



**TABLE OF CONTENTS**

<b>1. ORDER .....</b>	<b>4</b>
<b>2. Analysis of Expenses during the period April 2012 to MARCH 2013 .....</b>	<b>11</b>
<b>Sale of energy admitted in tariff order and filed in true-up petitions .....</b>	<b>11</b>
<b>Power Purchase Quantum and Cost.....</b>	<b>16</b>
Licensees' Submission .....	16
<b>Operation and Maintenance (O&amp;M) Costs .....</b>	<b>26</b>
<b>Interest on Project Loans .....</b>	<b>29</b>
Interest on Working capital .....	32
Interest on Consumer Security Deposits .....	33
<b>Return on Equity .....</b>	<b>34</b>
<b>Other items of ARR .....</b>	<b>36</b>
<b>Bad and doubtful debts.....</b>	<b>36</b>
<b>Any other expense .....</b>	<b>38</b>
<b>3. Revenue from Sale of Power .....</b>	<b>40</b>
<b>Sale of Power .....</b>	<b>40</b>
<b>Non tariff income.....</b>	<b>40</b>
<b>Subsidy and grants.....</b>	<b>41</b>
<b>Other Income.....</b>	<b>41</b>
<b>4. REVENUE SURPLUS / (Deficit) admitted .....</b>	<b>43</b>

**List of Tables**

<i>Table 1 : Snapshot of the True-up petitions of Discoms for the period from April 2012 to March 2013 – as submitted by the Licensees (Rs. Crore)</i>	7
<i>Table 2: Revenue Surplus/(Deficit) admitted in True-up of ARR for FY 2012-13 (Rs. Crore)</i>	9
<i>Table 3 : Sales admitted in tariff order dated March 31, 2012 (in MU)</i>	11
<i>Table 4: Distribution loss trajectory as per regulations</i>	11
<i>Table 5 : Sales as per tariff order, monthly R-15 statement and as filed in true-up petition for FY 2012-13 (MUs)</i>	11
<i>Table 6 : Basis of billing to un-metered consumers</i>	12
<i>Table 7: Summary of sale to the unmetered category booked in excess over the prescribed benchmark (in MUs):</i>	14
<i>Table 8 : Energy sale as per tariff order for FY 2012-13, as per filing of the Discoms and as admitted by the Commission (MUs)</i>	14
<i>Table 9: Variation in power purchase quantum and cost as submitted by the petitioners (MU)</i>	16
<i>Table 10: Power purchase from various sources by Discoms through MPPMCL in FY 2012-13</i>	17
<i>Table 11: Power Purchase by Discoms as per MPPMCL statement in FY 2012-13</i>	17
<i>Table 12: Energy Balance as filed by Discoms for FY 2012-13</i>	18
<i>Table 13: Power purchase quantum and cost admitted in tariff order and claimed in true-up as per the audited accounts.</i>	18
<i>Table 14: Distribution loss reduction trajectory for FY 2012-13 (%)</i>	19
<i>Table 15: Analysis of Power purchase quantum (MU)</i>	19
<i>Table 16: Details of source wise power purchase quantum and fixed charges for FY 2012-13</i>	20
<i>Table 17 : Other expenses in power purchase not considered by the Commission for FY 2012-13 (Rs. Crore)</i>	22
<i>Table 18: Admitted Power Purchase Cost</i>	24
<i>Table 19 : Transmission Charges for FY 2012-13 (Rs. Crore)</i>	25
<i>Table 20 : Transmission Charges for FY 2012-13 (Rs. Crore)</i>	25
<i>Table 21 : O&amp;M Cost admitted in tariff order of FY 2012-13 (Rs. Crore)</i>	26
<i>Table 22 : O&amp;M Expenses claimed by Licensees as per audited accounts of FY 2012-13 (Rs. Crore)</i>	26
<i>Table 23 : Norms for O&amp;M cost for FY 2012-13 (Rs. Crore)</i>	26
<i>Table 24 : R&amp;M Expenses computed by the Commission for FY 2012-13 (Rs. Crore)</i>	28
<i>Table 25 : Incentive/ disincentive on the basis of increase/decrease in metered sales</i>	28
<i>Table 26 : O&amp;M expenditure admitted for FY 2012-13 (Rs. Crore.)</i>	29
<i>Table 27 : Interest and finance charges claimed by Discoms (Rs. Crore)</i>	29
<i>Table 28 : Interest on Project Loans admitted by Commission for FY 2012-13(Rs. Crore.)</i>	31
<i>Table 29 : Interest on Working Capital admitted by the Commission for FY 2012-13 (in Rs. Crore)</i>	32
<i>Table 30 : Interest on Consumer Security Deposit admitted for FY 2012-13 ( Rs. Crore)</i>	33
<i>Table 31 : Return on Equity admitted for FY 2012-13 (Amount in Rs. Crore)</i>	34
<i>Table 32 : Depreciation admitted by the Commission (Rs. Crore)</i>	36
<i>Table 33 : Bad Debts claimed by Discoms (Rs. Crore)</i>	36
<i>Table 34 : Segregation of actual Bad Debts submitted by Discoms (Rs. Crore)</i>	37
<i>Table 35 : Misc. Losses &amp; Write-offs / Sundry Expenses / Net Prior Period Charges / (Credit)/ Extra Ordinary Items claimed by Discoms (Rs. Crore)</i>	38
<i>Table 36 : Misc. Losses &amp; Write-offs / Sundry Expenses / Net Prior Period Charges / (Credit) admitted by the Commission (Rs. Crore)</i>	39
<i>Table 37 : Revenue from sale of power as per Audited accounts</i>	40

<i>Table 38 : Break up of non tariff income (Rs. Crore)</i>	41
<i>Table 39 : Subsidy and Grants admitted as per Audited Accounts (Rs. Crore)</i>	41
<i>Table 40 : Other Income as per audited accounts of the distribution Companies (Rs. Crore.)</i>	41
<i>Table 41 : Total revenue, non-tariff income and subsidy admitted (Rs. Crore.)</i>	42
<i>Table 42 : Revenue Surplus / (Deficit) admitted in True-up of ARR for FY 2012-13 (Rs. Crore)</i>	43

## 1. ORDER

*(Passed on this 17<sup>th</sup> Day of March 2016)*

This order relates to the petition numbers 25/2014, 3/2015 and 17/2014 filed by Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Ltd., Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd. and Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd. respectively (hereinafter referred to as East Discom, West Discom and Central Discom respectively and collectively as petitioners or Distribution Licensees or distribution companies or Discoms) before Madhya Pradesh Electricity Regulatory Commission (hereinafter referred to as MPERC or the Commission). These petitions had been filed by the Distribution Licensees seeking the true-up of Aggregate Revenue Requirement (ARR) determined by the Commission for the period from April 2012 to March 2013 vide retail supply tariff order for FY 2012-13 issued on March 31, 2012 (hereinafter referred to as tariff order).

- As regards annual performance review (APR), the Commission has reviewed the operational and financial performance parameters of the Discoms for FY 2012-13. The Commission has finalized this order based on the review and analysis of the past records, submissions, necessary information / clarifications submitted by the distribution Licensees and views expressed by stakeholders.

### **Procedural history**

#### **Submission of petitions by Licensees**

- The Commission issued the retail supply tariff order for FY 2012-13 on 31<sup>st</sup> day of March, 2012 in accordance with MPERC (Terms and conditions for determination of tariff for supply and wheeling of Electricity and methods and principles for fixation of charges) Regulations, 2009 (hereinafter referred to as the regulations). As per the regulations, Discoms were required to file their respective petitions for true-up of ARR for FY 2012-13 by October 31, 2013. Further, as per directives of Hon'ble APTEL in the judgment of November 11, 2011 in the matter of O.P. No.1 of 2011, the Discoms are required to file their true-up petitions for respective years regularly. Discoms, however have not filed their true-up petitions for FY 2012-13 within stipulated time. After rigorous pursuance the Discoms have filed the true-up petition for the period from April 1, 2012 to March 31, 2013. The details of Discom wise filing is given below:

- MP Madhya Kshetra Vidyut Vitaran Company Ltd. (Central Discom) (Petition No. 17/2014):**

Central Discom filed the petition on 24/09/2014. Motion hearing was held on 25/11/2014. The data / information in the petition were found deficient in respect of ARR items and also at variance from the audited statement of accounts of the company for FY 2012-13. The petition was not admitted by the Commission and vide daily order

dated 26/11/2014 the Commission directed to file revised petition after due reconciliation and verification of data / incorporation of requisite information. Central Discom filed the revised petition and reply to the observations of the Commission vide letter dated 25/05/2015.

**(b) MP Poorv Kshetra Vidyut Vitaran Company Ltd. (East Discom) (Petition No. 25/2014):**

East Discom filed the petition on 18/11/2014. The motion hearing was held on 09/12/2014. The petition was found inconsistent, incomplete / deficient on account of information furnished in respect of ARR items and also at variance from the audited statement of accounts of the company for FY 2012-13. The petitioner sought time to respond the deficiencies / gaps pointed out by the Commission. The Commission considered the request and vide daily order dated 09/12/2014 the Commission directed to file revised petition after due reconciliation and verification of data / incorporation of requisite information. East Discom filed the revised petition and reply to the observations of the Commission vide letter dated 27/05/2015.

**(c) MP Paschim Kshetra Vidyut Vitaran Company Ltd. (West Discom) (Petition No. 03/2015):**

West Discom filed the petition on 08/01/2015. The motion hearing was held on 24/02/2015. The petition was found inconsistent, incomplete / deficient in respect of ARR items and also at variance from the audited statement of accounts of the company for FY 2012-13. Vide daily order dated 24/02/2015 the Commission directed the petitioner to incorporate the response on observations of the Commission in the petition and furnish the same to the Commission. West Discom filed the reply to the observations of the Commission vide letter dated 01/05/2015.

4. The revised petitions along with the additional data / information furnished to the Commission were further examined and vide letter dated July 9, 2015 deficiencies in the revised petitions / additional data and information were communicated to East, West and Central Discoms. In response West Discom filed the additional information / data vide letter dated July 29, 2015. Simultaneously, Central Discom and East Discom had also filed their revised / corrected petitions on 24/07/2015 and 27/08/2015 respectively.
5. Meanwhile, Hon'ble APTEL passed a judgment in the matter of Appeals 234, 270, 271 and 276 of 2014 filed on the true up orders of the Commission issued in past in respect of FY 2008-09, 2009-10, 2010-11 and 2011-12 on 15<sup>th</sup> September 2015 (hereinafter referred to as Hon'ble APTEL's judgment dated 15/09/2015). The submissions subsequently furnished by the petitioners in revised petition / data gaps were examined by the Commission and it was observed that data / information furnished to the Commission were not sufficient in making compliance of the directions of Hon'ble APTEL's aforementioned order. Relevant portion of the judgment is reproduced below:

*"13. We have considered the matter. The two distinct aspects (a) the quantum of*

*power purchase to be considered and (b) the cost of power purchase to be adjusted for the quantum disallowed are the subject matters of the Appeals. On the first aspect, the State Commission is right in its stand that the Appellants ought to have at least installed Distribution Transformer level metering. The Appellants cannot continue to claim that they have not been able to do so even after so many years of reorganization of the Electricity Board. In the absence of efforts on the part of the Appellants to install Distribution Transformer level metering, the entire quantum of hours of supply of electricity cannot be considered. At the same time it may not be appropriate to disallow the entire quantum. The extra hours of supply to agriculture cannot as such be disputed. It cannot be said that there was no extra hours of supply. In the earlier orders of the Tribunal, the extra hours of supply was recognized and direction was given to consider the same subject to prudence check. In view of the above some balance needs to be made. However, it should be for the Appellants to satisfy the State Commission on the quantum of extra hours of supply based on circumstances, as the Appellants have not taken steps to undertake metering. Considering that the State Commission is not averse to giving an opportunity to the Appellants on the above matters, the Appellants should take corrective actions to place the materials before the State Commission for the FY 2008-09 to 2011-12 i.e. the subject matter of the above Appeals, for their reconsideration.*

14. *On the cost of power purchase to be adjusted for the disallowed quantum, the decision of the Tribunal dated 29.05.2014 in Appeal no. 258 of 2012 is specific viz it should be on average cost. We notice that the order dated 29.05.2014 of the Tribunal was after the order dated 06.02.2014 of the State Commission relating to true up of financials of 2008-09 and the orders for the subsequent 3 years were passed by the State Commission after the order dated 29.05.2014. The State Commission proceeded on the basis of only considering the short term power purchase cost which is higher and is not consistent with the average cost principle approved by the Tribunal. The methodology should also be that the cost which the Appellants would have in any event incurred such as fixed charges ought not to be disallowed. On the aspect of consideration of cost of power purchase, the State Commission should reconsider in light of the order dated 29.05.2014 of the Tribunal.*

15. *Since the issue of quantum of extra hours of supply quantum to unmetered agriculture consumers is being remanded to the State Commission, the cost of power purchase issue in terms of the order dated 29.05.2014 of the Tribunal should also be reconsidered by the State Commission.”*

6. In order to comply with the Hon'ble APTEL's aforementioned judgement, vide letter dated 10<sup>th</sup> November 2015, the Commission directed the Discoms to file all relevant records in support of their contention of additional supply of units made to unmetered agricultural category of consumers duly verified and certified by SLDC. Further, it was also directed that Discoms should link up the station-wise details of fixed cost and variable cost with the power purchase cost indicated in their audited balance sheets.

7. Meanwhile, the Commission examined the revised petitions and the additional information / data furnished to the Commission and admitted the petitions for further proceedings on 07/11/2015.

### Notification of true-up proposals for public information

8. The public notices were issued on 16<sup>th</sup> November, 2015 by Discoms for inviting comments/objections from various stakeholders. The last date for filing the comments / suggestions / objections by the stakeholders was December 07, 2015. In response the Commission had not received any comments / suggestions / objections from the stakeholders within the stipulated time.

### Hearings

9. The public hearing was held on December 15, 2015 in the Court Room of the Commission's office at Bhopal wherein none of the stakeholders appeared in person.

### Gist of petitions

10. The gist of the true-up petitions submitted by the Licensees is given below:

**Table 1 : Snapshot of the True-up petitions of Discoms for the period from April 2012 to March 2013 – as submitted by the Licensees (Rs. Crore)**

S. No.	Particulars	East Discom		West Discom		Central Discom		Total for the State	
		As Per Tariff Order	As claimed in True up	As Per Tariff Order	As claimed in True up	As Per Tariff Order	As claimed in True up	As Per Tariff Order	As claimed in True up
1	Purchase of power from MP Genco & Other sources	2,945.73	4,507.45	4,708.36	6,170.98	3,398.16	4,814.59	11,052.25	15,493.02
2	PGCIL Charges	189.34		249.06		161.6		600.00	
3	Transco Charges	444.16	506.92	501.78	654.08	484.24	526.45	1,430.18	1,687.45
4	SLDC Charges	2.80	2.76	2.86		2.95	2.70	8.61	5.46
5	O&M Cost (including MPERC Fees)	642.12	868.11	603.64	694.04	579.73	607.18	1,825.49	2,169.33
6	Depreciation and related Debits	50.74	109.83	76.27	138.55	56.23	157.63	183.24	406.01
7	Interest and Finance Charges	115.67	256.39	131	125.82	63.82	259.32	310.49	641.53
8	Return on Equity	120.74	239.16	137.58	145.89	102.03	258.28	360.35	643.33
9	Bed Debts	1.00	305.55	1.00	286.49	1.00	790.95	3.00	1,382.99



S. No.	Particulars	East Discom		West Discom		Central Discom		Total for the State	
		As Per Tariff Order	As claimed in True up	As Per Tariff Order	As claimed in True up	As Per Tariff Order	As claimed in True up	As Per Tariff Order	As claimed in True up
10	Other debts/credits/prior period expenses	0.00	17.61	0.00	18.61	43.29	38.75	43.29	74.97
11	Less: Expenses Capitalized	0.00	-15.24	0.00	0.00	0.00	0.00	0.00	-15.24
12	Less: Other Income	128.01	162.44	177.78	94.54	144.21	145.09	450.00	402.07
13	<b>Net ARR</b>	<b>4,384.29</b>	<b>6,636.09</b>	<b>6,233.77</b>	<b>8,140.63</b>	<b>4,748.83</b>	<b>7,310.76</b>	<b>15,366.89</b>	<b>22,087.48</b>
14	Revenue from Sale of Power	4,467.31	4,970.34	6,348.32	6,338.49	4,851.40	4,822.14	15,667.03	16,130.97
15	Additional revenue (gap)/surplus due to true-up of MP Transco for FY 2008-09	(50.12)	0.00	(59.47)	0.00	(53.35)	0.00	(162.94)	0.00
16	Additional revenue (gap)/surplus due to MP Tradeco	(8.58)	0.00	(12.19)	0.00	(9.29)	0.00	(30.06)	0.00
17	Additional revenue (gap)/surplus due to true-up of MP Genco for FY 2008-09	(24.08)	0.00	(43.40)	0.00	(39.29)	0.00	(106.77)	0.00
18	<b>Total ARR for FY 2012-13</b>	<b>4,467.06</b>	<b>6,636.09</b>	<b>6,348.84</b>	<b>8,140.63</b>	<b>4,850.75</b>	<b>7,310.76</b>	<b>15,666.65</b>	<b>13,946.85</b>
19	<b>Total Revenue (Gap)/surplus for FY 2012-13</b>	<b>(0.25)</b>	<b>(1,665.75)</b>	<b>(0.51)</b>	<b>(1,802.14)</b>	<b>(0.64)</b>	<b>(2,488.62)</b>	<b>(1.40)</b>	<b>(5,956.51)</b>

11. The Commission has analyzed the petitions of Discoms for true-up for FY 2012-13. On the basis of the information furnished by the Discoms and keeping the interest of the consumers in the State at large the Commission has prudently considered the submission of Discoms for true-up for FY 2012-13. After giving due consideration to the methodology and process of determination of expenditure and revenues as elaborated in the Regulations, the Commission has determined the allowable revenue deficit / surplus, as detailed in the subsequent sections of this order. Quantum of revenue deficit and surplus, as the case may be, shall be adjusted in the Annual Revenue Requirement for the licensees. Gist of the True-up of ARR admitted for FY 2012-13 is given below:

**Table 2: Revenue Surplus/(Deficit) admitted in True-up of ARR for FY 2012-13 (Rs. Crore)**

Particulars	East Discom	West Discom	Central Discom	Total For State
<b>INCOME</b>				
<b>Revenue from Sale of Power</b>				
Tariff Income	4,491.30	5,349.56	3,987.88	13,828.74
Non-tariff income (meter rent, recoveries for theft of power, wheeling/U.I. charges recovery, Misc. charges from consumers)	70.40	180.60	133.96	384.96
Other Income	215.32	372.90	400.05	988.27
Less : Delayed Payment Surcharge	123.06	143.83	302.81	569.70
Net other income (excluding delayed payment surcharge)	92.26	229.07	97.24	418.57
Subsidy	479.04	808.32	710.04	1,997.40
<b>Total Income (A)</b>	<b>5,133.00</b>	<b>6,567.55</b>	<b>4,929.12</b>	<b>16,629.67</b>
<b>EXPENSES</b>				
<b>Power Purchase</b>				
Power Purchase Cost	3,926.06	5,652.10	4,037.39	13,615.55
MP Transco Charges	459.56	595.33	475.80	1,530.69
<b>Total Power Purchase (Incl. Transmission) (B)</b>	<b>4,385.62</b>	<b>6,247.43</b>	<b>4,513.19</b>	<b>15,146.24</b>
<b>O&amp;M Expenses (Net of Capitalisation)</b>				
Employee Expenses	467.59	438.65	413.62	1,319.87
Arrears	33.37	31.31	29.52	94.20
A&G Expenses	82.66	72.54	78.38	233.57
R&M Expenses	63.47	64.26	71.22	198.96
Other expenses (including Taxes & MPERC Fees)	3.60	9.92	1.01	14.53
(Incentives)/dis-incentives	0.86	(20.71)	(7.26)	(27.11)
<b>Total O&amp;M (C)</b>	<b>651.55</b>	<b>595.98</b>	<b>586.48</b>	<b>1,834.01</b>
<b>Other Expenses</b>				

<b>Particulars</b>	<b>East Discom</b>	<b>West Discom</b>	<b>Central Discom</b>	<b>Total For State</b>
Depreciation	60.62	60.44	59.30	180.37
Interest & Financing Charges on Project Loans	57.76	73.63	92.68	224.07
Interest and Finance Charges on working capital loans	3.33	8.23	28.93	40.50
Interest on Consumer Security Deposit	41.64	50.04	38.75	130.43
Return on Equity	127.12	127.70	130.61	385.43
Bad & Doubtful Debts	49.70	0.00	0.00	49.70
Any Other Expense	-13.65	-0.84	-57.06	-71.55
Tradeco Charges	0.00	0.00	0.00	0.00
<b>Total Other Expenses (D)</b>	<b>326.53</b>	<b>319.21</b>	<b>293.22</b>	<b>938.96</b>
<b>Total Expenses G = (B + C + D)</b>	<b>5,363.70</b>	<b>7,162.61</b>	<b>5,392.89</b>	<b>17,919.21</b>
<b>Revenue Surplus / (Gap) H = (A - G)</b>	<b>(230.70)</b>	<b>(595.06)</b>	<b>(463.78)</b>	<b>(1,289.54)</b>
<b>Previous Year true-ups</b>				
True-up (Gap) MP Genco for FY 2008-09	(24.08)	(43.40)	(39.29)	(106.77)
True-up (Gap) MP Transco for FY 2008-09	(50.12)	(59.47)	(53.35)	(162.94)
<b>Total Previous Year true-ups (Gap) (I)</b>	<b>(74.20)</b>	<b>(102.87)</b>	<b>(92.64)</b>	<b>(269.71)</b>
<b>Total Revenue Surplus / (Gap) J = (H-I)</b>	<b>(304.90)</b>	<b>(697.93)</b>	<b>(556.42)</b>	<b>(1559.25)</b>

12. The Commission has thus comprehensively complied with the directions of Hon'ble APTEL contained in the judgment of 15<sup>th</sup> September 2015 in the matter of Appeals 234, 270, 271 and 276 of 2014 for determination of sale to un-metered consumers and power purchase cost of the Discoms of the State on the basis of the information furnished to the Commission for FY 2012-13. The Commission has admitted the revenue gap as indicated in the table above for the FY 2012-13 for recovery through retail supply tariffs to be determined by the Commission for the subsequent years.
13. Ordered as above, read with the reasons, grounds and conditions as detailed in the subsequent sections of this Order.

**(Alok Gupta)**  
**Member**

**(A. B. Bajpai)**  
**Member**

**(Dr. Dev Raj Birdi)**  
**Chairman**

Dated: March, 2016  
Place: Bhopal

## 2. ANALYSIS OF EXPENSES DURING THE PERIOD APRIL 2012 TO MARCH 2013

### *Sale of energy admitted in tariff order and filed in true-up petitions*

- 2.1 In the retail supply tariff order issued on March 31, 2012 for FY 2012-13 the Commission admitted the sale of energy for FY 2012-13 as shown in the table below:

**Table 3 : Sales admitted in tariff order dated March 31, 2012 (in MU)**

DISCOM	East Discom	West Discom	Central Discom	Total
LT Sale	5680	9040	7027	21747
HT Sale	3221	4273	2737	10231
<b>Total Sale</b>	<b>8901</b>	<b>13313</b>	<b>9764</b>	<b>31978</b>

- 2.2 The normative distribution loss level as specified by the Commission in the regulations is shown in the table below:

**Table 4: Distribution loss trajectory as per regulations**

DISCOM	FY 2010-11	FY 2011-12	FY 2012-13
East Discom	30%	27%	24%
West Discom	26%	24%	22%
Central Discom	33%	29%	26%

- 2.3 A comparison of sales as admitted in tariff order, as per the R-15 statements and as claimed in the true-up petition is given in the table below:

**Table 5 : Sales as per tariff order, monthly R-15 statement and as filed in true-up petition for FY 2012-13 (MUs)**

Particulars	East Discom	West Discom	Central Discom	Total for State
As admitted in tariff order	8,900.90	13,313.10	9,764.00	31,978.00
As per monthly R-15 report	9,870.24	13,127.08	9,938.28	32,935.60
As filed in true-up petitions	9,891.69	13,127.08	9,938.28	32,957.05

- 2.4 The Commission has observed that the sale as filed in the true-up petitions by West Discom and Central Discom is same as recorded in their monthly R-15 statements while in case of East Discom, the sale in the monthly R-15 statements is at variance to the sale filed in the true-up petitions. Vide letter dated July 9, 2015, the Commission directed East Discom to provide the justification for the variation observed in the sale. East Discom vide letter dated August 27, 2015 replied that sale of 9891.69 MUs claimed by the petitioner is as per the audited balance sheet, which is in accordance with the energy audit reports and the sale of 9870.24 MUs is as

per Annual R-15 statement which is in accordance with the benchmark provided in the tariff Order for FY 2012-13 meant for billing purpose.

- 2.5 The Commission had prescribed the assessment of sale to the unmetered category of domestic and agriculture consumers in the tariff order as shown in the table below:

**Table 6 : Basis of billing to un-metered consumers**

Assessed units for un-metered domestic connections (units per connection per month)		Assessed units for un-metered agricultural connections (units per HP per month)			Assessed units for un-metered agricultural connections (units per HP per month)		
Urban	Rural	Category	Rural	Urban	Category	Rural	Urban
		Three Phase			Single Phase		
April to March		April to September			April to September		
77	42	Permanent	50	90	Permanent	60	90
		Temporary	155	175	Temporary	170	190
		October to March			October to March		
		Permanent	150	170	Permanent	160	180
		Temporary	155	175	Temporary	170	190

- 2.6 Scrutiny of the sale figures recorded in R-15 statement (basic sale/billing data statement) for FY 2012-13 has revealed that sale to un-metered category of domestic and agriculture consumers had been booked in excess of the prescribed benchmarks, when compared with the number of consumers and their load. The Commission has observed that the benchmarks for sale of un-metered agriculture units for FY 2012-13 were specified in consonance to the Commission's directives provided in paragraph 1.30 of retail supply tariff order for FY 2012-13 for maintaining the minimum assured daily supply hours. In response to the Commission's letter dated 10/11/2015 to Discoms in regard to seeking clarification / additional data, vide letter dated 18/12/2015 East Discom forwarded SLDC statement comprising month wise and discom wise supply hours for FY 2012-13 for the Commissioner HQ, District HQ, Tehsil HQ, Rural mixed, Rural DLF & Rural irrigation. In respect of rural irrigation, month wise supply hours are shown in the following table for the rabi season commencing November 2012 to March 2013.

Particulars	(in Hours)					
	Nov., 12	Dec., 12	Jan., 13	Feb.13	March 13	Total
Rural Irrigation Supply	8.26	8.11	8.00	8.10	7.55	8.08

- 2.7 Further, in response to the Commission's letter dated 09/07/2015, vide letter dated 29/07/2015 West Discom stated that in the Discom's area till the completion of the work of feeder separation the domestic and agriculture consumers continue to get the supply from the same feeder. Therefore, in the event of increase in the supply hours, the enhanced supply was used by all the consumers including un-metered consumers of domestic and agricultural categories. Central Discom had not made any submission in this regard.
- 2.8 The Commission has observed that barring East Discom, none of the Discoms have furnished any specific details to establish their claim on extended supply hours to agricultural consumption. Further, on perusal of SLDC data / information furnished by East Discom in the matter, it is transpired that average supply to agriculture connections in rural areas was for about 8 hours during rabi season across all the Discoms. The SLDC data need to be viewed in context of the prevailing metering conditions during FY 2012-13. Hardly any distribution transformer metering was available (i.e. only about 14% as on 31<sup>st</sup> March 2013) and the feeder metering was also partial. The complete metering was only available on 132kV substations and above. SLDC had no avenues to verify or check actual supply being made to agricultural consumers from the distribution transformers. Further, high failure rate of distribution transformers clubbed with high replacement time for failed distribution transformers along with local load shedding due to capacity constraint in 33 kV / 11kV networks in rural area in the State led to reduction in actual supply made to the agriculture consumers. The Commission has noted with grave concern that despite of the directions of the Hon'ble APTEL in various judgments in the matter of appeals filed by the distribution companies with regard to true up of the ARRs of past years from FY 2006-07 to FY 2011-12 the distribution companies have failed to furnish any field data even on a representative basis. In these circumstances there cannot be any method to factor in the aforementioned elements so as to arrive at average hours of supply to agricultural consumers.
- 2.9 The maximum units those could be consumed by one horsepower agricultural pump considering 8 hours of daily three phase continuous supply to agricultural consumers during rabi season with one day of weekly off would be worked out as  $0.746\text{kW} \times 8 \text{ hours} \times 25 \text{ days} = 149.2$  units. However, due to diversity in the usage of electricity across the consumer base and also considering local interruptions in supply below 11kV feeders, it would not be appropriate to assume that all the agriculture load remained on bar for full period of 8 hours. In this situation it can be construed that the actual monthly consumption of one horsepower agricultural pump considering 8 hours of daily three phase supply to agricultural consumers was less than 149.2 units. The Commission had already prescribed 150 units per HP per month for permanent three phase connections and 155 units per HP per month for temporary three phase connections in rural area for FY 2012-13. Therefore, it would be apt to consider the prescribed benchmarks for working out the sale to un-metered agricultural connections.
- 2.10 In view of the above, the Commission has accepted the metered sale as per Annual R-15 statement. The sale to un-metered agricultural consumers has been admitted as per prescribed benchmarks. A summary of the sale booked to the unmetered sale as per monthly R-15, sale as per prescribed benchmark and sale over the prescribed benchmark as observed from the monthly R15 statement is shown in the table below:

**Table 7: Summary of sale to the unmetered category booked in excess over the prescribed benchmark (in MUs):**

Discom	Unmetered sale as per monthly R15	Unmetered sale (as per prescribed Benchmark)	Sale booked in excess over the prescribed benchmark for unmetered agricultural connections
East	2,429.61	1,829.74	599.87
West	4,914.19	4,609.75	304.44
Central	2,616.98	2,007.78	609.20
State	9,960.78	8,447.27	1,513.51

2.11 The details of energy sale as per tariff order for FY 2012-13, as per filing of the Discoms and as admitted by the Commission for the purpose of the true up are given in the following table:-

**Table 8 : Energy sale as per tariff order for FY 2012-13, as per filing of the Discoms and as admitted by the Commission (MUs)**

Category	East Discom			West Discom			Central Discom			Total for the State		
	As per tariff order FY 2012-13	As per true up petition FY 2012-13	As admitted in true up order FY 2012-13	As per tariff order FY 2012-13	As per true up petition FY 2012-13	As admitted in true up order FY 2012-13	As per tariff order FY 2012-13	As per true up petition FY 2012-13	As admitted in true up order FY 2012-13	As per tariff order FY 2012-13	As per true up petition FY 2012-13	As admitted in true up order FY 2012-13
<b>LOW TENSION</b>												
LV 1: Domestic Consumers	2,458.81	2,461.51	2,461.51	3,044.38	2,778.04	2,778.04	2,396.00	2,339.21	2,339.21	7,899.19	7,578.76	7,578.76
LV 2: Non - Domestic	594.81	536.04	536.04	782.75	707.25	707.25	679.61	582.60	582.60	2,057.17	1,825.89	1,825.89
LV 3: Public Water Works and Streetlights	292.01	384.92	384.92	264.39	238.29	238.29	320.97	243.29	243.29	877.37	866.49	866.49
LV 4: Industry	319.84	244.76	244.76	506.17	470.80	470.80	241.57	206.45	206.45	1,067.58	922.01	922.02
LV 5: Agricultural Consumers	2,014.49	2,825.26	2,225.39	4,442.52	4,893.32	4,588.89	3,388.66	3,461.94	2,852.74	9,845.67	11,180.53	9,667.02
<b>LT Sale (MU)</b>	5,679.96	6,452.49	5,852.62	9,040.21	9,087.70	8,783.27	7,026.81	6,833.49	6,224.28	21,746.98	22,373.68	20,860.17
<b>HIGH TENSION</b>												
HV 1: Railway Traction	591.47	526.71	526.71	396.07	411.61	411.61	744.33	847.65	847.65	1,731.87	1,785.97	1,785.97
HV 2: Coal Mines	497.03	489.90	489.90	0.00	0.00	0.00	34.03	34.73	34.73	531.06	524.63	524.63
HV-3.1: Industrial												
HV-3.2: Non-Industrial	1,656.18	2,036.26	2,036.26	3,248.50	3,324.95	3,324.95	1,429.91	1,933.18	1,933.18	6,334.59	7,294.40	7,294.40
HV-4: Seasonal	5.80	7.66	7.66	10.03	7.30	7.30	264.98	1.64	1.64	280.81	16.59	16.59
HV-5.1: Public Water Works												
HV 5.2: HT Irrigation	77.28	70.69	70.69	441.03	288.12	288.12	1.85	131.88	131.88	520.16	490.69	490.69

Category	East Discom			West Discom			Central Discom			Total for the State		
	As per tariff order FY 2012-13	As per true up petition FY 2012-13	As admitted in true up order FY 2012-13	As per tariff order FY 2012-13	As per true up petition FY 2012-13	As admitted in true up order FY 2012-13	As per tariff order FY 2012-13	As per true up petition FY 2012-13	As admitted in true up order FY 2012-13	As per tariff order FY 2012-13	As per true up petition FY 2012-13	As admitted in true up order FY 2012-13
HV-6: Bulk residential users	393.21	307.98	307.98	6.74	7.40	7.40	77.10	155.71	155.71	477.05	471.09	471.09
HV-7: Bulk Supply to Exemptees	0.00	0.00	0.00	170.54	0.00	0.00	184.94	0.00	0.00	355.48	0.00	0.00
<b>HT Sale (MU)</b>	3,220.97	3,439.20	3,439.20	4,272.91	4,039.38	4,039.38	2,737.14	3,104.79	3,104.79	10,231.02	10,583.37	10,583.37
<b>GRAND TOTAL (MU)</b>												
<b>HT + LT</b>	8,900.93	9,891.69	9,291.82	13,313.12	13,127.08	12,822.64	9,763.95	9,938.28	9,329.08	31,978.00	32,957.05	31,443.55
Adjustment in Sales on account of variation in sales as per monthly R-15 Statement and as filed in the petition			(-21.45)			0.00			0.00			(-21.45)
<b>Net TOTAL (MU) HT + LT</b>	8,900.93	9,891.69	9,270.37	13,313.12	13,127.08	12,822.64	9,763.95	9,938.28	9,329.08	31,978.00	32,957.05	31,422.10



## ***Power Purchase Quantum and Cost*** **Licenseses' Submission**

- 2.12 Discoms submitted that the power purchase quantum (in MU) admitted in the tariff order by the Commission was based on the loss trajectory as per regulations which differs from the actual loss levels. Discoms further submitted that there is wide variation in source wise per unit power purchase rate actually billed by the then MP Tradeco (now MPPMCL and hereinafter referred to MPPMCL) and that admitted by the Commission in retail supply tariff order for FY 2012-13.
- 2.13 East and West Discoms have submitted a detailed statement of quantum of power purchase and cost as paid to MPPMCL in FY 2012-13. MPPMCL statement submitted by the East Discom indicates the data / information of power purchased during the year from different sources along with the detailed breakup of variable charges, fixed charges and other expenses. It has been observed that there are variations in the quantum and cost of power purchased as per Audited Accounts of Discoms, as claimed by the Discoms in their petitions and as per MP Tradeco statement. This is shown in the table below:

*Table 9: Variation in power purchase quantum and cost as submitted by the petitioners (MU)*

<b>Particulars</b>	<b>East Discom</b>		<b>West Discom</b>		<b>Central Discom</b>	
	<b>MU</b>	<b>Rs Crore</b>	<b>MU</b>	<b>Rs Crore</b>	<b>MU</b>	<b>Rs Crore</b>
As filed in petition	14,781.83	4,552.21	17,716.36	6,170.98	15,254.00	4,814.59
As per the Tradeco Statement	14,777.85	4,605.63	17,716.36	5,549.57	15,238.00	4,786.03
As per the audited accounts*		4,631.20		6,165.49		4,814.59

\*Audited accounts do not indicate the Power Purchase quantum.

- 2.14 The Commission directed East and West Discoms to submit justifications/reasons for variations in power purchase cost from audited accounts.
- 2.15 In response, East Discom submitted that variation in the power purchase cost is due to the fact that the MPPMCL had raised the supplementary bills for credit of amount to the tune of Rs. 78.99 Crore, which accounted in the annual accounts of FY 2013-14. Since, this credit amount is related with the tariff period for FY 2012-13, therefore, this cost has been considered for the determination of true-up for FY 2012-13. Therefore, overall power purchase cost to the tune of Rs 4552.21 Crore (Rs 4631.20 Crore - Rs 78.99 Crore) has been claimed.
- 2.16 West Discom submitted that the MPPMCL had raised monthly bills to the tune of Rs 5573.44 Crore till the finalization of annual accounts for FY 2012-13. After the closure of accounts, MPPMCL had raised the supplementary bills for credit of amount to the tune of Rs. 23.87 Crore, which accounted in the annual accounts of FY 2013-14. As Rs. 23.87 Crore credit belongs to FY 2012-13 power purchase cost, it reduced the overall power purchase cost of FY 2012-13 to Rs. 5549.57 Crore. Further, after the closure of accounts, MPPMCL had raised the supplementary bills for debit of amount to the tune of Rs. 29.35 Crore, which accounted in the annual accounts of FY 2014-15. Since, both the above amounts are related to FY 2012-13,

hence considered in the true-up cost for FY 2012-13. Therefore, overall power purchase cost to the tune of Rs 6170.98 Crore (Rs. 6165.49 Crore- Rs. 23.87 Crore + Rs. 29.35 Crore) has been claimed.

- 2.17 The Commission analysed the submissions of Discoms of power purchase claimed and observed that the Discoms have considered the State Energy Accounts for claiming the power purchase quantum for FY 2012-13.
- 2.18 Power purchase details submitted by the Discoms for FY 2012-13 revealed that MPPMCL had purchased 47732.21 MU (including UI, short term power and the power sold outside the State) on behalf of Discoms from different generators. Summary of the power purchase for FY 2012-13 as per the MPPMCL statement is shown in the Table below:

**Table 10: Power purchase from various sources by Discoms through MPPMCL in FY 2012-13**

S. No.	Particulars	Power Purchase (MU)
1	MPPGCL	17951.33
2	NHDC (ISP + OHP) + SSP + Bargi (NVDA)+DVC (Chandrapur) +HEG (Tawa)+HEG (Mandideep)+DVC (Mejia)+Torrent+ISP (NVDA)	9272.95
3	CPP + Wind	1872.78
4	Central Sector (Eastern Region)	334.30
5	Central Sector (Western Region)	18010.07
6	Short Term Power	1689.09
7	Total Energy Purchased	49130.52
8	Energy Sold	1398.32
9	<b>Net Energy Purchased</b>	<b>47732.20</b>

- 2.19 Discom-wise break-up of power purchase quantum and cost as per MPPMCL statement is given below:

**Table 11: Power Purchase by Discoms as per MPPMCL statement in FY 2012-13**

East Discom		West Discom		Central Discom		Total for State	
MUs	Rs. Crore	MUs	Rs. Crore	MUs	Rs. Crore	MUs	Rs. Crore
14777.85	4605.63	17716.36	5549.57	15238.00	4786.03	47732.20	14941.23

- 2.20 It has been further observed that except Central Discom, the other Licensees have not submitted the complete details of energy balance in format "Schedule 4a" of their petitions. Energy balance details as submitted by Discoms are shown in the Table below:

**Table 12: Energy Balance as filed by Discoms for FY 2012-13**

S No.	Particulars	East Discom	West Discom	Central Discom
1	Total Energy Sale (MU)	9891.69	13127.08	9938.28
2	A. Distribution losses (%)	26.02%	24.48%	31.92%
	B. Distribution losses (MU)	3479.60	4254.32	4658.64
3	At T-D interface (MU)	13371.30	17,382	14,595.80
4	A. Transmission loss of MPPTCL (%)			3.30%
	B. Transmission losses of MPPTCL (MU)			498.10
5	At MP periphery			15093.90
6	External losses (%)			
	External losses (MU)			161.10
7	<b>Net energy requirement (MU)</b>	14781.83	17716.36	15255.00

### Commission's Analysis of Power Purchase Requirement

2.21 Details of power purchase including inter-state transmission charges and losses as admitted in the retail supply tariff order for FY 2012-13 and as per the audited accounts of Discoms are given in the table below:

**Table 13: Power purchase quantum and cost admitted in tariff order and claimed in true-up as per the audited accounts.**

Discom	Particulars	Admitted in the tariff order (B)	Actual as per audited accounts (A)
East Discom	Power Purchase Quantum (MUs)	12492	14781.83*
	Power Purchase Cost (Rs. Crore)	3135.072	4631.20#
West Discom	Power Purchase Quantum (MUs)	18108	17716.36*
	Power Purchase Cost (Rs. Crore)	4957.419	6165.49#
Central Discom	Power Purchase Quantum (MUs)	13991	15254.00*
	Power Purchase Cost (Rs. Crore)	3559.754	4814.59#
Total for the State	Power Purchase Quantum (MUs)	44590	47752.20
	Power Purchase Cost (Rs. Crore)	11652.245	15611.30

\*As Power Purchase quantum is not reflected in Audited Accounts, considered equal to as petitioned.

#It includes True-up Genco cost for FY 2008-09

2.22 While approving the power purchase quantum, the Commission has followed the principle of grossing up sales with normative loss levels for working out power purchase requirement in accordance with the provisions of the regulations, as narrated below;

- i. The admitted actual sales (say X) made by the Discoms have been grossed up by the normative Loss levels (say Y) to arrive at the power required at Discom periphery i.e. T-D boundary (say  $Z=X/(1-Y)$ ).
- ii. The quantum (Z) thus arrived at has further been grossed up by the STU losses (MP Transco) (A) to arrive at the quantum of power required at the State boundary (Say  $B=Z/(1-A)$ ).
- iii. Finally, the quantum (B) is grossed up by the actual external losses (say C) to arrive at the total energy requirement i.e.  $D=B/(1-C)$ .

2.23 In order to compute the energy balance for Discoms, it is necessary to know the loss levels at each stage. Therefore, inter-state transmission, intra-state transmission and distribution losses need to be identified correctly. The intra-state transmission loss as considered in the true-up order of MPPTCL for FY 2012-13 is 3.30%. Accordingly, the same loss level has been considered for the present true-up exercise. The Commission had considered the distribution loss levels for working out power purchase requirement in the retail supply tariff order for FY 2012-13 as specified in the regulations which are shown in the table below:

**Table 14: Distribution loss reduction trajectory for FY 2012-13 (%)**

Year	East Discom	West Discom	Central Discom
<b>FY 2012-13</b>	<b>24%</b>	<b>22%</b>	<b>26%</b>

2.24 The Commission directed the Discoms to submit details of the actual external transmission losses of Power Grid system. Discoms submitted weekly losses for FY 2012-13 as available on website of NLDC.

2.25 Accordingly, the average losses for FY 2012-13 applicable for western region and eastern region have been worked out as 3.24% and 2.50% respectively.

2.26 Power purchase requirement as per approach described above is shown in the table below:

**Table 15: Analysis of Power purchase quantum (MU)**

S. No.	Particulars	East Discom	West Discom	Central Discom	Total for State
1	Total Energy Sale (MU)	9,270.37	12,822.64	9,329.08	31,422.09
2	A. Distribution Losses (%)	24.00%	22.00%	26.00%	23.81%

S. No.	Particulars	East Discom	West Discom	Central Discom	Total for State
	B. Distribution Losses (MU)	2,927.49	3,616.64	3,277.78	9,821.91
3	At T-D interface (MU)	12,197.86	16,439.28	12,606.86	41,244.01
4	A. Transmission loss of MPPTCL (%)	3.30%	3.30%	3.30%	3.30%
	B. Transmission losses of MPPTCL (MU)	416.27	561.01	430.22	1,407.50
5	At MP periphery	12,614.13	17,000.29	13,037.09	42,651.51
6	A. External losses (%)	1.79%	1.38%	1.43%	1.52%
	B. External losses (MU)	229.63	238.65	189.62	657.90
7	<b>Net energy requirement (MU)</b>	<b>12,843.76</b>	<b>17,238.95</b>	<b>13,226.70</b>	<b>43,309.41</b>

2.27 The summary of source-wise power purchase quantum and fixed charges as submitted by petitioners and considered by the Commission is shown in table below:

**Table 16: Details of source wise power purchase quantum and fixed charges for FY 2012-13**

Sr. No.	Stations	Total Energy Purchased (MUs)	Total Fixed Cost (Rs. Crore)
1	KSTPS	3536.81	194.39
2	KSTPS III	587.82	86.59
3	VSTPS - I	3188.94	210.20
4	VSTPS-II	2366.93	184.46
5	VSTPS-III	1940.03	211.52
6	VSTPS-IV	24.17	8.88
7	Kawas	531.06	95.57
8	Gandhar	536.98	101.20
9	SIPAT II	1222.90	166.77
10	SIPAT I	1680.34	239.94
11	KAPP	786.93	0.00
12	TARAPUR	1605.77	0.00
13	Kahalgaon II	334.30	57.23
14	Mauda-I	1.39	3.70
	<b>Purchase from Other Sources</b>		
16	NHDC-Indira Sagar	2884.96	545.93
17	SSP	2057.79	149.15
18	OMKARESHWAR	1256.02	332.51
19	ISP NVDA	5.37	0.00
20	HEG Mandideep	32.81	0.00
21	HEG TAWA	34.86	0.00
22	Others 2 Wind	458.56	7.03
23	DVC (Mejia)	1237.57	194.43

Sr. No.	Stations	Total Energy Purchased (MUs)	Total Fixed Cost (Rs. Crore)
24	DVC (Chandrapur)	1216.92	239.08
25	DVC (Durgapur)	199.72	42.26
26	Bargi NVDA	1.98	0.00
27	Torrent	344.95	87.84
28	PTC	196.84	0.00
29	ASN Industries	9.99	0.00
30	IEX/PXI Purchase	223.37	0.00
31	RDM Care	3.81	0.06
32	JSR developers	1.51	0.00
33	Shiv vani Energy	1.54	0.00
34	PTC 100 MW	300.53	0.00
35	PTC 300 MW	889.63	0.00
36	Adora energy	2.14	0.00
37	GUPTA SONS	0.07	0.00
38	JP Bina	410.41	114.16
39	Pragya Energy	0.93	0.00
40	BLA	96.22	18.69
41	RRVPL (CHAMBAL-SATPURA)	229.14	0.00
42	Knowledge	16.78	0.00
43	Tata	20.47	0.00
44	Global	9.12	0.00
45	JSW	12.36	0.00
46	Lanco Amarkantak	678.45	109.02
	<b>MP Genco – Thermal</b>		
48	ATPS Chachai (240MW)	1104.41	93.50
49	ATPS-Chachai (210MW)	1406.08	183.01
50	STPS Sarni	4366.76	286.33
51	SGTPS Birsingpur	4611.00	387.91
52	SGTPS Birsingpur (500MW)	3325.79	360.43
	<b>MPGenco – Hydel</b>		
54	Gandhi Sagar	136.48	2.20
55	R P Sagar	182.51	0.00
56	Jawahar Sagar	136.03	0.00
57	Pench	233.10	7.41
58	Ban Sagar (I+II+III)	1751.03	72.21
59	Jhinna HPS	117.27	7.16
60	Brinsingpur Hydro	21.47	2.97

Sr. No.	Stations	Total Energy Purchased (MUs)	Total Fixed Cost (Rs. Crore)
61	Bargi	412.34	6.30
62	Rajghat	33.95	1.26
63	Madhikheda HPS	113.11	9.88

2.28 The total power purchase cost also includes a significant cost of Rs. 576.63 Crore as “other cost passed to Discoms which cannot be apportioned station wise”. Vide letter dated 9<sup>th</sup> July, 2015, the Commission sought details in this regards. In response East Discom submitted to the Commission the requisite details. After scrutinizing these details the Commission disallowed certain expenses related to delayed payments and Donations, which are shown in the table below:

**Table 17 : Other expenses in power purchase not considered by the Commission for FY 2012-13 (Rs. Crore)**

Sl. No.	Particulars	Amount	Reason for Disallowance
1	Penalty charges for Delayed payment	0.01	The Commission does not consider any penalty charges on account of delayed payment
2	Surcharge on delayed payment	4.92	The Commission does not consider any surcharge earned or paid on account of delayed payment
3	Donations contribution	0.0002	The Commission does not consider any charges under donations.

2.29 As discussed earlier the power purchase costs as per MPPMCL Statement, as filed by the Discoms in their petitions and as per the audited accounts of Discoms are at variance. Justifications submitted by the Discoms for such variations in the power purchase cost for FY 2012-13 do not properly reconcile or link the power purchase costs considered in the audited accounts. It is pertinent to point out that it is necessary to reconcile and remove any aberrations those arise out of such variations to maintain consistency of approach in order to determine prudent costs.

2.30 Further, the Discoms were required to link up the station-wise power purchase cost with the cost indicated in their audited accounts. The Discoms did not submit the details / documents to match the power purchase cost as indicated in their audited accounts vis-a-vis source wise details furnished by MPPMCL. In view of the fact that the whole true up exercise is based on the audited accounts of the Discoms, the Commission has decided to admit the power purchase cost on the basis of audited accounts of the Discoms.

- 2.31 While scrutinising the power purchase costs as indicated in the audited accounts of the Discoms the Commission has observed that in support of their claim the petitioners have furnished a statement from MPPMCL indicating month wise, station wise details of power purchase quantum and costs (fixed cost, variable charges, other charges / costs) with discom wise apportionment for corroborating the figures in audited accounts for FY 2012-13. The total fixed cost as indicated in this statement of Rs. 4,821.17 Crore and inter-state transmission cost (PGCIL / POSOCO Charges etc.) of Rs. 857.14 Crore have been considered and admitted by the Commission. Further, in the statement an amount of Rs. 1102.67 Crore (Rs. 347.43 Crore of East Discom, Rs. 373.21 Crore of West Discom and Rs. 382.03 Crore of Central Discom) has been included as “supplementary bills raised by the generators for the period prior to 2012-13”. On perusal of data / information made available by the petitioners it has been observed that the petitioners have not furnished the copy of all the bills required for establishing the prudence of the quantum and cost with regard to this amount of power purchase. However, the scrutiny of the statement subsequently furnished to the Commission in support of aforesaid claim of Rs. 1102.67 Crore has revealed that a major portion belongs to variable charges of previous years.
- 2.32 The Commission has noted that as per the directions contained in the Hon’ble APTEL judgment of 15 September 2015 the power purchase costs of the previous years are to be reworked for the true ups of the past financial years. In this situation the above claim of Rs. 1102.67 Crore which relates to previous years as per the submission made by the petitioners is required to be appropriately substantiated with the admitted quantum of sale and power purchase of the past years along with year wise break up among fixed cost, variable charges, other charges / costs so as to enable the Commission to prudently admit this cost.
- 2.33 Further, in compliance to Hon’ble APTEL’s judgment dated 15<sup>th</sup> September 2015, vide order dated 17<sup>th</sup> November 2015 the Commission has already directed the Discoms to file certain details with regard to sale to un-metered category of consumers and power purchase cost in respect of past true ups. The Discoms are yet to respond in the matter. The Discoms need to comprehensively file and appropriately substantiate the requisite information for past financial years on sale to unmetered categories of consumers, power purchase quantum and cost of power purchase including the claim of Rs. 1102.67 Crore for Commission’s consideration. Although the amount of Rs. 1102.67 Crore has been included in the audited accounts for FY 2012-13 and the Commission is inclined to consider it, but the petitioners are required to reconcile the same with respective year’s true ups in light of the facts discussed hereinabove.
- 2.34 The Commission has noted that Discoms had procured power in excess of admitted energy requirement based on norms. Similar situation had arisen during the true-up exercise of previous years. Hence, the Commission has decided to adopt the same approach as followed for the true-up of previous years by taking cognisance of the judgment of the Hon’ble APTEL dated 15 Sept. 2015 in appeal nos. 234, 270, 271 and 276 of 2014, in the matter of true-up orders of previous years issued by the Commission. Accordingly, the power purchase cost has been determined by considering:
- i. Full fixed cost for the generating stations meeting the power purchase requirement of the Discoms and



- ii. The cost for short term power and variable cost of long term power together for deriving the average rate to be applied on the admitted quantum of power purchase requirement.

2.35 As mentioned earlier, the audited accounts of the Discoms do not indicate the actual power purchase quantum. Therefore, in the absence of the actual power purchase quantum mentioned in the audited accounts the Commission has considered the actual ex-bus power purchase quantum as submitted by the Discoms in their petitions. The power purchase cost as admitted by the Commission is given in the table below:

**Table 18: Admitted Power Purchase Cost**

Sr. No.	Particulars	Reference	East Discom	West Discom	Central Discom	Total for State
1	Total Energy Procured as per petition (MUs)	A	14,781.83	17,716.36	15,254.00	47,752.19
2	Cost of Power Purchase including Inter-State Transmission Charges as per audited accounts (Rs. Crore)	B	4631.20	6165.49	4814.59	15,611.28
3	Supplementary Bills of Previous years (Rs. Crore)	C	347.43	373.21	382.03	1,102.67
4	Other Expenses not admitted (Rs. Crore)	D	1.44	1.95	1.53	4.93
5	True-up of MP Genco for FY 2008-09 (Considered separately)	E	24.08	43.40	39.29	106.77
6	Net Total Cost of Power Purchase	F=B-C-D-E	4,258.25	5,746.92	4,391.74	14,396.91
7	Fixed Cost of Power Purchase for FY 2012-13 (Rs. Crore)	G	1459.32	1909.43	1452.43	4,821.17
8	Total Inter-State Transmission Charges (Rs Crore)	H	265.34	318.73	273.08	857.14
9	Total Variable Cost (Rs Crore)	I=F-G-H	2533.59	3518.77	2666.23	8718.59
10	Pooled variable rate (Rs. / kWh)	J=I/A*10	1.71	1.99	1.75	1.83
11	Quantum of Power Purchase Admitted (MUs)	K	12,843.76	17,238.95	13,226.70	43,309.41
12	Total Variable Cost admitted (in Rs. Crore)	L=J*K/10	2,201.41	3,423.94	2,311.88	7,937.24
13	<b>Total Power Purchase Cost Admitted (Rs. Crore)</b>	<b>M=G+H+L</b>	<b>3926.06</b>	<b>5652.10</b>	<b>4037.39</b>	<b>13,615.55</b>

## Transmission Charges

- 2.36 Transmission charges admitted in the retail tariff order, booked in the audited accounts and as filed for FY 2012-13 by East, West and Central Discoms are given in the table below:

**Table 19 : Transmission Charges for FY 2012-13 (Rs. Crore)**

Sl. No.	Discom	Total transmission charges as per tariff order	transmission charges as per audited account	transmission charges as filed
1	East Discom	446.96	509.68	509.68
2	West Discom	504.64	654.80	654.80
3	Central Discom	487.19	529.15	529.15
4	Total	1438.79	1693.63	1693.63

- 2.37 The Commission has observed that the additional transmission charges claimed by Discoms towards taxes, incentives and terminal benefits are as per the provisions of the regulations / Acts. Thus, the Commission has admitted the actual transmission charges (including SLDC charges) as per the audited account of FY 2012-13. Further, these transmission charges include the true-up gap of Rs. 162.94 Crore for MP Transco for FY 2008-09, which the Commission has considered as separate head in the ARR. Accordingly, Discom wise break up of total transmission charges excluding the true-up gap of Rs. 162.94 Crore for MP Transco for FY 2008-09 are indicated in the table below:

**Table 20 : Transmission Charges for FY 2012-13 (Rs. Crore)**

Sl. No.	Discoms	Transmission charges (including SLDC charges) as per audited account (A)	True-up of MP Transco for FY 2008-09 (B)	Total transmission charges admitted for FY 2012-13 (C=(A)-(B))
1	East	509.68	50.12	459.56
2	West	654.80	59.47	595.33
3	Central	529.15	53.35	475.80
4	Total	1693.63	162.94	1530.69

**Operation and Maintenance (O&M) Costs****Licensees' submission:**

2.38 The Commission had admitted the total Operation and Maintenance Cost as Rs. 1824.08 Crore in the tariff order for FY 2012-13. The distribution company wise break-up of the O&M costs admitted in the tariff order is given in the table below:

**Table 21 : O&M Cost admitted in tariff order of FY 2012-13 (Rs. Crore)**

Particulars	East Discom	West Discom	Central Discom	Total
O&M Cost admitted in tariff order for FY 2012-13	641.72	603.07	579.29	1824.08

2.39 Licensees in their petitions have not submitted the Operation and Maintenance expenses based on norms in accordance with MPERC tariff regulations, 2009.

2.40 O&M expenses claimed by the Licensees on the basis of audited accounts are shown in the table below:

**Table 22 : O&M Expenses claimed by Licensees as per audited accounts of FY 2012-13 (Rs. Crore)**

Particulars	East Discom	West Discom	Central Discom
O&M Expenses claimed	852.87	694.04	735.19

**Commission's View and Analysis on Operation and Maintenance Costs:**

2.41 In the true-up petitions, all the three petitioners have claimed O&M expenses on the basis of audited accounts.

2.42 The Commission has considered O&M expenses as per norms specified in MPERC tariff regulation, 2009. These norms are fixed on the basis of metered sales and GFA of Distribution Licensees. In accordance with the MPERC tariff regulations, 2009, distribution licensees have to claim taxes to be paid to the Government or Local Authorities and fees to be paid to MPERC on the actual basis. The Commission escalated employee expenses (excluding arrears) and A&G expenses of FY 2010-11 @ 6.14% to get norms for FY 2011-12 and further @ 6.14% to work out a normative figures of employee and A&G expenses for FY 2012-13 respectively. Payment of arrears is allowed at the same level as allowed for FY 2010-11. The norms for O&M expenses as per MPERC tariff regulation, 2009 are given in the table below:

**Table 23 : Norms for O&M cost for FY 2012-13 (Rs. Crore)**

O&M charges	East Discom	West Discom	Central Discom
Employee expenses excluding arrears	440.54	413.28	389.69
Arrears	33.37	31.31	29.52
A&G	77.87	68.34	73.84

- 2.43 Further in accordance with clause 32.9 of the regulations any gain or loss in actual O&M expenses from the norms will be retained by the distribution licensees.
- 2.44 As regards Terminal benefit, distribution companies have claimed Terminal Benefits in their petitions, which are only the provisions in the audited accounts. As per clauses 32.6 and 32.7 of MPERC tariff regulation, 2009:-

*“32.6. Employees transfer to Companies from MPSEB is yet to take place. Actuarial analysis for assessment of present level of unfunded terminal liabilities and segregation of this liability for pensioners, past service rendered by employees on rolls and current provision for serving employees is yet to be completed. The scheme for funding this unfunded liability and operationalising Terminal Benefit Trust Fund has been pronounced by the State Government.*

*32.7. As per the Commission's view, the funds needed for pension contribution of existing employees i.e. current liability for each Year alone should be admitted in the employee cost of the M.P. Transmission Company Ltd., M.P. Generating Company Ltd., and three distribution companies. The Commission, in the intervening period, has been allowing funds needed for actual pension payment and other terminal benefits like gratuity. With the rapid increase in pension bills, its impact on tariff is progressively going up. This arrangement of allowing actual pension payment has become unsustainable and will have to be discontinued in near future. In view of the above, the Commission in the MYT Regulations for Transco had directed that an actuarial analysis for determining pension liability of pensioners as also for service already rendered by existing employees on one hand and current provision needed for each fiscal year commencing from FY 2010-11 for serving employees on other hand, be got conducted for each Year and findings be reported to the Commission. The M.P. Transmission Company Limited had been charged with carrying out this activity by Sept, 2009. It has now been informed that this activity is likely to be completed by February, 2010. The Commission, based on outcome of actuarial analysis, will take a comprehensive view and will firm up a strategy to meet this unfunded liability. The Commission, while finalising the above, shall also take into consideration the various arrangements made in other States for meeting this liability as also the views of all stakeholders.”*

- 2.45 Accordingly, the Commission has not found it appropriate to consider any provisioning made under the head “Terminal Benefits to Employees” in this true up for FY 2012-13 and thus the Commission has not admitted any amount as terminal benefits for East, West and Central Discoms.
- 2.46 The Commission also consider the taxes payable to the Government and fees to be paid to MPERC separately as per actual.
- 2.47 The provision for R&M expenses in the regulations is @ 2% for East and West Discoms and @ 2.3% for Central Discom on the opening GFA of the financial year. Accordingly, the Commission has computed the Discom wise R&M expenses as shown in the table below:

**Table 24 : R&M Expenses computed by the Commission for FY 2012-13 (Rs. Crore)**

DISCOMs	GFA	GFA % as per norms	R&M expenses
East	3,173.69	2.0%	63.47
West	3,213.18	2.0%	64.26
Central	3,096.57	2.3%	71.22
<b>Total</b>	<b>9,483.45</b>		<b>198.96</b>

2.48 Further in accordance with the clause 32.11 of the regulations incentive/ disincentive for increase/ reduction in metered sale has to be provided. The relevant provision of the regulations is reproduced below:

*“32.11 Incentive/ disincentive for increase/ reduction in metered sale shall be provided. Discom wise incentives/ disincentives based on the present level of metered sale shall be as follows:*

- 1. In case of MP Poorv Kshetra Vidyut Vitaran Co. Ltd., for every 1% increase in metered sales, expressed as percentage of total sale, from 80 % (present level of metered sale), an incentive of Rs.3.27 Crore shall be provided. Similarly a disincentive for every 1% increase in un-metered sale from 20% shall also be applicable at the rate of Rs.3.27 Crore.*
- 2. In case of MP Madhya Kshetra Vidyut Vitaran Co. Ltd., for every 1% increase in metered sales, expressed as percentage of total sale, from 81% (present level of metered sale), an incentive of Rs.2.88 Crore shall be provided. Similarly a disincentive for every 1% increase in un-metered sale from 19% shall also be applicable at the rate of Rs.2.88 Crore.*
- 3. In case of MP Paschim Kshetra Vidyut Vitaran Co. Ltd., for every 1% increase in metered sales, expressed as percentage of total sale, from 70% (present level of metered sale), an incentive of Rs.3.48 Crore shall be provided. Similarly a disincentive for every 1% increase in un-metered sale from 30% shall also be applicable at the rate of Rs.3.48 Crore...  
.....”*

2.49 Accordingly, the Commission has computed the incentive/disincentive on the basis of increase/decrease in metered sales from the total sales as filed as shown in the table below:

**Table 25 : Incentive/ disincentive on the basis of increase/decrease in metered sales**

Particulars	FY 2012-13					
	Metered Sales (MU)	Total Sales (MU)	% of Metered Sales	% of Base Sales as per regulation	Incentive/ disincentive per % increase/ decrease (Rs. Crore)	Incentive/ (Disincentive) (Rs. Crore)
East	7,440.63	9,270.37	80%	80%	3.27	0.86
West	8,212.89	12,822.64	64%	70%	3.48	(20.71)
Central	7,321.30	9,329.08	78%	81%	2.88	(7.26)

2.50 The Commission has admitted the O&M expenses as per norms provided in the regulations as shown in the following table:-

**Table 26 : O&M expenditure admitted for FY 2012-13 (Rs. Crore.)**

Particulars	East Discom	West Discom	Central Discom	Total
R&M Expenses	63.47	64.26	71.22	198.96
Employees Expenses	467.59	438.65	413.62	1,319.87
Arrears	33.37	31.31	29.52	94.20
A&G Expenses	82.66	72.54	78.38	233.57
Other expenses (Taxes, fees etc.)	3.60	9.92	1.01	14.53
Incentive/(Disincentive)	0.86	(20.71)	(7.26)	(27.11)
<b>O&amp;M expenses admitted for truing up</b>	<b>651.55</b>	<b>595.98</b>	<b>586.48</b>	<b>1,834.01</b>

### ***Interest on Project Loans***

#### **Licenseses' submission:**

2.51 East and Central Discoms have claimed the interest on project loans on the basis of audited accounts, while West Discom has claimed as per the norms specified in the regulations as shown in the Table below:

**Table 27 : Interest and finance charges claimed by Discoms (Rs. Crore)**

Interest on Project Loan	East Discom		West Discom		Central Discom	
	Admitted in Tariff Order	Claimed	Admitted in Tariff Order	Claimed	Admitted in Tariff Order	Claimed
State Government Loans		6.94				
R-APDRP						22.28
ADB		11.91				20.54
PFC-RAPDRP		10.94				
PFC RTL		1.37				1.82
REC RAPDRP Loan		1.07				
RGVY REC Loan -JBIC		9.59				5.96
Loan from REC FS		20.84				
REC loans –unsecured		18.34				12.03
HUDCO		15.67				9.95
SBI		6.19				
SSTD/TSP/SCSP						6.90
Debenture						23.94
Interest on Feeder separation						9.27
Penal interest on GPMP Loan						2.28

Interest on Project Loan	East Discom		West Discom		Central Discom	
	Total					
<b>Total</b>	<b>66.33</b>	<b>102.88</b>	<b>70.54</b>	<b>62.12</b>	<b>51.38</b>	<b>114.97</b>
Cost of Raising Finance and bank charges	12.58	3.27	3.72	13.66	12.44	18.15
<b>Total</b>	78.91	106.15	74.26	75.78	63.82	133.12
Less: Interest Capitalized	-	38.33				33.35
<b>Net Total</b>	<b>78.91</b>	<b>67.82</b>	<b>74.26</b>	<b>75.78</b>	<b>63.82</b>	<b>99.77</b>

### Commission's Analysis on Interest on Project Loans:

- 2.52 The Commission has examined the claims of the distribution companies from their filings and audited accounts. As per clause 29.1 to 29.9 of the regulations, for allowing interest and finance charges all loans shall be identified for the assets capitalised till the relevant year. In the absence of information related to loans mapping with particular assets, it cannot be ascertained as to how much loan is related to completed fixed assets and how much is related to capital work in progress.
- 2.53 Further clause 19.1 of the regulations stipulates that debt-equity ratio shall be 70:30 for calculation of interest on loan and for return on equity. Accordingly, the Commission has adopted the following principles for computing interest on project loans.

### Principles adopted for calculation of interest on project loans

- 2.54 In the true-up order for distribution and retail supply tariff order for FY 2011-12, the interest on project loans was admitted on the fixed asset created till March 31, 2012 on the basis of audited accounts for FY 2011-12. The Commission has adopted the same methodology for allocating the Gross Fixed Assets (GFA) addition during the year into debt and equity as explained below:
- a. Allocation of fixed assets into debt and equity as on March 31, 2012 has been considered as per the true-up order of FY 2011-12.
  - b. Net addition to GFA during FY 2012-13 has been worked out after subtracting the consumer contribution amount from total addition to GFA as available in the audited accounts of Discoms.
    - i. The Commission has considered closing GFA admitted in the true-up order for FY 2011-12 as the opening GFA for FY 2012-13.
    - ii. Further, the Commission considered the closing consumer contribution and grants for FY 2011-12 as the opening consumer contribution & grants for FY 2012-13.

- c. 30% of the net addition to GFA during FY 2012-13 has been considered as funded through equity and added to the total equity considered at the end of FY 2011-12, as per the true-up order for FY 2011-12 and balance net addition to GFA has been considered as funded through debt.
- d. Balance of net addition to GFA has been considered as having been funded through debt and added to the total debt considered at the end of FY 2011-12. In absence of the actual dates of capitalization of individual assets, 50% of the net addition to GFA is considered for allowing interest on project loans, so that the principle of pro-rata basis can be followed.

2.55 In accordance with the clause 29.3 of the regulations debt repayments equal to the depreciation admitted for that year has been taken. As regards weighted average interest rate for the interest computation, the Commission has considered weighted average interest rate filed by East, West and Central Discom as 7.15%, 10.61% and 8.85%, respectively.

2.56 Other finance charges claimed by East West and Central Discoms are Rs. 3.27 Crore, Rs. 13.66 Crore and Rs. 18.15 Crore, respectively. The Commission after scrutinizing Discoms submission with audited accounts considered only cost of raising funds, bank charges, commitment charges and guarantee/ LC charges. Accordingly, the Commission admitted other charges are Rs. 2.95 Crore, Rs. 12.95 Crore and Rs. 19.41 Crore for East, West and Central Discoms, respectively.

2.57 Details of interest on project loans admitted in true-up of FY 2012-13 for Discoms are given in the table below:

**Table 28 : Interest on Project Loans admitted by Commission for FY 2012-13(Rs. Crore.)**

Particulars		East Discom	West Discom	Central Discom	Total for State
<b>Opening Debt associated with GFA</b> (as on 31 <sup>st</sup> March 2012 as Per FY 2011-12 True-up Order)	<b>A</b>	<b>481.30</b>	<b>440.34</b>	<b>516.86</b>	<b>1,438.49</b>
GFA Addition during the year	B	1,095.24	653.91	1,171.82	2,920.97
Consumer Deposit and Grants utilized during the year	C	193.62	191.59	198.26	583.47
Net GFA Addition during the year	E=B-C	901.62	462.32	973.56	2,337.50
<b>70% of addition to net GFA considered as funded through debt</b>	<b>F=70%*E</b>	<b>631.13</b>	<b>323.62</b>	<b>681.49</b>	<b>1,636.25</b>
<b>Debt repayment during the year (Scheduled )</b>	<b>G</b>	<b>60.62</b>	<b>60.44</b>	<b>59.30</b>	<b>180.37</b>
<b>Closing debt associated with GFA</b>	<b>H=A+F-G</b>	<b>1,051.80</b>	<b>703.52</b>	<b>1,139.05</b>	<b>2,894.37</b>
<b>Average debt associated with Loan</b>	<b>I=Average(A,H)</b>	<b>766.55</b>	<b>571.93</b>	<b>827.95</b>	<b>2,166.43</b>
Weighted average rate of interest (%) on all loans as per Petitioner	J	7.15%	10.61%	8.85%	8.71%
<b>Interest on Project Loans</b>	<b>K=I*J</b>	<b>54.81</b>	<b>60.68</b>	<b>73.27</b>	<b>188.76</b>
Other Finance cost	L	2.95	12.95	19.41	35.31



Particulars		East Discom	West Discom	Central Discom	Total for State
Interest cost admitted on project loans in True-Up	M=K+L	57.76	73.63	92.68	224.07

### Interest on Working capital

#### Licensees' submission:

2.58 East and Central Discoms have claimed interest on working capital as per the audited accounts, while West Discom has claimed on the basis of norms. East, West and Central Discoms have claimed interest on working capital as Rs. 145.16 Crore, Nil amount and Rs. 159.55 Crore, respectively, as against nil amount for East and Central Discoms and Rs 0.32 Crore for West Discom admitted by the Commission in the tariff order for FY 2012-13.

#### Commission's Analysis on Interest on working capital:

2.59 As per clause 34.1 of the regulations, interest on working capital shall be payable on normative basis notwithstanding that the licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on normative figures. For the purpose of interest rate on working capital, interest rate of State Bank of India Advance Rate as on 1<sup>st</sup> April of relevant year has been taken. The Commission has observed the East and West Discoms have not submitted the working capital requirement separately for the wheeling and retail supply activity, while Central Discom has submitted separately for the wheeling and retail supply activity. For working out the interest on working capital, the Commission has considered the GFA, O&M expenses, power purchase expenses, consumer security deposited as admitted by the Commission in this true up order. Accordingly, the Commission has computed the interest on working capital in accordance with the provisions of regulations as shown in the table below:

**Table 29 : Interest on Working Capital admitted by the Commission for FY 2012-13 (in Rs. Crore)**

Sl. No.	Particulars	East Discom	West Discom	Central Discom	Total
A	Annual requirement of inventory (1% of Opening GFA)	31.74	32.13	30.97	94.83
A(i)	1/6 <sup>th</sup> of Annual requirement of inventory	5.29	5.36	5.16	15.81
B	O&M expense admitted by the Commission in this True-up	651.55	595.98	586.48	1,834.01
B(i)	1/12 <sup>th</sup> of above O&M expenses	54.30	49.66	48.87	152.83
C	Total Annual Revenue including subsidy and other income excludes ED,Cess				
C(i)	Receivables equivalent to 2 months average billing	866.84	1,125.49	860.28	2,852.61
D	Power Purchase expenses	3,926.06	5,652.10	4,037.39	13,615.55

Sl. No.	Particulars	East Discom	West Discom	Central Discom	Total
D(i)	1/12th of power purchase expenses	327.17	471.01	336.45	1,134.63
E	Consumer Security Deposit	576.66	653.70	381.73	1,612.08
F	Total Working capital (A(i)+B( i) + C i) – D(i)- E )	22.60	55.80	196.14	274.54
G	<b>Rate of Interest</b>	<b>14.75%</b>	<b>14.75%</b>	<b>14.75%</b>	<b>14.75%</b>
	<b>Interest on Working capital</b>	<b>3.33</b>	<b>8.23</b>	<b>28.93</b>	<b>40.50</b>
H	<b>Interest on Working capital admitted</b>	<b>3.33</b>	<b>8.23</b>	<b>28.93</b>	<b>40.50</b>

### Interest on Consumer Security Deposits

#### Licensees' submission:

2.60 Petitioners have claimed interest on consumer security deposit as per their audited accounts for FY 2012-13. East, West and Central Discoms have claimed Rs. 41.64 Crore, Rs. 50.04 Crore and Rs. 38.75 Crore as against Rs. 36.76 Crore, Rs. 56.42 Crore and Rs. 43.29 Crore admitted by the Commission in the tariff order for FY 2012-13.

#### Commission's Analysis on Consumer Security Deposit:

2.61 As per the clause 29.9 of the regulations, interest on consumer security deposit shall be considered at the rate specified by the Commission. In the tariff order for FY 2012-13, the Commission admitted the interest on consumer security deposit @ 6%. The Commission has observed that the actual interest rate as per audited accounts of the Discoms is less than interest on consumer security deposit admitted in retail tariff order for FY 2012-13. Therefore, the Commission has decided to admit the interest amount on consumer security deposit as per the audited accounts of the Discoms. Summary of interest on consumer security deposit admitted in the tariff order, claimed in the true-up petitions and admitted in this true up order for FY 2012-13 is shown in table below:

**Table 30 : Interest on Consumer Security Deposit admitted for FY 2012-13 ( Rs. Crore)**

Particulars	East Discom	West Discom	Central Discom	Total
Admitted in tariff order for FY 2012-13	36.76	56.42	43.29	136.47
Claimed in true up petition for FY 2012-13	41.64	50.04	38.75	130.43
Admitted in this true-up order	41.64	50.04	38.75	130.43

## Return on Equity

### Licensees' submission:

2.62 Petitioners have claimed return on equity @ 16%. East, West and Central Discoms has claimed return on equity @ 16% as Rs. 239.16 Crore, Rs 145.89 Crore, Rs 258.28 Crore as against Rs. 120.74 Crore, Rs 137.58 Crore, Rs 102.03 Crore admitted by the Commission in the tariff order for FY 2012-13.

### Commission's Analysis on Return on Equity:

2.63 As explained in section of Interest on Project Loans the equity contribution has been considered as 30% on the net GFA addition during FY 2012-13. Closing equity of FY 2011-12 as admitted by the Commission in true-up order of FY 2011-12 has been considered as opening value of equity for FY 2012-13. Further, the rate of return on equity has been considered as per MPERC tariff regulations, 2009 @ 16%. The computation of return on equity as admitted is shown in the table below:

**Table 31 : Return on Equity admitted for FY 2012-13 (Amount in Rs. Crore)**

S. No.	Particulars	East Discom	West Discom	Central Discom	Total
1	Opening Equity identified with GFA as on 31/03/2011 as per True-up order of 2011-12	659.27	728.78	670.29	2,058.34
2	GFA Addition during the year	1,095.24	653.91	1,171.82	2,920.97
3	Consumer Deposit and Grants utilized during the year	193.62	191.59	198.26	583.47
4	Net GFA Addition during the year	901.62	462.32	973.56	2,337.50
5	30% of addition to net GFA considered as funded through equity (As on 31st March 2012)	270.48	138.70	292.07	701.25
6	Closing Equity Considered for Return FY 2012-13	929.75	867.48	962.36	2,759.59
7	Average Equity identified with GFA and considered for Return for FY 2012-13	794.51	798.13	816.32	2,408.96
<b>8</b>	<b>RoE @16% admitted in True-up of FY 2012-13</b>	<b>127.12</b>	<b>127.70</b>	<b>130.61</b>	<b>385.43</b>

**Depreciation****Licensees' Submission:****East Discom:**

East Discom claimed depreciation on the basis of the audited accounts of FY 2012-13. Depreciation claimed by East Discom in true-up petition is Rs. 109.83 Crore as against the depreciation of Rs. 50.74 Crore admitted in the tariff order for FY 2012-13.

**West Discom:**

2.64 West Discom submitted that it has claimed depreciation based on the regulations. Depreciation claimed by West Discom in true-up petition is Rs. 138.55 Crore as against the depreciation of Rs. 76.27 Crore admitted in the tariff order for FY 2012-13.

**Central Discom:**

2.65 Central Discom claimed depreciation on the basis of the audited accounts of FY 2012-13. Depreciation claimed by Central Discom in true-up petition is Rs. 157.63 Crore as against the depreciation of Rs. 56.23 Crore admitted in the tariff order for FY 2012-13.

**Commission's analysis on depreciation claims:**

2.66 The Commission in the regulations has specified the following methodology for computation of depreciation:

*a. The value base for the purpose of depreciation shall be historical cost.*

*b. Depreciation rates for determination of allowable depreciation shall be as per Annexure-III of the Regulation.*

2.67 The depreciation rates given in the above regulation are equivalent to the depreciation rates specified by Central Electricity Regulatory Commission (CERC) regulation. The Commission in its True-up order for FY 2005-06 dated January 16, 2008 clarified that irrespective of the accounting practice followed by the utilities, the Commission will allow depreciation as per the depreciation rates specified in the tariff regulations.

2.68 The Commission has observed that claims against depreciation by the Discoms have not been duly substantiated by the detailed asset wise registers to ensure that claims made are only against those assets which have not been fully depreciated. Discoms in the past also did not submit these details despite repetitive directions. The Commission has observed that the East, West and Central Discoms have claimed depreciation @ 5.30%, 4.38% and 5.59%, respectively, which is quite higher than the depreciation rate considered by the Commission in the previous years' trueing up orders. Thus, any sudden change in the weighted average depreciation rate would not be prudent for consideration. Accordingly, the Commission in this

truing up order has considered the same depreciation rate i.e. 2.12%, 2.24%, and 2.00% for East, West and Central Discoms respectively, as considered in the truing up order for FY 2011-12. The Commission has further stated that a final view would be taken as and when detailed Fixed Asset Register would be filed by Discoms. The Commission has considered GFA addition net of consumer contribution and grants as discussed in "Interest & Finance Charges" section of this truing-up order, for the computation of depreciation for FY 2012-13 as shown in the table below:

**Table 32 : Depreciation admitted by the Commission (Rs. Crore)**

Particulars	East Discom	West Discom	Central Discom	Total
Opening GFA on 1 April, 2012 (Closing GFA net of consumer contribution & grants as per true-up order of FY 2011-12)	2,408.84	2,467.16	2,478.34	7,354.34
Add: GFA Added during the year	1,095.24	661.50	1,171.82	2,928.56
Less: Deductions during the year	0.00	7.59	0.00	7.59
Less: Consumer Contribution and grants during the year	193.62	191.59	198.26	583.47
Net GFA addition during the year	901.62	462.32	973.56	2,337.50
Closing GFA on 31 March, 2012	3,310.46	2,929.48	3,451.90	9,691.84
Average GFA	2,859.65	2,698.32	2,965.12	8,523.09
Rate of Depreciation	2.12%	2.24%	2.00%	2.12%
<b>Depreciation admitted by the Commission</b>	<b>60.62</b>	<b>60.44</b>	<b>59.30</b>	<b>180.37</b>

2.69 The Commission will take a final view on depreciation as and when detailed Fixed Asset Register are filed by Discoms subject to prudence check.

### ***Other items of ARR***

2.70 Apart from the above discussed components, there are certain other items which form part of the Aggregate Revenue Requirement. These include bad debts, other miscellaneous expenditure, any prior period expenses / credits, income tax and fringe benefit tax. These components are analyzed in the following section:

### ***Bad and doubtful debts***

#### **Licensees' submission:**

2.71 Discoms have claimed the bad and doubtful debts as shown in the table below:

**Table 33 : Bad Debts claimed by Discoms (Rs. Crore)**

Discom	Bad Debt as per tariff order	Bad Debt as per audited accounts	Bad Debt claimed
East	1.00	422.25	305.55
West	1.00	168.08	286.49
Central	1.00	703.87	790.95

**Commission's Analysis on Bad and Doubtful debts:**

- 2.72 Vide letter dated July 9, 2015, the Commission has asked the Discoms to submit the details of bad debt claimed. In reply to the queries Discoms have submitted as below:
- East Discom submitted that amount written off under various scheme is Rs. 23.90 Crore and amount written off against dues of RE Co-operative Societies is Rs 281.65 Crore. East Discom also submitted the copy of minutes of the 59<sup>th</sup> meeting of Board of Directors held on 25 March, 2013 at Jabalpur.
  - West Discom submitted that amount written off under various scheme is Rs. 126.77 Crore and amount written off against surcharge is Rs 159.72 Crore.
  - Central Discom submitted that amount written off against HT debtors is Rs. 294.89 Crore and amount written off against surcharge is Rs 116.96 Crore and waiver of false/wrong demand is Rs 379.10 Crore.
- 2.73 The Commission has already taken a view in truing up order for previous years that the delayed payment surcharge is not an income. Therefore, the written- off amount against it shall also not be considered as expense. The Commission has also not considered principal amount written off under any scheme as it has been waived at their own behest.
- 2.74 Further, the Commission has noticed that Central Discom has not substantiated the claimed amount.
- 2.75 The regulations provide to admit bad debts as amount actually written-off subject to the maximum of 1% of the sales revenue. The Commission has noted that bad and doubtful debts actually written off by Central and West Discoms are lower than the maximum permissible limit i.e. 1% of sales revenue as specified in the regulations, while East Discoms has written-off bad debts more than the maximum permissible limit specified in the regulations.
- 2.76 Bad debt admitted by the Commission after prudence check is given in the table below:

**Table 34 : Segregation of actual Bad Debts submitted by Discoms (Rs. Crore)**

Actual bad debt written off	East Discom	West Discom	Central Discom	State
Bad Debt Claimed	305.55	286.49	790.95	1,382.99
Bad Debt worked out	281.65	0.00	0.00	281.65
1% of Sales revenue	49.70	61.58	46.98	158.26
<b>Bad Debt written off admitted by the Commission</b>	<b>49.70</b>	<b>0.00</b>	<b>0.00</b>	<b>49.70</b>

***Any other expense*****Misc. Losses & Write-offs / Sundry Expenses / Net Prior Period Charges / (Credit)  
Licensees' submission:**

2.77 Discoms claims under misc. losses & write-offs / sundry expenses / net prior period charges – (credits)/ extra ordinary items are shown in the table below:

**Table 35 : Misc. Losses & Write-offs / Sundry Expenses / Net Prior Period Charges / (Credit)/ Extra Ordinary Items claimed by Discoms (Rs. Crore)**

Particulars	East Discom	West Discom	Central Discom	Total
Misc. Losses & Write-offs	0.42	8.37	0.00	8.79
Net Prior Period Charges / (Credit)	(14.07)	10.24	177.73	173.90
Extra Ordinary Items excluding Liability of wheeling charges towards MPPTCL written off	31.26	0.00	0.00	31.26
<b>Total other expenses claimed in this true-up</b>	<b>17.61</b>	<b>18.61</b>	<b>177.73</b>	<b>213.95</b>

- 2.78 The Commission directed Discoms to submit the details of misc. losses & write-offs / sundry expenses / net prior period charges – (credits) claimed in the petitions. East, West and Central Discoms submitted their responses.
- 2.79 East Discom submitted that it has considered compensation for injuries and damages of Rs. 0.42 Crore and other income related to prior periods of Rs 14.07 Crore under prior period adjustments. East Discom further submitted that it has considered interest on PP bond liability as Rs.(-) 2.02 Crore, interest on deposits received from REC as Rs 33.28 Crore under Extra Ordinary Items.
- 2.80 West Discom submitted that it has considered net prior periods Employees related/interest /tax/depreciation/other expenses of Rs.10.24 Crore as per audited Accounts and Rs 8.37 Crore as cost of trading.
- 2.81 Central Discom submitted that it has considered net prior periods of Rs.177.73 Crore booked under Note 35 of Audited Accounts.
- 2.82 Considering the above submissions of Discoms, the Commission has undertaken detailed head wise analysis of Misc. Losses & Write-offs / Sundry Expenses / Net Prior Period Charges / (Credit) as claimed in the petition and provided in the audited accounts of the Discoms.
- 2.83 As regards other expenses claimed by Discoms, the Commission has observed that employee related credits/ interest/ tax/ prior period depreciation expense etc., under the head of prior period adjustments are claimed. As the Commission has already undertaken trueing up of previous years based on the prudence check of the audited accounts, it has not considered such type of expenses.

- 2.84 Accordingly, the Commission after verifying expenses from the audited accounts of the Discoms has admitted the miscellaneous losses & write-offs / sundry expenses / net prior period charges – (credits) as shown in the table below:

**Table 36 : Misc. Losses & Write-offs / Sundry Expenses / Net Prior Period Charges / (Credit) admitted by the Commission (Rs. Crore)**

<b>Particulars</b>	<b>East Discom</b>	<b>West Discom</b>	<b>Central Discom</b>	<b>Total</b>
<b>Miscellaneous losses&amp; Write-offs</b>	<b>0.00</b>	<b>0.93</b>	<b>0.00</b>	<b>0.93</b>
<b>Sundry Expenses</b>	<b>0.42</b>	<b>1.45</b>	<b>0.00</b>	<b>1.87</b>
<b>Net prior period charges</b>				
Other income pertaining to prior period	(14.07)	0.00	(57.06)	(71.13)
Other items pertaining to prior period	0.00	(3.22)	0.00	(3.22)
<b>Total other expenses admitted by the Commission</b>	<b>(13.65)</b>	<b>(0.84)</b>	<b>(57.06)</b>	<b>(71.55)</b>



### 3. REVENUE FROM SALE OF POWER

#### *Sale of Power*

3.1 The Commission had admitted the projection of sales as 8900.92 MU, 13313.12 MU and 9763.94 MU at revenue of Rs. 4467.31 Crore, 6348.32 Crore and Rs. 4851.40 Crore for East, West and Central Discoms, respectively in the retail tariff order for FY 2012-13 dated 31st March, 2012,. As against the same, the sales filed are 9992 MU, 13127 MU and 9938 MU at revenue of Rs 4970.34 Crore, Rs 6338.49 Crore and Rs 4822.14 Crore by East, West and Central Discoms, respectively.

#### **Commission's Analysis**

3.2 The Licensees in their audited accounts have booked the revenue from sale of power excluding subsidy and other income to the tune of Rs. 4491.30 Crore, Rs. 5349.56 Crore and Rs. 3987.88 Crore for East, West and Central Discoms, respectively.

3.3 The Commission understands that the Licensees had implemented retail tariffs as per the tariff order issued by the Commission on 31 March, 2012 and based on the same the following revenue has been booked in the audited accounts.

**Table 37 : Revenue from sale of power as per Audited accounts**

Particulars	East Discom	West Discom	Central Discom	Total
Revenue from sale of power (Rs. Crore)	4491.30	5349.56	3987.88	13828.74

3.4 Further, the Commission also recognizes that the petitioners have received tariff subsidy from state Government other than the revenue from sale of power as reported in the audited balance sheets. Discoms have also received other income and non-tariff income during FY 2012-13 as booked in the audited accounts. Thus, in addition to the revenue from sale of power, the Commission has also considered the following revenue, as reported in audited accounts, for this true-up exercise and as discussed subsequently:

- Non-tariff income
- Subsidy received from state Govt.
- Other income

#### ***Non tariff income***

3.5 In addition to the above revenue from sale of power, the non-tariff income has been considered separately as stated below for all the three distribution Companies as per their respective audited accounts:

**Table 38 : Break up of non tariff income (Rs. Crore)**

Sr. No.	Particulars	East Discom	West Discom	Central Discom	Total
1	Misc. charges from consumers	24.11	105.68	28.34	158.13
2	Income from wheeling charges	0.48	6.18	62.98	69.64
3	Meter rent	33.58	42.25	32.90	108.73
4	Recoveries for theft of power/malpractice	12.23	26.49	9.74	48.46
<b>5</b>	<b>Total non tariff income</b>	<b>70.40</b>	<b>180.60</b>	<b>133.96</b>	<b>384.96</b>

**Subsidy and grants**

3.6 The Licensees' audited accounts for FY 2012-13 reveal the revenue subsidy to the tune of Rs. 497.04 Crore, Rs. 808.32 Crore and Rs. 710.04 Crore has been received from the Government of Madhya Pradesh by East, West and Central distribution companies respectively. As shown in the table below, the Commission has considered this amount in the income of the petitioners being a part of the revenue from sale of power to the subsidized consumers in this true-up order.

**Table 39 : Subsidy and Grants admitted as per Audited Accounts (Rs. Crore)**

Particulars	East Discom	West Discom	Central Discom	Total
Subsidy and Grants received from GoMP	479.04	808.32	710.04	1997.40

**Other Income****Licensees' Submission**

3.7 The other income as per the audited accounts of the distribution companies is mentioned in the table below.

**Table 40 : Other Income as per audited accounts of the distribution Companies (Rs. Crore.)**

Sr. No.	Particulars	East Discom	West Discom	Central Discom
<b>A</b>	<b>Income from Investment, Fixed &amp; Call Deposits</b>			
	Interest on Staff loans & advances	0.11	0.03	0.25
	Interest on FDRs/Investment	26.36	25.20	36.21
<b>A</b>	<b>Sub-Total (A)</b>	<b>26.47</b>	<b>25.23</b>	<b>36.46</b>
<b>B</b>	<b>Other Non tariff Income</b>			
	Delayed payment surcharge	123.06	143.83	302.81
	Interest & penal interest on advance to suppliers	0.21	10.79	8.67
	Interest from banks			0.31
	Utility charges			6.99

Sr. No.	Particulars	East Discom	West Discom	Central Discom
	Scrap sales		11.90	
	Lease rent			0.20
	Staff recoveries	0.05		0.51
	Income from staff welfare activities			
	Deferred income (consumer contribution)	12.01	27.55	33.60
	RGGVY-Surcharge & additional Surcharge			14.26
	Misc services/receipts	46.97	41.84	40.48
	Profit on sale of stores			3.62
	Income from trading (other than electricity)	18.56	125.91	
	Supervision charges		13.40	
<b>B</b>	<b>Sub-total (B)</b>	<b>200.86</b>	<b>375.22</b>	<b>411.45</b>
<b>C</b>	<b>Total other income (A+B)</b>	<b>227.34</b>	<b>400.45</b>	<b>447.91</b>
<b>D</b>	<b>Total other income (excluding DPS )</b>	<b>104.28</b>	<b>256.62</b>	<b>145.10</b>

- 3.8 The Commission has not considered the delayed payment surcharge as part of income of Discoms as per regulations as any additional interest on working capital for the delayed payment is also not considered.
- 3.9 The Commission has also not considered the deferred income as the Commission has considered the depreciation on the consumer contribution and grants, Further, the Commission has also not considered income from RGGVY depreciation as the Commission has computed depreciation on the net asset addition after reducing grants and consumer contribution from the actual gross asset addition during the year.
- 3.10 Accordingly, the Commission admits the actual other income of Rs. 92.26 Crore, Rs 229.07 Crore, and Rs 97.24 Crore for East, West and Central Discoms as per audited balance sheet excluding the components as discussed above..
- 3.11 Based on above discussion, the total revenue admitted by the Commission for the period April, 2012 to March, 2013 is mentioned in the table below:

**Table 41 : Total revenue, non-tariff income and subsidy admitted (Rs. Crore.)**

Discom	Revenue from sale of power	Non-tariff income	Revenue subsidies from GoMP	Other income (excluding DPS)	Total revenue income admitted for true-up
East	4,491.30	70.40	479.04	92.26	5,133.00
West	5,349.56	180.60	808.32	229.07	6,567.55
Central	3,987.88	133.96	710.04	97.24	4,929.12
<b>Total</b>	<b>13,828.74</b>	<b>384.96</b>	<b>1,997.40</b>	<b>418.57</b>	<b>16,629.67</b>

#### 4. REVENUE SURPLUS / (DEFICIT) ADMITTED

- 4.1 Based on the scrutiny of various cost components regarding revenue income and expenditures of Discoms, the Commission has considered the following surplus / (deficit) for the period April' 2012 to March' 2013 for recovery by the Licensee through retail tariffs in future:

*Table 42 : Revenue Surplus / (Deficit) admitted in True-up of ARR for FY 2012-13 (Rs. Crore)*

Particulars	East Discom	West Discom	Central Discom	Total For State
<b>INCOME</b>				
<b>Revenue from Sale of Power</b>				
Tariff Income	4,491.30	5,349.56	3,987.88	13,828.74
Non-tariff income (meter rent, recoveries for theft of power, wheeling/U.I. charges recovery, Misc. charges from consumers)	70.40	180.60	133.96	384.96
Other Income	215.32	372.90	400.05	988.27
Less : Delayed Payment Surcharge	123.06	143.83	302.81	569.70
Net other income (excluding delayed payment surcharge)	92.26	229.07	97.24	418.57
Subsidy	479.04	808.32	710.04	1,997.40
<b>Total Income (A)</b>	<b>5,133.00</b>	<b>6,567.55</b>	<b>4,929.12</b>	<b>16,629.67</b>
<b>EXPENSES</b>				
<b>Power Purchase</b>				
Power Purchase Cost	3,926.06	5,652.10	4,037.39	13,615.55
MP Transco Charges	459.56	595.33	475.80	1,530.69
<b>Total Power Purchase (Incl. Transmission) (B)</b>	<b>4,385.62</b>	<b>6,247.43</b>	<b>4,513.19</b>	<b>15,146.24</b>
<b>O&amp;M Expenses (Net of Capitalisation)</b>				
Employee Expenses	467.59	438.65	413.62	1,319.87
Arrears	33.37	31.31	29.52	94.20
A&G Expenses	82.66	72.54	78.38	233.57
R&M Expenses	63.47	64.26	71.22	198.96
Other expenses (including Taxes & MPERC Fees)	3.60	9.92	1.01	14.53
(Incentives)/dis-incentives	0.86	(20.71)	(7.26)	(27.11)
<b>Total O&amp;M (C)</b>	<b>651.55</b>	<b>595.98</b>	<b>586.48</b>	<b>1,834.01</b>
<b>Other Expenses</b>				
Depreciation	60.62	60.44	59.30	180.37
Interest & Financing Charges on Project Loans	57.76	73.63	92.68	224.07

<b>Particulars</b>	<b>East Discom</b>	<b>West Discom</b>	<b>Central Discom</b>	<b>Total For State</b>
Interest and Finance Charges on working capital loans	3.33	8.23	28.93	40.50
Interest on Consumer Security Deposit	41.64	50.04	38.75	130.43
Return on Equity	127.12	127.70	130.61	385.43
Bad & Doubtful Debts	49.70	0.00	0.00	49.70
Any Other Expense	-13.65	-0.84	-57.06	-71.55
Tradeco Charges	0.00	0.00	0.00	0.00
<b>Total Other Expenses (D)</b>	<b>326.53</b>	<b>319.21</b>	<b>293.22</b>	<b>938.96</b>
<b>Total Expenses G = (B + C + D)</b>	<b>5,363.70</b>	<b>7,162.61</b>	<b>5,392.89</b>	<b>17,919.21</b>
<b>Revenue Surplus / (Gap) H = (A - G)</b>	<b>(230.70)</b>	<b>(595.06)</b>	<b>(463.78)</b>	<b>(1,289.54)</b>
<b>Previous Year true-ups</b>				
True-up (Gap) MP Genco for FY 2008-09	(24.08)	(43.40)	(39.29)	(106.77)
True-up (Gap) MP Transco for FY 2008-09	(50.12)	(59.47)	(53.35)	(162.94)
<b>Total Previous Year true-ups (Gap) (I)</b>	<b>(74.20)</b>	<b>(102.87)</b>	<b>(92.64)</b>	<b>(269.71)</b>
<b>Total Revenue Surplus / (Gap) J = (H-I)</b>	<b>(304.90)</b>	<b>(697.93)</b>	<b>(556.42)</b>	<b>(1559.25)</b>

.....