# BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Filing No	
Petition No	

#### IN THE MATTER OF:

Determination of tariff for FY 2014-15 and True-Up tariff for FY 2012-13 & 2013-14, in respect of Maharashtra State Electricity Transmission Company Limited (MSETCL) owned Transmission Lines/System conveying electricity to other States, further to the Hon'ble Central Electricity Regulatory Commission (CERC) Order dated 18 May, 2015 against Petition No.: 256/TT/2013, for inclusion in the POC transmission charges in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

#### Maharashtra State Electricity Transmission Company Limited,

'Prakashganga', Plot No.C-19, E- Block,

BandraKurla Complex, Bandra (East),

Mumbai - 400 051.

----- The Petitioner

#### Power Grid Corporation of India Ltd.,

Saudamini, Plot No.2, Sector-29, Near IFFCO Chowk,

Gurgaon (Haryana)-122001 and Others ----- The Respondent



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FILED BY

Maharashtra State Electricity Transmission Company Ltd

Represented by

Chief Engineer (STU)





#### MAHARASHTRA STATE ELECTRICITY TRANSMISSION COMPANY LIMITED CIN U40109MH2005SGC153646

Prakashganga,5thfloor/ 'A' V	Wing, Plot C -19, E - block, BKC, Bandra
(E), Mumbai:-51	
(022) 2659 5175,	+91 91672 79940,
<b>6</b> (022) 2659 5175,	<b>6</b> 27 27 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

NO: MSETCL/CO/C.E.-STU/R&C 0 0 9 2 0 1

2 2 AUG 2016

DATE:

To.

The Secretary,

Central Electricity Regulatory Commission,

3rd and 4th Floor, Chanderlok Building,

36, Janpath, New Delhi-110 001

Sub: Petition for determination of tariff for FY 2014-15 and True-Up tariff for FY 2012-13 & 2013-14 in respect of MSETCL owned Transmission Lines/System conveying electricity to other States.

The Hon'ble CERC Order dated 18 May, 2015 against Petition Ref: No.: 256/TT/2013.

#### Respected Sir,

The present Petition is filed for determination of tariff for FY 2014-15 and True-Up tariff for FY 2012-13 & 2013-14, in respect of Maharashtra State Electricity Transmission Company Limited (MSETCL) owned Transmission Lines/System conveying electricity



to other States, further to the Hon'ble Central Electricity Regulatory Commission (CERC) Order dated 18 May, 2015 against Petition No.: 256/TT/2013, for inclusion in the POC transmission charges in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, which may please be registered.

 $Submitted \ for \ kind \ consideration \ of \ Hon'ble \ Commission \ please.$ 

Encl: As Above (1+9 Copies)

Yours faithfully

Chief Engineer (STU)

#### Copy s.w.r to:

- The Chairman & Managing Director, MSETCL, Prakashganga, Mumbai.
- The Director (Project/Operations/ Finance), MSETCL, Prakashganga, Mumbai.



#### **BEFORE**

### THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

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#### Maharashtra State Electricity Transmission Company Limited,

'Prakashganga', Plot No.C-19, E- Block,

BandraKurla Complex, Bandra (East),

Mumbai – 400 051.

----- The Petitioner

#### Power Grid Corporation of India Ltd.,

Saudamini, Plot No.2, Sector-29, Near IFFCO Chowk,

Gurgaon (Haryana)-122001 and Others

----- The Respondents



#### MEMO OF PARTIES

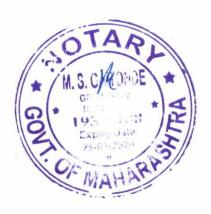
Maharastra	State	Electricity	Transmission	Company	Limited,
					Petitioner

Vs

- 1. Power Grid Corporation of India Limited, "Saudamani", Plot No.2, Sector-29, Near IFFCO Chowk, Gurgaon -122001 (Haryana).
- **2. M.P. Power Transmission Company Limited**, Block No-2, Shakti Bhawan,Rampur, Jabalpur, 482008, Madhya Pradesh
- Gujarat Energy Transmission Corporation Limited.
   Sardar patel Vidyut Bhavan, Race Course, Vadodara-390007, Gujarat
- **4. Electricity Department, Goa, Vidyut Bhavan**, 3rd Floor, Tiswadi, Panaji-403001.
- **5. Karnataka Power Transmission Corporation Limited**, Kaveri Bhavan, K.G Road, Bangalore-560009, Karnataka

.....Respondents

Chief Engineer (STU)



## BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Filing No	
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#### IN THE MATTER OF:

Determination of tariff for FY 2014-15 and True-Up tariff for FY 2012-13 & 2013-14, in respect of Maharashtra State Electricity Transmission Company Limited (MSETCL) owned Transmission Lines/System conveying electricity to other States, further to the Hon'ble Central Electricity Regulatory Commission (CERC) Order dated 18 May, 2015 against Petition No.: 256/TT/2013, for inclusion in the POC transmission charges in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

#### Maharashtra State Electricity Transmission Company Limited,

'Prakashganga', Plot No.C-19, E- Block,

BandraKurla Complex, Bandra (East),

Mumbai – 400 051. ------ The Petitioner

#### Power Grid Corporation of India Ltd.,

Saudamini, Plot No.2, Sector-29, Near IFFCO Chowk,
Gurgaon (Haryana)-122001 and Others
------ The Respondents



#### Affidavit on behalf of Maharashtra State Electricity Transmission Company Limited

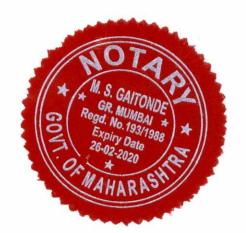
I, Subhash s/o Shri Gopalrao Kelkar, aged 56 years, having my office at 4<sup>th</sup> Floor, 'Prakashganga', Plot No. C-19, E-Block, BandraKurla Complex, Bandra (East), Mumbai – 400 051 do solemnly affirm and say as follows:-

- I am the Chief Engineer (State Transmission Utility) of the Maharashtra State Electricity Transmission Company Limited and the Petitioner in the above matter and I am duly authorised by the said petitioner to make this affidavit.
- 2. I submit that an enclosed Petition is being filed for Determination of tariff in respect of MSETCL owned Transmission Lines/System conveying electricity to other Statesfor the period from 1 April, 2014 to 31 March, 2015, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009. Further, it is also filed for True-Up tariff for FY 2012-13 & 2013-14.
- 3. I submit that no other Petition except this Petition has been filed directly or indirectly for approval of tariff in respect of MSETCL owned TransmissionLines/System conveying electricity to other States for the period from 1 April, 2014 to 31 March, 2015 and True-Up tariff for FY 2012-13 & 2013-14.



- 4. The statements made in the enclosed submission are based on the information from the concerned officers of the Company and I believe them to be true.
- 5. I say that there are no proceedings pending in any court of law/ tribunal or arbitrator or any other authority, wherein the Petitioners are a party and where issues arising and/or reliefs sought are identical or similar to the issues arising in the matter pending before the Commission.

I solemnly affirm at Mumbai on this 31 had day of 2016 that the contents of the above affidavit are true to my knowledge, no part of it is false, and nothing material has been concealed there from.



Identified before me

\_\_\_\_\_

Mumbai

Date: 31-8-226

Chief Engineer (STU)
MSETCL

Identified By Me

P. K. DUBEY

ADVOCATE HIGH COURT Lawyer's Chamber Bhaskar Bldg., 2nd Floor, Bandra Court, Bandra (East), Mumbai - 400 051. BEFORE ME

M. S. GAITONDE

GREATER MUMBAI

 NOTED
 REGISTER

 Sr. No.2239
 31-8-24





## THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Filing No.\_\_\_\_

Petition No
IN THE MATTER OF:
Determination of tariff for FY 2014-15 and True-Up tariff for FY
2012-13 & 2013-14, in respect of Maharashtra State Electricity
Transmission Company Limited (MSETCL) owned Transmission
Lines/System conveying electricity to other States, further to the
Hon'ble Central Electricity Regulatory Commission (CERC) Order
dated 18 May, 2015 against Petition No.: 256/TT/2013, for inclusion
in the POC transmission charges in accordance with the Central
Electricity Regulatory Commission (Terms and Conditions of Tariff)
Regulations, 2009.
Maharashtra State Electricity Transmission Company Limited,
'Prakashganga', Plot No. C-19, E- Block,
BandraKurla Complex, Bandra (East),
Mumbai – 400 051 The Petitioner
Power Grid Corporation of India Ltd.,
Saudamini, Plot No.2, Sector-29, Near IFFCO Chowk,
Gurgaon (Haryana)-122001 and Others
The Respondents



The Secretary,

Central Electricity Regulatory Commission,

3rd and 4th Floor, Chanderlok Building, 36, Janpath,

New Delhi-110 001

- The applicant, Maharashtra State Electricity Transmission Company Limited (MSETCL) is a Company incorporated under the provisions of the Companies Act, 1956 having its registered office at "Prakashganga", Plot No. C-19, E-Block, Bandra- Kurla Complex, Mumbai-400051.
- 2) MSETCL is also a State Transmission Utility in the State of Maharashtra with a dedicated responsibility of planning, developing, operating and maintaining the State Transmission System to facilitate transmission of electricity from its source to load centers.
- 3) Nine transmission lines of MSETCL were identified as inter-State transmissionlines, on the basis of the inputs provided by Western Regional Power Committee (WRPC). MSETCL was directed to file tariff petition for the nine transmission lines (given in the table below) for the purpose of inclusion in the POC charges, vide order dated 14.3.2012 in Petition No.15/SM/2012.The Hon'ble Central Electricity Regulatory Commission (CERC) vide Order dated 18 May, 2015 against Petition No.: 256/TT/2013 determined the YTC for these lines for the period from 1.7.2011 to 31.3.2012, 2012-13 and 2013-14 for inclusion in the POC



transmission charges in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

Details of the lines are given below:

S.No.	Name of the inter- State Transmission Line	Connecting States	Date of CoD
	220kV	Maharashtra –	
1	Kalmeshwar-	M.P	4-11-1998
	Pandurna S/C line		
2	220kV Mudshingi-	Maharashtra-	22.07.1001
2	Amona S/C line	Goa	22-06-1981
2	220kV Tillari-	Maharashtra-	11 01 1070
3	Amona-2 S/C line	Goa	11-01-1978
4	220kV Nasik-	Maharashtra-	31-05-1977
4	Navsari-1 D/C line	Gujarat	31-03-1977
5	220kV Nasik-	Maharashtra-	28-01-1989
3	Navsari-2 D/C line	Gujarat	20-01-1909
	220kV Kolhapur-	Maharashtra-	
6	Chikkodi Ckt-I S/C	Karnataka	1-11-1970
	line		
	220kV Kolhapur-	Maharashtra-	
7	Chikkodi Ckt-II S/C	Karnataka	1-11-1970
	line		
8	400kV SSP-Dhule	Maharashtra-	13-12-1998
0	ckt-1 S/C line	Gujarat	13-12-1998
9	400kV SSP-Dhule	Maharashtra-	22-12-1998
J	ckt-2 S/C line	Gujarat	22-12-1998
			I



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4) In the said order(Order dated 18 May, 2015 against Petition No.: 256/TT/2013), the YTC of these nine transmission lines owned by MSETCL for FY 2011-12, FY 2012-13 & FY 2013-14 as per methodology adopted by Hon'ble CERC was approved as under.(Annexure-I, page-11)

S. No	Name of the lines	Line Length (ckt km)	2011-12	2012-13	2013-14
1	220kV Kamleshwar- Pandurna S/C line (Maharashtra - M.P.)	33.8	183,64,123	308,09,410	268,28,243
2	220kV Mudshingi- Amona S/C line (Maharashtra - Goa)	18	97,79,711	164,07,378	142,87,230
3	220kVTillari- Amona-2 S/C line (Maharashtra - Goa)	30	162,99,518	273,45,630	238,12,050
4	220kV Nasik- Navsari -1 D/C line (Maharashtra - Gujarat)	100	543,31,725	911,52,100	793,73,500
5	220 kV Nasik- Navsari-2 D/C line (Maharashtra- Gujarat)		543,31,725	911,52,100	793,73,500

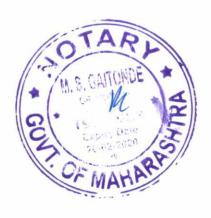


6	220 kV Kolhapur- Chikkodi ckt-1 S/C line (Maharashtra - Karnataka)	15.41	83,72,519	140,46,539	122,31,456
7	220 kV Kolhapur (Mudshingi)- Chikkodi ckt- 2 S/C line(Maharash tra - Karnataka)	24	130,39,614	218,76,504	190,49,640
8	400kV SSP- Dhule ckt-1 S/C line (Maharashtra - Gujarat)	142	1548,23,310	2651,85,994	2580,47,512
9	400kV SSP- Dhule ckt-2 S/Cline (Maharashtra - Gujarat)	142	1548,23,310	2651,85,994	2580,47,512
	Total		4841,65,554	8231,61,648	7710,50,643

<sup>\*</sup>YTC for 9 months has been taken as Sharing Regulations, 2010 came into force from 1.7.2011.

#### Tariff for FY2014-15

5) In continuation to the above and in line with methodology proposed by Hon'ble CERC in the order (Order dated 18 May, 2015 against Petition No.: 256/TT/2013), the YTC of nine transmission lines owned by MSETCL for FY 2014-15 is calculated in the following paras.



MSETCL submits that the details of ARR approved by Hon'ble MERC for True-up of FY 2014-15 is as below:-

Particulars	Rs in Cr.
Aggregate Revenue Requirement	4388.30
Less: Non-tariff & Other Income	351.77
Net ARR	4036.53
Add: Incentive for higher availability	63.98
Add/Less: Revenue Gap/surplus of Previous Years	- 171.11
Total ARR	3929.40
Order Reference	MERC Order in case no. 31 of 2016 dated:08-07-2016 page:72 (Annexure-II)

6) The details of the MSETCL transmission lines as on 31-3-2015 is as under

Voltage level	EHV Lines (CKT KM.)
500KV HVDC	1504
400KV	7891.4
220KV	14942.22
132KV	14165.21
110KV	1736.63
100KV	698.06
66KV	1522.7
TOTAL	42460.22



7) The indicative cost of lines of various configurations owned and operated by PGCIL for four quarters of FY 2014-15 as taken from POSOCO website (under Transmission Pricing tab) and the average of the same as calculated below is taken for the year FY 2014-15

SL.	LINE TYPE	FY 2014	1-15 COS	Γ (RS.LA	KH/KM)	
NO ·	- yn	(Q1)	(Q2)	(Q3)	(Q4)	Average for FY 2014-15
1.	500 KV HVDC	154.00	158.00	158.00	162.00	158.00
2.	800 KV HVDC	282.00	346.00	346.00	354.00	332.00
3.	765 KV D/C	368.00	450.00	449.00	460.00	431.75
4.	765 KV S/C	189.00	180.00	179.00	182.00	182.50
5.	400 KV D/C Quad. Moose	235.00	240.00	244.00	250.00	242.25
6.	400 KV D/C Twin Moose	131.00	135.00	135.00	138.00	134.75
7.	400 KV S/C Twin Moose	86.00	88.00	88.00	90.00	88.00



8.	220 KV D/C	70.00	56.00	56.00	57.00	59.75
9.	220 KV S/C	43.00	35.00	35.00	36.00	37.25
10.	132 KV D/C	55.00	44.00	44.00	45.00	47.00
11.	132 KV S/C	34.00	28.00	28.00	29.00	29.75

8) The indicative cost of lines of various configurations owned and operated by PGCIL has been considered for the purpose of computation of capital cost. Indicative cost of 400 kV D/C Quad Moose transmission line has been taken as base and indicative cost of lines with configurations other than 400 kV D/C Quad Moose have been made equivalent to indicative cost of 400 kV D/C Quad Moose (i.e. by dividing indicative cost of the 400 kV D/C Quad Moose line by the indicative cost of line of other configurations).

For example –the indicative cost of 400 kV D/C Quad Moose is Rs.242.25 lakhs/km (cost/ckt km= Rs. 121.13 lakhs) and of 765 kV S/C is Rs. 182.50 lakhs/km. Therefore, the ratio of indicative cost of ckt km of 400 kV D/C Quad Moose to indicative cost of ckt km of 765 kV S/C is 0.66 (i.e.121.13/182.50) and so on for other configurations. Further, the petitioner also owns lines of 110 kV, 100 kV and 66 kV level but the indicative cost data provided by the CTU is for voltage level up to 132 kV

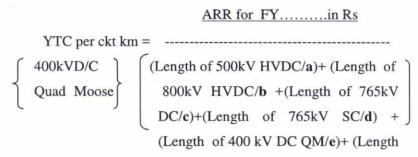


level. Therefore, as per the methodology adopted by Hon'ble CERC in order dated: 18.05.2015, MSETCL has added line length of 110 kV, 100 kV and 66 kV level to 132 kV level and considered the indicative cost of 132 kV level as indicative cost for all the transmission lines having voltage level 132 kV and below.

The breakup for FY 2014-15 is given here under,

ТҮРЕ	Cost (Rs. In Lakhs)	Cost (Rs. In Lakh/ circuit)	Co- efficient	Ratio w.r.t (e)
500kV HVDC	158	158	a	0.77
800kV HVDC	332	332	b	0.36
765kV D/C	431.75	215.88	c	0.56
765kV S/C	182.50	182.50	d	0.66
400kV D/C Quad Moose	242.25	121.13	e	1.0
400kV D/C Twin Moose	134.75	67.38	f	1.80
400kV S/C Twin Moose	88	88	g	1.38
220kV D/C	59.75	29.88	h	4.05
220kV S/C	37.25	37.25	i	3.25
132kV D/C	47	23.50	j	5.15
132kV S/C	29.75	29.75	k	4.07

9) After getting ratio with respect to 400 kV D/C Quad Moose, YTC per ckt. km of 400 kV D/C Quad Moose transmission line has been calculated as follows:





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of 400 kV DC TM /f)+(Length of 400kV SC TM /g)+(Length of 220kV DC/h)+(Length of 220kV SC /i)+(Length of 132kV DC /j)+ (Length of 132kV SC /k)

\*value of a,b,c,d,e,f,g,h,i,j& k are as given in para 8 and length in ckt km as given in para 6 above of this Petition.

DC-Double Circuit, SC-Single Circuit,QM-Quad Moose,TM-Twin Moose

YTC per ckt km = 3929,40,00,000 / 16741.54 (400 kV D/C = 23,47,095.54 (in Rs) Quad Moose)

10) Accordingly, on the basis of the line length in ckt. km and the ARR approved by the Hon'ble MERC for the FY 2014-15 and PoC cost data for the FY 2014-15, YTC for the instant transmission assets for the FY 2014-15 is calculated as under

#### For FY 2014-15:

Total ARR (Also Trued-Up) approved by the MERC = Rs.39,29,40,00,000

S.No	Asset	For entire system (Maharashtra)			
		Line Length (ckt km)	YTC (in Rs. per ckt-km)	YTC (in Rs)	
1	500kV	1504	30,61,639.58	4,60,47,05,935	
2	400kV S/C	7891.4	17,05,216.98	13,45,65,49,306	
3	220kV S/C	14942.22	7,21,810.60	10,78,54,52,758	
4	132kv S/C	18122.57	5,76,479.61	10,44,72,92,001	
	Total			39,29,40,00,000	



#### YTC of nine Transmission Lines

11) The YTC per ckt km, total ARR for the transmission system in Maharashtra is matching with the ARR approved by the MERC is as mentioned above & therefore YTC( in Rs. per Ckt Km.) is as below:

Voltage Level	2014-15 (in Rs.)	
220kV S/C	7,21,811	
400kV S/C	17,05,217	

12) Thus the YTC of the nine transmission lines calculated on the methodology discussed above are as follows for the year FY 2014-15

S.	Name of the lines	Line Length	YTC in Rs
No.		(ckt km)	(FY 2014-15)
1	220 kV Kamleshwar-	22.9	2,43,97,212
1	Pandurna S/C line (Maharashtra -M.P.)	33.8	
	220 kV Mudshingi-Amona		1,29,92,598
2	S/C line (Maharashtra -Goa)	18	
3	220 kV Tillari-Amona-2 S/C line (Maharashtra -Goa)	30	2,16,54,330
	220 kV Nasik-Navsari D/C		
4	line (Maharashtra -Gujarat)	100	7,21,81,100
-	220 kV Nasik-Navsari-2 D/C	100	7,21,81,100
5	line (Maharashtra -Gujarat)	100	
	220 kV Kolhapur-Chikkodi ckt-1		1,11,23,108
6	S/C line (Maharashtra- Karnataka)	15.41	1,11,23,100
	220 kV Kolhapur (Mudshingi) -		
7	Chikkodi ckt-2 S/C line	24	1,73,23,464
	(Maharashtra - Karnataka)		



	Total	71,61,34,540	
9	(Maharashtra -Gujarat)	142	24,21,40,814
	400 kV SSP-Dhule ckt-2 S/C line		24 21 40 914
8	(Maharashtra -Gujarat)	142	24,21,40,814
	400 kV SSP-Dhule ckt-1 S/C line		24 21 40 914

#### True Up Tariff for FY2012-13 & FY 2013-14

13) YTC of nine Transmission Lines as approved in the Hon'ble CERC order (Order dated 18 May, 2015 against Petition No.: 256/TT/2013), for FY 2012-13 & FY 2013-14 was based on the ARR projections for FY 2012-13 & ARR for FY 2013-14 of the first year of the second control period as approved by Hon'ble MERC. The True up ARR for FY2012-13 & FY 2013-14 has since been approved in Case No.207 of 2014 dated: 26-06-2015. Accordingly, the details of ARR considered for the order dated: 18-05-2015 and trued up ARR is as tabulated below:

Particulars		red for CERC 18-05-2015 in 256/TT/2013	ARR Trued up in order dated: 26-06-2015, in MERC case no 207 of 2014.		
	FY 2012-13	FY 2013-14	FY 2012-13	FY 2013-14	
Aggregate Revenue Requirement	3564.49	4425.90	3418.23	4234.88	
Less: Non- Tariff & Other Income	218.51	225.34	295.85	288.87	

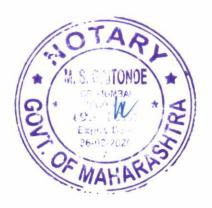


Net ARR	3345.98	4200.05	3122.38	3946.01
Add:	-	-	52.95	68.94
Incentive for				
higher	,	2:		
availability				
Add:	1128.91	#2	1128.91	966.16
Revenue				
Gap of				÷.
previous				
years				
Total ARR	4474.89	4200.05	4304.24	4981.11
Order	Case No. 39	Case No. 39	Case No. 207	Case No. 207
Reference-	of 2013	of 2013	of 2014	of 2014
Attached as	Dated:	Dated:	Dated:	Dated:
Annexure	13-02-2014	13-02-2014	26-06-2015	26-06-2015
	Annex-III	Annex-IV	Annex-V	Annex-VI
Page No.	113	135	95	131

14) Accordingly, on the basis of the line length in ckt. km and PoC cost data for the years as considered for calculations in CERC order dated: 18-05-2015 and the now Trued Up ARR for FY 2012-13 & Fy 2013-14 as mentioned above, Trued Up YTC for the instant transmission assets for the FY 2012-13. & FY 2013-14 have been calculated as given below:-

#### For FY 2012-13:

Total ARR(True Up) approved by the MERC= Rs 43,04,24,00,000



S. No	Asset	For entire system (Maharashtra)			
		Line Length (ckt km)	YTC (Rs Per ckt. km)	YTC	
1	500 kV HVDC	1,504	32,50,429.40	4,88,86,45,822	
2	400 kV S/C	7,348	17,96,289.93	13,19,91,38,430	
3	220 kV S/C	13,978	8,76,760.56	12,25,53,59,145	
4	132 kv S/C	18,558	6,84,300.93	12,69,92,56,603	
		Total	-	43,04,24,00,000	

#### For FY 2013-14:

Total ARR (True Up) approved by the MERC=

Rs. 49,81,11,00,000

S. No	Asset	For entire system (Maharashtra)				
		Line Length (ckt km)	YTC (Rs Per ckt. km)	YTC		
1	500 kV HVDC	1,504	38,89,227.86	5,84,93,98,698		
2	400 kV S/C	7,468	21,55,177.22	16,09,48,63,484		
3	220 kV S/C	14,597	9,41,341.77	13,74,07,65,883		
4	132 kv S/C	19,008	7,43,164.56	14,12,60,71,935		
	•	Total		49,81,11,00,000		

#### True-Up YTC of the nine transmission lines

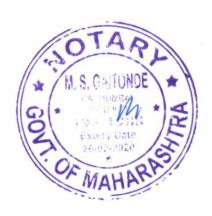
15) The True Up YTC per ckt km, total ARR for the transmission system in Maharashtra is matching with the ARR approved by the MERC is as mentioned above & therefore YTC( in Rs. per Ckt Km.) is as below:

Voltage Level	2012-13	2013-14
200 kV S/C	8,76,761	9,41,342
400 kV S/C	17,96,290	21,55,177



True Up YTC of the nine transmission lines calculated on the methodology discussed above are as follows:-

S.	Name of the lines	Line Length	2012-13	2013-14
No.		(ckt km)		
1	220kV Kamleshwar-			
	Pandurna S/C line	33.8	2,96,34,522	3,18,17,360
	(Maharashtra -M.P.)			
2	220kV Mudshingi-			
	Amona S/C line	18	1,57,81,698	1,69,44,156
	(Maharashtra -Goa)			
3	220kVTillari-Amona-2			
	S/C line (Maharashtra -	30	2,63,02,830	2,82,40,260
	Goa)			
4	220kV Nasik-Navsari			
	D/C line (Maharashtra -	100	8,76,76,100	9,41,34,200
	Gujarat)			
5	220 kV Nasik-Navsari-			
	2 D/C line	100	8,76,76,100	9,41,34,200
	(Maharashtra-Gujarat)			
6	220 kV Kolhapur-			
	Chikkodi ckt-1 S/C	15.41	1,35,10,887	1,45,06,080
	line (Maharashtra-			
	Karnataka)			
	220kVKolhapur			
7	(Mudshingi)-Chikkodi	24	2,10,42,264	2,25,92,208
	ckt-2 S/C line			
	(Maharashtra -			
	Karnataka)			



	Total		79,17,70,761	91,44,38,732
	2 S/C line (Maharashtra -Gujarat)	142	25,50,73,180	30,60,35,134
9	400kV SSP-Dhule ckt-			
	1 S/C line (Maharashtra -Gujarat)	142	25,50,73,180	30,60,35,134
8	400kV SSP-Dhule ckt-			

16) The Petitioner further submits to the Hon'ble Commission to reimburse fee paid by it for filing the Petition and publication expenses in accordance with the Commission's Order dated 11 January,2010 in Petition No.109/2009, the Petitioner shall be entitled to recover the filing fee directly from the beneficiaries on pro-rata basis. The Petitioner further submits that it shall also be allowed for reimbursement of the publication expenses in connection with the present Petition, directly from the beneficiaries on pro-rata basis.

#### 17) PRAYERS

It is respectfully prayed that the Hon'ble CERC may be pleased to:

- Approve, the Yearly Transmission Cost (YTC) of
   Rs. 71,61,34,540 for the MSETCL owned nine
   Transmission Lines conveying electricity to other
   States under the Petition for FY 2014-15.
- Approve the true-up YTC for FY 2012-13 & FY 2013-14 for the earlier approved YTC in order dt:18-05-2015 in Petition No.256/TT/2013.



- 3) Allow to reimburse fee paid by MSETCL for filing the Petition and Publication expenses directly from the beneficiaries on pro-rata basis.
- 4) Condone any shortcomings/deficiencies and allow MSETCL to submit additional information/data at a later stage as may be required,
- 5) Pass other such relief as the Hon'ble CERC deems fit and appropriate under the circumstances of the case and in the interest of justice.

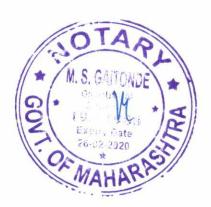
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Chief Engineer (STU)

**MSETCL** 

Mumbai

Dated: 31-08-2016



### CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

#### Petition No. 256/TT/2013

Coram:

Shri Gireesh B. Pradhan, Chairperson Shri A. K. Singhal, Member

Date of Hearing : 25.3.2014 Date of Order : 18.5.2015

#### In the matter of:

Determination of tariff in respect of Maharashtra State Electricity Transmission Company Limited (MSETCL) owned Transmission Lines/System conveying electricity to other States as per Central Electricity Regulatory Commission's order dated 14.3.2012 against Petition No 15/SM/2012, for inclusion in the PoC transmission charges in accordance with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

#### And in the matter of:

Maharastra State Electricity Transmission Company Limited, 'Prakashganga', Plot No. C-19, E Block, Bandra Kurla Complex, Bandra(East), Mumbai- 400051

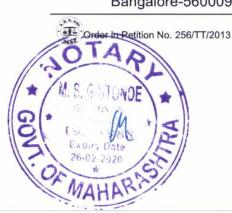
.....Petitioner

Vs

- Power Grid Corporation of India Limited, "Saudamani", Plot No.2, Sector-29, Near IFFCO Chowk, Gurgaon -122001 (Haryana).
- M.P. Power Transmission Company Limited, Block No-2, Shakti Bhawan, Rampur, Jabalpur, 482008, Madhya Pradesh
- Gujarat Energy Transmission Corporation Limited. Sardar patel Vidyut Bhavan, Race Course, Vadodara-390007, Gujarat
- Electricity Department, Goa, Vidyut Bhavan, 3<sup>rd</sup> Floor, Tiswadi, Panaji-403001.
- Karnataka Power Transmission Corporation Limited, Kaveri Bhavan, K.G Road, Bangalore-560009, Karnataka

.....Respondents

Page **1** of **12** 



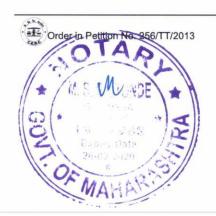
Voltage Level	2011-12	2012-13	2013-14
200 kV S/C	7,24,423	9,11,521	7,93,735
400 kV S/C	14,53,740	18,67,507	18,17,236

16. YTC of the nine transmission lines calculated on the methodology discussed above are as follows:-

S. No.	Name of the lines	Line Length (ckt km)	2011-12	2012-13	2013-14
1	220 kV Kamleshwar- Pandurna S/C line (Maharashtra -M.P.)	33.8	183,64,123	308,09,410	268,28,243
2	220 kV Mudshingi-Amona S/C line (Maharashtra -Goa)	18	97,79,711	164,07,378	142,87,230
3	220 kV Tillari-Amona-2 S/C line (Maharashtra -Goa)	30	162,99,518	273,45,630	238,12,050
4	220 kV Nasik-Navsari D/C line (Maharashtra -Gujarat)	100	543,31,725	911,52,100	793,73,500
5	220 kV Nasik-Navsari-2 D/C line (Maharashtra -Gujarat)	100	543,31,725	911,52,100	793,73,500
6	220 kV Kolhapur-Chikkodi ckt-1 S/C line (Maharashtra- Karnataka)	15.41	83,72,519	140,46,539	122,31,456
7	220 kV Kolhapur (Mudshingi)-Chikkodi ckt-2 S/C line (Maharashtra - Karnataka)	24	130,39,614	218,76,504	190,49,640
8	400 kV SSP-Dhule ckt-1 S/C line (Maharashtra -Gujarat)	142	1548,23,310	2651,85,994	2580,47,512
9	400 kV SSP-Dhule ckt-2 S/C line (Maharashtra -Gujarat)	142	1548,23,310	2651,85,994	2580,47,512
	Total		4841,65,554	8231,61,648	7710,50,643

<sup>\*</sup>YTC for 9 months has been taken as Sharing Regulations, 2010 came into force from 1.7.2011.

17. The Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 came into force from 1st July, 2011. Therefore, YTC for the lines have been calculated from 1.7.2011 to 31.3.2012, 2012-13 and 2013-14. The revenue received by MSETCL in respect of these assets under the Sharing Regulations shall be excluded/adjusted from the ARR of MSETCL in the transmission tariff petition filed by the petitioner before MERC.



#### Before the

#### MAHARASHTRA ELECTRICITY REGULATORY COMMISSION World Trade Centre, Centre No.1, 13<sup>th</sup>Floor, Cuffe Parade, Mumbai – 400 005 Tel. No. 022 22163964/ 65/ 69 Fax No. 022 - 22163976

Email: mercindia@merc.gov.in
Website: www.mercindia.org.in / www.merc.gov.in

#### **CASE NO. 31 of 2016**

#### In the matter of

Petition of Maharashtra State Electricity Transmission Co. Ltd. for Truing-up for FY 2014-15, Provisional Truing-up for FY 2015-16 and Aggregate Revenue Requirement for FY 2016-17 to FY 2019-20, including disallowed capitalisation for FY 2010-11 to FY 2013-14

#### Coram

Shri Azeez M. Khan, Member Shri Deepak Lad, Member

#### **ORDER**

Date: 7 July, 2016

Maharashtra State Electricity Transmission Co. Ltd. (MSETCL), Prakashganga, 6<sup>th</sup> Floor, Plot No. C-19, 'E' Block, Bandra-Kurla Complex, Mumbai has filed a Petition on 10 February, 2016 for Truing-up of Aggregate Revenue Requirement (ARR) for FY 2014-15 and Provisional Truing-up for FY 2015-16 under the MERC (Multi Year Tariff) Regulations ('MYT Regulations'), 2011; and approval of ARR for FY 2016-17 to FY 2019-20 under the MYT Regulations, 2015, including the impact of past period disallowed capitalisation for FY 2010-11 to FY 2013-14. Thereafter, MSETCL submitted a revised Petition on13 April, 2016. The Commission, in exercise of its powers under Sections 61 and 62 of the Electricity Act (EA), 2003 and all other powers enabling it in this behalf, and after taking into consideration submissions made during these proceedings and the public consultation process, and other relevant material has approved the Truing-up for FY 2014-15, Provisional Truing-up of the

ARR for FY 2015-16 and the ARR for the 3rd Control Period from FY 2016-17 to FY 2019-

MERC Order - Case No. 31 of 2016

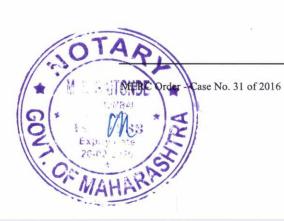
20 in this Order.

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Table 63: Summary of Truing-up of ARR for FY 2014-15 approved by Commission (Rs. Crore)

Particulars	MTR Order in Case No. 207 of 2014	Normative	Actual	Net Entitlement after sharing of gain/(Loss)
Operation & Maintenance Expenses net of wage revision	1,450.78	1,441.16	1,224.69	1,383.36
and service tax on lease rent				
Impact of wage revision	-	-	42.01	-
Impact of service tax on Lease Rent	-	-	1.06	-
Depreciation Expenses	788.76	-	767.71	767.71
Interest on Loan Capital	763.57	-	756.57	756.57
Interest on Working Capital and on Consumer Security	112.86	-	2.58	74.29
Other Interest and Finance Charges	10.04	-	1.94	1.94
Other Expenses	6.18	-	-	-
Income Tax	577.44	-	597.34	597.34
Contribution to contingency reserves	48.20	-	48.72	48.72
Total Revenue Expenditure	3,757.83	_	3,442.62	3,629.92
Add: Return on Equity Capital	761.40	-	758.38	758.38
Aggregate Revenue Requirement	4,519.23	_	4,200.99	4,388.30
Less: Non-Tariff Income	196.02	-	269.77	269.77
Less: Income from Wheeling Charges from Goa and Dadra and Nagar Haveli and other sources	90.17	1-	61.91	61.91
Less: Income from Open Access charges	-	-	-	-
Less: Income from PoC charges for Inter-State lines	-	-	20.09	20.09
Aggregate Revenue Requirement from Transmission	4,233.04	-	3,849.22	4,036.53
Add: Incentive on transmission Availability of HVAC system	-	-	48.82	48.82
Add: Incentive on transmission Availability of HVDC system		_	15.16	15.16
Revenue from transmission tariff	-	-	5,044.14	5,044.14
Revenue Gap/(Surplus) for current year	-	-	(1,130.95)	(943.64)
Revenue Gap/(Surplus) till previous year	-	_	(171.11)	(171.11)
Cumulative Revenue Gap/(Surplus) till the year	-	-	(1,302.06)	(1,114.75)

4.19.2 The Commission approves a cumulative Revenue Surplus of Rs. 1,114.75 Crore on Truing-up for FY 2014-15, considering the efficiency gain and incentive for the year, to be recovered in the ARR for FY 2016-17. The holding cost on the Revenue Surplus for FY 2014-15 after Truing-up is dealt with at para. 6.14 of this Order.



#### Before the

#### MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai – 400 005 Tel. 22163964/65/69 Fax 22163976

Email: mercindia@merc.gov.in

Website: www.mercindia.org.in / www.merc.gov.in

#### Case No. 39 of 2013

#### IN THE MATTER OF

Petition for Truing up for FY 2011-12, Annual Performance Review of FY 2012-13 and Aggregate Revenue Requirement for the MYT Second Control Period from FY 2013-14 to FY 2015-16 of Maharashtra State Electricity Transmission Company Limited (MSETCL)

Shri Vijay L. Sonavane, Member Smt. Chandra Iyengar, Member

Maharashtra State Electricity Transmission Company Limited (MSETCL) ......Petitioner

#### **ORDER**

13 February, 2014

Maharashtra State Electricity Transmission Company Limited submitted a Petition seeking approval of Truing up for FY 2011-12, Annual Performance Review for FY 2012-13 and determination of Aggregate Revenue Requirement for the MYT Second Control Period from FY 2013-14 to FY 2015-16 under the provisions of MERC (Terms and Conditions of Tariff) Regulations, 2005 and MERC (Multi Year Tariff) Regulations, 2011, respectively. The Commission, in exercise of the powers vested in it under Section 61 and Section 62 of the Electricity Act, 2003 (EA 2003) and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by MSETCL, all the objections and comments of the public, issues raised during the Public Hearing and all other relevant material, has carried out Truing up for FY 2011-12, APR for FY 2012-13 and ARR for the MYT Second Control Period from FY 2013-14 to FY 2015-16 in this Order.



Table 86: Income from wheeling received from Goa and Dadra Nagar for FY 2012-13 approved by the Commission (Rs crore)

Particulars	Approved in Case No. 106 of 2012	Submitted by MSETCL	Approved in this Order
Less: Income from Goa &			
Dadra Nagar wheeling charges	20.52	26.30	26.30

#### 5.13. Summary of Estimated Aggregate Revenue Requirement for FY 2012-13

5.13.1. Based on the discussion in the previous sections, the ARR projections approved by the Commission for FY 2012-13 has been summarised below:

Table 87: Summary of Aggregate Revenue Requirement for FY 2012-13 approved by the Commission (Rs crore)

Sr. No.	Particulars	Approved in Case No. 106 of 2012	Submitted by MSETCL	Approved in this Order
1	Operation & Maintenance Expenses	1,115.42	1,115.42	1,179.92
2	Depreciation Expenses			W 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
a)	Depreciation	501.50	560.49	539.58
b)	Advance against depreciation	155.65	418.33	274.21
3	Interest on Long-term Loan Capital	464.41	504.52	668.09
4	Interest on Working Capital and on consumer security deposits	71.1	80.34	79.11
5	Other Interest and finance charges	18.50	18.50	18.50
6	Other Expenses	1.23	1.12	1.12
7	Income Tax	157.34	275.40	153.25
8	Contribution to contingency reserves	40.11	40.20	37.99
9	Total Revenue Expenditure	2,525.26	3,014.32	2,951.78
10	Return on Equity Capital	629.04	641.38	612.71
11	Aggregate Revenue Requirement	3,154.30	3,655.70	3,564.49
12	Less: Non Tariff Income	178.15	232.60	192.21
13	Less: Income from Goa & Dadra Nagar wheeling charges	20.52	26.30	26.30
14	Aggregate Revenue Requirement from Transmission Tariff	2,955.63	3,396.80	3,345.98



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#### 6.12. Aggregate revenue requirement

6.12.1. Based on the analysis detailed out in the above paragraphs, the Commission has approved the ARR for MSETCL for the Second Control Period from FY 2013-14 to FY 2015-16 as given below:

Table 110: ARR of MSETCL approved by the Commission for MYT Second Control Period (Rs crore)

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Expenditure			
Operations & Maintenance			
Expenses	1,334.49	1,542.12	1,774.95
Depreciation	1,072.61	1,250.94	1,411.53
Advance against Depreciation	-	-	-
Interest on long-term loan capital	878.22	1,071.50	1,222.39
Interest on Working Capital	113.05	112.15	127.39
Other interest and finance charges	16.60	18.64	15.56
Other expenses	1.14	1.17	1.19
Income Tax	179.67	179.67	179.67
Contribution to contingency reserves	47.87	55.72	64.65
Total Revenue Expenditure	3,643.65	4,231.90	4,797.34
Return on Equity	782.24	886.33	983.74
Aggregate Revenue Requirement	4,425.90	5,118.23	5,781.08
Less: Non-Tariff income	199.04	208.56	218.83
Less: Income from Goa and Dadra Nagar wheeling charges	26.30	26.30	26.30
Less: Amortization of Income due to Revaluation of Stocks	0.00	0.00	0.00
Aggregate Revenue Requirement from Transmission Tariff	4,200.55	4,883.37	5,535.95



#### Before the

#### MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

World Trade Centre, Centre No.1, 13<sup>th</sup> Floor, Cuffe Parade, Mumbai – 400 005 Tel. No. 022 22163964/ 65/ 69 Fax No. 022 - 22163976

Email: mercindia@merc.gov.in

Website: www.mercindia.org.in / www.merc.gov.in

#### Case No. 207 of 2014

#### IN THE MATTER OF

Petition of Maharashtra State Electricity Transmission Co. Ltd. for Mid-term Performance Review for the MYT Second Control Period from FY 2012-13 to FY 2015-16

#### Coram

Smt. Chandra Iyengar, Chairperson Shri Azeez M. Khan, Member Shri Deepak Lad, Member

#### **ORDER**

Date: 26 June, 2015

Maharashtra State Electricity Transmission Company Ltd. (MSETCL) has submitted a Petition dated 28 November, 2014 for approval of True up of Aggregate Revenue Requirement (ARR) for FY 2012-13 under the MERC (Terms and Conditions of Tariff) Regulations, 2005 ('Tariff Regulations'); provisional True up of ARR for FY 2013-14 and Mid-term Performance Review (MTPR) for FY 2014-15 and FY 2015-16 in accordance with the MERC (Multi Year Tariff) Regulations, 2011 ('MYT Regulations') and the Commission's directions dated 13 February, 2014 in Case No. 39 of 2013, along with the impact of past period capitalisation disallowed for the years from FY 2007-08 to FY 2011-12. Thereafter, MSETCL has submitted a revised Petition dated 28 January, 2015.

The Commission, in exercise of its powers under Sections 61 and 62 of the Electricity Act (EA), 2003 and all other powers enabling it in this behalf, and after taking into consideration MSETCL's submissions, suggestions and objections from the public, issues raised during the Public Hearing and other relevant material, and considering the impact of past period disallowed capitalisation for the period from FY 2007-08 to FY 2011-12, has carried out the

se No. 207 of 2014

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Table 84: Summary of True up for FY 2012-13 approved by the Commission (Rs. Crore)

Particulars	FY 2012-13			
	MYT Order	MSETCL Petition considering net entitlement after sharing of gain/(Loss)	Approved in this Order	
Operation & Maintenance Expenses	1179.92	1195.10	1187.89	
Depreciation	539.58	449.93	447.29	
Advance against depreciation	274.21	189.79	192.43	
Interest on Long-term Loan Capital	668.09	606.97	582.31	
Interest on Working Capital	79.11	64.24	63.63	
Other Interest and finance charges	18.50	4.64	4.64	
Other Expenses	1.12	(10.02)	(10.02)	
Income Tax	153.25	315.43	311.71	
Contribution to contingency reserves	37.99	39.54	39.54	
Total Revenue Expenditure	2951.78	2855.62	2819.41	
Return on Equity Capital	612.71	601.59	598.83	
Aggregate Revenue Requirement	3564.49	3457.21	3418.23	
Less: Non Tariff Income	192.21	180.89	205.65	
Less: Income from wheeling charges from Goa and Dadra & Nagar Haveli and other sources	26.30	90.20	90.20	
Aggregate Revenue Requirement to be recovered from Transmission Tariff	3345.98	3186.13	3122.38	
(add) Incentive on Transmission Availability of HVAC System	0.00	46.42	41.71	
(add) Incentive on Transmission Availability of HVDC System	0.00	12.51	11.24	
Revenue from Transmission tariff	3338.08	3338.08	3338.08	
Revenue Gap/(surplus) for current year	7.90	(93.03)	(162.75)	
Past period expenses for FY 2011-12	0.00	23.41	0.00	
Revenue Gap/(surplus) till previous year	1128.91	1128.91	1128.91	
Cumulative Revenue Gap/(Surplus) till the year	1136.81	1059.29	966.16	

Note: Commission had approved revised RoE of Rs. 614.95 Crore in the Review Order in Case No. 79 of 2014.

4.23.2 The Commission approves a cumulative Revenue Gap of Rs. 966.16 Crore on True up for FY 2012-13, considering the efficiency gains / (losses) and incentive for the year, to be recovered in the ARR for FY 2015-16.

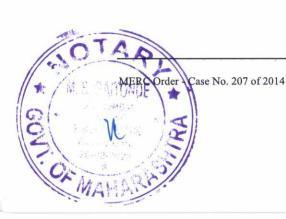


Table 121: Summary of True up for FY 2013-14 approved by the Commission (Rs. Crore)

Particulars	FY 2013-14			
	MYT Order	MSETCL Petition considering net entitlement after sharing of gain/(Loss)	Approved in this Order	
Operation & Maintenance Expenses	1334.49	1254.76	1391.40	
Impact of Wage Revision	0.00	298.74	0.00	
Depreciation	1072.61	727.38	719.32	
Interest on Long-term Loan Capital	878.22	715.79	698.15	
Interest on Working Capital	113.05	89.97	89.15	
Other Interest and finance charges	16.60	3.60	3.60	
Other Expenses	1.14	26.24	26.24	
Income Tax	179.67	587.74	546.38	
Contribution to contingency reserves	47.87	45.75	45.75	
Total Revenue Expenditure	3643.65	3749.96	3519.98	
Return on Equity Capital	782.24	721.31	714.90	
Aggregate Revenue Requirement	4425.89	4471.27	4234.88	
Less: Non Tariff Income	199.04	198.69	198.70	
Less: Income from wheeling charges from Goa and Dadra & Nagar Haveli and other sources	26.30	90.17	90.17	
Aggregate Revenue Requirement to be recovered from Transmission Tariff	4200.55	4182.41	3946.01	
(add) Incentive on Transmission Availability of HVAC System	0.00	60.59	50.74	
(add) Incentive on Transmission Availability of HVDC System	0.00	21.74	18.20	
Revenue from Transmission tariff	5152.22	5152.22	5152.22	
Revenue Gap/(surplus) for current year	(951.67)	(887.48)	(1137.27)	
Revenue Gap/(surplus) till previous year	1136.81	1059.29	966.16	
Cumulative Revenue Gap/(Surplus) till the year	185.14	171.81	(171.11)	

Note: Commission had approved revised RoE as Rs. 784.74 Crore for FY 2013-14 in Review Order in Case No. 79 of 2014.

