Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 141 of 2012

IN THE MATTER OF

Petition filed by Reliance Infrastructure Limited's Transmission Business (RInfra-T) for approval of Aggregate Revenue Requirement (ARR) as per Multi Year Tariff (MYT) Principles for the Second Control Period from FY 2012-13 to FY 2015-16.

Shri V.P. Raja, Chairman

Shri Vijay L. Sonavane, Member

Reliance Infrastructure Limited ....Petitioner

ORDER

Date: 13 June, 2013

Upon directions from the Maharashtra Electricity Regulatory Commission (Commission or MERC), Reliance Infrastructure Ltd.'s Transmission Business (RInfra-T), pursuant to the Order dated 23 October, 2012 in Case No. 159 of 2011, (in the matter of approval of MYT business plan for RInfra-T for the second control period from FY 2012-13 to FY 2015-16) ,submitted its Petition for approval of Aggregate Revenue Requirement (ARR) as per MERC Multi Year Tariff (MYT) principles for the second control period from FY 2012-13 to FY 2015-16 . The Commission, in exercise of the powers vested in it, under Section 61 and Section 62 of the Electricity Act, 2003 (EA 2003) and other powers enabling it in this behalf, and after taking into consideration the submissions made by RInfra-T, issues raised during the public hearing, and other relevant material, approves the ARR for the second control period under MYT principles for RInfra-T as under:

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List of Abbreviations

A&G	Administrative and General
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal for Electricity
BSES	BSES Limited (now known as Reliance Infrastructure Limited)
CERC	Central Electricity Regulatory Commission
COD	Commercial Operation Date
Commission/MERC	Maharashtra Electricity Regulatory Commission
Capex	Capital Expenditure
CCTV	Closed Circuit Television
CSR	Corporate Social Responsibility
CWIP	Capital Works In Progress
DISCOM	Distribution Company
DPR	Detailed Project Report
DTPS	Dahanu Thermal Power Station
EA 2003	Electricity Act, 2003
EHV	Extra High Voltage
GET	Graduate Engineer Trainees
GFA	Gross Fixed Assets
GIS	Gas Insulated Sub-station
HR	Human Resource
IIT	Indian Institute of Technology
IER	Initial Environmental Review

IMS	Integrated Management System
InSTS	Intra-State Transmission System
ISO	International Organization for Standardization
ISTS	Inter State Transmission System
kV	Kilo Volt
LILO	Line In Line Out
MBMC	Mira Bhayander Municipal Corporation
MCGM	Municipal Corporation of Greater Mumbai
MMR	Mumbai Metropolitan Region
MSETCL	Maharashtra State Electricity Transmission Company Limited
MSLDC	Maharashtra State Load Dispatch Centre
MVA	Mega Volt Amperes
MYT	Multi Year Tariff
NA Tax	Non Agricultural Tax
O&M	Operation & Maintenance
POC	Point of Connection
QAP	Quality Assurance Procedure
QCFI	Quality Circle Forum of India
QMS	Quality Management System
R&M	Repair & Maintenance
REL	Reliance Energy Limited
RInfra	Reliance Infrastructure Limited
RInfra-D	Reliance Infrastructure Limited - Distribution Business
RInfra-T	Reliance Infrastructure Limited - Transmission Business

RoE	Return on Equity
ROW	Right of Way
SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition
SERC	State Electricity Regulatory Commission
SGA	Small Group Activity
SLDC	State Load Despatch Centre
STU	State Transmission Utility
SWOT	Strength Weakness Opportunity and Threat
TPC-T	Tata Power Company Limited – Transmission Business
TSU	Transmission System Users
TTSC	Total Transmission System Cost
TVS	Technical Validation Session
VVI	Voltage Variation Index
WRPC	Western Regional Power Committee
XLPE	Cross Linked Polyethylene

1. BACKGROUND AND BRIEF HISTORY

1.1. Background

1.1.1. A Petition has been filed by Reliance Infrastructure Ltd.'s Transmission Business (RInfra-T), for approval of Aggregate Revenue Requirement (ARR) as per MERC Multi Year Tariff (MYT), 2011 Principles for the second control period from FY 2012-13 to FY 2015-16.

1.1.2. RInfra (formerly known as BSES Ltd and Reliance Energy Limited [REL]) is a vertically integrated utility carrying out the functions of generation, transmission, wheeling and retail supply of electricity in the suburbs of Mumbai. RInfra's present transmission network consists of around 517 circuit-kms of 220 kV overhead and underground lines including lines for evacuation of DTPS power and connectivity between the EHV Sub-stations, either directly with each other or through LILO arrangements, eight 220 kV EHV Sub-stations with total firm capacity of 1900 MVA and associated infrastructure at Aarey, Goregaon, Gorai, Ghodbunder, Saki, Versova, Chembur and Borivali.

1.1.3. RInfra-T has been granted a transmission licence, Transmission Licence No. 1 of 2011, in Maharashtra, vide the Commission's Order dated 11 August, 2011 in the Case No. 70 of 2011.

1.1.4. As per the above referred Licence, RInfra-T is a Transmission Licensee under Alternative 2, in accordance with the MERC (Transmission Licence Conditions) Regulations, 2004 as amended in 2006 for a period of 25 years, w.e.f., 16 August, 2011.

1.2. Evolution of Regulatory regime for transmission pricing

1.2.1. The Commission, in exercise of the powers conferred to it by the Electricity Act, 2003, notified the Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005, on 26 August, 2005. Subsequently, the Commission, considering the requests made by the utilities, vide Order dated 20 December, 2005, in the matter of applicability of Multi Year Tariff framework, granted a special dispensation for all the utilities in Maharashtra, from implementation of MYT framework for FY 2006-07. The Commission, in the said Order, stated that the Commission would determine the Tariff under Multi Year Tariff framework with effect from 1 April, 2007 instead of 1 April, 2006 as stipulated in MERC (Terms and Conditions of Tariff) Regulations, 2005. Accordingly, the first control period for MYT framework was specified by the Commission to be of three financial years, from 1 April, 2007 to 31 March, 2010. The Commission, at the starting of the first control period, issued MYT Order for each utility in the State, approving their ARR for each year, during the first control period. The Commission subsequently issued the Annual Performance Review (APR) Order for each utility in each year of the first control period which included Truing up of the ARR of the past year or (n-1) th year, provisional Truing up of the ARR of current year or nth year and determination of revised ARR/ Tariff for the ensuing year or (n+1)th year. The transmission utilities for which such Orders were issued included Maharashtra State Electricity Transmission Co. Ltd. (MSETCL), Transmission Business of Tata Power Co. Ltd (TPC-T) and Transmission Business of Reliance Infrastructure Ltd (RInfra-T) that constituted the Intra-State Transmission System (InSTS) of Maharashtra.

1.2.2. In addition, the principles of transmission pricing framework in the State, for the first control period ,were stipulated vide the Commission’s Order dated 27 June, 2006 in the Case No. 58 of 2005. Accordingly, the Intra-State transmission Tariffs were determined for the respective years on the basis of Total Transmission System Cost (TTSC), which were derived by pooling the ARRs of each transmission utility of the State. The said pooled cost for Intra-State Transmission System (InSTS) within Maharashtra, i.e., TTSC has been recovered from the transmission system users in the State, which mainly constituted the DISCOMs of the State. The Commission has issued Orders determining such transmission Tariff from time to time.

1.3. MERC (MYT) Regulations, 2011

1.3.1. The Commission, in exercise of the powers conferred to it by the EA 2003, notified the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011, (hereinafter referred as the MERC (MYT) Regulations, 2011) on 4 February, 2011. These Regulations are applicable for the MYT second control period starting from FY 2011-12 to FY 2015-16.

1.3.2. RInfra had submitted its Petition (Case No. 45 of 2011), seeking deferment of implementation of MYT framework for a period of one year. The reasons cited by RInfra were: -

a) Uncertainty prevailing in RInfra-D's area of supply on account of possibility of the following:-
   i. Parallel distribution licensees in RInfra-D's area of supply;
   ii. Redefining licence area boundaries post 15 August, 2011;
   iii. Uncertainty on the recovery of lost cross-subsidy & regulatory assets;
   iv. New framework of operation for parallel licensees; and
   v. Non-approval of PPAs executed by RInfra-D for the medium term and long-term.
b) Operational difficulties due to certain provisions in the MERC (MYT) Regulations, 2011.

1.3.3. The Commission issued an Order dated 2 September, 2011 in Case No. 45 of 2011, in the above matter, exempting determination of Tariff of RInfra under Multi Year Tariff framework till 31 March, 2012 (i.e. for a period of 1 year) by invoking the provision of Regulation 4.1 of MERC (MYT) Regulations, 2011. The Commission granted the exemption on the grounds that, by the time RInfra-T files its MYT Petition based on the Order on business plan, entire FY 2011-12 may get over. Hence, determination of Tariff for FY 2011-12 under the (MYT) Regulations, 2011 may not be possible.

1.3.4. The Commission is also empowered under Regulation 100 of the MERC (MYT) Regulations, 2011, to remove any difficulty arising in giving effect to the provisions of MERC (MYT) Regulations, 2011. Accordingly, the Commission directed RInfra to file the Petition for determination of Tariff for FY 2011-12 within 2 months time, i.e., on or before 31 October, 2011. With the above ruling and directions, the above Petition was disposed of.

1.4. MERC (Multi Year Tariff) (First Amendment) Regulations, 2011

1.4.1. The MERC (MYT) Regulations, 2011 were amended vide notification dated 21 October, 2011 called Maharashtra Electricity Regulatory Commission (Multi Year

Tariff) (First Amendment) Regulations, 2011.

1.4.2. As per the said Amendment, the Commission has specified, that in case an Order of exemption has been issued under Regulation 4.1 of MERC (MYT) Regulations, 2011, then the concerned generating company or Transmission Licensee or Distribution Licensee, shall file annual Petition, for approval of ARR and Tariff, during the period of exemption, in accordance with the MERC (Terms and Conditions of Tariff) Regulations, 2005.

1.5. Commission's Order on approval of business plan for RInfra-T for the MYT second control period

1.5.1. As per MERC (MYT) Regulations, 2011, RInfra-T submitted its Petition to the Commission for approval of Multi Year Tariff Business Plan for the MYT second control period from FY 2012-13 to FY 2015-16 on 8 August, 2011.

1.5.2. The Commission issued an Order dated 23 October, 2012 in Case No. 159 of 2011 in the above matter.

1.5.3. RInfra-T has appealed against the said Order on issues of interest on long term loan and income tax before the Hon'ble ATE (Appeal No.3 of 2013). The Hon'ble ATE's Judgment on this Appeal is awaited.

1.6. Petition for approval of ARR under MYT principles for the MYT second control period, admission of the Petition and public hearing process

1.6.1. Pursuant to approval of MYT business plan for RInfra-T for the second control period from FY 2012-13 to FY 2015-16 vide Order dated 23 October, 2012 in Case No. 159 of 2011, RInfra-T submitted it's Petition for approval of ARR under MYT principles for the second control period under affidavit on 28 December, 2012.

1.6.2. Subsequently, the Commission vide letter dated 10 January, 2013, communicated the preliminary data gaps identified in the MYT Petition. A Technical Validation Session (TVS) on the MYT Petition was held on 21 January, 2013. The list of individuals, who participated in the Technical Validation Session, is enclosed in Appendix-1. RInfra-T responded to the preliminary data gaps and additional clarifications vide letters dated 16/18/19/23 January, 2013. RInfra-T also filed the revised MYT Petition vide letter dated 24 January, 2013, with the following prayers:

"

a) *Approve the transmission ARR forecast for FY 2012-13 to FY 2015-16, as contained in this Petition;*
b) *Allow additions/ alterations/ modifications/ changes to the Petition at a future date;*
c) *Allow any other relief, Order or direction, which the Hon'ble Commission deems fit to be issued;*
d) *Condone any inadvertent errors/ inconsistencies/ omissions/ rounding off differences, etc. as may be there in the Petition."*

1.6.3. The Commission, vide letter no. MERC/Case No.141 of 2012/02235 dated 01 February, 2013, admitted the Petition. In accordance with Section 64 of the EA 2003, the Commission directed RInfra-T to publish its MYT Petition in the prescribed abridged form and manner, to ensure adequate public participation. The Commission also directed RInfra-T to reply expeditiously to all the suggestions and objections received from stakeholders on its Petition.

1.6.4. RInfra-T issued public notice in newspapers inviting suggestions and objections from stakeholders. The public notice was published on 22 February, 2013 in English newspapers The Indian Express and Hindustan Times; and in Marathi newspapers Loksatta and Saamana. Copies of RInfra-T's Petition and its summary were made available for inspection/ purchase to members of the public at RInfra-T's offices and on RInfra-T's website (www.rinfra.com). Copy of the public notice and executive summary of the Petition were also available on the website of the Commission (www.mercindia.org.in) in a downloadable format.

1.6.5. The public notice specified that the suggestions/ objections, either in English or Marathi, may be filed in the form of affidavit, along with proof of service on RInfra-T, latest by 28 March, 2013. The notice also specified that the replies by RInfra-T need to be provided latest by 3 April, 2013. The stakeholders were asked to submit rejoinders either during the public hearing or latest by 10 April, 2013. The Commission received written objections against the public notice and the RInfra-T Petition. The Commission held a public hearing on 5 April, 2013 at 11:00 hours at Centrum Hall, First Floor, Centre No. 1, World Trade Centre, Cuffe Parade, Colaba, Mumbai – 400005. The list of individuals who participated in the public hearing is enclosed in Appendix 2.

1.6.6. The Commission has ensured that, the due process contemplated under the law to ensure transparency and public participation, was followed meticulously at every stage. Adequate opportunities were given to all the persons concerned to submit their say in the matter.

1.7. Organisation of the Order

1.7.1. This Order is organised in the following Sections:

- **Section 1** of the Order provides a brief history and the quasi-judicial regulatory process undertaken by the Commission. For the sake of convenience, a list of abbreviations with their expanded forms has been included;
- **Section 2** provides description of suggestions and objections received, response of RInfra-T and the Commission's ruling;
- **Section 3** of the Order comprises the Commission's analysis and its decision on past revenue gap of RInfra-T;
- **Section 4** of the Order comprises the Commission's analysis and its decision on ARR of RInfra-T for the MYT second control period from FY 2012-13 to FY 2015-16;
- **Section 5** of the Order discusses the methodology for recovery of Transmission Charges by RInfra-T, during the MYT second control period;
- **Section 6** of the Order summarises various directives given by the Commission in its business plan Order issued for RInfra-T, its compliance and the Commission's ruling in the matter;
- **Section 7** of the Order provides additional directives by the Commission which are added as a part of the present Order; and
- **Section 8** of the Order provides the applicability of the present Order.

2. OBJECTIONS RECEIVED, RINFRA-T'S REPONSE AND COMMISSION'S RULING

2.1. ARR claimed by RInfra-T

Suggestion/ Objection

2.1.1. Shri George John submitted that ARR claimed by RInfra-T has abruptly and drastically increased from FY 2012-13 to FY 2013-14. He stated that the ARR for RInfra-T should be limited to between Rs 150 crore to Rs 200 crore.

RInfra-T's reply

2.1.2. RInfra-T submitted that the period from FY 2012-13 to FY 2015-16 is governed by the provisions of MERC (MYT) Regulations, 2011 and RInfra-T's ARR projection is in accordance with these Regulations. Further, RInfra-T stated that it had provided a comparison between ARR approved by the Commission for RInfra-T in its Order in Case No. 159 of 2011 on the Business Plan Petition of RInfra-T and the ARR claimed by RInfra-T in the present Petition. RInfra-T stated that in the comparison, it had highlighted that, there is only slight difference between the two. This is mainly on account of O&M expenses claimed by RInfra-T, over and above norms for O&M expense as per MERC (MYT) Regulations, 2011, and increase in interest cost, due to additional actual loans availed by RInfra-T.

Commission's Ruling

2.1.3. Approval of ARR for RInfra-T is determined in accordance with the MERC (MYT) Regulations, 2011. As per the referred Regulation, RInfra-T has to submit its Petition for approval of ARR with detailed projections of expense under various heads as laid down in the MERC (MYT) Regulations, 2011.

2.1.4. The expenses projected under each of the heads, like interest on long term loan, return on equity, O&M expenses, etc. has scrutinised for prudency, prior to the Commission's approval. In consideration of the above, the Commission has undertaken the prudence check and have approved the ARR as detailed in Chapter 4 of this Order.

2.2. Interest on long term loans

Suggestion/ Objection

2.2.1. Shri George John submitted that RInfra-T should try to maintain the interest on long term loans that it avails, at or less than 10%. He stated that RInfra-T has achieved debt financing at 6.85% in the past and hence it should be able to avail long term loans at less than 10% interest rate in the MYT second control period.

RInfra-T's reply

2.2.2. RInfra-T submitted that Rs 17.10 crore is the actual interest amount paid to South Indian Bank for FY 2011-12. However, only Rs 1.01 crore has been charged to ARR; the balance amount of Rs 6.87 crore has been considered in IDC and Rs 9.22 crore has been considered as IDC lying in CWIP, which is to be capitalized along with asset capitalization in later years. Further, RInfra-T stated that the interest rate on long term loan was depicted as 6.85% considering only Rs 1.01 crore expended out of total interest paid to South Indian Bank and normative interest expense of Rs 21.69 crore. RInfra-T pointed out that in case both total interest paid to South Indian Bank of Rs 17.10 crore and normative interest of Rs 21.69 crore is considered then the interest rate for the year would work out to 11.70%.

Commission's Ruling

2.2.3. The Commission takes note of the reply submitted by RInfra-T and accepts the reason provided for depiction of interest rate on long term loans. The Commission's view on actual loans availed by RInfra-T and the interest rate pertaining to the same have been detailed out in Section 4.7 of this Order.

2.3. O&M expense beyond norms

Suggestion/ Objection

2.3.1. Shri George John submitted that RInfra-T's claim of O&M expenses beyond norms should not be allowed by the Commission.

RInfra-T's reply

2.3.2. RInfra-T submitted that in the present Petition, it has adequately justified the additional O&M expenses sought over and above the O&M expense as per norms. RInfra-T submitted that it has requested the Commission to allow O&M expense beyond norms as submitted by RInfra-T, as the norms for O&M expense in MERC (MYT) Regulations, 2011 were prepared using historical expenses and in the years considered for deriving O&M norms, the additional O&M expenses claimed by RInfra-T were not incurred.

Commission's Ruling

2.3.3. The approval for O&M expenses for the MYT second control period is undertaken in accordance with the Regulation 61.5 of the MERC (MYT) Regulations, 2011. The Commission's detailed analysis of O&M expense claims made by RInfra-T for the MYT second control period and its decision on the same is provided in Section 4.2 of this Order.

2.4. Incentive for reduction of Transmission Loss

Suggestion/ Objection

2.4.1. Shri George John submitted that the current level of transmission loss in the State transmission system of 4.85% is very high. He suggested that the Commission should device a mechanism to incentivise all transmission utilities to collectively put efforts to reduce the transmission loss level in the State. He further submitted that an incentive mechanism, which makes a provision to share 2/3rd of the benefits due to reduction in transmission losses, below 4.5% with the transmission utility and the remaining 1/3rd of the benefits with State consumers, might be adequate to provide sufficient incentive to the Transmission Licensees, to put in serious efforts in this regard.

2.4.2. Shri George John also provided a sample computation of benefits accruing to RInfra-T and electricity consumer in the State, if transmission losses reduce by 1%. The computation as submitted by Shri George John is provided below;

Table 1: Sample computation of Incentive for transmission loss reduction

SL No	Licensee/Utility	Units	Value
1	Electricity transmitted		
a	RInfra-T	MU	7456
b	TPC-T	MU	6607

SL No	Licensee/Utility	Units	Value
c	BEST	MU	5174
d	MSETCL	MU	109847
	Total Electricity transmitted	MU	129084
2	Cost of transmission	Rs crore	4001
3	Cost of transmission	Rs crore	4001
4	Electricity saved in case transmission loss reduce by 1%	MU	1290
5	Total cost saving corresponding to electricity saved	Rs crore	774
6	Proportional savings to RInfra-T	Rs crore	44
7	**1/3 rd savings passed on to consumer**	**Rs crore**	**14**
8	**2/3 rd of savings provided as incentive to Licensee**	**Rs crore**	**29**

RInfra-T's reply

2.4.3. RInfra-T submitted that each transmission licensee has its own loss level, and the InSTS loss approved by the Commission is after considering the loss level of the entire InSTS. Further, since the power flows on the transmission network is based on the requisitions of the beneficiary, the system operation and load dispatch instruction from SLDC, the loss of any particular transmission licensee's network is not entirely in its' control. RInfra-T submitted that the proposal for incentivizing loss reduction needs to be analysed considering the above.

Commission's Ruling

2.4.4. The Commission in previous Orders has been approving the pooled losses of the transmission system in the State without any segregation of losses for individual transmission licensees. While it is true that the power flow and the consequent transmission losses are not totally in control of the respective transmission licensee, operating as part of the InSTS , efforts should be made to maintain losses at the minimum levels.

2.4.5. Considering the above stated facts, it is evident that any target setting exercise of transmission loss for individual transmission licensee may not be feasible.

Therefore, designing any incentive mechanism towards savings on account of reduction of transmission loss for individual transmission licensee is not practical.

2.5. Approval of Capital Expenditure

Suggestion/ Objection

2.5.1. Shri George John submitted that capital expenditure claimed by RInfra-T should be allowed only in unavoidable cases. He stated that this will help in reducing depreciation, return on equity and interest on long term loan and thereby reducing RInfra-T's ARR.

RInfra-T's reply

2.5.2. RInfra-T submitted that the capital expenditure considered in the MYT Petition pertains to the schemes already approved by the Commission as well as the STU.

Commission's Ruling

2.5.3. Approval for capital expenditure and the corresponding capitalisation for each of the transmission licensees are undertaken in accordance with the Regulation 58 of the MERC (MYT) Regulations, 2011. As per the stated Regulation, the transmission licensee has to submit its capital investment plan with full details of its proposed capital expenditure projects to the Commission for approval.

2.5.4. The DPR of each of the capital expenditure schemes is scrutinised for prudency, i.e., capital cost, time & cost overrun, cost benefit analysis and consistency with the transmission system plan for the Intra-State transmission. However, the Commission agrees to the submissions of RInfra-T that there can be no normative cost for a transmission licensee. Each and every transmission network component consisting of transmission lines, Sub-stations, etc. is being erected and commissioned with different cost drivers such as the technical parameters, value of land in regard to the RoW, terrain, etc. Therefore, each stretch of the transmission network would have variation in capital cost unless there is homogeneity in the network components.

2.5.5. In consideration of the above, the Commission views that the capital expenditure and capitalisation claimed by RInfra-T are appropriate. However, RInfra-T should take appropriate measures to prepare a least cost plan for undertaking investments on strengthening and augmentation of its network in the Intra-State transmission system in accordance with the Regulation 58.2 of the MERC (MYT) Regulations, 2011. RInfra-T should take due care to avoid the cost and time over run of the capital expenditure schemes to reduce financial burden of transmission system users.

2.6. Cost of electricity

Suggestion/ Objection

2.6.1. Shri N Ponrathnam submitted that ARR approved for RInfra-T should ensure that cost of electricity remains low for consumers.

RInfra-T's reply

2.6.2. RInfra-T submitted that it has filed the MYT Petition in accordance with provisions of MERC (MYT) Regulations, 2011 and the approval of Tariff for the MYT second control period is the prerogative of the Commission.

Commission's Ruling

2.6.3. ARR for RInfra-T is determined in accordance with the MERC (MYT) Regulations, 2011. As per the referred Regulations, RInfra-T has to submit its Petition for approval of ARR with detailed projections of expenses under various heads as laid down in the referred Regulations.

2.6.4. The expenses projected under each of the heads like interest on long term loan, return on equity, O&M expense, etc. is scrutinised for prudency, prior to the Commission's approval.

2.7. Income from other business

Suggestion/ Objection

2.7.1. Shri N Ponrathnam submitted that RInfra has several businesses other than regulated power sector business and generates significant income from these businesses. He suggested that all such income should be treated as "income from other business" of the regulated power sector business for the purpose of ARR computation.

RInfra-T's reply

2.7.2. RInfra-T submitted that as per the Electricity Act, 2003 and the Regulations made there under, only those incomes as realised by a licensee through optimal utilization of assets of its licensed business by engaging in any other business is considered "income from other business" for the licensed business. Further, in accordance with the MERC (MYT) Regulations, 2011; 1/3rd of such income earned in a year is offset from the ARR of the respective year.

Commission's Ruling

2.7.3. The Commission takes note of the reply submitted and accepts RInfra-T's opinion in this regard.

3. PAST REVENUE GAP AND IMPACT OF HON'BLE ATE JUDGMENTS

3.1. Revenue Gap of FY 2010-11 and FY 2011-12

3.1.1. RInfra-T submitted that it has filed a Petition pertaining to Truing up of FY 2010-11 and FY 2011-12, proceedings of which are presently ongoing before the Commission. A revenue gap of Rs 3.23 crore for FY 2010-11 and Rs 19.67 crore for FY 2011-12 has been projected in the by RInfra-T in the above referred Truing up Petition. Further, RInfra-T stated that since most of FY 2012-13 is over, the MYT Tariff after undergoing due regulatory process will be applicable from FY 2013-14 onwards and hence the past gaps have been proposed to be considered as a part of ARR for FY 2013-14.

3.2. Impact of Hon'ble ATE Judgment - allowance of Interest on Working Capital

3.2.1. RInfra-T submitted that the Commission in its Order dated 3 September, 2010 in Case No. 100 of 2009 held that RInfra-T had managed to meet its working capital requirement by its own operational efficiency. Hence, the Commission considered the entire normative interest allowed on working capital as efficiency gains thereby reducing RInfra-T's entitlement to only 2/3rd of the amount as per the Regulation. In the same Order, the Commission had not considered RInfra-T's prayer for reinstating 1/3rd share of efficiency gains pertaining to normative interest on working capital for FY 2006-07 and FY 2007-08,which had been claimed on the basis of a previous Judgment of the Hon'ble ATE.

3.2.2. RInfra-T filed an Appeal (Appeal No. 203 of 2010) before the Hon'ble ATE against the said Order on the issue of normative interest on working capital. The Hon'ble ATE passed a Judgment upholding the contentions of RInfra-T. The relevant extract of the above referred Judgement as produced by RInfra-T in its Petition is reproduced below;

"24. In view of the law laid down by this Tribunal in the aforesaid judgment which covers the issue in hand, the State Commission is directed to restore the actual amounts considered as part of the gains on account of saving in interest expenditure in working capital".

This issue is decided in favour of the Appellant accordingly. However, the State Commission may frame regulations for evaluation of cost of internal accruals used as working capital for working out the actual interest on working capital and efficiency gain".

9.2 This issue is decided in favour of the appellant accordingly."

3.2.3. Based on the above Judgement, RInfra-T submitted that the quantum of normative interest on working capital, treated as efficiency gains by the Commission for FY 2006-07 to FY 2009-10, needs to be reinstated. Further, RInfra-T stated that the impact of Hon'ble ATE Judgment as specified above had been considered in the Truing up of FY 2010-11 and FY 2011-12 in the Petition in Case No. 123 of 2012. The impact as computed by RInfra-T is provided in the table below:

Table 2: Re-instatement of efficiency gains as submitted by RInfra-T

Truing up Year	MERC Order	Amount (Rs. crore)
FY 2006-07	64 of 2007	0.20
FY 2007-08	119 of 2008	0.25
FY 2008-09	100 of 2009	0.40
FY 2009-10	115 of 2011	0.53
Total		**1.38**

3.2.4. Further, RInfra-T stated that since most of FY 2012-13 is over, the MYT Tariff after undergoing due Regulatory process will be applicable from FY 2013-14 onwards and hence the entire amount of efficiency gains needs to be reinstated as part of ARR for FY 2013-14.

3.3. Impact of Hon'ble ATE Judgment- allowance of carrying cost

3.3.1. RInfra-T submitted that the Hon'ble ATE in its Judgement dated 12 September, 2012 in Appeal No. 203 of 2010 had also provided its ruling on the issue of dis-allowance of carrying cost claims. RInfra-T stated that the Hon'ble ATE in the above referred Judgment upheld RInfra-T's view of entitlement of carrying cost, on revenue gap, of a given financial year, irrespective of when such revenue gap is approved by the Commission. RInfra-T produced relevant portions of the Hon'ble ATE Judgement in Appeal No. 153 of 2009 as provided below:

"45. The carrying cost is allowed based on the financial principle that whenever the recovery of cost is deferred, the financing of the gap in cash flow arranged by the distribution company from lenders and / or accruals, has to be paid for by way of carrying cost. This principle has been well recognized in the regulatory practice laid down by this Tribunal as well as the Hon'ble Supreme Court"

3.3.2. RInfra-T submitted that on the basis of the Hon'ble ATE Judgement in Appeal No. 203 of 2010, it has considered carrying cost on revenue gap from FY 2008-09 onwards till the recovery period, i.e., FY 2013-14. The carrying cost as computed by RInfra-T on revenue gap for various relevant years from FY 2008-09, is provided in the table below:

Table 3: Carrying cost on Truing up as submitted by RInfra-T

Truing up Year	MERC Order (Case No.)	Revenue Gap (in Rs. crore)	No of years for carrying cost	Carrying cost (Rs. crore)
FY 2008-09	100 of 2009	1.92	2	0.49
FY 2009-10	115 of 2011	1.85	3	0.73
FY 2010-11	123 of 2012	1.48	3	0.61
FY 2011-12	123 of 2012	17.10	2	5.00
Total				**6.83**

3.3.3. RInfra-T submitted that carrying cost has been determined from the mid-year of the financial year, for which the revenue gap pertains, up to the mid-year for FY 2013-14, as provided below:

(a) Truing up of FY 2008-09 was approved in FY 2010-11, hence 2 years carrying cost has been considered;

(b) Truing up of FY 2009-10 was approved in FY 2011-12, however recovery began only in FY 2012-13 on the basis of the Commission's Intra-State

Transmission System (InSTS) Order dated 21 May, 2012. Hence 3 years carrying cost has been considered; and

(c) Truing up of FY 2010-11 and FY 2011-12 is presently pending before the Commission in Case No. 123 of 2012. RInfra-T has considered the gap as proposed by it in the above referred Petition for the purpose of computing carrying cost. Carrying cost for a period of 3 years was considered for revenue gap of FY 2010-11 and 2 years for revenue gap of FY 2011-12.

3.3.4. Further, RInfra-T stated that it had worked out carrying cost considering SBI PLR for each of the financial years.

3.3.5. RInfra-T submitted that it has also worked out carrying cost on the re-instated claims of efficiency gains pertaining to normative interest on working capital. Carrying cost as computed by RInfra-T on the re-instated claims of normative interest on working capital is as provided below;

Table 4: Carrying cost on efficiency gains pertaining to interest on working capital submitted by RInfra-T

Truing up Year	MERC Order (Case No.)	No. of years for carrying cost	Carrying cost (Rs. crore)
FY 2006-07	64 of 2007	7	0.18
FY 2007-08	119 of 2008	6	0.20
FY 2008-09	100 of 2009	5	0.27
FY 2009-10	115 of 2011	4	0.29
Total			**0.93**

3.4. Summary of past revenue gap

3.4.1. RInfra-T submitted a summary of the total revenue gap of the previous years, along with carrying cost in its Petition, which is produced below;

Table 5: Summary of past revenue gap as submitted by RInfra-T (in Rs crore)

Particulars	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
Re-instated efficiency gains of previous years	0.20	0.25	0.40	0.53		
Carrying cost on re-instated efficiency gains	0.18	0.20	0.27	0.29		
Carrying cost on approved revenue gap of previous years			0.49	0.73		
Revenue gap proposed for FY 2010-11 and FY 2011-12 in Case No. 123 of 2012					3.23	19.67
Carrying cost on revenue gap proposed for FY 2010-11 and FY 2011-12					0.61	5.00
Total claim for previous years added to ARR of FY 2013-14	**0.38**	**0.45**	**1.16**	**1.55**	**3.84**	**24.67**
Grand Total						**32.04**

3.4.2. In Section 3.20 (page no. 58) of the True up Order dated 2 April, 2013 in Case No. 123 of 2012, the Commission had allowed re-instatement of efficiency gains of Rs 0.20 crore for FY 2006-07, Rs 0.26 crore for FY 2007-08, Rs 0.34 crore for FY 2008-09 and Rs 0.53 crore for FY 2009-10. The above approval totalling to Rs 1.33 crore was not included in the cumulative revenue gap of FY 2010-11, represented through Table No. 17 of the above referred Order of the Commission. Therefore, the above amount of Rs 1.33 crore has been added to the ARR for FY 2013-14 by the Commission; over and above the cumulative revenue gap of Rs 10.50 crore specified in the Table No. 17 of the Order dated 2 April, 2013 in Case No. 123 of 2012.

3.4.3. The Commission in its Order dated 2 April, 2013 in Case No. 123 of 2012 has approved a cumulative revenue gap of Rs 39.05 crore until FY 2011-12. This cumulative revenue gap of Rs 39.05 crore comprise of Rs 10.50 crore for FY 2010-11 and Rs 28.55 crore for FY 2011-12. This cumulative revenue gaps has also been added to the ARR for FY 2013-14.

3.4.4. To estimate the carrying cost for the revenue gap/ surplus accumulated over the years and re-instated efficiency gains, the Commission has considered the interest rate for working capital approved for each of the years. For computation of carrying cost, the Commission has considered the revenue gap to be applicable from the end of the year of the occurrence of revenue gap/ surplus up to the middle of the year in which the same is proposed to be recovered. For example, for the gap of Rs. 10.50 Crore in FY 2010-11, the Commission has considered interest for one and a half years (1.5) years from end of FY 2010-11 to middle of FY 2012-13. Based on the above methodology, the Commission approves the revenue gap/ surplus and re-instated efficiency gains including carrying cost for each of the years, and the approved revenue gap of prior periods from FY 2006-07 to FY 2011-12 is shown below.

Table 6: Summary of previous year revenue gaps approved by the Commission (in Rs crore)

Particulars	**FY 2006-07**	**FY 2007-08**	**FY 2008-09**	**FY 2009-10**	**FY 2010-11**	**FY 2011-12**
Re-instated efficiency gains of previous years	0.20	0.26	0.34	0.53		
Carrying cost on re-instated efficiency gains	0.17	0.19	0.21	0.26		
Carrying cost on approved revenue gap of previous years			0.36	0.62		
Revenue gap proposed for FY 2010-11 and FY 2011-12 in Case No. 123 of 2012					10.50	28.55
Carrying cost on revenue gap proposed for FY 2010-11 and FY 2011-12					3.31	5.74
Total claim for previous years added to ARR of FY 2013-14	**0.37**	**0.45**	**0.91**	**1.41**	**13.81**	**34.29**
Grand Total						**51.25**

4. AGGREGATE REVENUE REQUIREMENT FOR MYT SECOND CONTROL PERIOD

4.1. Background

4.1.1. RInfra-T has submitted details of its projected expenses over the MYT second control period from FY 2012-13 to FY 2015-16 under various heads, viz., O&M expenses, depreciation, interest on loans, interest on working capital, etc., as per the formats prescribed by the Commission. The Commission has carried out prudence check for approval of expenditure for each of the above items and Aggregate Revenue Requirement (ARR) of RInfra-T for the MYT second control period from FY 2012-13 to FY 2015-16, in the following Sections.

4.2. Operation & maintenance expenses

4.2.1. RInfra-T submitted that the norms for operation and maintenance (O&M) expenses for existing and new transmission licensees for the period from FY 2012-13 to FY 2015-16, have been stipulated on the basis of length of the transmission lines in circuit kilometre and number of bays in the Sub-station of the transmission licensee as per the MERC (MYT) Regulations, 2011.

4.2.2. In accordance with the above provisions of the MERC (MYT) Regulations, 2011, RInfra-T, has estimated the O&M expenses based on the year-wise O&M norms as specified for RInfra-T, in the above referred Regulations. Further, O&M expense has been computed considering transmission line length in circuit kilometres and number of bays derived on the basis of capitalization forecast for FY 2012-13 to FY 2015-16.

4.2.3. RInfra-T submitted that it had commissioned nine 220 kV bays in MSETCL's EHV Sub-station at Borivali and five 220 kV bays in MSETCL's EHV Sub-station at Trombay. The O&M of such bays will be mainly carried out by RInfra-T, however some routine maintenance will also be carried out by MSETCL. Hence, a portion of the total O&M expense approved for such bays will be paid towards compensation for O&M activities carried out by MSETCL. RInfra-T stated that an O&M agreement containing percentage of sharing of O&M expense between RInfra-T and MSETCL was signed on 7 December, 2012, the terms of which are as follows:-

Table 7: Sharing of O&M expense as submitted by RInfra-T

RInfra-T's 220 kV GIS bays Installed and Commissioned at	Number of 220 kV bays	O&M charges to be paid to MSETCL	Yearly escalation	Validity of Agreement (MoUs)
MSETCL Borivali	9	0.5% per annum on the cost of GIS bays	10% per annum on O&M charges fixed for previous year	5 years from date of signing
MSETCL Trombay	5	-do-	-do-	-do-

4.2.4. RInfra-T submitted that there are some additional expenses forecasted during the MYT second control period pertaining to O&M expenses arising out of newer developments as well as certain cost identification / regrouping being carried out by RInfra within transmission and distribution business, so as to have ring fencing and arms length business between the two entities. RInfra-T stated that these expenses were not part of historical O&M expenses and hence were not considered while developing norms of O&M expense for RInfra-T in the MERC (MYT) Regulations, 2011. RInfra-T requested the Commission to consider and approve, these additional expenses for each year of the MYT second control period, over and above the normative O&M approvals. A description of the different additional expense claimed by RInfra-T is provided below;

Energy charges for Auxiliary Consumption of EHC Sub-stations

4.2.5. Energy charges pertaining to the electricity consumed in the eight no. of EHV Sub-stations of RInfra-T, for which bills are paid to RInfra-D. RInfra-T stated that as per the prevailing practice this consumption of electricity is treated as auxiliary power consumption. RInfra-T produced the recommendation submitted by STU vide letter no MSETCL/CO/C.E- STU/CASE 77 OF 2011/6216 dated 7 May, 2012 in its Petition which is reproduced below;

"…………

3) In view of the fact that the auxiliary consumption of EHV Sub-station is imperative for carrying out the transmission activity, this energy consumption should have different treatment than the existing tariff categories of the concerned distribution licensees.

4) Separate tariff category with billing only for the energy consumed & with minimum possible tariff should be made applicable to the auxiliary consumption of EHV Sub-station of Maharashtra.

5) The charges paid by the transmission licensees towards the auxiliary consumption of their EHV Sub-station should have separate treatment in the Aggregate Revenue Requirement (ARR) of the transmission licensees and should be reimbursed in addition to the O & M expenses."

4.2.6. RInfra-T submitted that in adherence to the recommendation of STU, it proposes to account the electricity expense in ARR Petition. RInfra-T stated that for making a forecast of electricity charges to be paid to RInfra-D, during the MYT second control period, the annual charges for FY 2012-13 had been estimated based on the bills raised so far for each EHV Sub-station of RInfra-T. Thereafter, for subsequent years, the same has been escalated at 5% per annum. Detailed computation of energy charges was provided by RInfra-T Exhibit 11 in its Petition.

Rental charges for cable laying

4.2.7. RInfra-T submitted that all present and future schemes planned during the MYT second control period, RInfra-T has commissioned and would be commissioning EHV Sub-stations, the incoming 220 kV feed will be through underground cables. RInfra-T will have to pay ground usage rent for cable laying to PWD, if a portion of these cables travel along the highway coming under the jurisdiction of Public Works Department (PWD), GoM. PWD has already raised demand for ground usage rent for RInfra-T's 220 kV cable from MSETCL Borivali EHV Sub-station to RInfra Gorai EHV Sub-station. RInfra-T submitted that ground rent is 17.11% of prevailing ready reckoner rate of that area and works out to Rs 1.48 crore/Km. RInfra-T further submitted that such ground usage rent will have to be paid to PWD for cables to be laid for EHV Sub-stations at Nagari Niwara, Airport and Golibar areas during the MYT second control period. RInfra-T has estimated the ground usage rent it will have to pay to PWD for different years of the MYT second control period. This has been computed considering the distance that cables would travel along PWD jurisdiction during each of the years of the MYT second control period and ground usage rental charge of Rs 1.48 crore/Km. Detailed computation of ground usage rental charges for cable laying was provided by RInfra-T in Exhibit

12 in its Petition.

4.2.8. The ground usage rental charges estimated by RInfra-T for cable laying for various years of the MYT second control period are provided below:

Table 8: Ground usage rental charges for cable laying as submitted by RInfra-T (in Rs crore)

220 kV EHV Sub-station	Cable details	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Borivali	RInfra Borivali to MSETCL Gorai (km).	0.06	0.06	0.06	0.06
Nagari Niwara	MSETCL Borivali to RInfra Aarey (km).		6.00	6.00	6.00
Airport	Aarey to Airport (km).		1.00	1.00	1.00
Golibar	Airport to Golibar (km).			5.00	5.00
	Total (km).	**0.06**	**7.06**	**12.06**	**12.06**
Lease rent	(In Rs. crore/km)	1.48	1.48	1.48	1.48
Lease rent	**(In Rs. crore)**	**0.09**	**10.48**	**17.90**	**17.90**

SCADA charges

4.2.9. RInfra-T submitted that at present 8 no. of EHV Sub-stations of transmission business and 72 no. of distribution Sub-stations are controlled and operated online via the SCADA system set up by RInfra at Aarey. The system control centre is manned 24 x 7 round the year by team of expert engineers and has 6 operating desks in the control centre out of which one is assigned to RInfra-T system. Further, the Master Control Centre (MCC) coordinates between transmission and distribution as well as other utilities.

4.2.10. RInfra-T further submitted that even though the SCADA system is for managing the networks of both transmission and distribution business of RInfra, till FY 2011-12 the entire operation cost of SCADA has been charged to distribution business. RInfra-T has proposed in the present Petition to separate the operating cost of

SCADA system attributable to transmission business and add the same to transmission O&M expense. The distribution O&M expense will be reduced to this extent.

4.2.11. To project the SCADA expense attributable to RInfra-T for various years of the MYT second control period, the actual incurred operating cost of SCADA system till October, 2012 pertaining to FY 2012-13 was considered and the same was annualized for the entire year. Then the annualized cost was apportioned to transmission business on the following basis:

(a) Employee expenses: The cost of the engineers working in the shift is allocated based on the number of desks to transmission and distribution functions, i.e., 1/6 & 5/6 respectively.

(b) Other expenses: In the proportion of the actual data points handled by the control centre for the transmission and distribution system, i.e., 20753 Nos. & 117753 Nos. respectively.

4.2.12. Further, the cost allocable to transmission business as identified above was escalated by 9.28% per annum for employee expenses, 8.38% per annum for A&G expenses and 7.02% per annum for R&M expenses to arrive at projected expenses for FY 2013-14, FY 2014-15 and FY 2015-16 respectively. Detailed computation of SCADA charges was provided by RInfra-T in Exhibit 13.

Land Usage charges

4.2.13. RInfra-T submitted that it has commissioned 5 EHV Sub-stations at Goregaon, Gorai, Saki, Borivali and Chembur on existing receiving station plots of RInfra-D, in order to optimize space utilization by rearranging existing installations. Similarly, RInfra-D has installations at Aarey, Versova and Ghodbunder on EHV receiving Sub-station plots of RInfra-T. RInfra-T stated that it intends to enter into an arrangement by way of MoU with RInfra-D, wherein land usage charges would be payable by RInfra-T to RInfra-D for the EHV Sub-stations located on RInfra-D land and vice versa. RInfra-T stated that it would be claiming the land usage charges paid to RInfra-D as part of ARR from FY 2012-13 onwards.

4.2.14. RInfra-T submitted the methodology that it has used to compute land usage charges payable to RInfra-D, the same is as follows:

(a) The total plot area is considered after deducting the total setback area for each of the eight locations, based on the documented Municipal approved copy.

(b) The plot occupied by RInfra-T and RInfra-D within these locations is determined based on their respective T&D installations.

(c) Value of the land is worked out by multiplying the ready reckoner rate for each of the plots with land occupied by RInfra-T and RInfra-D. RInfra-T stated that ready reckoner rate as on date of entering into MoU shall be considered for the purpose of valuation.

(d) Land usage charges have been considered at 1% per month of the land value in accordance with the Commission's view in Order dated 15 June, 2012 in Case No. 180 of 2011, for ARR of RInfra-D for FY 2011-12.

4.2.15. RInfra-T further stated that the NA tax and Property tax paid for FY 2011-12 is considered to be the same for FY 2012-13 onwards. The same is allocated based on proportion of land occupancy between RInfra-T and RInfra-D. Detailed computation of land usage charges was provided by RInfra-T in Exhibit 14.

4.2.16. The O&M expense estimated by RInfra-T is shown in the table below:-

Table 9: O&M expenses as submitted by RInfra-T (in Rs crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses as per norms	34.40	39.17	42.09	52.39
Energy charges for EHV S/Stn.	3.09	3.25	3.41	3.58
Rental charges for cable laying	0.09	10.48	17.90	17.90
SCADA charges	1.23	1.34	1.46	1.59
Land rental charges	6.91	6.91	6.91	6.91
Total	**45.72**	**61.15**	**71.77**	**82.37**

4.2.17. RInfra-T submitted that operation and maintenance expenses contain expenses towards various activities, the management and control of which is not in the hands of the transmission licensee. RInfra-T submitted that factors such as wage revision of unionized employees, security guard costs, rent, rates and taxes and other statutory levies, etc. are subject to revision by relevant agencies/authorities and the magnitude of revision is not in the hands of RInfra-T.

4.2.18. RInfra-T submitted that the last wage revision, though due in FY 2010-11, was finalized in FY 2012-13 only. In its Petition for Truing up of FY 2010-11 and FY 2011-12, in Case No. 123 of 2012, RInfra-T has made provision for wage revision of unionized employees. RInfra-T stated that the actual impact of wage revision net of provision for FY 2012-13, would be provided to the Commission at the time of mid-term performance review. RInfra-T further stated that there is a likely wage revision getting due in FY 2014-15, which is part of the MYT second control period.

4.2.19. RInfra-T further submitted that if O&M expenses as approved, are not adequate to compensate these uncontrollable factors, RInfra-T would approach the Commission for additional approval for the same.

4.2.20. The Commission has taken note of the submissions of RInfra-T with regards to O&M expenses. As per MERC (MYT) Regulations, 2011, O&M expense norms for transmission utilities have been stipulated for the MYT second control period on the basis of circuit kilometer of transmission line and number of bays in the Sub-station of the transmission licensee. Relevant extracts of the said regulation is produced below for ready reference.

"61.5 Operation and Maintenance expenses

61.5.1 The norms for O&M expenses for existing and new Transmission Licensees have been stipulated for the Control Period on the basis of circuit kilometre of transmission lines and number of bays in the Sub-station of the Transmission Licensee, as given below:

Explanation: For the purpose of deriving normative O&M expenses under these Regulations, the „Bay" shall mean a set of accessories that are required to connect an electrical equipment such as Transmission Line, Bus Section Breakers, Potential

Transformers, Power Transformers, Capacitors and Transfer Breaker and the feeders emanating from the bus at Sub-station of Transmission Licensee. Further, the Bays referred herein shall include only the Bays at the Transmission Sub-station and shall exclude any Bays of the Generating Station switchyard whose maintenance is usually the responsibility of the Generating Company.

Provided that for deriving the O&M expenses of a year, the circuit kilometre of transmission lines and number of bays in the Sub-station of the Transmission Licensee added during the year shall also be considered."

4.2.21. The Commission as per the above referred Regulation has considered the applicable O&M norms, along with transmission line length (ckt-km) and bays for such schemes that have been considered for capitalization as per Section 4.3 of this Order, to compute O&M expense for RInfra-T for the MYT second control period. The O&M expenses as per norms as derived by the Commission are as follows:

Table 10: O&M expense derived by the Commission as per norms

Particulars		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
For Line					
Distance of line (Average)	Ckt Km				
>66 KV and <400 KV		519.65	538.75	553.75	586.75
MERC Norms	Rs lakh/Ckt Km				
>66 KV and <400 KV		0.38	0.4	0.43	0.45
For Bay					
Number of bays (Average)	Number				
No of bays (66 kV and less)		339.00	384.00	398.00	468.00
No of bays (>66 kV and < 400 kV)		110.00	115.00	115.00	137.00
MERC Norms	Rs lakh/Bay				
No of bays (66 kV and less)		3.75	3.96	4.19	4.43

Particulars		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
No of bays (>66 kV and < 400 kV)		17.92	18.95	20.03	21.18
O&M Expenses	**Rs crore**	**34.40**	**39.17**	**42.09**	**52.39**

4.2.22. Further, the Commission scrutinised RInfra-T's claims of O&M expense beyond the normative O&M expense specified in MERC (MYT) Regulations, 2011 as explained in para 4.2.4. The Commission observes that claim of RInfra-T with regards to SCADA charges is to facilitate ring fencing and arms length business between transmission and distribution business of RInfra. The claim of SCADA expense by RInfra-T only leads to re-allocation of expense across transmission and distribution business of RInfra and does not lead to an increase in ARR of both the businesses put together.

4.2.23. With regards to RInfra-T's claim of energy charges and rental charges for cable laying, the Commission scrutinized the expenses and found those to be legitimate expenses that RInfra-T will have to incur during the MYT second control period. These expenses are also in the nature of uncontrollable expenses as per Regulation 12 (controllable and uncontrollable factors) of the MERC (MYT) Regulations, 2011.

4.2.24. The claim of land usage charges by RInfra is a fall out of the arrangement proposed between transmission and distribution business, wherein land usage charges would be payable by RInfra-T to RInfra-D, for the EHV Sub-stations located on RInfra-D land and vice versa. Further, RInfra has proposed to treat land usage charges received by each of the business as "income from other business". The Commission is of the view that land usage charges proposed to be paid by RInfra's transmission/distribution business should be treated as O&M expense and land usage charges proposed to be received by distribution/transmission business should be treated as non-tariff income as explained in Section 4.14 of this Order. The approval of land usage charges arising due to such arrangement does not lead to increase in ARR of transmission and distribution business put together and hence does not adversely impact the electricity consumers in the State.

4.2.25. The O&M expenses beyond the norms as specified above are uncontrollable in nature and the same has been brought before the notice of the Commission due to a material variation from the normative O&M expenses specified under MERC (MYT) Regulations, 2011. Regulation 4.2 of MERC (MYT) Regulations, 2011 provides inter alia as follows –

"*The Multi-Year Tariff framework shall be based on the following elements, for calculation of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Companies, Transmission Licensee, Distribution Wires Business and Retail Supply Business:*

…

(v) Mid-term review of performance vis-à-vis the approved forecast and categorization of variation in performance as those caused by factors within the control of the applicant (controllable factors) and those caused by factors beyond the control of the applicant (uncontrollable factors) shall be undertaken by the Commission;"

4.2.26. Regulation 12.2 inter alia reads as follows -

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

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

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

(c) Variations in performance parameters;

(d) Variations in working capital requirements;

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

(f) Variations in labour productivity;

(g) Variation in operation & maintenance expenses;

(h) Variation in Wires Availability and Supply Availability; and

(i) Coal transit losses.

4.2.27. It can be seen that the above, that factors are illustrative in nature and inclusive but not exhaustive. Re-allocation of expense between regulated entities of the same parent company, additional charges levied by statutory bodies or Municipal Corporation and energy charges paid by transmission licensee to respective distribution companies for consumption in its EHV Sub-stations can be variable factors under Regulation 12.2 of MERC (MYT) Regulations, 2011 and hence are being treated as such.

4.2.28. Also, 2nd proviso to Regulation 11.5 of MERC (MYT) Regulations, 2011 provides for the applicant or interested or affected parties to apply for inclusion of variable factors under Regulation 12 of MERC (MYT) Regulations, 2011. However, the inclusion is allowed only at the time of mid-term performance review as per Regulation 11.5 of MERC (MYT) Regulations, 2011.If the above expenses are approved only at the mid-term performance review, it would have financial impact on the ARR of RInfra-T and also would lead to inclusion of carrying cost, burdening the consumers. In view of this, the Commission in exercise of its powers under Regulation 100 “Removal of difficulties” of the MERC (MYT) Regulations, 2011, hereby Orders that the difficulty in implementing 2nd proviso to Regulation 11.5 of MERC (MYT) Regulations, 2011 stands removed by inclusion of re-allocation of expense between regulated entities of the same parent company, additional charges levied by statutory bodies or municipal corporation and energy charges paid by transmission licensee to respective distribution companies for consumption in its EHV Sub-stations as variable factors in Regulation 12.1 of MERC (MYT) Regulations, 2011.

4.2.29. Therefore, the O&M expenses beyond norms w.r.t energy charges, SCADA charges, rental charges for cable laying and land usage charges is provisionally approved as claimed by RInfra-T. However, the final approval of these expenses is subject to prudence check by the Commission at the time of mid-term performance review. The total O&M expense thus approved by the Commission is provided in the table below

Table 11: O&M expense approved by the Commission (in Rs crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses as per norms	34.40	39.17	42.09	52.39
Energy charges for EHV S/Stn.	3.09	3.25	3.41	3.58
Rental charges for cable laying	0.09	10.48	17.90	17.90
SCADA charges	1.23	1.34	1.46	1.59
Land rental charges	6.91	6.91	6.91	6.91
Total	**45.72**	**61.15**	**71.77**	**82.37**

4.3. Capital expenditure and capitalisation

4.3.1. RInfra-T submitted that during last 10-12 years, investment in transmission network of Mumbai didn’t keep pace with the growth of load arising from rapid urbanization. Further, Mumbai has an environment of high humidity and salinity level due to which the existing transmission system is facing rapid deterioration. This situation demands frequent maintenance work resulting into frequent system outages. Thus, the increasing load and frequent maintenance requirements resulted in overloading of the transmission network of Mumbai. The transmission system of Mumbai is severely constrained and not having the adequate redundancies as specified in Clause 9.2 and 9.6 of the State Grid Code. Foreseeing this, RInfra-T has envisaged the strengthening of the transmission network of Mumbai.

4.3.2. RInfra-T further submitted that it has been investing progressively for addition of transformation capacities, in its setup of three EHV Sub-stations. RInfra-T has broadly categorised the schemes into two groups:

Schemes for internal strengthening of Mumbai

4.3.3. RInfra-T has adopted the decentralised scheme for 220 kV EHV Sub-station, which includes installation of requisite number of 220 kV EHV Sub-stations and their connectivity in Mumbai through underground EHV cables. This would make the network more stable and reliable by increasing its systems transformation capacity, relieving critically loaded existing EHV sub-stations and EHV lines.

Bringing bulk power to Mumbai

4.3.4. RInfra-T submitted that inadequate existing generation capacities and non-availability of land, for additional generation, within Mumbai mandate that power needs to be sourced from outside the city limits. Thus, it is imperative to have additional corridors for sourcing such bulk power from outside Mumbai city limits.

4.4. Capital Investment Plan

4.4.1. RInfra-T classified its capital investment plan as follows:

(a) DPR schemes which have received in-principal approval from the Commission; and

(b) Non-DPR schemes.

4.4.2. RInfra-T submitted that nature and status of the capital expenditure schemes is same as was elaborated in the business plan Petition of RInfra-T in Case No. 159 of 2011, which was approved by the Commission in the business plan Order. However, since the submission of business plan Petition, there is updated status for certain schemes, which has been incorporated in the present forecast. In addition, based on the recommendations of the Standing Committee constituted by the Commission for five-year transmission business plan for Mumbai Metropolitan Region (MMR) and due to other studies carried out, RInfra-T plans to execute certain new schemes in future. RInfra-T submitted that at present, these schemes are at initial stages of conceptualization and if required, RInfra-T shall appropriately approach the Commission, during MYT second control period, for seeking in-principle approval. RInfra-T has categorised all capital expenditure schemes into two categories and provided brief description of schemes as mentioned below:

(a) Existing and already approved for RInfra-T; and

(b) Planned in future, but not included in the Petition at this time.

4.4.3. **Existing and already approved for RInfra-T DPR schemes**

(a) 220 kV EHV Sub-station at Goregaon: After commissioning of this scheme, 33kV outlets will be made available for the Western suburbs area with optimal distance to the load centres and increased reliability of the InSTS network.

(b) 220 kV EHV Sub-station at Gorai: This scheme is envisaged to facilitate more outlets with short distance to load centre, reduce line losses and provide additional infrastructure to cater to new load.

(c) 220 kV EHV Sub-station at Saki: The scheme is envisaged to serve the load in the area at Saki Naka and nearby areas. The Sub-station will help in reducing the 33kV feeder lengths by serving the load at Saki directly instead of longer feeders used in serving the load from the Aarey EHV Sub-station.

(d) 220 kV EHV Sub-station at Borivali: The scheme would relieve the load of EHV Sub-stations at Ghodbunder and Versova and bring back the desirable N-1 redundancy in transformation capacity, as required in the transmission network.

(e) 220 kV EHV Sub-station at Chembur: After commissioning of this project, 33 kV outlets will be available for Eastern Suburbs area with optimal distance to load centres, increased reliability of supply and reduction in losses.

(f) LILO of MSETCL Boisar –Borivali Lines at RInfra-T Ghodbunder EHV Sub-station: This scheme will enhance flexibility of load transfer as well as enhance reliability of Mumbai network.

(g) Security improvement: The security and stability at the 3 EHV Sub-stations at Aarey, Ghodbunder and Versova would be enhanced after implementation of this scheme.

(h) Refurbishment of 220 kV transmission line: As part of this scheme, RInfra-T would replace porcelain insulators of 220 kV transmission lines which are in close proximity to Arabian Sea by polymer insulators and strengthen tower foundations. This would help in maintaining availability and reliability of the transmission network.

(i) T & P procurement: This scheme consists of procurement of certain equipments, such as, EHV cable laying equipment, EHV Cable fault locator and pin pointing system kit, EHV test kit, which would help in expediting the projects under execution.

(j) 220 kV Dahisar Housing EHV Sub-station: This scheme will help in relieving 100 MVA Transformers at 220 kV RInfra-T Ghodbunder EHV Sub-station and bring back N-1 redundant Transformation capacity as required in Regulation 9.2 of MERC (State Grid Code) Regulations, 2006 by diverting cables fed from Ghodbunder, but passing close to Dahisar Housing. The scheme is planned to provide 33kV outlets to distribution licensees to serve new and upcoming load in the area.

(k) 220 kV Nagari Niwara Sub-station: In addition to relieving the Aarey-Borivali connectivity, the scheme would help in preventing the overloading of the Kalwa-Salsette and Salsette-Borivali lines.

(l) 220/33 kV GIS EHV Sub-station at Airport: This scheme would help in providing necessary 33 kV outlets catering to load around the Airport area.

(m) Land for constructing 220 kV EHV Sub-stations: The scheme would help in obtaining the land at the present prices rather than future prices, which given the current scenario might rise exponentially in Mumbai. The scheme thus would help in booking the much needed land in Mumbai for the EHV projects and further reducing the impact on the consumer.

(n) 220 kV RInfra Golibar EHV Sub-station: The scheme would help in serving the rapidly growing load in the area around Santacruz (E) & Khar (E) and BKC area, inclusive of load demand anticipated by SRA developers. The Sub-station would also to help in reducing the 33 kV feeder lengths by serving the load at the above areas directly instead of longer feeders used in serving the load from the Aarey EHV Sub-station.

(o) Relocation/Modification of 220 kV towers and lines at MBMC area: RInfra-T is undertaking this scheme upon request of Municipal Commissioner of MBMC to relocate/modify the existing transmission infrastructure of towers and lines to remove hindrances caused to vehicular traffic in certain areas of MBMC.

Non-DPR schemes

(a) Apart from the aforesaid DPR schemes, there are certain non-DPR schemes having expenditure less than Rs 10 crore. These schemes includes detailed engineering & consultancy for new projects, system reliability improvement schemes, procurement of testing equipment and maintenance tools, installation of new capacitor banks for performance improvement and schemes required from system improvement point of view at the appropriate year as per statutory requirements. RInfra-T has provided details of such schemes in format F3 provided along with the Petition.

4.4.4. **Schemes planned in future, but not included in the Petition:** RInfra-T submitted that RInfra-T is evaluating new schemes on account of requirements emerging from the recommendations of the Standing Committee or as a result of RInfra-T's own evaluation of the existing and future network. RInfra-T didn't include such schemes in the capital expenditure plan proposed in the Petition. However, RInfra-T submitted that depending upon the future requirements, it will approach the Commission during the MYT second control period for securing in-principle approval to commence execution. RInfra-T provided brief description of such schemes in the MYT Petition.

4.5. Capitalization

4.5.1. Based on the forecast of capital expenditure as detailed in the above section, RInfra-T proposed to capitalize the various schemes during the plan period as per the below table:

Table 12: Scheme-wise capitalisation excluding IDC submitted by RInfra-T (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
220 kV GIS Sub-station Chembur	175.50	26.81		
220 kV GIS Saki EHV Sub-station	33.44	16.47		
220 kV GIS Borivali	52.10	60.43		
220 kV Nagari Niwara			159.55	140.22
220 kV GIS Gorai EHV Sub-station	110.25	75.89		
220 kV GIS Goregaon EHV Sub-station	20.50	5.08		
220 kV Dahisar Housing EHV Sub-station				195.94
Refurbishment of 220 kV transmission line	1.95	6.02		
LILO existing MSETCL Borivali	12.89	4.32		
220 kV EHV Sub-station at Airport			15.00	174.15
220 kV EHV Sub-station at Golibar			39.00	176.42
Security improvement – Civil works	3.23	3.92		
Relocation/Modification of towers at MBMC area	1.20	7.00	3.01	
T&P	1.80	6.27		
Land		13.80		
Non-DPR	16.00	16.00	12.00	12.00
TOTAL	**428.86**	**242.01**	**228.56**	**698.73**

4.5.2. In response to Commission's query regarding current status of progress of capital investment schemes, RInfra-T submitted details of status of its projects as on 31 March, 2013 as detailed in the following table:

Table 13: Status of schemes as on 31 March, 2013 submitted by RInfra-T (Rs crore)

Sr. No.	Name of the DPR	Revised Approved target for scheme completion	Brief of work completed	Balance work	220kV bays X-Scope Y- Put to use X / Y	33kV bays X-Scope Y- Put to use X / Y (Connected to Discom)	Abstract of consumer benefits till date due to Commissioning of the DPR
1	Installation of 220kV GIS EHV Sub-station at Chembur	March, 2013	1) 220 kV GIS EHV Sub-station at Chembur 2) 3X 125 MVA transformers 3) 220 kV GIS bays at Trombay 4) 220 kV cable link between Chembur & Trombay 5) Installation of 33 kV GIS bays	Civil work Sub-station building finishing work, painting of building , Fire fighting pump House, Internal roads, Drains,33 kV cable civil trenches, Painting of EHV cables with fire resistant paint Electrical work- outdoor lighting, ETC of Pump house	15/15	42/42 (Planned for Discom-19) Connected: 03 Balance: WIP Expected to be completed by FY 2013-14 -10 nos; FY2014-15 -06 nos	33 kV outlets made available to Discoms to meet the load growth of eastern part of Mumbai, i.e, Chembur, Mankhurd etc. Enhanced transmission network reliability & flexibility.
2	220kV GIS at Saki EHV Sub-station	March, 2011	1) 220 kV GIS EHV Sub-station at Saki 2) 220 kV GIS at Aarey 3) 3x125 MVA Transformers	Civil work Fire fighting pump house, Lift, Internal roads, Building finishing work, rainwater harvesting, Painting of EHV	12/12	42/24 (Planned for Discom-19) Connected: 06 Balance : WIP Expected to be completed FY 2013-14 -13 nos	33 kV outlets made available to Discoms to meet the load growth of Saki Naka Area and enhance network reliability.

Sr. No.	Name of the DPR	Revised Approved target for scheme completion	Brief of work completed	Balance work	220kV bays X-Scope Y- Put to use X / Y	33kV bays X-Scope Y- Put to use X / Y (Connected to Discom)	Abstract of consumer benefits till date due to Commissioning of the DPR
			4) 220 kV cable link between Aarey& Saki 5) Installation of 33 kV GIS bays	cables with fire resistant paint Electrical work ETC of pump House, Remaining lighting work, Installation of 33 kV GIS panel board			
3	220kV GIS Borivali	March, 2013	1) 220 kV GIS EHV Sub-station at Borivali 2) 220 kV GIS at MSETCL Borivali 3) 2x125 MVA Transformers 4) 220 kV cable link between MSETCL Borivali & RInfra Borivali 5) LILO of existing OH Aarey TPC Borivali line at RInfra Borivali	Civil Work Pump House Utility & water system Electrical Work Fire fighting electrical work	13/13	42/27 (Planned for Discom-13) Connected: 01 Balance : WIP Expected to be completed by FY 2013-14- 07 nos, FY 2014-15- 05 nos	33 kV outlets made available to Discom To meet load growth in Borivali area, and enhance transmission network reliability & flexibility

Sr. No.	Name of the DPR	Revised Approved target for scheme completion	Brief of work completed	Balance work	220kV bays X-Scope Y- Put to use X / Y	33kV bays X-Scope Y- Put to use X / Y (Connected to Discom)	Abstract of consumer benefits till date due to Commissioning of the DPR
			6) Installation of 33 kV GIS bays				
4	220 kV Nagari Niwara	March, 2016	Phase-I - 220 kV Aarey - MSETCL Borivali Cable Work completed so far is as follows 1) 220 kV GIS bays at Aarey & MSETCL Borivali 2) Cable route survey 3) Cable Engineering 4) Orders being placed	Construction of EHV Sub-station Laying of 220 kV cable between Aarey & MSETCL Borivali LILO of above cable at proposed EHV Sub-station	15/5	42/0 (Planned for Discom -19) Connected: 00 Expected to be completed by FY-2016 -19 nos	MSETCL Borivali Sub-station reliability and flexibility increase, enhance transmission network reliability & flexibility

Sr. No.	Name of the DPR	Revised Approved target for scheme completion	Brief of work completed	Balance work	220kV bays X-Scope Y- Put to use X / Y	33kV bays X-Scope Y- Put to use X / Y (Connected to Discom)	Abstract of consumer benefits till date due to Commissioning of the DPR
5	220kV GIS Gorai EHV Sub-station	March, 2013	1) 220 kV GIS Sub-station at Gorai 2) 2X125 MVA Transformers 3) 220 kV GIS at MSETCL Borivali 4) 220 kV Cable between Gorai & MSETCL Borivali 5) LILO of existing Ghodbunder Versova line at Gorai 6) Installation of 33 kV GIS bays	Civil Work Pump House ETC work, Painting of EHV cables with fire resistant paint, Electrical Fire fighting system Electrical work	13/13	42/26 (Planned for Discom-13) Connected: 04 Balance : WIP Expected to be completed by FY 2013-14-02 nos, FY 2014-15 - 07 nos.	33 kV outlets made available to Discom. To meet load growth and enhance transmission network reliability
6	220kV GIS Goregaon EHV Sub-station	March, 2011	1) 220 kV GIS Sub-station at Goregaon 2) 2x125 MVA transformers	Painting of EHV cables with fire resistant paint	10/10	28/28 (Planned for Discom-13) Connected: 05 nos Balance : WIP Expected to be	33 kV outlets made available to meet future growth of Discom to meet transformation

Sr. No.	Name of the DPR	Revised Approved target for scheme completion	Brief of work completed	Balance work	220kV bays X-Scope Y- Put to use X / Y	33kV bays X-Scope Y- Put to use X / Y (Connected to Discom)	Abstract of consumer benefits till date due to Commissioning of the DPR
			3) LILO of existing OH line between Aarey - Versova line at Goregaon 4) Installation of 33 kV GIS bays			completed by FY 2013-14 - 08 nos	redundancy at Versova, enhance reliability & stability of transmission network.
7	Refurbishment of 220kV Transmission Line	March, 2012	1) Total insulator string replaced by polymer insulators -8893 2) Tower foundation refurbishment- 25 nos 3) Hardware replacements for Lines 4) Slope stabilization - 01	Balance 2 string replacement is pending	NA	NA	Enhanced life of transmission lines and reliability & stability of supply. Increased tower strength & improve stability of the structures

Sr. No.	Name of the DPR	Revised Approved target for scheme completion	Brief of work completed	Balance work	220kV bays X-Scope Y- Put to use X / Y	33kV bays X-Scope Y- Put to use X / Y (Connected to Discom)	Abstract of consumer benefits till date due to Commissioning of the DPR
8	T&P procurement	March, 2013	1) Cable Laying Equipment- Winch Machine, Cable Jointing Tools 2) 220kV Cable Fault Locator & Pin pointing kit 3) GIS Test kit	Procurement of HV bushing for make EHV test kit	NA	NA	Facilitated faster execution of the project for cable laying, & O&M activity for locating cable fault, and for conducting insulation tests of GIS and cables
9	LILO MSETCL Boisar-Borivali 220 kV line	December, 2011	1) 220 kV GIS at Ghodbunder EHV Sub-station 2) 220 kV D/C cable between MSETCL tower no 257 to RInfra Ghodbunder 3) 220 kV LILO cable facility to Tower no.257	NIL	6/6	NA	Relieved Aarey Borivali and Kalwa Salsete Lines. Enhanced stability of DTPS, Created a Corridor to wheel- in power, Additional Back-up to DTPS

4.5.3. The Commission analysed the schemes submitted by RInfra-T and found that all the DPR schemes of RInfra-T envisaged during the MYT second control period were approved in principle by the Commission in the Business Plan Order dated 23 October, 2012 in Case No. 159 of 2011. Further, the DPR schemes are also consistent with the five-year transmission plan of STU.

4.5.4. It is essential to have a transmission network of adequate capacity for bulk transmission of power. Further, in order to maintain the optimum HT/LT line length ratio, -Sub-stations should be in proximity to the load centres, as far as possible. Further, strengthening 220 kV grid by adding the additional line and sub-station helps in reducing transmission losses and improving voltage profile. Addition of sufficient transformation capacity will also help in maintaining the N-1 criteria as per the CEA guidelines.

4.5.5. The Commission scrutinized all the schemes for capital expenditure submitted by RInfra-T in its MYT Petition. Reply to the queries raised by the Commission in regards to scheme-wise cost benefit analysis was submitted by RInfra-T. The Commission carried out prudence check of DPR schemes submitted by RInfra-T, for approval of the capitalisation. The detailed analysis for each of the approved schemes is elaborated in the paragraphs below:

(a) 220 kV GIS Sub-station Chembur: The in-principle approved cost of the scheme is Rs.220 crore. The Sub-station was commissioned in August, 2012 and part capitalisation based on the cost of equipment which was put to use is claimed by RInfra-T. Further, RInfra-T committed to complete the balance work as per schedule submitted in the MYT Petition. In reply to the query raised by the Commission, RInfra-T mentioned that fifteen no. of 220 kV bays and three no. of power transformers are put to use which would help in strengthening 220kV grid, being the backbone of the supply system in Mumbai city and its suburbs. Forty two 33kV bays are already put to use, 19 of which are planned for discom and three are already connected to discom. This would help in reducing technical losses.

(b) 220 kV GIS Saki EHV Sub-station:220kV Sub-station was commissioned by RInfra-T during FY 2010-11. Besides this, twelve 220 kV and twenty four 33 kV bays were put to use out of which 06 no. of bays are connected to discom. Balance work such as compound wall, rain harvesting and building civil work is in progress and will be completed within scheduled time.

(c) 220 kV GIS Borivali: Sub-station with two 125 MVA power transformer was commissioned on 26 March, 2012. Further, thirteen 220 kV & twenty seven 33 kV bays are put to use out of which one bay is connected to discom. The scheme relieved the load on 220 kV Ghodbunder and Versova Sub-station and assisted in maintaining N-1 redundancy criteria.

(d) 220 kV GIS Gorai EHV Sub-station: The Sub-station was commissioned on 31 March, 2011 and 220 kV double circuit cable from RInfra-T Gorai to MSETCL Borivali was commissioned on 8 March, 2013. Further, thirteen 220 kV and twenty six 33 kV bays are put to use out of which 04 no. of bays are connected to discom. RInfra-T assured that balance civil works, such as area development, pump house, etc. will be completed within stipulated time. This scheme will help in reducing the length of 33 kV feeder and transmission losses. Also, it would help in meeting the new demand of power.

(e) 220 kV GIS Goregaon EHV Sub-station: The Sub-station was commissioned in February 2011. Ten no. of 220 kV bays and twenty eight 33 kV bays with two 125 MVA power transformer are put to use. Implementation of this scheme will improve the reliability of InSTS and strengthening of the 220 kV grid network.

(f) RInfra-T submitted that 220 kV Dahisar Housing, 220 kV Airport, 220 kV Golibar and 220 kV Nagari Niwara EHV Sub-stations will be commissioned as per schedule submitted in the MYT Petition. Various execution works, such as survey, land acquisition etc. is under progress. However, the project is getting delayed due to non-availability of land, issues related to ROW and delay in approvals of various authorities. Considering the future requirements of the project and submission of RInfra-T, the Commission approves the capitalization of the above DPR schemes.

(g) DPRs of Refurbishment of 220 kV transmission line, LILO existing MSETCL Borivali, Security improvement – Civil works, Relocation/Modification of towers at MBMC area, T&P, Land and Non-DPR are equally important to maintain and improve the availability of InSTS and maintain redundancy of the power supply. After prudence check, the Commission approves the capitalization of the respective schemes.

4.5.6. The Commission approves the capitalisation submitted by RInfra-T after prudence check. However, the Commission has recalculated IDC lying in CWIP as well as IDC corresponding to fresh capital expenditure during the MYT second control period considering only normative loans and interest rate as approved by the Commission in Section 4.7 of this Order. As per MERC (MYT) Regulations 2011, the Commission will take the review of the schemes at the time of mid-term performance review Petition.

Table 14: Capitalisation approved by the Commission (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
220 kV GIS Sub-station Chembur	175.50	26.81		
220 kV GIS Saki EHV Sub-station	33.44	16.47		
220 kV GIS Borivali	52.10	60.43		
220 kV Nagari Niwara			159.55	140.22
220 kV GIS Gorai EHV Sub-station	110.25	75.89		
220 kV GIS Goregaon EHV Sub-station	20.50	5.08		
220 kV Dahisar Housing EHV Sub-station				195.94
Refurbishment of 220 kV transmission line	1.95	6.02		
LILO existing MSETCL Boisar-Borivali 220 kV line at Ghodbunder EHV Sub-station	12.89	4.32		
220 kV EHV Sub-station at Airport			15.00	174.15

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
220 kV EHV Sub-station at Golibar			39.00	176.42
Security improvement – Civil works	3.23	3.92		
Relocation/Modification of towers at MBMC area	1.20	7.00	3.01	
T&P	1.80	6.27		
Land for constructing 220kV EHV Sub-stations		13.80		
Non-DPR	16.00	16.00	12.00	12.00
Total capitalization (excluding IDC)	**428.86**	**242.01**	**228.56**	**698.73**
IDC	20.54	4.29	14.05	42.35
Total capitalization (including IDC)	**449.40**	**246.29**	**242.61**	**741.08**

4.6. Depreciation

4.6.1. RInfra-T submitted that it has computed depreciation considering asset-class wise depreciation rates and in accordance with the MERC (MYT) Regulations, 2011 for FY 2012-13 to FY 2015-16. Depreciation was worked out using the rates specified for up to 70% of the original cost of the asset. For any asset being already depreciated to 70% by the start of any of the year in the MYT second control period, the balance depreciable value was equally spread over the balance useful life of the asset.

4.6.2. RInfra-T further submitted that for the purpose of calculation of depreciation expense, it has taken the useful life of assets as provided in the MERC (MYT) Regulations, 2011. For all categories of assets, whose useful life is not provided in the MERC (MYT) Regulation, 2011, it has considered the useful life of assets as per the Companies Act, 1956.

4.6.3. RInfra-T submitted that it has considered the actual asset class wise GFA addition during FY 2011-12 to arrive at asset class wise opening balance of GFA as on FY 2012-13. Further asset class wise GFA addition in each year of the MYT second control period is considered in the same proportion as the actual addition in FY 2011-12.

4.6.4. RInfra-T confirmed that it had not claimed depreciation beyond 90% of the asset value.

4.6.5. Depreciation expenditure estimated by RInfra-T for FY 2012-13 to FY 2015-16 is shown in the table below:

Table 15: Depreciation as submitted by RInfra-T (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Depreciation	48.04	65.36	76.22	100.31

4.6.6. It was observed by the Commission that RInfra-T in the Exhibit 10 had not provided linked detail computation for depreciation. Due to this, the Commission couldn't validate depreciation computation as provided by RInfra-T. In reply to the Commission's query regarding the above, RInfra-T submitted that it had used the same methodology for computation of depreciation as proposed by it in its Petition. RInfra-T further submitted that it had built the logic for computation of depreciation in its SAP system itself and the output of the system have been directly punched in Exhibit 10.

4.6.7. In reply to the Commission's query regarding useful life of assets considered by RInfra-T for computing depreciation ,the following details as shown in table below were provided:

Table 16: Life of assets considered by RInfra-T

Asset	Life as per Companies Act (Years)
Building temporary structure	1
Residential building- Others	58
Other buildings	58
Computers	6
Domestic Appliances	20
Electrical fittings	20
Furniture and fittings	15

Asset	Life as per Companies Act (Years)
Office equipments	20
Vehicle –Motor bus	8
Vehicle- Others	10

4.6.8. In reply to the Commission's query regarding retirement of assets, it was stated that no assets are proposed to be retired from service during the course of the MYT second control period.

4.6.9. The Commission, for the purpose of calculation of depreciation from FY 2012-13 to FY 2015-16, has considered closing GFA for FY 2011-12 as approved by the Commission in its Order in Case No. 123 of 2012, as opening GFA for FY 2012-13. Thereafter, the approved capitalisation as per Section 4.3 of this Order has been considered as GFA addition for the respective years of the MYT second control period.

4.6.10. As regards retirement of assets the Commission has taken note of the submissions made by RInfra-T. Further, it is highlighted that the validation of depreciation computation is very critical for the approval of ARR and a linked excel computation is required for validating the same. However, RInfra-T in the proceedings has not provided any linked excel computation even after repeated reminders of the Commission. Therefore, in absence of the above information the Commission is only approving a provisional depreciation expense for the MYT second control period.

4.6.11. The Commission directs that a linked excel depreciation computation, complete in all respect, shall be submitted by RInfra-T along with the mid-term performance review Petition. The Commission also directs that all the future Tariff related Petition's of RInfra-T, shall be accompanied with the linked excel formats including the depreciation computation, barring which appropriate actions may be taken.

4.6.12. Therefore, the Commission shall take a final view on the depreciation expense approval during the mid-term performance review on submission of the above information. The provisional depreciation expense approved by the Commission is as follows:-

Table 17: Depreciation as approved by the Commission (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening Gross Fixed Assets (GFA)	951.54	1,400.94	1,647.23	1,889.84
Addition of Gross Fixed Assets	449.40	246.29	242.61	741.08
Asset Retirement	-	-	-	-
Closing Gross Fixed Assets	1,400.94	1,647.23	1,889.84	2,630.92
Depreciation	**47.93**	**65.09**	**75.82**	**99.52**

4.7. Interest on long-term loans

4.7.1. RInfra-T submitted that there has been negligible capital expenditure in transmission business in the period 2000 to 2010. Due to this, Mumbai transmission system had been operating at a critical condition, which required augmentation to restore the lost margins. With the approval of the Commission, RInfra-T has undertaken execution of a number of major projects for augmentation of Mumbai transmission network in the recent years. The approved cost of capital expenditure schemes envisaged by RInfra-T is Rs. 2230 crore. RInfra-T proposed a financing plan to meet the capital expenditure requirement of the major projects, it has undertaken to execute, during the MYT second control period in its Petition. The details of the financing plan submitted by RInfra-T is provided below;

Financing Plan

4.7.2. RInfra-T stated that to fund the additional capital expenditure expected to be incurred during the MYT second control period, it had proposed a financing arrangement in its business plan Petition (Case No. 159 of 2012). In addition to the above stated financing arrangement, it has drawn loans from some other sources as well and the proposed treatment of these loans as provided by RInfra-T is provided in the following Para's.

Loan of Rs. 300 crore from South Indian Bank

4.7.3. RInfra-T submitted that the loans from South Indian Bank have been sanctioned to fund capital expenditure including past capex. Accordingly, the loan availed from

SIB has been used to fund opening balance of CWIP for FY 2011-12 and the balance for funding capital expenditure incurred during FY 2011-12. RInfra-T stated that this information was provided to the Commission as part of the business plan Petition (Case No. 159 of 2011). Thereafter, RInfra-T provided the actual interest computations for this loan in its True up Petition for FY 2010-11 and FY 2011-12 (Case No. 123 of 2012). However, the Commission did not approve the adjustment of this loan against the opening CWIP of FY 2011-12, as the Commission opined that the same amounted to refinancing of existing loan.

4.7.4. RInfra-T provided detailed reasoning as to why such arrangement should be allowed by the Commission in its True up Petition for FY 2011-12 (Case No. 123 of 2012). RInfra-T submitted that interest cost corresponding to debt is included in ARR only after the assets are capitalized and not while they are work in progress. Hence, assets capitalized out of opening CWIP and fresh capex during FY 2011-12 can be considered as funded through actual borrowings from SIB and the impact of the same would be realized in ARR only when such assets are put to use in FY 2011-12. Hence, RInfra-T stated that the present arrangement of replacement of normative debt involved in CWIP with actual debt does not amount to refinance of any cheaper loan admitted by the Commission.

4.7.5. Further, the Commission had observed in the business plan Order that the tenure of loan from SIB is only 5 years and hence cannot be repaid out of depreciation accruals, in regards to this RInfra-T submitted the following in the present Petition;

(a) RInfra-T had availed a five year loan from SIB due to limited availability of long term loans from banks for lending to power sector. Further, interest rate is typically higher during impletion phase and since SIB loan was obtained during such phase RInfra-T had to pay higher spread over the base rate (2.25 % over base rate). At the time of availing the loan the interest rate was 11.85%, however there was an increase in the base rate of SIB from 9.60% to 10.50%. Therefore, from the time of availing SIB loan the interest rate for the same had risen to 12.75%. Subsequent to the Order on RInfra-T business plan in Case No. 159 of 2011, as per the direction of the Commission RInfra-T requested SIB to reduce the interest rate and SIB agreed to revise the interest rate to 12% with effect from 10 January, 2013.

(b) RInfra-T submitted that it did not intend to immediately refinance the loan from SIB bank as it would entail several costs like upfront fees, arranger fees and prepayment fees which would be around 3% to 3.5% of the loan amount and hence would be an additional burden on the consumers.

(c) RInfra-T further stated that in the present Petition it has considered refinancing of loans from SIB when the instalments become due for repayment. The interest rate for refinancing has been considered as 12%.

4.7.6. RInfra-T stated that for the purpose of interest computation on loan from SIB it has considered a weighted average interest rate of 12.83% from 1 April, 2012 to 9 January, 2013 and 12 % interest from 10 January, 2013 to 31 March, 2013. For FY 2013-14 it has considered an interest rate of 12%.

<u>Loan of Rs. 250 crore from Bank of Maharashtra (BoM)</u>

4.7.7. RInfra-T submitted that it had borrowed Rs 250 crore from BoM during FY 2012-13 at an interest rate of 12%. RInfra-T stated that it has used this loan to refinance the admitted normative debt as on 1 April, 2012 and to meet capital expenditure during FY 2012-13. Further, RInfra-T stated that the loan will be refinanced at the time when bullet repayment is due so as to match loan repayment schedule to depreciation.

4.7.8. RInfra-T further submitted that, since the loan is used to refinance normative debt as on 1 April, 2012, the interest rate on the entire normative debt refinanced will be computed at the interest rate applicable for this actual loan.

<u>Loan of Rs. 65 crore from State Bank of Hyderabad (SBH)</u>

4.7.9. RInfra-T submitted that it had borrowed Rs 65 crore from SBH during FY 2012-13 at an interest rate of 12%. RInfra-T stated that it has used Rs 50 crore of this loan to refinance the admitted normative debt as on 1 April, 2012 and remaining Rs 15 crore to meet capital expenditure during FY 2012-13.The interest computation have been carried out accordingly.

<u>Loan of Rs. 60 crore from Corporation Bank</u>

4.7.10. RInfra-T submitted that it had borrowed Rs 60 crore from Corporation Bank during FY 2012-13 at an interest rate of 12.25% as per term sheet, however the rate of interest at the time of first disbursement was 12.10%, w.e.f. 1 May, 2012. RInfra-T stated that it has used the entire loan to meet capital expenditure during FY 2012-13.The interest computations have been carried out accordingly.

<u>Normative Loan</u>

4.7.11. RInfra-T stated that any additional debt beyond the actual loans availed by RInfra-T required to meet 70% of capitalization in any of the years of the MYT second control period has been considered as normative debt. The interest rate for normative debt availed during the MYT second control period has been considered at an interest rate of 11.5%, as approved by the Commission in its Order on business plan of RInfra-T in Case No. 159 of 2011.

Interest expense on long term loans

4.7.12. RInfra-T submitted that it intends to refinance all actual loans as and when the same shall be due for repayment so as to ensure that loan repayments are managed through project accruals of depreciation. RInfra-T submitted that the interest on long term loan was computed considering actual interest rate for actual loans, 12% for loans drawn to refinance actual loans and 11.5% for normative debt for each year of the MYT second control period. Further, repayment for all loans is considered equal to the proportionate depreciation for the year.

4.7.13. RInfra-T submitted that for all schemes capitalization includes IDC which is determined based on phasing of capital expenditure and debt utilization for capital expenditure. RInfra-T stated that IDC so determined has been considered as being separately financed through a normative loan equal to IDC with a normative repayment period of 13 years and normative interest rate of 11.5%.

4.7.14. Interest on long term loan as computed by RInfra-T for different years of the MYT second control period is as provided below;

Table 18: Interest expense as submitted by RInfra-T (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Interest Expense	64.06	88.53	100.11	130.02

4.7.15. The Commission enquired whether the loan from Bank of Maharashtra has been used to fund capex of both transmission and distribution business, as the term sheet of the loan has provision for the same. RInfra-T replied that the entire loan drawn from BoM has been utilized for funding transmission capex. RInfra-T further stated that it was in the process of creating security for the loan and would submit the same to the Commission once process is completed.

4.7.16. In reply to the Commission's query regarding refinancing of normative debt as on 1

April, 2012 by loan from BoM, RInfra-T submitted that the term of sanction of BoM loan allows loan proceeds to be used for the following:

(a) Funding of capex for its transmission and distribution business in Mumbai;

(b) Reimbursement of capex incurred by the promoter in FY 2012-13 in transmission and distribution business in Mumbai, in excess of equity commitment such that the equity margin does not fall below 30%; and

(c) Any other expenditure related to capex.

4.7.17. RInfra-T submitted that end use of loan proceeds is in accordance with the provisions of the term sheet. Further, RInfra-T stated that the security created for the loan would include existing assets of transmission business and hence the loan can be utilized for refinancing past capital expenditure.

4.7.18. The Commission enquired about loan drawl from State Bank of Hyderabad and Corporation bank during the MYT second control period being much lesser than the loan value sanctioned by these banks. RInfra-T submitted that though Rs 100 crore loan has been sanctioned by both the banks, it has considered only drawl of Rs 65 crore and Rs 60 crore from these sources being the actual loan drawn from these sources in FY 2012-13. RInfra-T further submitted that in case any further drawl is made from these sources it will submit the same to the Commission during the time of mid-term performance review.

4.7.19. With respect to RInfra-T's argument seeking admittance of actual loan drawn from SIB, the Commission has already specified treatment in its Order dated 2 April, 2013 in Case No. 123 of 2012.The relevant extracts of the said Order is produced below;

"4.9.15 With respect to the admittance of actual loan amount used to fund opening CWIP and capital expenditure of FY2011-12, the Commission had not allowed such funding of opening CWIP in its business plan Order dated 23 October, 2012. In the said Order, the Commission observed that the mechanism adopted by RInfra-T is for swapping the older loan with the new loan, which in effect is refinancing the older loan with a new loan. Re-financing of a loan is logical only when the terms of the new loan are better than the old loan including the interest rates availed. However, the Commission observed that the normative loans availed in FY 2010-11 were considered at lower interest rates and the interest rate of the actual loan

availed in FY 2011-12 is higher. As a result, the refinancing of normative loans by actual loan is resulting in increase of interest expenses and thus, the ARR and Tariff.

4.9.16 In view of this and keeping in mind the consumer interest and welfare, the Commission didn't allow the reimbursement of the past normative loans for funding capex as proposed by RInfra-T and thus, the corresponding loan of Rs. 150 crore availed from South Indian bank Ltd. was not considered during approval of the Business Plan. "

4.9.17 However, RInfra-T submitted in its True up Petition :

"The interest cost is included as revenue expenditure in the ARR only after the assets are capitalized and not while they are works in progress. Therefore, assets capitalized out of opening CWIP and fresh capex during FY 12 can be considered as funded through actual borrowings from the South Indian Bank and the impact of the same in the ARR would be realized first only in FY 12 when such assets are put in place."

4.9.18 The Commission agrees with this argument of RInfra-T that replacement of normative debt involved with CWIP is not refinancing as normative loan on CWIP will be admitted for determination of ARR only at the time of capitalization.

4.9.19 However, as discussed in the Business Plan Order as well, the Commission on scrutiny of the term sheets of loan from South Indian Bank observed that these loans have a repayment period of 5 years which includes a moratorium period of 2 years. This implies that actual loan of Rs 300 crore taken from South Indian Bank to fund past CWIP and current year capital expenditure is neither in the nature of long term loan nor availed for meeting temporary fund requirement of the licensee.

4.9.20 Further, the Commission observes that the interest rate of new actual loans considered by RInfra-T have higher interest rates when compared to loans of RInfra-D. The Commission believes that transmission being a comparatively less risky business vis-a-vis distribution, should have lower interest rates for its loans.

4.9.21 Further, considering the huge quantum of the loan and shorter time period, it is evident that the repayment of the loans taken from South Indian Bank Ltd. cannot be made out of accruals from the transmission project. Generally, long-term loans are repaid over a period of 10-15 years, whereas in the above case, loan will be *repaid in next 5 years. RInfra-T has submitted that it intends to refinance the loan when the same shall be due for repayment so as to ensure that loan repayments are managed through project accruals of depreciation. However, the Commission opines that this will leave the company and thus, its consumers expose to the refinancing risk, which may detrimental to the interest of the consumers.*

4.9.22 Thus, considering prudency, the Commission is of the view that such loans of shorter duration should not be admitted. RInfra-T should come up with robust financing plan for its schemes undergoing capitalisation so that internal accruals of transmission business are sufficient to service the debt requirements. Thus, the Commission approves normative loan to the extent of 70% of approved capitalisation as loan admitted during FY2011-12 at a normative interest rate of 11.5%.''

4.7.20. In regard to the actual loans availed by RInfra-T from BoM, SBH and Corporation Bank ,the Commission on scrutiny of the term sheets of these loans, observed that all the actual loans availed by RInfra-T have a repayment period of 5.5 years or less. This clearly indicates that repayment of these loans cannot be made out of internal accruals and hence will have to be refinanced as instalments for repayment becomes due. The Commission observes that RInfra-T's proposal to refinance all the actual loans stated above as and when repayment becomes due could expose its consumers to refinancing risk, which might be detrimental to the interest of the consumers. The loan tenure of different actual loans other than loan from SIB taken by RInfra-T is provided below:

Table 19: Tenure of Actual loans drawn by RInfra-T

Source of Loan	Tenure of Loan
Bank Of Maharashtra	Five years from date of 1st drawl
State bank of Hyderabad	Door to door tenure of 82 months from the date of documentation including moratorium period of 16 months. Repayment to be made in 11 semi annual instalments over a period of 66 months

Source of Loan	**Tenure of Loan**
Corporation bank	Door to door tenure of 6 year 7 months. Repayment to be made in 11 semi-annual instalments over a period of 66 months

4.7.21. Further, in case of loans from BoM and SBH, RInfra-T has considered the same for refinancing of existing normative debt as on 1 April, 2012. The Commission had opined in its Order in Case No. 159 of 2011 that such refinancing is logical only when the terms of the new loan are better than that of existing loan including the interest rates availed. However, in this case the Commission observed that the interest rate of normative loan drawn prior to FY 2012-13 was at a much lower interest rate than that of the actual loans from BoM and SBH. Hence, refinancing of normative loans at the beginning of FY 2012-13 with these actual loans would lead to an increase in ARR and Tariff.

4.7.22. Therefore, the Commission, considering prudency of the expenditure, is of the view that refinancing of normative loan with actual loans as proposed by RInfra-T should not be allowed. Further, the Commission disallows admittance of actual loans of shorter duration.

4.7.23. The Commission has considered the closing balance of loan as on FY 2011-12 as approved by the Commission in its Order in Case No. 123 of 2012 as the opening balance of loan for FY 2012-13. From FY 2012-13 to FY 2015-16, the Commission has considered loan addition for each of the year as 70% of the capitalisation approved for the respective year.

4.7.24. Regulation 33 of the MERC (MYT) Regulations, 2011 specifies that the repayment of loan shall be equal to the depreciation allowed in the respective year. Accordingly, the Commission has considered the repayment of loan equal to the depreciation as approved for respective years.

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

4.7.26. However, the Commission has considered all loans availed by RInfra-T as normative loans for the approval of MYT Petition. Hence, as per the 2nd proviso to Regulation 33.5 of MERC (MYT) Regulations, 2011, if the transmission licensee doesn't have any actual borrowings, then the weighted average interest of the generating company or transmission licensee or distribution licensee as a whole needs to be considered.

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

Table 20: Weighted average interest rate of RInfra as computed by the Commission

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

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

Table 21: Interest on long term loans approved by the Commission (in Rs crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening balance of loan	419.41	686.06	793.37	887.37
Loan additions	314.58	172.41	169.83	518.76
Loan repayment	47.93	65.09	75.82	99.52
Closing balance of loan	686.06	793.37	887.37	1,306.61
Interest rate applicable	8.78%	8.78%	8.78%	8.78%
Interest Expense	**48.53**	**64.95**	**73.78**	**96.32**

4.8. Interest on working capital

4.8.1. RInfra-T submitted that for FY 2012-13 to FY 2015-16, working capital requirement has been calculated as per Regulation 35.2 of the MERC (MYT) Regulations, 2011. RInfra-T further submitted that interest on working capital has been worked out at 14.50%, i.e., State Bank Advance Rate (SBAR) of State Bank of India, at the time of submission of the Petition.

4.8.2. RInfra-T submitted that the sum of book value of stores has been considered based on the month wise inventory for FY 2011-12 and averaged out for the full financial year. The same value has been assumed for each year of the MYT second control period.

4.8.3. RInfra-T submitted that as regards revenue from transmission charges, the transmission charges were being levied on the transmission system users (TSUs) as per the Commission's Order dated 10 September, 2010 in Case No. 120 of 2009. As per the above referred Order, RInfra-T received Rs. 7.73 crore per month as revenue till May 2012. Thereafter, from June 2012 onwards transmission charges are being levied as per the Commission's Order dated 21 May, 2012 in Case No. 51 of 2012. As per the above referred Order, RInfra-T receives Rs. 10.58 crore per month from June 2012 onwards. The annualized value of the same is considered as revenue from transmission charges in FY 2012-13, for the purpose of estimating working capital requirement. For FY 2013-14 to FY 2015-16, the expected revenue from transmission charges for a given year is considered same as the projected ARR for the year, expect for FY 2013-14, wherein the expected revenue will be the summation of the ARR for FY 2013-14 and resultant gap of FY 2012-13. Interest on working capital as estimated by RInfra-T is shown in the table below:

Table 22: Interest on working capital as submitted by RInfra-T (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Interest on working capital	3.20	9.39	7.75	9.50

4.8.4. In reply to the Commission's query regarding considering constant level of book value of stores for the MYT second control period, RInfra-T submitted that it is not necessary for volume of inventory to go up corresponding to the increase in transmission capacity and hence it has considered constant level of book value of stores for the MYT second control period.

4.8.5. In reply to the Commission's query regarding inclusion of revenue gap and income tax for computing "one and half month's equivalent of expected revenue from transmission charges at the prevailing Tariff", RInfra-T submitted the following;

(a) With regards to inclusion of revenue gap in ARR, RInfra-T submitted that each year's approved ARR which forms a part of InSTS Total Transmission System Cost (TTSC) is never the standalone ARR of such year but includes previous year's revenue gaps as well. Hence, the transmission charges at prevailing Tariff, recovered in the particular year, will include past year revenue gaps as well.

(b) With regards to inclusion of income tax in ARR, RInfra-T stated that even if income tax bills are raised separately, the same would also entail the same credit period allowed to beneficiaries as otherwise permitted for recovery of billed transmission charges, and hence income tax was also considered in ARR for computation of working capital.

4.8.6. The Commission has noted RInfra-T's above submissions. However, the Commission has not considered revenue gap for computing "one and half month's equivalent of expected revenue from transmission charges at the prevailing Tariff" for the purpose of computing interest on working capital. The Commission considers it prudent not to consider revenue gap for computing interest on working capital as carrying cost is already approved on revenue gap as specified in para 3.4.4 above. The Commission has computed the total working capital requirement in accordance with the provisions of the MERC (MYT) Regulations, 2011.

4.8.7. The Commission has considered sum of book value of stores as submitted by RInfra-T. Further, for FY 2012-13 to FY 2015-16 the Commission has considered interest rate on working capital as 14.50%, being State Bank Advance Rate (SBAR) of State Bank of India at the time of filing the Petition. Further for FY 2012-13, the Commission has considered expected revenue from transmission charges at prevailing Tariff as submitted by RInfra-T. For subsequent years, expected revenue from transmission charges is considered as the ARR for the respective year. The approved interest on working capital is as follows:

Table 23: Interest on working capital as approved by the Commission (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Interest on working capital	3.20	6.19	7.09	8.70

4.9. Contribution to contingency reserves

4.9.1. RInfra-T submitted that for computing contribution to contingency reserve it has followed the provisions of MERC (MYT) Regulations, 2011 which provides for calculation of contribution to contingency reserve at 0.25% of opening GFA.

4.9.2. Contribution to contingency reserve as calculated by RInfra-T for different years of the second control period is shown in the table below:

Table 24: Contribution to contingency reserves as submitted by RInfra-T (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Contribution to contingency reserves	2.38	3.52	4.14	4.75

4.9.3. The Commission has considered contribution to contingency reserves at 0.25% of the GFA in accordance with the provisions of the MERC (MYT) Regulations, 2011 and based on the capitalisation projection approved by the Commission during the years. Accordingly, the approved contribution to contingency reserves are as follows:

Table 25: Contribution to contingency reserves as approved by the Commission (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Contribution to contingency reserves	2.38	3.50	4.12	4.72

4.10. Return on Equity (RoE)

4.10.1. RInfra-T submitted that it has projected RoE from FY 2012-13 to FY 2015-16 in accordance with Regulation 32.2 of the MERC (MYT) Regulations, 2011, which stipulates a 15.50 % return on equity on the equity capital at the beginning of the year plus 50% of the equity portion for the assets capitalized during the year. RInfra-T stated that it is not proposing any retirement of assets during the MYT second control period. Further, in case any asset gets retired during the MYT second control period the same would be submitted to the Commission at the time of mid-term performance review and/or Truing up and the consequential adjustment in equity would be provided.

4.10.2. RoE projected by RInfra-T for FY 2012-13 to FY 2015-16 is shown in the table below:

Table 26: ROE as submitted by RInfra-T (in Rs crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Total return on regulatory equity	61.22	77.56	89.06	112.34

4.10.3. The Commission has computed RoE at the rate of 15.50 % of the equity, in accordance with the MERC (MYT) Regulations, 2011 on the opening equity of the year and on 50% of the projected levels of equity portion of assets capitalised during each year of the MYT second control period.

4.10.4. The Commission has considered regulatory equity at the end of FY 2011-12 as approved by the Commission in its Order in Case No. 123 of 2012 as the regulatory equity at the beginning of the year for FY 2012-13.

4.10.5. The return on equity as approved by the Commission for the MYT second control period is as follows:

Table 27: Return on equity as approved by the Commission (in Rs crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Regulatory equity at the beginning of the year	326.72	461.54	535.43	608.21
Equity portion of assets capitalised during year	134.82	73.89	72.78	222.32
Regulatory equity at the end of the year	461.54	535.43	608.21	830.54
Return on regulatory equity at the beginning of the year	50.64	71.54	82.99	94.27
Return on 50% of equity portion of capital expenditure capitalised during the year	10.45	5.73	5.64	17.23
Total return on regulatory equity	**61.09**	**77.27**	**88.63**	**111.50**

4.11. Income tax

4.11.1. RInfra-T submitted that in its business plan Petition, RInfra-T had made detailed submission regarding interpretation of various Judgements of Hon’ble ATE, including Appeal No. 90 of 2007 and 173 & 174 of 2009. However, the Commission in its Order in Case No. 159 of 2011, did not consider the said submissions and approved the same income tax for the MYT second control period as approved for FY 2010-11 in its Order in Case No. 163 of 2011.

4.11.2. RInfra-T submitted that it has the approached the Hon'ble ATE with an Appeal as it was aggrieved by the approach taken by Commission with regards to income tax. RInfra-T stated that the outcome of such Appeal will impact the treatment of income tax when actual income tax paid for any year of the MYT second control period is considered by the Commission.

4.11.3. RInfra-T further submitted that the approach adopted by the Commission in its Orders in Case No. 163/167/180 of 2011 is an in-correct approach as the Commission has not considered separate segments of RInfra as isolated from one another and has merged the taxable income of one segment with that of the other. RInfra-T stated that this approach of the Commission has resulted in segments of the company getting subsidized by unregulated segments. RInfra-T pointed out that cross-subsidization of benefits of regulated business with unregulated business and vice-versa had been specifically prohibited by Hon'ble ATE in its various Judgments. Further, the Judgment of the Hon'ble ATE stating that an utility should not gain or lose on account of income tax should be applied only on the concerned segment of utility which is regulated. The two Judgments of Hon'ble ATE, one where it ruled that each regulated compartment should be seen in isolation for the purpose of determining allowable income tax and other were it has ruled that licensee should not gain or lose on account of income tax, can be married only when the licensed compartment's income tax is determined separately in accordance with the applicable provisions of the income tax.

RInfra-T further submitted that for the purpose of projection of income tax for various years of the MYT second control period , it has considered the income tax as the same as approved by the Commission for different years of the MYT second control period in its Order in Case No. 159 of 2011.

Table 28: Income tax calculation as submitted by RInfra-T (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16

Income tax	7.34	7.34	7.34	7.34

4.11.4. For 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 MYT 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)***

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

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

4.11.7. The income tax considered by the Commission for the years under consideration for the MYT second control period starting from FY 2012-13 to FY 2015-16 is as summarised in the table below:-

Table 29: Income tax approved by the Commission (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Income tax	0.00	0.00	0.00	0.00

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

4.12. Non-tariff income

4.12.1. RInfra-T submitted that it has projected non-tariff income for different years of the MYT second control period under the following heads:

(a) Interest on loans and advances: The interest on staff loans and advances of Rs 0.03 crore was claimed by RInfra-T for FY 2010-11 and FY 2011-12 in its Petition pertaining to True up for these years in Case No. 123 of 2012. Since, RInfra-T is not expecting any increase/decrease of the same it has considered Rs. 0.03 crore as interest on staff loans and advances for each year of the MYT second control period.

(b) Equipment hire charges: RInfra-T submitted that it had provided a 125 MVA spare transformer on temporary purpose for a period of 6 months to the EPC division of RInfra on 4 February, 2012. The hire charges received in this regard for period of four months in FY 2012-13, have been considered as non-tariff income in FY 2012-13.

(c) Interest on investments related to contingency reserve: The cumulative investment in contingency reserve till the end of FY 2011-12 was Rs 7.5 crore. During the various years of the MYT second control period, contribution to contingency reserve is considered as 0.25% of opening GFA for that year. RInfra-T has currently invested contingency reserve in Central Government of India, 2017 securities which gives an interest of 7.46% and hence the same interest rate has been considered to compute interest on contingency reserve for different years of the MYT second control period.

(d) Other heads: Other items of non-tariff income cannot be projected with any degree of certainty at this point, as there is no historical trend and hence the same has not been considered in non-tariff income for any of the years of the MYT second control period.

4.12.2. Non-tariff income as estimated by RInfra-T for various years of the MYT second control period is as provided below:

Table 30: Non-tariff income as submitted by RInfra-T (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Non-tariff income	1.19	1.03	1.34	1.69

4.12.3. The Commission has considered RInfra-T's submission with regards to non-tariff income from "interest on loans and advances" and "equipment hire charges". With regards to interest on investments made out of contingency reserves, the contribution to contingency reserves considered is as detailed in Section 4.9. Interest on investments out of contingency reserve has been considered at 8% as approved by the Commission in its Order in Case No. 159 of 2011. Further, the Commission has considered the income from land usage charges that is proposed to be paid by

RInfra-D to RInfra-T as non-tariff income, as explained in Section 4.14 of this Order. RInfra-D will pay land usage charges for its receiving stations installed on the land owned by RInfra-T at Aarey, Versova and Ghodbunder EHV Sub-stations. Non-tariff income as approved by the Commission is provided below.

Table 31: Non-tariff income as approved by the Commission (in Rs. crore)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Non-tariff income	2.80	2.66	2.99	3.37

4.13. Incentive for higher system availability

4.13.1. RInfra-T in its Petition submitted that as per the terms of relevant Regulations applicable for the period concerned, transmission licensee is eligible for incentive on achieving annual availability beyond the target availability. Regulations further state that the incentive shall be computed during the mid-term performance review and at the end of the MYT second control period. Therefore, in the present MYT Petition, no estimate for availability incentive is made for FY 2012-13 to FY 2015-16.

4.13.2. As per Regulation 60 of the MERC (MYT) Regulations, 2011 the computation of incentive for transmission availability higher than the normative availability (98% for AC system, 92% for HVDC bi-pole links and 95% for HVDC back-to-back stations) has to be undertaken only during mid-term performance review and at the end of the MYT second control period.

4.13.3. The Commission takes note of the above submission and has not considered any incentive on the higher target availability of the transmission system under the present exercise of MYT approval.

4.14. Income from other business

4.14.1. RInfra-T submitted that RInfra-D has installed its receiving stations on the land owned by RInfra-T at Aarey, Versova and Ghodbunder EHV Sub-station plots, for which RInfra-T would be receiving rental charges from RInfra-D. RInfra-T stated that it has considered such income as income from other business under Regulation

63.1 of the MERC (MYT) Regulations, 2011. Further, RInfra-T stated that in accordance with the provisions of the said Regulation, it has deducted 1/3rd of such income from other business from the ARR.

4.14.2. RInfra-T further submitted that it is exploring business opportunities by utilizing its transmission assets and in case such income arises the same would accordingly be intimated to the Commission.

4.14.3. RInfra-T in the present Petition has proposed to account for the land usage charges received from the RInfra-D in lieu of utilisation of RInfra-T's land, as income from other business. The Commission opines that this income is recognised only to correctly account the costs involved in business operations of the respective licensees. Also it is important to reflect the true expenditure for each of the licensed business and also recover the same from the respective licensee's consumer. In the present case, the expense and income is occurring between the regulated businesses of the same parent company in the same State.

4.14.4. The Commission considering the above is not accepting the proposal of RInfra-T to treat this as income from other business and the same is approved as non-tariff income.

4.15. Revenue Gap for FY 2012-13

4.15.1. RInfra-T submitted that the Commission had approved the transmission Tariff for InSTS for FY 2010-11 in the Order dated 10 September, 2010 in Case No. 120 of 2009. As per this Order, RInfra-T receives Rs. 7.73 crore per month as revenue and the same has been received by RInfra-T in FY 2012-13 till May 2012. Subsequently in its Order dated 21 May, 2012 in Case No. 51 of 2012, the Commission approved InSTS Tariff for FY 2012-13 effective from 1 June, 2012 according to which RInfra-T receives Rs 10.58 crore per month as revenue from June 2012. Thus, revenue recovered from transmission charges for FY 2012-13 is Rs 121.26 crore and the same has been considered by RInfra-T to determine provisional revenue gap for FY 2012-13.

4.15.2. RInfra-T based on its projection of ARR for FY 2012-13 and the actual revenue recovered by RInfra-T from transmission charges in FY 2012-13 has projected a revenue gap of Rs 108.98 crore for FY 2012-13.

4.15.3. The Commission has considered RInfra-T's submission with regards to revenue recovered from transmission charges for FY 2012-13. Further, the Commission has determined the provisional revenue gap for FY 2012-13 based on its projection of ARR of RInfra-T for FY 2012-13 and the actual revenue recovered by RInfra-T from transmission charges in FY 2012-13 in Table 33. The revenue gap so determined by the Commission of Rs 84.79 crore has been added to the ARR of RInfra-T for the year FY 2013-14.

4.16. Aggregate revenue requirement

4.16.1. The ARR projected by RInfra-T for the MYT second control period is summarised in the following table:

Table 32: ARR submitted by RInfra-T for MYT second control period (in Rs crore)

Sl No	Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
A	**Expenditure**				
1	Operations & Maintenance Expenses	45.72	61.15	71.77	82.37
2	Depreciation	48.04	65.36	76.22	100.31
3	Interest on long-term loan capital	64.06	88.53	100.11	130.02
4	Interest on Working Capital	3.20	9.39	7.75	9.50
5	Income Tax	7.34	7.34	7.34	7.34
6	Contribution to contingency reserves	2.38	3.52	4.14	4.75
B	**Total Revenue Expenditure**	170.74	235.29	267.33	334.30
	Return on Equity	61.22	77.56	89.04	112.34
C	**Aggregate Revenue Requirement**	231.96	312.84	356.39	446.64
	Less: Non-tariff income	1.19	1.03	1.34	1.69
	Less: Income from other business	0.53	0.53	0.53	0.53
D	**Net Aggregate Revenue Requirement**	230.24	311.28	354.52	444.41
	Truing up gap of FY 2010-11		3.23		
	Truing up gap of FY 2011-12		19.67		
	Impact of Hon'ble ATE Judgment in Appeal No. 203 of 2010		9.14		
	Re-instatement of efficiency gains		*1.38*		
	Carrying cost on Truing up		*6.83*		
	Carrying cost on re-instatement of efficiency gains		*0.93*		

Sl No	Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
E	**Aggregate Revenue Requirement from Transmission Tariff**	**230.24**	**343. 32**	**354.52**	**444.41**
	Revenue recovered from Transmission Tariff	121.26			
	Provisional revenue gap for FY 2012-13 considered in FY 2013-14		108.98		
F	**Aggregate Revenue Requirement to be recovered from Transmission Tariff**		**452.30**	**354.52**	**444.41**

4.16.2. Based on the analysis detailed out in the previous paragraphs, the Commission has approved the ARR for RInfra-T for the MYT second control period from FY 2012-13 to FY 2015-16 as given below:

Table 33: ARR approved by the Commission for MYT second control period for RInfra-T (in Rs crore)

Sl. No	Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
A	**Expenditure**				
1	Operations & Maintenance Expenses	45.72	61.15	71.77	82.37
2	Depreciation	47.93	65.09	75.82	99.52
3	Interest on long-term loan capital	48.53	64.95	73.78	96.32
4	Interest on Working Capital	3.20	6.19	7.09	8.70
5	Contribution to contingency reserves	2.38	3.50	4.12	4.72
B	**Total Revenue Expenditure**	147.77	200.88	232.59	291.62
	Return on Equity	61.09	77.27	88.63	111.50
C	**Aggregate Revenue Requirement**	208.86	278.15	321.22	403.13
	Less: Non-tariff income	2.80	2.66	2.99	3.37

Sl. No	Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
	Less: Income from other business				
D	**Net Aggregate Revenue Requirement**	206.05	275.48	318.23	399.75
	Income Tax	-	-	-	-
E	**Net yearly ARR approved by the Commission**	**206.05**	**275.48**	**318.23**	**399.75**
	Truing up gap of FY 2010-11	-	10.50	-	-
	Truing up gap of FY 2011-12	-	28.55	-	-
	Impact of Hon'ble ATE Judgment in Appeal No. 203 of 2010	-	12.20	-	-
	Re-instatement of efficiency gains	-	1.33	-	-
	Carrying cost on Truing up	-	10.04	-	-
	Carrying cost on re-instatement of efficiency gains	-	0.83	-	-
F	**Aggregate Revenue Requirement from Transmission Tariff**	**206.05**	**326.73**	**318.23**	**399.75**
	Revenue recovered from Transmission Tariff	121.26	-	-	-
	Provisional revenue gap for FY 2012-13 considered in FY 2013-14	-	84.79	-	-
G	**Aggregate Revenue Requirement to be recovered from Transmission Tariff**		**411.52**	**318.23**	**399.75**

5. RECOVERY OF TRANSMISSION CHARGES

5.1.1. As the transmission network of RInfra-T forms a part of the InSTS system, the approved ARR for RInfra-T along with the provisionally approved income tax for the respective years of the MYT second control period from FY 2012-13 to FY 2015-16, shall be allowed to be recovered through the InSTS Transmission Tariff Orders, which the Commission shall issue for respective years of the MYT second control period.

5.1.2. In accordance with the Transmission Pricing Framework as specified under the MERC (MYT) Regulations, 2011, the approved ARR of any Transmission Licensee for a particular financial year of the MYT second control period, should be considered for recovery through the TTSC of the same financial year. The relevant Regulation of MERC (MYT) Regulations, 2011 specifying such formula for ARR recovery for transmission licensee, is reproduced as under for ready reference:

"64.1 Determination of Total Transmission System Cost (TTSC)

64.1.1 The aggregate of the yearly revenue requirement for all Transmission licensees; less the deductions, as approved by the Commission over the Control Period, shall form the "Total Transmission System Cost" (TTSC) of the Intra-State transmission system, to be recovered from the Transmission System Users (TSUs) for the respective year of the Control Period, in accordance with the following Formula:

$$TTSC_{(t)} = \sum_{i=1}^{n} (ARR_i - NT_i - O_i) - STR_{(t-1)}$$

Where, TTSC (t) = Pooled Total Transmission System Cost of year (t) of the Control Period
n = Number of Transmission Licensee(s)
ARRi = Yearly revenue requirement approved by the Commission for ith Transmission Licensee for the yearly period (t) of the Control Period
NTi = Approved level of non-tariff income for ith Transmission Licensee for the yearly period (t) of the Control Period
Oi = Approved level of income from other business of the ith Transmission Licensee for the yearly period (t) of the Control Period
STR (t-1) = Revenue from short term open access charges earned during previous yearly period (t-1).
..."(Emphasis Added)

5.1.3. However, in the case of ARR recovery of RInfra-T for FY 2012-13, the InSTS transmission Tariff Order for FY 2012-13 has already been issued on 21 May, 2012 and at the time of issuance of the same, there was no ARR approved for RInfra-T for FY 2012-13. Hence, the latest approved ARR for RInfra-T for FY 2011-12 as per Case No. 167 of 2011, was considered as part of TTSC for FY 2012-13. The relevant extract of the same is reproduced below:

"11 In order to determine the transmission Tariff for FY 2012-13, TTSC has to be computed based on the approved ARR for FY 2012-13 of the transmission licensees namely, MSETCL, TPC-T, RInfra-T and JPTL, forming the existing InSTS. However, as per the present status, the approved ARR for all the above transmission licensees are not available for FY 2012-13. ***In this context, the Commission is constrained to consider the ARR of the latest financial year as approved in the Orders already issued by the Commission for the respective transmission licensee for the purpose of determination of TTSC for FY 2012-13 and the transmission Tariff thereof" (emphasis added)***

5.1.4 Further, on 13 May, 2013 Commission issued the InSTS transmission Tariff Order for FY 2013-14 to FY 2015-16 (Case No. 56 of 2013). Since the approved ARR for RInfra-T from FY 2013-14 to FY 2014-15 was not available the Commission was constrained to consider the ARR as computed in the business plan order for RInfra-T for purpose of determination of TTSC in the InSTS Order. The relevant extracts of the same is produced below:

"In order to determine the transmission Tariff for FY 2013-14 to FY 2015-16, TTSC has to be computed based on the approved ARR under respective MYT Orders of the transmission licensees forming the existing InSTS. However, as per the present status, MYT Orders have been issued only for TPC-T and APML-T. In this context, for other Transmission Licensees forming existing InSTS, the Commission is constrained to consider the ARR as computed in respective Business Plan Orders. However, it is clarified that upon issuance of MYT Orders for such Transmission Licensees, the TTSC and the Transmission Tariff as determined under this Order shall be amended in due course, as may be necessary. The adjustments of over-recovery/under-recovery, if any, along with interest cost due to difference in ARR approved for such Transmission Licensees in their respective MYT Orders vis-a-vis ARR considered as per Business Plan Orders for the purpose of determination of TTSC under this Order shall be suitably accounted for during such amendment exercise."

5.1.5 In view of the above, adjustments of over-recovery/under-recovery, if any, along with interest cost due to difference in ARR approved for RInfra-T in this Order vis-a-vis ARR considered for RInfra-T in the InSTS Order for FY 2013-14 to FY 2015-16; will be viewed by the Commission at the time of amendment of InSTS Order for FY 2013-14 to FY 2015-16 as and when such exercise is undertaken by the Commission.

5.1.6 However, as stated earlier, the Commission has filed Civil Appeal before the Hon'ble Supreme Court against certain rulings in the Hon'ble ATE Judgment in Appeal No. 203 of 2010. The Commission may revert/ modify the ARR Computation based on the Judgment of the Hon'ble Supreme Court.

6. SUMMARY OF DIRECTIVE UNDER MYT BUSINESS PLAN AND COMPLIANCE STATUS

6.1. Background of directives

6.1.1. The Commission, in the business plan Order of RInfra-T in Case No. 159 of 2011, had given certain directives to RInfra-T to be complied with while filing the MYT Petition for the MYT second control period. RInfra-T, in the present MYT Petition, has submitted the compliance status to such directives of the Commission. The following section summarises the directives of the Commission and responses thereto as submitted by RInfra-T. Wherever necessary, the Commission has given its findings on the responses of RInfra-T.

6.2. Safety Report

Directive

6.2.1. RInfra-T shall provide a brief report within 2 months from the date of business plan Order, with details regarding safety issues arising in the practical operational scenario including safety incidents/ accidents for the previous 5 years period and the appropriate measures and strategies/ plans proposed to mitigate such incidents in the future.

Response

6.2.2. RInfra-T submitted that it has complied with the same vide letter RInfra-T/MERC/Safety Report/001 dated 26 December, 2012.

Commission's Observations/Ruling

6.2.3. The Commission has received the safety report from RInfra-T on the said matter and found the safety report to be satisfactory.

6.3. Plan for audit of protection systems

Directive

6.3.1. RInfra-T shall conduct third party audit of the protection systems and submit a plan for third party audit of the protection systems within 2 months from the issue of business plan Order and the compliance of this plan thereafter.

Response

6.3.2. RInfra-T submitted that it has complied with the same vide letter RInfra-T/MERC/Protection System/001 dated 26 December, 2012.

Commission's Observations/Ruling

6.3.3. The Commission has received the plan submitted by RInfra-T for third party audit of the protection systems and found that RInfra-T has complied with the Commission's directive appropriately. Further, RInfra-T has also submitted the detailed future plan for third party audit of protection system considering importance of grid security.

6.4. Refinancing of loan

Directive

6.4.1. RInfra-T shall take necessary measures to refinance the loan from South Indian Bank Ltd., with long-term project loan with lower interest rates and also submit the details of measures taken; offers received from different lenders, etc. in the MYT Petition.

Response

6.4.2. RInfra-T submitted that it has elaborated the steps undertaken and planned by RInfra-T in this regard in the Section on 'Financing Plan' in the Petition.

Commission's Observations/Ruling

6.4.3. The Commission has noted the response given by RInfra-T in this regard. The Commission takes note of the fact that RInfra-T has been able to reduce the interest rate on long term loan that it had availed from SIB to 12%. However, it has not complied with the directive of the Commission to refinance the loan with long term project loan. In addition, the Commission observes that RInfra-T has availed loans from Bank Of Maharashtra, State Bank of Hyderabad and Corporation Bank, the tenure of all of which is such that the repayment cannot be met through internal accruals. The Commission has detailed out its views on such loans taken by RInfra-T in Section 4.7 of this Order.

6.5. Transmission system availability

Directive

6.5.1. RInfra-T while submitting the MYT Petition shall propose its commitment towards achievement of transmission system availability during the MYT second control period and presents such proposal under its MYT Petition.

Response

6.5.2. RInfra-T submitted that it has always been its endeavour to achieve the transmission availability as directed by the Commission in the MERC (Terms and Tariff Conditions of Tariff) Regulations, 2005 applicable for the past periods till FY 2011-12. This would be evident from the availability achieved by RInfra-T in the past years till FY 2011-12 for which the certification is provided by SLDC and submitted to the Commission from time to time.

6.5.3. Further, RInfra-T submitted that RInfra-T has continuously explored new technologies for better diagnostics & continuous improvement of the operation & maintenance practices. With the advantage of the IT backbone available from Knowledge Management group, various IT enabled maintenance tools like “Maintenance trackers” have been developed. The developed “Maintenance Tracker” tool helps to keep record & keep track/history of equipments. All the records of preventive maintenance schedule are updated & reviewed through “Maintenance Tracker”. Further, RInfra-T submitted that new testing tools such as Sweep Frequency Response Analysis (SFRA) for healthiness of transformers, Tan delta, Due point for healthiness of SF6 gas, Dissolved Gas Analysis (DGA), Dynamic Contact Resistance Measurements (DCRM) for health of breakers, leakage current monitoring of lightening arrestors, tower footing signature analysis, etc. not only diagnose the equipments for its healthiness but most of them are non intrusive. With the help of the above-mentioned latest available maintenance practices in last two years, RInfra-T has proactively prevented failure of the equipments. In addition to this, RInfra-T has proposed various schemes for strengthening of the transmission networks to avoid the black outs. To ring the radial feeding EHV Sub-stations in the ring system, RInfra-T has planned its network in tandem with STU. There is islanding scheme in place to handle the technical eventuality in case of any grid disturbance. RInfra-T is having technically compliant manpower to maintain the system.

6.5.4. Further, RInfra-T submitted that it intends to continue to achieve the transmission availability as directed by the Commission in the MERC (MYT) Regulations, 2011 applicable from FY 2012-13 to FY 2015-16.

Commission's Observations/Ruling

6.5.5. The Commission has noted the response submitted by RInfra-T to this directive and found the RInfra-T's proposal and commitment to maintain transmission system availability as satisfactory.

6.6. Compliance of other performance parameters

Voltage Variation Index

Directive

6.6.1. In business plan Order in Case No. 159 of 2011, the Commission directed RInfra-T to compute Voltage Variation Index (VVI) separately for higher than nominal system voltage and lower than nominal system voltage.

Response

6.6.2. RInfra-T submitted that presently the transmission system parameters are monitored in Grid Coordination Committee (GCC) meeting. The reports associated to system parameters are required to be submitted to MSLDC on monthly basis and RInfra-T is complying with the same. RInfra-T has also provided a copy of the sample report containing values of voltage variation, provided to MSLDC for the month of November 2012, as exhibit in the Petition.

Commission's Observations/Ruling

6.6.3. The Commission has noted the information submitted by RInfra-T and found that RInfra-T is complying with the directive issued by the Commission in this regard.

Safety standards

Directive

6.6.4. In business plan Order in Case No. 159 of 2011, the Commission directed RInfra-T to observe the general safety requirements laid down by The Indian Electricity Rules, 1956 for construction, installation, protection, operation and maintenance of electric supply lines and apparatus.

Response

6.6.5. RInfra-T submitted that the issue of safety is a part of another directive of the Commission and the same has already been addressed by RInfra-T.

Commission's Observations/Ruling

6.6.6. The Commission has noted the response submitted by RInfra-T and found that RInfra-T has appropriately addressed the issue of maintaining safety standards as detailed in Para 6.2.3 of present Order.

Feeder availability and Sub-station availability

Directive

6.6.7. The Commission directed RInfra-T to calculate feeder availability as the percentage of time during which the feeder remained available for transmission and express Sub-station availability (in %) as a measure of the extent the power transmission capacity remained available from a Sub-station.

Response

6.6.8. RInfra-T submitted that as per MERC (MYT) Regulation, 2011, the transmission system availability is calculated as per the methodology & guidelines provided by the Commission which is certified by MSLDC. The transmission system availability calculations already cover the feeder availability & Sub-station availability. RInfra-T submitted that the proposed capital expenditure plan and the operating practices of RInfra-T will continue to maintain system availability as it has been in the past.

Commission's Observations/Ruling

6.6.9. The Commission has noted the reply submitted by RInfra-T and found that RInfra-T is complying with the directive issued by the Commission in this regard.

Reporting requirement and compliance

Directive

6.6.10. The Commission directed RInfra-T to maintain base data like log sheet, compliance registers, and interruption registers and relevant load flow studies in respect of system security, etc., such that the same can be furnished for verification and representation of the compliance to the standard of performance.

Response

6.6.11. RInfra-T submitted that the requisite data is maintained by RInfra-T and could be furnished when required.

Commission's Observations/Ruling

6.6.12. The Commission takes note of the submissions made and highlights that the data requirement would be requested through a separate communication which may be complied by RInfra-T from time to time.

7. NEW DIRECTIVES IN THE PRESENT ORDER

7.1.1. Through this MYT Order, RInfra-T is hereby directed to comply with the following new directives in the present Order given by the Commission.

7.1.2. As elaborated in Para 4.6.11 the Commission directs RInfra-T to submit a linked excel depreciation computation, complete in all respect, along with the mid-term performance review Petition. The Commission also directs that all the future Tariff related Petition’s of RInfra-T shall be accompanied with the linked excel formats including the depreciation computation barring which appropriate actions may be taken.

7.1.3. The Commission directs RInfra-T to take necessary measures and initiatives to ensure that all the projects envisaged by RInfra-T during the MYT second control period will be completed in time to avoid cost and time overrun which would be additional burden on the consumers.

8. APPLICABILITY OF THE ORDER

8.1.1. This Order on the ARR for the MYT second control period from FY 2012-13 to FY 2015-16 shall come into force with effect from its date of issuance and shall continue to be in force for the entire MYT second control period till 31 March, 2016. The Commission will undertake the mid-term review of RInfra-T's performance during the third quarter of FY 2014-15 in accordance with the MERC (MYT) Regulations, 2011. RInfra-T is directed to submit its Petition for mid-term review of its performance during the third quarter of FY 2014-15, with detailed reasons for deviation in performance, latest by 30 November, 2014.

8.1.2. With the above, RInfra-T's Petition in Case No.141 of 2012 stands disposed off.

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

Appendix 1

List of Persons who attended the Technical Validation Session on 21 January, 2013

SL. No.	Name	Company/ Institution
1	Vivek Mishra	RInfra
2	Himanshu Mishra	RInfra
3	P.G.Phokmare	RInfra
4	S.G Huparikar	RInfra
5	Ganesh Balasubramanian	RInfra
6	R.R Mehta	RInfra
7	Kapil Sharma	RInfra
8	M.S.Rao	RInfra
9	Rakesh.Raj	RInfra
10	Mohd. Shahid	RInfra
11	Bhuvanesh Mehta	RInfra
12	Amir Samant	RInfra
13	R.P.Abrol	Bharitya Udhami Avam Upbhokta Sangh
14	Kishor Patil	RInfra
15	M.C.Walke	STU-MSETCL
16	Jayant K	MSLDC
17	A.Vikas Nikumbh	May&Co

Appendix 2

List of Persons who attended the public hearing held on 5 April, 2013

SL. No.	Name	Company/ Institution
1	N. Ponrathnam	Vel Induction Hardenings
2	Rakshpal Abrol	Bharitya Udhami Avam Upbhokta Sangh
3	George John	Consumer
4	Shri. K.K Chopra	Consumer
5	Vivek Mishra	RInfra
6	Himanshu Mishra	RInfra
7	P.G.Phokmare	RInfra
8	S.G Huparikar	RInfra
9	Ganesh Balasubramanian	RInfra
10	R Nandi	RInfra
11	Kapil Sharma	RInfra
12	M.S.Rao	RInfra
13	Rakesh.Raj	RInfra
14	Mohd. Shahid	RInfra
15	Bhuvanesh Mehta	RInfra
16	Atul Joshi	RInfra
17	K R Nerkar	RInfra

18	K Sridhar	RInfra
19	Jalkate P S	RInfra
20	Sajna Purohit	RInfra
21	Gaurav Khandelwal	RInfra
22	Shri. Anand Kadam	BEST
23	Shri.Vinayak Kamat	BEST
24	Shri.Nitean Bhandari	BEST
25	Shri. A. R. Talyonkar	BEST
26	Shri. G. J. Thakkar	BEST
27	Shri. S. A. Bakre	BEST
28	Shri. R. K. Kamble	BEST
29	Shri. Karthik Krishnan	TPC