs are considered. The interest on working capital as computed by RInfra-D works out as below:

Table 4.71: Interest on Working Capital (Rs. Crore.) as submitted by RInfra-D

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Interest on Working Capital - Retail Supply	36.08	34.66	34.94	39.32	38.26
Interest on Working Capital – Wires	24.94	27.32	24.80	25.53	26.32

The Commission has computed the working capital requirement in accordance with Regulation 35.3 and 35.4 of MERC(MYT) Regulations 2011. The Commission has accepted the submission of RInfra-D with regards to the applicable interest rates, and therefore computed the interest on working capital at 14.75% for FY 2012-13 and 13% for FY 2013-14 onwards. RInfra-D is directed to consider the prevalent SBAR at the time of submission of MYT Tariff Petition in accordance with Regulation 35.3(b) and 35.4(b) for the purpose of computation of interest on working capital.

Based on the computations done by the Commission, interest on working capital works out to be the following:

Table 4.72: Interest on Working Capital as Computed by Commission (Rs. Crore.)

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Interest on Working Capital - Retail Supply	31	28	30	32
Interest on Working Capital – Wires	24	22	22	22

4.21 Non-Tariff Income and Income from Other Business

Non-Tariff Income

RInfra-D submitted that Non-Tariff Income for FY 11-12 has been considered from provisional accounts. For the balance years of the plan period, RInfra-D has forecasted the non tariff income with 10% increase year-on-year. RInfra-D submitted that their forecast is based on the fact that there are some components of miscellaneous charges – such as burnt meter charges, connection / reconnection fee, etc. in the Non-Tariff Income, which shall undergo revision, subsequent to RInfra-D approaching the Commission for review of Schedule of Charges. RInfra-D further elaborated that the charges presently approved by the Commission were approved last on 2nd November 2006, based on material and labour prices as prevalent in 2004-05 and thus there is a need for upward revision in these charges.

Income from Other Business

As regards, Income from Other Business, RInfra-D submitted that it has let out its receiving station roof-tops to Reliance Communication Ltd. for installation of BTS towers and other equipment. The transaction is on arms length basis and has been done under an agreement dated 21st April 2010. Accordingly, RInfra-D submitted that as per the provisions of Regulations, 1/3rd of rent received would be considered as Income and the reduce the ARR of distribution wires business. RInfra-D further submitted that the rent agreement provides for an escalation in rental of 25% after five years. The rental income has been considered to be Rs. 60 lakhs for FY 11-12 based on provisional accounts. The same is considered constant upto FY 14-15 and escalated by 25% for FY 15- 16 as per the terms of the Agreement and 1/3rd is considered as Income from Other Business for the purpose of reducing the ARR of distribution business in each year of the Plan Period. In addition to above, RInfra-D submitted that it has also entered into an arrangement with an advertising firm to put up advertisement kiosks on street light poles in Mira Bhayander area. The kiosks shall generate rental income for RInfra-D and shall also entail certain expenses of capital and maintenance nature. For FY 11-12, RInfra-D submitted that the net income to be reduced from wheeling ARR is considered as per the Petition of RInfra-D in Case No. 180 of 2011.

NTI and Income from Other Business as forecast by RInfra-D on the above basis for the Plan Period is as follows:

Table 4.73: Non-Tariff and Other Income

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Non-Tariff Income - Retail Supply	135.96	129.67	126.14	124.79	125.34
Non-Tariff Income – Wires	18.19	20.42	23.32	27.02	31.69
Total – NTI	154.16	150.08	149.46	151.82	157.03
Income from Other Business - rental income from RCom towers	0.2	0.2	0.2	0.2	0.3
Income from Other Business - advertisement kiosks	0	0	0.04	0.22	0.31
Total Other Income	0.20	0.20	0.24	0.44	0.61

The Commission has considered RInfra-D's assumption of 10% year on year escalation for Non-Tariff Income, over the NTI approved for FY 2011-12 in Commission Order in Case No. 180 of 2011.

The Commission has accepted the RInfra-D's submissions with regards to estimation of Income from Other Business.

Further, the Commission has considered only one-third of the expected revenue while determination of ARR for FY 2012-13 to FY 2015-16, in accordance with Regulation 80.1 and 94.1 of MERC(MYT) Regulation 2011. The following table gives Commission's computations for NTI and Other Income for RInfra-D:

Table 4.74: Computations for NTI and Other Income by the Commission

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Non-Tariff Income - Retail Supply	103.53	113.89	125.27	137.80
Non-Tariff Income - Wires	52.91	58.20	64.02	70.43
Total – NTI	**156.45**	**172.09**	**189.30**	**208.23**
Income from Other Business	0.20	0.24	0.44	0.61
Total Other Income	**156.65**	**172.33**	**189.74**	**208.84**

4.22 Income Tax

RInfra-D submitted that for the purpose of income tax billing as per the MYT Regulations, it is necessary to determine income tax payable at the time of MYT ARR determination. RInfra-D further submitted that in its Petition filed for review and deferment of MYT Regulations (Case No. 45 of 2011), it has already said that Income Tax paid by RInfra is for the company as a whole and no Income Tax is available separately for distribution business. RInfra-D submitted that income tax should be allowed by the Commission in ARR considering each Regulated business in isolation in a water-tight compartment.

RInfra-D submitted that Hon'ble ATE in its judgment in Appeal No. 173 and 174 of 2009 has held that income tax, for the purpose of determination of ARR should be allowed after grossing up of ROE, i.e. considering ROE as Profit After Tax. RInfra-D said in its Petition that the Commission has disallowed its income tax for the year FY2010-11 citing reasons such as missing details about actual income tax payment and segmental segregation; issues which are relavant only at the time when final true-up is carried out by the Commission. RInfra-D submitted that it has filed an Appeal before Hon'ble ATE against the said disallowance (Appeal No. 85 of 2012).

RInfra-D submitted that in its opinion, the ex-ante approval of income tax should be carried out as per the judgment of Hon'ble ATE referred above; i.e. considering ROE as Profit After Tax. RInfra-D submitted that it has added back normative interest on long term and working capital loans for FY2011-12 and FY2012-13 onwards, interest expense only on the account of opening level of normative debt as on April 01, 2011 are added. It said that no other interest expenses are considered as it is actively looking for future debt tie up for the distribution business. RInfra-D submitted the following workings of income tax for approval:

Table 4.75: Income Tax computations for Retail Supply submitted by RInfra-D

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Return on Equity Capital	24.12	28.24	30.11	32.05	34.12
Income Tax Rate in %	32.45%	32.45%	32.45%	32.45%	32.45%
Grossing up of RoE	35.70	41.81	44.57	47.44	50.51
Add: Depreciation as per APR	23.43	23.50	25.35	27.25	29.29

Particulars	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
Less: Depreciation as per Income Tax	(30.90)	(34.02)	(37.53)	(41.10)	(43.43)
Add: Normative Interest on Long Term Loan	6.30	4.57	4.17	3.77	3.38
Add: Normative Interest on Working Capital (excluding Security Deposit)	36.08	-	-	-	
Total	70.62	35.85	36.56	37.37	39.75
Income Tax on Total	**22.92**	**11.63**	**11.86**	**12.13**	**12.90**

Table 4.76: Income Tax computations for Wires submitted by RInfra-D

Particulars	FY12	FY 13	FY14	FY15	FY16
Return on Equity Capital	217.73	224.32	242.31	261.71	280.79
Income Tax Rate in %	32.45%	32.45%	32.45%	32.45%	32.45%
Grossing up of RoE	322.32	332.08	358.72	387.42	415.68
Add: Depreciation as per APR	105.10	166.99	189.14	210.63	231.67
Less: Depreciation as per Income Tax	(219.11)	(241.23)	(266.15)	(291.40)	(307.94)
Add: Normative Interest on Long Term Loan	36.20	33.04	30.16	27.29	24.42
Add: Normative Interest on Working Capital (excluding Security Deposit)	24.94				
Total	269.46	290.87	311.87	333.94	363.83
Income Tax on Total	**87.44**	**94.39**	**101.20**	**108.36**	**118.06**

As regards computation of Income-Tax for FY 2012-13 to FY 2015-16, the MERC (MYT) Regulations, 2011 specifies that the Commission may provisionally approve Income Tax payable for each year of the second control period based on the actual income tax payable as per the latest audited accounts 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 electricity business regulated by the Commission, as per latest Audited Accounts available for the applicant, subject to prudence check.*

...

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."{Emphasis added}

In accordance with the above Regulations, the Income Tax for FY 2012-13 to FY 2015-16 needs to be considered at the same level as approved by the Commission for FY 2010-11, in its Order in Case No. 180 of 2011, since that is the latest year for which audited accounts have been provided and prudence check has been undertaken by the Commission. Further, the True up based on actual Income Tax paid by RInfra-D shall be considered at the time of mid-term review by the Commission.

The Income tax considered by the Commission for the years under consideration for the period from FY 2012-13 to FY 2015-16 is as summarised in the table below:

Table 4.77: Income Tax computed by Commission

Particulars	FY12-13	FY13-14	FY14-15	FY15-16
Wires	7.70	7.70	7.70	7.70
Retail Supply	46.17	46.17	46.17	46.17
Total	**53.87**	**53.87**	**53.87**	**53.87**

4.23 Regulatory Asset Recovery

RInfra-D submitted that the Commission has passed an Order in Case No. 72 of 2010 on July 29th 2011 which determined the cumulative revenue gaps of FY 09 to FY 11 for future recovery from own and change-over consumers. In the said Order, the Commission approved the cumulative revenue gap / Regulatory Asset as Rs. 2316 Crore and approved recovery of the same from own supply consumers (Group I) and changeover consumers (Group II). The Commission also permitted recovery of carrying cost along with the principal amount, depending upon the year of accrual and upto the year of recovery at SBI PLR for the respective years.

Thereafter, RInfra-D filed Petition for true-up of FY 10 and provisional true-up of FY 11, wherein the revenue gap of these two years were modified to some extent based on actuals. On the said Petition, the Commission issued Order in Case 126 of 2011, wherein the Commission revised its approval of the cumulative revenue gap of RInfra-D till FY 10-11, with deferment of certain expenditure, to be permitted later based on submission of necessary details.

Further, upon directions from the Commission, another Petition for final true-up of FY 09-10 and provisional true-up of FY 10-11 was filed by RInfra-D. In the said Petition, the revenue gap of FY 09-10 and FY 10-11 were modified to some extent by RInfra-D based on the actuals for these years and considering the rulings of the Commission in Case No. 72 of 2010. The revenue gap / Regulatory Asset were modified to Rs. 2628.56 Crore. RInfra-D, however, has not presented any recovery plan in the said Petition in keeping with RInfra-D's earlier stated approach that the recovery of the same would be presented during subsequent Petition for the MYT Plan Period. The Commission issued its Order on the said Petition (Case No. 126 of 2011) wherein the Commission approved the cumulative revenue gap / regulatory assets as Rs. 1831.02 Crore.

Further, in the Tariff Order issued in Case No. 180 of 2011 for approval of ARR of FY 11-12, the Commission approved cumulative revenue gap of RInfra-D, including the revenue gap of FY 11-12 as Rs. 1795.37 Crore.

RInfra-D submitted that it has preferred an Appeal (No. 85 of 2012) against the Commission's Order in Case No. 126 of 2011 against certain cost disallowances. Further, in the Order in Case No. 180 of 2011, there are many issues, which could be contested by RInfra-D before the Hon'ble ATE, whenever an appeal is filed against the said Order. Among others, these issues would be related to notional rent income considered by the Commission for RInfra's earlier office building at Santracruz; the treatment of Income Tax provided by the Commission in the said Order, etc. RInfra-D submitted that its recovery for the approved cumulative revenue gap from Group I and Group II consumers is without prejudice to contentions expressed / to be expressed in its existing and impending appeals in the Hon'ble ATE.

RInfra-D further submitted that it has segregated the cumulative revenue gap into its constituents as accrued in respectiveyears, in order todetermine carrying cost already accrued as at the start of FY 12-13 on the various elements of revenue gap, starting from the year of accrual. RInfra-D has proposed the recovery of the said revenue gap over the period FY 12-13 to FY 15-16 so as to prevent tariff shock to the consumers. Further, as FY 12-13 is already underway, only half year's recovery is considered for FY 12-13, with the balance spread over the remaining three years of the Plan Period.

RInfra-D proposed that the Regulatory Asset be recovered from the consumers by way of a separate charge and not merged with the tariff determined for any year. RInfra-D submitted that the per unit charge would be proposed by RInfra-D in its MYT Petition as a separate line item as stated. The methodology proposed by RInfra-D is as followed:

I. For recovery of regulatory assets and the amount proposed to be recovered in each year of the four-year recovery period has been found out by RInfra-D

II. RInfra-D added that in the next step, the sum of principal regulatory assets and carrying cost put together would be spread over the sales of own consumers and migrated consumers as projected for each year of the Plan Period starting FY 12-13 to determine a per unit charge. RInfra-d clarified that the spread shall not be uniform but shall be proportionate to the energy charge of each consumer category to ensure distribution of burden of past costs in a manner it would have if the same were included in tariffs in respective years.

III. RInfra-D further added that in view that the liability of any given consumer towards Regulatory Assets will be known before commencement of recovery. Therefore, during the recovery period, if any consumer terminates its contract with RInfra, the outstanding un-recovered regulatory asset amount from such consumer shall be recovered in the following manner:

Balance Recovery = $\sum A * Bi * Ci$ (in Rs)

A - Avg. monthly consumption for last 12 months (or available period if less than 12 months) (in units)

Bi - Balance recovery period (in months) for yeari 'i'

Ci - Charge specified for relevant category (in Rs/unit) for year 'i'

IV. RInfra-d further submitted that the outstanding RA liability shall be adjusted with the Consumer Security Deposit maintained by consumer with it as on date of termination of the contract.

V. RInfra-D also proposed that a separate Regulatory Asset (RA) recovery account shall be maintained which shall maintain opening balance of RA plus interest, amount set off (recovered) during the year and the closing balances each year. RInfra-D proposed that any underrecovery or over-recovery each year is proposed to remain within the Regulatory Asset basket only and not passed on to its retail ARR.

The Commission has taken a note of the RInfra-D's submissions on the issue of Regulatory Asset Recovery. The Commission directs RInfa-D to incorporate its Regulatory Asset recovery in its Tariff Proposal to be submitted along with MYT Petition. The Commisison shall appropriately address this issue while issuing the Order on its MYT Petition, subject to the prudence check.

With regards to the amount of Regulatory Assets till close of FY 2011-12, the Commission has already approved the Regulatory Assets for RInfra-D in its Order in Case No. 180 of 2011, subject to the provisional revenue gap for FY 2011-12. The Regulatory Assets shall be adjusted to the extent of trued-up amount towards revenue gap for FY 2011-12. The approved Regulatory Assets for RInfra-D till end of FY 2011-12 is as followed:

Table 4.78: Cumulative Revenue Gap approved in Case No. 180 of 2011

Particulars	**Approved Amount (Rs Crore)**
Incremental Revenue Gap of FY 2008- 09	95.60
Incremental Revenue Gap of FY 2009- 10	562.51
Regulatory Assets	732.00
Impact of Hon'ble ATE Order	90.70
Impact of Adjustment of Consumer Contribution and Additional Capitalisation	23.15
Total Revenue Gap up to FY 2009-10, without carrying cost	**1,503.96**
Revenue Gap of FY 2010-11	436.73
Revenue Gap of FY 2011-12	(145.32)
Total Revenue Gap	**1795.37**

4.24 Revenue from Wheeling of electricity

RInfra-D submitted that for FY 2011-12, the revenue receipt on account of wheeling charges has been considered based on provisional accounts. For the remaining years of the plan period, RInfra-D has projected wires cost has been spread over all wires users (RInfra-D's own customers and changeover customers) and wheeling charges determined in such manner so as to fully recover the wires cost from all wires customers put together. For FY 11-12, the wheeling charges applicable for the consumersof RInfra-D are Rs. 0.88 per unit for LT wheeling and Rs. 0.46 per unit for HT wheeling, which were determined by the Commission for FY 2009-10. As the recovery of charges for FY 11-12 has been considered based on these rates only and set off against the ARR. For FY 2012-13 onwards till FY 2015-16, RInfra-D has considered the revenue from wheeling charges based on the allocated wires cost to changeover consumers. The balance Wires Cost gets allocated to own consumers and recovered from them through Retail Tariffs.

The Commission shall determine resetting of wheeling charges for the plan period in its MYT Order for RInfra-D based on the prudence check, as its a tariff design issue.

4.25 Wires and Supply Availabilty

RInfra-D in its Petition submitted that Wires and Supply Availiabilty as under:

Table 4.79: Wires and Supply Availabilty projected by RInfra-D

Particulars	FY 13	F 14	FY 15	F 16
Wires Availability	99.98 %	99.98 %	99.98 %	99.98 %
Supply Availability	107%	104%	104%	102%

The Commission notes that the Normative Wires availability for 'Town and Cities as specified in Regulation 84 of MERC MYT Regulations, 2011 is 95% and same shall be considered by the Commission at the time of truing up of respective years, based on actual achievement of Wires Availability.

The Commission further notes that for specifying Normative Supply availability, the data submitted by RInfra-D in the Business Plan Petition is not sufficient. RInfra-D is directed to submit in its MYT Petition, a detailed analysis and the justification that power purchase quantum contracted by RInfra-D is optimal, both for base load and peak load.

4.26 Revenue from Cross-subsidy surcharge

RInfra-D submitted that the Commission, in its Order in Case No. 43 of 2010, has determined Cross-Subsidy Surcharge to be levied from changeover consumers. For FY 11-12, RInfra-D assumed the recovery of cross subsidy surcharge from the consumers who have migrated to other distribution licensee for supply of electricity, at the rates prescribed in the said Order.

RInfra-D without prejudice to the contentions expressed in the said Appeal, submitted that it has reasonably presumed that the value of CSS being tariff and cost dependent, would be re-determined each year based on the retail tariffs, wheeling charges, losses and cost of power purchase in each such year.

RInfra-D mentioned that it has considered the recovery from Cross-Subsidy Surcharge for each year of the Plan Period, based on the values of wheeling charges, cost of power purchase of top 5%, etc. as projected in its Business Plan. It further indicated that as the Business Plan is not a tariff Petition and retail tariffs for each year of the Plan Period have not been proposed, therefore the value of surcharge and recovery thereon would have been impossible to predict, in absence of any proposal of retail tariffs. RInfra-D has considered that the values of Surcharge once reset for FY 12-13 shall decline at the rate of 10% each year thereafter, assuming that tariff crosssubsidy shall decline by 10% each year. RInfra-D has projected the recovery from CSS by applying the computed CSS on its projections of changeover sales for each year from FY 2012-13 onwards till FY 15-16. The same is then set off against the projected ARR for each year. For FY 2011-12, however, receipt of CSS as available from provisional accounts has been considered by RInfra-D.

RInfra-D's projections for the revenue from CSS is summarised in the following table:

Table 4.80: CSS Recovery projected by RInfra-D

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
CSS Recovery	50	714	657	603	554

The determination of the Cross-Subsidy Surcharge being related to the Tariff determination process is not within the scope of this Order. The Commission shall therefore address the issue while issuing the Order in the matter of approval of MYT Petition of RInfra-D.

4.27 Summary of ARR submitted by RInfra-D

The summary of the ARR estimated by RInfra-D is provided below:

Table 4.81: Wires ARR projected by RInfra-D (Rs Crore)

Particulars	FY 12	FY 13	FY 14	FY 15	FY 16
Operation & Maintenance Expenses	494.30	535.71	580.64	629.40	682.30
Depreciation	105.10	166.99	189.14	210.63	231.67
Interest on Long-term Loan Capital	138.77	159.42	186.33	211.97	227.41
Interest on Working Capital and on consumer security deposits	24.94	27.32	24.80	25.53	26.32
Provisioning for Bad & Doubtful Debts	-	-	-	-	-
Other Expenses	-	-	-	-	-

Particulars	FY 12	FY 13	FY 14	FY 15	FY 16
Income Tax	87.44	94.39	101.20	108.36	118.06
Transmission Charges - intra-State					
Contribution to contingency reserves	8.28	8.82	9.79	10.86	11.99
Return on Equity Capital	217.73	224.32	242.31	261.71	280.79
Aggregate Revenue Requirement	**1,076.55**	**1,216.97**	**1,334.21**	**1,458.46**	**1,578.55**
Less: Non Tariff Income	18.19	20.42	23.32	27.02	31.69
Less: Income from Other Business	0.20	0.20	0.24	0.44	0.61
Net Aggregate Revenue Requirement	**1,058.16**	**1,196.35**	**1,310.65**	**1,431.00**	**1,546.26**

Table 4.82: Retail Supply ARR projected by RInfra-D (Rs Crore)

Particulars	FY 12	FY 13	FY 14	FY 15	FY 16
Power Purchase Expenses	3,476.73	3,053.41	3,015.51	3,041.80	3,212.33
Operation & Maintenance Expenses	253.91	276.83	301.82	329.07	358.79
Depreciation	23.43	23.50	25.35	27.25	29.29
Interest on Long-term Loan Capital	19.33	21.46	23.37	25.16	26.00
Interest on Working Capital and on consumer security deposits	50.01	61.93	62.21	66.58	65.52
Provisioning for Bad & Doubtful Debts	9.43				
Other Expenses	-	-	-	-	-
Income Tax	22.92	11.63	11.86	12.13	12.90
Transmission Charges - intra-State	241.32	265.39	289.60	317.18	347.45
Contribution to contingency reserves	1.15	1.23	1.30	1.37	1.45
Return on Equity Capital	24.12	28.24	30.11	32.05	34.12
Aggregate Revenue Requirement	**4,122.34**	**3,743.61**	**3,761.13**	**3,852.60**	**4,087.85**
Less: Non Tariff Income	135.96	129.67	126.14	124.79	125.34
Less: Income from Other Business					
Add: Amortisation of cost of Energy park				1.10	1.10
Aggregate Revenue Requirement from Retail Tariff	**3,986.37**	**3,613.95**	**3,634.99**	**3,728.90**	**3,963.61**

4.28 Scenario Analysis

On the directions of the Commission, RInfra-D provided the estimates of ARR under pessimistic and optimistic scenarios.

4.28.1 Optimistic Scenario

The key assumptions made by RInfra-D under this scenario were:

A. RInfra-D assumed an increase in sales on account of reverse migration of consumers who have changed over to TPC-D. For the purpose of scenario, RInfra-D assumed that the projected changeover sales as per realistic estimates migrates back to RInfra-D to the extent of 10% in FY 2013-14, 20% in FY 2014-15 and 30% in FY 2015-16.

B. RInfra-D submitted that under this scenario it has assumed that the entire additional power purchase requirement due to the above changes in sales shall be met through additional purchases - bilateral or medium-term bidding at the rates of short-term sale/purchase estimated in the “realistic” scenario.

C. RInfra-D also submitted that unlike the realistic scenario of RE purchase, in this scenario RInfra-D has assumed that during FY 12-13, the shortfall vis-à-vis target of Non-Solar RPO shall be met entirely by purchase of additional RE energy through tie-ups at Commission specified rates.

D. RInfra-D added that no additional requirement of capital expenditure is forecast. For the same reasons, it did not envisage any additional opex as well.

E. RInfra-D further assumed less recovery from CSS in this scenario.

4.28.2 Pessimistic Scenario

The key assumptions made by RInfra-D under this scenario were:

A. In this scenario, RInfra-D submitted that it has assumed that the Cross-subsidy surcharge continues to be unrealistic and correspondingly consumer migration does not reduce or stop. This would lead to much higher changeover sales than that forecast in the “realistic” plan. RInfra-D submitted that under these assumptions, with respect to “realistic” sales scenario, RInfra-D’s own sales in this scenario would decline by 19% in FY 13-14, 31% in FY 14-15 and 41% in FY 15-16.

B. RInfra-D submitted that it has assumed changes in power purchase is to the extent of reduced purchase of short-term energy as forecast in the realistic scenario. RInfra-D added that due to reduction in sales, purchase from additional Medium Term procurement in FY 15 and FY 16 reduced to 250 MW from the 500 MW forecast in the "realistic" scenario.

C. RInfra-D further submitted that it has assumed that the entire projected shortfall in Non-Solar RPO for each year of plan period from FY 13 to FY 16 shall be met through purchase of RECs only and the rate of REC assumed for this purpose shall be the forebearance price i.e. Rs. 3300 per REC.

D. RInfra-Dsubmitted that it has assumed no reduction in the capital expenditure forecast from the realistic plan.

E. It further submitted that under this scenario, no change in opex is forecasted.

F. RInfra-D added that it also assumed higher recovery from CSS in this scenario.

The summary of the ARR as projected by RInfra-D, under the optimistic and pessimistic scenarios is as below:

Table 4.83: Combined ARR (Retail Supply + Wires) under optimistic scenario as projected by RInfra-D (Rs Crore)

Particulars	FY 13	FY 14	FY 15	FY 16
Power Purchase Expenses	3,025.51	3,174.61	3,362.50	3,701.42
Operation & Maintenance Expenses	812.54	882.46	958.47	1,041.10
Depreciation	190.49	214.49	237.88	260.96
Interest on Long-term Loan Capital	180.87	209.69	237.13	253.41
Interest on Working Capital and on consumer security deposits	89.60	89.02	96.27	93.06
Provisioning for Bad & Doubtful Debts	-	-	-	-
Other Expenses	-	-	-	-

Particulars	FY 13	FY 14	FY 15	FY 16
Income Tax	106.02	113.07	120.49	130.96
Transmission Charges - intra-State	265.39	305.47	351.17	402.08
Contribution to contingency reserves	10.04	11.09	12.23	13.44
Return on Equity Capital	252.56	272.42	293.75	314.91
Aggregate Revenue Requirement	4,933.02	5,272.32	5,669.91	6,211.34
Less: Non Tariff Income	150.08	149.46	151.82	157.03
Less: Income from Other Business	0.20	0.24	0.44	0.61
Add: Amortisation of cost of Energy Park	-	-	1.10	1.10
Aggregate Revenue Requirement from Retail Tariff	**4,782.74**	**5,122.62**	**5,518.75**	**6,054.80**

Table 4.84: Combined ARR(Retail Supply + Wires) under pessimistic scenario as projected by RInfra-D (Rs Crore)

Particulars	FY 13	FY 14	FY 15	FY 16
Power Purchase Expenses	3,071.27	2,476.32	2,133.92	1,920.70
Operation & Maintenance Expenses	812.54	882.46	958.47	1,041.10
Depreciation	190.49	214.49	237.88	260.96
Interest on Long-term Loan Capital	180.87	209.69	237.13	253.41
Interest on Working Capital and on consumer security deposits	88.97	78.63	78.05	83.55
Provisioning for Bad & Doubtful Debts	-	-	-	-
Income Tax	106.02	113.07	120.49	130.96
Transmission Charges - intra-State	265.39	234.63	219.97	203.95
Contribution to contingency reserves	10.04	11.09	12.23	13.44
Return on Equity Capital	252.56	272.42	293.75	314.91

Particulars	FY 13	FY 14	FY 15	FY 16
Aggregate Revenue Requirement	4,978.16	4,492.79	4,291.89	4,222.98
Less: Non Tariff Income	150.08	149.46	151.82	157.03
Less: Income from Other Business	0.20	0.24	0.44	0.61
Add: Amortisation of cost of Energy Park	-	-	1.10	1.10
Aggregate Revenue Requirement from Retail Tariff	**4,827.88**	**4,343.09**	**4,140.73**	**4,066.44**

The Commission has taken a note of the RInfra-D's submissions in this regard. However, the Commission has done the computations for various ARR components based on the Realistic scenario provided by RInfra-D.

4.29 Summary of ARR computed by Commission

The ARR for RInfra-D for the period FY 2012-13 to FY 2015-16 computed by the Commission is as summarized in the table below:

Table 4.85: Wires ARR computed by the Commission (Rs Crore)

Particulars	FY 13	FY 14	FY 15	FY 16
Operation & Maintenance Expenses	411.44	451.22	489.72	528.98
Depreciation	144.50	154.26	160.24	164.82
Interest on Long-term Loan Capital	83.41	85.69	79.62	69.97
Interest on Working Capital and on consumer security deposits	24.22	21.61	21.90	22.28
Provisioning for Bad & Doubtful Debts	0.00	0.00	0.00	0.00
Other Expenses	0.00	0.00	0.00	0.00
Income Tax	7.70	7.70	7.70	7.70
Contribution to contingency reserves	7.71	8.38	8.81	9.05
Total Revenue Expenditure	**678.98**	**728.86**	**767.99**	**802.81**
Return on Equity Capital	199.50	209.03	214.87	219.30
Aggregate Revenue Requirement (ARR)	878.48	937.88	982.87	1,022.11
Less: Non Tariff Income	52.91	58.20	64.02	70.43
Less: Income from Other Business	0.20	0.24	0.44	0.61
Net ARR	**825.37**	**879.44**	**918.40**	**951.07**

Table 4.86: Retail Supply ARR computed by the Commission (Rs Crore)

Particulars	FY 13	FY 14	FY 15	FY 16
Power Purchase Expenses	2,951.59	2,898.18	2,848.21	2,956.48
Operation & Maintenance Expenses	186.76	190.90	209.19	229.42
Depreciation	15.71	15.41	15.11	14.81
Interest on Long-term Loan Capital	6.14	4.70	3.29	1.91
Interest on Working Capital and on consumer security deposits	57.20	54.33	55.39	58.05
Provisioning for Bad & Doubtful Debts	0.00	0.00	0.00	0.00
Other Expenses	0.00	0.00	0.00	0.00
Income Tax	46.17	46.17	46.17	46.17
Transmission Charges - intra-State	265.39	278.66	292.59	307.22
Contribution to contingency reserves	0.85	0.83	0.82	0.80
Total Revenue Expenditure	**3,529.81**	**3,489.18**	**3,470.76**	**3,614.87**
Return on Equity Capital	20.64	20.30	19.98	19.65
Aggregate Revenue Requirement	3,550.45	3,509.48	3,490.74	3,634.52
Less: Non Tariff Income	103.53	113.89	125.27	137.80
Less: Income from Other Business	0.00	0.00	0.00	0.00
Net ARR	**3,446.91**	**3,395.60**	**3,365.47**	**3,496.72**

Table 4.87: Total ARR (Retail Supply and Wires) computed by the Commission (Rs Crore)

Particulars	FY 13	FY 14	FY 15	FY 16
Power Purchase Expenses	2,951.59	2,898.18	2,848.21	2,956.48
Operation & Maintenance Expenses	598.20	642.12	698.91	758.40
Depreciation	160.21	169.66	175.35	179.63
Interest on Long-term Loan Capital	89.55	90.39	82.92	71.89
Interest on Working Capital and on consumer security deposits	81.42	75.94	77.29	80.33
Provisioning for Bad & Doubtful Debts	0.00	0.00	0.00	0.00
Other Expenses	0.00	0.00	0.00	0.00
Income Tax	53.87	53.87	53.87	53.87
Transmission Charges - intra-State	265.39	278.66	292.59	307.22
Contribution to contingency reserves	8.56	9.21	9.63	9.86
Total Revenue Expenditure	4,208.79	4,218.04	4,238.76	4,417.68
Return on Equity Capital	220.14	229.33	234.85	238.95
Aggregate Revenue Requirement	**4,428.93**	**4,447.37**	**4,473.61**	**4,656.63**

Particulars	FY 13	FY 14	FY 15	FY 16
Less: Non Tariff Income	156.45	172.09	189.30	208.23
Less: Income from Other Business	0.20	0.24	0.44	0.61
Net ARR	**4,272.28**	**4,275.04**	**4,283.87**	**4,447.79**
Sales (MU)	6343	6566	6797	7038
Average Cost of Supply (Rs/kWh)	**6.74**	**6.51**	**6.30**	**6.32**

5. DIRECTIONS FOR FILING MYT PETITION FOR THE SECOND CONTROL PERIOD

Through this Business Plan Order, RInfra-D is hereby directed to comply with the following directives while filing the MYT Petition for the second Control Period:

a) The Commission directs RInfra-D to provide the status of the compliance of Commission's directive in its Order in Case No. 180 of 2011 with regards to study of the technical losses of its distribution network through an independent third party. RInfra-D should consider the findings of the study report, while submitting the loss trajectory in its MYT Petition.

b) RInfra-D should provide details about the planned DSM activities during FY 2012-13 to FY 2015-16 and the expected savings in MW/MU in its MYT Petition.

c) RInfra-D should initiate the process for its proposed Medium Term power procurement through competitive bidding route and approach the Commission for its approval.

d) The Commission directs RInfra-D to provide the details of the retired assets for the period of FY 2012-13 to FY 2015-16, in it MYT Tariff Petition

e) The Commission directs RInfra-D to provide details on actual Interest paid to the consumers on their security deposits, vis-à-vis the prevalent bank rate.

The Commission's computations for the Business Plan of RInfra-D shall form the basis for filing the MYT Petition for the second Control Period. RInfra-D shall submit the MYT Petition within 60 days from the date of issuance of this Business Plan Order. With the above, RInfra-D's Petition in Case No. 158 of 2011 stands disposed of.

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

Appendix - 1

List of attendees for the TVS dated December 28, 2011

Sr. No.	Name of the Attendee	Institution/Individual
1	R. R. Mehta	Reliance Infrastructure Limited
2	Kishor Patil	Reliance Infrastructure Limited
3	Sharad Nath	Reliance Infrastructure Limited
4	P.S. Pandya	Reliance Infrastructure Limited
5	P. M. Hundiwale	Reliance Infrastructure Limited
6	Kapil Sharma	Reliance Infrastructure Limited
7	G.S. Thakkar	Reliance Infrastructure Limited
8	Abhishake Vijay	Reliance Infrastructure Limited

Appendix -2

List of attendees for the Public Hearing dated August 23, 2012

Sr. No.	Name of the Attendee	Institution/Individual
Consumer Representative u/s. 94(3) of the EA, 2003 for this Case		
1	Shri N. Ponrathnam	Consumer Representative u/s. 94(3) of the EA, 2003 for this Case
2	Shri Raksh Pal Abrol, Bharatiya Udhami Avam Upbhokta Sangh	Consumer Representative u/s. 94(3) of the EA, 2003 for this Case
Other Representatives		
3	Adv. Arun Jagtap	Individual
4	Adv. Mahesh Vaswani	Individual
5	Shri Sunil Chavan	Individual
6	Shri Vijay Vaidhya	Individual
7	Shri Arvind Shukla	Individual
8	Shri Gautam S. Jadhav	Individual
9	Shri Dipak S. Saknarkar	Individual
10	Shri Freddy Divecha	Individual
11	Shri Narayan Gharat	Individual
12	Shri Ravindra K. Kadam	Individual
13	Shri Yasmeen Pardiwalla	Individual
14	Shri Karthik Krishnan	The Tata Power Company Ltd.
15	Shri Ulhas	Individual
16	Shri Gaurav Gautam	Individual
17	Shri Abhishek Ramkrishnan	Individual
18	Shri Vikas Nikhumbh	May & Co.
19	Shri Vilas Kapil	Individual
20	Shri Rajiv Nakhare	Individual
21	Shri Raju Patil	Individual
22	Shri Ramchandra	Individual
23	Shri Gautam	Individual
24	Shri K.K. Chopra	Individual
25	Shri Shailesh Nikalje	Individual
26	Shri S. Navle	Individual
27	Shri Vinod V Nikam	Individual
28	Shri Ashok Patekar	Individual
29	Shri Sandeep Talekar	Individual
30	Shri Rajan Korgaonkar	Individual
31	Shri Manoj Patil	Individual
32	Shri L. S. Samant	Individual
33	Shri Ulhas Choudhari	Individual
34	Shri Vinod R Patil	Individual
35	Shri Shesh Kumar Sharma	Individual
36	Shri Santosh V Sawant	Individual
37	Shri Rajesh Parab	Individual
38	Shri Rajnath Yadav	Individual
39	Shri Deepak Israni	Individual

Sr. No.	Name of the Attendee	Institution/Individual
40	Shri Sujaul Hasan	Individual
41	Shri Hasnain Rangwala	IMaCS
42	Shri Amit Mittal	IMaCS
43	Shri Himanshu Chawla	IMaCS
44	Representative	Siddhi Electricals
45	Representative	Kalika Electrical Enterprises
46	Representative	Shiv Garjana Grah Nirman Housing Society (Part-2)
47	Representative	16 Hours Fitness Life
48	Representative	Mayur Overseer
49	Shri Karn Pallav	Reliance Infrastructure Limited
50	Shri Vivek Mishra	Reliance Infrastructure Limited
51	Shri Kishor Patil	Reliance Infrastructure Limited
52	Shri Kapil Sharma	Reliance Infrastructure Limited
53	Shri S. Krishnamurthy	Reliance Infrastructure Limited
54	Shri Pankaj Pandya	Reliance Infrastructure Limited
55	Smt. Varsha Nijasure	Reliance Infrastructure Limited
56	Shri Vijaya Bhatawadekar	Reliance Infrastructure Limited
57	Shri Ajit Karpe	Reliance Infrastructure Limited
58	Smt. Shraddha Kaley	Reliance Infrastructure Limited
59	Shri R.R. Mehta	Reliance Infrastructure Limited
60	Shri Ganesh B.	Reliance Infrastructure Limited
61	Shri Abaji Naralkar	Reliance Infrastructure Limited
62	Shri Rajiv Nakhare	Reliance Infrastructure Limited
63	Shri Ghanshyam Thakkar	Reliance Infrastructure Limited
64	Shri Dilip Shah	Reliance Infrastructure Limited
65	Shri Anvesh Jain	Reliance Infrastructure Limited
66	Shri Surendra Khot	Reliance Infrastructure Limited
67	Shri A Waghambare	Reliance Infrastructure Limited
68	Shri Anup Mandal	Reliance Infrastructure Limited
69	Smt. Neeta Dolas	Reliance Infrastructure Limited

Appendix 3

List of Schemes for which in-principle approval is already given

Rs. Crore

Project Code	Project Title	MERC Approved Cost	Cumulative Capitalisation till FY 2011-12	Capitalisation Considered in the Business Plan Period
FY 2004-05 to FY 2009-10				
REL-D/FY05/01	Receiving Station Schemes-15 Nos	112.35	76.61	0.00
REL-D/FY05/02	DTPS Absorption Scheme-13 RS	75.75	63.20	2.98
REL-D/FY05/03	Replacement of Cables & Switchgears , Augmentation of 220kV Transmission N/W	77.01	49.14	0.00
REL-D/FY05/04	SCADA DMS Schemes	107.07	50.14	3.73
REL-D/FY05/06	11 kV Mains and Distribution Tranformers	132.47	213.22	0.00
REL-D/FY05/07	Corporate Office, Customer Care Centre etc.	135.640	60.68	0.00
REL-D/FY05/08	Information Technology Project	42.350	49.85	0.00
REL-D/FY06/01	11 kV Mains & Distribution Tranformer	63.430	83.26	6.82
REL-D/FY06/02	Disaster Management System Schemes Phase I	36.720	28.89	0.00
REL-D/FY06/03	Disaster Management System Schemes Phase II	17.590	7.74	0.00
REL-D/FY06/04	Services	22.930	22.90	0.00
REL-D/FY06/05	LT Mains	24.190	25.34	0.00
REL-D/FY06/06	Receiving Station Schemes-12 Stations	43.930	40.33	1.07
REL-D/FY06/08	Land and Units	11.660	0.20	0.00
REL-D/FY07/01	11 kV Mains & Distribution Tranformers	57.95	90.69	1.81
REL-D/FY07/02	LT Mains	15.46	42.84	0.00
REL-D/FY07/03	Receiving Station Schemes	143.50	100.46	1.81
REL-D/FY07/05	Services	40.15	26.68	0.00
REL-D/FY07/06	Building Construction & Interior Works	7.23	0.34	7.65
REL-D/FY07/07	Lands	15.17	0.00	0.00
REL-D/FY07/08	33 kV feeder reorientation from GIS		0.73	0.00

Project Code	Project Title	MERC Approved Cost	Cumulative Capitalisation till FY 2011-12	Capitalisation Considered in the Business Plan Period
	Chembur	47.00		
REL-D/FY08/01	Services (07-08)	112.04	39.28	0.00
REL-D/FY08/01(08-09)	Services (08-09)	-	49.28	0.00
REL-D/FY08/01(09-10)	Services (09-10)	-	38.93	0.00
REL-D/FY08/02	LT Mains (07-08)	124.96	73.77	0.00
REL-D/FY08/02(08-09)	LT Mains (08-09)	-	83.07	0.00
REL-D/FY08/02(09-10)	LT Mains (09-10)	-	33.64	0.00
REL-D/FY08/03	11 kV Network Strengthening (07-08)	394.19	152.58	0.00
REL-D/FY08/03(08-09)	11 kV Network Strengthening (08-09)	-	133.80	24.24
REL-D/FY08/03(09-10)	11 kV Network Strengthening (09-10)	-	46.90	34.50
REL-D/FY08/04	33-22/11 kV Receiving Station Schemes (07-08)	327.18	33.11	27.06
REL-D/FY08/04(08-09)	33-22/11 kV Receiving Station Schemes (08-09)	-	0.00	0.00
REL-D/FY08/04(09-10)	33-22/11 kV Receiving Station Schemes (09-10)	-	0.00	0.00
REL-D/FY08/06	Slum Electrification & Loss Reduction Project	18.96	0.58	9.40
REL-D/FY08/07	Distribution Management System Schemes	47.10	43.31	0.00
REL-D/FY08/08	Street Light (2007-08, 2008-09, 2009-10)	50.97	51.12	1.29
FY 2010-11				
REL-D/FY11/01	33-22/11 kV Receiving Station Schemes (2010-11)	86.01	0.00	35.51
REL-D/FY11/02	11 kV Network Strengthening (2010-11)	144.57	0.00	30.42
REL-D/FY11/03	LT mains (2010-11)	55.57	0.00	14.86
REL-D/FY11/04	Services (2010-11)	46.68	0.00	9.62
REL-D/FY11/05	Street Light (2010-11)	16.85	0.00	0.00
FY 2011-12				
	33-22/11 kV Receiving Station Schemes (2011-12)	119.58	0.00	64.24
	33kV Network reconfiguration for new EHV stations	66.81	0.00	35.17
	11kV Network Strenghtening Schemes (2011-12)	118.21	0.00	113.05
	LT Mains Schemes (2011-12)	56.77	0.00	48.18
	Services Schemes (2011-12)	49.75	0.00	23.61
	Street Lighting Schemes (2011-12)	16.85	0.00	9.27
	Disaster Management (North	2.94	0.00	1.82

Project Code	Project Title	MERC Approved Cost	Cumulative Capitalisation till FY 2011-12	Capitalisation Considered in the Business Plan Period
	Division) (2011-12)			
	Underground OFC Network (2011-12)	53.9	0.00	53.09