

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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CASE No.91 of 2016

In the matter of
Transmission Tariff of Intra-State Transmission System for 3rd Control Period FY 2016-17
to FY 2019-20

Coram

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

ORDER

Date: 22 July, 2016

1 Background of Transmission Pricing Framework in Maharashtra

In its Order dated 27 June, 2006 in Case No. 58 of 2005, the Commission had set out the Transmission Pricing Framework ('the Framework') for the State of Maharashtra in accordance with the principles outlined in that Order.

2 Framework for Transmission Tariff Determination for 2nd Control Period

- 2.1 The Framework underwent modifications over time. Some of the principles relating to the methodology for determination of Total Transmission System Cost (TTSC), Base Transmission Capacity Rights (TCR), etc., were also set out in the MYT Regulations, 2011 which formed the basis for determination of Transmission Tariff in the 2nd Control Period of the MYT regime.
- 2.2 The Transmission Tariff for FY 2013-14 to FY 2015-16 of the 2nd MYT Control Period was approved vide Order dated 13 May, 2013 in Case No. 56 of 2013. The Transmission Tariff for FY 2014-15 and FY 2015-16 was amended vide Order dated 14 August, 2014 in Case No. 123 of 2014. The Transmission Tariff for FY 2015-16 was further amended vide Order dated 26 June, 2015 in Case No. 57 of 2015 ('the previous Transmission Tariff Order').

3 Framework for Transmission Tariff Determination for 3rd Control Period

- 3.1 The MYT Regulations, 2015, notified in December, 2015, are applicable for the 3rd Control Period from FY 2016-17 to FY 2019-20. Regulation 61 specifies the methodology and principles for determining the Transmission Tariff for the use of the InSTS and the Base TCR of Transmission System Users (TSUs).
- 3.2 Regulation 62 specifies the methodology and principles for sharing of TTSC among the long term TSUs and Regulation 63 outline the treatment for usage of InSTS by long term TSUs. Regulation 66 specifies the treatment of Transmission Losses of InSTS to be borne by TSUs.

4 Constituents of InSTS for determination of TTSC for 3rd Control Period

- 4.1 As outlined in the Framework, all the Transmission Licensees in the State form part of the InSTS, and their approved Aggregate Revenue Requirements (ARRs) are to be considered for determining the TTSC, as follows:
- 1) Vidarbha Industries Power Ltd. – Transmission Licence (No. 1 of 2015) was granted to Vidarbha Industries Power Ltd. (VIPL-T) on 5 January, 2015. Its Capital Cost and ARR for FY 2014-15 and FY 2015-16 were approved vide Order dated 29 February, 2016 in Case No. 36 of 2015. The Commission also finalized the Truing up of VIPL-T's ARR and Tariff of FY 2014-15, Provisional True-up for FY 2015-16 and ARR and determination of tariff for the 3rd Control Period vide its Order dated 10 June, 2016 in Case No. 21 of 2016. That Order has is now considered for the determination of Transmission Tariff in the present Order.
 - 2) Adani Transmission (India) Ltd. - In its Order in Case No. 189 of 2014, the Commission approved the assignment of the Transmission Licence No. 2 of 2009 of Adani Power Maharashtra Ltd. (APML-T) and its relevant Transmission assets in favor of Adani Transmission (India) Limited (ATIL). Hence, APML-T is referred to as ATIL in this Order. The True-up of ATIL's ARR for FY 2012-13 to FY 2014-15, Provisional True-up for FY 2015-16 and projection of ARR for FY 2016-17 to FY 2019-20 was approved by videin Order dated 28 June, 2016 in Case No. 7 of 2016. Accordingly, that Order has been considered for the determination of Transmission Tariff in the present Order.
 - 3) Maharashtra Eastern Grid Power Transmission Co. Ltd. (MEGPTCL) was granted Transmission Licence No. 1 of 2010. The capital cost as on the Commercial Operation Date (COD) of MEGPTCL's Project, True-up of ARR for FY 2013-14 and FY 2014-15, Provisional True-up for FY 2015-16 and determination of ARR for 3rd Control Period was approved vide Order dated 5 July, 2016 in Case No. 50 of 2016. Accordingly, that Order has been considered for the determination of Transmission Tariff in the present Order.

- 4) Jaigad Power Transmission Ltd. (JPTL) was granted Transmission Licence No. 1 of 2009. JPTL's ARR for FY 2014-15, Annual Performance Review of FY 2015-16 and MYT for the 3rd Control Period has been approved vide Order dated 27 June, 2016 in Case No. 12 of 2016. Accordingly, that Order has been considered for the determination of Transmission Tariff in the present Order.
- 5) Maharashtra State Electricity Transmission Co. Ltd. (MSETCL)'s ARR for FY 2014-15, Provisional Truing up of FY 2015-16 and ARR for the 3rd Control Period have been approved vide Order dated 7 July, 2016 in Case No. 31 of 2016. Accordingly, that Order has been considered for the present determination of the Transmission Tariff.
- 6) Reliance Infrastructure Ltd. (Transmission Business) (RInfra-T)'s ARR for FY 2014-15, Provisional Truing up of FY 2015-16 and MYT for the 3rd Control Period have been approved vide Order dated 22 June, 2016 in Case No. 13 of 2016. That Order has been considered for the present determination of the Transmission Tariff.
- 7) Tata Power Co. (Transmission Business) (TPC-T)'s ARR for FY 2014-15, Provisional Truing up of FY 2015-16 and MYT for the 3rd Control Period have been approved vide Order dated 30 June, 2016 in Case No. 22 of 2016. That Order has been considered by for the present determination of the Transmission Tariff.
- 8) Amravati Power Transmission Co. Ltd. (APTCL)'s ARR Truing up for FY 2013-14 and FY 2014-15, Annual Performance Review for FY 2015-16 and MYT for the 3rd Control Period been approved vide Order dated 15 July, 2016 in Case No. 61 of 2016. That Order has been considered for the present determination of the Transmission Tariff.
- 9) Sinnar Power Transmission Co. Ltd. (SPTCL) is yet to achieve the COD of its Transmission System, and has not filed its Petition for ARR approval for the 3rd Control Period. Accordingly, it has not been considered in the present Order.

4.2 In order to determine the TTSC and the Transmission Tariff for the 3rd Control Period, the following approved ARRs of the Transmission Licensees forming the InSTS have been considered in the present Order.

Table 1: Transmission Licensee ARR approval Orders considered

Transmission Licensees	MYT Orders considered for TTSC of 3rd Control Period
MSETCL	Case No. 31 of 2016
RInfra-T	Case No. 13 of 2016
TPC-T	Case No. 22 of 2016

Transmission Licensees	MYT Orders considered for TTSC of 3rd Control Period
JPTL	Case No. 12 of 2016
ATIL (formerly APML-T)	Case No. 7 of 2016
MEGPTCL	Case No. 50 of 2016
VIPL-T	Case No. 21 of 2016
APTCL	Case No. 61 of 2016

4.3 The approved revenue gaps of previous years/past period recoveries on account of True-up of past years up to FY 2014-15, along with carrying cost/holding cost, and the stand-alone revenue gap/surplus for FY 2015-16 determined in the respective MYT Orders for recovery in FY 2016-17, have been considered while computing the TTSC for the 3rd Control Period.

5 TTSC of InSTS for 3rd Control Period

5.1 Regulation 61 of the MYT Regulations, 2015 specifies the methodology for the determination of TTSC for the 3rd Control Period:

“61. Determination of Intra-State Transmission Tariff

61.1 The aggregate of the yearly revenue requirement for all Transmission Licensees shall form the “Total Transmission System Cost” (TTSC) of the Intra-State transmission system, to be recovered from the Transmission System Users (TSUs) for the respective year of the Control Period, in accordance with the following Formula:

$$TTSC(t) = \sum_{i=1}^n (ARR_i)$$

Where,

TTSC (t) = Pooled Total Transmission System Cost of year (t) of the Control Period;

n = Number of Transmission Licensee(s).

ARR_i = Yearly revenue requirement approved by the Commission for ith Transmission Licensee for the yearly period (t) of the Control Period:

Provided that in case of transmission system projects undertaken in accordance with the Guidelines for competitive bidding for transmission under Section 63 of

the Act, the Aggregate Revenue Requirement as per the annual Transmission Service Charges (TSC) quoted by such projects, shall be considered, for aggregation under the TTSC.

- 5.2 In view of the above, the approved ARR for the 3rd Control Period in respect of the above Transmission Licensees have been considered for arriving at the TTSC as summarized in the following Table.

Table 2: Stand-alone ARR approved in MYT Orders for 3rd Control Period (Rs. Crore)

Transmission Licensee	Commission approved				Reference Orders
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	
MSETCL	3,346.97	3,499.03	4,189.74	4,277.18	Case No. 31 of 2016
TPC-T	624.99	661.68	711.08	745.89	Case No. 22 of 2016
RInfra-T	293.52	310.15	320.15	315.33	Case No. 13 of 2016
JPTL	92.83	89.88	86.93	83.82	Case No. 12 of 2016
ATIL	126.45	122.60	118.29	113.98	Case No. 7 of 2016
MEGPTCL	1,087.01	1,061.64	1,034.07	1,006.69	Case No. 50 of 2016
VIPL-T	6.29	5.64	5.51	5.38	Case No. 21 of 2016
APTCL	55.15	54.89	53.49	51.64	Case No. 61 of 2016
Total ARR	5,633.21	5,805.51	6,519.27	6,599.91	

- 5.3 In addition to the approval of stand-alone ARRs, in the respective MYT Orders the Commission has also approved the revenue gaps of previous years and past period recoveries in the True-up of past years upto FY 2014-15, along with the carrying cost/holding cost, and the stand-alone revenue gap/surplus for FY 2015-16 to be recovered in FY 2016-17. These have been considered while computing the TTSC for the 3rd Control Period.

- 5.4 Accordingly, the total ARRs considered for determination of TTSC and recovery of Transmission Tariff in the 3rd Control Period are as shown in the Table below:

Table 3: Break-up of total ARR approved in MYT Orders for FY 2016-17 (Rs. Crore)

Transmission Licensee	FY 2016-17		
	Stand-alone ARR approved for FY 2016-17	Past Period Gap/(Surplus) including Carrying Cost/(Holding Cost) approved for recovery in FY 2016-17	Total ARR approved to be recovered in FY 2016-17
MSETCL	3,346.97	-1,602.28	1,744.70
TPC-T	624.99	-62.88	562.11
R-Infra-T	293.52	-0.73	292.79
JPTL	92.83	2.59	95.42
ATIL	126.45	-13.81	112.64
MEGPTCL	1,087.01	559.11	1,646.12
VIPL-T	6.29	7.46	13.75
APTCL	55.15	73.58	128.73
Sum of ARR	5,633.21	-1,036.96	4,596.26

Table 4: Break-up of ARR approved in MYT Orders for FY 2017-18 to FY 2019-20 (Rs. Crore)

Transmission Licensee	FY 2017-18	FY 2018-19	FY 2019-20
	Stand-alone ARR approved for FY 2017-18	Stand-alone ARR approved for FY 2018-19	Stand-alone ARR approved for FY 2019-20
MSETCL	3,499.03	4,189.74	4,277.18
TPC-T	661.68	711.09	745.89
R-Infra-T	310.15	320.15	315.33
JPTL	89.88	86.93	83.82
ATIL	122.60	118.29	113.98
MEGPTCL	1,061.64	1,034.07	1,006.69

Transmission Licensee	FY 2017-18	FY 2018-19	FY 2019-20
	Stand-alone ARR approved for FY 2017-18	Stand-alone ARR approved for FY 2018-19	Stand-alone ARR approved for FY 2019-20
VIPL-T	5.64	5.51	5.38
APTCL	54.89	53.49	51.64
Sum of ARRs	5,805.51	6,519.27	6,599.91

5.5 Thus, the approved TTSC for the 3rd Control Period, considering the approved ARR and revenue gaps/past period recovery/surplus and the carrying cost/holding cost of the respective Transmission Licensees, is as set out below:

Table 5: TTSC for FY 2016-17 to FY 2019-20 (Rs. Crore)

Transmission Licensee	Commission Approved			
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
MSETCL	1,744.70	3,499.03	4,189.74	4,277.18
TPC-T	562.11	661.68	711.09	745.89
R-Infra-T	292.79	310.15	320.15	315.33
JPTL	95.42	89.88	86.93	83.82
ATIL	112.64	122.60	118.29	113.98
MEGPTCL	1,646.12	1,061.64	1,034.07	1,006.69
VIPL-T	13.75	5.64	5.51	5.38
APTCL	128.73	54.89	53.49	51.64
TTSC	4,596.26	5,805.51	6,519.27	6,599.91

6 Determination of Coincident Peak Demand, Non-Coincident Peak Demand and Base TCR Utilisation

6.1 Regulation 61.2 of the MYT Regulations, 2015 specifies Base TCR as the average of coincident peak demand (CPD) and non-coincident peak demand (NCPD) of the TSUs projected for the 12-monthly period of each year of the Control Period:

“61.2 The Commission shall approve yearly ‘Base Transmission Capacity Rights’ as average of Coincident Peak Demand and Non-Coincident Peak Demand for TSUs as projected for 12 monthly period of each year (t) of the Control Period, representing the ‘Capacity Utilisation’ of Intra-State transmission system and accordingly determine yearly ‘Base Transmission Tariff’, in accordance with the following formula:

$$\text{Base Transmission Capacity Rights (Base TCR) for the yearly period (t)} = \sum_{u=1}^n ([CPD(t) + NCPD(t)]/2)$$

Where,

CPD (t) = Average of projected monthly Coincident Peak Demand for the yearly period (t) of Control Period for each Transmission System User (u).

NCPD (t) = Average of projected monthly Non-Coincident Peak Demand for the Yearly period (t) of Control Period for each Transmission System User (u).

Provided that for the first year of the Control Period, the Base Transmission Capacity Rights for all Transmission System Users shall be determined based on average monthly CPD and NCPD of the Transmission System Users prevalent during the 12 months prior to date of coming into effect of these Regulations or 12 months prior to filing of the Petition by the Transmission Licensees, depending on availability of such data;

Provided further that the Allotted Capacity for long-term Open Access Users excluding partial Open Access Users shall be considered in lieu of the average monthly CPD and NCPD for calculating the Base Transmission Capacity Rights;

Provided also that the Yearly CPD and NCPD or the Allotted capacity, as the case may be, to be considered for determination of the subsequent yearly Base Transmission Capacity Rights shall be computed at the beginning of the Control Period based on the past trend and on the basis of demand projections made by various TSUs connected to the Intra-State transmission system as part of their MYT Petitions for the Control Period;

Provided also that on completion of each year of the Control Period, MSLDC shall submit the recorded CPD and NCPD data or the Allotted capacity, as the case may be, for past 12 months in respect of each Transmission System User and on the basis of the same, the Base TCR shall be suitably revised at the time of Mid-Term Review and at the end of the Control Period for the subsequent years.

- 6.2 The TSUs among whom the TTSC used to be shared are the four Distribution Licensees operating in the State viz., Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL), Tata Power Company Ltd. (Distribution Business) (TPC-D), Reliance Infrastructure Ltd. (Distribution Business) (RInfra-D) and Brihanmumbai Electricity Supply and Transport Undertaking (BEST).
- 6.3 In addition to these, the following two Deemed Distribution Licensees are currently operating in Maharashtra. Being long term TSUs, these Licensees are also required to share of the TTSC of the State:

a) Indian Railways (IR)

Indian Railways is a Deemed Distribution Licensee as per the Central Electricity Regulatory Commission (CERC) Order in Case No. 197/MP/2015 dated 5 November, 2015. (An Appeal against the CERC Order is pending before the Appellate Tribunal for Electricity.) For their 37 drawal points in Maharashtra, Indian Railways is procuring power from an Inter-State Generating Station, Ratnagiri Gas and Power Pvt. Ltd. (RGPPL) under an Open Access arrangement, and commenced its operations as a Deemed Distribution Licensee in Maharashtra from 26 November, 2015.

b) Mindspace Business Park Pvt. Ltd. (MBPPL)

MBPPL is a Special Economic Zone (SEZ) Developer and, therefore, a Deemed Distribution Licensee under the provisions of the Electricity Act (EA), 2003. MBPPL started operations as a Deemed Distribution Licensee from 8 April, 2015. In its Order dated 26 February, 2016 in Case No. 10 of 2016, the Commission has approved its power procurement plan of 20 MW for five years from April, 2016.

6.4 There are other Deemed Distribution Licensees in the State such as Maharashtra Airport Development Company, Ixora Constructions Pvt. Ltd., Quadron Business Park Ltd. and Gigaplex Estate Pvt. Ltd. However, they have either not firmed up their medium/long term power sourcing scheme or have not yet established connectivity to the InSTS network. Hence, in the present Order, they have not been considered for the sharing of TTSC. However, as per the MYT Regulations, the Commission may consider additional TSUs that satisfy necessary conditions at the time of the Mid-Term Performance Review (MTR) of the 3rd Control Period for sharing the TTSC.

6.5 The Maharashtra State Load Despatch Centre (MSLDC) has provided month-wise CPD and NCPD details for the above TSUs for FY 2015-16. The Commission has considered the Base Transmission Capacity of 18,824 MW based on the 12-monthly average of CPD and NCPD of TSUs from April, 2015 to March, 2016 as summarized in the following Table:

Table 6: Month-wise Average CPD/NCPD of Distribution Licensees in FY 2015-16 (MW)

Month	MSEDCL	TPC-D	RInfra-D	BEST	IR	MBPPL	State
Apr-15	15,688	973	1,475	921	NA	13	19,070
May-15	15,946	965	1,458	912	NA	15	19,296
Jun-15	15,412	962	1,456	912	NA	14	18,756
Jul-15	15,791	963	1,395	873	NA	13	19,035
Aug-15	14,966	945	1,351	847	NA	13	18,122
Sep-15	15,278	933	1,418	872	NA	14	18,514
Oct-15	16,556	998	1,492	906	NA	15	19,966

Month	MSEDCL	TPC-D	RInfra-D	BEST	IR	MBPPL	State
Nov-15	16,127	953	1,315	836	NA	14	19,244
Dec-15	15,419	812	1,311	798	207	13	18,559
Jan-16	15,090	719	1,144	673	213	12	17,850
Feb-16	15,835	672	1,184	695	214	13	18,612
Mar-16	15,772	753	1,314	802	212	13	18,866
Average	15,657	887	1,359	837	211	13	18,824

6.6 As per Regulation 61, the Base TCR is to be computed at the beginning of the 3rd Control Period based on the past trend and demand projected by the TSUs connected to the InSTS as in their MYT Petitions.

6.7 However, as will be seen from the above Table, the data of average CPD and NCPD of Indian Railways is not available for the entire year (or for past years) as its operations as a Distribution Licensee started only later during the year. Therefore, for arriving at the Base TCRs of the various TSUs for FY 2016-17 and for its projection over the Control Period, different approaches have been considered, as summarized in the following Table.

Table 7: Basis of projection of Base TCR of TSUs

Average CPD and NCPD (MW)	Basis of projecting Base TCR			
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
	Projection			
MSEDCL TPCL-D REL-D BEST	Average of CPD and NCPD of past year	Projection as per escalation rate based on the past trend and demand projections by TSUs		
MBPPL	As projected by MBPPL in its MYT Petition in Case No. 10 of 2016			
Indian Railways	Allotted capacity as per Bulk Power Transmission Agreement (BPTA) signed	Historical growth rate of consumption of Indian Railways has been considered over the Control Period		

6.8 MSLDC is directed to submit, upon completion of each year of the 3rd Control Period, data of the recorded CPD and NCPD data or the allotted capacity, as the case may be, for the past 12 months in respect of each TSU. On that basis, the Commission shall suitably revise the Base TCR projected above at the time of MTR and at the end of the 3rd Control Period for the subsequent years.

6.9 Accordingly, the Base TCR for TSUs for the 3rd Control Period has been projected as shown in the following Table:

Table 8: Base TCR for FY 2016-17 to FY 2019-20

TSU	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Approved in this Order							
	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)
MSEDCL	15,657	82.37	16,663	82.62	17,734	82.86	18,874	83.08
TPC-D	887	4.67	973	4.82	1,067	4.99	1,170	5.15
RInfra-D	1,359	7.15	1,397	6.92	1,435	6.70	1,474	6.49
BEST	837	4.40	862	4.28	888	4.15	915	4.03
MBPPL	17	0.09	18	0.09	19	0.09	20	0.09
Indian Railways	250	1.32	255	1.26	260	1.22	265	1.17
TOTAL	19,007	100.00	20,168	100.00	21,404	100.00	22,719	100.00

6.10 As per Regulation 3 of the MERC (Implementation of Scheme for the Utilization of Gas-Based Power Generation Capacity) Regulations, 2015, Transmission Charges and Losses in respect of sourcing from gas-based power generation capacity have been exempted for FY 2015-16 and FY 2016-17:

“3. Exemption of transmission charges and losses only for generation from the e-bid RLNG

3.1 No transmission charges for the use of InSTS network shall be charged to incremental gas based generation from e-bid Re-gasified Liquefied Natural Gas (RLNG) for the Financial Years 2015-16 and 2016-17 in accordance with the Scheme.

3.2 No transmission losses for the use of InSTS network shall be attributed to incremental gas based generation from e-bid RLNG for the Financial Years 2015-16 and 2016-17 in accordance with the Scheme.

3.3 Notwithstanding anything contained in these Regulations, the Transmission System Users who share the Total Transmission System Cost of InSTS on the basis of their respective contribution to average CPD and NCPD shall continue to pay their share as determined by the Commission from time to time in its Intra-State Transmission Tariff Orders.

3.4 All other provisions of the Regulations of the Commission governing Transmission Open Access shall be applicable for use of the InSTS network for transmission of incremental Gas-based power generation from e-bid RLNG.”

- 6.11 The Indian Railways (Central Railway) is procuring power under a PPA with RGPPL’s gas-based Generating Plant at Dabhol, Dist. Ratnagiri for 620 MW of power, with effect from 14 October, 2015 or other date from which the Station starts running, whichever is later, under the PSDF support schemes. This arrangement will be in force upto 31 March, 2017. Central Railway (a constituent of Indian Railways) has been granted Long Term Open Access (LTOA) for transmission of power from RGPPL’s Plant to various Railway Traction Sub-station (TSS) in Maharashtra for 250 MW, for which scheduling has started from 26 November, 2015.
- 6.12 Central Railway has also signed a BPTA for 25 years with the State Transmission Utility (STU) and RGPPL for 250 MW. Therefore, as per Regulation 3 of the Maharashtra Electricity Regulatory Commission (Implementation of Scheme for Utilization of Gas-based Power Generation Capacity) Regulations, 2015, the Central Railway is exempted from paying Transmission Charges for the gas-based power sourced from RGPPL. Accordingly, while computing the Base TCR for FY 2016-17, no contribution by Central Railway has been considered to the extent that it is sourcing power from RGPPL. This exclusion is only applicable in FY 2016-17, in accordance with the Regulations. While determining the Base TCR for the remaining years of the Control Period, i.e. FY 2017-18 to FY 2019-20, the contribution of Central Railways to the Base TCR has been considered based on the BPTA capacity of 250 MW, with appropriate annual escalation as provided in Table 8.
- 6.13 Accordingly, the revised Base TCR for TSUs for the 3rd Control Period is projected as shown in the following Table:

Table 9: Base TCR for FY 2016-17 to FY 2019-20

TSU	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Approved in this Order							
	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)
MSEDCL	15,657	83.47	16,663	82.62	17,734	82.86	18,874	83.08
TPC-D	887	4.73	973	4.82	1,067	4.99	1,170	5.15
RInfra-D	1,359	7.25	1,397	6.92	1,435	6.70	1,474	6.49
BEST	837	4.46	862	4.28	888	4.15	915	4.03

TSU	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Approved in this Order							
	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)	TCR (MW)	TCR (%)
MBPPL	17	0.09	18	0.09	19	0.09	20	0.09
Indian Railways	-	0.00	255	1.26	260	1.22	265	1.17
TOTAL	18,757	100.00	20,168	100.00	21,404	100.00	22,719	100.00

7 Determination of Transmission Tariff for 3rd Control Period from FY 2016-17 to FY 2019-20

7.1 Regulation 61.3 of the MYT Regulations, 2015 specifies the formula for the determination of Base Transmission Tariff of each year for long, medium and short term transactions as follows:

“61.3 Base Transmission Tariff for each Year shall be determined as ratio of approved ‘TTSC’ for intra-State transmission system and approved ‘Base Transmission Capacity Rights’ and shall be denominated in terms of “Rs/kW/month” (for long-term/medium-term usage) or in terms of “Rs/kWh” (for short-term bilateral open access transactions usage, short-term collective transactions over Power Exchange and for Renewable Energy transactions) in accordance with the following formula:

$$\text{Base Transmission Tariff (t) long term or short term} = \frac{TTSC(t)}{\text{Base TCR (t)}}$$

$$\text{Base Transmission Tariff (t) (Short-term) (Rs/kWh)} = \frac{TTSC(t)}{\sum_{i=1}^n (\text{Energy Transmitted by Tx } i)}$$

Where,

$TTSC(t)$ = Pooled cost for InSTS for yearly period (t) of the Control Period;

$\text{Base TCR}(t)$ = Base Transmission Capacity Rights for the yearly period (t);

n = Total number of Transmission Licensee(s) in that particular year of Control Period;

Txi = i th Transmission Licensee;

Provided that the energy units transmitted by the Transmission Licensees shall be based on the energy input requirement of the Distribution Licensees at Generation-InSTS interface point, as projected by each Distribution Licensee as part of its MYT Petition for the Control Period and as approved by the Commission;

Provided further that any revisions in Base Transmission Capacity Rights and Base Transmission Tariff as determined in Regulations 61.2 and 61.3 due to the variation in the actual and approved CPD and NCPD shall be made at the time of Mid-Term Review and at the end of the Control Period for the subsequent years;

Provided also that in case new Transmission Licensees are added to the intra-State transmission network during the Control Period, then the TTSC, Base Transmission Capacity Rights and Base Transmission Tariff as referred under Regulations 61.1, 61.2 and 61.3 shall be re-determined for each remaining Year of the Control Period.

- 7.2 In line with Regulation 61.3 and based on the TTSC and Base TCR approved in this Order, the Commission has determined the Transmission Tariff for use of the InSTS for the 3rd Control Period as shown in the following Table:

Table 10: Transmission Tariff for FY 2016-17 to FY 2019-20 considering TTSC

TSU - Distribution Licensees	Units	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
		Approved in this Order	Approved in this Order	Approved in this Order	Approved in this Order
TTSC (approved)	Rs. Crore	4,596.26	5,805.51	6,519.27	6,599.91
Base TCR (approved)	MW	18,757	20,168	21,404	22,719
Transmission Tariff (long term/medium term)	Rs./kW/month	204.24	239.88	253.82	242.08
Transmission Tariff (short term/short term collective/renewable energy)	Rs./kWh	0.28	0.32	0.34	0.32

8 Sharing of TTSC among TSUs

- 8.1 Regulation 62 of the MYT Regulations, 2015 specifies the mechanism for sharing the TTSC among TSUs as follows:

“62. Sharing of TTSC by long-term TSUs

62.1 The long-term Transmission System Users shall share the TTSC of the intra-State transmission system in the proportion of Base Transmission Capacity Rights of each Transmission System User to the total Base Transmission Capacity Rights allotted in the intra-State transmission system.

62.2 *The Annual Transmission Charge payable by Transmission System User shall be computed in accordance with the following formula:*

$$ATC (u)(t) = TTSC (t) X ([Base TCR (u)](t) / \sum_{u=1}^n (Base TCR (u))(t))$$

Where,

ATC (u)(t) = Annual Transmission Charges to be shared by Transmission System User (u) for the yearly period (t).

$$Base TCR (u) = [CPD(u)(t) + NCPD(u)(t)] / 2$$

Where,

Base TCR represents the Base Transmission Capacity Right of each Transmission System User (u) for the yearly period (t);

CPD (u)(t) = Average Coincident Peak Demand of the Transmission System User (u) for the yearly period (t);

NCPD (u)(t) = Average Non-coincident Peak Demand of the Transmission System User (u) for the yearly period (t);

Provided that the Allotted Capacity for long-term Open Access Users, excluding partial Open Access Users shall be considered in lieu of the average monthly CPD and NCPD for calculating the Base TCR for such Open Access Users.”

8.2 The TTSC over the 3rd Control Period has to be shared among the long-term TSUs comprising the Distribution Licensees in accordance with their contribution to the average of CPD and NCPD as summarized in the following Table:

Table 11: Annual Sharing of TTSC among TSUs for FY 2016-17 to FY 2019-20

TSU – Distribution Licensee	FY 2016-17			FY 2017-18			FY 2018-19			FY 2019-20		
	Share of avg. of CPD and NCPD (MW)	Share of avg. of CPD and NCPD (%)	Share of TTSC (Rs. Crore)	Share of avg. of CPD and NCPD (MW)	Share of avg. of CPD and NCPD (%)	Share of TTSC (Rs. Crore)	Share of avg. of CPD and NCPD (MW)	Share of avg. of CPD and NCPD (%)	Share of TTSC (Rs. Crore)	Share of avg. of CPD and NCPD (MW)	Share of avg. of CPD and NCPD (%)	Share of TTSC (Rs. Crore)
MSEDCL	15,657	83.47	3,836.58	16,663	82.62	4,796.59	17,734	82.86	5,401.63	18,874	83.08	5,482.99
TPC-D	887	4.73	217.40	973	4.82	280.07	1,067	4.99	325.00	1,170	5.15	339.93
RInfra-D	1,359	7.25	333.11	1,397	6.92	402.02	1,435	6.70	437.03	1,474	6.49	428.23
BEST	837	4.46	205.13	862	4.28	248.24	888	4.15	270.60	915	4.03	265.88
MBPPL	17	0.09	4.04	18	0.09	5.18	19	0.09	5.79	20	0.09	5.81
Indian Railways (Central Railway)	0	0.00	0.00	255	1.26	73.40	260	1.22	79.22	265	1.17	77.07
TOTAL	18,757	100.00	4,596.26	20,168	100.00	5,805.51	21,404	100.00	6,519.27	22,719	100.00	6,599.91

8.3 This Transmission Tariff Order shall be applicable with effect from 1 July, 2016. The STU, i.e., MSETCL, shall collect the monthly Transmission Charges from the respective TSUs in the subsequent month, as provided in the Regulations, with the first monthly period commencing from 1 July, 2016, as follows:

Table 12: Monthly TTSC payable by TSUs in FY 2016-17 to FY 2019-20 (Rs. Crore)

TSU - Distributi on Licensees	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Approved in this Order		Approved in this Order		Approved in this Order		Approved in this Order	
	Annual	Monthly*	Annual	Monthly	Annual	Monthly	Annual	Monthl y
MSEDCL	3,836.58	319.71	4,796.59	399.72	5,401.63	450.14	5,482.99	456.92
TPC-D	217.40	18.12	280.07	23.34	325.00	27.08	339.93	28.33
RInfra-D	333.11	27.76	402.02	33.50	437.03	36.42	428.23	35.69
BEST	205.13	17.09	248.24	20.69	270.60	22.55	265.88	22.16
MBPPL	4.04	0.34	5.18	0.43	5.79	0.48	5.81	0.48
Central Railway	0.00	0.00	73.40	6.12	79.22	6.60	77.07	6.42
Total	4,596.26	383.02	5,805.51	483.79	6,519.27	543.27	6,599.91	549.99

* Applicable from 1 July, 2016.

8.4 The above Transmission Charges are payable by all long-term TSUs irrespective of their actual utilization recorded during their period of operation. Any difference between the actual utilisation of Transmission Capacity by a long-term TSU and the allocated Transmission Capacity (i.e., Base TCR) shall be governed by Regulation 63 of the MYT Regulations, 2015 which reads as follows:

“63. The charges for intra-State transmission usage shall be shared among various TSUs in the following manner:

a) Long-term TSU with recorded demand up to Base TCR shall not be subjected to payment of short-term transmission charges.

b) Long-term TSU with recorded demand greater than Base TCR but lower than Contracted Capacity shall make payment of short-term Transmission charges for the recorded demand in excess of Base TCR.

c) Where the recorded demand of long-term TSU is greater than Contracted Capacity, the TSU shall bear additional transmission charges as specified in the Regulations of the Commission governing Transmission Open Access:

Provided that short-term transmission charges and additional transmission charges, if payable or paid by long-term TSUs in accordance with the clauses (a), (b)

and (c) above, shall be adjusted during subsequent billing period upon availability of information regarding actual recorded demand by such long-term TSUs.”

- 8.5 In case any new long term or medium term OA consumer is granted TCR during the year, such TSU shall be liable to pay the Transmission Charges at the Transmission Tariff determined as per Table 10 of this Order, corresponding to the TCR. The Commission will decide the mechanism for inclusion of such TSUs in the process of recovery/sharing of the TTSC in its subsequent Transmission Tariff Order.

9 Recovery of ARR of Transmission Licensees for FY 2016-17 to FY 2019-20

- 9.1 In accordance with Regulation 61, the ARR of the Transmission Licensees are pooled to derive the TTSC, and each Licensee is entitled to recover its approved ARR from the Transmission Charges collected by the STU from the TSUs.
- 9.2 This Transmission Tariff Order is applicable from 1 July, 2016. The STU shall collect the Transmission Tariff for each calendar month from the TSUs as per the timelines provided in the Regulations, with the first monthly period commencing from 1 July, 2016. Each Transmission Licensee shall be entitled to recover its ARR, as considered in these TTSC workings, from the Transmission Tariff collected by the STU, on a monthly basis. The Transmission Licensees should claim recovery of their respective ARRs by raising monthly bills on the STU covering their component of Intra-State Transmission Charges as follows:

Table 13: Recovery of ARR of Transmission Licensees in FY 2016-17 to FY 2019-20 (Rs. Crore)

Transmission Licensee	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Annual	Monthly	Annual	Monthly	Annual	Monthly	Annual	Monthly
MSETCL	1,744.70	145.39	3,499.03	291.59	4,189.74	349.15	4,277.18	356.43
TPC-T	562.11	46.84	661.68	55.14	711.09	59.26	745.89	62.16
RInfra-T	292.79	24.40	310.15	25.85	320.15	26.68	315.33	26.28
JPTL	95.42	7.95	89.88	7.49	86.93	7.24	83.82	6.99
ATIL	112.64	9.39	122.60	10.22	118.29	9.86	113.98	9.50
MEGPTCL	1,646.12	137.18	1,061.64	88.47	1,034.07	86.17	1,006.69	83.89
VIPL-T	13.75	1.15	5.64	0.47	5.51	0.46	5.38	0.45
APTCL	128.73	10.73	54.89	4.57	53.49	4.46	51.64	4.30
TTSC (InSTS)	4,596.26	383.02	5,805.51	483.79	6,519.27	543.27	6,599.91	549.99

- 9.3 The present Order shall be applicable from 1 July, 2016. Accordingly, the billing for the months of April, May and June, 2016 will be done by the Transmission Licensees based on the monthly Transmission Tariff approved by the Commission for FY 2015-16 in its previous Transmission Tariff Order in Case No. 57 of 2015. The billing from 1 July, 2016 will be done as per the Transmission Tariff approved in this Order. Any under- or over-recovery in FY 2016-17 on account of such billing would be addressed appropriately by the Commission during the True-up process in respect of each Transmission Licensee.
- 9.4 As regards the delays in payment of transmission charges by TSUs and the mounting dues on account of late payment surcharge (Delayed Payment Charge (DPC)), the Commission has expressed its serious concern in its previous Transmission Tariff Order, in which certain directives were given to the STU:

“77. Moreover, as mandated by the Commission, the STU has, in consultation with the GCC, laid down detailed procedures for settlement of intra-State Transmission Charges from time to time, including the modalities of bill collection and payment security.

78. The large arrears of late payment surcharge, which reflect recurring delays in payment of Transmission Charges over a long period, could not have accumulated had the above payment security mechanisms been implemented. The Commission can only conclude that the STU has consistently failed to do so, and has thus been a party to the defaults and consequent financial impacts on the concerned Transmission Licensees. It has also not approached the Commission for appropriate directions, if any were required, on any aspect on which it is not already sufficiently empowered by the Regulations, the BPTAs or its own procedural rules.

79. In this background, the STU is directed to approach the Commission, within 45 days of this Order, with its suggestions for dealing with past payment arrears and minimising future delays, through a Petition. MSLDC and the Distribution and Transmission Licensees may be impleaded as parties. With its Petition, the STU should submit all the relevant details, including but not limited to the following:

- TSU-wise details of existing Letter of Credit (LC).**
- Amount, period of validity, no. of months of Transmission charge payments to which it is equivalent.**
- No. of occasions on which the LC amount has been revised in the last 3 years.**

- **No. of occasions in the last 3 years on which LCs of TSUs have been encashed for non-payment of dues in time.**
- **If LC was not encashed by STU against payment default, the reasons therefor.**
- **No. of GCC meetings in the last 3 years at which the LC amounts were reviewed; whether the revisions decided upon were implemented, with reasons for non-implementation, if any.”**

9.5 In addition to its overall responsibility in planning, coordination, execution and monitoring of the InSTS, the STU is also responsible for the settlement of Transmission Charges and operating a payment security mechanism so as to avoid the present situation of payment indiscipline by TSUs and mounting DPC of the Transmission Licensees. Vide letters dated 7 August, 9 September and 30 October, 2015 and 8 January, 2016, the STU has repeatedly sought deferment of filing its Petition as directed. Vide letter dated 28 January, 2016, the Commission had allowed time up to 29 February, 2016, but the STU has only submitted the status of ongoing discussions at various levels for resolution of the DPC issue.

9.6 MSETCL is fully aware from the MTR Order that the Commission has considered the outstanding DPC as part of Non-Tariff Income under the MYT Regulations, 2011. Accordingly, the recovery of ARR for FY 2015-16 was reduced to that extent since the DPC due has been considered on an accrual basis. Its non-recovery in practice impacts both MSETCL as well as other Transmission Licensees since the amount is not actually available with them. Accordingly, it was in the interest of MSETCL both as a Transmission Licensee and as the STU to approach the Commission for resolution of this matter, but it has not done so. However, the Commission may pursue this separately.

10 Energy Accounting and Treatment of Transmission Loss

The Intra-State Transmission Loss as recorded and available for the full year from April, 2015 to March, 2016 has been submitted by MSLDC. The weighted average Transmission Loss for the InSTS in that period is 3.92% for a total energy input of 1, 41,766 MU and output of 1, 36,215 MU, and is accordingly approved for the 3rd Control Period.

11 Point of Connection-based Transmission Pricing Methodology

11.1 The existing Framework of Intra-State Transmission Pricing in Maharashtra is based on the ‘Postage Stamp’ method, which has served the needs of the system well. However, the National Electricity Policy and Tariff Policy stipulate that the National Transmission Tariff Framework should be sensitive to distance and direction and be related to the quantum of power flow. CERC has adopted the Point of Connection (PoC) methodology for sharing of Inter-State Transmission System (ISTS) costs.

- 11.2 As per Regulations 64 of the MYT Regulations, 2015, the existing Framework may be modified upon detailed study and due regulatory process in line with the CERC methodology at an appropriate time:

“The Commission may, after conducting a detailed study and due regulatory process, change the existing transmission pricing framework to one considering factors such as voltage, distance, direction and quantum of flow based on the methodology specified by the Central Electricity Regulatory Commission, as the Commission may deem appropriate.”

- 11.3 For considering the introduction of the PoC methodology at the State level, several InSTS data inputs and preparatory steps are required. In this context, in its Order in Case No. 56 of 2013, the Commission had directed the STU to undertake a detailed study to evaluate and suggest steps for the introduction of the PoC methodology in Maharashtra. On 28 February, 2015, the STU submitted a report of the study conducted so far in collaboration with the Indian Institute of Technology (IIT), Mumbai. Subsequently, the STU and IIT also made presentations to the Commission during which various aspects of design and development of the PoC mechanism and implementation were discussed.
- 11.4 Transmission System development and pricing is a dynamic and evolving process. With increase in the number of Transmission Licensees and the proliferation of TSUs, including Open Access Users, Renewable Energy Generators, etc., energy accounting and assessment of Transmission System usage is becoming more complex and cumbersome. Besides, the new regulatory regime under the MYT Regulations for the 3rd Control Period and the recent notification of the Distribution and Transmission Open Access Regulations, 2016 would be put into operation during FY 2016-17 for the first time.
- 11.5 Any modification to the existing ‘Postage Stamp’ based Transmission Pricing Framework or transition to a ‘PoC based’ approach would require careful assessment of the potential impact on TSUs, and developing a road map for putting in place the pre-requisites in terms of data sharing infrastructure such as data requirements, data/information exchange protocol/process, formats, defining roles/responsibilities of implementing agency, etc. along with timelines. The Commission also notes that the PoC mechanism is operational only at Regional/Inter-Regional level for the ISTS and not for Intra-State. During the public consultation process undertaken while framing the MYT Regulations, 2015, the stake-holders, including the STU, Transmission Licensees and TSUs did not express a need for revising the present mechanism. While it has received the STU’s final report in February, 2016 for further study, at this stage the Commission is of the view that, in view of the considerations above, the existing ‘Postage Stamp’ based Framework needs to be continued for the time being.

12 Due date of payment of TTSC share by TSUs

12.1 Vide letter dated 7 May, 2016, the STU has stated that, pending the issue of this Order, it has raised bills in May, 2016 as per the Transmission Charges determined in the previous Transmission Tariff Order. However, there is a difference in the provisions regarding 'due date' in the present MYT Regulations, 2015 and the earlier Regulations of 2011. Regulation 68.2 of the MYT Regulations, 2011 specified that

“the monthly bill for transmission tariff for each calendar month shall be payable on 14th day of subsequent calendar month by TSUs”,

whereas Regulation 65.2 of the MYT Regulations, 2015 specifies that

“the monthly bill for transmission tariff shall be payable within 30 days of receipt of bill by the TSUs”.

12.2 The STU has asked whether to consider the due date as the 14th day of the subsequent calendar month (as per the previous Transmission Tariff Order), or within 30 days of receipt of the bill by the TSUs (as per the MYT Regulations, 2015).

12.3 The Commission clarifies that the provisions of the MYT Regulations, 2015 are applicable from 1 April, 2016, as specified in Regulation 1.3. Hence, since the bills were raised by the STU in May, 2016, the provisions of the MYT Regulations, 2015 are applicable, and those (and subsequent) bills are payable by the TSUs within 30 days of their receipt.

13 Applicability of Order

This Order shall be applicable from 1 July, 2016. The Transmission Tariff approved in this Order shall remain in effect till any subsequent revision.

Sd/-
(Deepak Lad)
Member

Sd/-
(Azeez M. Khan)
Member