

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 120 of 2009

IN THE MATTER OF

**Determination of Transmission Tariff for Intra-State Transmission System (InSTS) for
FY 2010-11**

Shri V. P. Raja, Chairman
Shri S. B. Kulkarni, Member
Shri V.L. Sonavane, Member

ORDER

Date: September 10, 2010

The Commission had issued an Order on June 27, 2006 in the matter of development of Transmission Pricing Framework for the State of Maharashtra and other related matters in Case No. 58 of 2005. As per para 4.2 of the said Order, the Commission is required to determine Transmission Tariff applicable for use of the Intra-State Transmission system (InSTS) in accordance with the principles outlined as under:

4.2.1 "Intra-State transmission system shall comprise composite transmission network of MSETCL, TPC, REL and any other transmission licensee, in future.



4.2.2 Each transmission licensee including existing transmission licensees (i.e. MSETCL, TPC and REL) shall submit its ARR Petition to the Commission in accordance with the MERC (Terms and conditions of Tariff) Regulations, 2005 and seek its approval thereof.

4.2.3 Aggregate of Annual Revenue Requirement of all licensees, as approved by the Commission, shall form "Pooled Cost" (or hereinafter termed as "Total Transmission System Cost – TTSC) of the intra-State transmission system, to be recovered from the Transmission System Users (TSUs).

4.2.4 The 'Base Transmission Capacity Rights' for 'capacity utilisation' shall be denominated in terms of 'kW'. The TTSC shall be shared amongst the TSUs based on the 'contribution to co-incident peak demand' (CPD) by each TSU. However, the Commission recognises that until adequate metering arrangement is put in place, it may not be possible to ascertain 'CPD' by various TSUs. Hence, for FY 2006-07, until adequate metering arrangement is put in place, transmission tariff shall be based on share of 'peak demand' of concerned TSU during each month of the previous year. For this purpose, average of such 12-monthly contributions to peak demand by each TSU shall form basis for arriving at 'Base TCR' and overall share/contribution of each TSU thereof. The Commission directs the licensees to submit data pertaining to their peak demand for consumption in their area during each month for FY2005-06 within two weeks from date of issue of this Order. Further, the Commission re-iterates that existing TSUs will have to execute Bulk Power Transmission Agreement with concerned transmission licensee in accordance with Regulation 5.1 and Regulation 5.2 of MERC (Transmission Open Access) Regulations, 2005.

4.2.5 Accordingly, 'Base Transmission Tariff' for each financial year shall be derived as 'TTSC' of intra-State transmission system divided by 'Base Transmission Capacity Rights' and denominated in terms of "Rs/kW/month" or "Rs/MW/day"

2. Accordingly, the Commission determined the Transmission Tariff for Intra-State Transmission System (InSTS) in its Order dated September 29, 2006 (Case No. 31 of 2006) for FY 2006-07 which was valid up to March 31, 2007. Subsequently, the Commission determined Transmission Tariff for InSTS for FY 2007-08 (i.e., first year of the Control Period under MYT regime) in its Order dated April 2, 2007 (Case No. 86 of 2006), for FY 2008-09 (i.e., second year of the Control Period under MYT regime) in its Order dated May 31, 2008 (Case No. 104 of



2007) and for FY 2009-10 (i.e., third year of the Control Period under MYT regime) in its Order dated May 28, 2009 (Case No. 155 of 2008).

3. Meanwhile, the transmission licensees in the State of Maharashtra, viz., Maharashtra State Electricity Transmission Co. Ltd (MSETCL), The Tata Power Company Ltd (TPC-T) and Reliance Infrastructure Ltd (RInfra-T) filed their Annual Performance Review (APR) Petitions for review of their annual performance for FY 2009-10 (third year of Control Period) and for approval of their annual revenue requirement for FY 2010-11.

4. The Commission has determined the Annual Revenue Requirement of the above transmission licensees for FY 2010-11 after detailed scrutiny of their APR Petitions and following due regulatory process vide its Orders dated September 10, 2010 in respect of MSETCL (Case No. 103 of 2009), Order dated September 3, 2010 in respect of TPC-T (Case No. 97 of 2009) and Order dated September 3, 2010 in respect of RInfra-T (Case No. 100 of 2009).

5. Accordingly, the Commission hereby determines the Transmission Tariff for Intra-State Transmission System (InSTS) for FY 2010-11 as under:

A] Total Transmission System Cost (TTSC) for InSTS for FY 2010-11

6. The Annual Revenue Requirement approved by the Commission for FY 2010-11 for MSETCL, TPC-T and RInfra-T is summarised in the Table below, which amounts to approval of Total Transmission System Cost (TTSC) of Rs. 2653.73 Crore for FY 2010-11 for the Intra-State transmission system (InSTS):

(Rs Crore)

Transmission Licensee	ARR as approved by Commission FY 2010-11
MSETCL	2264.25
TPC-Transmission	296.73
RInfra-Transmission	92.75
TTSC (InSTS)	2653.73



B] Coincident Peak Demand and Base Transmission Capacity Utilisation

7. The Commission, in Transmission Pricing Framework Order dated September 29, 2006 (Case No. 58 of 2005) had specified that while base transmission capacity utilisation for FY 2006-07 would be based on 'Non-Coincident Peak Demand' of Transmission System Users (TSUs) in the absence of adequate metering arrangements, such transmission capacity utilisation should actually be based on 12-monthly average of contribution to 'Coincident Peak Demand' by each TSU.

8. MSETCL provided month-wise coincident peak demand details for all licensees (TSUs) from October 2008 to September 2009 in its APR Petition. However, as regards the average peak demand of TPC-D and RInfra-D, and their respective share in the average coincident peak demand in FY 2010-11, the same needs to be adjusted to accommodate the changes envisaged during FY 2010-11 pertaining to the shifting of load from RInfra-D to TPC-D due to the shifting of consumers base from RInfra-D to TPC-D, following the Supreme Court Judgment dated July 8, 2008 which upheld TPC-D's right for retail distribution in the entire area of TPC-D's license area which included the license areas of RInfra-D as well. Further, TPC-D, in its APR Petition for FY 2009-10, has submitted that an additional capacity of 160 MW would be made available to TPC-D by TPTCL, over and above the already contracted capacity to meet its increase in peak demand requirement in FY 2010-11 including demand catered to on account of shifting of load. The relevant extract of the submission by TPC-D is reproduced as under:

“Based on the Energy requirement, the Peak Demand (MW) projections are carried out as follows:

- *For the purpose of Peak Demand (MW) projections, a load factor of 0.73 has been considered. Based on this load Factor of 0.73, the computation of the quarterly Peak Demand and the Requirement of contracted generating capacities for the period FY 2010-11 works out as tabulated below.*

Table 1-32: Peak Load Demand Projections



Particulars		FY 2010-11			
		Q 1	Q 2	Q 3	Q 4
Total Energy Requirement at Bus Bar	MUs	924	933	998	967
Load Factor		0.73	0.73	0.73	0.73
Total Peak Requirement at Bus Bar	MW	577	576	617	611
Approx. Auxiliary Consumption	%	4%	4%	4%	4%
Total Peak Requirement at Generator Terminal	MW	601	600	643	636
Contracted Capacity with Tata Power - G (excl. Unit 4)	MW	487	487	487	487
Additional Capacity Required	MW	114	113	156	149

As seen from the above table, Tata Power – D needs to contract about 160 MW of power over and above its existing contracted capacities with Tata Power – G to meet its peak demand.”

9. In view of the above, the Commission has modified the contributions of TPC-D and RInfra-D to the average Coincident Peak Demand as shown in the table below and the same has been considered to share the Total Transmission System Charges (TTSC) for FY 2010-11.

Months	Contribution to Coincident Peak Demand by each TSU (MW)				
	MSEDCL	TPC-D	RInfra-D	BEST-D	Total
Oct 08	11408	364	1400	702	13874
Nov 08	11101	342	1377	707	13527
Dec 08	10548	365	1456	733	13102
Jan 09	10835	342	1318	637	13132
Feb 09	11045	316	1242	562	13165
Mar 09	11406	345	1429	641	13821
Apr 09	11373	344	1402	620	13739
May 09	11179	350	1406	657	13592
Jun 09	11103	351	1403	630	13487
Jul 09	10382	342	1283	567	12574
Aug 09	11004	351	1391	636	13382
Sep 09	11299	331	1464	659	13753
Average	11057	345	1381	646	13429
Est. Shift Consumer		+ 160	(160)		



Load (ref. Para 8)					
Modified Average *	11057	505	1221	646	13429
<i>*(Considering impact of Load shift from TPC-D to RInfra-D)</i>					

C] Determination of Transmission Tariff for FY 2010-11

10. In line with Para 4.2.5 of the Commission's Order on Transmission Pricing Framework and based on approved TTSC (Para 6 of this Order) and approved Base Transmission Capacity Utilisation (Para 9) of this Order, the Commission hereby determines Transmission Tariff for use of Intra-State Transmission System for FY 2010-11 as under:

Item Description	Units	FY 2010-11
TTSC	Rs Cr	2653.73
Average Coincident Peak Demand (CPD)	MW	13429
Transmission Tariff (long term)	Rs/kW/mth	164.68
Transmission Tariff (long term)	Rs/MW/day	5414
Transmission Tariff (short term)	Rs/MW/day	1353.50
Transmission Tariff (short term)	Rs/MWh	56.40

11. Further, it is clarified that Transmission Tariff in case of short-term open access transactions shall be 25% of that applicable for long-term open access transactions as stipulated under Para 3.2.5.6 of the Commission's Order dated June 27, 2006 in Case 58 of 2005. The relevant extract of said Order is as under:

"3.2.5.6 The transmission charge in case of short term transmission open access transactions shall be denominated in Rs/MW/day or Rs/MW/Hr and shall be 25% of that applicable for long term transmission open access transactions. The short term transmission charges shall be payable for minimum 6 hours duration within a day and shall be accordingly 1/4th of short term transmission open access charge per day. The recovery from short term transmission open access charges shall be used to reduce total



transmission system charge (TTSC) for the intra-State transmission system and in turn benefit long term transmission system users.”

12. Accordingly, Transmission Tariff for short-term open access transactions for FY 2010-11, shall be Rs 56.40 per MW per hour. Further, it is clarified as ruled under Commission's Order (Case 103 of 2009) that condition as stipulated under Para 3.2.5.6 reproduced above that short term transmission charges to be payable for minimum 6 hours duration within a day **shall no longer be applicable** and the short term open access charges shall be denominated in Rs/MWh as outlined above. The recovery from short term transmission open access charges shall be used to reduce total transmission system charge (TTSC) for the Intra-State Transmission System and in turn benefit long term transmission system users.



D] Sharing of TTSC amongst Transmission System Users (TSUs)

13. The total transmission system cost (TTSC) has to be shared amongst the long-term transmission system users comprising distribution licensees such as MSEDCL, TPC-D, RInfra-D and BEST in accordance with their contribution to coincident peak demand as summarised in the following Table:

Particulars	Share of CPD	% share of CPD	FY 2010-11
TSU - Distribution Licensees	(MW)	%	(Rs Cr)
MSEDCL	11057	82.34%	2184.99
TPC-D	505	3.76%	99.84
RInfra-D	1221	9.09%	241.27
BEST	646	4.81%	127.63
Total	13429	100%	2653.73

14. As outlined under paragraph 22 below, this Transmission Tariff Order shall be applicable with effect from September 1, 2010. The State Transmission Utility (STU), i.e., MSETCL, shall collect Transmission Charges from Transmission System Users on monthly basis at the end of each calendar month, with first monthly period commencing from September 1, 2010, in the following manner:

Particulars	FY 2010-11	
	Annual	Monthly*
TSU - Distribution Licensees	(Rs Cr)	(Rs Cr/month)
MSEDCL	2184.99	182.08
TPC-Distribution	99.84	8.32
RInfra-Distribution	241.27	20.11
BEST-Distribution	127.63	10.64
TOTAL	2653.73	221.14

*(applicable from September 1, 2010)



15. It is clarified that the above Transmission Charges are payable by all long-term transmission system users irrespective of their actual utilisation (peak demand) recorded during the period of operation. In case, actual utilisation of transmission capacity by any long-term TSU exceeds the allocated transmission capacity then, the same shall be governed as per MERC (Transmission Open Access) Regulations, 2005. Further, it is clarified that the usage, assignment and surrendering of un-utilised transmission capacity by any transmission system user shall be governed by Regulation 9 of MERC (Transmission Open Access Regulations) 2005. The transmission system users shall be entitled to use surplus transmission capacity through short-term open access subject to payment of short term open access charges and governed by MERC (Transmission Open Access) Regulations, 2005 and other Regulations, as applicable. Additional penal charges shall be levied for excess utilisation of transmission capacity in accordance with Regulation 11.4 of MERC (Transmission Open Access) Regulations 2005.

E] Recovery of ARR of Transmission Licensees for FY 2010-11

16. As per Para 4.2.3 and Para 4.2.14 of the Commission's Order on Transmission Pricing Framework in Case No. 58 of 2005, the ARR of transmission licensees is pooled together to form TTSC for Intra-State Transmission System and each transmission licensee is entitled to recover its approved ARR from the transmission charges collected by STU from transmission system users. The relevant extract of said Order is as under:

“4.2.3 Aggregate of Annual Revenue Requirement of all licensees, as approved by the Commission, shall form “Pooled Cost” (or hereinafter termed as “Total Transmission System Cost – TTSC) of the intra-State transmission system, to be recovered from the Transmission System Users (TSUs).

4.2.14 Each transmission licensee shall be entitled to recover its approved ARR from intra-State transmission system charges (InSTS charges) collected by STU.”

17. As outlined in paragraph 22 below, this Transmission Tariff Order shall be applicable with effect from September 1, 2010. The STU shall collect Transmission Tariff from transmission system users on monthly basis at the end of each calendar month with first monthly period commencing from September 1, 2010. Thus, each Transmission licensee, in turn, shall be entitled to recover its approved ARR from Transmission Tariff collected by STU on monthly



basis at the end of each calendar month with first monthly period commencing from September 1, 2010, and should claim recovery of its ARR by way of raising monthly bill on STU covering its component of Intra-State Transmission charges in the following manner:

Transmission Licensees	Approved ARR (Rs Cr)	Monthly recovery of ARR (Rs. Crore/month)
	FY 2010-11	FY 2010-11
MSETCL	2264.25	188.69
TPC-Transmission	296.73	24.73
RInfra-Transmission	92.75	7.73
TTSC (InSTS)	2653.73	221.14

The Commission clarifies that surplus/deficit in revenue on the account of levy of Transmission Charges during initial 5 months (i.e., during April 2010 to August 2010) at the rate applicable for FY 2009-10 instead of Transmission Tariff Rate applicable for FY 2010-11 shall be considered at the time of true-up exercise during next year's Annual Performance Review of the transmission licensees.

18. As regards due date for payment of transmission tariff by TSUs, the Commission had earlier ruled in its Order dated October 10, 2007 in Case No. 13 of 2007 that all payments related to transmission charges for a particular calendar month shall be due for payment on the 14th day of the subsequent calendar month. The conditions outlined under the said Order shall continue to be applicable for Transmission Charge related payments during FY 2010-11 as well. The relevant extract of the said Order of the Commission is as under:

"11. The 'pooling mechanism' for all payments related to transmission charges is under operation for a period of almost one year since October 2006. The licensees through GCC have agreed for revision in due date of payment to be the 14th day of the month de-linking the same from the date of invoice. As noted in paragraph 7 above, the issue of staggered mode of payment of intra-state transmission tariff was discussed in the 14th GCC meeting held on July 27, 2007, wherein it was agreed by all the constituents of



GCC including the transmission licensees for allowing seven more days for making payment of TSC. In view thereof, while staggered mode of payment of transmission charges as sought for under the present petition cannot be allowed, the Commission is of the view that the position as laid down under the Commission's Orders will require alteration to give effect to the decision taken by all constituents of the GCC for making a change in the due date of payment. Accordingly, paragraph 20 of the Order dated April 2, 2007 (Case 86 of 2006) shall stand modified to the extent that all payments related to transmission charges for a particular calendar month shall be due for payment on the 14th day of the subsequent calendar month." (Emphasis added) (Ref. Clause 11 of Order dt. 10th Oct, 2007 Case 13 of 2007)

19. In view of the above, the Commission hereby rules that the monthly bill for transmission tariff for each calendar month shall be payable on 14th day of subsequent calendar month. All transmission system users shall ensure timely payment of Transmission Tariff to STU so as to enable STU to make timely settlement of claims raised by transmission licensees. In case there is delay in payment by any TSU, late payment surcharge at the rate of 1.25% per month or part thereof shall be applicable. The Commission recognises that modalities of 'Pooling' necessitate appropriate payment security arrangement to be put in place and procedure for disbursement to settle claims of various transmission licensees, in case of shortfall in payment by any of the TSU for a particular month. Accordingly, the Commission had earlier opined that the Grid Co-ordination Committee (GCC) should propose a suitable payment security mechanism and procedure for disbursement of payment in case of shortfall in collection in any particular month, after due consultation amongst transmission licensees and transmission system users. Accordingly, the Commission notes that the GCC has finalised the procedures and rules for settlement of intra-State transmission charges in its meeting held on June 27, 2008 and the minutes of approved procedure has been finalised in consultation with all GCC members, which covers the aspect of payment security and modalities/procedure for disbursement to settle claims of various transmission licensees, in case of shortfall in payment by any of the TSU for particular month.

F] Energy Accounting and Treatment of Transmission Loss

20. The Commission rules that the principles enunciated in the Transmission Pricing Framework Order in Case 58 of 2005 for State-wide accounting of energy over InSTS and



treatment of transmission loss shall continue to be applicable for FY 2010-11. Further, the mechanism for accounting of transmission loss and modalities for treatment of energy exchange (over-drawal/under-drawal) amongst transmission system users including Distribution Licensees as elaborated in the Commission's Order dated September 29, 2006 in Case 31 of 2006 and Order dated February 13, 2007 in Case 36 and 41 of 2006, intra-State ABT Order in Case 42 of 2006 dated May 17, 2007, and other related Orders issued from time to time shall continue to be applicable during FY 2010-11 as well, till such time as the Final Balancing and Settlement Mechanism (FBSM) for energy accounting and settlement on 15-minute basis under intra-State ABT regime is implemented in the State.

21. The Commission recognises and appreciates the fact that MSLDC and licensees have achieved significant progress in operationalising 'centralised pooling arrangement' (i.e., interim balancing and settlement mechanism – IBSM) over 3 years. The Commission also appreciates the fact that institutional framework and governance framework for electricity market operations within the State in the form of Maharashtra State Power Committee (MSPC) has been constituted and operationalised. In a related development in the matter (Case No. 9 of 2010) regarding likely date for implementation of FBSM with intra-State ABT metering, MSETCL has submitted that the first commercial billing under FBSM is expected to be issued by December 2010, as per the following schedule:

- a) The balance work of installation of 157 ABT meters and 48 links will be completed by July 31, 2010.
- b) The installation of ABT meters in Mumbai region is completed. The balance communication link installation is in progress and is expected to be completed by June 30, 2010.
- c) The FBSM scheduling model is tested and completed, and a trial FBSM bill using MRI data and manual entry has been generated.
- d) Online data is in progress, and a trial FBSM bill for August 2010 will be done by September 15, 2010, which will be circulated to all State Pool Participants for their acceptance.



- e) Mock trials will be done for three months (i.e., August, September, October 2010), during which the testing of bill for calculations of energy, pool charges, SMP, Central sector UI allocation, etc., along with validation of data will be carried out, respectively during September, October and November 2010. After completion of mock trial, bill of FBSM will be circulated for commercial consideration, i.e., by December 2010.

Under its Order (Case 9 of 2010) dated August 23, 2010, the Commission had ruled that *MSETCL should take all efforts and ensure that at least the timelines committed now, as captured above, are achieved without any slippages. The bills as per FBSM should be issued positively from December 2010 for commercial settlement.*

G] Applicability of Order

22. This Order shall be applicable from September 1, 2010 for FY 2010-11, and shall be reviewed at the time of Annual Performance Review of transmission licensees based on applications as may be filed by transmission licensees.

Sd/-
(V.L. Sonavane)
Member

Sd/-
(S. B. Kulkarni)
Member

Sd/-
(V.P. Raja)
Chairman



(K.N. Khawarey)
Secretary, MERC