



Ref No: APML/MERC/2202014

Date: 22<sup>nd</sup> February, 2014

The Principal Secretary,  
Maharashtra Electricity Regulatory Commission  
World Trade Centre, Centre No. 1  
13th Floor, Cuffe Parade,  
Colaba, Mumbai 400 005

**Subject: Submission of revised Petition for approval of Mid-term Performance Review for Adani Power Maharashtra Limited - Transmission Business.**

Dear Sir

Pursuant to TVS on February 6, 2014 and Datagaps Set2 dated February 10, 2014, please find enclosed herewith the revised petition (1 Original + 5 Copies) for Mid-term Performance Review of Adani Power Maharashtra Limited (Licensed Transmission Business) (APML-T) for the Second Control Period from FY 2012-13 to FY 2015-16 under the provisions of Section 61 and Section 62 of the Electricity Act, 2003 read with Regulation 11 and Part G of the MYT Regulations along with data formats and necessary annexures.

Request you to kindly accept and acknowledge the same,

Thanking you

Yours faithfully,

**For Adani Power Maharashtra Limited**

**(Authorized Signatory)**

Encl:

1. Affidavit
2. Petition along with Annexure and Data Formats

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Gujarat, India

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BEFORE THE HON'BLE  
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION, MUMBAI

S.No.....1265.....2014

Filing No. \_\_\_\_\_

Case No. \_\_\_\_\_

V. C. S. V  
**VIJAY C. SHAH**  
NOTARY  
GOVT. OF INDIA

22 FEB 2014

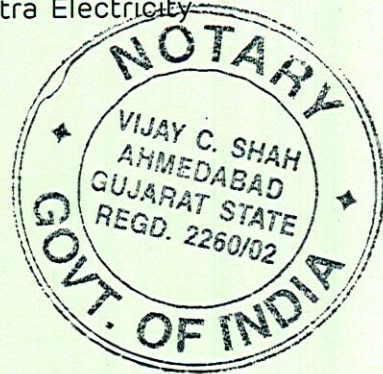
IN THE MATTER OF:

Petition for approval of Mid-term Performance Review for the transmission business of Adani Power Maharashtra Limited (APML-T / Petitioner) for the Second Control Period from FY 2012-13 to FY 2015-16 under the provisions of Section 61 and Section 62 of the Electricity Act, 2003 read with Regulation 11 and Part G of the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011.

AND

IN THE MATTER OF

Adani Power Maharashtra Limited  
"Adani House"  
Near Mithakhali Six Roads, Navrangpura  
Ahmedabad - 380 009



-----Petitioner

**AFFIDAVIT**

I, Jignesh Langalia, S/o Shri Dhansukhlal Langalia, age 37 years, being the Authorized Signatory of Adani Power Maharashtra Limited having office at Shikhar, Nr. Mithakhali Six Roads, Navrangpura, Ahmedabad, Gujarat-380009, do hereby solemnly affirm and state as under:

1. I am an Authorized Signatory of Adani Power Maharashtra Limited, the petitioner in the above matter, and I am duly authorized and competent to make this affidavit.
2. The statements made in the petition are true to my knowledge and belief and statements made in paragraphs therein are based on information and I believe them to be true.
3. I say that there are no proceedings pending in any court of law / tribunal or arbitrator or any other authority, wherein the petitioners are a party and where issues arising and / or relief sought are identical or similar to the issues arising in the matter pending before the Commission.

*Jignesh Langalia*

(DEPONENT)

**VERIFICATION:**

Solemnly affirm at Ahmedabad on this 22<sup>nd</sup> day of February 2014 that the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.

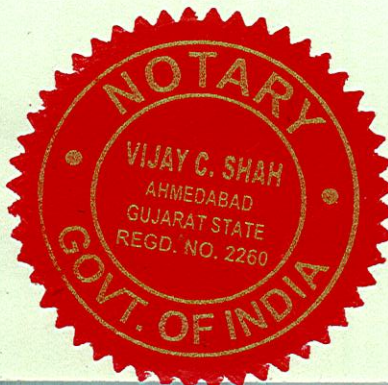
*Jignesh Langalia*

(DEPONENT)



SOLEMNLY AFFIRMED  
BEFORE ME

V. C. S. V  
**VIJAY C. SHAH**  
NOTARY  
GOVT. OF INDIA  
22 FEB 2014



**BEFORE THE MAHARASHTRA ELECTRICITY REGULATORY COMMISSION,**

**MUMBAI**

Filing No. \_\_\_\_\_

Case No. \_\_\_\_\_

**IN THE MATTER OF**

Petition for approval of Mid-term Performance Review for the transmission business of Adani Power Maharashtra Limited (APML-T / Petitioner) for the Second Control Period from FY 2012-13 to FY 2015-16 under the provisions of Section 61 and Section 62 of the Electricity Act, 2003 read with Regulation 11 and Part G of the Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011.

AND

**IN THE MATTER OF**

Adani Power Maharashtra Limited  
"Adani House"  
Near Mithakhali Six Roads, Navrangpura  
Ahmedabad – 380 009

..... **Petitioner**

**THE PETITIONER, ADANI POWER MAHARASHTRA LIMITED RESPECTFULLY SUBMITS THAT**

1.1 APML-T is submitting the present petition in accordance with the following relevant Sections of the Electricity Act, 2003 and MERC (Multi Year Tariff) Regulations, 2011:

- Sections 86, Section 62 (read with Section 61) of Electricity Act, 2003
- Regulation 11 read with Regulation 3 (Part A), Regulations 4, 6, 8, 10, 12 to 14 (Part B), Regulations 16, 18 to 20 (Part C), Part E, Part G, of MERC

(Multi Year Tariff) Regulations, 2011 (hereinafter referred as 'MYT Regulations, 2011')

## **Facts of the Case**

- 1.2 Adani Power Maharashtra Limited Transmission ("APML-T" or "Petitioner") has been granted Transmission License No 2 of 2009 by Maharashtra Electricity Regulatory Commission ("Hon'ble Commission") vide its Order dated 6<sup>th</sup> July 2009, authorizing the licensee to establish and operate a transmission system identified by the STU in the State Transmission Network Plan for FY 2010-11 to 2014-15.
- 1.3 The Hon'ble Commission approved the Business Plan for FY 2012-13 to FY 2015-16 of the Petitioner vide its Order dated 27<sup>th</sup> March, 2012 (Case No. 60 of 2011).
- 1.4 As per the Hon'ble Commission's Order on Transmission Pricing Framework dated 27<sup>th</sup> June, 2006, the Petitioner's system is an integral part of Intra-State Transmission System (InSTS) of Maharashtra.
- 1.5 The Hon'ble Commission approved the ARR for Control Period of FY 2012-13 to FY 2015-16 vide its order in Case No. 44 of 2012 dated 10<sup>th</sup> January, 2013.
- 1.6 The Hon'ble Commission notified MYT Regulations for determination of tariff for Generation, Transmission and Distribution in February 2011. Regulation 11.1 of the MYT Regulations, 2011 specifies the requirement of filing of Mid Term Performance Review for
  - a comparison of audited performance of the Transmission Licensee for the previous two years with the approved forecast of such period

- a comparison of the performance of the Transmission Licensee for the first half of the current financial year with the approved forecast for the current financial year

### **Submissions**

- 1.7 The Petitioner filed the present Petition dated 09<sup>th</sup> December, 2013 for Mid Term Performance review in accordance with relevant provisions of MYT Regulations for review of the company's performance so far and modification in trajectory to achieve a set goal.
- 1.8 The Hon'ble Commission issued Datagap Set1 vide email dated 27<sup>th</sup> January, 2014. The Petitioner replied to the same on 06<sup>th</sup> Feb, 2014.
- 1.9 Technical Validation Session was conducted on 06<sup>th</sup> Feb, 2014. Subsequently, the Hon'ble Commission issued Datagap Set2 vide email dated 10<sup>th</sup> Feb, 2014.
- 1.10 The Petitioner is filing the revised petition for Mid Term Performance review in accordance with relevant provisions of MYT Regulations incorporating replies to the queries raised by the Hon'ble Commission vide Datagaps Set1 and Datagaps Set 2 at relevant places.

### **Prayers to the Hon'ble Commission:**

- 2.1 The present Petition is submitted to the Hon'ble Commission for Truing up of Aggregate Revenue Requirement for FY 2012-13, approval of estimated Aggregate Revenue Requirement projections for FY 2013-14 and revised Aggregate Revenue Requirement projections for FY 2014-15 to FY 2015-16. The Petitioner respectfully prays that the Hon'ble Commission may be pleased to:

- a) Admit the Petition for Truing up of Aggregate Revenue Requirement for FY 2012-13, approval of estimated Aggregate Revenue Requirement for FY 2013-14 and revised Aggregate Revenue Requirement projections for FY 2014-15 to FY 2015-16.
- b) Approve the revenue gap of FY 2012-13 as presented in the Petition alongwith revised carrying cost and incentive.
- c) Approve estimated Aggregate Revenue Requirement for FY 2013-14.
- d) Approve revised projections of Aggregate Revenue Requirement for FY 2014-15 to FY 2015-16 as presented in the Petition.
- e) Allow the Petitioner to carry out additions / alterations / changes / modifications to the application at a future date, if necessary.
- f) Allow any other relief, order or direction, which the Hon'ble Commission deems fit to be issued.
- g) Condone any inadvertent omissions/errors/shortcomings and permit APML to add/change/modify/alter this filing and make further submissions as may be required at a future date.
- h) Pass such further orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

Place: Ahmedabad  
Dated: February 22, 2014



**Jignesh Langalia**  
**Authorised Signatory**



**Table of Contents**

<b>CHAPTER 1: EXECUTIVE SUMMARY .....</b>	<b>12</b>
A. INTRODUCTION .....	12
B. STATUTORY PROVISIONS.....	13
C. TRUE-UP FOR FY 2012-13 .....	14
D. PERFORMANCE REVIEW FOR FY 2013-14 .....	15
E. REVISED AGGREGATE REVENUE REQUIREMENT FORECAST FOR FY 2014-15 AND FY 2015-16 .....	16
F. PRAYERS .....	17
<b>CHAPTER 2: INTRODUCTION.....</b>	<b>19</b>
A. ABOUT APML-T .....	19
B. OBJECTIVE OF MID TERM PERFORMANCE REVIEW OF APPROVED MYT.....	20
C. APPROACH TOWARDS MID TERM PERFORMANCE REVIEW OF APPROVED MYT.....	20
<b>CHAPTER 3: STATUTORY AND REGULATORY PROVISIONS .....</b>	<b>23</b>
A. OVERVIEW .....	23
B. NATIONAL REGULATORY FRAMEWORK .....	23
I. ELECTRICITY ACT, 2003.....	23
II. TARIFF POLICY.....	24
C. STATE LEVEL REGULATORY FRAMEWORK.....	25
I. MERC (MULTI YEAR TARIFF) REGULATIONS, 2011.....	25
<b>CHAPTER 4: TRUE-UP OF FY 2012-13 .....</b>	<b>32</b>
A. CAPITAL EXPENDITURE .....	32
B. DEPRECIATION.....	39
C. RETURN ON EQUITY .....	40
D. INTEREST ON LOAN .....	41
E. INTEREST ON WORKING CAPITAL .....	45
F. OPERATION & MAINTENANCE EXPENDITURE.....	46
G. INCOME TAX EXPENSES .....	51
H. CONTRIBUTION TO CONTINGENCY RESERVE.....	57
I. NON-TARIFF AND OTHER BUSINESS INCOME .....	58
J. CARRYING COST FOR FY 2012-13 .....	59
K. AVAILABILITY OF APML-T NETWORK .....	60
L. EXPECTED REVENUE THROUGH TRANSMISSION CHARGES.....	61
M. SHARING OF GAINS AND LOSSES.....	62
N. GAP FOR FY 2012-13 .....	67
<b>CHAPTER 5: PERFORMANCE REVIEW OF FY 2013-14.....</b>	<b>68</b>
I. CAPITAL COST .....	69
II. DEPRECIATION.....	69
III. RETURN ON EQUITY .....	70
IV. INTEREST ON LOAN.....	70
V. INTEREST ON WORKING CAPITAL.....	72
VI. OPERATION AND MAINTENANCE EXPENDITURE .....	72
VII. INCOME TAX EXPENSE .....	74
VIII. CONTRIBUTION TO CONTINGENCY RESERVE.....	75
IX. NON-TARIFF AND OTHER BUSINESS INCOME .....	76
X. AVAILABILITY OF APML-T NETWORK .....	77
XI. EXPECTED REVENUE THROUGH TRANSMISSION CHARGES.....	78
XII. SUMMARY OF REVISED PROJECTION AS AGAINST APPROVED FOR FY 2013-14 .....	79

<b>CHAPTER 6: REVISED FORECAST OF ARR FOR FY 2014-15 AND FY 2015-16 .....</b>	<b>80</b>
<b>CHAPTER 7: PRAYERS .....</b>	<b>84</b>
PRAYERS .....	84
<b>CHAPTER 8: LIST OF ANNEXURES.....</b>	<b>85</b>
<b>DATA FORMATS.....</b>	<b>167</b>



**List of Tables**

<b>Table 1: Trued up ARR for FY 2012-13 .....</b>	<b>15</b>
<b>Table 2: Comparison of approved ARR Vs estimated ARR for FY 2013-14 .....</b>	<b>16</b>
<b>Table 3: ARR for FY 2014-15 and FY 2015-16. ....</b>	<b>17</b>
<b>Table 4: Capital Expenditure of APML-T for FY 2012-13.....</b>	<b>37</b>
<b>Table 5: Depreciation for FY 2012-13.....</b>	<b>39</b>
<b>Table 6: Return on Equity for FY 2012-13.....</b>	<b>40</b>
<b>Table 7: Communications with lenders.....</b>	<b>43</b>
<b>Table 8: Interest on loan during FY 2012-13 .....</b>	<b>44</b>
<b>Table 9: Interest on Working Capital for FY 2012-13 .....</b>	<b>45</b>
<b>Table 10: Operation and Maintenance Expenses for FY 2012-13 .....</b>	<b>46</b>
<b>Table 11: Details of Transmission Assets.....</b>	<b>47</b>
<b>Table 12: Revenue of regulated and non-regulated business for FY 2012-13 .....</b>	<b>48</b>
<b>Table 13: Income Tax Expenses for FY 2012-13 .....</b>	<b>51</b>
<b>Table 14: Contribution to Contingency Reserves for FY 2012-13.....</b>	<b>58</b>
<b>Table 15: Additional carrying cost for FY 2012-13 for staggered revenue in FY 2013-14.....</b>	<b>60</b>
<b>Table 16: Detail of Revenue Recovery and outstanding .....</b>	<b>62</b>
<b>Table 17: Comparison of Actual and Approved ARR for FY 2012-13 .....</b>	<b>65</b>
<b>Table 18: Sharing of Gains &amp; Losses for FY 2012-13 .....</b>	<b>66</b>
<b>Table 19: Trued up ARR for FY 2012-13.....</b>	<b>67</b>
<b>Table 20: Depreciation for FY 2013-14.....</b>	<b>69</b>
<b>Table 21: Return on Equity for FY 2013-14.....</b>	<b>70</b>

<b>Table 22: Interest on loan capital for FY 2013-14 .....</b>	<b>71</b>
<b>Table 23: Interest on Working capital for FY 2013-14 .....</b>	<b>72</b>
<b>Table 24: Operation and Maintenance expenses for FY 2013-14 .....</b>	<b>74</b>
<b>Table 25: Income tax expenses for FY 2013-14 .....</b>	<b>75</b>
<b>Table 26: Contingency Reserves for FY 2013-14.....</b>	<b>76</b>
<b>Table 27: Non-tariff Income for FY 2013-14.....</b>	<b>76</b>
<b>Table 28: Comparison of approved ARR Vs revised projection for FY 2013-14 ...</b>	<b>79</b>
<b>Table 29: Basis for projections of tariff component wise for FY 2014-15 and FY 2015-16.....</b>	<b>80</b>
<b>Table 30: ARR for FY 2014-15 and FY 2015-16.....</b>	<b>82</b>

**List of Abbreviations**

<b>Abbreviation</b>	<b>Description</b>
A&G	Administrative and General
APL	Adani Power Limited
APML	Adani Power Maharashtra Limited
APML – G	Adani Power Maharashtra Limited – Generation
APML – T	Adani Power Maharashtra Limited – Transmission
ARR	Aggregate Revenue Requirement
BoI	Bank of India
CAPEX	Capital Expenditure
CERC	Central Electricity Regulatory Commission
Ckt-Km	Circuit Kilometer
Crs	Crs.
D/c	Double Circuit
EA 2003	Electricity Act, 2003
F & A	Finance and Accounts
FY	Financial Year
GFA	Gross Fixed Assets
H1	First half (six months) of any Financial Year
H2	Second half (six months) of any Financial Year
kV	Kilo Volt
kVA	Kilo-Volt Amperes
kW	Kilo-Watt
MERC	Maharashtra Electricity Regulatory Commission
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi Year Tariff
NTP	National Tariff Policy
O&M	Operation & Maintenance
PPA	Power Purchase Agreement
R&M	Repairs & Maintenance
RoE	Return on Equity
SBAR	State Bank Advance Rate

MID TERM PERFORMANCE REVIEW OF APPROVED MULTI YEAR TARIFF FOR FY 2012-13 TO FY 2015-16

SBI	State Bank of India
S/s	Substation
STU	State Transmission Utility
w.e.f	With effect from

## Chapter 1: Executive Summary

### A. Introduction

- 1.1 Adani Power Maharashtra Limited Transmission (“APML-T” or “Petitioner”) has been granted Transmission License No 2 of 2009 by Maharashtra Electricity Regulatory Commission (“Hon’ble Commission”) vide its Order dated 6<sup>th</sup> July 2009, authorizing the licensee to establish and operate a transmission system identified by the STU in the State Transmission Network Plan for FY 2010-11 to 2014-15.
- 1.2 The Hon’ble Commission approved the Business Plan for FY 2012-13 to FY 2015-16 of the Petitioner vide its Order dated 27<sup>th</sup> March, 2012 (Case No. 60 of 2011).
- 1.3 As per of the Hon’ble Commission’s Order on Transmission Pricing Framework dated 27<sup>th</sup> June, 2006, the Petitioner’s system is an integral part of Intra-State Transmission System (InSTS) of Maharashtra.
- 1.4 The Hon’ble Commission approved the ARR for Control Period of FY 2012-13 to FY 2015-16 vide its order in Case No. 44 of 2012 dated 10<sup>th</sup> January, 2013.
- 1.5 The Hon’ble Commission had notified MYT Regulations for determination of tariff for Generation, Transmission and Distribution in February 2011. Regulation 11.1 of the MYT Regulations specifies the requirement of filing of Mid Term Performance Review for
  - (a) a comparison of audited performance of the Transmission Licensee for the previous two years with the approved forecast of such period

- (b) a comparison of the performance of the Transmission Licensee for the first half of the current financial year with the approved forecast for the current financial year
- 1.6 The Petitioner filed the present Petition dated 09<sup>th</sup> December, 2013 for Mid Term Performance review in accordance with relevant provisions of MYT Regulations for review of the company's performance so far and modification in trajectory to achieve a set goal.
- 1.7 The Hon'ble Commission issued Datagap Set1 vide email dated 27<sup>th</sup> January, 2014. The Petitioner replied to the same on 06<sup>th</sup> Feb, 2014.
- 1.8 Technical Validation Session was conducted on 06<sup>th</sup> Feb, 2014. Subsequently, the Hon'ble Commission issued Datagap Set2 vide email dated 10<sup>th</sup> Feb, 2014.
- 1.9 The Petitioner is filing the revised petition for Mid Term Performance review in accordance with relevant provisions of MYT Regulations incorporating replies to the queries raised by the Hon'ble Commission vide Datagaps Set1 and Datagaps Set 2 at relevant places.

## **B. Statutory Provisions**

- 1.10 The Petitioner, being a Transmission Licensee endeavors to operate under the stipulated regulatory regime. The Transmission Business is governed and regulated under following Act, Policy and Regulations:
- Electricity Act 2003;
  - National Electricity Policy;
  - National Tariff Policy; and
  - MERC (Multi Year Tariff) Regulations, 2011.
- 1.11 In accordance with the MYT Regulations of the Hon'ble Commission, the Petitioner has prepared and submits the Mid-term Performance Review

Application for its transmission system for the second control period (FY 2012-13 to FY 2015-16).

1.12 It is to be noted that this Mid-term Performance Review application is being submitted on actual parameters based on audited accounts compared to the approved figures from the MYT Order dated 10<sup>th</sup> January, 2013.

### **C. True-up for FY 2012-13**

1.13 The Petitioner , by way of actual and audited data presented in this petition, seeks final true-up of approved ARR of FY 2012-13. The Petitioner has analysed the reasons for actual performance as elaborated in Chapter 3 of the Petition.

1.14 The Hon'ble Commission has approved carrying cost for FY 2012-13 to compensate for the delay in recovery till Apr 2013. Owing to revision in capital cost, there is revision in carrying cost. Hence, the Petitioner has calculated revised carrying cost on similar principles as enumerated in the MYT Order dated 10<sup>th</sup> January 2013. Further, the actual recovery of ARR of FY 2012-13 was not only delayed by another two months but also was staggered in 12 months of FY 2013-14. In view of above, there is total additional carrying cost of Rs. 6.99 Crs.

1.15 The Petitioner is eligible for incentive of Rs. 1.98 Crs including income tax on incentive in view of 100% availability for its transmission network for FY 2012-13.

1.16 In view of above, Comparison of approved ARR and actual ARR is as follows:

**Table 1: Trued up ARR for FY 2012-13**

(Rs. Crs)			
Sr. No.	Particular	Approved	Actual
1	O&M Expenses	3.83	4.88
2	Depreciation	21.59	22.32
3	Interest on Loan	34.97	38.03
4	Interest on Working Capital	1.61	1.82
5	Other Expenses	-	-
6	Contribution to contingency reserve	1.02	1.06
7	Income Tax	4.76	4.56
<b>8</b>	<b>Total Revenue Expenditure</b>	<b>67.78</b>	<b>72.67</b>
9	Return on Equity	19.01	19.66
<b>10</b>	<b>Gross ARR</b>	<b>86.80</b>	<b>92.33</b>
	<b>Less:</b>		
11	Income from Other Business	-	-
12	Non-tariff Income	-	-
<b>13</b>	<b>Net ARR</b>	<b>86.80</b>	<b>92.33</b>

1.17 The Petitioner requests the Hon'ble Commission to approve the actual performance of the Petitioner as submitted.

#### **D. Performance Review for FY 2013-14**

1.18 The Petitioner, by way of estimated data presented in this petition, seeks approval of estimated projection for FY 2013-14 as against approved performance. The Petitioner has analysed the reasons for estimated performance as elaborated in Chapter 4 of the Petition. Comparison of approved ARR and estimated ARR is as follows:



**Table 2: Comparison of approved ARR Vs estimated ARR for FY 2013-14**

(Rs. Crs)			
Sr. No.	Particulars	Approved	Estimated
1	O&M Expenses	6.78	10.52
2	Depreciation	36.15	37.37
3	Interest on Long term Loan	54.94	55.67
4	Interest on working capital	2.64	2.98
5	Other Expenses	-	-
6	Income tax expense	7.96	8.73
7	Contribution to contingency reserves	1.71	1.77
8	Total Revenue Expenditure	110.18	117.04
9	Return on Equity Capital	31.83	32.91
10	Aggregate Revenue Requirement	142.01	149.96
11	Less: Non-Tariff income	0.04	-
12	Less: Income from other business	-	-
13	Net Aggregate Revenue Requirement	141.97	149.96

**E. Revised Aggregate Revenue Requirement forecast for FY 2014-15 and FY 2015-16**

1.19 Based on the actual performance for FY 2012-13 and estimation for FY 2013-14 (Actual for first half and estimated for second half) the Petitioner has revised the projections for FY 2014-15 and FY 2015-16. The Petitioner seeks approval of revised projection for FY 2014-15 and FY 2015-16 as against approved performance. The Petitioner has elaborated the basis for revised projections in Chapter 5 of the Petition. Comparison of approved ARR and estimated ARR is as follows:

**Table 3: ARR for FY 2014-15 and FY 2015-16.**

(Rs. Crs)					
Sr. No.	Particulars	FY 2014-15 Approved	FY 2014-15 Projected	FY 2015-16 Approved	FY 2015-16 Projected
1	O&M expenses	7.19	11.12	7.58	11.76
2	Depreciation	36.15	37.37	36.15	37.37
3	Interest on Long term Loan	50.43	51.10	45.91	46.52
4	Interest on working capital	2.56	2.91	2.49	2.84
5	Other Expenses	-	-	-	-
6	Income tax expense	7.96	8.73	7.96	8.73
7	Contribution to contingency reserves	1.71	1.77	1.71	1.77
8	Total Revenue Expenditure	106.00	113.01	101.80	108.99
9	Return on Equity Capital	31.83	32.91	31.83	32.91
10	Aggregate Revenue Requirement	137.83	145.92	133.63	141.91
11	Less: Non-Tariff income	0.16	0.16	0.30	0.31
12	Less: Income from other business	-	-	-	-
13	Net Aggregate Revenue Requirement	137.68	145.76	133.33	141.60

## F. Prayers

1.20 The present Petition is submitted to the Hon'ble Commission for Truing up of Aggregate Revenue Requirement for FY 2012-13, approval of estimated Aggregate Revenue Requirement projections for FY 2013-14 and revised Aggregate Revenue Requirement projections for FY 2014-15 to FY 2015-16.

The Petitioner respectfully prays that the Hon'ble Commission may be pleased to:

- a) Admit the Petition for Truing up of Aggregate Revenue Requirement for FY 2012-13, approval of estimated Aggregate Revenue Requirement for FY 2013-14 and revised Aggregate Revenue Requirement projections for FY 2014-15 to FY 2015-16.
- b) Approve the revenue gap of FY 2012-13 as presented in the Petition alongwith revised carrying cost and incentive.
- c) Approve estimated Aggregate Revenue Requirement for FY 2013-14.
- d) Approve revised projections of Aggregate Revenue Requirement for FY 2014-15 to FY 2015-16 as presented in the Petition.
- e) Allow the Petitioner to carry out additions / alterations / changes / modifications to the application at a future date, if necessary.
- f) Allow any other relief, order or direction, which the Hon'ble Commission deems fit to be issued.
- g) Condone any inadvertent omissions/errors/shortcomings and permit APML to add/change/modify/alter this filing and make further submissions as may be required at a future date.
- h) Pass such further orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

## Chapter 2: Introduction

### A. About APML-T

- 2.1 Adani Power Maharashtra Limited Transmission (“APML-T” or “Petitioner”) has been granted Transmission License No 2 of 2009 by Maharashtra Electricity Regulatory Commission (“Hon’ble Commission”) vide its Order dated 6<sup>th</sup> July 2009, authorizing the licensee to establish and operate a transmission system identified by the STU in the State Transmission Network Plan for FY 2010-11 to 2014-15.
- 2.2 In view of the development of 765kV transmission system and as per the advice of STU vide letter dated 5<sup>th</sup> December, 2009 for revision in the approved transmission system of the Petitioner, the company obtained approval of the Hon’ble Commission for the same vide order dated 30<sup>th</sup> March, 2011 authorizing the Petitioner to establish and operate the following lines and associated infrastructure.
- (a) 400kV D/c Transmission Line with Quad conductor from Tiroda (Gondia) to proposed 400kV Warora Switching Station;
  - (b) 2 Nos. 400kV bays for the above D/c Transmission lines at Tiroda Project Switchyard;
  - (c) 2 Nos. 400kV bays for termination of 400kV D/c Tiroda-Warora Transmission line at Warora Switching Station.
- 2.3 The Hon’ble Commission approved the Business Plan for FY 2012-13 to FY 2015-16 of the Petitioner vide its Order dated 27<sup>th</sup> March, 2012 (Case No. 60 of 2011).
- 2.4 The above mentioned transmission system was commissioned on 26<sup>th</sup> August, 2012 with completed capital cost of Rs. 684.60 Crs. The Hon’ble

Commission approved Multi Year Tariff (“MYT”) vide order dated 10<sup>th</sup> January, 2013 (Case No. 44 of 2012).

- 2.5 In view of the Hon’ble Commission’s Order on Transmission Pricing Framework dated 27<sup>th</sup> June, 2006, the Petitioner’s system is an integral part of Intra-State Transmission System (InSTS) of Maharashtra. The electricity generated at the Tiroda Thermal Power Project flows through the Petitioner’s transmission lines which are connected with the transmission systems of MSETCL. The transmission system of the Petitioner not only serves the purpose of bringing power to the load center in Maharashtra, but also lends stability and flexibility to the grid.

#### **B. Objective of Mid Term Performance Review of Approved MYT**

- 2.6 Mid Term Performance review includes the company’s performance in FY 2012-13 and first half of FY 2-13-14 and modification in trajectory to achieve a set goal. It also encompasses modification in the forecast for the remaining period of MYT Control period based on actual performance during initial 2.5 years of the Control Period.

#### **C. Approach towards Mid Term Performance Review of Approved MYT**

- 2.7 In accordance with the provisions of the Electricity Act 2003, the Petitioner is required to file an application for Mid-term Performance Review as per procedures laid down under Sections 86, Section 62 read with Section 61 and Section 64 of the Electricity Act 2003 and under Regulation 11 read with Regulation 3 (Part A), Regulations 4, 6, 8, 10, 12 to 14 (Part B), Regulations 16, 18 to 20 (Part C), Part E, Part G, of MERC (Multi Year Tariff) Regulations, 2011 (hereafter referred to as “MYT Regulations”) and other governing Regulations thereof.

2.8 The Hon'ble Commission had notified MYT Regulations for determination of tariff for Generation, Transmission and Distribution in February 2011. Regulation 11.1 of the MYT Regulations specifies the requirement of filing of Mid Term Performance Review for

- (a) a comparison of audited performance of the Transmission Licensee for the previous two years with the approved forecast of such period
- (b) a comparison of the performance of the Transmission Licensee for the first half of the current financial year with the approved forecast for the current financial year

2.9 The Hon'ble Commission approved the ARR for Control Period of FY 2012-13 to FY 2015-16 vide its order in Case No. 44 of 2012 dated 10<sup>th</sup> January, 2013.

2.10 The petition for Mid-term Performance review is prepared based on:

- Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011.
- True up is based on comparison of the audited performance for the FY 2012-13 with the approved forecast of that year.
- Sharing of Gains & Losses for FY 2012-13.
- Carrying cost on surplus / deficit amounts.
- Comparison of the performance of the Petitioner for the first half of the current financial year with the approved forecast of the current financial year and revised projections for complete FY 2013-14. Revised projections of ARR for FY 2014-15 and FY 2015-16.

2.11 The Petitioner requests the Hon'ble Commission to allow updation / amendment as per the actual scenario faced by the Petitioner and accordingly consider the modification proposed for the rest of the MYT control period.

## **Chapter 3: Statutory and Regulatory Provisions**

### **A. Overview**

3.1 The Petitioner, being a Transmission Licensee endeavors to operate under the stipulated regulatory regime. The Transmission Business is governed and regulated under following Act, Policy and Regulations:

- Electricity Act 2003;
- National Electricity Policy;
- National Tariff Policy; and
- MERC (Multi Year Tariff) Regulations, 2011.

### **B. National Regulatory Framework**

#### **i. Electricity Act, 2003**

3.2 The Electricity Act, 2003 is based on the principles of promoting competition, protecting consumers' interests and providing power to all.

3.3 The salient features of The Electricity Act 2003 are:

- Central Government to prepare a National Electricity Policy and Tariff Policy in consultation with the State Governments. (Section 3)
- Transmission of electricity only authorized by a license issued under Section 14 or is exempt under Section 13.
- Provisions and procedure for grant of license (Section 14 and 15).
- Conditions of license and restrictions upon a licensee (Section 16 and 17).
- Amendment of license and revocation of license (Section 18 and 19).



- Direction to licensees (Section 23).
- Intra-state transmission (Section 30).
- Other provisions relating to transmission (Section 34 to 38).
- Duties of transmission licensees and other businesses of transmission licensee (Section 40 and 41).
- Tariff principles (Sections 61 and 62)
- Regulatory Commissions to be guided by the principles and methodologies specified by the Central Commission for determination of tariff applicable to generating companies and transmission licensees. (Section 61).
- Determination of tariff (Section 62 and 63).
- Constitution and functions of State Electricity Regulatory Commission and Appellate Tribunal (Section 82 and 86).

## **ii. Tariff Policy**

3.4 In compliance with Section 3 of the Electricity Act 2003, the Central Government notified the Tariff Policy (NTP) in continuation to the National Electricity Policy (NEP) notified on 12<sup>th</sup> February, 2005.

3.5 The objectives of the Tariff Policy are:

- Ensure availability of electricity to consumers at reasonable and competitive rates;
- Ensure financial viability of the sector and attract investments;

- Promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;
  - Promote competition, efficiency in operations and improvement in quality of supply.
- 3.6 The NTP lays down the framework for performance based cost of service regulation in respect of sector specific aspects like Return on Investment, Equity norms, Depreciation, Cost of debt, Cost of management of foreign exchange risk, Operating norms, Renovation and modernization and Multi-year tariff framework. The NTP also lays down guidelines for transmission business which includes Transmission pricing and approach to transmission loss allocation.
- 3.7 The NTP seeks to achieve the following objectives with its advent:
- i. Ensuring optimal development of the transmission network to promote efficient utilization of generation and transmission assets in the country;
  - ii. Attracting the required investments in the transmission sector and providing adequate returns.
- 3.8 NTP mandates the implementation of Multi Year Tariffs framework for revenue requirement and costs, tariff designs and its linkage to cost of service, cross subsidy surcharge and additional surcharge for open access.

## **C. State Level Regulatory Framework**

### **i. MERC (Multi Year Tariff) Regulations, 2011**

- 3.9 The MYT Regulations covers the elements for calculation of Annual Revenue Requirement ('ARR').

3.10 The Regulation is applicable for the determination of tariff in all cases covered under Regulation 3 from April 1, 2011 to March 31, 2016 for all existing and future generating companies, transmission licensees and distribution licensees and their successors, if any. The regulations shall be in force from April 1, 2011.

3.11 Regulation 3 of the MYT Regulation covers the scope of Regulations:

***"3 Scope of Regulations and extent of application***

*3.1 The Commission shall determine tariff, including terms and conditions thereof, for all matters for which the Commission has jurisdiction under the Act, including in the following cases:-*

*(i) Supply of electricity by a Generating Company to a Distribution Licensee:*

*(ii) Intra-State transmission of electricity;*

*(iii) Rates and charges for use of intervening transmission facilities;*

*(iv) Distribution Wires Business of electricity;*

*(v) Retail Supply Business of electricity;*

*(vi) Surcharge in addition to the charges for wheeling under the first proviso to sub-section (2) of Section 42 of the Act, in accordance with the Distribution Open Access Regulations and as amended through Orders issued by the Commission from time to time;*

*(vii) Additional surcharge on the charges for wheeling under sub-section (4) of Section 42 of the Act, in accordance with the Distribution Open Access Regulations and as amended through Orders issued by the Commission from time to time.*

*Provided that the Commission shall determine such tariff, having regard to the terms and conditions contained in Part G, Part H and Part I of these Regulations for applications under this Regulation for determination of tariff, for transmission, distribution wires business and retail supply business:*

*Provided further that the Commission, while determining tariff upon an application made to it under this Regulation, shall also have regard to the terms and conditions of tariff as may be specified by the State Commission of such other State and/or the terms and conditions of tariff as may be specified by the Central Commission where any of the Parties to such transaction come under the jurisdiction of such State Commission or of the Central Commission.*

*3.2 Notwithstanding anything contained in these Regulations, the Commission shall adopt the tariff if such tariff has been determined through a transparent process of bidding in accordance with the guidelines issued by the Central Government."*

3.12 Regulation 4 of the MYT Regulations provides for Multi Year Tariff Framework. The relevant extracts for the same are as follows:

***"4 Multi-Year Tariff Framework***

*4.1 The Commission shall determine the tariff for matters covered under clauses (i), (ii), (iii), (iv) and (v) of Regulation 3.1 above under a Multi-Year Tariff framework with effect from April 1, 2011:*

*Provided that the Commission may, either on suo-motu basis or upon application made to it by the applicant, exempt the determination of tariff of a Generating Company or Transmission Licensee or Distribution Licensee or category of Transmission Licensee or Distribution Licensee under the Multi-Year Tariff framework for such period as may be contained in the Order granting such an exemption.*

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

*(i) Control Period, before commencement of which a forecast of the Aggregate Revenue Requirement and expected revenue from existing tariff and charges shall be submitted by the applicant and approved by the Commission;*

*(ii) A detailed Business Plan based on the Operational Norms and trajectories of performance parameters specified in the MYT Regulations, for each year of the Control Period, shall be submitted by the applicant for the Commission's approval;*

*(iii) Based on the Business Plan, the applicant shall submit the forecast of Aggregate Revenue Requirement and expected revenue from existing tariff for each year of the Control Period, and the Commission shall approve the tariff for Generating Companies, Transmission Licensee, Distribution Wires Business and Retail Supply Business, for each year of the Control Period;*

*(iv) The Commission shall, notify by order, the change in indexation, if required, for indexed parameters as specified in these Regulations, on the 30th day of April of every year of the Control Period, starting from the second year of Control Period and notify by order, the change in tariff, as applicable to Generating Companies, Transmission Licensee, Distribution Wires Business and Retail Supply Business;*

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

*(vi) The mechanism for pass-through of approved gains or losses on account of uncontrollable factors as specified by the Commission in these Regulations;*

*(vii) The mechanism for sharing of approved gains or losses arising out of controllable factors as specified by the Commission in these Regulations;*

*(viii) One-time tariff determination for Generating Companies, Transmission Licensee, Distribution Wires Business and Retail Supply Business, for each financial year within the Control period along with specification of indexation for specific parameters based on the approved forecast, shall be undertaken at the start of the Control Period and also reviewed at the time of the Mid-term Performance Review."*

3.13 Regulation 8 of the MYT Regulation outlines development of forecast of Aggregate Revenue Requirement as under:

***"8 Forecast***

*8.1 The applicant, based on Business Plan, shall submit the forecast of Aggregate Revenue Requirement and expected revenue from tariff, for the Control Period in such manner, within such time limit thereof as provided in **Part C** of these Regulations and accompanied by such fee payable, as may be specified under the MERC (Fees and Charges) Regulations, 2004, as amended from time to time.*

*8.2 Forecast of Aggregate Revenue Requirement*

*8.3 The applicant shall develop the forecast of Aggregate Revenue Requirement using the assumptions relating to the behaviour of individual variables that comprise the Aggregate Revenue Requirement during the Control Period.*

*8.4 Forecast of expected revenue from tariff and charges*

*The applicant shall develop the forecast of expected revenue from tariff and charges based on the following:*

- (a) In the case of a Transmission Licensee, estimates of transmission capacity allocated to Transmission System Users for each financial year within the Control Period;*
- (b) In the case of a Distribution Licensee, estimates of quantum of electricity to be supplied to consumers and wheeled on behalf*

*of Distribution System Users for each financial year within the Control Period; and*

*(c) Prevailing tariff as at the date of making the application.*

*8.5 Based on the forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges, the Generating Company or Transmission Licensee or Distribution Licensee shall submit the forecast of tariff, that would meet the gap, if any, in the Aggregate Revenue Requirement.*

*8.6 The applicant shall provide full details supporting the forecast, including but not limited to details of past performance, proposed initiatives for achieving efficiency or productivity gains, technical studies, contractual arrangements and/or secondary research, to enable the Commission to assess the reasonableness of the forecast."*

3.14 Regulation 11 of the MYT Regulation outlines that licensees may seek mid-term performance review and also defines the scope of such application as follows:

***"11 Mid-term Performance Review***

*11.1 Where the Aggregate Revenue Requirement and expected revenue from tariff and charges of a Generating Company or Transmission Licensee or Distribution Licensee is covered under a Multi-Year Tariff framework, then such Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, shall be subjected to a Mid-term Performance Review during the Control Period in accordance with this Regulation.*

*11.2 The Generating Company or Transmission Licensee or Distribution Licensee shall make an Application for Mid-term Performance Review within the time limit specified in Regulation 19:*

*Provided that the Generating Company or Transmission Licensee or Distribution Licensee, as the case may be, submit to the Commission information in such form as may be stipulated by the Commission, together with the Accounting Statements, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges.*

*11.3 The scope of the Mid-term Performance Review shall be a comparison of the actual performance of the Generating Company or Transmission Licensee or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise of the following:*

*(a) a comparison of the audited performance of the applicant for the previous two financial years with the approved forecast for such previous financial year; and*

*(b) a comparison of the performance of the applicant for the first half of the current financial year with the approved forecast for the current financial year.*

*(c) carrying cost on surplus/deficit amounts, if any, at the time of Mid-term Performance review."*

3.15 Further Regulation 12 of the MYT Regulation categorizes factors into controllable and uncontrollable as follows:

***"12 Controllable and uncontrollable factors***

*12.1 The "uncontrollable factors" shall comprise of the following factors which were beyond the control of, and could not be mitigated by the applicant, as determined by the Commission. List of uncontrollable factors is as follows:*

*(a) Force Majeure events, such as acts of war, fire, natural calamities, etc.;*

*(b) Change in law;*

*(c) Variation in fuel cost on account of variation in coal, oil and all primary-secondary fuel prices;*

*(d) Taxes and Duties;*

*(e) Variation in the cost of power generation and/or power purchase due to the circumstances specified in Regulation 26; and*

*(f) Variation in freight rates;*

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

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

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

*(c) Variations in performance parameters;*

*(d) Variations in working capital requirements;*

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

*(f) Variations in labour productivity;*

*(g) Variation in operation & maintenance expenses;*

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

*(i) Coal transit losses.”*

3.16 Regulation 19.2 of the MYT Regulation stipulates the time-limit to file a mid-term performance review as follows:

*“19.2 An application for Mid-term Performance Review under a Multi-Year Tariff framework for the second Control Period from April 1, 2011 to March 31, 2016, shall be made to the Commission not less than one hundred and twenty (120) days before the commencement of FY 2014-15.”*

3.17 Regulation 27 and 28 of the MYT Regulation stipulates norms pertaining to capital cost and additional capitalization. At Regulation 27.5 of MYT Regulations, 2011, the Hon'ble Commission has stipulated that an additional amount equivalent to 20% of the total capital expenditure approved for respective financial year of the Control Period towards unplanned capital expenditure may be approved. At Regulation 28.1(f) of MYT Regulations, 2011, the Hon'ble Commission has stipulated that capital expenditure, actually incurred on any additional works/services, which have become necessary for efficient and successful operation of a Generating Station or a transmission project may be admitted by the Hon'ble Commission.

3.18 In accordance with the above mentioned provisions of the Act, Policy and Regulations, the Petitioner has prepared and submits the Mid-term Performance Review Application for its transmission system for the second control period (FY 2012-13 to FY 2015-16).



## Chapter 4: True-Up of FY 2012-13

4.1 This chapter outlines the performance of the Petitioner for FY 2012-13. The Petitioner in its MYT petition had submitted projections for FY 2012-13. Based on the projections, the ARR for FY 2012-13 was approved by the Hon'ble Commission vide its Tariff Order dated 10<sup>th</sup> January, 2013. In line with the provisions of the MYT Regulations, the Petitioner hereby submits true-up for FY 2012-13 comparing the actual audited expenses vis-à-vis approved expenses. The True up of FY 2012-13 has been computed as per the MYT Regulation.

### A. Capital Expenditure

4.2 Maharashtra STU planned the transmission system of 400 kV D/c Tiroda – Warora transmission line along-with associated bays at either side as an integral part of the State transmission network and included it in the STU transmission plan for FY 2010-11 to 2014-15. The Hon'ble Commission granted Transmission License no. 2 of 2009 as amended on 30<sup>th</sup> March, 2011 to the Petitioner for development and implementation / execution of the said transmission system.

4.3 The Petitioner submitted MYT petition on 13<sup>th</sup> July, 2012 with capital cost of Rs. 684.92 Crs. The licensed assets of the Petitioner have achieved Commercial Operation Date (“CoD”) on 26<sup>th</sup> August, 2012. Subsequently on 26<sup>th</sup> December, 2012, the Petitioner submitted Statutory Auditor's certificate for completed capital cost of Rs. 684.60 Crs. The Hon'ble Commission has considered the completed capital cost for determination of transmission tariff for the Petitioner's system from CoD to 31st March, 2016.

In the MYT Order dated 10<sup>th</sup> January, 2013, the Hon'ble Commission (in Para 2.2.5 at Page 21), observed that the completed cost certified by Statutory

Auditor is based on audited accounts of the previous financial year as on 31<sup>st</sup> March, 2012 and unaudited documents / information / explanations provided by the Petitioner for the remaining period upto COD (i.e. 26<sup>th</sup> August, 2012) and that the final approval of capital cost for the transmission project subject to prudence check which shall be carried out at a later date. The Hon'ble Commission also directed the Petitioner to submit the duly audited completed capital cost which is certified based on the audited accounts of the financial year during which the project has achieved CoD.

- 4.4 Subsequently, the Hon'ble Commission initiated process of prudence check in March 2013 in order to carry out technical and economical evaluation of the scheme as well as to verify the capital cost and capitalization carried out by the Petitioner.
- 4.5 The consultant appointed by the Hon'ble Commission has carried out technical and economical evaluation during 15<sup>th</sup> March, 2013 to 17<sup>th</sup> March, 2013 by visiting the entire transmission system including bays on both ends. The representative of Hon'ble Commission has also verified the books of account of the Petitioner for ascertaining the capital cost and capitalization of Rs.684.60 Crs..
- 4.6 In view of above, it is submitted that the process of prudence check of the capital cost has been completed by the Hon'ble Commission through a detailed exercise. As directed by the Hon'ble Commission, the Petitioner hereby submits completed capital cost certificate for Rs. 684.60 Crs. for the Assets considered in MYT Petition based on the audited accounts of the financial year during which the project has achieved CoD and marked as **Annexure 1**.
- 4.7 Further, it may be noted that along with the transmission system, the Petitioner has commissioned two bus reactors at Tiroda and put into use

alongwith the transmission lines in view of the following which covers reply to Datagaps raised by the Hon'ble Commission with reference to Bus Reactors.

- 4.8 Planning of entire Intrastate Transmission System has been carried out by STU only. Accordingly, STU planned the system under consideration which did not capture the Bus Reactors. APML was entrusted only with the responsibility to execute the system planned by STU. It had no role to play in the design of the same.
- 4.9 However, there was High voltage situation prevailing in Wardha, Warora areas. Also, Line capacitance and low line loading in the transmission network results in over voltages. The capacitance generated by the transmission line needs to be compensated by installation of switchable shunt reactors. The shunt reactors can be either line connected or bus connected. High voltage prevailing in Wardha, Warora areas coupled with the line capacitance results in impossibility of keeping the Tiroda-Warora line in service without bus reactors at Tiroda.
- 4.10 Also, before charging 400 kV Toroda-Warora D/c transmission line, WRLDC have conducted analysis in which it was observed that charging of Tiroda – Warora line through Wardha sub-station will raise the open end voltage to 430kV and can be controlled with reactor. In the study, with 2 x 80 MVAR bus reactors, the voltage at Warora and Tiroda end is observed at 410kV and 401kV respectively. The Bus reactors have been operated as per instructions of MSLDC. Copy of letter dated 18.08.2012 attaching study carried out by WRLDC and instructions of MSLDC is attached herewith and collectively marked as **Annexure 2**. Based on the study, it was confirmed that the reactor are required during the initial charging as well as during normal operation.

- 4.11 It is also important to note that issue of higher Billing Demand cropped up first time for the billing period of 22<sup>nd</sup> August, 2012 to 20<sup>th</sup> September, 2012 just because of the Bus reactors. As against contracted demand of 50 MVA, Demand recorded was 171 MVA because of the Bus Reactors. The copy of the said bill is attached herewith and marked as **Annexure 3**.
- 4.12 From above, it is clear that Bus Reactors were commissioned with alongwith 400 kV D/c Torda-Warora transmission line as per the Instructions (code) of MSLDC/ STU. Even, MSETCL has also confirmed requirement of Bus Reactors for Intra-state transmission system. Copy of MSETCL letter dated 19.11.2012 have been attached herewith and collectively marked as **Annexure 4**.
- 4.13 It is also important to note that during the proceedings of Case no. 51 of 2013, the Hon'ble Commission constituted a committee to look at the broader aspects of provision of shunt compensation for transmission and distribution system. The Report prepared by the Committee headed by Mr. S.A.Soman, IIT, Mumbai covers the requirement of shunt compensation in Extra High Voltage (EHV) AC transmission, with particular reference to the 400 kV D/c Tiroda and Warora transmission line. The Report clearly establishes that the shunt reactors were essential to enable operationalization of APML's transmission system. The relevant observations made at para 6.3 of the reports are extracted herein below:

"

- *On the other hand, in an EHV transmission system, voltage rise is observed at receiving end for light load conditions (below SIL) due to dominance of shunt capacitive VARs.*
- *The capacitive VARs generated by EHV transmission lines, may require compensation by inductive VARs, to maintain proper regulation and improve voltage profile of the system.*

- *Shunt reactors are also required during charging of EHV transmission lines to control the transient over voltages that are likely to occur when such lines are energised.*
- *In case of the Tiroda-Warora line, it should be noted that there is no load on the Warora 400 kV bus and radial connection continues upto Wardha. Hence, the line is in effect the Tiroda-Wardha line with a line length of 296.65 km. If this line length is considered, the voltage rise, as per Fig 6, at receiving end is approximately 5.5 % (this is under the assumption that the Wardha-Warora line has identical parameters as Tiroda-Wardha Line).*
- *The 400 kV bus voltages around Wardha are consistently higher than 400 kV due to the presence of large generation capacity and low loading levels. Further 765 kV substation is located at Wardha and 1200 kV is likely to come up in the near future."*

4.14 The copy of the Report is attached herewith and marked as **Annexure 5**.

4.15 Further, the Hon'ble Commission's ruling in the said order regarding Bus reactor is important to note. The relevant portion of the order is extracted herein below:

*"Summary of the Commission's Ruling:*

*31. The bus reactors which are part of intra-state transmission system and being operated as per instructions from SLDC for controlling the system voltages are assisting the STU / SLDC to maintain the grid voltage. Therefore ..."*

4.16 In view of above, it is clear that Bus reactors are part of Intra-state transmission system and entire capital expenses on account of Bus

reactors is uncontrollable expenditure within the framework of MERC MYT Regulations, 2011 which stipulates Force Majeure events or circumstance as "Events or circumstances which is not within the reasonable control of party."

4.17 Further, it may be noted that capitalized amount shown in the balance sheet reflects the Transmission System without Bus reactors. In addition to the capital cost reflected in the balance sheet, as sought by the Hon'ble Commission, the Petitioner submits herewith Capital Cost Certificate of Statutory Auditor for the bus reactors amounting to Rs. 23.24 Crs as **Annexure 6**. Further, the Petitioner may be permitted to submit the audited balance sheet of APML-T as on Sep 2013 reflecting Capital cost of Bus Reactor.

4.18 In view of above, details of actual capital cost including bus reactors at Tiroda as against approved capital Cost in the MYT Order by Hon'ble Commission is tabulated as below:

**Table 4: Capital Expenditure of APML-T for FY 2012-13**

Particulars	(Rs. Crs)	
	Approved	Actual
Revised Capital Cost	684.60	707.84

4.19 Since the bus reactors are very much essential for putting the Tiroda-Warora transmission line in service and for containing the over voltage prevailing in the vicinity of Warora and Wardha areas, the Petitioner requests the Hon'ble Commission to consider 2X80 MVAR Bus reactors as part of Intrastate Transmission network of the licensee and the associated capital expenditure as uncontrollable and approve revised capital cost for the purpose of tariff determination.

- 4.20 It may be noted that though APML-T has been incurring direct/ indirect expenses pertaining to Bus reactors, it is not able to recover the same in absence of approval of the Hon'ble Commission. On approval of the Hon'ble Commission, APML-T would be able to recover the revenue of around Rs. 4.40 Crs. for FY 2012-13 from the date of commissioning. This would vary YOY in line with provisions of MYT Regulations, 2011 as amended from time to time.
- 4.21 With reference to views on timeline/process for amendment of license to include the bus reactors and associated bays under the scope of Transmission License, APML submits that as elaborated above, bus reactors are integral part of Intra-state transmission system of APML under license. Essentially bus reactors were installed for operationalization of system under license and APML had to incur additional capital cost for the same.
- 4.22 As per Regulation 28.1(f) of MYT Regulations, 2011, the Hon'ble Commission has stipulated that capital expenditure, actually incurred on any additional works/services, which have become necessary for efficient and successful operation of a Generating Station or a transmission project may be admitted by the Hon'ble Commission.
- 4.23 Further, Regulation no. 27.5 of MYT Regulations, 2011 is important to note in this regard.

*"27.5 The Commission may approve for each year of the Control Period, an additional amount equivalent to 20% of the total capital expenditure approved for respective financial year of the Control Period towards unplanned capital expenditure or ....."*

- 4.24 It is submitted that both regulations mentioned above would adequately cover the capital expenditure incurred by the Company on bus reactor and license amendment is not warranted. The Petitioner therefore requests Hon'ble Commission to consider the bus reactors as an integral part of APML-T's licensed transmission system. However, if the Hon'ble

Commission finds it essential, Petitioner assures that it would follow any other direction with reference to procedural aspects in this regard.

## **B. Depreciation**

4.25 The Hon'ble Commission has specified the depreciation schedule including the depreciation rates for different types of assets in the MYT Regulations. Depreciation for FY 2012-13 was claimed in the MYT Petition on Gross Fixed Asset ("GFA") prorated for the period since CoD till the end of FY 2012-13.

4.26 The depreciation for FY 2012-13 is calculated as per the rates provided in the Regulations. It is submitted that there is no assets retiring from the service during the current control period.

4.27 Further, it may be noted that the capital cost has been revised upwards to Rs. 707.84 Crs owing to the inclusion of the bus reactors at Tiroda end of the transmission line. Details of actual depreciation as against approved depreciation in the MYT Order is as follows:

**Table 5: Depreciation for FY 2012-13**

Particulars	(Rs. Crs.)	
	Approved	Actual
Days in Operation	218 days	218 days
GFA	684.60	707.84
Depreciation rate	5.28%	5.28%
<b>Total Depreciation</b>	21.59	22.32

4.28 The Hon'ble Commission has sought Asset class-wise calculation through Datagaps. It may be noted that there are only two asset class i.e. Transmission line and Bays. The detailed Asset-class wise calculation of



actual Depreciation is furnished at Form No. 4 of Data Format. Since the variation in depreciation is owing to uncontrollable variation in the capital cost, the Petitioner requests the Hon'ble Commission to allow the variation in the Depreciation as uncontrollable and allow pass through of variations in the same for the purpose of True-up for FY 2012-13 in accordance with the MYT Regulations.

### **C. Return on Equity**

4.17 The Petitioner has considered the equity for FY 2012-13 based on the revised capital cost owing to considerations of the bus reactors and the equity contribution towards the same. It may be noted that since capital expenditure for the bus reactors has been incurred from internal funding, the overall equity has exceeded normative equity level of 30%. Hence, the Petitioner has considered equity of 30% for the purpose of computation of Return on equity.

4.18 The Return on equity has been computed by applying regulated return of 15.5 % on the average of the opening and closing balance of the FY 2012-13 as per the Regulation 32 of MYT Regulation, 2011. Details of actual Return on Equity as against approved Return on Equity in the MYT Order is as follows:

**Table 6: Return on Equity for FY 2012-13**

<b>Particulars</b>	<b>(Rs. Crs)</b>	
	<b>Approved</b>	<b>Actual</b>
Opening Equity	205.38	212.35
Addition to equity towards capital investment	-	-
Closing balance of Equity	205.38	212.35
ROE @ 15.5 % on the average balance	19.01	19.66

4.19 The detailed calculation of actual Return on equity is provided in Form No. 7. Since the variation in Return on Equity is owing to uncontrollable variation in capital cost, the Petitioner requests the Hon'ble Commission to consider the Return on Equity as uncontrollable and allow pass through of variation in the same for the purpose of true up of FY 2012-13 in accordance with the MYT Regulations.

**D. Interest on Loan**

4.20 Regulation 33 of the MYT Regulation states the methodology for calculation of interest on long term loan and the same has been reproduced below for ready reference:

*"33 Interest on loan capital*

*33.1 The loans arrived at in the manner indicated in Regulation 30 shall be considered as gross normative loan for calculation of interest on loan.*

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

*33.2 The normative loan outstanding as on April 1, 2011, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2011, from the gross normative loan.*

*33.3 The repayment for the year of the tariff period FY 2011-12 to FY 2015-16 shall be deemed to be equal to the depreciation allowed for that year:*

*33.4 Notwithstanding any moratorium period availed by the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed,*

*33.5 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the*

*beginning of each year applicable to the Generating Company or the Transmission Licensee or the Distribution Licensee:*

*Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:*

*Provided further that if the Generating Company or the Transmission Licensee or the Distribution Licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the Generating Company or the Transmission Licensee or the Distribution Licensee as a whole shall be considered.*

*33.6 The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest."*

- 4.21 Accordingly, the Petitioner has considered the debt for FY 2012-13 based on the revised capital cost owing to considerations of the bus reactors and the debt contribution towards the same. It may be noted that since capital expenditure for the bus reactors has been incurred from internal funding, the overall debt becomes lower than minimum debt level of 70%. Hence, the Petitioner has considered debt of 70% for the purpose of computation of Interest on loan in line with Regulation 33.1 of MYT Regulations.
- 4.22 Further, the Hon'ble Commission had considered Interest rate of 12.50% based on project specific loan availed from syndication of banks led by Bank of India at 2% over and above the base rate of Bank of India. As per base rate on Bank of India, applicable rate of interest for FY 2012-13 is 12.75% (i.e. base rate of BoI + 2%).
- 4.23 Further, for creation of mortgage / security in favor of transmission lenders, the Petitioner applied on 7<sup>th</sup> January, 2012 and obtained approval of the Hon'ble Commission vide order dated 11<sup>th</sup> April, 2012. However, delay in approval from lenders and thereafter statutory permissions for the Non-Agricultural approval from GoM and adjudication on interpretation issue for stamp duty on the mortgage document by sub-registrar of stamp, Bhandara

district are not within the control of the Petitioner. Consequently, even after all prudent actions, the Petitioner could not create security in favor of transmission business lenders in time. The Petitioner has also requested the lenders to waive the interest but could not get any relief.

**Table 7: Communications with lenders**

Sr.No.	Date	Detail
1	15.01.2013	APML requested Bank of India (BoI), lead bank, to extend the time to create security creation and waive additional interest
2	05.03.2013 & 07.03.2013	APML requested BoI to extend the time to create security creation and waive additional interest Intimated that approval of MERC has been received
3	09.08.2013	APML shared progress on creation of security and requested for extension of time to create security creation and waive additional interest

- 4.24 A recent letter in this regard is attached herewith and marked as **Annexure 7**.
- 4.25 Bank of India has charged additional interest on the Petitioner which is additional burden on the Petitioner owing to factors beyond control of the Petitioner. It may be noted that transmission projects are subjected to external risks such as RoW, delay in Statutory approvals like Forest clearances/ government approval etc. In view of uncontrollable nature of such delays, Regulatory Commissions have been considering them as uncontrollable
- 4.26 Recently, on 31<sup>st</sup> December, 2013, APML could create the security in favour of lenders and accordingly, they have stopped charging additional interest. In view of above, the Petitioner requests the Hon'ble Commission to consider the additional interest burden as uncontrollable and allow pass

through of the same. It may also be noted that the Petitioner is making efforts for refund of the interest charged by the lenders till date. In case of refund of the same, the Petitioner will pass on the same to the customers.

4.27 The Petitioner has also incurred financing cost of Rs. 0.24 Crs over and above Interest on loan. This is not under control of the Petitioner. Details of actual Interest on loan as against approved Interest on loan in the MYT Order is as follows:

**Table 8: Interest on loan during FY 2012-13**

Particulars	(Rs. Crs.)	
	Approved	Actual
Opening Balance of Loan	479.22	495.49
Loan Addition	-	-
Loan Repayment	21.59	22.32
Closing Balance of Loan	457.63	473.16
Interest rate	12.50%	12.75%
Interest Expense	34.97	36.88
Additional Interest charged by Bank of India and other financing cost	-	1.15
Total Interest Expenses	34.97	38.03

4.28 The details of interest calculation are shown in Form 5 of the Data Formats. Since the change in Interest on loan is owing to uncontrollable variation in capital cost, rate of interest and additional interest charged by Bank of India, the Petitioner requests the Hon'ble Commission to consider the such variation in Interest on loan and additional interest as uncontrollable and allow pass through of the same for the purpose of true up of FY 2012-13 in accordance with the MYT Regulations.

**E. Interest on Working Capital**

- 4.29 The Hon'ble Commission approved the Interest on working capital in line with Regulation 35 of the MYT regulation considering normative working capital requirement and Interest rate at SBI PLR at the time of making application.
- 4.30 Owing to uncontrollable variation in O&M expenses and receivables, the Working capital has been revised to that extent in line with Regulations 35.2 (a) of MYT Regulations.
- 4.31 Further, it may be noted that the Petitioner has computed Working Capital in line with Regulations 35.2 (a). It may be noted that APML has been maintaining common inventory for both transmission and generation business. In view of common inventory, the Petitioner has considered stores, material and supplies at 1% of GFA and requests the Hon'ble Commission to consider accordingly.
- 4.32 In view of the above, for the purpose of True up, Interest on working has been calculated considering revised working capital and SBAR of SBI. Details of actual Interest on working capital as against approved Interest on working capital is as follows:

**Table 9: Interest on Working Capital for FY 2012-13**

<b>(Rs. Crs)</b>		
<b>Particulars</b>	<b>Approved</b>	<b>Actual</b>
1/12 <sup>th</sup> of O&M expense	0.53	0.68
Stores, materials and supplies @ 1% of GFA	0.57	0.59
1-1/2 months' expected revenue from Transmission charges	17.17	19.32
Total Working capital requirement	18.28	20.59
Interest Rate	14.75%	14.75%
Interest on Working Capital	1.61	1.82

- 4.33 The detailed calculation of actual Depreciation is provided in Form No. 4.
- 4.34 Further, in view of the Hon'ble Appellate Tribunal of Electricity's ("APTEL") judgment in Appeal No. 203 of 2010, the Interest on Working capital is being considered on normative basis by the Hon'ble Commission. The Petitioner humbly requests the Hon'ble Commission to approve the Interest on working capital accordingly.

#### **F. Operation & Maintenance Expenditure**

- 4.35 It is pertinent to note that the petitioner is a 'new transmission licensee' as per the explanation provided in the MYT Regulations. The Hon'ble Commission taking into account the same, had approved the O&M expenses at Rs.3.83 Crs. for FY 2012-13 based on Regulation 61.7 of the MYT Regulations which stipulates applicability of O&M Norms of MSETCL for 'New transmission licensee'.
- 4.36 The actual O & M expense in totality is Rs.4.88 Crs. for FY 2012-13 compared to the approved of Rs.3.83 Crs. as per table below.

**Table 10: Operation and Maintenance Expenses for FY 2012-13**

Particulars	(Rs. Crs)	
	Approved	Actual
Rent Rates & Taxes	Based on O&M Norms stipulated under MYT Regulations on per ckt kM and per bay	0.09
Telephone & Postage, etc.		0.02
Professional, Consultancy, Regulatory, Technical & Audit fee etc.		0.32
Conveyance & Travel Expenses		0.19
Office Expenses		0.20
Patrolling and Maintenance Charges		0.64
Vehicle Charges		0.21

Employee Salary Expenses		1.92
Provident Fund Contribution		0.10
Amount to be paid to MSETCL towards O&M Contract for Bays at Warora*		1.18
Total Operation & Maintenance Expenses	3.83	4.88

\*Considered O&M expenses for FY 12-13 from CoD on normative basis since O&M contract execution with MSETCL for Warora bays is being finalized and amount will be paid to in FY 13-14

- 4.37 Details of O&M expenses is captured at Form 2 of the Data Formats.
- 4.38 As sought by the Hon'ble Commission through Datagaps, details of the bays and transmission line being maintained by APML-T (including Bus reactors bays) is as follows:

**Table 11: Details of Transmission Assets**

Sr. No.	Name of ss	Voltage level	No. of Bays	Description of the bay	O&M done by	Actual date of Put to use.
1	Tiroda SS	400 kV	2	Line Bays	APML	26.08.2012
2	Tiroda SS	400 kV	2	Bus Reactor Bays	APML	
3	Warora SS	400 kV	2	Line Bays	MSETCL under O&M Contract	
Total No of Bays		400 kV	6			
Total Ckt.km of the line		400kV	438 kMs		APML	

- 4.34 It may be noted that the Petitioner has identified expenses incurred for transmission segment. The Statutory auditor has duly verified the O&M expenses in this regard and certified the same as shown in the Accounting Statements and extracts of books of accounts. The Accounting Statements and extracts of books of accounts for FY 2012-13 for transmission business under the scope of license no. 2 of 2009 has been carved out from the audited balance sheet of APML as a whole for FY 2012-13. A copy of Accounting Statements and extracts of books of accounts for APML-T, APML as a whole for FY 2012-13 certified by Statutory Auditor and Asset



register for APML-T are attached herewith and collectively marked as **Annexure 8.**

4.35 It may further be noted that majority of expenses for transmission business has been booked on actual basis as incurred for transmission segment. Only Telephone & Postage expenses, Conveyance & Travelling Expenses and Office expenses are allocated in Generation and Transmission business as follows:

Step 1: Categorization of Revenue of company as whole under heads of regulated and non-regulated businesses as below

**Table 12: Revenue of regulated and non-regulated business for FY 2012-13 (Rs. Crs)**

Category	Amount
Non - Regulated Business	256.42
Regulated Business	82.04
Total	338.46

Step 2: Arriving percentage revenue contribution of each business to the total revenue of APML as whole. e.g., For APML-T, the percentage contribution is 24.23%.

Step 3: Applying the revenue percentage contribution of each business to arrive at the respective allocation of expenses for each business category which comes to Rs. 0.02 Crs, Rs. 0.19 Crs and Rs. 0.20 Crs. for Telephone & Postage expenses, Conveyance & Travelling expenses and Office expenses respectively.

4.36 It is submitted that "note on management control and accounting practices" followed for transmission business is described in the audited balance sheet. The relevant portion of the same is reproduced herewith.

***"Notes forming part of the Financial Statements as at 31st March, 2013***

*13 These financial statements as at and for the year ended on 31st March, 2013 are pertaining to 400 KV Tiroda Warora Transmission Line, which is a part of the Company. These financial statements for the 400 KV Tiroda Warora Transmission Line have been prepared by the management of the Company by carving out assets, liabilities, income, expenditure and cash flows pertaining to the above-mentioned transmission line from the audited financial statements of the Company for the above-mentioned financial year. These financial statements have been prepared for the purpose of submission thereof to Maharashtra Electricity Regulatory Commission.*

*14 The Company has commenced commercial operation of its 400 KV Tiroda Warora Transmission Line on 26th August 2012.*

.....

*17 Basis of allocation of common expenditure:*

***The common expenditure incurred by the Company that is directly identifiable to the transmission line business is directly allocated to transmission line business. The other common expenditure is allocated between transmission line business and generation business. In the ratio determined based on sales of transmission line business and generation business."***

- 4.37 It is important to note that the methodology for segregation of common expenses has been clearly specified in the Audited report.
- 4.38 Further, it may be noted that the Petitioner's transmission system includes two bays at Warora which has been maintained by MSETCL. It is understood that MSETCL would charge O&M expenses per bay from the date of commercial operation in line with norms stipulated by the Hon'ble Commission in MYT Regulations. The Petitioner is in process of concluding

O&M agreement with MSETCL. A copy of recent communication in this regard is attached herewith and marked as **Annexure 9**. It may be noted that the payment of O&M expenses carried out by MSETCL for the two bays at Warora during FY 2012-13 is likely to be made during second half of FY 2013-14. However, for the purpose of Trueing up of O&M expenses, the Petitioner has considered O&M expenses of two bays at Warora on normative basis.

- 4.39 It may be noted that the audited O&M expenses shown above do not capture the O&M expenses for the bus reactors since, the Petitioner could not identify the same for FY 2012-13. However, in view of the fact that the Petitioner has incurred certain direct/ indirect O&M expenses to maintain the Bus Reactors and its bays, it is requested to allow the same on normative basis for FY 2012-13 over and above O&M expenses claimed.
- 4.40 Further, it is submitted that the O&M requirement for the Petitioner's transmission system is different in size and nature than that of MSETCL. Owing to large scale of operations, it is possible for MSETCL to optimize the resources available for O&M. Whereas the Petitioner has very little scope to optimize the manpower and other resources for O&M activities such as commercial, regulatory, legal, co-ordination with other agencies, maintenance etc. It is submitted that it would be possible to arrive at a predictable trend of O&M expenses for APML over a period of 5-7 years during which the O&M requirement would get stabilized.
- 4.41 In view of the above, the Petitioner requests the Hon'ble Commission to consider the actual O&M expenses for FY 2012-13 as uncontrollable and allow pass through for the variation from normative O&M expenses approved.

## G. Income Tax Expenses

4.42 For FY 2012-13, the Hon'ble Commission has approved Income tax expenses by grossing up of post-tax return on equity by applicable MAT rate. Based on audited Accounting Statements and extracts of books of account of the Petitioner for Transmission business, APML's income tax liability is Rs. 4.56 Crs. Comparison of income tax is as follows:

**Table 13: Income Tax Expenses for FY 2012-13**

Particulars	(Rs. Crs)	
	Approved	Actual
Regulated PBT (equivalent to RoE)	19.01	
MAT Rate	20.01%	
Total Income tax	4.76	4.56*

\*As per point 21 of "Notes forming part of the Financial Statements as at 31st March, 2013" of Accounting Statements and extracts of books of account for FY 2012-13 certified by the statutory auditor attached with the present Petition.

4.43 Regarding treatment of Income tax, there has been various judgment of APTEL. It may be noted that through judgment in cases Appeal No.251 of 2006 (2007 APTEL 164) dated 4.4.2007, Appeal No.111 of 2008 (2009 ELR(APTEL 560) dated 28.5.2009, Appeal No.115 of 2008 dated 28.5.2009, Appeal No.68 of 2009 23.3.2010, Appeal No.174 of 2009 dated 14.02.2011 and Appeal No.173 of 2009 dated 15.02.2011, the APTEL has laid down broad principles with reference to Income tax claims by the licensee/ generating companies. According to said judgments, Income tax for a generating station or a transmission licensee has to be computed on a standalone basis, since the income tax actually paid by a company as a whole which also carries other businesses apart from the regulated businesses may not reflect the correct income tax that would have been

required to be paid had the regulated transmission system operated as a separate business.

- 4.44 This point has been extensively discussed and acknowledged by the APTEL in its recent order in Appeal no 104,105 and 106 of 2012 dated 28<sup>th</sup> November 2013. In the said order, the APTEL has clearly stated that consumers of regulated business should neither gain nor lose from the gains/ losses pertaining to the other business. The relevant portion of the said order is as follows:

*"47. Let us now examine the context in which the Tribunal has observed in Appeal No. 251 of 2006 that the income tax assessment of an utility must be done on standalone basis. The relevant extract of the judgment is quoted below:*

*"32. We see force in the arguments put forth by the counsel for the appellant as truing up for the years 2004-05 and 2005-06 has to be carried out only as per the Sixth Schedule. The consumers in the licensee's area must be kept in a water tight compartment from the risks of other business of the licensee and the Income Tax payable thereon. Under no circumstance, consumers of the licensee should be made to bear the Income Tax accrued in other businesses of the licensee. Income Tax assessment has to be made on standalone basis for the licensed business so that consumers are fully insulated and protected from the Income Tax payable from other businesses."*

*48. Perusal of the above would indicate that there is no conjunction in first two lines. Still, there cannot be two opinions that the consumers of regulated business must be insulated from the risks of the other business and income tax assessment of the utility should be done on standalone basis. This direction of the Tribunal is in line with the State Commission's Regulations 34.2.2 (for Generation business) and similar Regulations for Transmission and Distribution business. **The converse of the Tribunal's***

***direction that under no circumstances, the consumers of the licensee should be made to bear the Income Tax accrued in other businesses of the licensee is also true i.e. under no circumstances the consumers of the licensee should be benefitted from the permissible deductions in the form of accelerated depreciation and from Tax holidays given to other businesses (unregulated by MERC) of the utility. That is the only way to treat the regulated and other business unregulated in water tight compartments.***

49. *The real issue to be resolved in the present case is to see what is the correct methodology for giving effect to the following two Judgments of this Tribunal and whether the State Commission has correctly implemented them:*

50. *Paragraph 32 of the Judgment in Appeal No. 251 of 2006 reads as under:*

*"The consumers in the licensee's area must be kept in a water tight compartment from the risks of other business of the licensee and the Income Tax payable thereon. Under no circumstance, consumers of the licensee should be made to bear the Income Tax accrued in other businesses of the licensee. Income Tax assessment has to be made on stand alone basis for the licensed business so that consumers are fully insulated and protected from the Income Tax payable from other businesses."*

51. *Paragraph 14 of the Judgement in Appeal No. 174 of 2009 reads as under:*

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

52. *The Judgment in Appeal No. 251 of 2006 is based on the principle that regulated business in question that is within the jurisdiction of the*

*Regulatory State Commission, should neither subsidise nor get subsidy from other businesses whether unregulated or regulated by the same or different regulator. In other words, the Judgment mandates that the taxable income of the regulated business within the jurisdiction of the Regulatory State Commission should be computed on stand alone basis, irrespective of what is the impact of this business or other businesses on the overall tax liability. There is a possibility of distortion when the impact of regulated business or other businesses on total tax liability is considered or the overall tax liability is allocated for determining the tax liability for regulated business.*

***53. For example, when on standalone basis the regulated business has taxable income to be taxed at normal rates, there may be losses/tax exemptions in other businesses which may result in overall taxable income being less than the regulated taxable income and, hence, actual tax liability for all businesses being less than that of regulated business on standalone basis. In case, actual tax liability is allowed by the regulator whether in full or in proportion of profit of regulated business, it obviously amounts to less than due tax allowance for regulated business due to exemptions/losses of other business being utilised for subsidising the regulated business, which is not permissible as per the above Judgment. The impact is more pronounced when the overall taxable income becomes so small or even negative that the tax rate applicable is MAT, which not only artificially reduces the tax liability for regulated business due to lower rate, but also creates an incorrect impression that this tax allowed at MAT rate is to be reversed in future as MAT credit allocating MAT credit. This is obviously not permissible and for giving effect to the said Judgment in Appeal No. 251 of 2006 tax computation for regulated business has to be done on standalone basis at normal rates even though it may result into tax allowance higher than actual tax payment for overall business.***

*54. The above example, however, raises a doubt whether it will be in contradiction to the Judgment in Appeal No. 174 of 2009, where the ratio was that income tax cannot be used as a means of earning profit in regulated business. That is to say that income tax to be allowed should be equal to, i.e. neither more nor less than actual tax liability. It appears that the interpretation in the above example allows tax higher than actual tax liability, which is in contradiction to Judgment in Appeal No. 174 of 2009.*

*55. However, a careful analysis of the above example with the ratio of the Judgment in Appeal No. 174 of 2009 would reveal that this Judgment is specifying tax allow ability for regulated business only and does not in any manner deal with implications on tax for regulated business due to other businesses. Further, the ratio is with regard to tax liability on the regulatory income, computed with permissible profits and applicable tax depreciation to be considered as taxable income, and not on the actual taxable income. Hence, any notional or actual income even within regulated business that is not permissible to be considered as regulatory taxable income cannot be allowed as it would amount to allowance of more than warranted regulatory tax liability/profits. As such, the above example when seen only with reference to the regulated business allows just the real tax payable for regulated business without taking or giving any support from other businesses and, hence, does not amount to making profit from tax. The tax benefit of exemptions/losses in other businesses should only be available to those businesses. In case, the situation would have been reverse in the above example, i.e. the regulated business had exemptions/losses then the tax benefit of such exemptions should have been attributable only to regulated business. As such, there is no conflict in the above two Judgments and both can be implemented simultaneously with regulated business being treated separately on a standalone basis and tax liability computed as per applicable tax laws for that business only considering notional regulatory taxable income. This concept is followed*



***by regulators for all items of ARR/Revenue which are considered on normative basis, where irrespective of actual expense/revenue normative expense/revenue is considered for tariff purposes. Accordingly, there is no requirement of allocating the overall tax liability on regulated and unregulated businesses.***

*56. It is also to be noted that for difference in book depreciation and tax depreciation, the tax laws provide for creating Deferred Tax Liability (DTL) which gets amortised with time when tax depreciation becomes lower than book depreciation. However, in regulated business DTL is not considered as it is not the current tax liability. Thus, in case the benefit of accelerated tax depreciation for one year in regulated business may result in lower overall tax on overall book profit (due to MAT) and may seem to subsidise other businesses. However, in subsequent years the overall tax liability may be more than tax on overall book profit, which would seem to give subsidy from other businesses to regulated business. In both these situations, the methodology of standalone tax computation and allowance would give correct picture.*

*57. In the present case, the State Commission has worked out the book profit of each segment separately. It observed that the Appellant has paid MAT. It did not worked why and how the tax liability of the company, under normal income tax rates, got reduced to such a level that it came under MAT. Was it due to regulated business or unregulated business? Was the regulated business enjoying any tax holiday or accelerated depreciation or other tax deductions? Book Profit calculations in the Impugned order do not reflect any such deductions in the regulated businesses of G, T & D. Obviously, it was due to other business (unregulated by MERC) of the Appellant which caused massive permissible deductions. The benefit of such deduction must be shared by the beneficiaries of such business only and not by the consumers of regulated business. Presently, those businesses may be getting tax rebates due to tax holidays or accelerated*

*depreciation. But in the future at the end of tax holidays and reduced depreciation, these deductions would not be available to those companies and their tax liability would increase. Under those circumstances, the tax burden of the unregulated business would not be allowed to be shared by regulated business of MERC.*

***58. The Tribunal in Appeal No. 251 of 2006 has laid down the ratio that the income tax assessment of the licensee must be done on standalone basis. In Appeal No. 173 of 2011 the Tribunal has provided the methodology for assessing the income tax liability of the licensee. The State Commission did not follow these directions and got carried away with the observations that the utility must not gain or loose on account of income tax made in the context of grossing up of income tax. It simply allocated the actual tax paid by the Appellant, for the company as a whole, in proportion to their respective book profit.***

*59. The issue is decided accordingly. The Commission is directed to reassess the Income tax liability of the Appellant as per our findings above and issue consequential orders."*

***[Emphasis added]***

4.45 In view of above, it is clear that the income tax claimed by APML-T in Mid-term Review Petition is in line with the principles set by the Hon'ble APTEL and the Petitioner requests the Hon'ble Commission to approve the same as proposed.

#### **H. Contribution to Contingency Reserve**

4.46 In MYT Order dated 10<sup>th</sup> January, 2013, the Hon'ble Commission approved Contingency Reserves at Rs. 1.02 Crs. for FY 2012-13.

4.47 Owing to variation in capital cost as elaborated in the present Petition, the contribution to contingency reserve has changed. Since, the change in capital cost is uncontrollable, the Petitioner requests the Hon'ble

Commission to consider variation in contribution to contingency reserve as uncontrollable and allow as pass through.

4.48 Contribution to contingency reserve approved in the MYT Order as against Actual is as follows:

**Table 14: Contribution to Contingency Reserves for FY 2012-13**

Particulars	(Rs. Crs)	
	Approved	Actual
Contribution to Contingency Reserve	1.02	1.06

**I. Non-tariff and other Business Income**

4.49 The Hon'ble Commission has approved the non-tariff income as nil for FY 2012-13.

4.50 As per Regulation 36.1 of MYT Regulations, out of the revenue recovered, the amount accumulated against the contribution to contingency reserve is required to be invested in securities authorized under Indian Trust Act, 1882 within six months of the close of the financial year which shall be treated as non-tariff income. It may be noted that the recovery of approved transmission tariff for FY 2012-13 has commenced only from Jun 2013 and will continue upto Apr 2014. The Petitioner would be able to invest the same thereafter.

4.51 In view of the above, non-tariff income during FY 2012-13 is nil.

4.52 Further, the Petitioner has not undertaken any "Other Business" during the year in question and consequently there is no Income from Other Business.

**J. Carrying Cost for FY 2012-13**

- 4.53 The Hon'ble Commission has passed MYT order approving ARR for 2012-13 in Jan 2013 with carrying cost of Rs. 4.20 Crs for FY 2012-13. It may be noted that owing to revision ARR for FY 2012-13 as elaborated in the present petition, the carrying cost would get revised to Rs. 4.46 Crs as against approved carrying cost of Rs. 4.20 Crs.
- 4.54 Further, In the MYT order, the Hon'ble Commission has allowed a carrying cost of 4.20 Crs assuming that the Hon'ble Commission would pass the InSTS Order by Mar 2013 and the Petitioner would recover the ARR of FY 2012-13 in Apr 2013. However, as the notification of InSTS Tariff order took place in May 2013, the actual recovery of ARR for FY 2012-13 could be commenced in Jun 2013 only. Hence, the delay in recovery of ARR by two more months has resulted in additional burden towards carrying cost.
- 4.55 Further, even after compensation in terms of carrying cost upto April 2014 for revenue of FY 2012-13, there is a burden on account of staggered recovery of the said amount in FY 2013-14. As per the methodology adopted by InSTS Order dated 13<sup>th</sup> May, 2013, the Petitioner shall be able to recover the transmission tariff for FY 2012-13 in FY 2013-14 in a distributed manner over the period of 12 months. In view of above, over and above revised carrying cost of Rs 4.46 Crs for recovery for FY 2012-13 in Apr 2013, there is additional carrying cost of Rs. 6.72 Crs considering recovery of FY 2012-13 ARR in 12 equal monthly installments in FY 2013-14. Detailed calculation of revised carrying cost is shown in Form No. 11 of the Data Formats. Summary of calculations of additional carrying cost is as follows:

**Table 15: Additional carrying cost for FY 2012-13 for staggered revenue in FY 2013-14**

	(Rs.Crs)
Parameter	Amount
Carrying cost burden owing to revision in ARR for 12-13	0.27
Additional carrying cost due to delayed and staggered recovery for revised ARR for 12-13	6.72
Total additional carrying cost burden	<b>6.99</b>

4.56 The Petitioner would like to submit to the Hon'ble Commission that carrying cost is a legitimate expense. Therefore, the Petitioner requests to allow the same as mentioned in the above table.

#### **K. Availability of APML-T Network**

4.57 The availability of the Petitioner's transmission system for FY 2012-13 is 100%. A copy of certificate issued by Maharashtra State Load Dispatch Centre (MSLDC) certifying the transmission system availability for APML-T at 100% for FY 2012-13 is annexed to this petition as **Annexure 10**.

4.58 The Tariff Regulation (Regulation 60.1) provides for full recovery of annual transmission charges on the target availability of AC system being 98%. In view of the actual availability being 100%, the petitioner is eligible for full recovery of its aggregate revenue requirement.

4.59 Further, Regulation 60.2 of the MYT Regulations states

*"Where, Annual transmission Charges shall correspond to Aggregate Revenue Requirement for each year of the Control Period for the particular Transmission Licensee within the State:*

*Provided that no incentive shall be payable above the availability of 99.75% for AC system and 98.5% for HVDC system: Provided further that the computation of incentive/disincentive shall be undertaken during mid-term performance review and at the end of Control Period."*

4.60 The incentive shall be calculated in the following manner:

**Incentive = Annual Transmission Charges \* ((Annual Availability Achieved Target Availability)/Target Availability).**

- 4.61 Accordingly, the Petitioner is entitled to an incentive of Rs. 1.98 Crs. including income tax on incentive for achieving the system availability of 100% during FY 2012-13. APTEL judgment cited above also clarifies applicability of income tax on Incentive.
- 4.62 The Petitioner requests the Hon'ble Commission to kindly approve the availability incentive for FY 2012-13.

**L. Expected Revenue through transmission charges**

- 4.63 For the purpose of expected revenue from the transmission charges, the Petitioner has considered approved ARR of Rs. 91 Crs. including carrying cost for FY 2012-13 as approved for recovery through the InSTS order in Case no. 56 of 2013 dated 13<sup>th</sup> May, 2013.
- 4.64 Through the said order, the Hon'ble Commission has approved recovery of Rs.232 Crs. during FY 2013-14 which includes approved ARR for of Rs. 91 Crs including carrying cost for FY 2012-13. Through a corrigendum dated 23<sup>rd</sup> May 2013 in the said order, the Hon'ble Commission has approved monthly transmission charge recovery of Rs.19.41 Crs. In view of this, monthly transmission charge recovery for approved tariff of FY 2012-13 in FY 2013-14 would be Rs. 7.58 Crs. including carrying cost. Accordingly, the Petitioner has been raising invoices regularly. Upto September 2013, the Petitioner has raised invoice for transmission charges of Rs. 116.59 Crs against which only Rs. 41.28 Crs have been received till September 2013 end. Hence, there is an outstanding amount of Rs. 72.99 Crores, excluding Late Payment Surcharge, as indicated below:

**Table 16: Detail of Revenue Recovery and outstanding**

(Rs. Crs)

Month	Invoice Amount Raised	Invoice after deduction of TDS	Amount Received	Outstanding Amount
April 2013	19.15	18.76	18.76	-
May 2013	19.79	19.39	19.39	-
June 2013	19.41	19.03	3.13	15.9
July 2013	19.41	19.03		19.03
August 2013	19.41	19.03		19.03
September 2013	19.41	19.03		19.03
Total	116.59	114.25	41.28	72.99

4.65 Delay in recovery of ARR and the consequent outstanding of Rs. 72.99 Crs has severely affected the cash flow and the Petitioner had to depend upon funds from other sources to continue its operations. Accumulated late payment surcharge accrued upto 30<sup>th</sup> September, 2013 amounts about Rs. 1.82 Crs. The Petitioner urges the Hon'ble Commission to direct MSETCL to take up the matter with the concerned DISCOMs and expedite the recovery of outstanding dues at the earliest alongwith the applicable late payment surcharge so that the cash-flow conditions of the Petitioner does not further deteriorate and the Petitioner would be in a position to maintain the transmission assets properly.

#### **M. Sharing of Gains and losses**

4.66 Regulation 13 & 14 of the MYT Regulations enumerates the mechanism for sharing of gains and losses on account of uncontrollable and controllable factors. In case of uncontrollable factors, the gain and losses are entirely

pass through as an adjustment in tariff. The relevant provision of the regulation is reproduced below:

*"13.1 The approved aggregate gain or loss to the Generating Company (except the adjustment provided to the Generating Company as per Regulation 49.6 of these Regulations) or Transmission Licensee or Distribution Licensee on account of uncontrollable factors shall be passed through under Z-factor Charge, as an adjustment in the tariff of the Generating Company or Transmission Licensee or Distribution Licensee on a half yearly basis or a yearly basis, as specified in these Regulations and as may be determined in the Order of the Commission passed under these Regulations.*

.....

*13.10 Other components of Z-Factor Charge (ZOUC)*

*In case there is variation in cost for Generating Company or Transmission Licensee or Distribution Licensee, on account of any other uncontrollable factors as specified in Regulation 12, the same shall be pass-through under Z factor Charge, on a yearly basis, in a manner as stipulated by the Commission."*

4.67 In case of controllable factors, the gains and losses are shared between the licensee and the consumer in the form of tariff adjustment. The mechanism adopted in this Petition for sharing of gains & losses on account of controllable factors is as outlined in Regulation 14.1 & 14.2 of the MYT Regulation. The relevant clauses have been reproduced below for ready reference.



*"14.1 The approved aggregate gain to the Generating Company or Transmission Licensee or Distribution Licensee on account of controllable factors shall be dealt with in the following manner:*

- (a) One-third of the amount of such gain shall be passed on as a rebate in tariff over such period as may be stipulated in the Order of the Commission under Regulation 11.6;*
- (b) The balance amount, which will amount to two-third of such gain, may be utilised at the discretion of the Generating Company or Transmission Licensee or Distribution Licensee."*

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

- (a) One-third of the amount of such loss may be passed on as an additional charge in tariff over such period as may be stipulated in the Order of the Commission under Regulation 11.6; and*
- (b) The balance amount of loss shall be absorbed by the Generating Company or Transmission Licensee or Distribution Licensee."*

4.68 Any variation on account of uncontrollable factors is a part of the gap identified for the year and is passed on to the consumer through an adjustment in tariff as per the Regulation 13 of the MYT Regulations. However in case of variation due to controllable factors, the gains and losses have to be dealt with as per Regulation 14.

4.69 The Petitioner has compared the actuals for FY 2012- 13 with the approved figures for FY 2012-13 and has segregated the variation as controllable or uncontrollable based on the analysis mentioned hereinabove in the truing

up section. The comparison of various ARR parameter's gains / losses due to controllable and uncontrollable factors have been summarized below:

**Table 17: Comparison of Actual and Approved ARR for FY 2012-13**

(Rs. Crs)						
Sr. No.	Particular	Approved	Actual	Deviation - gain (loss)	Controllable - gain (loss)	Uncontrollable - gain (loss)
1	O&M Expenses	3.83	4.88	(1.05)	-	(1.05)
2	Depreciation	21.59	22.32	(0.73)	-	(0.73)
3	Interest on Loan	34.97	38.03	(3.06)	-	(3.06)
4	Interest on Working Capital	1.61	1.82	(0.20)	-	(0.20)
5	Other Expenses	-	-	-	-	-
6	Contribution to contingency reserve	1.02	1.06	(0.03)	-	(0.03)
7	Income Tax	4.76	4.56	0.20	-	0.20
<b>8</b>	<b>Total Revenue Expenditure</b>	<b>67.78</b>	<b>72.67</b>	<b>(4.89)</b>	<b>-</b>	<b>(4.89)</b>
9	Return on Equity	19.01	19.66	(0.65)	-	(0.65)
<b>10</b>	<b>Gross ARR</b>	<b>86.80</b>	<b>92.33</b>	<b>(5.53)</b>	<b>-</b>	<b>(5.53)</b>
	<b>Less:</b>					
11	Income from Other Business	-	-	-	-	-
12	Non-tariff Income	-	-	-	-	-
<b>13</b>	<b>Net ARR</b>	<b>86.80</b>	<b>92.33</b>	<b>(5.53)</b>	<b>-</b>	<b>(5.53)</b>

4.70 As indicated above, the Petitioner has identified all the expenditure heads under controllable and uncontrollable categories. The gain / loss arose as a result of true up for FY 2012-13 shall be suitably passed through the tariff as per mechanism specified by the Hon'ble Commission.

- 4.71 The variation in O & M expenses may be treated as uncontrollable considering the reasons explained in earlier section.
- 4.72 The variation in Return on Equity, Interest on loan and depreciation on account of variation in capital cost may be treated as uncontrollable.
- 4.73 Similarly, the variations in contingency reserves and non-tariff income may be treated as uncontrollable.
- 4.74 Based on the above, the sharing of gains and losses due to controllable & uncontrollable factors is summarized below.

**Table 18: Sharing of Gains & Losses for FY 2012-13**

(Rs. Crs)

Particulars	Pass through by Adjustment of Tariff	To be Retained /absorbed	Total
Controllable gain (loss )	-	-	-
Uncontrollable gain (loss )	(5.53)	-	(5.53)
Total gain (loss )	(5.53)	-	(5.53)

- 4.75 As per the above table, total loss of Rs. 5.53 Crs. is on account of uncontrollable factors which are to be passed through to the consumers. This need to be added to the gap and the same would be collected from tariff.

**N. Gap for FY 2012-13**

4.76 Following is the summary of trued-up ARR of 2012-13 to be recovered by the Petitioner after incorporation of sharing of gains / losses.

**Table 19: Trued up ARR for FY 2012-13**

		(Rs. Crs)
Particulars	Formula	Actual for FY 2012-13
ARR approved in the MYT Order for FY 2012-13	a	86.80
Approved Carrying Cost for FY 2012-13	b	4.20
Incentive for FY 2012-13	c	1.98
Sub total	d	92.97
1/3 <sup>rd</sup> Gain (loss) on account of Controllable factor to be passed on to the consumers	e	-
Gain (loss) on account of Uncontrollable factor to be passed on to the consumers	f	(5.53)
Trued up ARR of FY 2012-13	g= d-e-f	98.51
Additional Carrying Cost on account of revision in ARR for FY 2012-13	h	0.27
Additional carrying cost on account of delayed and staggered recovery for ARR of FY 2012-13	i	6.72
Trued up ARR for FY 2012-13 including total carrying cost	j= g+h+i	105.50
Less : expected revenue from TSUs	k	91.00
Net Revenue Gap/ (Surplus)	l= j-k	14.50

4.77 The trued-up ARR alongwith carrying cost and incentive for FY 2012-13 is Rs. 105.50 Crs after sharing of gains and losses. The revenue approved for recovery alongwith carrying cost from the beneficiaries is Rs 91.00 Crs. Hence, net revenue gap for FY 2012-13 works out to Rs. 14.50 Crs. The Petitioner requests the Hon'ble Commission to approve the same.

## Chapter 5: Performance Review of FY 2013-14

5.1 As per Regulation 11.6 of MYT Regulations the Hon'ble Commission shall approve the modifications to the forecast for the remainder of the control period at the time of Mid-term Performance Review. Regulations 11.6 of MYT Regulations is as follows:

*"Upon completion of the Mid-term Performance Review, the Commission shall pass an order recording-*

*(a) the approved aggregate gain or loss to the Generating Company or Transmission Licensee or Distribution Licensee on account of controllable factors and the amount of such gains or such losses that may be shared in accordance with Regulation 14.*

*(b) the approved modifications to the forecast of the Generating Company or Transmission Licensee or Distribution Licensee for the remainder of the Control Period."*

5.2 Mid-term Performance Review includes review of actuals for first half and modifications to the forecast for second half for FY 2013-14. This chapter outlines the modification to forecast for FY 2013-14 accordingly.

5.3 The Petitioner in its MYT petition had submitted projections for FY 2013-14. Based on the projections, the ARR for FY 2013-14 was approved by the Hon'ble Commission vide its Tariff Order dated 10<sup>th</sup> January, 2013. In line with the provisions of the MYT Regulations, the Petitioner hereby submits revised estimations for FY 2013-14 based on actuals for the first half and estimations for the second half of the FY 2013-14. While estimating ARR for second half of FY 2013-14, the Petitioner has taken into account actual performance of FY 2012-13 and first half of FY 2013-14. It may be noted that except O&M expenses, all other parameters are required to be calculated based on annualized parameters. The Petitioner has accordingly shown the estimations for FY 2013-14.

**i. Capital Cost**

5.4 The Petitioner submits that there is no additional capitalization for FY 2013-14. Accordingly, the capital cost is Rs. 707.84 as on 1<sup>st</sup> April, 2013. As sought by the Hon'ble Commission, the Petitioner has attached herewith unaudited/ provisional balance sheet for FY 2013-14 and marked as **Annexure 11**.

**ii. Depreciation**

5.5 As explained above in the present petition, the capital cost has been revised due to inclusion of bus reactor at Tiroda. The Petitioner has computed the depreciation on revised capital cost in accordance with the rates specified in the MYT regulations. Details of estimation of the Depreciation as against approved depreciation is as follows.

**Table 20: Depreciation for FY 2013-14**

Depreciation	Approved	Actual of H1+ Estimated for H2
Opening GFA Months in Operation (Rs. Crs)	684.60	707.84
Addition of Gross Fixed Assets (Rs. Crs)	-	-
Closing of Gross Fixed Assets (Rs. Crs)	684.60	707.84
Depreciation rate	5.28%	5.28%
Months in operation	12 months	12 months
<b>Total Depreciation (Rs. Crs)</b>	<b>36.15</b>	<b>37.37</b>

5.6 The detailed calculation for estimated Depreciation is provided in Form No. 4. The Petitioner requests the Hon'ble Commission to approve estimation for FY 2013-14.

**iii. Return on Equity**

- 5.7 In accordance with the MYT Regulations, 2011, a regulated return of 15.50% on the equity base has been considered for calculation of return on equity.
- 5.8 The Petitioner has calculated return on equity considering revised capital cost. Since there is no additional capital expense, there is no change in equity capital. Accordingly, the Petitioner has considered normative equity of 30% of the capital cost for the calculation of Return on Equity. Details of the revised workings of equity base and RoE as against approved RoE is as follows:

**Table 21: Return on Equity for FY 2013-14**

Particulars	(Rs, Crs)	
	Approved	Actual of H1+ Estimated for H2
Regulatory Equity at the beginning of the year	205.38	212.35
Equity portion of the assets capitalized	-	-
ROE at the end of the year	205.38	212.35
ROE at the beginning of the year	31.83	32.91
ROE portion of the assets capitalized	-	-
Total return on Regulatory Equity	31.83	32.91

- 5.9 The detailed calculation for estimated RoE is provided in Form No. 7. The Petitioner requests the Hon'ble Commission to approve estimated RoE for FY 2013-14.

**iv. Interest on loan**

- 5.10 As elaborated above at Para 4.21 , the Petitioner has considered the debt based on the revised capital cost and the debt contribution towards the

same. It may be noted that since capital expenditure for the bus reactors has been incurred from internal funding, the overall debt becomes lower than minimum debt level of 70%. Hence, the Petitioner has considered normative debt of 70% for the purpose of computation of Interest on loan in line with Regulation 33.1 of MYT Regulations.

5.11 Further, the Hon'ble Commission had considered Interest rate of 12.50% based on project specific loan availed from syndication of banks led by Bank of India at 2% over and above the base rate of Bank of India. Based on current base rate of Bank of India, the applicable rate of interest for FY 2013-14 is 12.25% (i.e. base rate of BoI as on 01.04.2013 + 2%).

5.12 In view of above, details of estimated Interest on loan as against approved Interest on loan in the MYT Order is as follows:

**Table 22: Interest on loan capital for FY 2013-14**

Particulars	(Rs. Crs)	
	Approved	Actual of H1+ Estimated for H2
Opening Balance of Loan	457.63	473.16
Loan Addition	-	-
Loan Repayment	36.15	37.37
Closing Balance of Loan	421.48	435.79
Interest Rate	12.50%	12.25%
Interest Expense	54.94	55.67

5.13 The detailed calculations for estimated Interest on loan is provided in Form No. 5. Owing to uncontrollable nature of variation in capital cost and base rate for Bank of India, the Petitioner requests the Hon'ble Commission to approve estimated Interest on loan for FY 2013-14.



**v. Interest on working capital**

5.14 The Hon'ble Commission has approved Interest on Working Capital on normative basis according to Regulations 35 of MYT Regulations.

5.15 Owing to uncontrollable variation in O&M expenses and receivables, the Working capital has been revised to that extent in line with Regulations 35.2 of MYT Regulations.

5.16 As stipulated in Regulation 35.2 (b) of MYT Regulations, the Interest rate of SBI PLR as on date of application i.e 14.75% is considered. The revised workings of the interest on working capital and approved interest on working capital is provided below:

**Table 23: Interest on Working capital for FY 2013-14**

Particulars	(Rs Crs)	
	Approved	Actual of H1+ Estimated for H2
1/12 <sup>th</sup> of O&M expense	0.56	0.88
Stores, materials and supplies @ 1% of GFA	0.57	0.59
1 ½ months' expected revenue from Transmission charges	16.75	18.74
Total Working capital requirement	17.89	20.21
Interest rate on Working Capital	14.75%	14.75%
Interest on Working Capital	2.64	2.98

5.17 The detailed calculation for Interest on working capital is provided in Form No. 5. The Petitioner requests the Hon'ble Commission to approve the same for FY 2013-14.

**vi. Operation and Maintenance Expenditure**

5.18 It is pertinent to note that the Petitioner being a 'new transmission licensee' as per the definition provided in MYT Regulations, the Hon'ble

Commission approved O&M expenses at Rs.6.78 Crs. for FY 2013-14 based on the Regulation 61.7 of MYT Regulations which stipulates applicability of O&M Norms of MSETCL as a 'new transmission licensee'.

- 5.19 Based on actual expenses for first half of FY 2013-14 and estimated O&M expenses for second half of FY 2013-14, the Petitioner has now estimated the O&M expenses for the entire FY 2013-14.
- 5.20 As elaborated at Para 4.36 of Section 4, the Petitioner's transmission system includes two bays at Warora which has been maintained by MSETCL since CoD. MSETCL has been seeking O&M expenses per bay in line with norms stipulated for O&M by the Hon'ble Commission in MYT Regulations. The Petitioner is in process of concluding O&M agreement with MSETCL which shall be applicable from the CoD and payment for O&M carried out by MSETCL for two bays at Warora during FY 2012-13 is likely to be made during second half of FY 2013-14. Also, O&M expenses for FY 2013-14 shall also be paid to MSETCL during second half of FY 2013-14. Accordingly, the Petitioner has considered O&M expenses of FY 2013-14 in the estimated O&M expenses for second half of FY 2013-14.
- 5.21 Further, the actual O&M expenses for FY 2013-14 do not reflect O&M expenses for the Bus reactors at Tiroda end. It is submitted that the Petitioner will identify the O&M expenses for the same and consider the same during second half of FY 2013-14.
- 5.22 It is also pertinent to note that expenses identified for first half of FY 2013-14 does not capture specific one-time expenses and expenses to be booked in second half of the FY 2013-14 for the entire financial year. It is submitted that the Petitioner shall book such O&M expenses during second half of FY 2013-14.
- 5.23 In view of above, O&M expenses estimations for FY 2013-14 based on actual of first half and estimated for second half of FY 2013-14 as against approved O&M expenses for FY 2013-14 is as follows:

**Table 24: Operation and Maintenance expenses for FY 2013-14**

(Rs. Crs)					
Particulars	Approved	Actual - H1	Estimated - H2	Total - H1 +H2	
Rent Rates & Taxes	Based on O&M Norms stipulated under MYT Regulations on per ckt kM and per bay	0.08	0.08	0.17	
Telephone & Postage, etc.		0.02	0.02	0.04	
Professional, Consultancy, Regulatory, Technical & Audit fee etc.		0.19	0.20	0.39	
Conveyance & Travel Expenses		0.01	0.20	0.21	
Office Expenses		0.07	0.26	0.33	
Patrolling and Maintenance Charges		0.55	1.55	2.10	
Vehicle Charges		0.28	0.28	0.56	
Employee Salary Expenses		2.13	2.33	4.46	
Provident Fund Contribution		0.09	0.09	0.19	
Payment to MSETCL for O&M Contract for Bays at Warora				2.08	2.08
<b>Total Operation &amp; Maintenance Expenses</b>		<b>6.78</b>	<b>3.43</b>	<b>7.09</b>	<b>10.52</b>

5.24 The details of estimated O&M Expense is provided in Form No. 2. The Petitioner requests the Hon'ble Commission to approve the same for FY 2013-14.

**vii. Income Tax Expense**

5.25 The Hon'ble Commission in the Order dated 10<sup>th</sup> January, 2013 in Case No. 44 of 2012 for MYT of Second Control Period, has specified that it has approved the income tax in accordance with the Hon'ble ATE judgment in

Appeal No 174 of 2009 for considering RoE as base for computation of income tax.

- 5.26 It may be noted that in order to segregate complete accounts for transmission business and for better regulatory compliance, the Petitioner is envisaging options to carve out the transmission Business from generation business by formation new entity and assigning license to the new entity. The Petitioner shall approach the Hon'ble Commission separately once the scheme is freezed. In view of above, the Income tax liability for FY 2013-14 cannot be finalized at present. Hence, the Petitioner has calculated revised Income Tax expense by grossing up revised RoE by applicable MAT rate of 20.96% for FY 2013-14.

**Table 25: Income tax expenses for FY 2013-14**

		(Rs. Crs)
Income Tax	Approved	Actual of H1+ Estimated for H2
Regulated PBT (equivalent to RoE)	31.83	32.91
Income Tax Rate	20.01%	20.96%
Income Tax Expense (Grossed up)	7.96	8.73

- 5.27 The detailed calculation for projected Income tax is provided in Form No. 9. The Petitioner requests the Hon'ble Commission to approve the same.

**viii. Contribution to Contingency Reserve**

- 5.28 In MYT Order dated 10<sup>th</sup> January, 2013, the Hon'ble Commission approved Contingency Reserves of Rs. 1.71 Crs for FY 2013-14.
- 5.29 Owing to variation in capital cost as elaborated in the present Petition, the contribution to contingency reserve would get changed accordingly for FY 2013-14. Since the change in capital cost is uncontrollable, the Petitioner

requests the Hon'ble Commission to treat variation in contribution to contingency reserve as uncontrollable and allow as pass through.

- 5.30 Contribution to contingency reserve approved in the MYT Order as against revised estimation is as follows:

**Table 26: Contingency Reserves for FY 2013-14**

(Rs. Crs)		
Particulars	Approved	Actual of H1+ Estimated for H2
Contingency Reserves	1.71	1.77

**ix. Non-tariff and other Business Income**

- 5.31 The Hon'ble Commission has approved Non-Tariff income from investments towards Contingency Reserves at an interest rate of 8.3%.

- 5.32 As per Regulation 36.1 of MYT Regulations, out of the revenue recovered, the amount accumulated towards the contribution to contingency reserve is required to be invested in securities authorized under Indian Trust Act, 1882 within six months of the close of the financial year. The recovery of tariff for FY 2012-13 and FY 2013-14 has commenced only from Jun 2013 and will continue upto Apr 2014. The Petitioner would be able to invest the same thereafter.

- 5.33 In view of above, non-tariff income during FY 2013-14 is nil. Non-tariff Income estimated as against approved in the MYT Order is as follows:

**Table 27: Non-tariff Income for FY 2013-14**

(Rs. Crs.)		
Particulars	Approved	Actual of H1+ Estimate for H2
Non -Tariff Income	0.04	-

- 5.34 Further, at present, the Petitioner does not anticipate any income from other business. However, the Petitioner would explore the possible avenues

to use the transmission assets for other business without affecting performance of the transmission business and would implement the same after prior approval of the Hon'ble Commission.

**x. Availability of APML-T Network**

5.35 Based on details submitted with MSLDC, the Cumulative availability for first half of FY 2013-14 is 99.74 %. The Copies of monthly availability certificates issued by MSLDC from Apr 2013 to Aug 2013 are attached herewith and collectivity marked as **Annexure 12**.

5.36 The Tariff Regulation (Regulation 60.1) provides for full recovery of annual transmission charges on the target availability of AC system being 98%.

5.37 Further, Regulation 60.2 of the MYT Regulations states as follows:

*"Where, Annual transmission Charges shall correspond to Aggregate Revenue Requirement for each year of the Control Period for the particular Transmission Licensee within the State:*

*Provided that no incentive shall be payable above the availability of 99.75% for AC system and 98.5% for HVDC system.*

*Provided further that the computation of incentive/disincentive shall be undertaken during mid-term performance review and at the end of Control Period."*

5.38 The incentive shall be calculated in the following manner:

**Incentive = Annual Transmission Charges \* ((Annual Availability Achieved Target Availability)/Target Availability).**

5.39 It may be noted that for FY 2013-14, the certificate for cumulative availability upto Sep 2013 is awaited from MSLDC. Hence, the Petitioner shall claim the incentive if any at the time of annual performance review for FY 2013-14 on receipt of certificate of cumulative availability for entire FY 2013-14.

**xi. Expected Revenue through transmission charges**

- 5.40 It may be noted that the Hon'ble Commission approved recovery of approved transmission tariff of Rs. 141.97 Crs for FY 2013-14 vide order dated 13<sup>th</sup> May 2013 in Case no. 56 of 2013. The Petitioner has considered the approved ARR as expected revenue through prevailing transmission charges. The Hon'ble Commission has approved monthly recovery of transmission charges of Rs.19.41 Crs. in FY 2013-14 by the Corrigendum Order dated 23<sup>rd</sup> May 2013 of the above mentioned order which also includes recovery of approved ARR for FY 2012-13. Hence, monthly recovery of approved transmission tariff of FY 2013-14 is Rs. 11.83 Crs. For the purpose of computation of expected revenue from the transmission charges, the Petitioner has considered Rs. 141.97 Crs as approved by the Hon'ble Commission.
- 5.41 In line with the said order, the Petitioner has been raising invoices regularly. Upto September 2013, an amount of Rs. 41.28 has been received as against Rs. 116.59 Crs.
- 5.42 This has severely affected the cash flow and the Petitioner had to depend upon funds from other sources to continue its operations. Accumulated late payment surcharge upto 30<sup>th</sup> September, 2013 amounts about Rs. 1.82 Crs. The Petitioner urges the Hon'ble Commission to direct MSETCL to take up the matter with the concerned DISCOMs and expedite the recovery of outstanding dues at the earliest alongwith the applicable late payment surcharge so that the cash-flow conditions of the Petitioner does not further deteriorate.

**xii. Summary of revised projection as against approved for FY 2013-14**

5.43 The comparison of revised projection as against approved ARR for FY 2013-14 is as follows:

**Table 28: Comparison of approved ARR Vs revised projection for FY 2013-14**  
(Rs. Crs)

Sr. No.	Particulars	FY 2013-14 Approved	FY 2013-14 Estimated
1	Operation and Maintenance Expenses	6.78	10.52
2	Depreciation	36.15	37.37
3	Interest on Long term Loan	54.94	55.67
4	Interest on working capital	2.64	2.98
5	Other Expenses	-	-
6	Income tax expense	7.96	8.73
7	Contribution to contingency reserves	1.71	1.77
8	Total Revenue Expenditure	110.18	117.04
9	Return on Equity Capital	31.83	32.91
10	Aggregate Revenue Requirement	142.01	149.96
11	Less: Non-Tariff income	0.04	-
12	Less: Income from other business	-	-
13	Net Aggregate Revenue Requirement	141.97	149.96

5.44 In view of the rationale explained for individual parameters, the Petitioner requests the Hon'ble Commission to approve the estimated ARR as projected.



## Chapter 6: Revised Forecast of ARR for FY 2014-15 and FY 2015-16

6.1 As per Regulation 11.6 of MYT Regulations the Hon'ble Commission shall approve the modifications to the forecast for the remainder of the control period at the time of Mid-term Performance Review. Regulations 11.6 of MYT Regulations is as follows:

*"Upon completion of the Mid-term Performance Review, the Commission shall pass an order recording-*

*(a) the approved aggregate gain or loss to the Generating Company or Transmission Licensee or Distribution Licensee on account of controllable factors and the amount of such gains or such losses that may be shared in accordance with Regulation 14.*

*(b) the approved modifications to the forecast of the Generating Company or Transmission Licensee or Distribution Licensee for the remainder of the Control Period."*

6.2 Accordingly, this chapter deals with the modifications to the forecast of approved ARR for FY 2014-15 and FY 2015-16. The Petitioner in its MYT petition had submitted a set of projections for FY 2014-15 and FY 2015-16. The same was approved by the Hon'ble Commission vide its Tariff Order dated 10<sup>th</sup> January, 2013. Due to the revision in capital cost, O&M expenses, Interest rates on long term loan, Rate of income tax etc. which are beyond control of the Petitioner, the forecast for FY 2014-15 and FY2015-16 have been revised. Below table details the basis for projections of various tariff components.

**Table 29: Basis for projections of tariff component wise for FY 2014-15 and FY 2015-16**

Sr.No.	Parameter	Basis
1	Depreciation	<ul style="list-style-type: none"> <li>Based on revised capital cost and norms provided for Depreciation under Regulations 31 of MYT Regulations</li> </ul> (Details calculation at Form 4 of Data

		Formats)
2	Return on Equity	<ul style="list-style-type: none"> <li>Based on revised capital cost and norms provided for RoE under Regulation 32 of MYT Regulations</li> </ul> (Details calculation at Form 7 of Data Formats)
3	Interest on long term loan	<ul style="list-style-type: none"> <li>Based on latest revised capital cost, corresponding debt portion and Latest weighted average Interest rate for Oct 2013</li> <li>norms provided for Regulations 33 of MYT Regulations</li> </ul> (Details calculation at Form 5 of Data Formats)
4	Interest on Working Capital	<ul style="list-style-type: none"> <li>Based on norms provided for Interest on working capital under Regulation 35 of MYT Regulations and applicable SBI PLR rate</li> </ul> (Details calculation at Form 5 of Data Formats)
5	O & M expenses	<ul style="list-style-type: none"> <li>Based on estimated O&amp;M for FY 13-14 and escalations as considered in Regulation 61 for escalation of O&amp;M expenses for lines and bays in MYT Regulations i.e. 5.72% year over year.</li> </ul> (Details calculation at Form 2 of Data Formats)
6	Income Tax expense	<ul style="list-style-type: none"> <li>Based on RoE &amp; latest MAT rate for FY 2013-14 and Regulation 34 of MYT Regulations</li> </ul> (Details calculation at Form 9 of Data Formats)
7	Contribution to contingency reserve	<ul style="list-style-type: none"> <li>As per applicable Regulation 36 of MYT Regulations.</li> </ul>

6.3 Based on above mentioned parameters and APLM has worked out projections for FY 2014-15 and FY 2015-16. Comparison of approved ARR as against revised projection of ARR for FY 2014-15 and FY 2015-16 is as follows:

**Table 30: ARR for FY 2014-15 and FY 2015-16.**

(Rs. Crs)					
Sr. No.	Particulars	FY 2014-15 Approved	FY 2014-15 Projected	FY 2015-16 Approved	FY 2015-16 Projected
1	O&M expenses	7.19	11.12	7.58	11.76
2	Depreciation	36.15	37.37	36.15	37.37
3	Interest on Long term Loan	50.43	51.10	45.91	46.52
4	Interest on working capital	2.56	2.91	2.49	2.84
5	Other Expenses	-	-	-	-
13	Income tax expense	7.96	8.73	7.96	8.73
6	Contribution to contingency reserves	1.71	1.77	1.71	1.77
7	Total Revenue Expenditure	106.00	113.01	101.80	108.99
8	Return on Equity Capital	31.83	32.91	31.83	32.91
9	Aggregate Revenue Requirement	137.83	145.92	133.63	141.91
10	Less: Non-Tariff income	0.16	0.16	0.30	0.31
11	Less: Income from other business	-	-	-	-
12	Net Aggregate Revenue Requirement	137.68	145.76	133.33	141.60

- 6.4 Detailed calculation of each parameter is shown in the Data Format. It may be noted that revision in the ARR projections for FY 2014-15 and FY 2015-16 is mainly on account of factors beyond control of the Petitioner as elaborated above in the present Petition. Hence, the revised projection may be approved as projected.
- 6.5 The Petitioner has achieved 100% availability for FY 2012-13. For FY 2013-14, the certificate of availability is awaited from MSLDC. However, based on

details submitted with MSLDC, the Cumulative availability for first half of FY 2013-14 is 99.74 %. Accordingly, the Petitioner expects availability for its system to be over and above normative availability of 98%.

## CHAPTER 7: PRAYERS

### Prayers

7.1 The present Petition is submitted to the Hon'ble Commission for Truing up of Aggregate Revenue Requirement for FY 2012-13, approval of estimated Aggregate Revenue Requirement projections for FY 2013-14 and revised Aggregate Revenue Requirement projections for FY 2014-15 to FY 2015-16. The Petitioner respectfully prays that the Hon'ble Commission may be pleased to:

- a) Admit the Petition for Truing up of Aggregate Revenue Requirement for FY 2012-13, approval of estimated Aggregate Revenue Requirement for FY 2013-14 and revised Aggregate Revenue Requirement projections for FY 2014-15 to FY 2015-16.
- b) Approve the revenue gap of FY 2012-13 as presented in the Petition alongwith revised carrying cost and incentive.
- c) Approve estimated Aggregate Revenue Requirement for FY 2013-14.
- d) Approve revised projections of Aggregate Revenue Requirement for FY 2014-15 to FY 2015-16 as presented in the Petition.
- e) Allow the Petitioner to carry out additions / alterations / changes / modifications to the application at a future date, if necessary.
- f) Allow any other relief, order or direction, which the Hon'ble Commission deems fit to be issued.
- g) Condone any inadvertent omissions/errors/shortcomings and permit APML to add/change/modify/alter this filing and make further submissions as may be required at a future date.
- h) Pass such further orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

Place: Ahmedabad

Dated: February 22, 2014



*Jignesh Langalia*

**Jignesh Langalia**

**Authorised Signatory**

## **CHAPTER 8: List of Annexures**

Annexure 1 – Capital Cost Certificate for assets considered during MYT Order

Annexure 2 – Letter attaching study result of WRLDC regarding Bus reactor and MSLDC instructions

Annexure 3 – Start up power bill for Sep 2012

Annexure 4 – MSETCL letter dated 19.11.2012 regarding Bus Reactor

Annexure 5 – Report of Committee set up by MERC in Case no. 51 of 2013

Annexure 6 – Capital cost Certificate of Statutory Auditor for Bus Reactors

Annexure 7 – APML letter to lenders requesting waiving of additional interest

Annexure 8 – Accounting Statements and extracts of books of accounts for FY 2012-13 certified by Statutory Auditor for APML and APML-T alongwith Asset Register

Annexure 9 – Recent Communication with MSETCL regarding O&M Agreement

Annexure 10 – Availability certificate issued by MSLDC for FY 2012-13

Annexure 11 – Unaudited/ provisional P&L for FY 2013-14

Annexure 12 – Monthly Availability certificates from Apr 2013 to Aug 2013 issued by MSLDC for FY 2013-14 upto Aug 2013

**C. C. Chokshi  
& Co.**

C. C. Chokshi & Co.  
Chartered Accountants  
Heritage', 3rd Floor,  
Near Gujarat Vidhyapeeth,  
Off Ashram Road,  
Ahmedabad - 380 014  
Tel : +91 (79) 27582542  
+91 (79) 27582543  
+91 (79) 66073100  
Fax : +91 (79) 27582551

REF: GJS/APML/2013-14/10

**CERTIFICATE**

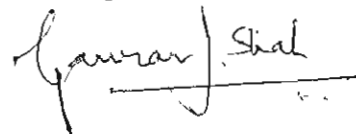
**Adani Power Maharashtra Limited** (Registered office at "Adani House", Near Mithakhali Six Roads, Navrangpura, Ahmedabad – 380 009) ("the Company"), has informed to us that the construction of **400 KV Tiroda-Warora Transmission Line** ("the Transmission Line Project") has been completed on 26<sup>th</sup> August 2012. As informed by the Company, the Company is required to furnish a certificate from its Statutory Auditors regarding the details of total cost of the Transmission Line Project as at 31<sup>st</sup> March, 2013 to the Maharashtra Electricity Regulatory Commission.

We, the Statutory Auditors of the Company, on the basis of verification of books of account and other relevant records maintained and furnished to us by the Company relating to Transmission Line Project (which books of account have been audited as at 31<sup>st</sup> March, 2013) and as per the information and explanations given to us by the Company, certify that as at 31<sup>st</sup> March, 2013, the total cost of Transmission Line Project for the Company's **Transmission Line from Tiroda to Warora** as stated hereunder are true and correct:

(Amount - Rs. In Crores)

Particulars of the Company's Tiroda to Warora Transmission Line Project	As at 31st March, 2013 Amount (Audited)
Engineering, Procurement & Construction Cost	514.12
Cost of Terminal Bay	30.70
Interest and Finance Charges Capitalised	88.36
Preoperative, Overheads and other expenses	51.42
<b>Total</b>	<b>684.60</b>

For **C. C. Chokshi & Co.**  
Chartered Accountants  
(ICAI Reg. No. 101876W)



Partner

Gaurav J. Shah - M. No. 35701

AHMEDABAD, 18<sup>th</sup> November, 2013



**Ref.: APML/MSETCL/18082012/068**

18<sup>th</sup> August, 2012

**To,**

**Executive Director (Operations)**

Maharashtra State Electricity Transmission Company Limited,  
"Prakashganga" Bandra-Kurla Complex,  
Bandra (East)  
Mumbai – 400051.

**Kind Attn. : Shri. S. G. Kelkar**

**Subject:** WRLDC study for Initial Charging analysis of 400kV Wardha – Warora – Tiroda Line

**Dear Sir,**

Greetings from Adani Power Maharashtra Ltd.

Please refer to discussion had with you regarding 400kV Tiroda dead bus charging analysis for 400kV Wardha – Warora – Tiroda line.

As advised by you, we have approached WRLDC subsequent to your letter to WRLDC for the subject matter.

Please find attached the forwarded mail from WRLDC with study result for your kind reference please.

Please note that, study has been carried out considering following:

- a) 2 x 63 MVAR bus reactor at Wardha
- b) 2 x 80 MVAR bus reactor at Tiroda
- c) No ICT @ Warora
- d) 400kV Tiroda – Warora – Wardha Quad Moose Line (279kM)

Based on the analysis, the bus voltage are in order during and even after the charging condition.

Hence, you are once again requested to kindly advise your team for charging of 400kV Wardha – Warora line and 400kV Warora – Tiroda line.

Yours sincerely,

**Authorized Signatory**

**Cc:** Director (Operations / Project)

**Cc:** Executive Director (Project)

**Cc:** CE MSLDC

**Encl:** WRLDC-Scanned copy of study for charging of 400kV Wardha–Warora–Tiroda

Adani Power Maharashtra Ltd  
Sambhaav House  
Judges Bungalow Road, Bodakdev  
Ahmedabad 380 015  
Gujarat, India

Tel +91 79 2555 6900  
Fax +91 79 2555 7155  
info@adani.com  
www.adani.com





**pushpa seshadri**  
<pushpa\_seshadri@hotmail.com>

17-08-2012 19:21

To <jigar.thakkar@adani.com>, uday trivedi  
<uday.trivedi@adani.com>  
cc "agartia@gmail.com" <agartia@gmail.com>, p pentayya  
<ppentayya@gmail.com>, sonkavday  
<n.sonkavday@rediffmail.com>

bcc

Subject Study results of line charging for Tiroda-Revised

Sir,

Please ignore my earlier mail. Study results are enclosed. Charging sequence earlier given by Engg-POWERGRID also is enclosed.

Regards,  
Pushpa.S  
Chief Manager(MO-I)  
Western Regional Load Despatch Centre,  
Power System Operation Corporation Ltd.,  
(A Wholly Owned Subsidiary of POWERGRID)  
F-3,MIDC,Marol,  
Andheri(E),Mumbai-93.



Mob:-9869404482 study-15-line charging study-Tiroda.xlsx

Save this planet because we have nowhere else to go.  
Do you really need to print this e-mail? Use paper prudently!

**WRLDC/MO-I/study-15-Study for charging 400kV Wardha-Warora-Tiroda**

Details of Power Plant and lines associated:-

Tiroda Stage-I = 3x660MW

at 400kV level

Tiroda Stage-II = 2x660MW

at 765 kV level

400kV Tiroda -Warora D/C- Quad Moose-219kms each

400kV Warora-Wardha D/C -Quad Moose-60 kms each

Bus reactor at Tiroda-2x80MVAR

Bus reactor at Wardha-2x63MVAR

Line charging MVAR for 100kms Quad Moose line

74

Warora ICTs are not available.

1. Charging from Wardha end ckt -I

Details	Before charging 400kV Wardha- Warora	After charging Wardha-Warora	Open end voltage	After closing Wardha- Warora- Tiroda
400kV Wardha	407	407.8		408
400kV Warora		409	430	410
400kV Tiroda				401



Chief Engineer &lt;cesldc@mahasldc.in&gt;

**Charging of 400KV Warora-Tirora Line-2**

1 message

SCE Tirora &lt;SCE.Tirora@adani.com&gt;

Fri, Nov 9, 2012 at 9:53 PM

To: msldc\_cr@mahasldc.in

Cc: cesldc@mahasldc.in, ldambazari@gmail.com, ldambazari@rediffmail.com, cpcc.wr1@gmail.com, wrldcposoco@gmail.com

<b>ADANI POWER MAHARASHTRA LIMITED</b>		
STATION: APML- TIRORA	5X660 MW Super-critical	DATE: 09.11.12
DEPARTMENT : OPERATION		
Ref: APML/TR/2012/11/82		

To,  
The SCE,  
SLDC, Kalwa

Sub:charging of 400KV Warora-Tirora Line-2

Dear Sir,

Can we charge 400KV Warora-Tirora Line-2 without keeping Both Bus reactors in service. Please advise us.

Thanking you,  
With regards,

SCE  
APML/TIRORA (Control Room)  
(Mobile No.09764800057)  
SWYD CR MOBILE NUMBER -09765492721  
SWYD CR PHONE NUMBER-07198-255294  
SWYD FAX NUMBER-07198-202233  
Email- sce.tirora@adani.com

Copy with compliments for kind information to:

1. The SI, ALDC, Ambazari, Nagpur

To, SI Adani Tirora  
wardha-warora line is taken  
ITS at 20:43 hrs. pl charge.  
Warora-Tirora Line II by taking  
both Bus Reactor ITS.

*AS*  
**SHIFT INCHARGE**  
S. L. D. C.  
M.S. TRANS. CO. LTD.  
KALWA.



Chief Engineer &lt;cesldc@mahasldc.in&gt;

**Charging of both Bus reactors**

1 message

SCE Tirora &lt;SCE.Tirora@adani.com&gt;

Sun, Dec 30, 2012 at 6:40 PM

To: msldc\_cr@mahasldc.in

Cc: cesldc@mahasldc.in, ldambazari@gmail.com, ldambazari@rediffmail.com, cpcc.wr1@gmail.com, wrldcpococo@gmail.com

<b>ADANI POWER MAHARASHTRA LIMITED</b>		
STATION: APML- TIRORA	5X660 MW Super-critical	DATE: 30.12.2012
DEPARTMENT : OPERATION		
Ref: APML/TR/2012/12/095		

To,  
The SCE,  
SLDC, Kalwa  
Sub: Charging of both Bus reactors  
Dear Sir,

As per your message dated 30/12/2012 at 16:00 HRS regarding the status & willingness to charge the Bus reactors on 400KV Buses, we want to inform you that our both the bus reactors are available on both 400KV Buses. SLDC can decide the operation of both Bus reactors as per Grid requirement.

Thanking you,

With regards,

SCE

APML/TIRORA (Control Room)

(Mobile No.09764800057)

SWYD CR MOBILE NUMBER -09765492721

SWYD CR PHONE NUMBER-07198-255294

SWYD FAX NUMBER-07198-202233

Email- sce.tirora@adani.com

To,  
SCE APML TIRORA  
In connection to above 400KV Buses - Tirora-ii  
to be charged with Bus reactor in  
service.

off  
SLDC Kalwa.

**DISCLAIMER**

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**Maharashtra State Electricity Distribution Co. Ltd.**  
**ELECTRICITY BILL FOR THE MONTH OF SEP 2012** No. 201209266431613  
 GONDIA CIRCLE 664 GONDIA DIVIS 652 D TIRORA SUB-DIVISION 392 1

Consumer No. 432439055680 M/S ADANI  
 Consumer Name M/S ADANI POWER MAHARASHTRA LTD.  
 Address A-1, TIRORA GROTH CENTER MIDC

Village TIRORA Pin code 441911  
 Connected Load (KW) 40,000.00 Sancloned Load (KW) 40,000.00  
 Contract Demand (KVA) 50,000 Sancloned Demand (KVA) 50,000.00  
 50% of Con. Demand (KVA) 25,000.00 Meter No. 055 - APMB3441  
 Date of Connection 22-08-2012 Tariff : 65 HT-II E

BILL DATE	21-09-2012	
DUE DATE	05-10-2012	17,00,44,500.00
IF PAID UPTO	27-09-2012	16,94,05,730.00
IF PAID AFTER	05-10-2012	17,34,45,390.00
Last Receipt No./Date :	/	
Last Month Payment :	0.00	
D. G. Set (KVA) :	.00	
Scale / Sector	Large Scale	Private Sector
Activity :		
Seasonal	Load Shed Ind	OTHER
Express Feeder Flag :-	Yes	
Feeder Voltage (KV) :-	400	

Supply at HT Prev. Highest (Mth) Bill Demand (KVA) Elec. Duty 07  
 DTC old trf HT-II E I PART B

Reading Date	KWH	KVAH	RKVAH (LAG)	KW (MD)	KVA (MD)
Current 20-09-2012	2.650	60.290	60.290		0.171
Previous 22-08-2012	0.000	0.000	0.000		
Difference	2.650	60.290	60.290		
Multiplying Factor	1000000.0000	1000000.0000	1000000.0000	1000000.000	*****
Consumption	2650000.000	60290000.000	60290000.000		171000.000
Add if L. T. Metering	0.000	0.000	0.000	0.000	0.000
Adjustment	0.000	0.000	0.000		
Assessed Consumption	0.000	0.000	0.000		0.000
Total Consumption	2650000.000	60290000.000	60290000.000		171000.000

**POWERICA**  
A PROMISE FOR POWER

**SILENT DIESEL GENERATING SETS**  
7.5 KVA to 3000 KVA

**DEPENDABLE**

**ECONOMICAL**

**ECOFRIENDLY**

**SEE OVERLEAF**

Mail: atp@powericaltd.com  
 Site: www.powericaltd.com

Billed Demand (KVA) 171000 @ Rs. 190	Demand Charges 3,24,90,000.00
Assessed P.F. Avg. P.F. .044	RLC Refund .00
Billed P.F. L.F. 173	Energy Charges 2,76,92,500.00
	TOD Tariff EC -2,27,000.00
	FAC @ Ps/U 39,21,470.00
	Electricity Duty 1,67,21,534.90
	Other Charges 0.00
	Tax on Sale @ 8 Ps/U 2,12,000.00
	P.F. Penal Charges / P.F. Incentive 5,55,72,963.90
	Charges For Excess Demand 3,44,85,000.00
	EV Rebate -8,23,965.00
	Debit Bill Adjustment 0.00
	<b>TOTAL CURRENT BILL 17,00,44,503.80</b>
	Current Interest 30/09/2012 0.00
	Principle Arrears 0.00
	Interest Arrears 0.00
	<b>Total Bill Amount (Rounded) Rs. 17,00,44,500.00</b>
	Delayed Payment Charges Rs. 34,00,890.08
	Amount (Rounded) Payable 05-10-2012 <b>17,34,45,390</b>
	Amount Rounded to Nearest Rs (10/-)

Consumption Type	Units	Rate	Charges Rs.
Industrial	0	10.45	0.00
Residential	0	4.82	0.00
Commercial	26,50,000	10.45	27692500.00
E.D. on (Rs.)	Rate %	Amount Rs.	
	9		
	15		
	17	16721534.90	
Zone	Units	Demand	Charges Rs.
A Zone	9,50,000	170000.00	- 9,50,000.00
B Zone	9,50,000	169000.00	0.00
C Zone	3,40,000	171000.00	2,72,000.00
D Zone	4,10,000	164000.00	4,51,000.00

(In words) Rupees SEVENTEEN CRORE FORTY-FOUR THOUSAND FIVE HUNDRED ONLY  
 Security Deposit Held Rs. 6,48,06,000.00  
 Addl. S.D. Demanded Rs. 0.00  
 S.D. Arrears Rs. 0.00

PLEASE PAY ALL BILL IN THE OFFICE OF THE S.E.O & M. CIRCLE, M.S.E.D.C.I RAMNAGAR GONDIA; BG AMOUNT 649080000  
 DATE 20 NOV-13; FAC on Units: 2650000@90.96 p/u, Amount: 2410440; Addl FAC on Units: 2650000@57.02 p/u, Amount: 1511030  
 Chief Engineer (Commercial) Maharashtra State Electricity Distribution Co. Ltd.  
 E & S.E. and Subject to Conditions overleaf

\*\*\* BILL AMOUNT ACCEPTABLE Rs. 169405730 IF PAID ON OR BEFORE 27-SEP-12  
 \*\*\* PROMPT DISCOUNT Rs. 638770 IF PAID ON OR BEFORE 27-SEP-12  
 \*\*\* IF PAID BY CHEQUE/DD/PAY ORDER, THEN REALIZATION DATE WILL BE CONSIDERED AS PAYMENT DATE;  
 \*\*\* A Special desk is operational for HT Consumers, Please contact: htconsumer@mahadiscom.in for any Clarification/Query or Grievance.

Tariff Revised w.e.f 01-08-2012

Annexure 4

**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.**

PHONE : (O) 022-2659 8588 /95/5000  
Extn. 5124  
(P) 022-26592227  
FAX : 022- 2659 2297  
Email : cestu@mahatransco.in  
: cesu@maharashtrastu.com



Office of The Chief Engineer  
State Transmission Utility

'Prakashganga', MSETCL  
Plot no. C-19, E-Block,  
Bandra Kurla Complex, Bandra (E),  
Mumbai - 400051

Ref: MSETCL/CO/STU/ 16022.

Date: 19/11/12.

To,  
**The Chief Engineer (Commercial)**  
Prakashgad, MSEDCL,  
Bandra (E), Mumbai-51.

**Sub: 2 x 80 MVAR Bus Reactors at M/s. APML's Switchyard at Tiroda.**

**Ref: M/s. APML's Letter No. APML/MSETCL/CE/12/05, dtd. 08.11.12.**

With reference above, regarding installation of 2 x 80 MVAR Bus Reactors at M/s. APML's Switchyard, it is to inform you that the said bus reactors are required as the part of the intra-state transmission system to reduce the high voltage problems during off peak condition due to capacitance of 400 kV D/c quad line between Tiroda to Warora (219 km). These reactors are necessary to offset the effects of line capacitance of above said lines. Also, these bus reactors are necessary not only to control the system voltage during the line charging condition but also during light load condition.

This is for your information.

  
**Chief Engineer**  
State Transmission Utility

**Copy swrs to:**  
Executive Director (Operations)/(Project), MSETCL, Prakashganga

**Copy fwcs to:**

**M/s Adani Power Maharashtra Ltd.**  
Adani House, Nr Mithakhali Circle,  
Navrangpura, Ahmedabad - 380 009,  
Gujrat, India

# Report on Reactive Power Compensation for Transmission and Distribution Lines with Specific Reference to 400 kV Tiroda - Warora Line

July 27, 2013

## **Abstract**

This document discusses the topic of active and reactive power in AC circuits and the requirement of reactive power compensation in transmission and distribution systems. We differentiate between shunt compensation requirements of transmission and distribution circuits. This document also covers the provision of shunt compensation at Tiroda for the 400 kV Tiroda -Warora transmission line, wherein startup power requirement for the thermal station at Tiroda had to be provisioned through 400 kV STU network. The studies conducted justify the provision of shunt reactors at 400 kV Tiroda bus, as beneficial to the system operation.

## **Preface**

Adani Power Maharashtra Limited (AMPL) is setting up a  $5 \times 660$  MW power plant at Tiroda in Maharashtra. To meet the startup power requirement of this plant, power is supplied over 400 kV network from Wardha and Warora. As the existing voltage levels at 400 kV busses in the area is higher than 400 kV, shunt reactors have been provided at 400 kV Tiroda bus. For startup power requirements, AMPL is treated as a deemed customer of MSEDCL, who have applied maximum demand violation and low power factor charges. AMPL have made a representation in MERC claiming that such penalty should not be levied for startup power for their plant, vide case no. 51/2013. The honourable commission then sought an opinion from Mr. S. A. Soman of IIT Bombay on the case. In a presentation made to the honourable commission on 12/07/2013, Mr.

Soman presented his findings. The honourable commission further constituted a committee to look at the broader aspects of provision of shunt compensation for transmission and distribution system. A meeting of the committee, convened by Mr. Soman was held on 19/07/2013 at IIT Bombay. The list of attendees is attached as Appendix A. This report is the outcome of the committee deliberations on 19/07/2013.

## 1 Introduction

This document covers the requirement of shunt compensation in Extra High Voltage (EHV) AC transmission, with particular reference to the 400 kV transmission between AMPL power plant at Tiroda and Warora. The said transmission line is 218.61 km long. Before proceeding with specific requirements of this case, we have a brief look at the basics of AC power, in order, to gain a better understanding of the issues at hand.

### 1.1 Instantaneous power in single phase AC circuit

Let  $v(t)$  and  $i(t)$  be the voltage and current at any time instant  $t$ . The instantaneous power  $p(t)$  at  $t$ , is given by,

$$p(t) = v(t) \times i(t). \quad (1)$$

Let

$$v(t) = V_m \sin \omega t \quad (2)$$

$$i(t) = I_m \sin(\omega t - \phi) \quad (3)$$

$$\begin{aligned} p(t) &= V_m I_m \sin \omega t \sin(\omega t - \phi) \\ &= \frac{V_m I_m}{2} 2 \sin \omega t \sin(\omega t - \phi) \\ &= \frac{V_m I_m}{\sqrt{2} \sqrt{2}} [\cos \phi - \cos(2\omega t - \phi)] \end{aligned} \quad (4)$$

It can be observed from Eqn (4) that that instantaneous power in a single phase circuit is



pulsating at twice the supply frequency. This is also shown in Fig 1. Hence we calculate the

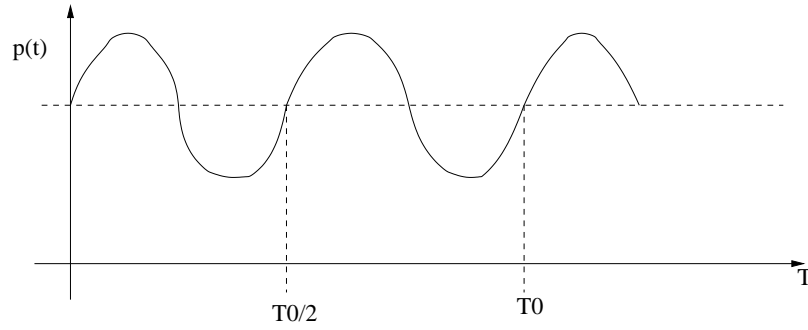


Figure 1: Plot of power with  $V_{rms} = 1$ ,  $I_{rms} = 1$  and  $\phi = 30^\circ$

average power consumed in a cycle. It is called real or active power and its unit is watts (W).

$$P_{av} = P = \frac{1}{T_0} \int_t^{t+T_0} P(t) dt = V_{rms} I_{rms} \cos \phi \quad (5)$$

- We define  $|S| = V_{rms} I_{rms}$  as the apparent power associated with the current.
- The ratio of  $\frac{P_{av}}{S}$  is called power factor.
- Power factor:  $\cos \phi \in [-1, 1]$ .
- If current lags voltage, we say that the power factor is lagging. If current leads voltage, we say that the power factor is leading.

## 2 Reactive Power

Note that active power is a product of voltage and projection of current phasor on voltage phasor as shown in Fig 2. Hence, a product of voltage phasor and quadrature component of current i.e  $VI \sin \phi$  is also something that could not be realised. It is known as reactive power.

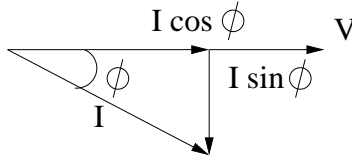


Figure 2: Active and reactive power

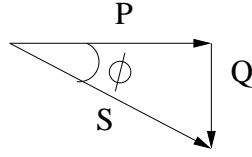


Figure 3: Apparent Power with lagging current ( $P$  +ve,  $Q$  -ve).

Now, consider

$$\begin{aligned}
 S &= VI^* \\
 &= V_{rms} \angle 0 [I_{rms} \angle -\phi]^* \\
 &= V_{rms} I_{rms} \angle \phi \\
 &= V_{rms} I_{rms} \cos \phi + j V_{rms} I_{rms} \sin \phi
 \end{aligned} \tag{6}$$

$$S = P + jQ \tag{7}$$

where  $j = \sqrt{-1}$ . In electrical engineering,  $i$  normally represents current. Hence,  $j$  is used to represent  $\sqrt{-1}$ .

Further,

$$P^2 + Q^2 = |S|^2. \tag{8}$$

Previously, while introducing the notion of apparent power, we treated it as a scalar. In fact, apparent power is a complex number.

- $\cos \phi$  and  $\sin \phi$  are dimensionless. Hence, power factor has no unit.
- $Q = VI \sin \phi$  has a unit of VA. However, it is written as VAR and indicates reactive.

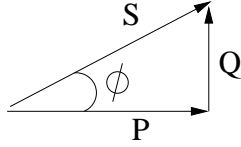


Figure 4: Apparent Power with leading current (P +ve, Q +ve).

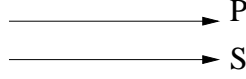


Figure 5: Apparent Power with unity power factor (P +ve, Q = 0).

- In power system, MW and MVAR are commonly used units.

To summarize, we have seen that instantaneous power in a single phase circuit is pulsating. However, in a balanced multi-phase circuit, we can make it constant. We show this by taking an example of a three phase circuit, where power is given by the following equation.

$$\begin{aligned}
 P_{total}(t) &= v_a(t)i_a(t) + v_b(t)i_b(t) + v_c(t)i_c(t) \\
 &= V_m \cdot I_m \left[ \cos(\omega t) \cdot \cos(\omega t - \phi) + \cos\left(\omega t - \frac{2\pi}{3}\right) \cdot \cos\left(\omega t - \phi - \frac{2\pi}{3}\right) \right] \\
 &\quad + \cos\left(\omega t - \frac{4\pi}{3}\right) \cdot \cos\left(\omega t - \phi - \frac{4\pi}{3}\right) \Big] \\
 &= \frac{V_m \cdot I_m}{2} \left[ \cos \phi + \cos(2\omega t - \phi) + \cos \phi + \cos\left(2\omega t - \phi - \frac{4\pi}{3}\right) \right. \\
 &\quad \left. + \cos \phi + \cos\left(2\omega t - \phi + \frac{4\pi}{3}\right) \right] \\
 &= 3 \cdot V_{rms} \cdot I_{rms} \cdot \cos \phi + 3 \cdot V_{rms} I_{rms} \left[ \cos(2\omega t - \phi) \right. \\
 &\quad \left. + \cos\left(2\omega t - \phi + \frac{2\pi}{3}\right) + \cos\left(2\omega t - \phi - \frac{2\pi}{3}\right) \right] \\
 &= 3 \cdot V_m \cdot I_m \cdot \cos \phi + 0 \quad \left[ \because \cos \theta + \cos\left(\theta + \frac{2\pi}{3}\right) + \cos\left(\theta - \frac{2\pi}{3}\right) = 0 \right] \\
 \Rightarrow P_{total}(t) &= 3V_m I_m \cos \phi \tag{9}
 \end{aligned}$$

It can be easily observed that three phase instantaneous power is constant. Thus, balanced three phase circuits overcome the problem of pulsating instantaneous power. However, the issue of reactive

power remains.

### 3 Transmission Lines - Power Characteristics

Consider a transmission line between busses  $S$  and  $R$ , where  $S$  denotes the sending end and  $R$ , the receiving end, respectively. The line is assumed to be lossless, typically, for EHV transmission line  $X/R > 10$ , hence, this is a reasonable assumption. The length of the line is  $l$ ,  $\beta$  is the phase constant of the line and its characteristic impedance is  $Z_C$ . The sending end voltage  $V_S$  and current  $I_S$  are given by [1],

$$\bar{V}_S = \bar{V}_R \cos \beta l + j Z_C \bar{I}_R \sin \beta l \quad (10)$$

$$\bar{I}_S = \bar{I}_R \cos \beta l + j \left( \frac{\bar{V}_R}{Z_C} \right) \sin \beta l. \quad (11)$$

Consider a load at the receiving end given by

$$\begin{aligned} \bar{I}_R &= \frac{P_R - jQ_R}{\bar{V}_R^*} \\ \bar{V}_S &= \bar{V}_R \cos(\beta l) + j \left( \frac{P_R - jQ_R}{\bar{V}_R^*} \right) Z_C \sin(\beta l) \\ \because \theta &= \beta l \\ \implies \bar{V}_S &= \bar{V}_R \cos \theta + j Z_C \sin \theta \left( \frac{P_R - jQ_R}{\bar{V}_R^*} \right) \end{aligned} \quad (12)$$

Under load conditions,  $V_S$  will lead  $V_R$  by an angle  $\delta$  known as the load angle or the transmission angle. Taking  $V_R$  as the reference,

$$\bar{V}_S = V_S e^{j\delta} = V_S (\cos \delta + j \sin \delta). \quad (13)$$

Equating real and imaginary parts of Eqns (12) and (13),

$$\begin{aligned} V_S \cos \delta &= V_R \cos \theta + Z_C \left( \frac{Q_R}{V_R} \right) \sin \theta \\ V_S \sin \delta &= Z_C \left( \frac{P_R}{V_R} \right) \sin \theta \end{aligned}$$

Rearranging the above equation, we get,

$$\implies P_R = \frac{V_S V_R}{Z_C \sin \theta} \sin \delta. \quad (14)$$

The above expression indicates the power transferred across a line.

If we consider a short line (l < 80 km), we can replace  $\sin \theta$  by  $\theta$ . We get

$$\begin{aligned} Z_C \sin \theta &= Z_C \theta = \sqrt{\frac{L}{C}} \omega \sqrt{LC} l = \omega L l = X_L \\ \therefore P_R &= \frac{V_S V_R}{X_L} \sin \delta \end{aligned}$$

With the voltage magnitudes fixed, the power transferred is a function of the transmission angle  $\delta$ .

Comparing the real parts of Eqns (12) and (13), we get,

$$\begin{aligned} V_S \cos \delta &= V_R \cos \theta + Z_C \left( \frac{Q_R}{V_R} \right) \sin \theta \\ \therefore Q_R &= \frac{V_R (V_S \cos \delta - V_R \cos \theta)}{Z_C \sin \theta} \end{aligned}$$

For a short line, we get

$$Q_R = \frac{V_R (V_S \cos \delta - V_R)}{X_L}. \quad (15)$$

Thus, reactive power transfer is proportional to the voltage difference between the sending and receiving ends of a transmission line, for small values of  $\delta$ . Eqns (14) and (15) also indicate that the active and reactive power flow can be regulated by controlling the voltages, phase angles and

line impedance of the transmission system.

## 4 EHV Transmission Lines -Voltage Rise

For a lossless line, from Eqn 10, the voltage at the open circuited receiving end (i.e.,  $I_R = 0$ ), can be expressed as,

$$V_R = \frac{V_S}{\cos \theta}. \quad (16)$$

The sending end current for this line is obtained by substituting  $I_R = 0$  in Eqn (11),

$$I_S = j \frac{V_R}{Z_C} \sin \theta \quad (17)$$

$$= j \frac{V_S}{Z_C} \tan \theta. \quad (18)$$

Eqn (18) clearly indicates reactive nature of the current. This, is in fact, the capacitive line charging current.

Consider the case of a 400 kV transmission line with four (quad) ACSR Moose sub-conductors per phase. For this line,  $\beta = 0.001077$  rad/km. The voltage at the open circuited (o.c.) receiving end is given in Table 1 and also shown in Fig 6.

Table 1: Voltage Rise across o.c. 400 kV Transmission Line

Length (km)	Receiving end Voltage (pu)		
	Vs=1pu	Vs=1.05 pu	Vs=1.1 pu
0	1.000	1.050	1.100
50	1.001	1.052	1.102
100	1.006	1.056	1.106
150	1.013	1.064	1.115
200	1.024	1.075	1.126
250	1.037	1.089	1.141
300	1.055	1.107	1.160
350	1.076	1.129	1.183

For the Tiroda-Warora transmission line with a length of 218.61 km,  $\theta = 13.45^\circ$  giving  $V_R = 1.028$  pu for  $V_S = 1.0$  pu i.e. a rise of 2.8 % at the open circuited receiving end.

Unless regulated, it should be noted that the capacitive VARs generated by a transmission line lead to an increase in voltage at the receiving end if the load is lower than its surge impedance

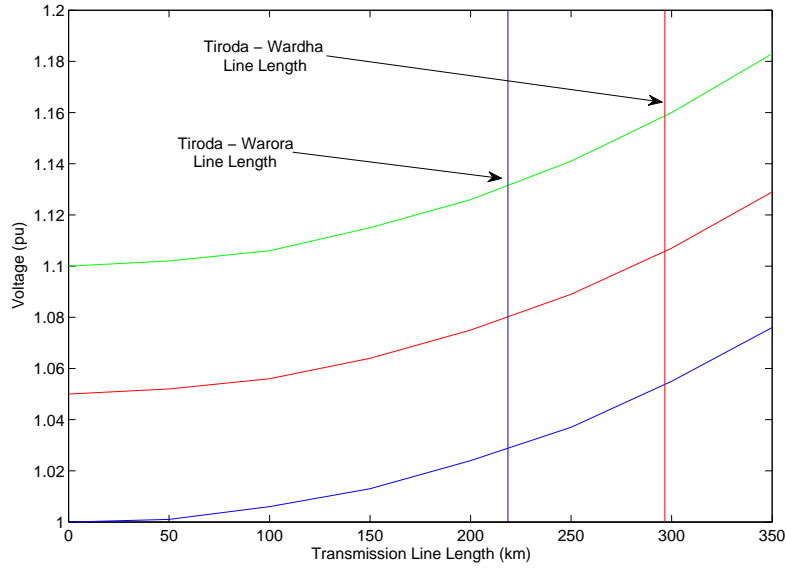


Figure 6: Voltage rise at open circuited receiving end of a 400 kV transmission line.

loading ( $SIL$ ). On the other hand, a fall in voltage will be observed for loading greater than  $SIL$ . Fig 7 shows the voltage profile along a line with  $V_S = V_R = 1.0$  pu. It can be observed from the figure that for  $P_R < SIL$ , there is a rise in the mid-point voltage and reactive power flow is towards the sending and receiving ends i.e. the line generates excess reactive power. On the other hand, for  $P_R > SIL$ , there is a fall in the mid-point voltage and the line absorbs reactive power. A flat voltage profile is observed for  $P_R = SIL$  and  $Q_S = Q_R = 0$ .

Thus, there is a need for provision of reactive compensation for transmission lines, which is briefly discussed in the next section.

## 5 Reactive Power Compensation Issues in Transmission Systems

The reactive power compensation for transmission lines can be divided into shunt and series compensation. Series compensation is not covered in this document. We now briefly discuss shunt

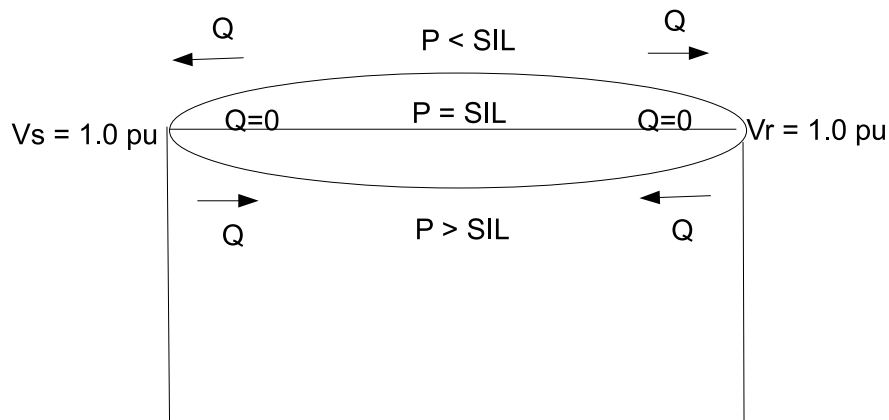


Figure 7: Voltage profile along a transmission line for different loading levels with sending and receiving end voltages regulated at 1 pu i.e.,  $V_S = V_R = 1.0$  pu.

compensation of transmission lines.

EHV transmission circuits have significant shunt capacitance and shunt reactors absorb capacitive reactive power and are used to reduce overvoltages, while shunt capacitors are used to correct undervoltages, arising out of inductive voltage drops in transmission and distribution lines [2].

Shunt reactors are widely used in transmission system to regulate the voltage magnitude, thus improving voltage quality. While the capacity of thermal turbo-generator sets, to absorb reactive power is limited due to end turn heating, they can supply a much higher magnitude of inductive VARs to the system (refer Fig 8 for the capability curve of a 660 MW thermal generator). However, if the lines are loaded beyond their SIL, then shunt capacitive compensation may be required.

## 5.1 FACTS Devices

In general, FACTS devices are used where finer control over compensation is desired. FACTS devices also help in improving transient and dynamic stability of power systems. FACTS and FACTS controllers are defined in IEEE Terms and Definitions as follows.

- Flexible AC Transmission System (FACTS): Alternating current transmission systems incorporating power electronic-based and other static controllers to enhance controllability and increase power transfer capability.



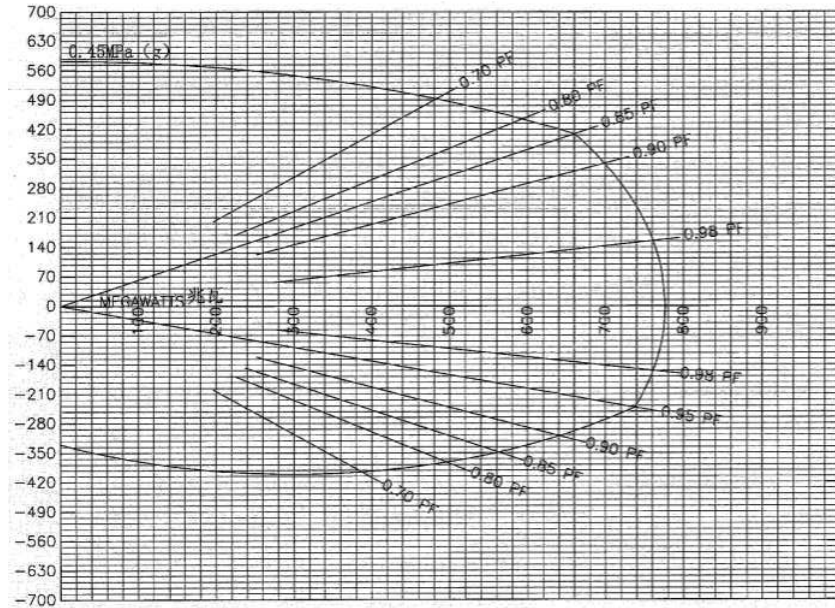


Figure 8: Capability curve of a 660 MW thermal generator set at Tiroda.

- FACTS Controller: A power electronic-based system and other static equipment that provide control of one or more AC transmission system parameters.

One type of FACTS device which are impedance type, based on thyristors are called Static Var Compensators (SVCs). SVCs are used for shunt reactive compensation. Their output can be finely adjusted to supply either inductive or capacitive current and they are typically used to control bus voltage.

## 5.2 Compensation by SVC at Mid point of a Transmission Line - Effect on Maximum Power Transfer Capability

Consider a transmission line as discussed in Section 3. Also consider that  $V_S = V_R = V$  and the phase angle between them is  $\delta$ . Further assume that dynamic shunt compensation is provided by a SVC, at the mid point of this line and its voltage is also maintained at  $V$ . Fig 9 shows a typical SVC. The transmission line is assumed lossless.

Consider the section from sending end  $S$  to the mid-point of the line, whose length is  $l/2$ .

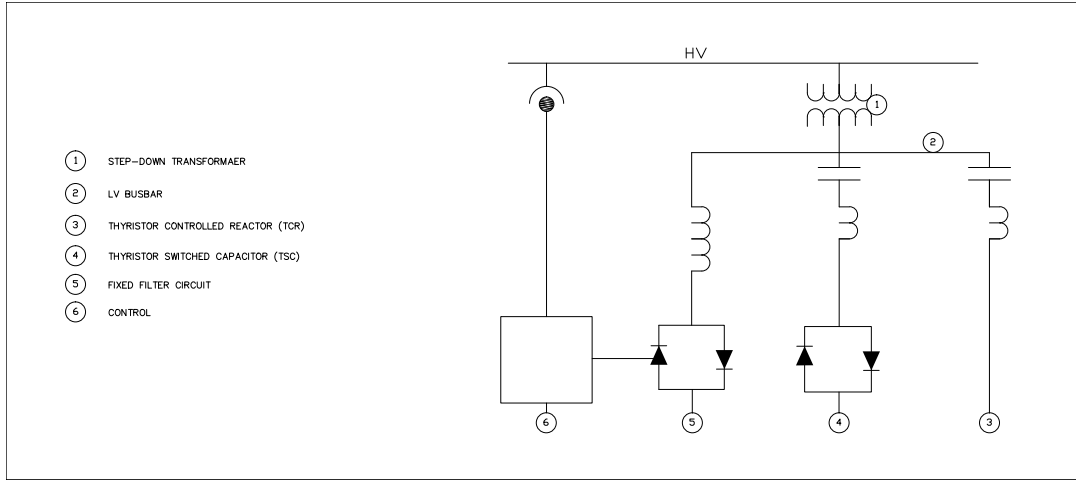


Figure 9: Typical Static VAR Compensator

Therefore for this section  $\theta = \beta \times l/2$ . Substituting in Eqn 14, we get,

$$P_R = \frac{V^2}{Z_C \sin \frac{\beta l}{2}} \sin \frac{\delta}{2} \quad (19)$$

$$P_R = 2 \frac{V^2}{X_L} \sin \frac{\delta}{2} \quad (20)$$

Thus, it can be observed that by providing capacitive compensation at the mid point of the line, the maximum power transfer capability can be doubled, which will also be demonstrated by the following example.

Consider a 400 kV lossless transmission line with  $L = 1.04$  mH/km and  $C = 12$  nF/Km. For this line  $Z_C = 294$  ohms. Let the line length be 300 km and the sending and receiving end voltages of this line be regulated at 1.0 pu, i.e., 400 kV. For such a line  $SIL = 543$  MW. Now consider that  $P_R = 650$  MW i.e., the load is greater than SIL. The voltage at the mid-point for this load is 397.45 kV and  $\delta = 23.1^\circ$ .

If a shunt compensation is provided by means of SVC at the mid point and this voltage is also regulated to 1.0 pu, then  $P_R = 1300$  MW for  $\delta = 23.1^\circ$ . Thus, mid-point compensation using SVC can significantly improve power transfer capability of transmission lines.

## 6 Reactive Compensation for Transmission and Distribution Lines

In this section, we discuss the difference in reactive compensation required for transmission and distribution lines. First, consider a case of a simple two bus system with a source and a load. We consider two cases, a 33 kV distribution system and a 400 kV transmission system with above configuration.

### 6.1 33 kV distribution line

We consider a 33 kV ACSR Dog pole line of 20 km with a load of 17.8 MVA (considering thermal loading of ACSR Dog). For this line  $R = 0.327$  ohm/km,  $X = 0.3463$  ohm/km and  $B = 3.32 \times 10^{-6}$  mho/km. Notice that  $X/R \approx 1$ . We observe the following.

- For a load power factor of 0.8,  $V_R = 0.83$  pu for  $V_S = 1.0$  pu i.e. a regulation of 17% and  $P_{loss} = 2.262$  MW i.e., a real power loss of 15.9 %.
- For a load power factor of 1,  $V_R = 0.893$  pu for  $V_S = 1.0$  pu i.e. a regulation of 11% and  $P_{loss} = 1.95$  MW, a real power loss of 10.95 %.

Thus, improving power factor leads to a reduction in regulation as well as active power loss, in this case to the tune of 6% and 5 %, respectively. This example clearly shows that this length of 20 km line should not be loaded to thermal limit as loss and regulation are unsatisfactory. Thus, line loading also depends on the length of the line.

### 6.2 400 kV EHV transmission line

Next we consider a 400 kV ACSR quad Moose DC line of 218.61 km (with a single circuit in operation). Typically, for this line  $R = 0.01479$  ohm/km,  $X = 0.2549$  ohm/km and  $B = 1.045 \times 10^{-3}$  mho/km. In this case  $X/R \approx 17$ , also notice that line susceptance is almost 300 times that of a 33 kV line.

- With  $V_S$  set to 1.0 pu,  $V_R = 1.028$  pu i.e., a rise of 2.8 %, and  $Q_S = -162.05$  MVAR. In this case  $Q_R = 0$ .

- With  $V_S$  set to 1.0 pu,  $V_R = 1.131$  pu i.e., a rise of 2.8 % and  $Q_S = -196.09$  MVAR. In this case also  $Q_R = 0$ .
- If a 160 MVAR reactor is added at receiving end bus, with the sending end voltage at 1.0 pu,  $V_R = 1.07$  pu. Here,  $Q_S = -2.5$  MVAR and  $Q_R = 183.2$  MVAR.
- For a load of 30 MVA at 0.8 power factor (which is the approximate start up power requirement) and 160 MVAR reactor at the receiving end, with the sending end voltage at 1.0 pu,  $V_R = 1.07$  pu. Here also, and  $Q_S = -2.18$  MVAR and  $Q_R = 183.2$  MVAR. Note that the reactive power absorbed by the shunt reactor is given by  $Q_{reactor} = 160 \times |V_R|^2$ .

### 6.3 Observations

The above comparison of transmission and distribution systems leads to the following observations.

- In a distribution system, the line susceptance is negligible and hardly any capacitive VARs are generated by the line. The inductive voltage drop due to series reactance of the line leads to a voltage drop even across very lightly loaded lines.
- Hence, in a distribution system, the inductive VARs consumed by the load need to be compensated by provision of shunt capacitors which can significantly improve regulation and line loss.<sup>1</sup>
- On the other hand, in an EHV transmission system, voltage rise is observed at receiving end for light load conditions (below SIL) due to dominance of shunt capacitive VARs.
- The capacitive VARs generated by EHV transmission lines, may require compensation by inductive VARs, to maintain proper regulation and improve voltage profile of the system.
- Shunt reactors are also required during charging of EHV transmission lines to control the transient overvoltages that are likely to occur when such lines are energised.
- In case of the Tiroda-Warora line, it should be noted that there is no load on the Warora 400 kV bus and radial connection continues upto Wardha. Hence, the line is in effect the Tiroda-Wardha line with a line length of 296.65 km. If this line length is considered, the voltage rise,

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<sup>1</sup>Distribution companies have incentives and penalties so that consumer does his own reactive power management, typically by providing shunt capacitors.

as per Fig 6, at receiving end is approximately 5.5 % (this is under the assumption that the Wardha-Warora line has identical parameters as Tiroda-Wardha Line).

- The 400 kV bus voltages around Wardha are consistently higher than 400 kV due to the presence of large generation capacity and low loading levels. Further 765 kV substation is located at Wardha and 1200 kV is likely to come up in the near future.

## 7 Summary

We conclude the following.

- In a transmission system, reactive power management can be much more complex than distribution systems.
- Typically, distribution systems require capacitive support to compensate inductive VARs of loads. This leads to improved voltage regulation and reduction in losses.
- In contrast, transmission systems can have undervoltages or overvoltages depending on loading conditions.
- Under light loads, capacitive VARs generated by the transmission line can dominate the inductive VARs of series reactance of the line. Hence, there is a requirement of shunt inductive compensation.
- Under peak load conditions and to improve peak transmission loadability of lines, one may require capacitive compensation.
- Typically, transmission systems are connected to generators which set the voltage reference. Generators can absorb or deliver VARs within their capability curves. Reactive power absorption capability of thermal generators is significantly lower than their reactive power injection capability. Hence, during light loading conditions inductive compensation may be required to control overvoltages.
- In general to meet dynamic voltage support requirement in a transmission systems, FACTS devices like SVCs may also be required over and above generator AVR control, OLTCs and switchable shunt compensation.

## References

- [1] P. Kundur, *Power System Stability and Control*. New York: McGraw-Hill, Inc., 1993.
- [2] T. Miller, *Reactive Power Control in Electric Systems*. New York: John Wiley and Sons, Inc., 1982.

## Appendix A

The following members were present in the committee meeting held on 19/07/2013. The convener was Mr. S. A. Soman, IIT Bombay. MERC to revise the list based on full names of the participants, designations and organizational affiliations.

- Mr. Kelkar, STU
- Mr. P. Pentayya, WRLDC
- Mr. Sonkavday, STU
- Dr. Sanjay Kulkarni, SLDC
- Mr. Vivek Panday, WRLDC
- Mr. Jayant Kulkarni, SLDC
- Mr. Pande, SLDC
- Mr. Kishore Chavan, MERC
- Mr. Prafulla Varhade, MERC
- Mr. Krishna Rao, AMPL
- Mr. Dhantole, MSEDCL
- Mr. Pardhi, MSETCL
- Mr. Sundary, AMPL
- Mr. Phatak, AMPL
- Mr. S. A. Soman, IIT Bombay (Convener)
- Mr. P. V. Navalkar, IIT Bombay

# C. C. Chokshi & Co.

C. C. Chokshi & Co.  
Chartered Accountants  
'Heritage', 3rd Floor,  
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+91 (79) 66073100  
Fax . +91 (79) 27582551

REF: GJS/APML/2013-14/16

## CERTIFICATE

**Adani Power Maharashtra Limited** (Registered office at "Adani House", Near Mithakhali Six Roads, Navrangpura, Ahmedabad – 380 009) ('the Company'), vide its letter dated 27<sup>th</sup> November, 2013 has requested us to verify the financial information contained in the **Annexure** attached hereto showing the details of total cost incurred by the Company for 2 numbers of 80 MVAR Bus Reactors and for 2 numbers of 80 MVAR Bus Reactor Bays, at Tiroda, Maharashtra as at 31<sup>st</sup> March, 2013, have been properly extracted from the books of account and other records of the Company for the year ended 31<sup>st</sup> March, 2013.

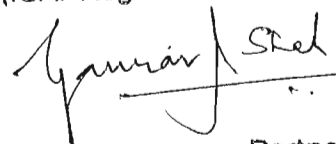
The preparation of the attached **Annexure** and the maintenance of the related books of account and other records is the responsibility of the management of the Company. Our responsibility is to state whether the financial information contained in the **Annexure** has been properly extracted from the books of account and other records of the Company.

We have verified the information in the **Annexure** (i) with the books of account and other relevant records maintained by the Company and (ii) with a certificate of R.K.Patel & Co., Chartered Engineers, dated December 3, 2013 having Ref. Number : Ch Engg/APML/Dec/01/2013-14, regarding details of various materials used and costs incurred for construction of 2 numbers of (a) 80 MVAR Reactors and (b) 80 MVAR Reactor Bays, as furnished to us by the Company.

Based on such verification and the information, explanations and representations provided to us by the Company, we state that the information contained in the **Annexure** have been properly extracted from the books of account and other relevant records of the Company and above mentioned certificate of the Chartered Engineers. The **Annexure** has been stamped and initialed by us for the purpose of identification.

This certificate is being issued by us, at the request of the Company for the purpose of submitting the same to the Maharashtra Electricity Regulatory Commission and should not be used /submitted to any other person/party for any other purpose without our prior written consent.

For **C. C. Chokshi & Co.**  
Chartered Accountants  
(ICAI Reg. No. 101876W)



Partner

Gaurav J. Shah - M. No. 35701

AHMEDABAD, <sup>4<sup>th</sup></sup> December, 2013



**Annexure**

(As referred to in Certificate REF: GJS/APML/2013-14/16 issued by C.C.Chokshi & Co., Ahmedabad, the Statutory Auditors of the Company)

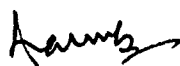
**Adani Power Maharashtra Limited**

**Total cost incurred for 2 numbers of 80 MVAR Bus Reactors and 2 numbers of 80 MVAR Bus Reactor Bays, at Tiroda, Maharashtra as at 31<sup>st</sup> March, 2013**


(Amount - Rs. In Crores)

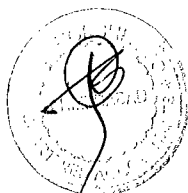
Particulars of Company's Bus Reactors and Bus Reactor Bays	Quantity	Amount
Capital Cost of 80 MVAR Bus Reactors	2	10.82
Capital Cost of 80 MVAR Bus Reactor Bays	2	12.42
<b>Total</b>		<b>23.24</b>

For, Adani Power Maharashtra Limited



Authorised Signatory

 4<sup>th</sup> Dec 2013



9<sup>th</sup> August, 2013

Bank of India  
Ahmedabad Large Corporate Branch  
2nd Floor, BOI Bhadra Building  
Bhadra, Ahmedabad

Kind attn.: Mr N S Surti, Deputy General Manager

Dear Sir,

**Sub: Tiroda – Warora Transmission Line project - Request for Time for security creation**

In connection with security creation, we would like to inform as under:

1. We have received the Approvals of all generation lenders for creation of security in favour of Tiroda-Warora Transmission Project lenders.
2. We have acquired land an immovable property for assignment of project documents.

Non Agricultural Land(NA) approval is received from additional collector on 26<sup>th</sup> July, 2013. Copy of approval is attached. The process of NA was delayed due to procedural delay at Govt. of Maharashtra authorities. Now the process of transferring the Land in the name of the company in revenue records is going on and likely to completed by Mid-September, 2013

3. We have received approval of MERC for security creation in favour of lenders. Copy attached.


In view of above, we request Bank of Indi,- Lead bank to extend the time for security creation up to 31<sup>st</sup> October, 2013 and not to charge additional interest till the creation of security

We hope you will find the above in order and convey your approval at an early date.

Thanking you.

Yours faithfully,

**For Adani Power Maharashtra Ltd.**



**Rajesh Shah**

**Associate Vice President - Finance**

# C. C. Chokshi & Co.

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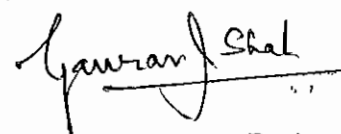
REF: GJS/APML/2013-14/11

## CERTIFICATE

We, the Statutory Auditors of Adani Power Maharashtra Limited (Registered office at "Adani House", Near Mithakhali Six Roads, Navrangpura, Ahmedabad – 380 009) ("the Company"), have audited the Balance Sheet of the Company as at 31st March, 2013 and also the Statement of Profit and Loss and the Cash Flow Statement for the year ended on that date. The Balance Sheet, Statement of Profit and Loss and the Cash Flow Statement for the year ended on 31st March, 2013 consists of the assets, liabilities, income, expenditure and cash flows of 400 KV Tiroda-Warora Transmission Line alongwith the same of the Company's Phase-I, II and III of its Thermal Power Projects at Tiroda. Based on the audited books of account and other relevant records maintained by the Company for the 400 KV Tiroda-Warora Transmission Line, the Company has prepared the attached Balance Sheet, Statement of Profit and Loss and the Cash Flow Statement for the year ended on 31st March, 2013 for 400 KV Tiroda-Warora Transmission Line, as set out in the ANNEXURE attached hereto. The preparation of the ANNEXURE is the responsibility of the Company's management. Our responsibility is to examine the financial statements in accordance with the generally accepted auditing standrads. We have examined the attached financial statements (as per the ANNEXURE) with the audited books of account and other relevant records of the 400 KV Tiroda-Warora Transmission Line and as per the information and explanations given to us, have found it to be in accordance therewith.

This certificate is being issued by us, at the request of the Company for the purpose of submitting the same to the Maharashtra Electricity Regulatory Commission and should not be used /submitted to any other person/party for any other purpose without our prior written consent.

For **C. C. Chokshi & Co.**  
Chartered Accountants  
(ICAI Reg. No. 101876W)



Partner

Gaurav J. Shah - M. No. 35701

AHMEDABAD, 2<sup>nd</sup> December, 2013

**ADANI POWER MAHARASHTRA LIMITED**  
400 KV TIRODA-WARORA TRANSMISSION LINE (Refer Note 13)

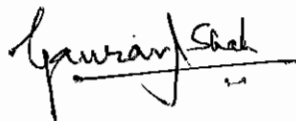
**Balance Sheet as at 31st March 2013**

	Notes	As at 31st March 2013	(Rs. in Crores) As at 31st March, 2012
<b>EQUITY AND LIABILITIES</b>			
<b>Shareholders' Funds</b>			
Head Office Account		205.40	195.20
Reserves & Surplus		22.77	-
<b>Non - Current Liabilities</b>			
Long Term Borrowings	2	417.08	196.67
<b>Current Liabilities</b>			
Short term borrowings	3	31.36	192.79
Other current liabilities	4	74.29	40.33
<b>TOTAL</b>		<b>750.90</b>	<b>624.99</b>
<b>ASSETS</b>			
<b>Non Current Assets</b>			
Fixed Assets			
Tangible Assets	5	663.01	-
Capital Work-In-Progress	6	-	492.72
Long-term loans and advances	7	-	116.24
<b>Current Assets</b>			
Cash and cash equivalents	8	5.85	16.03
Other Current Assets	9	82.04	-
<b>TOTAL</b>		<b>750.90</b>	<b>624.99</b>

See accompanying notes forming part of the financial statements

**In terms of our Certificate attached**

**For C. C. CHOKSHI & CO.**  
Chartered Accountants



**GAURAV J. SHAH**  
(PARTNER)

PLACE: AHMEDABAD  
DATE : 2nd December, 2013

**For ADANI POWER MAHARASHTRA LIMITED**



**RAJIV RUSTAGI**  
Authorised Signatory



PLACE: AHMEDABAD  
DATE : 2nd December, 2013

**ADANI POWER MAHARASHTRA LIMITED**  
400 KV TIRODA-WARORA TRANSMISSION LINE (Refer Note 13)

**Statement of Profit and Loss for the year ended 31st March, 2013**

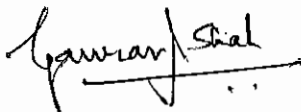
(Rs. In Crores)

		For the year ended 31st March 2013	For the year ended 31st March 2012
<b>Revenue from Operations</b>			
Transmission Service Charges		82.04	-
<b>Other Income</b>			
Interest Income		0.53	-
<b>Total Revenue</b>		<b>82.57</b>	<b>-</b>
<b>Expenses</b>			
Employee Benefits Expense	10	2.01	-
Finance costs	11	34.52	-
Depreciation and Amortisation Expense		21.59	-
Other Expenses	12	1.68	-
<b>Total Expenses</b>		<b>59.80</b>	<b>-</b>
<b>Profit for the year</b>		<b>22.77</b>	<b>-</b>

See accompanying notes forming part of the financial statements

In terms of our Certificate attached

For C. C. CHOKSHI & CO.  
Chartered Accountants



**GAURAV J. SHAH**  
(PARTNER)

PLACE: AHMEDABAD  
DATE : 2nd December, 2013

For ADANI POWER MAHARASHTRA LIMITED



**RAJIV RUSTAGI**  
Authorised Signatory

PLACE: AHMEDABAD  
DATE : 2nd December, 2013

**ADANI POWER MAHARASHTRA LIMITED**  
400 KV TIRODA-WARORA TRANSMISSION LINE (Refer Note 13)

**Cash Flow Statement for the Year ended 31st March, 2013**

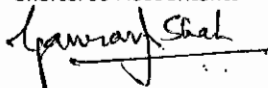
(Rs. In Crores)

	For the year ended 31st March 2013	For the year ended 31st March 2012
<b>(A) CASH FLOW FROM OPERATING ACTIVITIES</b>		
Profit Before Tax	22.77	-
Adjustment for:		
Interest Income	(0.53)	-
Depreciation	21.59	-
Finance Cost	34.52	-
Cash Generated From Operating Activities Before Working Capital Changes	78.35	-
Working Capital Changes :		
Adjustments for (increase) / decrease in operating assets:		
Increase in Other Current Assets	(82.04)	-
Adjustments for increase / (decrease) in operating liabilities:		
Increase in Other Current Liabilities	14.54	-
<b>NET CASH FROM OPERATING ACTIVITIES (A)</b>	<b>10.85</b>	<b>-</b>
<b>(B) CASH FLOW FROM INVESTING ACTIVITIES</b>		
Purchase of Fixed Assets and Increase in Capital Work In Progress	(75.64)	(87.79)
Interest Income Received	0.53	-
<b>NET CASH USED IN INVESTING ACTIVITIES (B)</b>	<b>(75.11)</b>	<b>(87.79)</b>
<b>(C) CASH FLOW FROM FINANCING ACTIVITIES</b>		
Proceeds from Head Office Account - Share holders fund	10.20	45.23
Long Term Borrowings - Banks	239.83	200.00
Repayment of Short Term Borrowings - Head Office Account	(161.43)	(155.04)
Finance Cost Paid	(34.52)	-
<b>NET CASH GENERATED FROM FINANCING ACTIVITIES (C)</b>	<b>54.08</b>	<b>90.19</b>
<b>NET INCREASE IN CASH AND CASH EQUIVALENTS (A)+(B)+(C)</b>	<b>(10.18)</b>	<b>2.40</b>
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>	<b>16.03</b>	<b>13.63</b>
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	<b>5.85</b>	<b>16.03</b>
<b>Notes to Cash flow Statement :</b>		
1 Cash and cash equivalents include:		
Balances with banks :		
In current accounts	0.05	0.03
In deposit accounts (with original maturity for less than 12 months)	5.80	16.00
	<b>5.85</b>	<b>16.03</b>

2 The Cash Flow Statement has been prepared under the 'Indirect Method' set out in Accounting Standard 3 'Cash Flow Statement' issued by the Institute of Chartered Accountants of India.

**In terms of our Certificate attached**

For **C. C. CHOKSHI & CO.**  
Chartered Accountants



**GAURAV J. SHAH**  
(PARTNER)

PLACE: AHMEDABAD  
DATE : 2nd December, 2013

For **ADANI POWER MAHARASHTRA LIMITED**



**RAJIV RUSTAGI**  
Authorised Signatory

PLACE: AHMEDABAD  
DATE : 2nd December, 2013

ADANI POWER MAHARASHTRA LIMITED  
400 KV TIRODA-WARDRA TRANSMISSION LINE (Refer Note 13)

Notes forming part of the Financial Statements as at 31st March, 2013

## 1 Significant Accounting Policies:

### a) Basis of Preparation of Financial Statements

The financial statements are prepared under the historical cost convention on accrual and going concern basis and in compliance with the accounting standards issued by the Institute of Chartered Accountants of India and in accordance with the Generally Accepted Accounting Principles (GAAP) and provisions of the Companies Act, 1956.

### b) Use of Estimates

The preparation of financial statements in conformity with the generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities on the date of financial statements and reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. Any revision to accounting estimates is recognized prospectively in current and future periods.

### c) Revenue recognition

Revenue (income) is recognized when no significant uncertainty as to the measurability or collectability exists.

Transmission Service Charges have been computed as per Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 effective 1st April, 2012 as per Multi Year Tariff (MYT) Principles for Second Control Period from FY 2012-13 to FY 2015-16. As per the MERC Regulations, 2011, transmission income is to be computed by taking Return on Equity (ROE) at the rate of 15.5% on post tax basis for the purpose of recognition of Revenue.

### d) Impairment of Assets

An asset is treated as impaired when the carrying cost of assets exceeds its recoverable value. An impairment loss is charged to the Statement of Profit and Loss in the period in which an asset is identified as impaired. The impairment loss, if any, recognized in prior accounting periods is reversed if there has been a change in the estimate of recoverable amount.

### e) Tangible Assets

Fixed assets are stated at cost of acquisition including any attributable cost for bringing the assets to its working condition for its intended use, less accumulated depreciation and impairment losses, if any. Borrowing costs directly attributable to qualifying assets / capital projects are capitalized and included in the cost of fixed assets.

### f) Depreciation

i) Depreciation is provided on additions / deductions of the assets during the period from / up to the month in which the asset is added / deducted. In respect of tangible assets, depreciation is provided on Straight Line Method considering the rates provided in Appendix III of MERC (Multi Year Tariff) Regulations, 2011.

ii) Depreciation on assets acquired / disposed off during the year is provided on pro-rata basis with reference to the date of addition / disposal.

iii) Assets costing less than Rs 5,000/- are written off in the year of purchase.

### g) Borrowing costs

Borrowing costs that are attributable to the acquisition / construction of qualifying assets are capitalized as part of the cost of such assets. A qualifying asset is one that necessarily takes substantial period of time to get ready for intended use.

### h) Employee Benefits

#### (i) Gratuity:

The Company Accounts for the liability for the gratuity benefits payable in future based on an independent actuarial valuation carried out using Projected Unit Credit Method considering discounting Rate relevant to Government Securities at the Balance Sheet Date.



**ADANI POWER MAHARASHTRA LIMITED**  
400 KV TIRODA-WARORA TRANSMISSION LINE (Refer Note 13)

**Notes forming part of the Financial Statements as at 31st March, 2013**

**ii) Provident Fund:**

Retirement Benefits in the form of Provident Fund and Family Pension Fund, which are defined benefit contribution schemes, are charged to the Project Development Expenditure for the period, in which the contributions to the respective funds accrue till the commencement of commercial production.

**iii) Leave Encashment:**

Provision for Leave Encashment is determined and accrued on the basis of actuarial valuation.

**i) Taxes on Income**

Provision for income tax is made on the basis of estimated taxable income for the year at current rates.

Current Tax represents the amount of Income Tax Payable in respect of the taxable income for the reporting period as determined in accordance with the provisions of the Income Tax Act, 1961.

Deferred tax is measured based on the tax rates and the tax laws enacted or substantively enacted at the Balance Sheet date. Deferred tax is recognised on timing differences, being the differences between the taxable income and the accounting income that originate in one period and are capable of reversal in one or more subsequent periods. Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off. Deferred tax assets and deferred tax liabilities relate to the taxes on income levied by the same governing taxation laws. Deferred tax assets are recognized only to the extent that there is reasonable certainty that sufficient future taxable income will be available against which such deferred tax assets can be realized. If the Company has carry forward unabsorbed depreciation or carry forward tax losses, deferred tax assets are recognized only if there is a virtual certainty supported by convincing evidences that they can be realized against future taxable profits. Unrecognized deferred tax assets of earlier years are re-assessed and recognized to the extent that it has become reasonably certain that future taxable income will be available against which such deferred tax assets can be realized.

**2 Long Term Borrowings**

	As at 31st March 2013 (Rs. In Crores)	As at 31st March, 2012 (Rs. In Crores)
<b>Secured</b>		
Term Loans		
From Banks	417.08	196.67
	<b>417.08</b>	<b>196.67</b>

**Notes**

(i) Rupee Term Loans from Banks aggregating Rs 439.83 Crores (As at 31st March 2012 - Rs 200.00 Crores) are to be secured by first mortgage and charge on all immovable and movable assets, both present and future of Tiroda - Warora Transmission Line Project, on paripassu basis.

(ii) The term loans from banks aggregating to Rs 439.83 Crores (As at 31st March 2012 - Rs 200.00 Crores) are repayable in quarterly instalments started from January 2013.

(iii) All the above Secured Loans are further secured by pledge of 83,96,934 Equity Shares (As at 31st March 2012 - 83,96,934 Equity Shares) of the Company through execution of Pledge Agreement by Adani Power Limited as First charge for Secured Loans from Banks aggregating Rs 439.83 Crores (As at 31st March 2012 - Rs 200.00 Crores).

(iv) For current maturities of long term borrowing refer Note 4 Other Current Liabilities.

**3 Short Term Borrowings**

	As at 31st March 2013 (Rs. In Crores)	As at 31st March 2012 (Rs. In Crores)
<b>Unsecured</b>		
Head Office Account	31.36	192.79
	<b>31.36</b>	<b>192.79</b>





**ADANI POWER MAHARASHTRA LIMITED**  
400 KV TIRODA-WARORA TRANSMISSION LINE (Refer Note 13)

**Notes forming part of the Financial Statements as at 31st March, 2013**

**4 Other Current Liabilities**

	As at 31st March 2013 (Rs. In Crores)	As at 31st March 2012 (Rs. In Crores)
Current Maturity of long term borrowings (Secured) (Refer to note 2 for details of security and repayment terms)		
Term Loans		
From Banks	22.75	3.33
Retention Money	51.54	37.00
	<b>74.29</b>	<b>40.33</b>

**5 Fixed Assets**

	As at 31st March 2013 (Rs. In Crores)		As at 31st March 2012 (Rs. In Crores)
	400 KV Tiroda Warora Transmission Line	Grand Total	Tangible Assets
<b>Gross block (at cost)</b>			
As at 1 April 2012	-	-	-
Additions during the year	684.60	684.60	-
Deletions / adjustments during the year	-	-	-
<b>As at 31 March 2013</b>	<b>684.60</b>	<b>684.60</b>	-
<b>Accumulated depreciation</b>			
As at 1 April 2012	-	-	-
Charge for the year	21.59	21.59	-
On deletions/disposals during the year	-	-	-
<b>As at 31 March 2013</b>	<b>21.59</b>	<b>21.59</b>	-
<b>Net Block</b>			
As at 31 March 2012	-	-	-
<b>As at 31 March 2013</b>	<b>663.01</b>	<b>663.01</b>	-

**6 Capital Work-In-Progress**

	As at 31st March 2013 (Rs. In Crores)	As at 31st March 2012 (Rs. In Crores)
<b>6.1 Capital Work-In-Progress</b>		
Transmission Line	-	418.33
	(A)	<b>418.33</b>
<b>6.2 Project Development Expenditure</b>		
<b>(a) Expenses</b>		
Salary and Allowances	-	4.37
Contribution to Provident and other Funds	-	0.29
Administration and Office Expenses	-	0.65
Interest and Finance Charges	-	66.94
Professional Fees	-	2.19
Traveling Expenses	-	0.03
Insurance Expense	-	0.05
	-	<b>74.52</b>
<b>(b) Other Income</b>		
Interest	-	0.13
	-	<b>0.13</b>
	(B)	<b>74.39</b>
	(A + B)	<b>492.72</b>



ADANI POWER MAHARASHTRA LIMITED  
400 KV TIRODA-WARORA TRANSMISSION LINE (Refer Note 13)

Notes forming part of the Financial Statements as at 31st March, 2013

## 7 Long-term loans and advances

	As at 31st March 2013 (Rs. In Crores)	As at 31st March 2012 (Rs. In Crores)
Capital Advances	-	116.24
	<u>-</u>	<u>116.24</u>

## 8 Cash and Bank Balances

	As at 31st March 2013 (Rs. In Crores)	As at 31st March 2012 (Rs. In Crores)
Balances with banks		
In current accounts	0.05	0.03
In deposit accounts (with original maturity for less than 12 months)	5.80	16.00
	<u>5.85</u>	<u>16.03</u>

## 9 Other Current Assets

	As at 31st March 2013 (Rs. In Crores)	As at 31st March 2012 (Rs. In Crores)
Unbilled Revenue	82.04	-
	<u>82.04</u>	<u>-</u>

## 10 Employee Benefits Expense

	For the year ended 31st March 2013 (Rs. In Crores)	For the year ended 31st March 2012 (Rs. In Crores)
Salaries, wages and allowances	1.91	-
Contribution to provident and other funds	0.10	-
	<u>2.01</u>	<u>-</u>

## 11 Finance costs

	For the year ended 31st March 2013 (Rs. In Crores)	For the year ended 31st March 2012 (Rs. In Crores)
Interest Expenses on - Interest on Loans	34.28	-
Other borrowing costs - Other Finance Costs	0.24	-
	<u>34.52</u>	<u>-</u>

## 12 Other Expenses

	For the year ended 31st March 2013 (Rs. In Crores)	For the year ended 31st March 2012 (Rs. In Crores)
Professional Fees and Other Charges	0.30	-
Payment to Auditors	0.03	-
Miscellaneous Expense	0.64	-
Guesthouse Expense	0.19	-
Vehicle Hiring Charges	0.21	-
Rent	0.09	-
Office Expenses	0.20	-
Communication Charges	0.02	-
	<u>1.68</u>	<u>-</u>



**ADANI POWER MAHARASHTRA LIMITED**  
400 KV TIRODA-WARORA TRANSMISSION LINE (Refer Note 13)

**Notes forming part of the Financial Statements as at 31st March, 2013**

**13** These financial statements as at and for the year ended on 31st March, 2013 are pertaining to **400 KV Tiroda Warora Transmission Line**, which is a part of the Company. These financial statements for the **400 KV Tiroda Warora Transmission Line** have been prepared by the management of the Company by carving out assets, liabilities, income, expenditure and cash flows pertaining to the above-mentioned transmission line from the audited financial statements of the Company for the above-mentioned financial year. These financial statements have been prepared for the purpose of submission thereof to Maharashtra Electricity Regulatory Commission.

**14** The Company has commenced commercial operation of its 400 KV Tiroda Warora Transmission Line on 26th August 2012.

**15** The Company had been granted a License to develop 400 KV Transmission line from Tiroda to Warora in July 2009 by Maharashtra Electricity Regulatory Commission (MERC). The commission had issued the order for approval of Multi Year Tariff (MYT) Business Plan for the second control period 2012-13 to 2015-16. The Company had submitted a petition for approval of Aggregate Revenue Requirement (ARR) as per Multi Year Tariff (MYT) principles. The honourable commission has, subject to fulfilment of certain conditions, approved the ARR and approved a net aggregate revenue requirement for Rs 82.04 Crores for the year 2012-13. The Company has recognized the revenue based on the said order.

**16** Long-term commitments not provided for

	As at 31st March 2013 (Rs. In Crores)	As at 31st March 2012 (Rs. In Crores)
Capital Commitment	-	75.64
	<u>-</u>	<u>75.64</u>

**17** Basis of allocation of common expenditure:

The common expenditure incurred by the Company that is directly identifiable to the transmission line business is directly allocated to transmission line business. The other common expenditure is allocated between transmission line business and generation business, in the ratio determined based on sales of transmission line business and generation business.

**18** The Company's significant leasing arrangement are in respect of residential flats and premises, the agreements of which range from 11 months to 18 months and are usually renewable by mutual consent on mutually agreeable terms. The Company has not entered into any material financial lease. The Company does not have any non - cancellable lease.

**19** Payment to auditors

	For the year ended 31st March 2012 (Rs. In Crores)	For the year ended 31st March 2012 (Rs. In Crores)
<b>As auditor:</b>		
Audit fees	0.03	-

**20** In the opinion of the management and to the best of their knowledge and belief, the value under the head of current assets are approximately of the value stated, if realized in ordinary course of business, unless stated otherwise. The provision for all the known liabilities is adequate and not in excess of amount considered reasonably necessary.

**21** The activities of Adani Power Maharashtra Limited, revolve against generation of electricity and transmission. The Company has been granted a license by MERC to construct a 400KV Tiroda Warora Transmission Line. Hence the Company has two business segment viz Transmission Business and Generation business. Transmission Business of the Company has earned profits, but Generation business has suffered losses. In this case, overall income tax payable by the Company is Nil, due to the losses of the Generation business. Transmission business is a regulated business and as per its Statement of Profit and Loss for year ended on 31st March, 2013, the profit for the year for Transmission Business is Rs 22.77 Crore. As per the Income Tax Act, 1961, the Minimum Alternate Tax (MAT) liability on the same works out to be Rs 4.56 Crore.



ADANI POWER MAHARASHTRA LIMITED  
400 KV TIRODA-WARORA TRANSMISSION LINE (Refer Note 13)

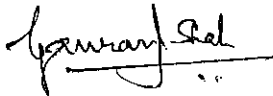
Notes forming part of the Financial Statements as at 31st March, 2013

22 The previous year figures have been regrouped / re-classified to conform to the current year's classification.

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**In terms of our Certificate attached**

For C. C. CHOKSHI & CO.  
Chartered Accountants



GAURAV J. SHAH  
(PARTNER)

PLACE: AHMEDABAD  
DATE : 2nd December, 2013

For ADANI POWER MAHARASHTRA LIMITED



RAJIV RUSTAGI  
Authorised Signatory

PLACE: AHMEDABAD  
DATE : 2nd December, 2013

**INDEPENDENT AUDITORS' REPORT  
TO THE MEMBERS OF  
ADANI POWER MAHARASHTRA LIMITED**

**Report on the Financial Statements**

We have audited the accompanying financial statements of **ADANI POWER MAHARASHTRA LIMITED** ("the Company"), which comprise the Balance Sheet as at 31<sup>st</sup> March, 2013, the Statement of Profit and Loss and the Cash Flow Statement for the year then ended, and a summary of the significant accounting policies and other explanatory information.

**Management's Responsibility for the Financial Statements**

The Company's Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position, financial performance and cash flows of the Company in accordance with the Accounting Standards referred to in Section 211(3C) of the Companies Act, 1956 ("the Act") and in accordance with the accounting principles generally accepted in India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

**Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by the Management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



# C. C. Chokshi & Co.

C. C. Chokshi & Co.  
Chartered Accountants  
Firm Registration No. 101876W  
Membership No. 35701  
Gaurav J. Shah  
Partner  
Ahmedabad, Gujarat  
India

## Opinion

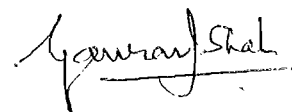
In our opinion and to the best of our information and according to the explanations given to us, the aforesaid financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

- (a) in the case of the Balance Sheet, of the state of affairs of the Company as at 31<sup>st</sup> March, 2013;
- (b) in the case of the Statement of Profit and Loss, of the loss of the Company for the year ended on that date; and
- (c) in the case of the Cash Flow Statement, of the cash flows of the Company for the year ended on that date.

## Report on Other Legal and Regulatory Requirements

1. As required by the Companies (Auditor's Report) Order, 2003 ("the Order") issued by the Central Government in terms of Section 227(4A) of the Act, we give in the Annexure a statement on the matters specified in paragraphs 4 and 5 of the Order.
2. As required by Section 227(3) of the Act, we report that:
  - (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.
  - (b) In our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books.
  - (c) The Balance Sheet, the Statement of Profit and Loss, and the Cash Flow Statement dealt with by this Report are in agreement with the books of account.
  - (d) In our opinion, the Balance Sheet, the Statement of Profit and Loss, and the Cash Flow Statement comply with the Accounting Standards referred to in Section 211(3C) of the Act.
  - (e) On the basis of the written representations received from the directors as on 31<sup>st</sup> March, 2013 taken on record by the Board of Directors, none of the directors is disqualified as on 31<sup>st</sup> March, 2013 from being appointed as a director in terms of Section 274(1)(g) of the Act.

**For C.C.CHOKSHI & Co**  
Chartered Accountants  
(Firm Registration No. 101876W)



(Gaurav J Shah)  
(Partner)  
(Membership No. 35701)

AHMEDABAD, 4<sup>th</sup> May, 2013

**ANNEXURE TO THE AUDITORS' REPORT**

(Referred to in paragraph I under 'Report on Other Legal and Regulatory Requirements' section of our report of even date)

- (i) Having regard to nature of the Company's business/activities/results, clauses (xiii) and (xiv) of CARO are not applicable.
- (ii) In respect of its fixed assets:
  - (a) The Company has maintained proper records showing full particulars, including quantitative details and situation of fixed assets.
  - (b) The Company has a program of verification of fixed assets to cover all the items in a phased manner over a period of 3 years which, in our opinion, is reasonable having regard to the size of the Company and the nature of its assets. Pursuant to the program, certain fixed assets were physically verified by the Management during the year. According to the information and explanations given to us, no material discrepancies were noticed on such verification.
  - (c) The fixed assets disposed of during the year, in our opinion, do not constitute a substantial part of the fixed assets of the Company and such disposal has, in our opinion, not affected the going concern status of the Company.
- (iii) In respect of its inventories:
  - (a) As explained to us, the inventories were physically verified during the year by the Management at reasonable intervals.
  - (b) In our opinion and according to the information and explanations given to us, the procedures of physical verification of inventories followed by the Management were reasonable and adequate in relation to the size of the Company and the nature of its business.
  - (c) In our opinion and according to the information and explanations given to us, the Company has maintained proper records of its inventories and no material discrepancies were noticed on physical verification.
- (iv) In respect of loans, secured or unsecured, granted by the Company to companies, firms or other parties covered in the Register maintained under Section 301 of the Companies Act 1956, according to the information and explanations given to us:
  - (a) The Company has granted unsecured loans of Rs. 18.51 Crores to a party during the year. At the year-end, the outstanding balances of such loan granted was Rs. Nil and the maximum amount involved during the year was Rs.744.52 Crores.
  - (b) The rate of interest and other terms and conditions of such loan are, in our opinion, *prima facie* not prejudicial to the interest of the Company.



# C. C. Chokshi & Co.

- (c) The receipts of principal amounts and interest have been regular/as per stipulations.
- (d) There are no overdue amounts and hence the provisions of sub –clause (d) of clause 4(iii) of the Order are not applicable to the Company.

In respect of loans, secured or unsecured, taken by the Company from companies, firms or other parties covered in the Register maintained under Section 301 of the Companies Act, 1956, according to the information and explanations given to us:

- (a) The Company has taken unsecured loans aggregating Rs. 1,250.51 Crores from two parties during the year. At the year-end, the outstanding balance of loans was Rs. 1,325.24 Crores and the maximum amount involved during the year was Rs. 3,053.81 Crores of two parties.
- (b) The rate of interest and other terms and conditions of such loans are, in our opinion, *prima facie* not prejudicial to the interest of the Company.
- (c) The payments of principal amounts and interest in respect of such loans are regular/ as per stipulations.
- (v) In our opinion and according to the information and explanations given to us, having regard to the explanations that some of the items purchased are of special nature and suitable alternative sources are not readily available for obtaining comparable quotations, there is an adequate internal control system commensurate with the size of the Company and the nature of its business with regard to purchases of inventory and fixed assets and the sale of goods and services. During the course of our audit, we have not observed any major weakness in such internal control system.
- (vi) According to the information and explanations given to us, there were no contracts or arrangements referred to in Section 301 of Companies Act, 1956 which were required to be entered in the register maintained under that section.
- (vii) According to the information and explanations given to us, the Company has not accepted any deposit from the public during the year. In respect of unclaimed deposits, the Company has complied with the provisions of Sections 58A, 58AA or any other relevant provisions of the Companies Act, 1956.
- (viii) In our opinion, the Company has an adequate internal audit system commensurate with the size and the nature of its business.
- (ix) We have broadly reviewed the cost records maintained by the Company pursuant to the Companies (Cost Accounting Records) Rules, 2011 prescribed by the Central Government under Section 209(1) (d) of the Companies Act, 1956 and are of the opinion that, *prima facie*, the prescribed cost records have been maintained. We have, however, not made a detailed examination of the cost records with a view to determine whether they are accurate or complete.





# C. C. Chokshi & Co.

- (x) According to the information and explanations given to us, in respect of statutory dues:
- (a) The Company has generally been regular in depositing undisputed statutory dues, including Provident Fund, Investor Education and Protection Fund, Employees' State Insurance, Income-tax, Sales Tax, Wealth Tax, Service Tax, Customs Duty, Excise Duty, Cess and other material statutory dues applicable to it with the appropriate authorities.
- (b) There were no undisputed amounts payable in respect of Provident Fund, Investor Education and Protection Fund, Employees' State Insurance, Income-tax, Sales Tax, Wealth Tax, Service Tax, Customs Duty, Excise Duty, Cess and other material statutory dues in arrears as at 31<sup>st</sup> March, 2013 for a period of more than six months from the date they became payable.
- (c) Details of dues of Income Tax and Customs Duty which have not been deposited as on 31<sup>st</sup> March, 2013 on account of disputes are given below:

Name of Statute	Nature of Dues	Forum where Dispute is Pending	Period to which the Amount Relates	Amount Involved (Rs.in Crores)
Income Tax Act, 1961	Income Tax	Commissioner of Income Tax (Appeal)	Assessment Year 2010-11	2.23
Foreign Trade Policy	Custom Duty	Office of Zonal Joint Director General of Foreign Trade	2010-11	5.77

- (xi) The accumulated losses of the Company at the end of the financial year are not more than fifty per cent of its net worth and the Company has incurred cash losses during the current financial year and in the immediately preceding financial year.
- (xii) In our opinion and according to the information and explanations given to us, the Company has not defaulted in the repayment of dues to financial institutions, banks and debenture holders.
- (xiii) According to information and explanations given to us, the Company has not granted loans and advances on the basis of security by way of pledge of shares, debentures and other securities.
- (xiv) According to the information and explanations given to us, the Company has not given any guarantee for the loans taken by others from banks or financial institutions.
- (xv) In our opinion and according to the information and explanations given to us, the term loans have been applied by the Company during the year for the purposes for which they were obtained, other than temporary deployment pending application.

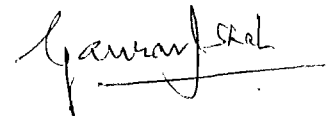


# C. C. Chokshi & Co.

Chartered Accountants  
Firm Registration No. 101876W  
Membership No. 35701

- (xvi) In our opinion and according to the information and explanations given to us, and on an overall examination of the Balance Sheet of the Company, we report that funds raised on short-term basis have, *prima facie*, not been used during the year for long-term investment.
- (xvii) According to the information and explanations given to us, the Company has not made preferential allotment of shares to parties and companies covered in the Register maintained under Section 301 of the Companies Act, 1956.
- (xviii) The Company has not issued any debentures during the year.
- (xix) The Company has not raised any money by way of public issue during the year.
- (xx) To the best of our knowledge and according to the information and explanations given to us, no fraud by the Company and no material fraud on the Company has been noticed or reported during the year.

**For C.C.CHOKSHI & Co**  
Chartered Accountants  
(Firm Registration No. 101876W)



(Gaurav J Shah)  
(Partner)  
(Membership No. 35701)

AHMEDABAD, 4<sup>th</sup> May, 2013

## Balance Sheet as at 31st March, 2013

(₹ in Crores)

	Notes	As at 31st March, 2013	As at 31st March, 2012
<b>EQUITY AND LIABILITIES</b>			
<b>Shareholders' Funds</b>			
Share Capital	3	2,854.73	2,181.96
Reserves and Surplus	4	993.81	(32.75)
		<b>3,848.54</b>	<b>2,149.21</b>
<b>Non-Current Liabilities</b>			
Long term borrowings	5	10,216.13	9,866.31
Deferred tax liabilities (Net)	6	18.36	-
Other long term liabilities	7	343.59	682.37
Long term provisions	8	1.79	0.87
		<b>10,579.87</b>	<b>10,549.55</b>
<b>Current Liabilities</b>			
Short term borrowings	9	-	161.90
Trade payables	10	224.78	2.30
Other current liabilities	11	2,431.05	1,761.76
Short term provisions	12	0.03	0.01
		<b>2,655.86</b>	<b>1,925.97</b>
<b>Total</b>		<b>17,084.27</b>	<b>14,624.73</b>
<b>ASSETS</b>			
<b>Non-Current Assets</b>			
<b>Fixed Assets</b>			
Tangible assets	13	4,605.80	110.26
Capital Work-In-Progress	14	10,999.94	12,273.02
		<b>15,605.74</b>	<b>12,383.28</b>
Long term loans and advances	15	580.62	1,063.61
Other non-current assets	16	117.44	210.86
		<b>16,303.80</b>	<b>13,657.75</b>
<b>Current Assets</b>			
Current Investments	17	-	9.00
Inventories	18	292.42	-
Trade receivables	19	83.90	-
Cash and cash equivalents	20	188.20	180.21
Short term loans and advances	21	96.37	775.27
Other current assets	22	119.58	2.50
		<b>780.47</b>	<b>966.98</b>
<b>Total</b>		<b>17,084.27</b>	<b>14,624.73</b>

See accompanying notes forming part of the financial statements



original of our report attached

For C.E. CHANDAN & CO.

*(Signature)*

CHANDAN, SHAM

Chartered Accountant

PLACE AHMEDABAD

DATE 4th May 2018

For and on behalf of board of directors

*(Signature)*

VHET B JAAIN

DIRECTOR

*(Signature)*

R. K. KADAN

Managing Director

*(Signature)*

RAJESH PATEL

MANAGING DIRECTOR

PLACE AHMEDABAD

DATE 4th May 2018

*(Signature)*

## Statement of Profit and Loss for the year ended 31st March, 2013

	Notes	For the year ended 31st March, 2013	For the year ended 31st March, 2012
1 Revenue from Operations	23	116.45	
2 Other Income	24	73.47	-
3 Total Revenue	(1 + 2)	189.92	-
4 Expenses			
Total Cost		186.51	
Employee benefits Expense	25	1.59	
Depreciation and Amortisation Expense		118.76	
Finance Costs	26	111.18	53.85
Provision for Other Provisions and Other Expenses	27	74.98	11.80
Total expenses		307.02	65.65
5 Loss Before Tax	(3 - 4)	(117.10)	(65.65)
6 Tax Expenses			
Current Tax Expense (For the year ended)		1.24	1.75
Provision for Tax	8	48.45	-
7 Loss for the year	(5 - 6)	(115.86)	(63.90)
8 Compensation for change in fair value of derivatives and other financial instruments		1.44	2.14
9 Dividends		1.37	2.17
10 Loss on completion of the financial year			

For and on behalf of the Board of Directors

(Signature)

In terms of the report attached

For and on behalf of the Board of Directors

(Signature)

(Signature)

(Signature)

Place: Ahmedabad

Date: 31st May 2013

Place: Ahmedabad

Date: 31st May 2013

For and on behalf of the Board of Directors

(Signature)

Place: Ahmedabad

Date: 31st May 2013

(Signature)

Place: Ahmedabad

Date: 31st May 2013

(Signature)

Place: Ahmedabad

Date: 31st May 2013

Place: Ahmedabad

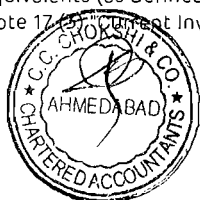
Date: 31st May 2013

(Signature)

## Cash Flow Statement for the Year ended 31st March, 2013

(₹ in Crores)

	For the year ended 31st March, 2013	For the year ended 31st March, 2012
<b>(A) CASH FLOW FROM OPERATING ACTIVITIES</b>		
Loss before tax as per Statement of Profit and Loss	(300.57)	(23.25)
Adjustment for:		
Interest Income	(17.55)	(41.52)
Depreciation and amortisation	124.76	
Profit on sale of fixed asset	(0.01)	
Net Unrealised exchange (gain) / Loss	0.08	
Finance Cost	315.04	63.82
Cash generated from operating activities before working capital changes	121.75	(0.95)
Changes in working capital:		
Adjustments for (increase) / decrease in operating assets:		
Inventories	(292.42)	-
Trade receivables	(83.90)	-
Short-term loans and advances	(65.62)	-
Long-term loans and advances	0.11	-
Other current assets	(102.69)	-
	(544.52)	-
Increase / (Decrease) in operating liabilities :		
Trade payables	222.40	0.39
Other current liabilities	0.02	-
Short-term provisions	0.02	-
Long-term provisions	0.92	-
	223.36	0.39
Cash generated from operations	(199.41)	(0.56)
Net income tax (paid) / refunds	-	(2.36)
<b>NET CASH USED IN OPERATING ACTIVITIES (A)</b>	<b>(199.41)</b>	<b>(2.92)</b>
<b>(B) CASH FLOW FROM INVESTING ACTIVITIES</b>		
Purchase of fixed assets and Capital Work-in-Progress	(2,754.02)	(4,959.07)
Proceeds from Sale of Fixed Asset	0.01	-
Interest Income Received	0.37	63.73
Loan given to Ultimate Holding Company - Adani Enterprise Limited	(18.51)	(744.52)
Repayment of loan by Ultimate Holding Company - Adani Enterprise Limited	763.03	-
Margin Money Deposits (Placed) / Matured (not considered as cash or cash equivalents)	28.53	(117.22)
<b>NET CASH USED IN INVESTING ACTIVITIES (B)</b>	<b>(1,980.59)</b>	<b>(5,757.08)</b>
<b>(C) CASH FLOW FROM FINANCING ACTIVITIES</b>		
Proceeds from issue of Equity Shares	2,018.30	
Long Term Borrowings Addition	3,263.50	6,937.96
Repayment of Long Term borrowings	(2,587.61)	(1,065.83)
Proceeds from Short-term borrowings	100.00	461.90
Repayment of Short Term borrowings	(261.90)	(300.00)
Finance Cost Paid	(418.19)	(307.62)
<b>NET CASH GENERATED FROM FINANCING ACTIVITIES (C)</b>	<b>2,114.10</b>	<b>5,726.41</b>
<b>NET INCREASE / (DECREASE) IN CASH AND CASH EQUIVALENTS (A)+(B)+(C)</b>	<b>(65.90)</b>	<b>(33.59)</b>
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR</b>	<b>125.72</b>	<b>159.31</b>
<b>CASH AND CASH EQUIVALENTS AT END OF THE YEAR</b>	<b>59.82</b>	<b>125.72</b>
<b>Notes to Cash flow Statement :</b>		
1 Reconciliation of Cash and cash equivalents with the Balance Sheet:		
Cash and cash equivalents as per Balance Sheet (Refer Note 20)	188.20	180.21
Less: Margin Money not considered as Cash and cash equivalents as defined in AS 3 Cash Flow Statements	128.38	63.49
	59.82	116.72
Add: Current investments considered as part of Cash and cash equivalents (as defined in AS 3 Cash Flow Statements) (Refer Note 17.25 "Current Investments")	-	9.00
	59.82	125.72



## 2. Cash and cash equivalents include:

Cash on hand		₹
Balance with banks		₹
in Current Accounts	54.02	1,500
in Deposits Accounts	5.00	116.14

Current investments considered as part of Cash and cash equivalents (Refer Note 17.13) (Current Investments)

	<u>59.02</u>	<u>1,616.14</u>
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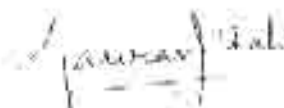
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3. Previous figures have been restated wherever necessary to conform to this year's classification.

4. The Cash Flow Statement has been prepared using the 'Indirect Method' set out in Accounting Standard 5 (Cash Flow Statement) issued by the Institute of Chartered Accountants of India.

in terms of our report attached

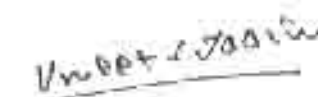
For C. C. CHOKSHI & CO.  
Chartered Accountants



GAURAV J. SHAH  
PARTNER

PLACE AHMEDABAD  
DATE 4th May, 2013

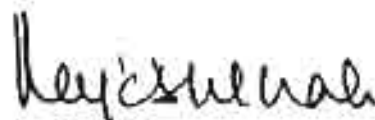
For and on behalf of board of directors



VNEET S. JAISH  
DIRECTOR



R K MADAN  
MANAGING DIRECTOR



RAJESH SHAH  
COMPANY SECRETARY

PLACE AHMEDABAD  
DATE 4th May, 2013



Notes forming part of the financial statements for the year ended 31st March 2013

**1. Corporate Information**

Adani Power Maharashtra Limited (hereinafter referred to as the company) is a public company incorporated in India and registered under the Companies Act, 1956. The company is currently implementing power projects with a total capacity of 1500 MW. The company has experienced a total installed capacity of 200 MW on 1st October, 2012 and rest of the units are under various stages. The Company has also initiated Adani Thermal Systems Private Limited in October, 2012. The company is a subsidiary of Adani Power Limited which is listed on the stock exchange of India and is a power project with a combined installed capacity of 18500 MW out of which 14000 MW is under construction. The company intends to set the power generation from these projects under a partnership of equity with other investors. The Company gets synergistic benefits of the integrated value chain of Adani group.

**2. Significant Accounting policies****3. Basis of Preparation of Financial Statements**

The financial statements of the company have been prepared in accordance with the generally accepted accounting principles in India (GAAP) consistent with the accounting standards notified under the Companies Accounting Standards Rules, 2008 as amended and the revised provisions of the Companies Act, 1956. The financial statements have been prepared on a historical cost basis and are prepared on a going concern basis. The accounting policies adopted in the preparation of the financial statements are consistent with the policies followed in the immediately preceding year.

**4. Use of Estimates**

The preparation of the financial statements in conformity with Indian GAAP requires the Management to make certain estimates and assumptions concerning the reported amounts of assets and liabilities, including contingent liabilities and the reported expenses during the year. The Management has used its estimates used in preparation of the financial statements and such estimates could result in a change in the carrying amounts and the disclosures thereof. If a change in the estimates or the assumptions is required in the period, it affects the results of the reporting period.

**5. Tangible Assets**

Tangible assets are stated at cost less accumulated depreciation and amortisation cost less any provision for impairment losses. The cost includes all directly attributable expenditure which will improve the efficiency of the asset. However, cost includes all indirect expenditure such as capital costs and overheads and incurred in the course of the assets.

**6. Project Development Expenditure**

Expenditure incurred in development of power projects is treated as capital expenditure. The expenditure incurred in the course of development of power projects is treated as project development expenditure. The expenditure is allocated to the respective power projects on a pro-rata basis in the ratio of the capacity of the project to the total capacity.

**7. Intangible assets**

Computer software, etc. is acquired and recognised as intangible assets, subject to the company's belief that the intangible asset can be reliably measured and its expected economic benefits expected to flow from the asset. The intangible asset is recognised at cost less any impairment losses.

**8. Depreciation**

Depreciation is provided on straight line basis of the asset during the period from the date of the commencement of the project. Depreciation is provided on straight line method without considering the residual value. The applicable provisions of the Companies Act, 1956 and provisions of the Companies Act, 2013 are followed.

Depreciation on assets is provided on straight line method during the year or provided on any other method if it is more beneficial to the company.

Depreciation on assets is provided on straight line method during the year or provided on any other method if it is more beneficial to the company.

Depreciation on assets is provided on straight line method during the year or provided on any other method if it is more beneficial to the company.

Depreciation on assets is provided on straight line method during the year or provided on any other method if it is more beneficial to the company.

**9. Leases**

Assets acquired on lease where a significant portion of risks and rewards of ownership have been transferred to the lessee are treated as finance leases.

**10. Investments**

Investments are made in equity shares of other companies for promotion of the company or for other purposes. The investments are made on a long-term basis and are classified as long-term investments.

**11. Revenue recognition**

Revenue is recognised on the basis of the amount of the liability to the customer.

Revenue is recognised on the basis of the amount of the liability to the customer.

Revenue is recognised on the basis of the amount of the liability to the customer.

Revenue is recognised on the basis of the amount of the liability to the customer.





**j. Inventories**

Inventories are valued at weighted average cost or net realizable value, whichever is lower.

**k. Borrowing costs**

Borrowing costs includes interest on borrowings and amortisation of ancillary costs incurred for borrowings. Such costs to the extent not directly related to the acquisition of qualifying assets are charged to the Statement of Profit and Loss over the tenure of the borrowings.

**l. Impairment of Assets**

An asset is treated as impaired when the carrying cost of assets exceeds its recoverable value. An impairment loss is charged to the Statement of Profit and Loss in the period in which an asset is identified as impaired. The impairment loss, if any, recognized in prior accounting periods is reversed if there has been a change in the estimate of recoverable amount.

**m. Foreign exchange transactions**

- i) Transactions denominated in foreign currencies are normally recorded at the exchange rates prevailing at the time of the transaction.
- ii) Monetary items denominated in foreign currencies at the balance sheet date are restated at the rates prevailing on that date. In case of monetary items which are covered by forward exchange contracts, the difference between the rate prevailing on the balance sheet date and rate on the date of the contract is recognized as exchange difference and the premium paid on forward contracts is recognized over the life of the contract.
- iii) Non monetary foreign currency items are carried at cost.
- iv) Any income or expense arising on restatement / settlement, other than that arising on long-term foreign currency monetary items, are recognised in the Statement of Profit and Loss for the period in which the difference takes place.
- v) The exchange differences arising on restatement / settlement of long-term foreign currency monetary items are regarded entirely as exchange differences and capitalized as part of the depreciable fixed assets to which the monetary item relates and depreciated over remaining useful life of such assets.

**n. Derivative transactions**

Pursuant to the announcement on accounting for derivatives issued by the Institute of Chartered Accountants of India, the Company, in accordance with the principle of prudence as enunciated in AS – 1, "Disclosure of Accounting Policies", provides for losses in respect of all outstanding derivative contracts at the Balance Sheet date by marking them to market. Any net unrealized gains arising on such mark to market are not recognized as income.

**o. Employee Benefits****i) Gratuity**

The Company accounts for the liability for the gratuity benefits payable in future based on an independent actuarial valuation carried out using Projected Unit Credit Method considering discounting rate relevant to Government Securities at the Balance Sheet Date.

**ii) Provident fund**

Retirement Benefits in the form of Provident Fund and Family Pension Fund, which are defined benefit contribution schemes, are charged to the Project Development Expenditure Account till the commencement of commercial production otherwise, the same is charged to the Statement of Profit and Loss for the period, in which the contributions to the respective funds accrue.

**iii) Leave Encashment**

Provision for Leave Encashment is determined and accrued on the basis of actuarial valuation.

**p. Taxes on Income**

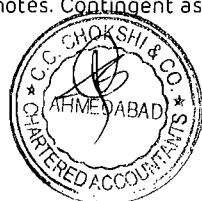
Provision for income tax is made on the basis of estimated taxable income for the year at current rates.

Current Tax represents the amount of Income Tax Payable in respect of the taxable income for the reporting period as determined in accordance with the provisions of the Income Tax Act, 1961.

Deferred tax is measured based on the tax rates and the tax laws enacted or substantively enacted at the Balance Sheet date. Deferred tax is recognised on timing differences, being the differences between the taxable income and the accounting income that originate in one period and are capable of reversal in one or more subsequent periods. Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off. Deferred tax assets and deferred tax liabilities relate to the taxes on income levied by the same governing taxation laws. Deferred tax assets are recognized only to the extent that there is reasonable certainty that sufficient future taxable income will be available against which such deferred tax assets can be realized. If the Company has carry forward unabsorbed depreciation or carry forward tax losses, deferred tax assets are recognized only if there is a virtual certainty supported by convincing evidences that they can be realized against future taxable profits. Unrecognized deferred tax assets of earlier years are re-assessed and recognized to the extent that it has become reasonably certain that future taxable income will be available against which such deferred tax assets can be realized.

**q. Provisions, contingent liabilities and contingent assets**

Provisions involving substantial degree of estimation in measurement are recognised when there is a present obligation as a result of past events and it is probable that there will be an outflow of resources. Contingent liabilities are not recognised but are disclosed in the notes. Contingent assets are neither recognized nor disclosed in the financial statements.



Notes forming part of the Financial Statements as at 31st March, 2013

**3 Share Capital**

	As at 31st March, 2013	As at 31st March, 2012
Authorised Share Capital 4,25,00,00,000 (As at 31st March, 2012 - 4,25,00,00,000) equity shares of ₹ 10/- each with voting rights	4,250.00	4,250.00
75,00,00,000 (As at 31st March, 2012 - 75,00,00,000) Cumulative Compulsorily Convertible Participatory Preference Shares of ₹ 10/- each	750.00	750.00
<b>Total</b>	<b>5,000.00</b>	<b>5,000.00</b>
Issued, Subscribed and fully paid-up equity shares 2,85,47,31,240 (As at 31st March, 2012 - 2,18,19,64,577 equity shares of ₹ 10/- each fully paid up with voting rights)	2,854.73	2,181.96
<b>Total</b>	<b>2,854.73</b>	<b>2,181.96</b>

Notes:

**a. Reconciliation of the number of shares and amount outstanding at the beginning and at the end of the reporting year**

Equity Shares (of ₹ 10 each)	As at 31st March 2013		As at 31st March 2012	
	No. Shares	(₹ in Crores)	No. Shares	(₹ in Crores)
At the beginning of the year	2,18,19,64,577	2,181.96	2,18,19,64,577	2,181.96
Issued during the year	67,27,66,663	672.77	-	-
Outstanding at the end of the year	<b>2,85,47,31,240</b>	<b>2,854.73</b>	<b>2,18,19,64,577</b>	<b>2,181.96</b>

**b. Terms/rights attached to equity shares with voting rights**

The company has only one class of equity shares having par value of ₹ 10 per share. Each holder of equity shares is entitled to vote per share.

**c. Shares held by holding company**

Out of equity shares issued by the company, shares held by its holding company are as below:

	As at 31st March, 2013 (₹ in Crores)	As at 31st March, 2012 (₹ in Crores)
Adani Power Limited, 2,85,47,31,240 (As at 31st March 2012 - 1,61,46,53,787) equity shares of ₹ 10/- each fully paid	2,854.73	1,614.65

**d. Details of shareholders holding more than 5% shares in the company**

Equity Shares of ₹ 10 each fully paid	As at 31st March, 2013		As at 31st March, 2012	
	No. Shares	% Holding	No. Shares	% Holding
Adani Power Limited	2,85,47,31,240	100.00%	1,61,46,53,787	74.00%
Growmore Trade & Investment Pvt. Ltd.	-	-	56,73,10,790	26.00%
	<b>2,85,47,31,240</b>		<b>2,18,19,64,577</b>	

**4 Reserves and Surplus**

	As at 31st March, 2013	As at 31st March, 2012
<b>a. Security Premium Account</b>		
Opening Balance	-	-
Add: Premium on shares issued during the year	1,345.53	-
Closing Balance	<b>1,345.53</b>	-
<b>b. Deficit in the Statement of Profit and Loss</b>		
Opening Balance	(32.75)	(4.96)
Add: Loss for the year	(318.97)	(27.79)
Closing Balance	<b>(351.72)</b>	<b>(32.75)</b>
<b>Total</b>	<b>993.81</b>	<b>(32.75)</b>



Notes forming part of the Financial Statements as at 31st March, 2013

(₹ in Crores)

**5 Long Term Borrowings**

	As at 31st March, 2013	As at 31st March, 2012
<b>Secured</b>		
Term Loans		
From Banks	869.29	196.67
From Financial Institutions	728.77	152.63
Bills discounted under letters of credit (to be converted into term loans)	7,292.83	7,511.01
	<b>8,890.89</b>	<b>7,860.31</b>
<b>Unsecured</b>		
From Holding Company	1,325.24	2,006.00
<b>Total</b>	<b>10,216.13</b>	<b>9,866.31</b>

**Notes****1. The above secured borrowings are secured by :****a) Security details for the loans outstanding as at 31st March 2013**

- Rupee Term Loans from Banks aggregating ₹ 439.83 Crores are to be secured by first mortgage and charge on all immovable and movable assets, both present and future of Tiroda - Warora Transmission Line Project, on *paripassu* basis.
- Rupee Term Loan from Banks aggregating ₹ 504.90 Crores and Financial Institutions aggregating to ₹ 813.53 Crores and Bills Discounted under Letters of Credit from banks, aggregating to ₹ 7,850.38 Crores are secured by first mortgage and charge on all immovable and movable assets, both present and future of Phase I, Phase II & Phase III on *paripassu* basis.
- All the above Secured Loans are further secured by pledge of 66,31,16,934 Equity Shares of the Company through execution of Pledge Agreement by Adani Power Limited as First charge for Secured Loans from Banks/Financial Institution aggregating ₹ 9,608.63 Crores
- For current maturities of long term borrowing refer Note 11 Other Current Liabilities.

**b) Security details for the loans outstanding as at 31st March 2012**

- Rupee Term Loans from Banks aggregating ₹ 200.00 Crores are to be secured by first mortgage and charge on all immovable and movable assets, both present and future of Tiroda - Warora Transmission Line Project, on *paripassu* basis.
- Term Loan from a Financial Institution of ₹ 165.00 Crores and Bills Discounted under Letters of Credit from banks, of ₹ 7,886.97 Crores are secured by first mortgage and charge on all immovable and movable assets, both present and future of Phase I, Phase II & Phase III on *paripassu* basis.
- The above Secured Loans are further secured by pledge of 52,34,16,934 Equity Shares of the Company through execution of Pledge Agreement by Adani Power Limited as First charge for Secured Loans from Banks/Financial Institution aggregating ₹ 8,051.97 Crores
- For current maturities of long term borrowing refer Note 11 Other Current Liabilities.

**2. Repayment schedule for the year are as under:****a) Repayment details for the loans outstanding as at 31st March 2013**

- The term loans from banks and financial institutions aggregating to ₹ 1,758.26 Crores are repayable in quarterly instalments started from July 2012.
- The bills discounted under letters of credit (to be converted into term loans) aggregating to ₹ 7,850.38 Crores are repayable in quarterly instalments started from July 2012.

**b) Repayment details for the loans outstanding as at 31st March 2012**

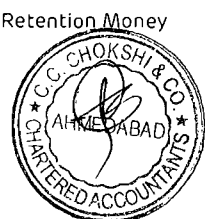
- The term loans from banks and financial institution aggregating to ₹ 365.00 Crores are repayable in quarterly instalments starting from July 2012.
- The bills discounted under letters of credit (to be converted into term loans) aggregating to ₹ 7,886.97 Crores are repayable in quarterly instalments starting from July 2012.

**6 Deferred tax liability**

	As at 31st March, 2013	As at 31st March, 2012
Timing difference between book and tax depreciation	18.36	-
<b>Total</b>	<b>18.36</b>	<b>-</b>

**7 Other Long Term Liabilities**

	As at 31st March, 2013	As at 31st March, 2012
Retention Money	343.59	682.37
<b>Total</b>	<b>343.59</b>	<b>682.37</b>



Notes forming part of the Financial Statements as at 31st March, 2013

(₹ in Crores)

**8 Long-term Provisions**

	As at 31st March, 2013	As at 31st March, 2012
Provision for employee benefits		
Provision for Gratuity (Refer Note 44)	1.03	0.44
Provision for Compensated Absences (Refer Note 44)	0.76	0.43
<b>Total</b>	<b>1.79</b>	<b>0.87</b>

**9 Short Term Borrowings**

	As at 31st March, 2013	As at 31st March, 2012
<b>(a) Secured Borrowings</b>		
Bill Discounted under Letter of Credit (Refer note below)	-	11.90
<b>(b) Unsecured borrowings</b>		
From Bank	-	150.00
<b>Total</b>	<b>-</b>	<b>161.90</b>

Note :

Bills Discounted under Letters of Credit from banks aggregating Nil (As at 31st March 2012, ₹ 11.90 Crores) are secured by Fixed Deposit Cash Margin.

**10 Trade Payables**

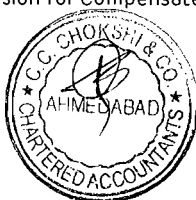
	As at 31st March, 2013	As at 31st March, 2012
Trade payables:		
Acceptances	-	-
Other than Acceptances	224.78	2.30
<b>Total</b>	<b>224.78</b>	<b>2.30</b>

**11 Other Current Liabilities**

	As at 31st March, 2013	As at 31st March, 2012
Current Maturity of long term borrowings (Secured) (Refer to note 5 for details of security and repayment terms)		
Term Loans		
From Banks	75.44	3.33
From Financial Institution	84.75	12.38
Bill Discounted under Letter of Credit	557.55	375.96
	<b>717.74</b>	<b>391.67</b>
Interest Accrued but not due on borrowings	38.83	49.43
Interest Accrued and due on borrowings	0.02	-
Statutory liabilities	9.92	11.83
Retention Money	1,137.97	455.66
Payable on purchase of fixed assets	525.88	837.21
Others current liabilities	0.69	15.96
<b>Total</b>	<b>2,431.05</b>	<b>1,761.76</b>

**12 Short Term Provisions**

	As at 31st March, 2013	As at 31st March, 2012
Provision for Employee Benefits		
Provision for Gratuity (Refer Note 44)	0.01	-
Provision for Compensated Absences (Refer Note 44)	0.02	0.01
<b>Total</b>	<b>0.03</b>	<b>0.01</b>



## 13 FIXED ASSETS

(₹ in Crores)

Particulars	Gross Block (at cost)					Depreciation and Amortisation					Net Block	
	As at 1st April 2012	Additions for the year	Deductions for the year	Other Adjustments		As at 31st March, 2013	As at 1st April 2012	For the year	Deductions for the year	As at 31st March, 2013	As at 31st March, 2013	As at 31st March, 2012
				Exchange Difference	Borrowing Cost							
<b>Tangible Assets</b>												
Land (Lease hold)	6.63	36.73	-	-	-	43.36	0.34	0.55	-	0.89	42.47	6.29
Land (Free hold)	32.30	4.09	-	-	-	36.39	-	-	-	-	36.39	32.30
Building	11.68	154.98	0.02	-	9.35	175.99	2.38	3.62	0.02	5.98	170.01	9.30
Plant & Equipment	59.32	3,675.95	*	455.46	287.31	4,478.04	6.49	126.06	*	132.55	4,345.49	52.83
Furniture and Fixtures	3.89	0.54	-	-	-	4.43	1.13	0.33	-	1.46	2.97	2.76
Computer	3.47	1.09	-	-	-	4.56	0.83	0.72	-	1.55	3.01	2.64
Office Equipments	2.94	0.93	-	-	-	3.87	0.48	0.25	-	0.73	3.14	2.46
Electrical Equipment	0.35	0.14	-	-	-	0.49	0.08	0.03	-	0.11	0.38	0.27
Vehicles	1.64	0.73	-	-	-	2.37	0.23	0.20	-	0.43	1.94	1.41
<b>Total Tangible Fixed Assets</b>	<b>122.22</b>	<b>3,875.18</b>	<b>0.02</b>	<b>455.46</b>	<b>296.66</b>	<b>4,749.50</b>	<b>11.96</b>	<b>131.76</b>	<b>0.02</b>	<b>143.70</b>	<b>4,605.80</b>	<b>110.26</b>
Previous Year	62.71	59.51	-	-	-	122.22	2.92	9.04	-	11.96	110.26	

## Notes:

- (a) Depreciation of ₹ 7.00 Crores (Previous Year ₹ 9.05 Crores) relating to the Project Assets has been transferred to Project Development Expenditure (Note - 14.2)
- (b) Depreciation of ₹ 10.22 Crores (Previous Year Nil) has been transferred from Project Development Expenditure (Refer note 14.2) to additions during the year as the same are pertaining to the projects capitalised during the year.
- (c) Additions during the year include ₹ 396.28 Crores (Previous Year - Nil) capitalised / allocated from Project Development Expenditure Account on commissioning of the projects.
- (d) Addition to Plant & Equipment include capitalisation of 400 KV Tiroda - Warora Transmission Line of Rs 684.60 Crores. (Previous year - Nil)



Notes forming part of the Financial Statements as at 31st March, 2013

(₹ in Crores)

**14 Capital work in progress****14.1 Capital work in progress**

	As at 31st March, 2013	As at 31st March, 2012
Land and Site Development	1.99	10.50
Building and Civil Works	483.62	401.32
Plant & Equipment - (Including Goods in Transit ₹ 5.39 Crores) (As at 31st March 2012 - ₹ 269.29 Crores)	9,276.89	10,380.92
Electrical Installation	512.45	387.95
Transmission Line	-	418.33
<b>Total (A)</b>	<b>10,274.95</b>	<b>11,599.02</b>

**14.2 Project development expenditure****(a) Expenses**

Salary and Allowances	39.17	41.16
Contribution to Provident and other Funds	2.52	2.37
Employee Welfare Expenses	8.25	9.23
Lease Rent	1.28	1.69
Project Insurance	32.86	27.82
Professional Fees	33.71	26.00
Administration and Office Expenses	51.99	54.38
Stationery and Courier Expenses	0.46	0.73
Vehicle Running Expenses	6.88	8.73
Travelling Expenses	1.95	3.57
Miscellaneous Expenses	4.19	5.53
Depreciation	8.75	11.97
Interest and Finance charges	587.30	534.77
	<b>779.31</b>	<b>727.97</b>

**(b) Other Income**

Interest	42.44	44.50
Miscellaneous Income	11.88	9.47
	<b>54.32</b>	<b>53.97</b>

<b>Total (B)</b>	<b>724.99</b>	<b>674.00</b>
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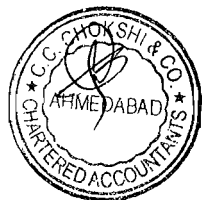
<b>Total (A + B)</b>	<b>10,999.94</b>	<b>12,273.02</b>
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**15 Long-term loans and advances  
(Unsecured, Considered Good)**

	As at 31st March, 2013	As at 31st March, 2012
Capital Advances	516.51	1,024.95
Security Deposit	0.17	0.62
Advance to employee	1.27	0.93
Advance Tax (net of provision ₹ 4.73 Crores) (As at 31st March 2012 ₹ 4.69 Crores)	6.69	6.01
Balance with government authorities - VAT Credit Receivable	55.98	31.10
<b>Total</b>	<b>580.62</b>	<b>1,063.61</b>

**16 Other Non Current Assets  
(Unsecured, Considered Good)**

	As at 31st March, 2013	As at 31st March, 2012
Margin Money Fixed Deposits with Banks (Original maturity more than 12 months)	117.44	210.86
<b>Total</b>	<b>117.44</b>	<b>210.86</b>



Notes forming part of the Financial Statements as at 31st March, 2013

(₹ in Crores)

**17 Current Investments**

	As at 31st March, 2013	As at 31st March, 2012
<b>Non Trade, Unquoted</b>		
Units of Mutual Funds (At lower of cost and fair value)	-	9.00
<b>Total</b>	<b>-</b>	<b>9.00</b>

Note:

1. Details of Mutual Funds

	As at 31st March, 2013		As at 31st March, 2012	
	No of Units	(₹ in Crores)	No of Units	(₹ in Crores)
ICICI Prudential Liquid Super Institutional Plan - Growth	-	-	3,15,416	5.00
Baroda Pioneer Liquid Fund - Institutional Growth Plan	-	-	32,565	4.00
2. Aggregate repurchase value of unquoted investment	-	-	-	9.00

3. Current investments includes investments in the nature of "Cash and cash equivalents" (as defined in AS 3 Cash Flow Statements) amounting to Nil (As at 31 March, 2012 ₹ 9.00 Crores), considered as part of Cash and cash equivalents in the Cash Flow Statement.

**18 Inventories**

	As at 31st March, 2013	As at 31st March, 2012
(At lower of Cost and Net Realisable Value)		
<b>Raw material and components</b>		
Coal, Oil, stores and spares	292.42	-
<b>Total</b>	<b>292.42</b>	<b>-</b>

**19 Trade receivables**

	As at 31st March, 2013	As at 31st March, 2012
Outstanding for a period exceeding six months from the date due for payment (Unsecured, considered good)	-	-
Other receivables (Unsecured, considered good)	83.90	-
<b>Total</b>	<b>83.90</b>	<b>-</b>

**20 Cash and cash equivalents**

	As at 31st March, 2013	As at 31st March, 2012
Balances with banks :		
In current accounts	54.02	0.58
Cash on Hand (* ₹ 9,929)	-	-
	<b>54.02</b>	<b>0.58</b>
Other bank balances		
Margin money deposits	128.38	63.49
Other Deposits (with original maturity for less than 3 months)	5.80	116.14
	<b>134.18</b>	<b>179.63</b>
<b>Total</b>	<b>188.20</b>	<b>180.21</b>



Notes forming part of the Financial Statements as at 31st March, 2013

(₹ in Crores)

**21 Short-term loans and advances**  
(Unsecured, Considered Good)

	As at 31st March, 2013	As at 31st March, 2012
Security deposits	4.53	4.84
Advance recoverable in cash or kind or for value to be received	82.80	14.66
Loans and Advances to related party	-	744.52
Loans and Advances to Employees	0.44	1.19
Prepaid expenses	1.70	2.81
Prepaid insurance	6.90	7.25
<b>Total</b>	<b>96.37</b>	<b>775.27</b>

**22 Other current assets**

	As at 31st March, 2013	As at 31st March, 2012
Unbilled Revenue (Unsecured, to the extent considered good)	102.69	-
Interest Accrued on Deposits	16.89	2.50
<b>Total</b>	<b>119.58</b>	<b>2.50</b>

**23 Revenue from Operations**

	For the year ended 31st March, 2013	For the year ended 31st March 2012
Power Supply	256.42	-
Transmission Service Charges	82.04	-
<b>Total</b>	<b>338.46</b>	<b>-</b>

**24 Other income**

	For the year ended 31st March, 2013	For the year ended 31st March 2012
Interest Income	17.55	41.52
Sale of Scrap	4.15	-
Profit on sale of Fixed Asset	0.01	-
Gain on sale of mutual fund	1.71	0.23
<b>Total</b>	<b>23.42</b>	<b>41.75</b>

**25 Employee benefit expenses**

	For the year ended 31st March, 2013	For the year ended 31st March 2012
Salaries, wages and allowances	4.24	-
Gratuity Expense	0.03	-
Contribution to provident and other funds	0.16	-
Employee welfare expenses	0.15	-
<b>Total</b>	<b>4.58</b>	<b>-</b>

**26 Finance costs**

	For the year ended 31st March, 2013	For the year ended 31st March 2012
<b>(a) Interest Expenses on :</b>		
Interest on Letters of Credit	21.83	-
Interest on Loans	274.64	63.56
	<b>296.47</b>	<b>63.56</b>
<b>(b) Other borrowing costs :</b>		
Interest on Late Payment of Advance Tax	-	0.26
Other Finance Costs	18.57	-
	<b>18.57</b>	<b>0.26</b>
<b>Total</b>	<b>315.04</b>	<b>63.82</b>





Notes forming part of the Financial Statements as at 31st March, 2013

(₹ in Crores)

**27 Transmission, Administration and Other Expenses**

	For the year ended 31st March, 2013	For the year ended 31st March 2012
Stores and spares	5.97	-
Payment to auditors	0.12	0.06
Repairs & Maintenance - P & M	3.14	-
Repairs & Maintenance - Building	0.11	-
Repairs & Maintenance - Others	2.75	-
Net loss on foreign currency transactions and translation (other than considered as finance costs)	1.21	-
Rent Expense	0.12	-
Power & Fuel Consumed	0.14	-
Rates & Taxes	0.48	-
Insurance Expense	1.27	-
Miscellaneous Expense	5.80	0.06
Legal & Professional Fees	5.31	-
Stationery & Courier Expenses	0.06	-
Communication Expense	0.12	-
Travelling Expense	2.02	-
Transmission Expense	0.04	-
Donation	0.11	1.06
<b>Total</b>	<b>28.77</b>	<b>1.18</b>

**28 Long-term commitments not provided for**

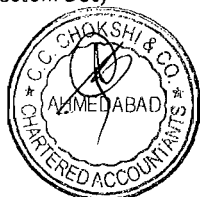
	As at 31st March, 2013	As at 31st March, 2012
Capital Commitment	1,704.58	2,913.14
<b>Total</b>	<b>1,704.58</b>	<b>2,913.14</b>

**29** The Company entered into an agreement (PPA) dated 8th September 2008 with Maharashtra State Electricity Distribution Company Limited (MSEDCL) for supply of Power on long term basis subject to certain conditions to be complied within stipulated time. Amongst others, one of the conditions subsequent was pertaining to tie up of fuel supply. The company has claimed for termination of PPA and return of performance guarantee, as Lohara Coal Block was cancelled by Ministry of Environment and Forest (MOEF). Such events which are beyond the control of either party are recognized as Force Majeure event under the PPA. However, MSEDCL has contested the termination and did not returned the performance guarantee. Due to the same the Company was compelled to file a Petition before Maharashtra State Electricity Board (MERC) to resolve the matter. MERC sought various details from time to time which has been duly supplied by the Company. The company has moved interim application which will be heard after submission of concerned parties. Pending the decisions of the said case, and the matter being sub-judice, no effect has been given in these financial statements.

**30** The company had been granted a License to develop 400 KV Transmission line from Tiroda to Warora in July 2009 by Maharashtra Electricity Regulatory Commission (MERC). The commission had issued the order for approval of Multi Year Tariff (MYT) Business Plan for the second control period 2012-13 to 2015-16. The company had submitted a petition for approval of Aggregate Revenue Requirement (ARR) as per Multi Year Tariff (MYT) principles. The honourable commission has, subject to fulfilment of certain conditions, approved the ARR and approved a net aggregate revenue requirement for Rs 82.04 Crores for the year 2012-13. The company has recognized the revenue based on the said order.

**31 Contingent liabilities not provided for in respect of**

	As at 31st March, 2013	As at 31st March, 2012
Guarantees issued by the Company's bankers on behalf of the Company	920.40	659.87
Letter of Credit facilities provided by banks to the extent not utilised	119.97	111.05
Bond submitted to Commissioner of Customs Nhava Sheva on behalf of Government of India	8,338.48	8,242.70
Claims against the Company not acknowledged as debts in respect of:		
1. Income Tax	2.26	0.03
2. Custom Duty	5.77	5.77
<b>Total</b>	<b>9,386.88</b>	<b>8,999.42</b>



## Notes forming part of the Financial Statements as at 31st March, 2013

32 The Company has taken various derivatives to hedge its import creditors. The outstanding position of derivative instruments is as under:

Nature	Purpose	As at 31st March, 2013	As at 31st March, 2013	As at 31st March, 2012
		(\$ in Millions)	(₹ in Crores)	(₹ in Crores)
Forward cover	Hedging of Import Creditors	225.69	1,225.16	-

The details of foreign currency exposures not hedged by derivative instruments are as under:

	As at 31st March, 2013	As at 31st March, 2012
1. Import Creditors - Payable on purchase of fixed assets	1,842.40	1,747.73
2. Loans under letters of credit	6,686.23	7,898.87
3. Trade Payable	63.10	-
4. Usance Interest	30.39	49.43

### 33 Operating lease

The Company has entered into operating lease arrangements for Employees' Accommodations, office premises and for certain facilities. The leases are cancellable by either side by giving prior notice and are for a period of 11 months to 9 years and may be renewed for a further period based on mutual agreement of the parties. The lease agreements provide for an increase in the lease payments by 0% to 5% every year.

	As at 31st March, 2013	As at 31st March, 2012
<b>Future minimum lease payments under operating leases:</b>		
Not later than one year	1.35	1.17
Later than one year and not later than five years	0.97	1.08
Later than five years	0.07	0.20
<b>Total</b>	<b>2.39</b>	<b>2.45</b>

Lease payments recognised in the Statement of Profit and Loss are ₹ 0.12 Crores (As at 31 March, 2012 ₹ Nil).

### 34 Payment to auditors

	For the year ended 31st March, 2013	For the year ended 31st March, 2012
<b>As auditor:</b>		
Audit fees	0.12	0.06
<b>In other capacity</b>		
Other services (Certification work) (Included in Project Development Expenditure)	0.02	0.01
<b>Total</b>	<b>0.14</b>	<b>0.07</b>

35 The Company has sent request letters for balance confirmations to the trade receivables, trade payables and loans and advances parties. These balances as stated in the balance sheet, are subject to adjustments of differences, if any, on receipt of such confirmations from the parties.

36 In the opinion of the management and to the best of their knowledge and belief, the value under the head of current assets are approximately of the value stated, if realized in ordinary course of business, unless stated otherwise. The provision for all the known liabilities is adequate and not in excess of amount considered reasonably necessary.

37 There are no Micro, Small and Medium Enterprises, to whom the company owes dues, which are outstanding as at the Balance Sheet date. The above information has been determined to the extent such parties have been identified on the basis of information available with the Company. This has been relied upon by the auditors.



Notes forming part of the financial statements for the year ended 31st March, 2013

**38 Related party transactions****a. List of related parties and relationship**

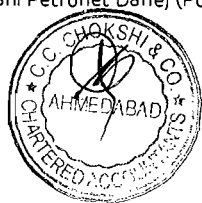
<b>Other related parties</b>	
Ultimate Holding Company	Adani Enterprise Limited
Holding Company	Adani Power Limited
Fellow subsidiaries	Adani Pench Power Limited Adani Power Rajasthan Limited Adani Infra (India) Limited Adani Gas Limited Adani Global PTE Limited Adani Petronet Dahej (Port) P. Ltd
Key management personnel	Mr. Vneet S. Jaain, Director ( w.e.f 15th June 2012) Mr. Devang Desai, Director Mr. R. K. Madan, Managing Director Mr. Ravi Sharma, Director (up to 30th June 2012)

**b. Transaction with related parties**

Related Party	Relation	Nature of Transaction	For the Year Ended	
			31st March 2013	31st March 2012
				(₹ in Crores)
Adani Power Limited	Holding Company	Asset Sales	0.01	-
		Purchase of Fixed Assets	0.01	0.06
		Employee Loan Transfer	0.04	0.10
		Loan Taken	-	1,831.18
		Repayment of Loan	890.10	-
		Interest on loan taken	210.39	63.56
		Reimbursement of Expenses	*	2.38
		Sale of Scrap	-	0.02
Adani Enterprises Ltd.	Ultimate Holding Company	Purchase of Assets	0.64	-
		Sale of Energy	109.95	-
		Employee Loan Transfer	-	0.01
		Loan Given	-	707.70
		Loan Realised	744.52	-
		Purchase of Coal	74.11	-
		Reimbursement of Exp	0.22	-
		Open Access Charges	0.02	-
		Interest Income	16.26	40.91
		Interest on Loan taken	0.02	-
		Services Received	-	1.11
Adani Infra India Ltd	Fellow Subsidiary	Relocation Advance	0.01	-
		Project consultancy Services	40.00	39.25
Adani Gas Limited	Fellow Subsidiary	Service Received	0.02	*
		Purchase of Material	0.87	-
Adani Global PTE Ltd	Fellow Subsidiary	Coal Purchase	185.93	37.62
Adani Pench Power Limited	Fellow Subsidiary	Employee Loan Transfer	0.03	0.01
		Purchase of Assets	0.19	-
Adani Power Rajasthan Ltd	Fellow Subsidiary	Purchase of Assets	3.66	-
Adani Petronet Dahej (Port) P. Ltd	Fellow Subsidiary	Service Received	23.93	-

**c. Balances with related parties**

Related Party	Relation	As at	
		31st March 2013	31st March 2012
			(₹ in Crores)
Adani Global Pte Ltd	Fellow Subsidiary	124.11 Cr	27.08 Cr
Adani Power Limited	Holding Company	1,325.23 Cr	2,006.09 Cr
Adani Enterprises Ltd.	Ultimate Holding Company	9.42 Dr	744.52 Dr
Adani Gas Ltd.	Fellow Subsidiary	0.02 Cr	0.01 Cr
Adani Infra India Ltd.	Fellow Subsidiary	-	0.01 Cr
Adani Power Rajasthan Ltd	Fellow Subsidiary	3.66 Cr	-
Adani Pench Power Ltd	Fellow Subsidiary	-	0.01 Cr
Adani Petronet Dahej (Port) P. Ltd	Fellow Subsidiary	14.81 Cr	-



## Notes forming part of the Financial Statements as at 31st March, 2013

39 Pursuant to the Accounting Standard (AS- 20) – Earnings per Share, the disclosure is as under:

		For the year ended 31st March, 2013	For the year ended 31st March 2012
<b>Basic and Diluted EPS</b>			
Loss attributable to equity shareholders	(₹ in Crores)	318.97	27.79
Weighted average number of equity shares outstanding during the year	No	2,18,93,37,362	2,18,19,64,577
Nominal Value of equity share	₹	10	10
Basic and Diluted EPS	₹	(1.46)	(0.13)

40 The Company's activities during the year revolve around setting up of its power project. Considering the nature of Company's business and operations, there is no reportable segments (business and/or geographical) in accordance with the requirements of Accounting Standard 17 – 'Segment Reporting', prescribed under Company (Accounting Standards) Rules, 2006.

41 Total number of electricity units sold during the year 633 MUs (Previous Year – Nil)

#### 42 Foreign Currency Transactions

		For the year ended 31st March, 2013	For the year ended 31st March 2012
<b>(a) C.I.F. Value of imports</b>			
Raw Material		185.93	-
Capital goods		601.36	2,484.08
Components & Spare Parts		19.23	-
<b>(b) Expenditure in foreign currency</b>			
Professional and Consultation charges		0.13	-
Usance Interest		21.83	-
Finance Charges - Import Bill Collection		1.46	-
Manpower Charges		0.99	-

43 Value of Fuel, Stores and Spares Parts Consumed:

	For the year ended 31st March 2013		For the year ended 31st March 2012	
	(₹ In Crores)	%	(₹ In Crores)	%
(i) Imported	176.70	90.49%	-	-
(ii) Indigenous	18.57	9.51%	-	-
	<b>195.27</b>	<b>100.00%</b>	-	-

44 As per Accounting Standard 15 "Employee Benefits", the disclosure as defined in the accounting standard are given below.

##### (a) Defined Benefit Plan

The Company operates a defined benefit plan (the Gratuity plan) covering eligible employees, which provides a lump sum payment to vested employees at retirement, death, incapacitation or termination of employment, of an amount based on the respective employee's salary and the tenure of employment.

The status of gratuity plan as required under AS-15 (revised):

Particulars	As at 31st March, 2013	As at 31st March, 2012
	(₹ in Crores)	(₹ in Crores)
<b>i. Reconciliation of Opening and Closing Balances of defined benefit obligation</b>		
Liability at the beginning of the Year	0.45	0.14
Current Service Cost	0.28	0.20
Interest Cost	0.04	0.01
Past vested benefit	-	-
Liability Transferred in	0.11	0.01
Liability Transferred out	(0.06)	(0.04)
Benefit paid	(0.04)	*
Net Actuarial losses (gain) Recognised	0.25	0.12
Liability at the end of the Year	1.04	0.45



## Notes forming part of the Financial Statements as at 31st March, 2013

	As at 31st March, 2013 (₹ in Crores)	(₹ in Crores) As at 31st March, 2012 (₹ in Crores)
<b>ii. Reconciliation of Opening and Closing Balances of the Fair value of Plan assets</b>		
Plan assets at the beginning of the Year, at Fair value	-	-
Expected return on plan assets	-	-
Contributions	-	-
Benefit paid	-	-
Actuarial gain/(loss) on plan assets	-	-
Transfer to other company	-	-
Plan assets at the end of the Year, at Fair Value	-	-
<b>iii. Reconciliation of the Present value of defined benefit obligation and Fair value of plan assets</b>		
Obligations at the end of the Year	1.04	0.45
Plan assets at the end of the Year, at Fair value	-	-
Asset / (Liability) recognized in balance sheet as on 31st March 2013	(1.04)	(0.45)
<b>iv. Gratuity Cost for the Year</b>		
Current service cost	0.28	0.20
Interest cost	0.04	0.01
Expected return on plan assets	-	-
Actuarial Gain or (Loss)	0.25	0.12
Past service cost-vested benefit recognised during the year	-	-
Net Gratuity cost	0.57	0.33
<b>v. Actuarial Assumptions</b>		
Discount Rate (per annum)	8.50%	8.50%
Expected rate of return on plan assets	-	-
Salary Escalation	6.00%	6.00%
Attrition	2.00%	2.00%
Mortality Tables	Indian Assured Lives Mortality (2068) Ultimate	LIC (1994-96) Ultimate
<b>v. Experience Adjustment</b>		
On Plan Liability (Gain) / Losses	0.19	0.13
On Plan Asset (Gain) / Losses	-	-

Past four years data for defined benefit obligation and fair value of plan:

	2008-09	2009-10	2010-11	2011-12
Present value of defined benefit obligations at the end of the year	0.09	0.16	0.14	0.45
Fair value of plan assets at the end of the year	-	-	-	-
Net assets / (liability) at the end of year	(0.09)	(0.16)	(0.14)	(0.45)

The actuarial Liability for leave encashment and compensated absences as at the year ended 31st March 2013 is - ₹ 0.78 (As at 31st March 2012- ₹ 0.45)

(i) The discount rate is based on the prevailing market yields of Indian Government securities as at the Balance Sheet date.

(ii) The estimates of rate of escalation in salary considered in actuarial valuation, take into account inflation, seniority, promotion and other relevant factors including supply and demand in the employment market.

**(b) Defined Contribution Plan**

Contribution to Defined Contribution plans, recognised in statement of profit and loss and Project Development Expenditure, for the year is as under :

	For the year ended 31st March, 2013	For the year ended 31st March 2012
Employer's Contribution to Provident Fund	1.56	0.87
Employer's Contribution to Superannuation Fund	0.49	0.36





CompanyCode 5000 AssetClass COMN1700

Asset	SNo.	CoCd	Cap.date	ODep.Start	WBS element	Asset description	Trans.acq.val
5008000076	0	5000	26.08.2012	26.08.2012	H-1000-02	Transmission Line (400 KV-Tiroda Warora)-H-1000-02	5141,205,879.68
5008000076	1	5000	26.08.2012	26.08.2012	H-1000-02	Bay at Tiroda (Transm Line-400 KV)-H-1000-02	120,425,181.55
5008000076	2	5000	26.08.2012	26.08.2012	H-1000-02	Bay at Warora (Transm Line-400 KV)-H-1000-02	186,600,000.00
5008000077	0	5000	26.08.2012	26.08.2012	H-1000-02	Transmission Line-Consultancy & Others-H-1000-04	449,409,084.00
5008000078	0	5000	26.08.2012	26.08.2012	H-1000-02	EDC-Transmission Line	64,766,812.85
5008000079	0	5000	26.08.2012	26.08.2012	00000000	IDC-Transmission Line	883,600,000.00
* Asset Class COMN1700 PLANT & MACHINERY							6846,006,958.08
**		5000					6846,006,958.08

# adani

Ref.: APML/MSETCL/01012014/091

1<sup>st</sup> January, 2014

To,

**CE (Trans. O&M)**

Maharashtra State Electricity Transmission Company Limited,

"Prakashganga" Bandra-Kurla Complex,

Bandra (East)

Mumbai - 400051.

**Subject:** Execution of MOU /Agreement with other Transmission licensees /Utility for maintenance of their bays at MSETCL's premises - **Modifications according to MYT regulation thereof.**

**Ref.:** Your letter No. MSETCL/CO/CE TR. (O&M)/SEI/EE-VIII/13025 dated 04.10.2013

Dear Sir,

Greetings from Adani.

This has reference to your letter regarding draft agreement for Operation and Maintenance of APML bays at Warora.

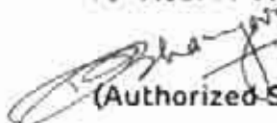
In this regards, please find below our initial observations on agreement:

- 1) The scope of the work is not exclusive. Some part is left to TSU or there is provision of booking of cost for some activities like special testing and calling of service engineer.
- 2) The compensation for O&M charges are defined as per regulation. However, we would like to inform that in various cases, agreement between MSETCL and PG or any other state utilities, the compensation for O&M charges are 1% of the bay cost.

Hence, we request you to kindly once again review the draft MOU / Agreement based on the Sr. No. 2; hence it can be finalized without any further delay.

Yours sincerely,

for Adani Power Maharashtra Limited,



(Authorized Signatory)

Cc: The Executive Director (Operations), MSETCL

Adani Power Maharashtra Ltd  
Samratkav House  
Judges Bungalow Road, Bodakdev,  
Ahmedabad-380 015  
Gujarat, India

Tel: +91 79 2555 6000  
Fax: +91 79 2555 7155  
info@adani.com  
www.adani.com





**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.**

**Office of The Chief Engineer**

Maharashtra State Load Dispatch Center, Thane-Belapur Road, P.O. Airoli,  
Navi Mumbai Pin - 400 708.

Tele :91-22-27601765 / 1766

Fax :91-22-27601769

Email : ceslde@mahaslde.in

website : <http://www.mahaslde.in>

Ref: No. CELDK /Tech-SO/TA/8

**No 0 1 4 7 5**

Date

**8 JUL 2013**

To,

Associate General Manager  
Adani Power Maharashtra Limited  
Achalraj, Opp. Mayor's Bungalow  
Ahmedabad -380006

(Fax no.079-25558758)

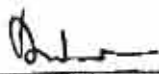
**Sub: Transmission system availability from August 2012 To Mar.2013**

Ref: - 1) MERC (Multi year tariff) Regulations -2011 dated 04/02/201

Please find enclosed herewith, the certificate of Transmission system availability of  
400 kV APML Transmission network from August 2012 to March 2013.

The Certification is carried out as per the directives of MERC and data submitted by  
APML.

Encl: - as above

  
Chief Engineer  
MSLDC, Kalwa.

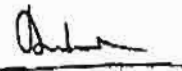
## Annexure III

**CERTIFICATE OF TRANSMISSION SYSTEM AVAILABILITY**Transmission Company : **Adani Power Maharashtra Limited .**

Availability for the Month/ Period:-

**August 12 -March 13**

Monthly Transmission System Availability	Availability (%)
Aug-12	100.00
Sep-12	100.00
Oct-12	100.00
Nov-12	100.00
Dec-12	100.00
Jan-13	100.00
Feb-13	100.00
Mar-13	100.00
<b>Cumulative (%) Availability for Aug.12- March13</b>	<b>100.00</b>

**Transmission Availability of APML for August 2012 to March 2013 is 100%****Chief Engineer  
MSLDC, Kalwa**

## ADANI POWER MAHARASHTRA LIMITED

9th Floor "Shikhar", Near Mithakhali Six Roads, Ahmedabad 380  
009

### Projected Profit and Loss account for APML - T for FY 2013- 14

Particulars	Notes	FY 13-14 Amount Rs.
<b>Revenue from Operations</b>		
Tranmission Line		149.96
<b>Total Revenue</b>		<b>149.96</b>
Expenses		
Fuel Cost		
Employee Benefits Expense	21	4.64
Depreciation and Amortisation Expense		37.37
Finance costs	22	55.46
Transm, Administration & Other Expenses	23	5.88
<b>Total expenses</b>		<b>103.36</b>
Profit / (Loss) Before Tax		<b>46.60</b>
Tax Expenses		
Current Tax Expense for the Prior Year		
Deferred Tax		
Profit/ (Loss) for the year		<b>46.60</b>

## 21 Employee benefit expenses

	<b>For the year ended 31st March, 2014</b>
Salaries, wages and allowances	4.46
Contribution to provident and other funds	0.19
	<b>4.64</b>

## 22 Finance costs

	<b>For the year ended 31st March, 2014</b>
<b>Interest Expenses on :</b>	
Interest on Loans	55.46
<b>Total</b>	<b>55.46</b>

## 23 Administration and Other Expenses

	<b>For the year ended 31st March, 2014</b>
Rent Rates & Taxes	0.17
Telephone & Postage, etc.	0.04
Professional, Consultancy, Regulatory, Technical & Audit fee etc.	0.39
Conveyance & Travel Expenses	0.21
Office Expenses	0.33
Patrolling and Maintenance Charges	2.10
Vehicle Charges	0.56
Maintenance Contract at Warora Bays*	2.08
<b>Total</b>	<b>5.88</b>



**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.**

<p><b>Office of The Chief Engineer</b>  <b>Maharashtra State Load Dispatch Center, Thane-Belapur Road, P.O. Airoli,</b>  <b>Navi Mumbai Pin - 400 708.</b>  <b>Tele :91-22-27601765 / 1766</b>  <b>Fax :91-22-27601769</b>  <b>Email : cesldc@mahasldc.in</b>  <b>website : http://www.mahasldc.in</b></p>
--

Ref: No. CELDK/Tech-SO/TA/8

**No 0 2 2 5 6**

Date: **1 NOV 2013**

To,

Associate General Manager  
Adani Power Maharashtra Limited  
Achalraj, Opp. Mayor's Bungalow.  
Ahmedabad -380006

(Fax no.079-25558758)

**Sub: Transmission system availability for April 2013.**

Ref: - 1) MERC (Multi year tariff) Regulations -2011 dated 04/02/2011

Please find enclosed herewith, the certificate of Transmission system availability of 400 kV APML Transmission network for April 2013.

The Certification is carried out as per the directives of MERC and data submitted by APML.

Encl: - as above

  
Chief Engineer

## Annexure III

**CERTIFICATE OF TRANSMISSION SYSTEM AVAILABILITY**Transmission Company : **Adani Power Maharashtra Limited .**

Availability for the Month/ Period:-

**Apr.13**

Monthly Transmission System Availability	Availability (%)
<b>Apr-13</b>	<b>98.91</b>

  
**Chief Engineer  
MSEDC, Kalwa**

## Annexure III

**CERTIFICATE OF TRANSMISSION SYSTEM AVAILABILITY**Transmission Company : **Adani Power Maharashtra Limited .**

Availability for the Month/ Period:-

**May-13**

<b>Monthly Transmission System Availability</b>	<b>Availability (%)</b>
<b>May-13</b>	<b>99.72</b>

  
**Chief Engineer**  
**MSLDC, Kalwa**



**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.**

**Office of The Chief Engineer**  
**Maharashtra State Load Dispatch Center, Thane-Belapur Road, P.O. Airoli,**  
 Navi Mumbai Pin - 400 708.  
 Tele :91-22-27601765 / 1766  
 Fax :91-22-27601769  
 Email : ceslde@mahaslde.in  
 website : <http://www.mahaslde.in>

Ref: No. CELDK /Tech-SO/TA/8

**No 0 2 2 2 6**

Date:- **10 OCT 2013**

To,

Associate General Manager  
 Adani Power Maharashtra Limited  
 Achalraj, Opp. Mayor's Bungalow  
 Ahmedabad -380006

(Fax no.079-25558758)

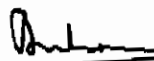
**Sub: Transmission system availability for June 2013.**

Ref: - 1) MERC (Multi year tariff) Regulations -2011 dated 04/02/201

Please find enclosed herewith, the certificate of Transmission system availability of 400 kV APML Transmission network for June 2013.

The Certification is carried out as per the directives of MERC and data submitted by APML.

Encl: - as above

  
 Chief Engineer  
 MSLDC, Kalwa.



## Annexure III

**CERTIFICATE OF TRANSMISSION SYSTEM AVAILABILITY**Transmission Company : **Adani Power Maharashtra Limited .**

Availability for the Month/ Period:-

**Jun.-13**

<b>Monthly Transmission System Availability</b>	<b>Availability (%)</b>
<b>Jun-13</b>	<b>99.95</b>

  
**Chief Engineer**  
**MSLDC, Kalwa**

10/10 2013 17:20



**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.**

Office of The Chief Engineer  
 Maharashtra State Load Dispatch Center, Thane-Belapur Road, P.O. Airoli,  
 Navi Mumbai Pin – 400 708.  
 Tele :91-22-27601765 / 1766  
 Fax :91-22-27601769  
 Email : ceslde@mahaslde.in  
 website : <http://www.mahaslde.in>

Ref: No. CELDK /Tech-SO/TA/8 **No 0 2 2 1 8**

Date:- **1 0 OCT 2013**

To,

Associate General Manager  
 Adani Power Maharashtra Limited  
 Achalraj, Opp. Mayor's Bungalow  
 Ahmedabad -380006

(Fax no.079-25558758)

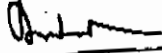
**Sub: Transmission system availability for July- 2013.**

Ref: - 1) MERC (Multi year tariff) Regulations -2011 dated 04/02/201

Please find enclosed herewith, the certificate of Transmission system availability of 400 kV APML Transmission network for July- 2013.

The Certification is carried out as per the directives of MERC and data submitted by APML.

Encl: - as above

  
 Chief Engineer  
 MSLDC, Kalwa.

10/10 2013 17:20

## Annexure III

**CERTIFICATE OF TRANSMISSION SYSTEM AVAILABILITY**

Transmission Company :

Adani Power Maharashtra Limited .

Availability for the Month/ Period:-

July-13

Monthly Transmission System Availability	Availability (%)
Jul-13	100.00

  
Chief Engineer  
MSLDC, Kalwa



**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.**

**Office of The Chief Engineer**  
**Maharashtra State Load Dispatch Center, Thane-Belapur Road, P.O. Airoli,**  
 Navi Mumbai Pin – 400 708.  
 Tele :91-22-27601765 / 1766  
 Fax :91-22-27601769  
 Email : ceslhc@mahaslhc.in  
 website : <http://www.mahaslhc.in>

Ref: No. CELDK /Tech-SO/TA/8

NO U 2 2 2 0

Date:- 10 OCT 2013

To,

Associate General Manager  
 Adani Power Maharashtra Limited  
 Achalraj, Opp. Mayor's Bungalow  
 Ahmedabad -380006

(Fax no.079-25558758)

**Sub: Transmission system availability for August- 2013.**

Ref: - 1) MERC (Multi year tariff) Regulations -2011 dated 04/02/2011

Please find enclosed herewith, the certificate of Transmission system availability of 400 kV APML Transmission network for August- 2013.

The Certification is carried out as per the directives of MERC and data submitted by APML.

Encl: - as above

  
 Chief Engineer  
 MSLDC, Kalwa.

## Annexure III

**CERTIFICATE OF TRANSMISSION SYSTEM AVAILABILITY**

Transmission Company : Adani Power Maharashtra Limited .

Availability for the Month/ Period:-

August-13

Monthly Transmission System Availability	Availability (%)
Aug-13	100.00

  
Chief Engineer.  
MSLDC, Kalwa



**MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.**

**Office of The Chief Engineer**  
**Maharashtra State Load Dispatch Center, Thane-Belapur Road, P.O. Airoli,**  
 Navi Mumbai Pin – 400 708.  
 Tele :91-22-27601765 / 1766  
 Fax :91-22-27601769  
 Email : cesldc@mahasldc.in  
 website : <http://www.mahasldc.in>

Ref: No. CELDK /Tech-SO/TA/8

No 0 2 4 8 1

Date:- 7 DEC 2013

To,

Associate General Manager  
 Adani Power Maharashtra Limited  
 Achalraj, Opp. Mayor's Bungalow  
 Ahmedabad -380006  
 (Fax no.079-25558758)

**Sub: Transmission system availability for September- 2013.**

Ref: - 1) MERC (Multi year tariff) Regulations -2011 dated 04/02/2011

Please find enclosed herewith, the certificate of Transmission system availability of 400 kV APML Transmission network for **September- 2013.**

The Certification is carried out as per the directives of MERC and data submitted by APML.


**CERTIFICATE OF TRANSMISSION SYSTEM AVAILABILITY**

Transmission Company :- Adani Power Maharashtra Limited.

Availability for the Month/ Period:-

Sept-13

Monthly Transmission System Availability	Availability (%)
Sept-13	99.85

  
 Chief Engineer  
 MSLDC, Kalwa.

**Adani Power Maharashtra Limited  
Licensed Area of Transmission  
Transmission License No. 2 of 2009  
Mid-term Performance Review  
Data Format**

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**

S.No.	Title	Reference
1	Aggregate Revenue Requirement - Summary Sheet	Form 1
2	Summary of Operations and Maintenance Expenses	Form 2
3	Transmission Network Details	Form 2.1
4	Capital Cost Details	Form 3
5	Assets & Depreciation	Form 4
6	Interest Expenses	Form 5
7	Other Expenses	Form 6
8	Return on Equity	Form 7
9	Non-tariff Income	Form 8
10	Income Tax	Form 9
11	Truing Up Summary - FY 2012-13	Form 10
12	Carrying Cost	Form 11



**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 1: Aggregate Revenue Requirement - Summary Sheet**

(Rs. Crore)

S.No.	Particulars	Reference	Ensuing Years									
			FY 2012-13	FY 2012-13	FY 2013-14	FY 2013-14	FY 2013-14	FY 2013-14	FY 2014-15	FY 2014-15	FY 2015-16	FY 2015-16
			Approved	Actual	Approved	H1-Actual	H2- Estimated	Estimated	Approved	Projected	Approved	Projected
1	Operation & Maintenance Expenses	F2	3.83	4.88	6.78	3.43	7.09	10.52	7.19	11.12	7.58	11.76
2	Depreciation Expenses	F4	21.59	22.32	36.15	18.69	18.69	37.37	36.15	37.37	36.15	37.37
3	Interest on Long-term Loan Capital	F5	34.97	38.03	54.94	27.84	27.84	55.67	50.43	51.10	45.91	46.52
4	Interest on Working Capital and on consumer security deposits	F5	1.61	1.82	2.64	1.49	1.49	2.98	2.56	2.91	2.49	2.84
5	Other Expenses	F6	-	-	-	-	-	-	-	-	-	-
6	Income Tax	F9	4.76	4.56	7.96	4.36	4.36	8.73	7.96	8.73	7.96	8.73
7	Contribution to contingency reserves		1.02	1.06	1.71	0.88	0.88	1.77	1.71	1.77	1.71	1.77
8	<b>Total Revenue Expenditure</b>		<b>67.78</b>	<b>72.67</b>	<b>110.18</b>	<b>56.69</b>	<b>60.36</b>	<b>117.04</b>	<b>106.00</b>	<b>113.01</b>	<b>101.80</b>	<b>108.99</b>
9	Return on Equity Capital	F7	19.01	19.66	31.83	16.46	16.46	32.91	31.83	32.91	31.83	32.91
10	<b>Aggregate Revenue Requirement</b>		<b>86.80</b>	<b>92.33</b>	<b>142.01</b>	<b>73.15</b>	<b>76.81</b>	<b>149.96</b>	<b>137.83</b>	<b>145.92</b>	<b>133.63</b>	<b>141.91</b>
11	Less: Non Tariff Income	F8	-	-	0.04			-	0.16	0.16	0.30	0.31
12	Less: Income from Other Business		-	-	-			-	-	-	-	-
13	<b>Aggregate Revenue Requirement from Transmission Tariff</b>		<b>86.80</b>	<b>92.33</b>	<b>141.97</b>	<b>73.15</b>	<b>76.81</b>	<b>149.96</b>	<b>137.68</b>	<b>145.76</b>	<b>133.33</b>	<b>141.60</b>

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 2 : Operations and Maintenance Expenses Summary**

(Rs. Crore)

S.No.	Particulars	FY 2012-13	FY 2012-13	FY 2013-14	FY 2013-14	FY 2013-14	FY 2013-14	FY 2014-15	FY 2014-15	FY 2015-16	FY 2015-16
		Approved	Actual	Approved	H1-Actual	H2- Estimated	Total- Estimated	Approved	Projected	Approved	Projected
1	Rent Rates & Taxes		0.09		0.08	0.08	0.17				
2	Telephone & Postage, etc.		0.02		0.02	0.02	0.04				
3	Professional, Consultancy, Regulatory, Technical & Audit fee etc.		0.32		0.19	0.20	0.39				
4	Conveyance & Travel Expenses		0.19		0.01	0.20	0.21				
5	Office Expenses		0.20		0.07	0.26	0.33				
6	Patrolling and Maintenance Charges		0.64		0.55	1.55	2.10				
7	Vehicle Charges		0.21		0.28	0.28	0.56				
8	Employee Salary Expenses		1.92		2.13	2.33	4.46				
9	Provident Fund Contribution		0.10		0.09	0.09	0.19				
10	Maintenance Contract at Warora Bays*		1.18			2.08	2.08				
<b>11</b>	<b>Total Operation &amp; Maintenance Expenses</b>	<b>3.83</b>	<b>4.88</b>	<b>6.78</b>	<b>3.43</b>	<b>7.09</b>	<b>10.52</b>	<b>7.19</b>	<b>11.12</b>	<b>7.58</b>	<b>11.76</b>

\*Considered O&M expenses for FY 12-13 from CoD on normative basis since O&M contract execution with MSETCL for Warora bays is being finalized and amount will be paid to in FY 13-14

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 2.2: Transmission Network Details**

**Network details**

S.No.	Particulars	Ensuing Years				Remarks
		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	
A	<b>Transmission Line Length (Ckt. Km.)</b>					
	HVDC					
	765 KV					
	400 KV	438	438	438	438	
	>66 KV and <400 KV					
	66 KV and less					
B	<b>No of Substations</b>					
	HVDC					
	765 KV					
	400 KV					
	220 KV					
	132 KV					
	66 KV and less					
C	<b>Total No of Bays</b>					
	765 KV					
	400 KV	6.00	6.00	6.00	6.00	
	>66 KV and <400 KV					
	66 KV and less					
D	<b>Transformation Capacity</b>					
	765 KV					
	400 KV					
	220 KV					
	132 KV					
	66 KV and less					

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 3: Capital Cost**

**(Rs. Crore)**

<b>Parameters</b>	<b>Approved</b>	<b>Actual</b>
CoD	26-Aug-2012	26-Aug-2012
Project Cost as on CoD	684.60	707.84
Equity	205.40	212.35
Debt	479.20	495.49

Adani Power Maharashtra Limited  
Mid-term Performance Review Formats- Transmission  
Form 4: Assets & Depreciation

(A) Gross Fixed Assets

in Rs Crores

S.No.	Particulars	FY 2012-13				FY 2013-14				FY 2014-15				FY 2015-16			
		Actual				Estimated				Projected				Projected			
		Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year
					-	-			-	-			-	-			-
1	Switchch Gear including Cable Connections	53.94	-		53.94	53.94			53.94	53.94			53.94	53.94			53.94
2	Overhead Lines	653.90	-		653.90	653.90			653.90	653.90			653.90	653.90			653.90
	<b>Total</b>	707.84			707.84	707.84			707.84	707.84			707.84	707.84			707.84

(B) Depreciation

S.No.	Particulars	Depreciation Rate	FY 2012-13				FY 2013-14				FY 2014-15				FY 2015-16			
			Actual				Estimated				Projected				Projected			
			Accumulated depreciation at the beginning of the year	Additions during the year	Withdrawals during the year	Accumulated depreciation at the end of the year	Accumulated depreciation at the beginning of the year	Additions during the year	Withdrawals during the year	Accumulated depreciation at the end of the year	Accumulated depreciation at the beginning of the year	Additions during the year	Withdrawals during the year	Accumulated depreciation at the end of the year	Accumulated depreciation at the beginning of the year	Additions during the year	Withdrawals during the year	Accumulated depreciation at the end of the year
1	Switchch Gear including Cable Connections	5.28%	-	1.70		1.70	1.70	2.85		4.55	4.55	2.85		7.40	7.40	2.85		10.24
2	Overhead Lines	5.28%	-	20.62		20.62	20.62	34.53		55.15	55.15	34.53		89.67	89.67	34.53		124.20
	<b>Total</b>		-	22.32		22.32	22.32	37.37		59.70	59.70	37.37		97.07	97.07	37.37		134.44

(C) Net Fixed Assets

S.No.	Particulars	FY 2012-13				FY 2013-14				FY 2014-15				FY 2015-16			
		Actual				Estimated				Projected				Projected			
		Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year	Balance at the beginning of the year	Additions during the year	Retirement of assets during the year	Balance at the end of the year
1	Switchch Gear including Cable Connections	53.94	(1.70)	-	52.24	52.24	(2.85)	-	49.39	49.39	(2.85)	-	46.54	46.54	(2.85)	-	43.69
2	Overhead Lines	653.90	(20.62)	-	633.28	633.28	(34.53)	-	598.75	598.75	(34.53)	-	564.23	564.23	(34.53)	-	529.70
	<b>Total</b>	707.84	(22.32)		685.52	685.52	(37.37)		648.14	648.14	(37.37)		610.77	610.77	(37.37)		573.39

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 5: Interest Expenses**

**Long-term Loans**

(Rs. Crore)

S.No.	Source of Loan	Ensuing Years (Projected)			
		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
		Actual	Estimated	Projected	Projected
	Depreciation for the year	22.32	37.37	37.37	37.37
	Sum of outstanding loans at the beginning of the year	495.49	473.16	435.79	398.42
1	Opening Balance of Loan	495.49	473.16	435.79	398.42
2	Addition during the year	-	-	-	-
3	Loan Repayment during the year	22.32	37.37	37.37	37.37
4	Closing Balance of Loan	473.16	435.79	398.42	361.04
5	Applicable Interest Rate (%)	12.75%	12.25%	12.25%	12.25%
6	Interest Expenses	36.88	55.67	51.10	46.52
7	Additional Interest charged by Bank of India in FY 2012-13 & Financing charges	1.15			
8	<b>Gross Interest Expenses</b>	<b>38.03</b>	<b>55.67</b>	<b>51.10</b>	<b>46.52</b>
9	Less: Expenses Capitalised	-	-	-	-
10	<b>Net Interest Expenses</b>	<b>38.03</b>	<b>55.67</b>	<b>51.10</b>	<b>46.52</b>

**Interest on Working Capital**

(Rs. Crore)

Sl. No	Particulars	Ensuing Years (Projected)			
		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
		Actual	Estimated	Projected	Projected
<b>1</b>	<b>Computation of Working Capital</b>				
1.1	One-twelfth of the amount of Operations and Maintenance Expenses	0.68	0.88	0.93	0.98
1.2	One-twelfth of the sum of the book value of stores, materials and supplies	0.59	0.59	0.59	0.59
1.3	One and a half months of the expected revenue from transmission charges at the prevailing tariffs	19.32	18.74	18.22	17.70
	<i>Less:</i>				
1.4	<b>Amount of Security Deposit</b>				
a	From Transmission System users				
	<b>Total Working Capital</b>	<b>20.59</b>	<b>20.21</b>	<b>19.74</b>	<b>19.27</b>
<b>2</b>	<b>Computation of working capital interest</b>				
2.1	Rate of Interest (% p.a.)	14.75%	14.75%	14.75%	14.75%
2.2	<b>Interest on Working Capital</b>	<b>1.82</b>	<b>2.98</b>	<b>2.91</b>	<b>2.84</b>
<b>3</b>	<b>Interest on Security Deposit</b>				
3.1	Rate of Interest (% p.a.)				
3.2	<b>Interest on Security Deposit</b>				

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 6: Other Expenses**

(Rs. Crore)

S.No.	Particulars	Ensuing Years				Remarks
		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	
		Acual	Estimated	Projected	Projected	
1	Other Expenses	-	-	-	-	
	<b>Total</b>	-	-	-	-	

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 7: Return on Regulatory Equity**

(Rs. Crore)

S.No.	Particulars	Reference	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
			Actual	Estimated	Projected	Projected
1	Regulatory Equity at the beginning of the year		212.35	212.35	212.35	212.35
2	Capitalisation during the year		-	-	-	-
3	Equity portion of capitalisation during the year		-	-	-	-
4	Consumer Contribution and Grants used during the year for Capitalisation					
5	Reduction in Equity Capital on account of retirement / replacement of assets					
6	Regulatory Equity at the end of the year	(1)+(3)-(4)-(5)	212.35	212.35	212.35	212.35
	<b>Return Computation</b>					
7	Return on Regulatory Equity at the beginning of the year	15.5%*[(1)-(4)]	19.66	32.91	32.91	32.91
8	Return on Equity portion of capitalisation during the year	15.5%*[(3)-(5)]/2	-	-	-	-
9	<b>Total Return on Regulatory Equity</b>	<b>(7)+(8)</b>	19.66	32.91	32.91	32.91



**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 8: Non-tariff Income**

(Rs. Crore)

S.No.	Particulars	Reference	Ensuing Years				Remarks
			FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	
			Actual	Estimated	Projected	Projected	
1	Rents						
2	Other/Miscellaneous receipts						
3	Interest on Contingency Reserve Investments		-	-	0.16	0.31	
4	Interest on Other Investments						
5	Ancillary and Incidental Income						
6	Interest on staff loans & Advances						
7	Interest on advances to suppliers						
8	Dividend on Investments						
9	Sale of Scrap						
10	Royalty						
	<b>Total</b>		-	-	<b>0.16</b>	<b>0.31</b>	

**Adani Power Maharashtra Limited**  
**Licensed Area of Supply**  
**Mid-term Performance Review Formats- Transmission**  
**Form 9: Income Tax**

S.No.	Particulars				
		FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
		Actual*	Estimated	Projected	Projected
1	RoE		32.91	32.91	32.91
2	MAT Rate		20.96%	20.96%	20.96%
3	Income Tax	4.56	8.73	8.73	8.73

\* Income Tax as per Accounting Statements and extracts of books of accounts

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 10: Truing-up Summary - FY 2012-13**

Sr.No.	Particular	Approved	Actual	Deviation	Controllable	Uncontrollable
1	O&M Expenses	3.83	4.88	(1.05)		(1.05)
2	Depreciation	21.59	22.32	(0.73)		(0.73)
3	Interest on Loan	34.97	38.03	(3.06)		(3.06)
4	Interest on Working Capital	1.61	1.82	(0.20)		(0.20)
5	Other Expenses	-	-	-		-
6	Contribution to contingency	1.02	1.06	(0.03)		(0.03)
7	Income Tax	4.76	4.56	0.20		0.20
8	Total Expenditure	67.78	72.67	(4.89)	-	(4.89)
9	Return on Equity	19.01	19.66	(0.65)		(0.65)
10	<b>Gross Aggregate Revenue Requirement</b>	<b>86.80</b>	<b>92.33</b>	<b>(5.53)</b>	<b>-</b>	<b>(5.53)</b>
	<b>Less:</b>					
11	Non-tariff Income		-	-		
12	Income from Other Business		-	-		
13	<b>Net Aggregate Revenue requirement</b>	<b>86.80</b>	<b>92.33</b>	<b>(5.53)</b>	<b>-</b>	<b>(5.53)</b>

Sr.No.	Particulars	Formula	Actual for FY 2012-13
1	ARR approved in the MYT Order for FY 2012-13	a	86.80
2	Approved Carrying Cost for FY 2012-13	b	4.20
3	Incentive for FY 2012-13	c	1.98
4	Sub total	d	92.97
5	1/3 <sup>rd</sup> Gain (loss) on account of Controllable factor to be passed on to the consumers	e	-
6	Gain (loss) on account of Uncontrollable factor to be passed on to the consumers	f	(5.53)
7	Trued up ARR of FY 2012-13	g= d-e-f	98.51
8	Additional Carrying Cost on account of revision in ARR for FY 2012-13	h	0.27
9	Additional carrying cost on account of delayed and staggered recovery for ARR of FY 2012-13	i	6.72
10	Trued up ARR for FY 2012-13 including total carrying cost	j= g+h+i	105.50
11	Less : expected revenue from TSUs	k	91.00
12	Net Revenue Gap/ (Surplus)	l= j-k	14.50

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**  
**Form 11: Carrying Cost Summary - FY 2012-13**

**1 Calculation of Carrying cost burden on account of revision in ARR for 12-13**

Parameter	Unit	Approved	Actual
ARR including Income Tax	Rs. Crs.	86.80	92.33
Interest Rate for Carrying Cost for ARR of FY 12-13	%	14.50%	14.50%

**Carrying Cost as approved**

Rs. Crs

Month	Oct 12	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	Total
Month-wise break up of ARR to be recovered for 12-13	12.40	12.40	12.40	12.40	12.40	12.40	12.40	86.80
Net ARR at the beginning of each month	12.40	24.80	37.20	49.60	62.00	74.40	86.80	86.80
Delay in recovery (Months)	7.00	6.00	5.00	4.00	3.00	2.00	1.00	
Additional Carrying Cost Burden	1.05	0.90	0.75	0.60	0.45	0.30	0.15	4.20

**Carrying Cost as per revised ARR**

Rs. Crs

Month	Oct 12	Nov 12	Dec 12	Jan 13	Feb 13	Mar 13	Apr 13	Total
Month-wise break up of revised ARR to be recovered for 12-13	13.19	13.19	13.19	13.19	13.19	13.19	13.19	92.33
Net ARR at the beginning of each month	13.19	26.38	39.57	52.76	65.95	79.14	92.33	92.33
No. of months for which interest need to be computed (months) upto May 13	7.00	6.00	5.00	4.00	3.00	2.00	1.00	
Additional Carrying Cost Burden	1.12	0.96	0.80	0.64	0.48	0.32	0.16	4.46

**2 Calculation of additional carrying cost burden of delayed and staggered recovery for revised ARR for 12-13**

Parameter	Unit	Amount
Revised ARR incl. Income Tax	Rs. Crs.	92.33
Carrying Cost	Rs. Crs.	4.46
Total ARR	Rs. Crs.	96.79
Interest Rate for Carrying Cost for ARR of FY 12-13	%	14.50%

Rs. Crs

Month	Apr 13	May 13	Jun 13	Jul 13	Aug 13	Sep 13	Oct 13	Nov 13	Dec 13	Jan 14	Feb 14	Mar 14	Total
Month wise staggered recovery of ARR of FY 12-13	-	-	24.20	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07	8.07	96.79
Net ARR of FY 2012-13 pending for recovery	96.79	96.79	72.59	64.53	56.46	48.40	40.33	32.26	24.20	16.13	8.07	-	-
Additional Carrying Cost Burden	1.17	1.17	0.88	0.78	0.68	0.58	0.49	0.39	0.29	0.19	0.10	-	6.72

**Summary - Additional Carrying Cost**

Rs. Crs

Parameter	Amount
Carrying cost burden owing to revision in ARR for 12-13	0.27
Additional carrying cost due to delayed and staggered recovery for revised ARR for 12-13	6.72
<b>Total additional carrying cost burden</b>	<b>6.99</b>

**Adani Power Maharashtra Limited**  
**Mid-term Performance Review Formats- Transmission**

Commissioning Date	26-Aug-12
First Date of FY 2012-13	1-Apr-12
Last Date of FY 2012-13	31-Mar-13
Total Days in FY 2012-13	365
Factor for ARR Applicability FY 2012-13	0.59726

Revised Capital Cost	707.84
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Contribution to Contingency Reserve	0.25%
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