Order

on

Aggregate Revenue Requirement

and

Transmission Tariff

for

FY 2012-13 to FY 2014-15

for

Delhi Transco Limited

DELHI ELECTRICITY REGULATORY COMMISSION

July, 2012

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DERC

DELHI ELECTRICITY REGULATORY COMMISSION

Viniyamak Bhawan, 'C' Block, Shivalik, Malviya Nagar, New Delhi- 110017.

F.11(776)/DERC/2011-12/

Petition No. 06/2012

In the matter of: Petition for approval of ARR and applicable Tariff for FY 2012-13 to FY 2014-15 for Wheeling Business under the Multi Year Tariff Framework.

Delhi Transco Limited
Through its: **Chairman & Managing Director**
Shakti Sadan, Kotla Marg,
New Delhi – 110 002.

...Petitioner

Coram:

Sh. P. D. Sudhakar, Chairman,
Sh. Shyam Wadhera, Member &
Sh. J. P. Singh, Member.

ORDER

(Date of Order: 13.07.2012)

Having deliberated upon the Petition for approval of ARR and applicable Tariff for FY 2012-13 to FY 2014-15 filed by M/s. Delhi Transco Limited for Wheeling Business under the Multi Year Tariff Framework alongwith the Business Plan for the said Control Period; and the subsequent filings by the Petitioner during the course of proceedings; and having considered the responses received from stakeholders, the Commission in exercise of the powers vested under the Electricity Act, 2003 and the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 hereby pass this Order signed, dated and issued on 13.07.2012.

This Tariff Order shall be applicable from 01.07.2012 and shall remain in force till replaced by a subsequent Tariff Order and/or is amended, reviewed or modified, in accordance with the provisions of the Electricity Act, 2003 and the Regulations made thereunder.

(J. P. Singh) MEMBER	(Shyam Wadhera) MEMBER	(P. D. Sudhakar) CHAIRMAN

DERC

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LIST OF TABLES

LIST OF ABBREVIATIONS

Abbreviation	Explanation
A&G	Administrative and General
AAD	Advance Against Depreciation
ARR	Aggregate Revenue Requirement
AT&C	Aggregate Technical and Commercial
ATE	Appellate Tribunal for Electricity
ATSC	Annual Transmission Service Charge
BBMB	Bhakra Beas Management Board
BPTAs	Bulk Power Transmission Agreements
BRPL	BSES Rajdhani Power Limited
BYPL	BSES Yamuna Power Limited
CCA	City Compensatory Allowance
CERC	Central Electricity Regulatory Commission
CPI	Consumer Price Index
CPSUs	Central Public Sector Undertaking
CWIP	Capital Work in Progress
DDA	Delhi Development Authority
DERA	Delhi Electricity Reform Act
DERC	Delhi Electricity Regulatory Commission
DIAL	Delhi International Airport Limited
DISCOMs	Distribution Companies (BRPL, BYPL, NDMC & TPDDL)
DMRC	Delhi Metro Rail Corporation
DPCL	Delhi Power Company Limited
DTL	Delhi Transco Limited
DVB	Delhi Vidyut Board
FPA	Fuel Price Adjustment
GFA	Gross Fixed Assets
GoNCTD	Government of National Capital Territory of Delhi
GTPS	Gas Turbine Power Station
HRA	House Rent Allowance
IDC	Interest During Construction
IPGCL	Indraprastha Power Generation Company Limited
LPSC	Late Payment Surcharge
LTC	Leave Travel Concession
MCD	Municipal Corporation of Delhi
MES	Military Engineering Service
MU	Million Units
MYT	Multi Year Tariff
NATAF	Normative Annual Transmission System Availability Factor
NCT	National Capital Territory
NDMC	New Delhi Municipal Corporation

Abbreviation	Explanation
NHPC	National Hydroelectric Power Corporation
NRPC	Northern Region Power Committee
NTI	Non Tariff Income
NTP	National Tariff Policy
NTPC	National Thermal Power Corporation
O&M	Operations and Maintenance
OEM	Original Equipment Manufacturer
PGCIL	Power Grid Corporation of India
PPA	Power Purchase Agreement
PPCL	Pragati Power Corporation Limited
R&M	Repair and Maintenance
RLDC	Regional Load Despatch Centre
RoCE	Return on Capital Employed
RRB	Regulated Rate Base
RTI	Right to Information
SERC	State Electricity Regulatory Commission
SJVNL	Satluj Jal Vidyut Nigam Limited
SLDC	State Load Despatch Centre
TPDDL	Tata Power – Delhi Distribution Limited
UI	Unscheduled Interchange
ULDC	Unified Load Despatch Centre
WACC	Weighted Average Cost of Capital
WC	Working Capital
WPI	Wholesale Price Index

A1: INTRODUCTION

1.1 This Order relates to a petition filed by Delhi Transco Limited (hereinafter referred to as 'DTL' or 'TRANSCO' or 'the Petitioner') for approval of ARR and applicable tariff for FY 2012-13 to FY 2014-15 for Transmission business under the principles specified in the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 (hereinafter referred to as the 'MYT Regulations 2011').

Delhi Transco Limited

1.2 Delhi Transco Limited is a company incorporated under the Companies Act, 1956 engaged in the business of transmission of electricity in the National Capital Territory of Delhi.

Delhi Electricity Regulatory Commission (DERC)

1.3 Delhi Electricity Regulatory Commission (hereinafter referred to as 'DERC' or 'the Commission') was constituted by the Government of National Capital Territory of Delhi on March 3, 1999 and it became operational from December 10, 1999.

1.4 The Commission's approach to regulation is driven by the Electricity Act 2003(hereinafter referred to as 'the Act'), the National Electricity Plan, the Tariff Policy and the Delhi Electricity Reform Act 2000 (hereinafter referred to as 'DERA'). These Acts mandate the Commission to take measures conducive to the development and management of the electricity industry in an efficient, economic and competitive manner which inter alia includes tariff determination.

The Co-Ordination Forum

1.5 The Commission has, since the constitution of the co-ordination forum by Government of NCT of Delhi on June 16, 2005 (consisting of Chairperson of the State Commission and the Members thereof, representatives of the generating companies, transmission licensees, and distribution licensees engaged in generation, transmission and distribution etc. in accordance with section 166(4) of the Electricity Act, 2003), held 25 meetings. Two meetings viz. the 24th and the 25th meeting were held during FY 2011-12. In the 24th and 25th Co-ordination Forum Meeting held on November 9, 2011 and March 19, 2012 respectively, the Commission discussed the following:

24th Co-ordination Forum Meeting

(a) Repair and utilization of distribution transformers of erstwhile DVB period handed over to DISCOMs.

(b) Replacement of oil filled transformers by dry type transformers inside residential / commercial buildings.

(c) Commissioning of Bawana Power Project by PPCL.

(d) Regulation of power by central PSUs for BRPL and BYPL.

(e) Commission advised the DISCOMs to examine their cash flow on monthly basis and make the payment on account of power purchase and wheeling charges on priority to Central/ State generation and transmission utilities to avoid regulation of power.

25th Co-ordination Forum Meeting

(a) Various issues such as replacement of oil filled type by dry type transformers, repair of distribution transformers etc. were discussed.

(b) The guidelines of implementation of Intra State Open Access in Delhi were discussed and it was decided that suitable modification may be carried out to the draft guidelines.

(c) The compliance of the directions issued by the Commission regarding Residual Back Flow, Absolute Earth Potential and Separate neutral for each connection were reviewed.

(d) The distribution licensees were advised to carry out energy audit from time to time.

(e) Introduction of Time of Day tariff from FY 2012-13 onwards was discussed with the distribution companies.

(f) The schedule of submission of the Asset Register was discussed with the distribution companies and DTL. They were directed to make the Asset Register available to the Commission within 15 days.

Multi-Year Tariff Regulations

1.6 The Commission issued the MYT Regulations vide Order dated December 2, 2011 specifying Terms and Conditions for Determination of Tariff for Generation, Transmission and Distribution of electricity under the Multi Year Tariff (MYT) framework for the period FY 2012-13 to FY 2014-15 following due process of Law. The Regulations/amendment in Regulations were notified in the official Gazette on January 19, 2012/ March 15, 2012.

Filing of Petition for Approval of ARR for FY 2012-13 to FY 2014-15

Filing and Acceptance of Petition

1.7 DTL has filed its petition for approval of ARR and applicable tariff for FY 2012-13 to FY 2014-15 for Transmission business under Multi Year Tariff framework before the Commission on February 2, 2012.

1.8 The Commission admitted the petition vide its Order dated February 9, 2012 subject to clarifications/ additional information, if any, which would be sought from the

Petitioner from time to time. A copy of the Admission Order dated February 9, 2012 is enclosed as **Annexure I** to this Order.

1.9 Further, at the request of the stakeholders, the Commission directed the Petitioner to submit Hindi version of the Petition filed by it. The Hindi version of the Petition was uploaded on the website of the Commission as well as the website of the Petitioner for the benefit of the stakeholders.

Interaction with the Petitioner

1.10 The Order has referred at numerous places to various actions taken by the "Commission". It may be mentioned for the sake of clarity, that the term "Commission" in most of the cases refers to the Staff of the Commission and the Consultants appointed by the Commission for carrying out the due diligence on the petitions filed by the utilities, obtaining and analysing information/clarifications received from the utilities and submitting all issues for consideration by the Commission.

1.11 For this purpose, the Commission Staff and Consultants held discussions with the Petitioners, obtained information/clarifications wherever required and carried out technical validation with regard to the information provided.

1.12 The role of the Commission has been to hold public hearings and to take the final view with respect to various issues concerning the principles and guidelines for tariff determination. The use of the term "Commission" may, therefore, be read in the context of the above clarification. The Commission has considered due diligence conducted by the Staff of the Commission and the Consultants in arriving at its final decision.

1.13 On preliminary scrutiny of the Petition certain deficiencies were observed which required additional information/clarification/filing of missing formats. The deficiencies were communicated to the Petitioner vide letter dated February 22, 2012. A partial reply to the preliminary deficiency note was received by the Commission on March 2, 2012.

1.14 Accordingly, the Commission solicited additional information/ clarifications from the Petitioner as and when required. The Commission and the Petitioner also discussed key issues related to the petition. The Petitioner submitted additional information through various letters, as listed in the Table 1.

1.15 The Commission also conducted multiple validation sessions with the Petitioner during which discrepancies in the petition and additional information required by the Commission were sought. Subsequently, the Petitioner submitted replies to the issues raised in these sessions and provided documentary evidence to substantiate its claims regarding various submissions.

1.16 The replies of the Petitioner as mentioned in the Table below have been considered during approval of the Aggregate Revenue Requirement of the Petitioner.

Table 1: List of Correspondence with DTL

S No	Date	Letter No.	Subject
1	01.03.2012	F./DTL/203/11-12/Opr. GM(Comml./82	Reply in regard to letter No. 3(331)/Tariff/DERC/2011-12/3263 dt.22/02/2012 (17/18C)
2	28.03.2012	F/DTL/207/DNG(SO) /11-12/81	Power Purchase data for 2010-11 in response to letter No.F.17(201)/Engg/DERC/2012-13/3357/6681dt.07/03/12
3	30.03.2012	F./DTL/207/11-12/Mgr(SO)/75	Revised allocation of Bawana CCGT
4	25.04.2012	F./DTL/207/11-12/GM(SLDC)/12-13/14	Annual Revenue Requirement (ARR) of State Load Dispatch Centre
5	15/05/2012	F.DTL/AM(Fin)l/2011-12/10	Additional Information /clarification in connection with the MYT tariff petition of DTL for the Control Period 2012-15
6	04/06/2012	F.DTL/AM(Fin)l/2011-12/	Additional information /clarification in connection with the MYT tariff petition of DTL for the Control Period 2012-15
7	04/06/2012	F.DTL/AM(Fin)l/2011-12/19	Additional information /clarification in connection with the MYT tariff petition of DTL for the Control Period 2012-15
8	11/06/2012	F.DTL/AM(Fin)l/2011-12/23	Additional information in connection with the MYT petition filled by DTL
9	12/06/2012	F.DTL/AM(Fin)l/2011-12/26	Additional information in connection with the MYT petition filled by DTL
10	13/06/2012	F.DTL/AM(Fin)l/2011-12/25	Additional information in connection with the MYT petition filled by DTL
11	19/06/2012	F.DTL/300/DIR(FIN)/2012-13/F-11/122	Provisional Financial results of DTL

Public Hearing

1.17 The Petitioner published a Public Notice on March 14, 2012 indicating the salient features of its petition, for inviting comments from the stakeholders, in the following newspapers:

(a) Times of India (English)

(b) Hindustan Times (English)

(c) Dainik Jagran (Hindi)

(d) Roznama Rashtria Sahara (Urdu)

1.18 Copies of the Public Notices in English, Hindi and Urdu are enclosed as **Annexure II** to this Order. Copy of the petition was made available for purchase from the head-office of the Petitioner on any working day from March 14, 2012 to March 29, 2012, between 11 A.M. and 4 P.M. on payment of Rs 100/-. A copy of the complete petition was also uploaded on the website of the Commission, as well as that of the Petitioner, requesting for comments of the stakeholders thereon.

1.19 The Commission also published a Public Notice on March 15, 2012 inviting comments from stakeholders on the MYT petition filed by the Petitioner latest by March 30, 2012 in the following newspapers:

(a) Hindustan Times (English)

(b) Time of India (English)

(c) The Pioneer (English)

(d) Dainik Jagran (Hindi)

(e) Dainik Bhaskar (Hindi)

(f) The Educator (Punjabi)

(g) Milap (Urdu)

1.20 Copies of the Public Notices in English, Hindi, Punjabi and Urdu are attached as **Annexure III** to this Order.

1.21 At the request of the Stakeholders, the Commission extended the last date for filing the objections and suggestions up to April 10, 2012 for which the Public Notice was issued on March 31, 2012/April 1, 2012 in the following newspapers:

(a) Hindustan Times (English)

(b) Time of India (English)

(c) The Pioneer (English)

(d) Dainik Jagran (Hindi)

(e) Dainik Bhaskar (Hindi)

(f) The Educator (Punjabi)

(g) Milap (Urdu)

1.22 Copies of the Public Notices in English, Hindi, Punjabi and Urdu are attached as **Annexure IV** to this Order.

1.23 At the request of the stakeholders, to extend help to the consumers in understanding the ARR Petition and filing their comments, the Commission prepared a Staff Paper highlighting salient features of the MYT Petition filed by the Petitioner, which was uploaded on the Commissions' website. In this regard, the services of the two officers of the Commission viz. Joint Director (Tariff-Finance) and Joint Director (Tariff-Engineering) were made available to all the interested stakeholders for discussion on the ARR Petitions. This was duly highlighted in the Public Notices brought out by the

Commission. In order to increase participation of the stakeholders, the Commission also prepared and uploaded the Hindi version of the Staff Paper on its website.

1.24 The Commission received comments from seven stakeholders. The comments of the stakeholders were forwarded to the Petitioner. The Petitioner responded to the comments of the stakeholders and submitted a copy of its response to the Commission. The Commission invited all stakeholders who had filed their objections and suggestions to attend the Public Hearing. A list of the stakeholders who responded to the Public Notice on ARR and tariff petitions and/or those who attended the public hearing is enclosed as **Annexure V** to this Order.

1.25 The Public Hearing was held at the Commission's Court Room on April 30, 2012 from 10.30 a.m. onwards to discuss the issues related to the petition filed by the Petitioner. The issues and concerns voiced by various stakeholders have been examined by the Commission. The major issues discussed during the public hearing and/or written comments made by the stakeholders, the responses of the Petitioner thereon and the views of the Commission, have been summarized in Chapter A2.

Layout of the Order

1.26 This Order is organised into five Chapters:

(a) Chapter A1 provides details of the tariff setting process and the Approach of the Order;

(b) Chapter A2 provides a brief of the Public Hearing process, including the details of comments of various stakeholders, the Petitioner's responses and the views of the Commission thereon;

(c) Chapter A3 provides analysis of the petition for determination of the Aggregate Revenue Requirement and Transmission tariff for MYT Control Period (FY 2012-13 to FY 2014-15); and

(d) Chapter A4 provides the Summary of the Transmission Tariff for DTL and details the Directives of the Commission.

1.27 This Order contains the following Annexures, which are an integral part of the Tariff Order:

(a) Annexure I – Admission Order;

(b) Annexure II – Copies of Public Notices published by the Petitioner;

(c) Annexure III – Copies of the Public Notice published by the Commission inviting comments from the stakeholders;

(d) Annexure IV – Copies of the Public Notice published by the Commission regarding extension of last date of submission of comments.

(e) Annexure V – List of the respondent Stakeholders.

Approach of the Order

1.28 The Petitioner has filed a Petition for approval of ARR and applicable tariff for FY 2012-13 to FY 2014-15 for Transmission business under Multi Year Tariff framework.

Approach for FY 2012-13 to FY 2014-15

1.29 The following provisions of the MYT Regulations, 2011, pertinent to Transmission business are relevant and these are dealt with in greater details in Chapter A3 of this Order.

(a) Regulation 3.2 – Determination of Aggregate Revenue Requirement (ARR) for the Transmission Business.

(b) Regulation 4.3 & 4.4 – Base line values (operating and cost parameters) and performance targets.

(c) Regulation 4.8-4.14 – Annual performance review and prior approval of actual Capital Expenditure and Capitalisation for allowing the Return on capital employed & Depreciation and Renovation and Modernisation.

(d) Regulations 4.15 & 4.16 – Targets for the controllable parameter and their truing-up.

(e) Regulation 5 – ARR for Transmission Business for each year of the Control Period shall contain:

(i) Operation and Maintenance expenses;

(ii) Return on Capital Employed;

(iii) Depreciation;

(iv) Income Tax;

(v) Less: Non-Tariff Income ; and

(vi) Less: Income from Other Business.

A2: RESPONSE FROM STAKEHOLDERS

Introduction

2.1 Public hearing was held at the Commission's Court Room on April 30, 2012 from 10:30 a.m. onwards to discuss the issues related to the Petition filed by the Petitioner. In the public hearing the stakeholders put forth their comments/suggestions before the Commission in the presence of the Petitioner. The Petitioner was also given an opportunity to respond to the comments put forth by the stakeholders.

2.2 The issues and concerns voiced by various stakeholders in their written comments as well as in the public hearing along with the response of the Petitioner thereon have been examined by the Commission. The comments/ suggestions of various stakeholders, the replies given by the Petitioner and the views of the Commission have been summarized under various sub-heads below:

Efficiency Factor

Stakeholders' View

2.3 The Petitioner has applied an efficiency factor @1% on A&G and R&M cost for the Control Period 2012-15, whereas the Commission has stipulated the efficiency factor for the FY 2011-12 @4% on A&G and R&M cost and Employee cost. Hence Efficiency factor should be @ 4% while determining the tariff.

Petitioner's Submission

2.4 Efficiency factor of 1% has been applied on the base employee expenses for the FY 2011-12 against the efficiency factor of 4% considered by the Commission in the ARR for the FY 2011-12. This is done in view of the fact that there are a number of 220 kV Sub-Stations which are very old, namely, Okhla 220 kV S/S, Narela 220 kV S/S, Najafgarh 220 kV S/S, Patparganj 220 kV S/S, Gopalpur 220 kV S/S, I.P 220 kV S/S etc. These Sub-Stations have been existing almost for the last 35-40 years and there is no up-gradation & augmentation work at these Sub-Stations with the latest technology. Due to this fact they are still incurring Capex on the additional Sub-Stations in order to achieve N-1 criteria in DTL system as per CEA norms after which the capital expenditure on the augmentation aspects of these Sub-Stations in a phased manner shall be taken up, for which they have already proposed a few schemes in respect of GIS technology at the existing Sub-Stations, i.e. IP 220 kV S/S, Okhla 220 kV S/S, Lodhi Road 220 kV S/S, Subzi Mandi 220 kV S/S, Gopalpur 220 kV S/S which will be implemented in the Control Period in a phased manner.

2.5 In the MYT petition, the O&M expenses have been computed as per the MYT Regulations circulated by the Commission and the Hon'ble Commission in its Tariff Order approved the O&M cost after doing the prudence check on the same. So there is least scope of improvement until DTL upgrades its existing Sub-Stations/Network with state-of-art technology. Hence efficiency factor of 1% is considered to enhance stability, reliability of electricity supply in Delhi.

Commission's View

2.6 The Commission is of the view that efficiency improvement parameter takes into account the capital investment made on transmission system, infrastructure, latest technology, trained manpower available to maintain network etc. The Petitioners' system is a mix of old and new integrated network. The efficiency improvement parameter is based upon the infrastructure available vis-à-vis manpower available to maintain the network. The Commission has extended the MYT Regulations, 2007 for a period of one more year to FY 2011-12. The efficiency factor approved by the Commission for the respective FY 2007-08 to FY 2010-11 have been 1%, 2%, 3% and 4% respectively. In the Tariff Order for FY 2011-12, the Commission has extended the efficiency factor of 4% for the FY 2011-12 also. For projecting the O&M expenses for the Control Period, FY 2012-15, the efficiency factor is determined in line with the provisions of the MYT Regulations 2011 and the observations of the Hon'ble ATE in its Judgment dated 29 September 2010 in Appeal no. 28/2008.

Pension Trust Fund

Stakeholders' View

2.7 Due information needs to be provided whether the amount of Rs 150 Cr has been transferred into the Pension Trust and a separate account has been maintained and if not, then same may be accounted in the financial year of the payment in order to lessen the burden on the consumers. In the Public hearing the Distribution licensees reiterated that the Pension Trust accounts are not audited since financial year 2006-07. The licensees are not aware as to how the amount is being utilized. There is no transparency; and, the licensees are presently paying in line with the applicable FR/SR Rules. The funding on account of medical/ LTC have since been appropriated from non-planned funds and was never a part of the one- time corpus of the Pension Fund.

Petitioner's Submission

2.8 Payments made by Distribution licensees on account of Pension Trust as well as by Delhi Government on behalf of BYPL by treating subsidy amount of Rs 14.18 Cr as Pension Trust amount have been transferred to the Pension Trust. DTL is maintaining a separate account as per the directives of the Hon'ble Commission. In the Public hearing, the Petitioner requested for consideration of a provisional amount for sustainability of the pension trust, the way it was approved in the previous year.

Commission's View

2.9 During the public hearing, the distribution licensees submitted that the accounts of the Pension Trust have not been audited. Also in their view, the funding of the trust by GoNCTD is not based on an actuarial valuation. As a result of the under-funding, the Trust is unable to meet its liability towards pension and other payments to retired employees. This matter is also sub judice before the Hon'ble Delhi High Court.

2.10 The Commission is issuing advice to the Govt. of NCT of Delhi u/s 86(2) of the Electricity Act 2003 to have the accounts audited immediately and also consider restructuring the Board of Trustees so that Government nominees are inducted on the Board. This is necessary for ensuring proper management of the Trust and servicing of the liabilities towards the retired employees, for which necessary provisions should be made by the respective employing entities in their accounts.

2.11 In order to avoid undue hardship to the retired employees (Pensioners) the Commission is making an ad-hoc one time provision of Rs. 160 Cr to the DTL in this Tariff Order for passing on to the Pension Trust. The Commission is of the view that ad-hoc provisions of this nature cannot continue in future and the parties to the dispute before the Hon'ble High Court of Delhi should expedite the proceedings before the Court and explore other avenues for settlement of the dispute.

Metering System

Stakeholders' View

2.12 DTL is required to install metering system including CTs & PTs of class 0.2, thus providing a measurement in accuracy. The energy difference on this account may also be suitably loaded on DTL and relief be provided to the Distribution licensees.

Petitioner's Submission

2.13 As a transmission utility, the Petitioner is only transforming energy after stepping down in accordance with the voltage level of the Distribution licensees. Whatever energy is lost in the Petitioners' network, it is basically due to transformer's copper and iron losses which in no way can be reduced and increased by replacing CTs and PTs of higher accuracy class. The higher class of CTs and PTs are required for minimizing the error in measuring of more accurate energy for accounting purposes. Further, the Distribution licensees have been paying energy charges based on the energy recorded at the generator's end. Any difference in loss calculations in the Petitioner's network due to accuracy factor of CT and PT can only affect the AT&C loss targets of the Petitioner as well as Distribution licensees. As such, if transmission losses in Petitioner's network are recorded on higher side, the benefit goes to Distribution licensee's account showing their loss calculations in lower side on actual and vice-versa. If the view of BYPL is taken into consideration, it is observed that they have considered the accuracy of the CT and PT on negative side showing losses of energy, whereas the accuracy of CT and PT are on both side (negative and positive). Hence instead of loss it can be gain also.

Commission's View

2.14 The Commission has already directed the Petitioner to install CT/PT and Energy meter of appropriate accuracy class as per relevant standards within six months.

A3: ANALYSIS OF AGGREGATE REVENUE REQUIREMENT (ARR) FOR THE CONTROL PERIOD (FY 2012-13 TO FY 2014-15)

Introduction

3.1 The Commission has analysed the Multi Year Tariff (MYT) petition submitted by DTL for approval of Aggregate Revenue Requirement and determination of Transmission Charges for the Control Period (FY 2012-13 to FY 2014-15).

3.2 In the present petition, the Petitioner has submitted the revised expenses for the Policy Direction Period (2002-07), for Control Period (FY 2007-08 to FY 2011-12) and the projected ARR for FY 2012-13 to FY 2014-15. A brief summary of the expenses submitted by the Petitioner for the Policy Direction Period and revised ARR for the Control Period (FY 2007-08 to FY 2011-12) is shown in the tables below:

Table 2: Liability for Policy Direction Period submitted by the Petitioner (Rs Cr)

Sl. No.	Particulars	Amount
1.	DVB Arrears	1040.85
2.	Additional Power Purchase Liability	3.78
3.	Readjustment of Surplus	183.52
4.	**Total Receivables for Policy Direction Period**	**1228.15**

Table 3: ARR for FY 2007-08 to FY 2011-12 submitted by the Petitioner (Rs Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
Total Expenditure	**130.49**	**146.83**	**225.58**	**248.78**	**314.53**
Return on Capital Employed	82.90	92.40	95.38	146.12	251.80
Less: Other Revenue	10.00	16.10	3.09	26.55	38.52
Less: Non Tariff Income	1.37	5.68	4.94	2.57	2.50
Aggregate Revenue Requirement	**202.02**	**217.45**	**312.93**	**365.78**	**525.30**
Additional amount allowed due to prior period liability					183.52
Additional amount allowed due to revision of ARR for FY 2007-08 to FY 2010-11 as per order of FY 2011-12					484.95
Pension Trust Liability					150.00
True up for FY 2007-08 to FY 2010-11 (as per petition)					-262.44*
Impact of DVB arrears					1040.85
Total					2122.18
Amount allowed by the Commission in FY 2011-12					1187.58
Net Revenue Requirement/ Amt to be recovered in FY 2012-13					**934.60**

**True-up value of Rs 262.44 Cr for FY 2007-08 to FY 2011-12 is inclusive of carrying cost*

3.3 The Commission is currently in the process of conducting review of capital expenditure, capitalization and physical verification of assets added by the Petitioner during FY 2006-07 to FY 2010-11. The capital expenditure and capitalization carried out by the Petitioner for the Control Period (FY 2007-08 to FY 2011-12) shall be trued up on completion of this review.

3.4 While the Commission shall carry out true up for each year of the Control Period (FY 2007-08 to FY 2011-12) in its future Orders, it has decided to allow additional expenses to the Petitioner on account of additional power purchase liability for the Policy Direction Period (FY 2002-03 to FY 2006-07) in this Order.

3.5 The Commission has also analysed the Multi Year Tariff (MYT) petition submitted by DTL for approval of Aggregate Revenue Requirement and determination of Transmission Charges for the Control Period (FY 2012-13 to FY 2014-15).

3.6 The Commission held various validation sessions to validate the data submitted by the Petitioner and sought further clarifications on various issues. The Commission has considered all information submitted by the Petitioner as part of the tariff petition, audited accounts for FY 2007-08 to FY 2010-11, responses to various queries raised during the discussions and also during the public hearing, for determination of tariff.

3.7 A brief summary of the MYT petition, submitted by the Petitioner for the Control Period (FY 2012-13 to FY 2014-15) is shown in the table below:

Table 4: ARR for the Control Period submitted by DTL (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
O&M expenses	227.81	261.68	307.46
Depreciation	165.26	214.56	250.78
Rebate on Sale/Wheeling of Power	2.50	2.50	2.50
ROCE	335.08	430.97	491.88
Less: A&G and Employee Expenses Capitalized	33.46	45.97	12.39
Less: Non-Tariff Income	2.50	2.50	2.50
Income Tax Provisions	35.92	44.97	47.41
Revenue Requirement	**730.61**	**906.21**	**1085.14**
Additional Power Purchase Liability for Prior Period (2002-07)	3.78		
True up of Control Period (FY 2007-08 to FY 2011-12) (including DVB Arrears)	934.60		
Aggregate Revenue Requirement	**1668.99**	**906.21**	**1085.14**

3.8 This chapter contains detailed analysis of the expenses submitted by DTL for the Prior Period Expenses (2002-07) and the MYT Control Period (FY 2012-13 to FY 2014-15), hereinafter referred to as 'the Control Period' or 'the Control Period (FY 2012-13 to FY 2014-15)' and the various parameters approved by the Commission for determination of Transmission Service Charge for DTL.

Prior Period Expenses

Additional Power Purchase Liability for Policy Direction Period (2002-07)

Petitioner's Submission

3.9 The Petitioner has submitted that it is also obliged to pay the revised power purchase bill of CPUs for period prior to March 2007 which have arisen during FY 2011-12 as per the orders of ATE/CERC for revised power tariffs to NTPC, BBMB, SJVNL & others, Arbitration award passed by NRPC in favour of Himachal Pradesh State Electricity Board (HPSEB).

3.10 Since all these sums pertains to the transaction of bulk power purchase made by the Petitioner before April 1, 2007 these are required to be funded to it in the form of revised tariff. The Petitioner submitted in its petition that it has received revised bills for an amount of Rs. 3.78 Cr (excluding surcharge).

3.11 In its subsequent submissions the Petitioner submitted that it has received additional power purchase bills of Rs 5.85 Cr during FY 2011-12 after submission of the tariff petition. The total power purchase liability for the prior period has thus been submitted at Rs 9.62 Cr.

Commission's Analysis

3.12 During the Policy Direction Period, the Petitioner was responsible for the bulk power purchase for all distribution licensees. Since power purchase cost is an uncontrollable expense and the CPSUs have raised additional bills on account of power purchase for Policy Direction Period, the Petitioner is entitled to recover the additional power purchase liability.

3.13 During the validation sessions, the Commission directed the Petitioner to provide information regarding the additional power purchase liability claimed by it, in respect of the bill amount, bill date, due date, payment date, amount already paid and balance outstanding. The Commission has scrutinized the information provided by the Petitioner, including power purchase bills raised by NTPC, NHPC, PGCIL, etc.

3.14 The Petitioner received net additional power purchase bills of the amount Rs 9.62 Cr against power purchase made in the Policy Direction Period up to March 2012. The Commission provisionally approves the same. The power purchase cost accounted in FY 2011-12 shall however be trued up after finalisation of the audited accounts of the Petitioner.

3.15 With regards to the carrying cost allowable on the additional power purchase liability the Commission has followed the approach used by it in its previous Tariff Order dated August 26, 2011.

3.16 For any power purchase bill received by the Petitioner during the year, the Commission has considered carrying cost from the date of the payment in case bill has been paid on time or due date in case there was delayed payment / no payment till March 2012.

3.17 Similarly, for any amount received from a generating company (refund) during the year, a negative carrying cost has been considered from date of receipt/due date till March 2012.

3.18 The total power purchase cost computed, including the carrying cost, as explained above is given in the table below.

Table 5: Additional Power Purchase Liability (Rs Cr)

Particulars	Rs Cr
Additional Power Purchase Liability	9.62
Carrying Cost	0.09
Total Amount including Carrying Cost	**9.72**

DVB arrears and Adjustment of surplus of approved for FY 2006-07

Petitioner's Submission

3.19 The Petitioner has submitted that additional liability of Rs 637.66 Cr towards DVB arrears needs to be passed through by the Commission along with carrying cost @ 11.50% up to March 31, 2012. The total amount on account of DVB arrears is submitted as Rs 1040.85 Cr.

3.20 Further, the Petitioner has stated that the Commission has adjusted the surplus of Rs. 196.17 Cr (as per MYT order dated December 20, 2007) along with the negative carrying cost in the Tariff Order dated August 26, 2011. The Petitioner has claimed that this treatment is untenable as this surplus appears only on account of the incorrect treatment of DVB Arrears. Accordingly, the Petitioner has readjusted the Rs. 196.17 Cr along with carrying cost. The total adjustment on this account up to FY 2011-12 has been submitted as Rs 183.52 Cr.

Commission's Analysis

3.21 With regards to the adjustment of surplus of Rs 196.17 Cr the Commission has noted in its previous Tariff Order dated August 26, 2011 that –

"3.38 In the MYT Order for the Petitioner, the Commission had carried out true-up for FY 2006-07 and had approved a total surplus of Rs 196.17 Cr. The same was to be adjusted towards the ARR of the distribution licensees. The Petitioner has submitted that no payment has been made so far to the distribution licensees on this account.

3.39 The Commission has, therefore, adjusted the surplus amount (Rs 196.17 Cr along with negative carrying cost@11.5%) against the amount receivable by the Petitioner due to revision of costs pertaining to the Policy Direction Period as discussed in the previous sections"

3.22 The Commission had approved a surplus of Rs 196.17 Cr in its MYT Order December 20, 2007 for FY 2006-07 after truing up the expenses of the Petitioner for the Policy Direction Period (2002-07). In the Tariff Order dated August 26, 2011, the Commission has approved certain additional expenses related to the previous period (2002-2007) in giving effect to the Judgments of the Hon'ble ATE in Appeal No. 133/07 and Appeal No. 28/08 (expect the expenses on account of DVB arrears). All the additional expenses recognized by the Commission (plus the carrying cost on the same) have already been adjusted towards allowing the ARR for FY 2011-12. It is thus only logical to also adjust the surplus approved for the Petitioner up to FY 2006-07 against the additional expenses allowed in the ARR for FY 2011-12.

Determination of Aggregate Revenue Requirement for Control Period (FY 2012-13 to FY 2014-15)

3.23 The Commission analyzed all the components of the Aggregate Revenue Requirement (ARR) submitted by the Petitioner to approve suitable values for each component, for each year of the Control Period. As per the MYT Regulations 2011, the ARR include the following components:

(a) Operations and Maintenance Expenses;

(b) Depreciation;

(c) Return on Capital Employed;

(d) Income Tax; and

(e) Less: Non-Tariff Income.

Operation and Maintenance Expenses

3.24 As per the MYT Regulations 2011, the Operation and Maintenance (O&M) expenses shall be allowed to a transmission licensee on normative basis and shall include:

(a) Salaries, wages, pension contribution and other employee costs;

(b) Administrative and General expenses which shall also include expense related to raising of loans;

(c) Repairs and Maintenance;

(d) Expenses related to auxiliary energy consumption in the sub-station for the purpose of air-conditioning, lighting, technical consumption, etc.; and

(e) Other miscellaneous expenses, statutory levies and taxes (except corporate income tax).

3.25 The said Regulations prescribe the following methodology for determination of normative O&M expenses for a transmission licensee –

"5.6 The Licensee shall submit the O&M expenses for the Control Period as prescribed in multiyear tariff filing procedure. The O&M expenses for the Base Year shall be approved by the Commission taking into account the latest available audited accounts, business plan filed by the Licensees, estimates of the actuals for the Base Year, prudence check and any other factor considered appropriate by the Commission.

5.7 O&M expenses permissible towards ARR for each year of the Control Period shall be determined using the formula detailed below:

(a) $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n)$

Where,

(i) $R\&M_n = K * GFA_{n-1};$

(ii) $EMP_n + A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX)$; *and*

(iii) $INDX = 0.55 * CPI + 0.45 * WPI$

(iv) EMP_n *– Employee Costs of the Licensee for the* n^{th} *year;*

(v) $A\&G_n$ *– Administrative and General Costs of the Licensee for the* n^{th} *year;*

(vi) $R\&M_n$ *– Repair and Maintenance Costs of the Licensee for the* n^{th} *year;*

(vii) X_n *is an efficiency factor for* n^{th} *year. Value of* X_n *shall be determined by the Commission in the MYT Tariff order based on Licensee's filing, benchmarking, approved cost by the Commission in past and any other factor the Commission feels appropriate.*

Where,

'K' is a constant (could be expressed in %). Value of K for each year of the Control Period shall be determined by the Commission in the MYT Tariff order based on Licensee's filing, benchmarking, approved cost by the Commission in past and any other factor considered appropriate by the Commission;

INDX - Inflation Factor to be used for indexing. Value of INDX shall be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding five years before the base year;"

Base year and Inflation Factor

Petitioner's Submission

3.26 The Petitioner has submitted that the financial year FY 2011-12 has been considered as the base year for computing values of certain cost elements for FY 2012-13 to FY 2014-15.

3.27 Based on the actual values of CPI and WPI, the Petitioner has calculated the annual growth in values of CPI (overall) for Industrial Workers and WPI (overall) for the period FY 2007-08 to FY 2011-12 (actual up to November 2011). The same has been used for determination of the inflation factor for each year of the Control Period.

Table 6: Inflation Factor submitted by the Petitioner

Year	Projected Growth in WPI	Projected WPI	Projected Growth in CPI	Projected CPI	Index (Consolidated)	inflation factor
FY 2012-13	6.80%	165.09	8.99%	209.25	189.38	1.0812
FY 2013-14	6.80%	176.32	8.99%	228.06	204.78	1.0813
FY 2014-15	6.80%	188.31	8.99%	248.55	221.45	1.0814

Commission's Analysis

3.28 As per the MYT Regulations 2011, the O&M expenses for the Base Year shall be approved by the Commission taking into account the latest available audited accounts, business plan filed by the Licensees, estimates of the actuals for the Base Year, prudence check and any other factor considered appropriate by the Commission.

3.29 Since the audited accounts for the Base Year (FY 2011-12) are not yet available, the Commission has considered the O&M expenses of the Petitioner as per the audited accounts for FY 2006-07 to FY 2010-11, as submitted by the Petitioner, for estimating the O&M expenses for the Base Year. The Commission directed the Petitioner to submit head wise break-up of the employee, R&M and A&G expenses for FY 2006-07 to FY 2010-11 and has examined the same for determination of the base year expenses. The value of the employee, R&M and A&G expenses for the Base Year as arrived at by the Commission are detailed in the respective sections dealing with these expenses.

3.30 As per MYT Regulations 2011, "*the inflation factor (INDX) to be used for projection of employee and A&G expenses shall be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding five years before the base year.*"

3.31 The CPI and WPI values for calculation of the inflation factor are given in the table below.

Table 7: Actual CPI and WPI

Year	CPI (Overall)	% Growth YoY	WPI (Overall)	% Growth YoY
2005-06	117.12		104.47	
2006-07	125.00	6.73%	111.35	6.59%
2007-08	132.75	6.20%	116.63	4.74%
2008-09	144.83	9.10%	126.02	8.05%
2009-10	162.75	12.37%	130.82	3.81%
2010-11	179.75	10.45%	143.33	9.56%
Average		8.97%		6.55%

Source: Ministry of Labour Website, http://labourbureau.nic.in and Ministry of Commerce and Industry Website, http://eaindustry.nic.in

3.32 Based on these values, the Commission has calculated the annual growth in values of CPI (overall) for Industrial Workers and WPI (overall) for the period FY 2006-07 to FY 2010-11 and has considered the same for determination of indices during the base year and the Control Period. The summary of the same is provided in the table below:

Table 8: Projected CPI and WPI during the Control Period

Year	CPI (Overall)	Projected Growth in CPI	WPI (Overall)	Projected Growth in WPI
2011-12 (Base Year)	195.87	8.97%	152.71	6.55%
2012-13	213.44	8.97%	162.72	6.55%
2013-14	232.59	8.97%	173.37	6.55%
2014-15	253.45	8.97%	184.73	6.55%

3.33 The Commission has determined the inflation factor for the n[th] year ($INDX_n$) using a weighted average of CPI and WPI as specified in the MYT Regulations 2011. The inflation factor is then used to calculate the inflation factor for each year ($INDX_n$/ $INDX_{n-1}$) as shown in the table below.

Table 9: Inflation factor for the Control Period approved by the Commission

Financial Year	Index (Consolidated)	Inflation Factor
2010-11	163.36	
2011-12	176.45	1.08
2012-13	190.62	1.08
2013-14	205.94	1.08
2014-15	222.53	1.08

Employee Expenses

Petitioner's Submission

3.34 The Petitioner has projected employee expenses for the Control Period by increasing the normative employee expenses allowed by the Commission for FY 2011-12 by the inflation factor as given in Table 6. The Petitioner has also projected separately certain other employee expenses to be incurred on account of Actuarial Valuation (Gratuity and Leave Encashment), LTC (North East) expenditure, Employee expenses of 220 KV IP Switchyard (taken over by DTL in Jan 2010 from IPGCL), Additional Ex-Gratia and Pension Trust Dues.

3.35 The table below contains a summary of the employee expenses projected by the Petitioner for FY 2012-13 to FY 2014-15. A summary of proposed employee expenses of the Petitioner for the Control Period is given in the table below.

Table 10: Employee Expenses submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Inflation factor	1.0812	1.0813	1.0814
Employee Expenses	127.74	138.13	149.37
Less: Efficiency Improvement	1.28	1.38	1.49
Other Employee Expenses	12.84	17.29	26.20
Total Employee Expenses	139.30	154.04	174.08

Commission's Analysis

3.36 The Commission has determined employee expenses of the Petitioner for the Control Period in line with the formula specified in the MYT Regulations, 2011 –

$EMP_n + A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX);$

Where,

$INDX = 0.55 * CPI + 0.45 * WPI;$

EMP_n *– Employee Costs of the Licensee for the* n^{th} *year;*

INDX - Inflation Factor to be used for indexing. Value of INDX shall be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding five years before the base year."

3.37 Since the audited accounts for the Base Year (FY 2011-12) are not yet available, the Commission has considered the employee expenses of the Petitioner as per the audited accounts for FY 2010-11, as submitted by the Petitioner, for estimating the employee expenses for the Base Year.

3.38 The Commission noted that the employee expenses for FY 2010-11 as per the audited accounts include expenses of SLDC. The Petitioner was directed to submit segregated details of employee expenses for DTL and SLDC. The Commission considered the employee expenses for DTL excluding the expenses incurred on SLDC as submitted by the Petitioner vide letter dated May 15, 2012.

3.39 Further the Petitioner was directed to submit the head wise break-up of the employee expenses for FY 2006-07 to FY 2010-11 which was submitted by the Petitioner vide letters dated May 15, 2012, June 11, 2012 and June 12, 2012. The Commission has examined the same for determination of the base employee expenses. The total employee expenses for FY 2010-11 were submitted by the Petitioner at Rs. 136.84 Cr. It was observed that an amount of Rs. 21.85 Cr was paid to the Pension Trust on account of Medical, LTC, including arrears payable to the Pension Trust. The Petitioner was also directed to identify any arrears on account of Sixth Pay Commission included in the employee cost of FY 2010-11. The Petitioner submitted that arrears amounting to Rs 6.41 Cr were included under the head of 'Other Allowances' and Rs 3.00 Cr were included under the head of 'LS & PC Regular Employees'.

3.40 The Commission has calculated the net employee expenses for FY 2010-11 after deducting the Pay Commission Arrears and payment made to Pension Trust on account of Medical, LTC, etc from the employee expenses as these are abnormal/non-recurring expenses. Hence, the net employee expenses for the Petitioner have been calculated at Rs. 105.58 Cr (Rs. 136.84 Cr - Rs.21.85 Cr - Rs 6.41 Cr - Rs 3.00 Cr) for FY 2010-11.

3.41 The employee expenses for the Base Year (Rs 114.05 Cr) have been arrived at by escalating the net employee expenses calculated for FY 2010-11 by the inflation factor given in Table 9. For the calculation of the employee cost for each year of the Control Period the Commission has escalated the revised employee cost for the base year as per the inflation factor mentioned in Table 9.

3.42 The approved employee expenses of the Petitioner for each year of the Control Period are as shown below.

Table 11: Employee Expenses approved by the Commission (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Employee Expenses	123.20	133.11	143.82

Administrative and General Expenses

Petitioner's Submission

3.43 For projecting A&G expenses for FY 2012-13 to FY 2014-15, DTL has considered the approved A&G expenses for the FY 2011-12 and the same have been escalated as per the inflation factor mentioned in Table 6.

3.44 The summary of proposed A&G expenses of the Petitioner during the Control Period is given in the table below.

Table 12: A&G expenses submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Inflation Factor	1.0812	1.0813	1.0814
A&G Expenses	22.79	24.64	26.65

Commission's Analysis

3.45 The Commission has determined A&G expenses of the Petitioner for the Control Period in line with the formula specified in the MYT Regulations 2011 –

$EMP_n + A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX)$;

Where,

$INDX = 0.55 * CPI + 0.45 * WPI$;

EMP_n – Employee Costs of the Licensee for the n^{th} year;

INDX - Inflation Factor to be used for indexing. Value of INDX shall be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding five years before the base year."

3.46 Since the audited accounts for the Base Year (FY 2011-12) are not yet available, the Commission has considered the A&G expenses of the Petitioner as per the audited accounts for FY 2010-11, as submitted by the Petitioner, for estimating the A&G expenses for the Base Year.

3.47 The Commission noted that the expenses for FY 2010-11 as per the audited accounts include expenses of SLDC. The Petitioner was directed to submit segregated details of expenses for DTL and SLDC. The Commission considered the A&G expenses for DTL excluding the expenses incurred on SLDC as submitted by the Petitioner vide letter dated May 15, 2012.

3.48 Further the Petitioner was directed to submit the head wise break-up of the A&G expenses for FY 2006-07 to FY 2010-11 (provided by the Petitioner vide letter dated June 6, 2011) and has examined the same for determination of the base A&G expenses.

3.49 The Petitioner was also directed to identify the recurring and non-recurring expenses under A&G expenses. The Petitioner identified legal award expenses, loss on redemption of investment, rebate allowed on wheeling of power as non-recurring expenses. However, the Commission noted that besides the above, expense on loss on foreign currency transactions was also non-recurring in nature and should not be included in the base A&G expenses. The Petitioner, vide its letter dated June 15, 2012, has also submitted the expenses for GIS training in FY 2010-11 at Rs 0.31 Cr which have been also been reduced from the A&G expenses to arrive at the base year expenses. The additional expenses incurred on GIS training would be approved by the Commission based on the actual amount incurred and due prudence check by the Commission (as detailed in paragraph 3.71).

3.50 The Commission has thus excluded the loss on foreign currency transactions (Rs 1.42 Cr), legal award expenses (Rs. 0.63 Cr), expenses on training for GIS (Rs 0.31 Cr) and loss on redemption of investment (Rs 0.10 Cr) from the total A&G expenses (Rs. 20.17 Cr) submitted by the Petitioner for FY 2010-11. The net expenses for FY 2010-11 have been calculated by the Commission equal to Rs. 17.71 Cr.

3.51 The Base Year (FY 2011-12) A&G expenses have been arrived at Rs 19.13 Cr by escalating the net A&G expenses as determined above by the inflation factor given in Table 9. The Commission has calculated A&G expenses for each year of the Control Period by considering the revised A&G Expenses of the base year and has escalated the same as per the inflation factor mentioned in Table 9.The A&G Expenses as approved by the Commission is given in the table below.

Table 13: A&G expenses approved by the Commission (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
A&G Expenses	20.67	22.33	24.13

Repairs and Maintenance Expenses

Petitioner's Submission

3.52 The Gross Fixed Assets for the Control Period have been computed based on the actual GFA approved by the Commission in FY 2006-07, the actual capitalization undertaken by DTL during the last Control Period (FY 2007-08 to FY 2011-12) and the proposed asset capitalization during FY 2012-13 to FY 2014-15 as per Business Plan proposed by DTL for the Control Period. For FY 2012-13 to FY 2014-15, value of 'K' is considered as 2.19% which is approved value for the previous year i.e. FY 2011-12. The Petitioner has further submitted that as per the decision of Delhi Govt. it has taken over the 220 KV switchyard of I.P. Station in January 2010, and additional R&M expense should be allowed for it.

3.53 The table below summarises the proposed R&M Expenses submitted by the Petitioner for the Control Period.

Table 14: R&M Expenses submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
GFA Opening	2762.62	3550.42	4632.07
K Factor	2.19%	2.19%	2.19%
R&M Expenses	60.50	77.75	101.44
Add: Additional Expenses on GIS s/stn (allowed in Tariff Order dated August 26, 2011)	3.96	3.96	3.96
Total R&M Expenses	**64.46**	**81.71**	**105.40**

Commission's Analysis

3.54 As per the MYT Regulations 2011, the Repairs and Maintenance (R&M) Expenses of the Petitioner for the Control Period are to be determined based on the following formula:

$$R\&M_n = K * GFA_{n-1}$$

Where,

R&Mn is Repair and Maintenance Costs of the Licensee for the nth year;

'K' is a constant (could be expressed in %).

Value of K for each year of the Control Period shall be determined by the Commission in the MYT Tariff order based on Applicant's filing, benchmarking, approved cost by the Commission in past and any other factor considered appropriate by the Commission.

3.55 The Commission observed that the expenses for FY 2010-11 as per the audited accounts include expenses of SLDC. The Petitioner was directed to submit segregated details of expenses for DTL and SLDC. The Commission considered the R&M expenses for DTL excluding the expenses incurred on SLDC as submitted by the Petitioner vide letter dated May 15, 2012 and June 13, 2012.

3.56 Further, the Petitioner was directed to submit the head wise break-up of the R&M expenses for FY 2006-07 to FY 2010-11 and has examined the same for determination of the R&M expenses for the Control Period.

3.57 In the additional information, the Petitioner, vide letter dated June 4, 2012, also submitted that the rise in R&M expenses under the head of 'Buildings' from Rs 2.18 Cr in FY 2008-09 to 5.39 Cr in FY 2009-10 was mainly due to repair work in view of the Commonwealth Games. The amount of the expenditure incurred on these repairs in FY 2009-10 is at Rs. 1.72 Cr. The Commission has reduced the same from R&M expenses of 2009-10, as ad-hoc expenses on buildings, to calculate the 'K'-factor.

3.58 The Commission has calculated the actual 'K' factor observed for the Petitioner for each year from FY 2007-08 to FY 2010-11 considering the R&M expenses during the year and the opening GFA as per the annual audited accounts of DTL. The R&M expenses and 'K' factor for each year from FY 2007-08 to FY 2010-11 are shown in the table below.

Table 15: 'K' factor for FY 2007-08 to FY 2010-11

Particular	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Opening GFA (as per audited accounts) (Rs Cr)	953.41	1071.20	1213.56	1291.74
R&M Expenses (Rs Cr)	12.08	12.25	18.21	21.96
K Factor (on approved GFA)	1.27%	1.14%	1.50%	1.70%

3.59 It is observed that the average R&M expenses from FY 2007-08 to FY 2010-11 were Rs 16.12 Cr. The 'K' factor over the period varied from 1.14% to 1.70%, with the average 'K' factor being 1.424%. The Commission has considered the average 'K' factor for FY 2007-08 to FY 2010-11 as the 'K' factor for the Control Period (FY 2012-13 to FY 2014-15).

3.60 The Commission has approved the R&M Expenses for each year of the Control Period (FY 2012-13 to FY 2014-15), considering the opening level of GFA as approved by the Commission in Table 24 and the 'K' factor of 1.424% as shown in Table 17 below.

3.61 In the Tariff Order for FY 2011-12 dated August 26, 2011 the Commission had approved additional R&M expenses to meet the expenditure on gas insulated switch gear station (GIS) submitted by the Petitioner. The relevant sections from the order are quoted below:

"3.66 With regards to the A&G and other expenditure approved by the Commission in MYT Order, the ATE in its Judgement in Appeal No 28/2008 has stated as below: "The next issue relates to Administrative & General expenditure, etc. According to the Appellant, the State Commission has wrongly not considered the projections made

by the Appellant. It is replied by the Learned Counsel for the State Commission that the State Commission has determined the A&G expenses as per Regulations 5.7 of the DERC Regulations and the Appellant actually gave bald proposal of 4 to 5% increase whereas the State Commission has calculated the increase based on the provisions contained in the MYT Regulations and that therefore, the finding is correct. The Appellant had claimed additional expenses to meet the expenditure on gas insulated switch gear station of the Appellant in Delhi for which costs have increased substantially. Therefore, the State Commission in the truing-up process may consider the actual expenditure incurred by the Appellant pertaining to norms laid down in the Regulations and deviations and relaxations, if any required based on the justification provided by the Appellant."

3.67 Thus, as per the Order of the ATE, the Commission has to consider additional A&G and other expenditure pertaining to gas insulated switchgear (GIS) submitted by the Petitioner and allow the same based on the justification provided by the Petitioner.

3.68 The Commission has observed that the GIS equipment installed at Park Street and Kashmere Gate stations of the Petitioner is 17 years and 14 years old respectively. There had been no overhaul of the equipment since it was installed, more than 10 years ago and hence overhauling had to be done on priority basis through the OEM.

3.69 The Commission had allowed R&M expenses for the MYT Control Period using the following formula:

*R&Mn = 2.19% *GFAn-1*

3.70 Since the capital cost of the GIS equipment is included in the GFA considered for calculating the R&M expenses, ideally, the additional expenditure should not have been allowed to the Petitioner now. However, it was also noted that the ratio 2.19% (or the K factor) was determined by the Commission on the basis of the average K factor observed for the Petitioner during FY 2002-03 to FY 2006-07, the period during which no overhauling was carried out for the above two GIS sub-stations.

3.71 Considering the extraordinary nature of the expenditure and that no further overhauling is expected to be carried out during the next 10 years, the Commission has allowed the additional R&M expenses. At the same time, to avoid additional burden on the consumer in a single year, the expenditure has been amortised over five years from FY 2010-11 to FY 2014-15, along with the appropriate carrying cost @ 11.5% per annum."

3.62 Accordingly, the Commission has also included additional R&M expenses allowed on GIS, as approved in Tariff Order dated August 26, 2011 and shown in the table below, in the total R&M expenses for FY 2012-13 to FY 2014-15.

Table 16: R&M expenses allowed on account of GIS in Tariff Order for FY 2011-12 (Rs Cr)

Particulars	Total	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Opening Balance	15.27	15.27	12.84	10.13	7.12	3.75
Additional R&M Allowed during the year (Repayment)		3.957	3.957	3.957	3.957	3.957
Average Balance		13.29	10.86	8.16	5.14	1.77
Interest during the year		1.53	1.25	0.94	0.59	0.20
Closing Balance		12.84	10.13	7.12	3.75	0.00

3.63 The summary of R&M Expenses approved by the Commission for the Control Period is as shown below.

Table 17: R&M Expenses approved by the Commission (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Opening GFA	2563.36	2963.36	3363.36
K Factor (%)	1.424%	1.424%	1.424%
R&M Expenses (excluding additional R&M allowed on GIS)	36.50	42.19	47.89
Additional R&M allowed on GIS (approved in FY 2011-12 Order)	3.96	3.96	3.96
Total R&M Expenses	40.46	46.15	51.85

Efficiency Factor

Petitioner's Submission

3.64 The Petitioner has requested that the efficiency factor be limited to 1% for each year of the Control Period in view of the old system of DTL and the judgement of ATE in this regard.

Commission's analysis

3.65 As per the MYT Regulations 2011 for determination of transmission tariff, O&M expenses for the Control Period are to be determined using the following methodology:

"The O&M expenses for the nth year of the Control Period shall be approved based on the formula shown below:

(a) $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1-X_n)$

Where X_n *is an efficiency factor for* n^{th} *year. Value of Xn shall be determined by the Commission in the MYT Tariff Order based on Licensee's filing; benchmarking, approved cost by the Commission in past and any other factor the Commission feels appropriate."*

3.66 The Commission is of the view that the O&M trajectory for the Control Period shall be decided considering an expected annual efficiency improvement factor.

3.67 The Commission has benchmarked the O&M expenses of the Petitioner against O&M expenses of the transmission licensees in other States. The Commission has observed that the O&M expenses of the Petitioner are higher than those of other State Transmission utilities. The summary of the relative comparison of O&M expenses of DTL vis-à-vis the other Transmission utilities for FY 2010-11 is shown below:

Figure 1: Comparison of O&M Expenses as a % of Opening GFA

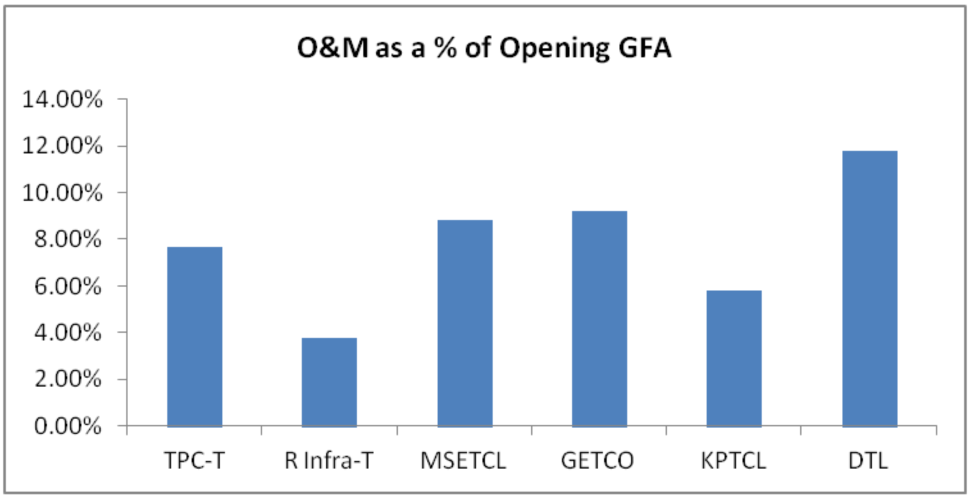
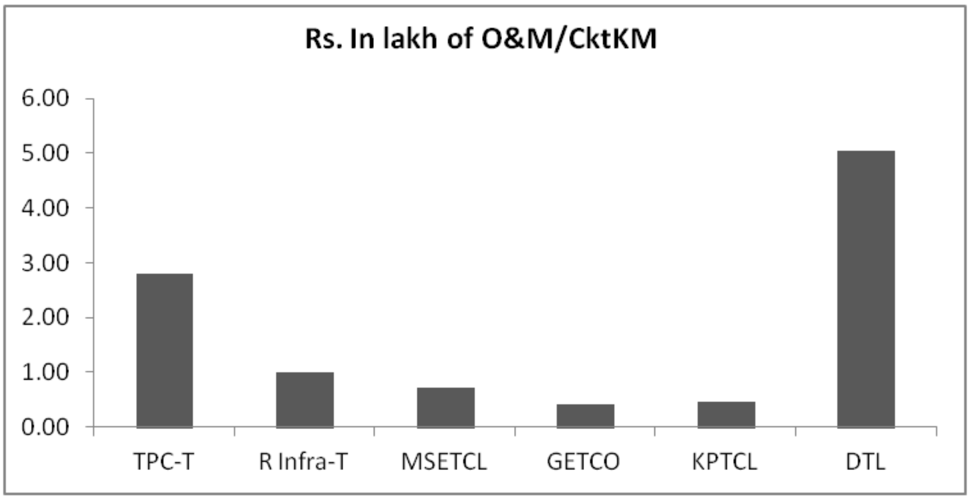


Figure 2: Comparison of O&M Expenses/Ckt KM



**30% of total O&M cost has been considered for comparison on /ckt-km basis*

3.68 The Commission expects the Petitioner to improve its performance considering the significant investment made during the Control Period. Hence, the Commission has determined the efficiency improvement factor as 2%, 3% and 4% for FY 2012-13, FY 2013-14 and FY 2014-15 respectively.

Total Operation & Maintenance Expenses

Petitioner's Submission

3.69 The Petitioner has submitted that DTL is in the process of using Latest EHV Technology of Gas Insulated Switchgear (GIS), Substation Automation etc. for optimization of Power Quality etc. which needs imparting specialized, training to manpower to these latest technologies. Accordingly the Petitioner has proposed for additional Training expenditure for FY 2012-13 to 2014-15.

3.70 The summary of O&M expenses projected by the Petitioner for the Control Period is shown in the table below:

Table 18: O&M expenses submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Employee Expenses (including efficiency factor)	139.30	154.04	174.08
A&G Expenses	22.79	24.64	26.65
R&M Expenses	60.50	77.75	101.44
O&M Expenses	222.59	256.43	302.17
Efficiency Factor (on A&G and R&M)	1.00%	1.00%	1.00%
Net O&M Expenses	221.76	255.41	300.89
Additional R&M allowed on GIS (approved in ARR FY 2011-12 order)	3.96	3.96	3.96
Training Expenses as per National Training Policy	2.09	2.31	2.61
Total O&M Expenses	**227.81**	**261.68**	**307.46**

Commission's analysis

3.71 In the Tariff Order for FY 2011-12 dated August 26, 2011, the Commission had approved Rs. 2.45 Cr under A&G expenses as additional expenses of specialised training for Gas Insulated Switchgears (GIS) for FY 2009-10. The Petitioner has submitted the expenses for GIS training in FY 2010-11 at Rs 0.31 Cr.

3.72 The Commission believes that the expenditure on training for GIS is a specialized activity and is not recurring in nature, and has considered these expenses separately. Hence no expenses on GIS training have been considered by the Commission for calculation of the base A&G expenses. The additional expenses incurred on GIS training would be approved by the Commission based on the actual amount incurred and due prudence check by the Commission.

3.73 The summary of total O&M Expenses approved by the Commission for the Control Period is provided in the table below.

Table 19: O&M Expenses approved by the Commission (Rs Cr)

Particulars	FY2012-13	FY2013-14	FY2014-15
Employee Cost	123.20	133.11	143.82
R&M Expenses (excluding additional R&M allowed on GIS)	36.50	42.19	47.89
A&G Expenses	20.67	22.33	24.13
Total O&M expenses	180.37	197.63	215.84
Efficiency Improvement	2%	3%	4%
Net O&M Expenses	**176.76**	**191.70**	**207.21**
Additional R&M allowed on GIS (approved in FY 2011-12 Order)	3.96	3.96	3.96
Total O&M expenses	**180.72**	**195.66**	**211.17**

Capital Investment and Capitalization

Petitioner's Submission

3.74 The first Business Plan for DTL was for the period 2007-08 to 2010-11for a total amount of Rs 2260 Cr, which was later extended up to March 31, 2012. An additional capital investment of Rs. 723.33 Cr was approved by the Commission in its ARR order for FY 2011-12.

3.75 DTL has submitted that most of the schemes planned during Control Period (FY 2007-08 to FY 2011-12) have been taken up for implementation and have either been completed or are under final stages of completion. However, some of the schemes could not be taken up due to the reasons beyond the control of DTL and have now been included in the Business Plan for the Control Period.

3.76 The table below shows the year wise requirement of funds by DTL for capital schemes to be taken up during FY 2012-13 to FY 2014-15.

Table 20: Total Planned Capital Investment submitted by the Petitioner (Rs Cr)

S. No.	Name of the Scheme	FY 2012-13	FY 2013-14	FY 2014-15
A.	400kv works			
i.	400kv s/stn	53.5	11	13
ii.	400kv lines	0	0	10
	Total 400kv s/stn &lines	53.5	11	23
B.	220kv works			
i.	220kv sub stations	379.53	394.83	195.2
ii.	220kv lines	268.94	244.89	154
	Total of 220kv (lines &s/stn)	648.47	639.72	349.2
	Grand Total	**701.97**	**650.72**	**372.2**

3.77 The Petitioner has also submitted the details of the assets to be capitalised during the Control Period. A summary of proposed asset capitalization as submitted by the Petitioner is given below:

Table 21: Capitalisation submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Lines Network	239.94	423.89	105
Other Civil Works	5.00	5.00	5
Plant & Machinery	541.31	650.81	179.2
Office Equipment	0.5	0.6	0.7
Computer	0.25	0.4	0.5
Furniture	0.6	0.7	0.75
Misc Assets	0.20	0.25	0.35
Total	**787.80**	**1081.65**	**291.50**

Commission's Analysis

3.78 The Commission in its previous Tariff Orders has approved cumulative capital expenditure and capitalization of Rs 3313.33 Cr and Rs 2998.33 Cr for the Petitioner for FY 2007-08 to FY 2011-12 respectively.

3.79 The Commission is currently in the process of conducting review of capital expenditure, capitalization and physical verification of assets added by the Petitioner during FY 2006-07 to 2010-11. The capital expenditure and capitalization carried out by the Petitioner for the Control Period (FY 2007-08 to FY 2011-12) shall be trued up on the completion of this review. Accordingly, the Commission has also not made any adjustment in the depreciation and financing cost allowed to the Petitioner for FY 2007-08 to FY 2011-12.

3.80 From the audited balance sheets of the Petitioner it is noticed that the actual additions to GFA during FY 2007-08 to FY 2010-11 is much lower than that approved by the Commission. The closing GFA of the Petitioner, as per the audited accounts for FY 2010-11, is Rs 1840.03 Cr as compared to Rs 3197.98 Cr approved by the Commission in its previous MYT Order. The year wise capitalization and closing GFA as approved by the Commission in its previous Tariff Orders and as per the audited accounts of the Petitioner is shown in the tables below:

Table 22: GFA and Capitalization as approved by the Commission for FY 2007-08 -FY 2010-11 (Rs Cr)

Particulars	FY 2007-08	FY2008-09	FY2009-10	FY2010-11
	MYT Order	MYT Order	MYT Order	MYT Order
GFA (Opening)	922.98	1112.98	1297.98	2497.98
Addition	190.00	185.00	1200.00	700.00
GFA (Closing)	**1112.98**	**1297.98**	**2497.98**	**3197.98**

Table 23: GFA and Capitalization as per annual accounts of DTL for FY 2007-08 - FY 2010-11 (Rs Cr)

Particulars	FY 2007-08	FY2008-09	FY2009-10	FY2010-11
GFA (Opening)	953.41	1071.20	1213.56	1291.74
Addition	117.79	142.36	78.18	548.29
GFA (Closing)	**1071.20**	**1213.56**	**1291.74**	**1840.03**

3.81 Observing that the actual GFA of the Petitioner is much lower than the approved GFA, the Commission has decided to provisionally revise the capitalization and GFA of the Petitioner from FY 2007-08 to FY 2010-11 as per the figures in the audited balance of the Petitioner to arrive at a realistic estimate of the GFA of the Petitioner for the Second Control Period.

3.82 The Commission also directed the Petitioner to submit audited or provisional balance sheet for FY 2011-12. However, the audited, or even the provisional, balance sheet for the entire year is not yet available. Therefore, the actual capitalization during the year done by the Petitioner could not be ascertained. The capitalization for FY 2011-12 was thus projected in order to arrive at the closing GFA for the year, which forms the basis for the opening GFA for the Control Period (FY 2012-13 to FY 2014-15).

3.83 The Commission in its previous Tariff Order dated August 26, 2011 approved capitalization of Rs 723.33 Cr based on the scrutiny of the schemes that are in the pipeline and are likely to be completed in FY 2011-12. The Commission has considered this figure of approved capitalization (Rs 723.33 Cr) for FY 2011-12 to arrive at the closing GFA (provisional) of Rs 2563.36 Cr for FY 2011-12.

3.84 For the Control Period (FY 2012-13 to FY 2014-15), the Petitioner has now projected a higher level of capital expenditure and capitalization as shown in Table 20 and Table 21. The Commission has provisionally allowed capital expenditure and capitalization of Rs 450 Cr and Rs 400 Cr for each year of the Control Period (FY 2012-13 to FY 2014-15). The same may be revisited in the next order of the Commission based on the true up of capex/capitalization during FY 2012-13.

Table 24: Capex and Capitalization approved by the Commission (Rs Cr)

	FY 2012-13	FY 2013-14	FY 2014-15
Capex during the Year	450.00	450.00	450.00
Capitalisation during the Year	400.00	400.00	400.00

Depreciation

Petitioner's Submission

3.85 The Petitioner has submitted that the depreciation for the Control Period i.e. FY 2012-13 to FY 2014-15 has been calculated by considering the rates of depreciation as specified in the MYT Regulations 2011, the existing GFA and assets proposed to be capitalised during the period.

3.86 The summary of the calculation of depreciation, as proposed by the Petitioner for the Control Period is provided in the table below.

Table 25: Depreciation submitted by the Petitioner (Rs Cr)

Particulars	Depreciation Rate (%)	FY 2012-13	FY 2013-14	FY 2014-15
Land	-	0.00	0.00	0.00
Land under lease	3.34%	0.33	0.33	0.33
Building	3.34%	1.25	1.25	1.25
Meters	5.28%	0.09	0.09	0.09
Lines Network	5.28%	53.36	70.88	84.84
Other Civil Works	3.34%	5.15	5.32	5.48
Plant & Machinery	5.28%	93.78	125.25	147.16
Office Equipment	6.33%	0.33	0.37	0.41
Computer	15.00%	6.62	6.67	6.74
Furniture	6.33%	0.32	0.36	0.40
Misc Assets	6.33%	0.08	0.10	0.12
Vehicles	9.50%	0.57	0.57	0.57
Scada	6.33%	3.38	3.38	3.38
Total		**165.26**	**214.56**	**250.78**

Commission's Analysis

3.87 The Commission had earlier approved depreciation expenses in the MYT Order and the Tariff Order dated August 26, 2011 considering the approved GFA and capitalisation for FY 2007-08 to FY 2010-12 and the rates specified in the MYT Regulations 2007.

3.88 The Commission is currently in the process of conducting review of capital expenditure, capitalization and physical verification of assets added by the Petitioner during FY 2006-07 to 2010-11. The capital expenditure and capitalization carried out by the Petitioner for the Control Period (FY 2007-08 to FY 2011-12) shall be trued up on the completion of this review.

3.89 The Commission has however provisionally revised the closing GFA of the Petitioner for FY 2011-12 as detailed in paragraphs 3.78 to 3.83 to arrive at a realistic estimate of the GFA of the Petitioner for the Control Period (FY 2012-13 to FY 2014-15).

3.90 The Commission has calculated the depreciation for FY 2012-13 to FY 2014-15 by considering the revised closing balance of GFA for FY 2011-12 as the opening balance of GFA for Control Period (FY 2012-13 to FY 2014-15).

3.91 Using the revised GFA now considered for FY 2007-08 to FY 2011-12, the Commission has also calculated depreciation for FY 2007-08 to FY 2011-12 for calculation of accumulated depreciation at the beginning of the Control Period (FY 2012-13 to FY 2014-15). The Commission has considered the revised GFA considered in this Order for FY 2007-08 to FY 2011-12 and applied the depreciation rates specified in MYT Regulations 2007. Further, for the purpose of calculation of depreciation the composition of GFA under various heads such as 'Plant and Machinery', 'Switchgears', 'Transformers' etc has been considered to be the same as the composition of assets approved by the Commission in its previous MYT Order and its Tariff Order dated August 26, 2011.

Table 26: Depreciation for FY 2007-08 to FY 2011-12 for calculation of accumulated depreciation at the beginning of the Control Period (FY 2012-13 to FY 2014-15)

	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
Depreciation	35.76	41.36	45.49	56.68	79.43
Accumulated Depreciation at the end of the year	335.01	376.37	421.86	478.54	557.97

3.92 With regards to the depreciation allowable for the Control Period, Regulation 5.20 of the MYT Regulations 2011 states that –

"5.20 In case of the existing Projects, the balance depreciable value as on 1.4.2012 shall be worked out by deducting the cumulative depreciation including Advance Against Depreciation as admitted by the Commission up to 31.3.2012 from the gross depreciable value of the assets. The rate of Depreciation shall be continued to be charged at the rate specified in Appendix-I of these Regulations till cumulative depreciation reaches 70%. Thereafter, the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%."

3.93 The Commission is unable to calculate the asset wise accumulated depreciation to check whether the asset has depreciated more than 70% as the asset wise details of fixed assets of the Petitioner are not yet available. The Commission has therefore carried out the check for accumulated depreciation on the blocks of assets as per the opening balance sheet and that added in subsequent years.

3.94 The Commission has calculated the accumulated depreciation on the Gross Fixed Assets as per the opening balance sheet of the company (Rs 650 Cr) by considering accumulated depreciation as per opening balance sheet of the company and the average depreciation rate allowed by the Commission in each year from FY 2002-03 to FY 2011-12.

3.95 The accumulated depreciation on assets added in each subsequent year till FY 2011-12 has been computed considering the average depreciation rate allowed by the Commission in the relevant years.

3.96 As per the computations of the Commission the accumulated depreciation on assets added by the Petitioner till FY 2011-12 has not reached 70%. Therefore, in accordance with Regulation 5.20 (as quoted above) of the MYT Regulations 2011, the depreciation for each year of the Control Period has been calculated at the rates specified in Appendix-I of the said Regulations.

3.97 Depreciation on the assets added during the Control Period has been calculated considering the approved capitalization for each year and the rates specified in Appendix-I of the MYT Regulations 2011.

Table 27: Depreciation approved by the Commission (Rs Cr)

Scheme	FY 2012-13	FY 2013-14	FY 2014-15
Opening Balance of Accumulated Depreciation (corresponding to revised GFA)	557.97	699.12	861.37
Depreciation for the Year	141.15	162.24	183.32
Closing balance of Accumulated Depreciation	**699.12**	**861.37**	**1044.68**

Return on Capital Employed

3.98 The Return on Capital Employed (RoCE) for the Petitioner shall be determined as specified in the MYT Regulations 2011. The RoCE can be determined only after determination of the Regulatory Rate Base (RRB) for any particular year, and the Weighted Average Cost of Capital (WACC) for the year.

Working Capital Requirement

Petitioner's Submission

3.99 The Petitioner has submitted that the working capital for the Control Period has been calculated as per the formula in the MYT Regulations 2011. The summary of the same is shown in the table below:

Table 28: Working Capital submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Receivables for two months calculated on NATAF	121.77	151.04	180.86
Maintenance spares @ 15% of O&M	34.17	39.25	46.12
O&M Expenses for 1 month	18.98	21.81	25.62
Total Working Capital	**174.92**	**212.09**	**252.60**

Commission's Analysis

3.100 The working capital requirement for wheeling of electricity for the Control Period has been determined on a normative basis in line with the formula specified in the MYT Regulations 2011 and consists of:

(a) Receivables for two months towards transmission tariffs;

(b) Maintenance spares @ 15% of operation and maintenance expenses; and

(c) Operation and maintenance expenses for one month.

Table 29: Working Capital approved by the Commission (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Receivables for two months calculated on NATAF	125.90	106.57	122.46
Maintenance spares @ 15% of O&M	27.11	29.35	31.68
O&M Expenses for 1 month	15.06	16.31	17.60
Total Working Capital	**168.07**	**152.22**	**171.73**

Regulated Rate Base

Petitioner's Submission

3.101 The Petitioner has submitted that it has estimated the Regulated Rate Base (RRB) for each year based on the formula specified in the MYT Regulations 2007 and MYT Regulations 2011, the actual/estimated capitalisation during FY 2007-08 to FY 2011-12 and the projected capitalisation during the Control Period, as shown in the table below.

Table 30: RRB submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Addition in Regulated Rate Base	622.54	867.09	40.72
Investments during the year (Addition in Fixed Assets)	787.80	1081.65	291.50
Depreciation	165.26	214.56	250.78
Change in WC	-41.76	37.17	40.51
Regulated Rate Base (RRB_i)	**2693.59**	**3475.57**	**3969.99**

Commission's Analysis

3.102 The methodology for calculation of the Regulated Rate Base for the i^{th} year of the Control Period as specified by the Commission in MYT Regulations 2011 is as follows –

"The RRB shall be determined for each year of the Control Period at the beginning of the Control Period based on the approved capital investment plan with corresponding capitalisation schedule and normative working capital.

The Regulated Rate Base for the i^{th} year of the Control Period shall be computed in the following manner:

$$RRB_i = RRB_{i-1} + \Delta AB_i/2 + \Delta WC_i;$$

Where,

'i' is the i^{th} year of the Control Period, i = 1,2,3,4 for the Control Period;

RRB_i: Regulated Rate Base for the i^{th} year of the Control Period;

ΔAB_i: Change in the Regulated Rate Base in the i^{th} year of the Control Period. This component shall be the average of the value at the beginning and end of the year as the asset creation is spread across a year and is arrived at as follows:

$$\Delta AB_i = Inv_i - D_i - CC_i;$$

Where,

Inv_i: Investments projected to be capitalised during the i^{th} year of the Control Period and approved;

D_i: Amount set aside or written off on account of Depreciation of fixed assets for the i^{th} year of the Control Period;

CC_i: Consumer Contributions, capital subsidy / grant pertaining to the ΔAB_i and capital grants/subsidies received during i^{th} year of the Control Period for construction of service lines or creation of fixed assets;

RRB_{i-1}: Regulated Rate Base for the Financial Year preceding the i^{th} year of the Control Period. For the first year of the Control Period, RRB_{i-1} shall be the Regulated Rate Base for the Base Year i.e. RRB_O;

$$RRB_O = OCFA_O - AD_O - CC_O;$$

Where;

$OCFA_O$: Original Cost of Fixed Assets at the end of the Base Year available for use and necessary for the purpose of the Licenced Business;

AD_O: Amounts written off or set aside on account of depreciation of fixed assets pertaining to the regulated business at the end of the Base Year;

CC_O: Total contributions pertaining to the OCFAo, made by the consumers, capital subsidy / grants towards the cost of construction of Transmission System by the Transmission Licensee and also includes the capital grants/subsidies received for this purpose;"

3.103 The Commission had earlier approved the Regulated Rate Base in the Tariff Order dated August 26, 2011 considering the approved GFA, capitalisation, depreciation and working capital for FY 2007-08 to FY 2010-12.

3.104 The Commission has, however, provisionally revised the closing GFA of the Petitioner for FY 2011-12 as detailed in paragraphs 3.78 to 3.83 to arrive at a realistic estimate of the GFA of the Petitioner for the Control Period (FY 2012-13 to FY 2014-15).

3.105 Accordingly, the Commission has calculated the opening RRB for the Control Period (FY 2012-13 to FY 2014-15) considering the approved opening GFA and corresponding accumulated depreciation. Further it has calculated the RRB for each year from FY 2012-13 to FY 2014-15 considering the approved capitalisation, depreciation and working capital for the respective year. It has, therefore, approved the rate base for each year of the Control Period as shown below using the formula specified in the MYT Regulations 2011.

Table 31: RRB approved by the Commission (Rs Cr)

Particulars		FY 2011-12*	FY 2012-13	FY 2013-14	FY 2014-15
A	OCFA	1840.03			
B	Accumulated Depreciation	478.54			
C	RRB (opening)	1361.49	2220.52	2432.30	2654.21
D = E-F	Δ AB	643.90	258.85	237.76	216.68
E	Investments capitalized	723.33	400.00	400.00	400.00
F	Depreciation	79.43	141.15	162.24	183.32
G	Change in WC	215.13#	-47.06	-15.85	19.51
H = C+D+G	RRB (Closing)	2220.52	2432.30	2654.21	2890.41
I = C+D/2+G	**RRB(i)**		**2302.88**	**2535.34**	**2782.07**

** Revised as per the opening GFA in the annual audited accounts of DTL*
 # As approved for FY 2011-12 in Tariff Order dated August 26, 2011

Means of Finance

Petitioner's Submission

3.106 The Petitioner has projected drawl of new loans to fund capital investment during the Control Period. It has submitted that 70% of investment would be made through debt taken from the planned funds of GNCTD.

Commission's Analysis

3.107 The Commission has also approved the debt requirement of the Petitioner for each year during the Control Period by considering 70% of capitalization to be funded by debt. The remaining 30% is assumed to have been funded through equity.

Determination of WACC and RoCE

Petitioner's Submission

3.108 The Petitioner has submitted that the Return on Capital Employed (ROCE) has been calculated as per MYT Regulations 2011 by Considering Regulated Rate Base (RRB) and Weighted Average Cost of Capital (WACC). i.e.

$$ROCE = RRB * WACC$$

3.109 WACC has been calculated on the basis of closing value of equity and debt, rate of return on equity and rate of return on debt. For the FY 2006-07, debt includes loan amounting to Rs 3452 Cr from GNCTD. However for the purpose of calculating weighted average cost of capital, amount of Rs 3452 Cr converted into equity from loan has been excluded.

3.110 For the FY 2010-11, equity includes Rs 239 Cr loan of GNCTD converted into equity vide GNCTD Letter no. F.11 (28)/2005/Power Ot.I/937 dated 16/07/10 and Rs 80 Cr as equity infusion by DPCL. For the Control Period, the Petitioner has considered the debt equity ratio of 70:30 on the assets projected to be capitalised during FY 2012-13 to FY 2014-15. The RoCE computation as submitted by the Petitioner for the Control Period is given below.

Table 32: RoCE submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Regulated Rate Base	2693.59	3475.57	3969.99
Equity (Closing)	1287.23	1611.73	1699.18
Debt (Closing)	2132.68	2889.84	3093.89
Rate of return on Equity	14.00%	14.00%	14.00%
Rate of return on Debt	11.50%	11.50%	11.50%
Weighted Avg. Cost of Capital (WACC)	12.44%	12.40%	12.39%
Return on Capital Employed (ROCE)	**335.08**	**430.97**	**491.88**

Commission's Analysis

3.111 As per MYT Regulations 2011, the WACC (pre-tax) for each year of the Control Period shall be computed at the start of the Control Period in the following manner:

$$WACC = \left[\frac{D/E}{1+D/E}\right] * r_d + \left[\frac{1}{1+D/E}\right] * r_e$$

Where,

D/E is the Debt to Equity Ratio and for the purpose of determination of tariff, debt-equity ratio for the asset capitalized shall be 70:30. Where equity employed is in excess of 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as notional loan. The interest rate on the amount of equity in excess of 30% treated as notional loan shall be the weighted average rate of the loans of the Licensee for the respective years and shall be further limited to the prescribed rate of return on equity in the Regulations. Where actual equity employed is less than 30%, the actual equity and debt shall be considered:

Provided that the Working capital shall be considered 100% debt financed for the calculation of WACC;

Provided further that the Debt to Equity Ratio for the assets covered under Transfer Scheme, dated July 1, 2002 shall be considered as per the debt and equity in the transfer scheme;

Provided further that Debt to Equity Ratio for the assets capitalised till 1.04.2012 (other than assets covered under Transfer Scheme) shall be considered as per the debt and equity approved by the Commission at the time of capitalization.

r_d is the Cost of Debt and shall be determined at the beginning of the Control Period after considering Transmission Licensee's proposals, present cost of debt already contracted by the Transmission Licensee, credit rating, benchmarking and other relevant factors (risk free returns, risk premium, prime lending rate etc.).

r_e is the Return on Equity and shall be considered at 14% post tax for the transmission business.

3.112 As per the transfer scheme, opening equity and loan for the Petitioner were Rs 180 Cr and Rs 270 Cr respectively. Further the Commission had approved a total loan amount of Rs 321.68 Cr between FY 2002-03 and FY 2006-07. The additions to loan during the Control Period (FY 2007-08 to FY 2011-12) have been taken equal to 70% of the additional capitalization approved for each year. Similarly, the additions to equity have been taken equal to 30% of the approved additional capitalization. The debt equity ratio for each year shall be adjusted taking into account the actual at the time of truing up of the capitalization for each year.

3.113 The Commission has considered the debt-equity ratio for new assets added during the Control Period (FY 2012-13 to FY 2014-15) as 70:30 as per the normative ratio specified in the MYT Regulations 2011.

Table 33: Computation of Loan/Equity (Rs Cr)

	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
Opening GFA	922.98#	1071.20	1213.56	1291.74	1840.03	2563.36	2963.36	3363.36
Additions	148.22	142.36	78.18	548.29	723.33	400.00	400.00	400.00
Closing GFA*	1071.20	1213.56	1291.74	1840.03	2563.36	2963.36	3363.36	3763.36
Equity								
Opening Equity	180.00	224.47	267.17	290.63	455.11	672.11	792.11	912.11
Additions	44.47	42.71	23.45	164.49	217.00	120.00	120.00	120.00
Closing Equity	224.47	267.17	290.63	455.11	672.11	792.11	912.11	1032.11
Average Equity	**202.23**	**245.82**	**278.90**	**372.87**	**563.61**	**732.11**	**852.11**	**972.11**
Gross Capital Loan								
Opening Loan	591.68	695.43	795.08	849.81	1233.61	1739.94	2019.94	2299.94
Additions	103.75	99.65	54.73	383.80	506.33	280.00	280.00	280.00
Closing Loan	695.43	795.08	849.81	1233.61	1739.94	2019.94	2299.94	2579.94
Working Capital Loan								
Opening Loan	-	38.08	36.65	39.00	77.68	215.13	168.07	152.22
Additions	38.08	0.00	2.34	38.68	137.45	0.00	0.00	19.51
Repayment	0.00	1.43	0.00	0.00	0.00	47.06	15.85	0.00
Closing Balance	38.08	36.65	39.00	77.68	215.13	168.07	152.22	171.73
Gross Debt								
Opening	591.68	733.51	831.74	888.80	1311.29	1955.07	2188.01	2452.16
Addition	141.83	98.23	57.07	422.48	643.78	232.94	264.15	299.51
Closing	733.51	831.74	888.80	1311.29	1955.07	2188.01	2452.16	2751.67
Average Gross Debt	**662.59**	**782.62**	**860.27**	**1100.05**	**1633.18**	**2071.54**	**2320.09**	**2601.92**

**As per annual audited accounts of DTL*
#As approved in previous MYT Order of the Commission

3.114 The Commission directed the Petitioner to submit details regarding the actual loans drawn by it from various sources during the Control Period (FY 2007-08 to FY 2011-12). The Commission observes loans have been drawn by the Petitioner primarily from GNCTD. The rate of interest payable by the Petitioner on loans drawn from GNCTD is 11.50% and on loan drawn from commercial banks varies from 9.40% to 10.50% and is linked to the Base Rate of the banks. Further, it is noticed that the rate of interest charged by GNCTD on the new loans sanctioned in FY 2011-12 has reduced to 10.00% (as per details provided by the Petitioner vide letter dated June 12, 2012.

3.115 The new loans to be taken by the Petitioner for proposed capital investment during the Control Period are assumed to be funded by GNCTD in line with the submission of the Petitioner and the approach followed in the MYT Order. The Commission has considered an interest rate of 10.00% for the new loans to be taken up by the Petitioner which is equal to the rate of interest on the new loans drawn from GNCTD.

3.116 The Commission, however, directs the Petitioner to take up the issue of interest rate with GNCTD for appropriate reduction. It may also borrow from other lenders at a lesser rate of interest.

3.117 As per the MYT Regulations 2011, Return on Capital Employed (RoCE) for the year 'i' shall be computed in the following manner:

$$RoCE = WACCi * RRB_i$$

Where,

WACCi is the Weighted Average Cost of Capital (pre-tax) for each year of the Control Period;

RRBi - Regulated Rate Base is the asset base for each year of the Control Period based on the capital investment plan and working capital.

3.118 The Commission has therefore calculated the RoCE for the Control Period (FY 2012-13 to FY 2014-15) based on the WACC derived and the approved regulated rate base, as explained above. The table below summarises the RoCE approved by the Commission.

Table 34: RoCE approved by the Commission (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Average Gross Equity	732.11	852.11	972.11
Average Gross Debt	2071.54	2320.09	2601.92
Rate of return on Equity	14.00%	14.00%	14.00%
Rate of Return on Debt	11.24%	11.04%	10.86%
WACC	11.96%	11.84%	11.71%
Regulated Rate Base (RRBi)	2302.88	2535.34	2782.07
Return on Capital Employed (ROCE)	**275.52**	**300.13**	**325.92**

Capitalisation of Expenses

Petitioner's Submission

3.119 The Petitioner has projected capitalization of employee and A&G expenses during the Second Control Period. The capitalization of expenses has been submitted as Rs 33.46 Cr, Rs 45.97 Cr and Rs 12.39 Cr in FY 2012-13, FY 2013-14 and FY 2014-15 respectively

3.120 The expenses proposed to be capitalized during the Control Period is as tabulated below:

Table 35: Capitalisation of expenses submitted by the Petitioner (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Employee Expenses	28.46	39.07	10.53
A&G Expenses	5.02	6.90	1.86
Expenses Capitalised	**33.46**	**45.97**	**12.39**

Commission's Analysis

3.121 For capitalizing the employee and A&G expenses for the Control Period the Commission has again considered the capitalisation of employee and A&G expenses submitted by the Petitioner. The Commission has however adjusted the same using the ratio of employee and A&G expenses approved by the Commission and submitted by the Petitioner. The capitalization of employee and A&G expenses shall be trued up as per actual capitalization and expenses capitalized by the Petitioner during each year.

3.122 The summary of the employee expenses and A&G expenses capitalised projected by the Commission is provided in the table given below.

Table 36: Capitalisation of expenses approved by the Commission (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Employee Expenses	25.17	33.76	8.70
A&G Expenses	4.55	6.25	1.68
Expenses Capitalised	**29.72**	**40.01**	**10.38**

Income Tax Expenses

Petitioner's Submission

3.123 The Petitioner has submitted that as per MYT Regulations 2011 there is a provision of Income tax on return on equity. The tax liability has been projected considering MAT Provisions (Sec 115 JB of IT Act 1961). In case the tax liability falls under normal provisions, DTL should be entitled to recover the same in subsequent Tariff Orders. The details of income tax projected by the Petitioner for the Control Period is tabulated below:-

Table 37: Income Tax Provisions submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Income Tax on the Return on Equity	35.92	44.97	47.41

Commission's Analysis

3.124 The Commission has made provision for recovery on tax on income by the Petitioner in Regulation 5.22 of the MYT Regulations 2011. The aforementioned Regulation states that –

"5.22 Tax on the income streams of the Transmission Licensee shall be recovered from the beneficiaries. Tax on income, if any, liable to be paid shall be limited to tax on return on the equity component of capital employed. Any additional tax liability on account of incentive due to improved performance like higher availability, lower O&M Expenses etc and other income shall not be considered."

3.125 The Commission has projected the income tax for the Petitioner for the Control Period considering the return on average equity for each year of the Control Period (@14%) and the MAT rate of 20.01%, as applicable to the Petitioner. Tax on income, limited to tax on return on the equity component of capital employed, shall be revised as per actual at the time of truing up for the respective year.

Table 38: Income Tax Provisions approved by the Commission (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Income Tax on the Return on Equity	**20.51**	**23.87**	**27.23**

Rebate on Transmission/ Wheeling of Power

Petitioner's Submission

3.126 The Petitioner has submitted that it has given the rebate to DISCOMs on wheeling of power up to December, 2007 for an amount of Rs. 1.81 Cr and rebate for an amount of Rs. 2.51 Cr in FY 2010-11. The Petitioner has further projected rebate on wheeling charges as Rs. 2.50 Cr for FY 2012-13 to FY 2014-15. The Petitioner has requested to consider the same as a pass through in ARR.

Commission's Analysis

3.127 As per the arrangement between the transmission and distribution licensees, for payment of bills of transmission charges through a letter of credit on presentation, a rebate of 2% is provided by the transmission licensee to the distribution licensees. If the payment is made by any other mode but within a period of one month of presentation of bills by the Transmission Licensee, a rebate of 1% is provided.

3.128 Thus the rebate on transmission charges is to be provided by the transmission licensee only on early payment of the bill by a beneficiary. It is further clear that early payment of the bill also goes towards reducing the working capital requirement of the licensee and the interest burden arising from it.

3.129 However, the working capital requirement for the purpose of determination of ROCE (and in turn transmission tariff) is calculated by the Commission on a normative basis in accordance with the MYT Regulations, 2011 and assumes that the beneficiary shall pay the bill only after 2 months of raising the bill. Accordingly, the normative working capital for transmission licensee consists of:

(a) Receivables for two months towards transmission tariffs;

(b) Operation and maintenance expenses for one month; and

(c) Maintenance spares @ 15% of operation and maintenance expenses.

3.130 Thus while the licensee bears the cost of providing the rebate it also enjoys the benefit arising out of the reduction in the requirement of the actual working capital vis-à-vis the working capital considered for calculation of the transmission tariff. The same is explained with the help of an illustration below: -

<u>Illustration –</u>

3.131 For example, DTL raises a bill of Rs 100 Cr (including Rs 30 Cr of O&M expenses) on a beneficiary on 10.3.2012 which is due on 9.4.2012.

3.132 The normative working capital of DTL for the month, as calculated for the purpose of calculation of tariff, is equal to Rs 234.50 Cr (2 X Rs 100 Cr + Rs 30 Cr + Rs 4.5 Cr). Assuming an interest rate of 11.96% (equal to the Weighted Average Cost of Capital approved for DTL for FY 2012-13), the normative interest on working capital allowed to DTL is equal to Rs 2.34 Cr (Rs 234.50 Cr X 11.96%/12).

3.133 Let us assume that the beneficiary makes early payment of bill of Rs 100 Cr on presentation of the bill; it shall thus be entitled to a rebate of Rs 2 Cr (@ 2%) by DTL. At the same time the early payment of bill will lead to reduction in working capital requirement of DTL. The actual requirement of working capital for DTL for the month will only be Rs 34.50 Cr (equal to O&M expenses for the month and maintenance spares). Assuming an interest rate of 11.96% (equal to the Weighted Average Cost of Capital approved for DTL for FY 2012-13), the actual interest on working capital for the month is thus equal to Rs 0.34 Cr (Rs 34.50 Cr X 11.96%/12).

3.134 Thus total savings of DTL on account of early payment of bills works out to be Rs 2.00 Cr as compared to the rebate of Rs 2.00 Cr provided by the licensee to the beneficiary.

3.135 From the above illustration, it is clear that there is no requirement for inclusion of rebate of timely payment of bill as a separate expense in the ARR.

Non Tariff Income

Petitioner's Submission

3.136 The Petitioner has projected the non-tariff income from various sources for Control Period. Income from non-tariff sources has been projected at Rs 2.50 Cr for FY 2012-13, FY 2013-14 and FY 2014-15 respectively as detailed in the table below.

Table 39: Non-Tariff Income submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Non Tariff income	2.50	2.50	2.50

Commission's Analysis

3.137 The true up for NTI for FY 2007-08 to FY 2011-12 shall be carried out by the Commission at the end of the Control Period (FY 2007-08 to FY 2011-12) when the audited accounts for the entire period are made available by the Petitioner. For the Control Period, the Commission has analysed the submissions made by the Petitioner and has projected the NTI as submitted by the Petitioner.

3.138 The Commission however directs the Petitioner to make all out efforts for increasing the non tariff income through avenues such as advertisements etc to reduce the revenue requirement and the burden on the consumers.

Table 40: Non-Tariff Income approved by the Commission (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Non Tariff income	2.50	2.50	2.50

Payment to Pension Trust

3.139 During the public hearing, the distribution licensees submitted that the accounts of the Pension Trust have not been audited. Also in their view, the funding of the trust by GoNCTD is not based on an actuarial valuation. As a result of the under-funding, the Trust is unable to meet its liability towards pension and other payments to retired employees. This matter is also sub judice before the Hon'ble Delhi High Court.

3.140 The Commission is issuing an advice to the Govt. of NCT of Delhi u/s 86(2) of the Electricity Act 2003 to have the accounts audited immediately and also consider restructuring the Board of Trustees so that Government nominees are inducted on the Board. This is necessary for ensuring proper management of the Trust and servicing of the liabilities towards the retired employees, for which necessary provisions should be made by the respective employing entities in their accounts.

3.141 In order to avoid undue hardship to the retired employees (Pensioners) the Commission is making an ad-hoc one time provision of Rs. 160 Cr to the DTL in this Tariff Order for passing on to the Pension Trust. The Commission is of the view that ad-hoc provisions of this nature cannot continue in future and the parties to the dispute before the Hon'ble High Court of Delhi should expedite the proceedings before the Court and explore other avenues for settlement of the dispute.

Annual Revenue Requirement

Petitioner's Submission

3.142 On the basis of the costs to be incurred during the Control Period from FY 2012-13 to FY 2014-15, and after subtracting the Non Tariff Income for each of the years, the Petitioner has projected the following Annual Revenue Requirement.

Table 41: ARR submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
O&M expenses	227.81	261.68	307.46
Depreciation	165.26	214.56	250.78
Rebate on Sale/Wheeling of Power	2.50	2.50	2.50
ROCE	335.08	430.97	491.88
Less: A&G and Employee Expenses Capitalized	33.46	45.97	12.39
Less: Non-Tariff Income	2.50	2.50	2.50
Income Tax Provisions	35.92	44.97	47.41
Revenue Requirement	**730.61**	**906.21**	**1085.14**
Additional Power Purchase Liability for Prior Period (2002-07)	3.78		
True up of Control Period (FY 2007-08 to FY 2011-12) (including DVB Arrears)	934.60		
Aggregate Revenue Requirement	**1668.99**	**906.21**	**1085.14**

Commission's Analysis

3.143 On the basis of the costs approved for the Petitioner during the Control Period, and after subtracting the Non Tariff Income for each of the years, the Commission has approved the following Annual Revenue Requirement from FY 2012-13 to FY 2014-15.

Table 42: ARR approved by the Commission (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Operation & Maintenance Costs	180.72	195.66	211.17
Depreciation	141.15	162.24	183.32
Rebate on Sale/Wheeling of Power	0.00	0.00	0.00
Income Tax	20.51	23.87	27.23
Total Expenditure	**342.38**	**381.77**	**421.72**
Return on Capital Employed	275.52	300.13	325.92
Less: Expenses capitalised	29.72	40.01	10.38
Less: Non Tariff Income	2.50	2.50	2.50
Aggregate Revenue Requirement (for current year)	**585.68**	**639.40**	**734.75**
Additional Power Purchase Liability for Prior Period (2002-07)	9.72		
Payment to Pension Trust	160.00		
Aggregate Revenue Requirement (including prior period liabilities)	**755.40**	**639.40**	**734.75**

A4: TRANSMISSION TARIFF DESIGN

4.1 The transmission tariff payable by the beneficiaries of the transmission system has been designed in order to recover the Aggregate Revenue Requirement approved by the Commission for each year of the Control Period.

4.2 This section details out the methodology adopted by the Commission for designing and approving the Transmission Service Charge.

4.3 The Commission has determined tariffs following the approach contained in the MYT Regulations 2011.

Transmission Tariff Design and Allocation

4.4 The approved revenue requirement of the transmission business of the Petitioner for each year of the Control Period shall be recovered through tariffs from the users/ beneficiaries of the transmission system in Delhi i.e. BRPL, BYPL, NDPL, NDMC, MES and long term open access customers, if any.

4.5 The Regulation 6.6 of the Transmission Regulation states that "*The Annual Transmission Service Charge (ATSC) shall be divided between Beneficiaries of the Transmission System on monthly basis based on the Allotted Transmission Capacity or Contracted Capacity, as the case may be.*"

4.6 In view of the above, the Petitioner may raise the bills for Annual Transmission Charges for each year of the Control Period on the basis of the ARR approved by the Commission for the respective years, as provided in the table below.

Table 43: Approved ARR for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15
Net ARR for Transmission Business*	585.68	639.40	734.75
Payment to Pension Trust	160.00		
Past Arrears	9.72		
Total Expenses allowed	755.40	639.40	734.75

**excluding payment to pension trust and past arrears*

4.7 All of the above charges shall be recovered every month on pro-rata basis as specified in Regulation 6.7 of the MYT Regulations 2011 and shall be shared by all the Distribution Licensees (long term transmission users) including deemed licensees in proportion to the generating capacity allocated from the various Central Sector Generating Stations, Generating Stations within Delhi and Contracted power on bilateral basis.

4.8 The charges from short term open access customers, if any, shall be recovered in line with the provisions mentioned in the MYT regulations.

4.9 The transmission service charge (Net ARR for Transmission Business – Rs 585.68Cr) shall be recovered fully, only if it the transmission system availability is 98% or above, as specified in the MYT Regulations 2011. The charges shall be recovered on a pro rate basis in case the availability is lower than the target level.

Sample Bill for Monthly Transmission Charges

4.10 A sample bill for the calculation and recovery of monthly transmission charges from the Distribution licensees is explained below.

Table 44: Sample Bill for calculating the monthly Transmission Charges

Billing of Transmission Charge for the month of XXX									
Aggregate Revenue Requirement (Rs. Cr)				XXX					
Monthly Charges Applicable (Rs. Cr)				XXX					
Licensees	Weighted Avg. Entitlement in Generating Stations within Delhi		Weighted Avg. Entitlement in CSGS Stations & Long term open access capacity approved		Contracted power on bilateral basis		Total Weighted Avg. Entitlement		Allocation of Monthly Charges
	MW	%	MW	%	MW	%	MW	%	Rs. Cr
BRPL	100	29%	200	40%	70	47%	370	37%	
BYPL	100	29%	150	30%	50	33%	300	30%	
NDPL	75	21%	150	30%	30	20%	255	26%	
NDMC	50	14%	0	0%	0	0%	50	5%	
MES	25	7%	0	0%	0	0%	25	3%	
Total	350	100%	500	100%	150	100%	1000	100%	

Refund of Power Purchase Rebate to BYPL and BRPL

4.11 The Commission, while truing up for FY 2006-07 for BRPL and BYPL had provisionally allowed Power Purchase Cost to the companies of Rs 2095.91 Cr and Rs 989.16 Cr respectively which was equal to the revenue received by DTL from BRPL & BYPL, as appearing in the accounts of DTL. Against this the companies i.e. BRPL and BYPL have claimed Rs 2102.96 Cr and Rs 993.40 Cr respectively as power purchase cost for FY 2006-07.

4.12 BRPL and BYPL have submitted that the difference is arising on account of dispute between the companies and DTL on rebate methodology. The Commission observed that difference was Rs 7.05 Cr for BRPL and Rs 4.24 Cr for BYPL. Out of the said amount the difference on account of power purchase rebate paid to DTL was Rs 6.39 Cr in case of BRPL and Rs 3.26 Cr in case of BYPL.

4.13 BRPL & BYPL submitted that the payment of Rs 6.39 Cr and Rs 3.26 Cr respectively was made to DTL on October 19, 2005. BRPL & BYPL further submitted that they had not considered payment made to DTL under protest as expense in FY 2005-06 and considered it as an expense only in FY 2006-07.

4.14 The Commission was of the opinion that as payment was made by BRPL & BYPL in FY 2005-06 to DTL, it would appear as revenue earned from BRPL & BYPL on account of sale of power in the DTL’s account. The Commission observed that power purchase cost approved for BRPL & BYPL and revenue considered for DTL during FY 2005-06 from BRPL & BYPL are also same. This means, either the payment made by the companies has not been considered by DTL as revenue or payment made by the companies has already been included in their power purchase cost for FY 2005-06. The Commission, therefore, directed DTL to clarify on the same.

4.15 DTL vide its letter dated June 11, 2012 submitted that it has received Rs 6.39 Cr and Rs 3.26 Cr from BRPL & BYPL respectively in FY 2005-06 and due to payment under protest by the companies, it took a conservative view in the recognition of the said amounts in the books of accounts, and the receipt of the said amounts as disputed liability and not as income in the audited accounts of FY 2005-06. DTL further submitted that in the annual audited accounts for FY 2006-07 it transferred the amount as income under prior period income.

4.16 The Commission observes that while truing up of FY 2006-07 for DTL, it had not considered prior period income as income of DTL. After truing up for FY 2006-07, the Commission had determined a surplus for the DTL and deficit for BRPL & BYPL. As this amount was not considered while calculating the surplus/deficit till FY 2006-07, the surplus of DTL will increase by Rs 9.64 Cr (Rs 6.39 Cr + Rs 3.26 Cr), and deficit of BRPL will increase by Rs 6.39 Cr while that of BYPL will increase by Rs 3.26 Cr.

4.17 The Commission directs DTL to adjust Rs 6.39 Cr for BRPL and Rs 3.26 Cr for BYPL along with carrying cost (considered by the Commission for revenue gap funding of BRPL and BYPL respectively) in first three bills for transmission charges issued by DTL after issuance of this Tariff Order.

Directives

4.18 The Commission issues following directives in this Tariff Order:

4.19 The Commission takes note of the fact that the schemes during pre extended MYT period i.e. FY 2007-08 to FY 2011-12 have been delayed and hence directs the Petitioner to take up all possible steps to ensure that the projects/schemes shall be completed at the earliest, so as to optimize cost on account of Interest during construction (IDC).

4.20 The Commission directs the DTL to seek approval of the Commission for all schemes as per the terms and conditions of the License.

4.21 The Commission directs the DTL to submit the quarterly progress reports for the schemes being implemented during each year of the Control Period within 15 days of the end of each quarter. DTL is further, directed to submit the actual details of capitalisation for each year for the Control Period by June 30 of the following year for consideration of the Commission. All information regarding capitalisation of assets is to be furnished in the formats prescribed by the Commission. These formats are to be submitted along with the necessary statutory clearances/ certificates of Electrical Inspector, etc. for all EHV & HV works and certificate of SLDC for commissioning/ commercial operation.

4.22 The Commission directs the DTL to take up the issue of interest rate on Plan Funds with GoNCTD for appropriate reduction. It may also borrow from other lenders at a lesser rate of interest. DTL shall endeavour to optimize the expenditure on account of interest on short term loan by negotiating the interest rates.

4.23 The Commission has allowed a provisional consolidated amount of Rs. 160 Cr for FY 2012-13 for all successor entities in ARR to DTL towards Pension Trust as a lump sum amount. DTL shall pass on this amount to Pension Trust and shall keep separate record of payment made to Pension Trust.