

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
World Trade Centre, Centre No.1, 13th floor, Cuffe Parade, Mumbai 400 005.

CASE No. 1 of 2001

**In the matter of Determination of Tariff [2001-2002] Applicable to various
categories of consumers of Maharashtra State Electricity Board
And, Levying of T & D Loss charges on the basis of differential
(Circle/Zone) T & D Losses Evaluation**

**Shri P. Subrahmanyam, Chairman
Shri Jayant Deo, Member
Dr Pramod Deo, Member**

Interim Order

Date of Order: January 9, 2003

The Maharashtra Electricity Regulatory Commission, in exercise of the powers vested in it under Section 29 of the Electricity Regulatory Commissions (ERC) Act, 1998 and all other powers enabling it in this behalf, has vide its Order dated 10th January 2002, in Case No. 1 of 2001, determined the tariff for the supply of electricity to various categories of consumers, after considering the proposal submitted by the Maharashtra State Electricity Board (MSEB).

Preamble

In the above Tariff Order, the Commission while analyzing the T & D losses and its overall effect on the revenue requirement and the consequent tariffs, noted with concern the alarming trend on the part of the MSEB of declaring higher T & D losses from year to year (31.87% in FY 1999-00 to 39.49% in FY 2000-01) based on improved sampling of agricultural pumpsets. Before the Commission was established in August 1999, it was being maintained by the MSEB for the last over 20 years before institutions like the State Legislature, Parliament, State Government, the Planning Commission, other public forums, the media, etc., that its T&D losses were only in the region of 17%. The Commission decided to confront the menace of increasing T & D losses in a more direct, determined and focussed manner. The cost of the excess losses was determined as the cost of additional power purchase required on account of the higher energy input requirement, which was computed based on the average NTPC power purchase rate. The Commission apportioned the cost of the excess T & D loss equally (50% each) to the MSEB and the consumers.

The Commission's ruling in this regard was:

“The Commission has decided to recover this portion of the revenue requirement by showing a new charge called ‘T & D loss Charge’, which will be a variable charge and charged from all consumers of the MSEB, except for public utilities. This charge will be in addition to the Energy Charge and the Demand Charge determined by the Commission. The intention of the Commission is to stress upon the consumers that but for this loss, the effective tariffs would have been much lower. The Commission hopes that this will provoke the paying consumer to rise and act against the pilferage of energy by others. It is no secret that even earlier the consumers were paying for the higher losses, through the energy charge and demand charge, but if the charge is shown explicitly, it is expected to come more readily to notice and would bring about the necessary salutary effect of combating power thefts. It is the Commission's view that there is an urgent need for civil society to bring its relentless social pressure to bear upon the power thieves and bring them to heel in the shortest possible time.

The Commission has thus initiated the process of showing the ‘T & D loss Charge’ for all consumers, in proportion to the average realization from that category. It has also to be noted that, by its very nature, this is a temporary charge, temporary in the sense that the raison d'être of the charge will disappear as soon as the T & D losses of the MSEB reach the loss level mandated by the Commission. The Commission intends to create awareness among the consumers regarding the additional cost of the losses by showing this charge in an explicit manner. Hence, a more or less uniform T & D loss charge has been shown, to start with. However, in the next Tariff Order or even sooner, the Commission intends to differentiate between the various circles/zones, for charging T & D loss charge, based on the T & D losses recorded by the circle/zone in question. The Commission is fully aware that it is not fair that a consumer residing in a circle/zone, which has a considerably lower loss level, should pay the same T & D loss charge as a consumer residing in a high T & D loss circle/zone.

The Commission directs the MSEB, under Section 22(2)(e) of the ERC Act, 1998, to submit zonal level energy audits for all circles/zones on a monthly basis to the Commission, along with the ‘Action Taken Report’ for each circle/zone. The Commission intends to charge ‘circle/zone-wise T & D loss Charge’ latest by the 1st October 2002 instead of the across-the board T & D loss Charge. The Commission has also not applied the T & D loss charge for public utilities like the Railways, Public Water Works, Street Lighting and Mula Pravara Society, as, in the view of the Commission, these do not seem to have any incentive to pilfer energy.

The Commission also directs that the MSEB should hold the concerned employees responsible for the excessive T & D losses in the respective zones, and the MSEB should consider recovering the T & D loss charge from these employees after following due disciplinary procedure. In order to provide a forum for the consumers and to increase the awareness regarding the prevailing T & D losses in the division/circle/zone, the MSEB should display the monthly energy accounting data detailing the energy input, billed sales, and the T & D losses in the division/circle/zone, on the Notice Board of the office of the respective division/circle/zone as well as the collection centres in the area. The amount of revenue collected through T & D loss charges from the respective division/circle/zone and the name and contact details of the officer responsible for the division/circle/zone should also be displayed. The above details should also be published in the local newspaper, once every month. The MSEB should inform all the public representatives in the area regarding the above details.”

Differential T & D Loss Charge

From January 2002 onwards, the MSEB has been submitting Circle-wise Energy Accounting data to the Commission, in addition to energy accounting data on MIDC feeders, express feeders and EHV feeders. The Commission observed that the distribution loss figures for various circles were fluctuating widely from month to month, and in some cases, the monthly T & D losses were being shown as negative. The Commission sought an explanation from the MSEB on the same.

The reason given by the MSEB was that there are different billing cycles such as monthly for HT industrial, bi-monthly for domestic, half-yearly for agriculture, and hence, the distribution loss computed from the billing data shows variation from month to month. To overcome this, the Commission agreed to analyze the distribution loss figures both on monthly and six month sliding average basis, which would take care of the effect of different billing cycles.

On August 8, 2002, the MSEB requested the Commission for a meeting to discuss the methodology for evaluation of T & D losses. A meeting was held on October 7, 2002, with MSEB and Section 26 consumer representatives. The MSEB was asked to elaborate on the progress achieved in assessing the zone/circle-wise T & D losses, and the MSEB's proposal for implementing the differential T & D loss charge.

Shri Kukde, Technical Member, MSEB stated that the MSEB strongly supported the concept of T&D loss charges : however, if any abrupt changes are to be made at this stage with a view to introducing the concept of differential T&D loss charges on the basis of

circle/zone wise losses at this stage, efforts of improving T&D loss, might get jeopardized and, therefore, requested the Commission not to change the present system.

Shri. Girish Sant of Prayas, suggested that the MSEB could submit the new Tariff Proposal in two parts, viz. (i.) keeping the present methodology, and (ii) a zone/circle wise proposal wherein the tariff would be different based on the differential loss level of that particular zone/circle. Shri Kukde agreed to submit two different tariff revision proposals as suggested by the consumer representatives. He added that instead of considering each individual circle, a group of 3 to 4 circles could be clubbed together for the purpose.

The Commission directed the MSEB to submit its Tariff Proposal for future tariff revision in two parts as discussed above. The MSEB was also directed to clearly bring out the impact of meterisation in its proposal.

Meanwhile, the Commission received 37 petitions from stakeholders on the T & D Loss Charge. The gist of these petitions was that the Commission should implement the differential T & D loss charge from October 1, 2002, based on the T & D loss of that circle as stated in the Tariff Order, and also hold the respective MSEB officials accountable for higher T & D losses in their areas.

As the MSEB did not submit its Tariff Proposal for FY 2003-04 by the end of December 2002, the Commission held a hearing on 30th December 2002, in the presence of Section 26 consumer representatives and the representatives of the 37 petitioners, where the MSEB was represented by its advocate and its Technical Director, Mr. Shetji.

The consumer representatives and other petitioners were firm in their view that as the MSEB had not submitted its Tariff Petition as per the schedule by December 2002, the Commission should implement its Order by imposing differential T & D loss charge for different zones/circles depending on the T & D loss in that zone/circle. The general view of the petitioners was that no T & D loss charge should be levied in zones/circles with T & D loss lower than 26.87%. Some petitioners suggested that zones/circles with T & D loss lower than 26.87% should be given a rebate, i.e. negative T & D loss charge. They added that a signal has to be given to the zones/circles having high T & D losses by levying higher T& D loss charges, as indicated in the Commission's Tariff Order dated January 10, 2002.

Most petitioners were critical of the MSEB for its non-compliance with the Commission's Orders regarding the publishing of the Energy Audit results and the Action Taken Report in newspapers every month, publicity for incentive schemes to reduce the T & D loss, and providing name badges for the field staff.

The petitioners also queried the MSEB regarding the action taken by the MSEB against the errant employees, number of employees suspended, and the money recovered from these employees. They were critical of the MSEB for not doing enough to discipline its employees and bring about accountability in its functioning. The petitioners apprehended that if the MSEB was unable to recover the 50% share of the cost of the T & D losses from its employees, the revenue shortfall would be passed on to the consumers in the next financial year, through tariff. Several petitioners were critical of the MSEB for showing high losses, even in areas where 100% metering has been achieved.

Mr. Treasurer representing the Maharashtra Chamber of Commerce suggested that the T & D loss charge should be linked to the T & D loss of that billing unit or the respective feeder. Mr. Treasurer suggested that the Commission could opt for a slab system for T & D loss charge, based on the carrot and stick approach.

Mr. Pendse of Mumbai Grahak Panchayat, a Section 26 consumer representative, stated that only four zones, viz. Konkan, Pune, Nagpur (Urban) and Kalyan had shown acceptable improvement over the period January 2002 to September 2002. He added that if these four zones could reduce the losses to within acceptable limits, then there was no reason to accept sub-standard performance from other zones. Further, the MSEB should concentrate its efforts mainly on the larger zones, such as Kolhapur and Nasik, which consume around 37% of the total consumption. He said that selected circles of the MSEB had shown that it was possible to reduce T & D losses by making committed efforts, and the best way to ensure that the improvement in performance is mirrored in all zones/circles is to start charging differential T & D loss charge, based on the T & D losses of that zone/circle.

Mr. Girish Sant of Prayas stated that the T & D loss charge had introduced transparency in T & D losses and should be refined further to reflect the zone/circle wise T & D losses as stated in the Tariff Order. He enquired whether the MSEB had introduced any incentive/disincentive in the wage agreement with its employees to reflect the T & D losses in the respective zones. Mr. Sant suggested that as the T & D losses in any zone had historical differences, the differential T & D loss charge should also give due weightage to the reduction in T & D losses of that zone/circle, apart from the historical loss levels of that zone/circle.

In this hearing, the MSEB was asked about the status of its Tariff Proposal and the proposed methodology for charging differential T & D loss charge based on the T & D loss exhibited by that zone/circle/division. MSEB responded that it was not in favour of implementing the differential T & D loss charge. The MSEB added that it would be able to submit its Tariff Proposal only after another two months, and stood by its commitment to submit the Tariff Petition in two parts, one based on the present methodology and another based on differential T & D loss charge for each zone/circle, based on the T & D loss of that zone/circle.

Rationale for the interim Order

The Commission has considered the issues raised by the petitioners and the views of the MSEB and the consumer representatives in this regard. The Commission is of the opinion that the request for a differential T& D loss charge has merit, and needs to be implemented immediately. However, there are several issues that need to be sorted out, as well as impact analysis to be carried out based on analysis of data, before a scheme for levying differential T & D loss charge can be formulated. The Commission is of the opinion that the periodical Energy Accounting data submitted by the MSEB is not enough to develop a scheme for levying a differential T & D loss charge. However, in the absence of the detailed Tariff Revision Application, the Commission will explore the possibility of arriving at an empirical formula for levy of differential T & D loss charges.

The Commission has, therefore, decided to issue an interim Order, for implementation with effect from January 1st, 2003, (i.e. billing month of January) based on the T & D loss data made available by the MSEB till the month of September 2002. The Commission has observed that it takes between 60 days to 90 days for the MSEB to submit the energy accounting data for the month. The Commission has decided to recognize the efforts of such zones/circles who have shown improved performance and have reported lower T & D loss levels. At the same time, it is also necessary that the zones/circles who have shown no improvement or whose performance has deteriorated, should be put on notice, so that more concentrated efforts are made in these zones/circles for reduction in T & D losses, as envisaged in the Tariff Order issued on January 10, 2002.

Computation of Zone/Circle-wise T & D Losses

The Commission has analyzed the month-wise Energy Accounting data submitted by the MSEB for the period of January 2002 to September 2002. The Commission has also analyzed the Merit Order Despatch data submitted by the MSEB to compute the energy input into the transmission and distribution network. The transmission loss in the system has been assessed as the difference between the total energy input as recorded in the Merit Order Despatch data and the summation of the total energy input recorded by the different

zones. This aggregate transmission loss has been apportioned to the different zones/circles in proportion to their share of the energy input.

The distribution losses in each zone/circle has been computed as the difference between the energy input and the energy billed for that zone/circle. For comparison of the T & D loss of the zone/circle with the benchmarks set by the Commission, the Commission has computed the T & D loss as the difference between the total energy input into the circle after apportioning the Transmission loss, and the energy billed, as a percentage of the total energy input in that zone/circle.

The Commission has decided to implement the differential T & D loss charge at the circle level and zone level in cases where no separate circle exists [Pune (Urban) and Nagpur (Urban)], as stated in the Tariff Order dated January 10, 2002. The Commission will consider extending the concept of differential T& D loss charge upto division level in future.

The Commission's analysis shows that 11 circles have T & D loss levels below the Commission's performance benchmark of 26.87%, as shown in the Table below:

Table I: Circles with T & D loss below 26.87%

Sr. No.	Circles	6 month Moving Avg. T&D loss (%)			
		Jan 02 to Jun 02	Feb 02 to Jul 02	Mar 02 to Aug 02	Apr 02 to Sep 02
1	Sangli Circle	25.4%	23.1%	22.4%	18.6%
2	Chandrapur Circle	29.3%	26.5%	23.4%	21.2%
3	Vashi Circle	21.0%	22.8%	23.1%	21.3%
4	Pen Circle	23.2%	22.5%	22.7%	21.9%
5	Ratnagiri Circle	24.0%	24.3%	24.5%	22.6%
6	Nagpur Circle	27.3%	26.5%	26.4%	23.3%
7	Kolhapur Circle	26.2%	25.3%	25.7%	24.5%
8	Wardha Circle	24.7%	26.5%	25.2%	24.5%
9	Pune [U] Circle	23.9%	25.1%	26.7%	24.8%
10	Vasai Circle	27.1%	26.8%	26.1%	25.9%
11	Bhandup Circle	27.4%	26.9%	27.3%	26.0%

The above analysis shows that most of the above circles have been showing steady improvement, except for Pune (Urban) and Vashi circles, where the six monthly average is showing an erratic trend. The Commission has also noted that the T & D loss of Sangli circle in the month of June 2002 has been shown to be negative, due to which the moving average T & D losses works out to less than 26.87%.

The circles with T & D losses ranging between 26.87% and 39.49%, the average T & D loss considered by the Commission for determining the tariff of MSEB in FY02, have been listed below:

Table II: Circles with T & D loss above 26.87% and below 39.49%

Sr. No.	Circles	6 month Moving Avg. T&D loss (%)			
		Jan 02 to Jun 02	Feb 02 to Jul 02	Mar 02 to Aug 02	Apr 02 to Sep 02
1	Ahmednagar Circle	30.4%	30.2%	29.2%	28.4%
2	Aurangabad [R] Circle	38.5%	34.9%	35.5%	29.7%
3	Nashik Circle	28.7%	28.9%	30.3%	31.4%
4	Pune [R] Circle	31.7%	31.6%	30.8%	32.0%
5	Satara Circle	25.1%	27.2%	29.3%	32.1%
6	Buldhana Circle	22.8%	23.9%	25.7%	34.5%
7	Gadchiroli Circle	29.3%	30.1%	32.2%	34.7%
8	Solapur Circle	36.3%	37.7%	36.4%	36.6%
9	Jalna Circle	38.7%	38.7%	39.8%	37.3%
10	Sindhudurg Circle	37.7%	37.5%	37.0%	37.8%
11	Kalyan Circle	40.7%	39.6%	39.4%	38.8%
12	Jalgaon Circle	34.7%	35.4%	37.2%	38.9%
13	Nagpur [U] Circle	43.1%	43.2%	42.5%	39.2%

It is interesting to note that within these 13 circles, six circles are showing a deterioration in the T & D loss levels, while the other circles are showing negligible or marginal improvement in the T & D loss levels. Further, Ahmednagar circle is showing negative losses in June 2002, while Buldhana circle is showing negative losses in March 2002, though in a majority of the remaining months, the T & D losses are being reported above 30%.

There are 12 circles with T & D losses ranging above 39.49% as shown in the Table below:

Table III: Circles with T & D loss above 39.49%

Sr. No.	Circles	6 month Moving Avg. T&D loss (%)			
		Jan 02 to Jun 02	Feb 02 to Jul 02	Mar 02 to Aug 02	Apr 02 to Sep 02
1	Nanded Circle	46.0%	41.5%	40.9%	40.5%
2	Bhandara Circle	37.7%	39.2%	39.9%	40.9%
3	Yeotmal Circle	42.3%	41.6%	41.9%	41.4%
4	Aurangabad [U] Circle	42.3%	43.5%	43.6%	41.9%
5	Amravati Circle	42.0%	41.4%	41.3%	43.8%
6	Latur Circle	48.4%	48.3%	47.9%	45.1%
7	Parbhani Circle	50.4%	51.5%	50.0%	47.6%
8	Dhule Circle	47.3%	45.7%	47.2%	47.8%
9	Akola Circle	47.2%	45.7%	47.9%	50.6%
10	Osmanabad Circle	46.9%	48.4%	50.2%	51.0%
11	Beed Circle	51.3%	52.7%	52.4%	53.3%
12	Bhiwandi Circle	58.1%	57.3%	58.7%	58.5%

It is interesting to note that within these 12 circles, four circles are showing a deterioration in the T & D loss levels, while the other circles are not showing any significant reduction in the T & D loss levels. Further, the Commission notes with great concern that four circles, viz. Akola, Osmanabad, Beed and Bhiwandi are showing T & D losses in excess of 50%.

Commission's Ruling

The Commission has decided that the T & D loss charge will be levied as per the T & D loss level exhibited by that circle, through a scheme to be formulated subsequently. In the interim period, the circles where the T & D loss levels are lower than the benchmark of 26.87% will be exempted from the levy of T & D loss charge. The circles which have T & D losses above 26.87% will continue to pay the existing T & D loss charges.

The Commission would like the circles with T & D losses above 26.87% to become more aware of the T & D losses in their circle, and ensure through active participation that the T & D losses in these circles are brought down to below 26.87% levels. The Commission would also like to alert these circles that after detailed analysis, the Commission will

incorporate differential T & D loss charges, wherein the circles with higher T & D losses will have to pay higher T & D loss charges.

As regards the circles with T & D losses above 39.49%, they will have to put in greater efforts to ensure that the T & D losses are brought down substantially, or else face a steep increase in the T & D loss charges, on account of the graded T & D loss charge to be implemented subsequently. The Commission is also of the opinion that T & D losses of above 50% are absolutely unacceptable, and the MSEB should put in concentrated efforts to bring down the loss levels to benchmark levels, within the shortest possible time, else, the Commission may be compelled to take drastic punitive action.

The Commission has noted that even within the circles where the T & D loss is below 26.87%, there are divisions where the T & D losses are high. The MSEB should apply the principles of 'ABC Analysis' for such divisions within the circle, to ensure that the efforts towards reducing T & D losses are gainfully directed.

The Commission also clarifies that once the six monthly moving average T & D loss in any circle moves below 26.87%, then the T & D loss charge will cease to be applicable from the next month onwards. Further, once the six monthly moving average T & D loss moves below 26.87%, even if the six monthly moving average T & D loss for any subsequent period is higher than 26.87%, then no T & D loss charge will be applicable. It is the MSEB's responsibility to ensure that there is no slippage in the T & D loss levels in that circle/zone.

The Commission has noted that the assessed energy consumption as reported by the MSEB has several inconsistencies. The Commission has assessed the un-metered agricultural consumption based on its analysis of the circle-wise agricultural consumption sample data submitted by the MSEB alongwith the Tariff Application for FY 2001-02. Prima-facie, it appears that the T & D losses of several circles may be higher than that being reported by the MSEB. This necessitates a detailed investigation. The Commission has also noted that the circles showing T & D loss levels below 26.87%, continue to remain within the benchmark loss level, even if adjusted based on the analysis of the previous sample data.

Keeping in view the above observations, analysis and various submissions made by the stakeholders, the Commission hereby directs that:

1. The MSEB should not levy T & D loss charge in the circles where the T & D loss levels are lower than the benchmark of 26.87%, referred in Table I above, with effect from January 1st, 2003.
2. The circles which have T & D losses above 26.87% will continue to pay the existing T & D loss charges, referred in Tables II and III above.
3. Once the six monthly moving average T & D loss moves below 26.87%, even if the six monthly moving average T & D loss for any subsequent period is higher than 26.87%, then no T & D loss charge will be applicable
4. MSEB should put concentrated efforts to ensure that the T & D losses are brought down substantially in circles where the T & D losses are higher than 26.87%, especially in the circles with T & D losses above 50%, based on the principles of 'ABC Analysis'.
5. MSEB should ensure the compliance of the Commission's directives in this regard as given in order dated 10th January 2002 and also put the information on their website.

Sd/-
(Jayant Deo)
Member

Sd/-
(Dr Pramod Deo)
Member

Sd/-
(P. Subrahmanyam)
Chairman, MERC

Sd/-
(Sanjay Kumar)
Secretary, MERC

Annexure – Month-wise & Circle-wise T & D losses

Circles	T&D Losses (%)									6-month Moving Avg. T&D loss (%)			
	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Jan 02 to Jun 02	Feb 02 to Jul 02	Mar 02 to Aug 02	Apr 02 to Sep 02
Pune [U] Circle	22.1%	18.1%	32.4%	23.6%	23.1%	23.0%	29.2%	28.7%	21.4%	23.9%	25.1%	26.7%	24.8%
Pune [U] Zone	22.1%	18.1%	32.4%	23.6%	23.1%	23.0%	29.2%	28.7%	21.4%	23.9%	25.1%	26.7%	24.8%
Ratnagiri Circle	25.4%	20.4%	34.7%	23.6%	21.3%	16.6%	27.2%	21.3%	25.1%	24.0%	24.3%	24.5%	22.6%
Sindhudurga Circle	27.9%	29.7%	32.3%	40.6%	61.1%	24.2%	24.4%	24.3%	36.3%	37.7%	37.5%	37.0%	37.8%
Konkan Zone	26.0%	22.6%	34.2%	27.7%	33.3%	18.2%	26.6%	21.9%	27.8%	27.4%	27.5%	27.4%	26.1%
Chandrapur Circle	38.8%	37.6%	36.1%	22.5%	23.1%	12.1%	22.9%	21.0%	25.2%	29.3%	26.5%	23.4%	21.2%
Nagpur Circle	26.5%	21.0%	34.3%	33.3%	22.2%	24.0%	21.6%	21.0%	16.6%	27.3%	26.5%	26.4%	23.3%
Wardha Circle	16.4%	23.2%	26.0%	23.2%	37.0%	20.7%	27.3%	15.8%	22.0%	24.7%	26.5%	25.2%	24.5%
Gadchiroli Circle	32.7%	28.1%	35.5%	29.4%	27.7%	20.2%	37.1%	40.5%	50.6%	29.3%	30.1%	32.2%	34.7%
Bhandara Circle	31.9%	28.6%	40.9%	38.4%	41.6%	43.6%	41.1%	33.9%	46.8%	37.7%	39.2%	39.9%	40.9%
Nagpur Zone	30.1%	28.6%	35.4%	30.3%	29.6%	24.5%	28.4%	24.1%	28.6%	29.9%	29.6%	28.9%	27.7%
Pen Circle	26.2%	19.1%	26.5%	25.4%	22.2%	19.8%	22.2%	20.9%	21.2%	23.2%	22.5%	22.7%	21.9%
Vasai Circle	23.2%	26.1%	31.6%	31.0%	24.0%	26.6%	20.9%	22.0%	30.2%	27.1%	26.8%	26.1%	25.9%
Kalyan Circle	42.4%	42.6%	43.4%	42.0%	37.9%	36.4%	35.6%	41.2%	39.4%	40.7%	39.6%	39.4%	38.8%
Kalyan Zone	31.0%	29.7%	34.1%	32.9%	28.7%	27.5%	26.3%	27.9%	29.9%	30.6%	29.8%	29.5%	28.9%
Sangli Circle	40.2%	29.4%	39.4%	19.3%	16.6%	-5.5%	29.0%	25.3%	22.4%	25.4%	23.1%	22.4%	18.6%
Kolhapur Circle	29.4%	24.0%	28.5%	24.0%	25.9%	24.2%	24.1%	26.2%	22.7%	26.2%	25.3%	25.7%	24.5%
Pune [R] Circle	28.5%	29.0%	21.8%	28.5%	47.2%	37.5%	26.5%	23.2%	28.3%	31.7%	31.6%	30.8%	32.0%
Satara Circle	22.8%	20.6%	33.7%	20.4%	22.2%	30.0%	37.0%	33.9%	48.3%	25.1%	27.2%	29.3%	32.1%
Solapur Circle	42.4%	35.2%	40.1%	32.7%	40.7%	21.6%	52.6%	27.2%	41.5%	36.3%	37.7%	36.4%	36.6%
Kolhapur Zone	33.3%	28.8%	32.0%	26.4%	33.3%	24.1%	34.6%	26.4%	32.4%	30.0%	30.0%	29.7%	29.7%

Source : Monthly Energy Accounting data submitted by the MSEB

Annexure – Month-wise & Circle-wise T & D losses (contd.)

Circles	T&D Losses (%)									6-month Moving Avg. T&D loss (%)			
	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Jan 02 to Jun 02	Feb 02 to Jul 02	Mar 02 to Aug 02	Apr 02 to Sep 02
Ahmednagar Circle	33.0%	32.0%	35.1%	36.7%	40.7%	-2.5%	32.8%	25.6%	32.4%	30.4%	30.2%	29.2%	28.4%
Nashik Circle	31.8%	22.7%	27.7%	28.1%	33.3%	28.8%	34.0%	30.9%	33.3%	28.7%	28.9%	30.3%	31.4%
Jalgaon Circle	29.8%	27.0%	31.6%	33.1%	54.6%	31.2%	33.2%	39.4%	40.8%	34.7%	35.4%	37.2%	38.9%
Dhule Circle	58.8%	45.4%	47.5%	38.5%	53.7%	37.2%	51.6%	55.2%	51.3%	47.3%	45.7%	47.2%	47.8%
Nashik Zone	38.7%	30.0%	33.7%	33.1%	44.4%	23.7%	36.2%	35.5%	37.6%	34.2%	33.6%	34.5%	35.2%
Washi Circle	9.3%	18.3%	32.6%	23.6%	22.2%	16.0%	22.8%	20.3%	22.8%	21.0%	22.8%	23.1%	21.3%
Bhandup Circle	26.5%	26.0%	31.7%	30.5%	24.0%	25.4%	23.9%	28.0%	24.0%	27.4%	26.9%	27.3%	26.0%
Bhiwandi Circle	62.5%	54.5%	60.8%	57.1%	58.3%	54.0%	58.6%	62.3%	60.2%	58.1%	57.3%	58.7%	58.5%
Bhandup [U] Zone	37.1%	34.7%	42.6%	37.7%	35.2%	31.8%	35.5%	38.3%	36.8%	36.6%	36.4%	36.9%	35.9%
Aurangabad [R] Circle	40.9%	30.3%	43.2%	35.3%	24.0%	52.9%	17.4%	34.2%	11.7%	38.5%	34.9%	35.5%	29.7%
Jalna Circle	40.5%	41.7%	49.6%	37.9%	30.5%	25.8%	40.9%	49.0%	38.2%	38.7%	38.7%	39.8%	37.3%
Aurangabad [U] Circle	26.7%	46.0%	48.7%	42.5%	42.6%	42.7%	37.9%	46.9%	38.8%	42.3%	43.5%	43.6%	41.9%
Parbhani Circle	42.5%	51.3%	58.3%	51.7%	55.5%	40.1%	46.0%	40.1%	48.1%	50.4%	51.5%	50.0%	47.6%
Aurangabad Zone	38.7%	42.9%	50.3%	42.3%	39.8%	42.3%	35.1%	42.4%	33.1%	42.9%	42.5%	42.5%	39.2%
Nagpur [U] Circle	34.0%	40.9%	49.8%	49.3%	43.5%	37.8%	37.3%	36.5%	29.0%	43.1%	43.2%	42.5%	39.2%
Nagpur [U] Zone	34.0%	40.9%	49.8%	49.3%	43.5%	37.8%	37.3%	36.5%	29.0%	43.1%	43.2%	42.5%	39.2%
Buldhana Circle	31.8%	23.0%	-4.8%	32.2%	35.2%	25.6%	44.0%	35.0%	35.0%	22.8%	23.9%	25.7%	34.5%
Yeotmal Circle	49.7%	41.6%	46.0%	43.7%	44.4%	23.3%	46.3%	43.7%	44.1%	42.3%	41.6%	41.9%	41.4%
Amravati Circle	49.8%	41.5%	30.2%	49.0%	43.5%	38.7%	46.8%	41.2%	41.8%	42.0%	41.4%	41.3%	43.8%
Akola Circle	55.4%	40.6%	38.8%	50.4%	52.8%	45.5%	46.6%	55.2%	53.0%	47.2%	45.7%	47.9%	50.6%
Amravati Zone	46.8%	37.1%	27.9%	44.6%	45.3%	34.9%	46.1%	44.6%	44.0%	39.4%	39.0%	40.1%	43.4%
Nanded Circle	58.0%	40.8%	51.2%	43.5%	43.5%	32.2%	31.0%	36.3%	54.5%	46.0%	41.5%	40.9%	40.5%
Latur Circle	52.1%	49.8%	57.2%	44.2%	40.7%	40.9%	52.4%	47.8%	44.6%	48.4%	48.3%	47.9%	45.1%
Osmanabad Circle	49.1%	48.0%	48.3%	40.2%	40.7%	54.2%	59.4%	58.6%	52.6%	46.9%	48.4%	50.2%	51.0%
Beed Circle	49.6%	54.4%	48.3%	46.8%	59.2%	50.2%	58.1%	52.3%	53.3%	51.3%	52.7%	52.4%	53.3%
Beed Zone	52.4%	48.2%	51.6%	44.0%	47.2%	43.9%	50.0%	48.3%	51.4%	48.2%	47.7%	47.7%	47.4%

Source : Monthly Energy Accounting data submitted by the MSEB