

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai - 400 005
Tel. No. 022 22163964/65/69 – Fax 022 22163976
E-mail mercindia@mercindia.org.in
Website: www.mercindia.org.in

Case No. 71 of 2009

In the matter of
MSEDCL's Proposal for levy of Voltage Surcharge to consumers who are supplied
power at lower than prescribed voltage as per SoP Regulations

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

ORDER

Dated: March 05, 2010

The Maharashtra State Electricity Distribution Company Limited (MSEDCL) submitted a Petition under affidavit on 13.11.2009, under Regulations 14 and 15 of the MERC (Standards of Performance of Distribution Licensee, period for giving supply and determination of Compensation) Regulations, 2005 (hereinafter referred as the "SoP Regulations"), seeking approval for levy of Voltage Surcharge to consumers who are supplied power at voltages lower than that prescribed as per SoP Regulations.

2. The main prayers in the Petition are as follows:

1. *"It is proposed to levy surcharge of additional 15% on the energy charges on all such consumers (existing as well as prospective) availing supply at a lower voltage level than stipulated.*
2. *Permit MSEDCL to enhance the load for the existing consumers upto 10 MVA at lower voltage level. The same will be decided on case to case basis strictly on the basis of technical feasibility and other constraints.*
3. *Permit MSEDCL to release load of prospective consumers upto 10 MVA at voltage level lower than specified subject to technical feasibility and other constraints.*



4. *It is further prayed that the Hon'ble Commission may be pleased to grant by way of Interim Relief, to continue levy of 2% of monthly consumption of energy consumed by the consumer in terms of extra units to the consumers whom the energy is supplied at lower voltage than prescribed voltage till the approval of 15% voltage surcharge.*

The above referred Interim Relief may be continued for the consumers connected on Non Express Feeders. (More than one connection on the said feeder)

It is further prayed by way of Interim Relief to allow to continue to charge on the basis of consumption recorded by the meters installed at the source of supply (EHV Level) and at the consumer's end (Premises) which ever is higher, in case only one connection is on the said dedicated feeder."

3. MSEDCL, in its Petition, submitted as under:

a) Clause 5.3 of the SoP Regulations, specifies the voltages at which the loads are to be released, as reproduced below:

"5.3 Except where otherwise previously approved by the Authority, the classification of installations shall be as follows:

(i) A.C. system

*(a) Two wire, single phase, 240 volts-
General supply not exceeding 40 amperes*

*(b) Four wire, three phase, 240 volts between phase wires and neutral-
general supply exceeding 40 amperes and sanctioned load not exceeding 80
kW/ 100 kVA (107 HP) in all areas, except in Municipal Corporation areas
where such limit would be 150 kW/ 187
kVA (201 HP)*

*(c) Three phase, 50 cycles, 11 kV/ 22 kV – all installations with contract
demand above 80 kW/ 100 kVA (107 HP) in all areas, except in Municipal
Corporation areas where such limit would be 150 kW/ 187 kVA (201 HP)
and up to 1,500 kVA.*

*(d) Three phase, 50 cycles, 22 kV – all installations with contract demand
above 1,500 kVA and up to 3,000 kVA*

*(e) Three phase, 50 cycles, 33 kV – all installations with contract demand
above 1,500 kVA and up to 5,000 kVA*

*(f) Three phase, 50 cycles, extra high voltage – all installations with contract
demand above 5,000 kVA"*

- b) The voltage levels prescribed in the Conditions of Supply of the erstwhile Maharashtra State Electricity Board (MSEB) and also the voltage level specified in the SoP Regulations are more or less same.
- c) Prior to the formation of the Commission, MSEB was operating on all techno-commercial issues based on the Conditions of Supply. The Conditions of Supply stipulated voltage levels with respect to loads as below:

A.C. System:

- i) Single phase, 2 wire, 230 volts.
 - i) General supply not exceeding 7.5 kW connected load.
 - ii) Motive power installation not exceeding 1HP in aggregate.
- ii) Three phase, 4 wire, 400 volts between phases and 230 volts between phase and neutral general supply exceeding 7.5 kW connected load.
- iii) Three phase, 3 wire, 400 volts between phase – motive power installation exceeding 1 HP in the aggregate.
- iv) Voltage level to be adopted for serving various quantum of loads shall be as under:-

Sl.	Total Load	Voltage level
1.	Above 67.5 HP but up to 1500 kVA	11 kV/22 kV
2.	i) Above 1500 kVA but up to 3000 kVA ii) Above 1500 kVA but up to 5000 kVA	At 22 kV if 33 kV system does not exist in the area. 33 kV
3.	Above 5000 kVA	E.H.V.

- d) These voltage levels were specified primarily to ensure good quality of supply and also to ensure that losses are minimized. Further, higher voltage levels are essential for higher loads from the system stability point of view. Thus, these voltage levels prima facie ensure overall system stability apart from other benefits like quality of supply (voltage regulation, reduction in T&D losses and reliability).
- e) Difficulties in implementation of the SoP Regulations

MSEDCL insists on release of supply at the specified voltage level. However, at times, it becomes necessary to make exceptions due to genuine difficulties faced by the consumer in adhering to the voltage levels specified in the SoP Regulations. The



main reasons for releasing supply at voltage levels lower than that specified (necessitating levy of voltage surcharge) are as under:-

- (i) Space constraint for construction of EHV sub-station
- (ii) Cost of EHV Sub-station
- (iii) Time required for construction of EHV sub-station
- (iv) Right of way/Way Leave/clearance problems
- (v) Non-availability of prescribed voltage level infrastructure

MSEDCL would never like to release supply at voltages lower than those stipulated. As per the SoP Regulations, the consumer has to ensure that the required infrastructure is created in case the network is not supporting its requirement. However, considering the above genuine difficulties of the consumers, MSEDCL would like to release supply at voltages lower than those stipulated in very genuine and deserving cases primarily falling in one of the above-mentioned five criteria.

Further, sanction of power supply at voltages lower than that specified will be done after detailed scrutiny and due diligence, and only in absolutely deserving cases. However, the consumer will have to undertake to shift to the specified voltage level within a stipulated time frame, which will indirectly depend on MSEDCL's infrastructure development. The procedure proposed to be followed for relaxation in the release of supply in the above five mentioned cases are stipulated as under:

(i) Space constraint for construction of EHV sub-station

In case of space constraints, a detailed site report will be called from the field officers and detailed scrutiny will be carried out to decide the genuineness of the space constraint. Based on the report from the field officers, the proposal will be processed. The connection will be processed for release at a lower voltage level only after a detailed scrutiny about the genuineness of the space constraints.

(ii) Cost of EHV Sub-station

This issue will generally not be given much importance by MSEDCL and if the consumer's request for release of supply at a lower voltage is only on this ground, the same will not be entertained. In case the competent Authority is convinced about the genuine financial difficulty, the supply will be released at a lower voltage level only for a limited time period and it will be mandatory for the consumer to shift to the specified voltage level within a stipulated time frame.

(iii) Time required for construction of EHV sub-station

Because of various technical and legal issues, it may happen that the period for constructing the EHV sub-station (to meet the stipulated voltage levels) may be very long. This adversely affects MSEDCL as well as the consumer. Hence, in such cases, considering the commercial approach and the larger interest in encouraging industry, supply will be released at a voltage level lower than stipulated. However, this will also be subject to certain conditions depending on the merits of the case, which will have to be adhered to by the consumer.

(iv) Right of way/Way leave clearance problems

This is the most common problem faced by the consumers and also by MSEDCL. It becomes extremely difficult to obtain right of way, way leave and hence, it becomes necessary to consider release of supply at lower voltage level.

The supply will be released at a lower voltage level after following a detailed due diligence process for ascertaining the genuine difficulties faced by the consumer and also considering the commercial interest of MSEDCL. This release will be subject to approval by the competent Authority and the same will be put up to the highest level. The supply will be released at a voltage lower than that stipulated only in exceptional and genuine cases.

(v) Non-availability of prescribed voltage level infrastructure

In case of non-availability of required infrastructure at the prescribed voltage level in nearby vicinity, MSEDCL will not be in a position to release the supply to consumers. Hence, it is necessary to process release of connection at lower voltage level with a condition that the consumer will have to shift to prescribed voltage level as and when required infrastructure is available.

- f) MSEDCL, vide letter No. P.Com/33281 dated October 14, 2005, had submitted the proposal to the Commission for levy of Voltage Surcharge to the consumers who are supplied power at voltages lower than that prescribed in the SoP Regulations.
- g) The Commission, vide letter No.MERC/Legal-129/Standards of Performance/0036 dated 06.01.2006, had informed MSEDCL as under:
 - (a) Although different voltages based on the load have been prescribed in MERC SoP Regulations, it is possible that in certain cases due to technical constraints, MSEDCL may not be in a position to supply at the voltage prescribed under SoP Regulations. MSEDCL may apply for exemption from the standards specified in SoP Regulations, while submitting information on the matters covered under Section 59 of the EA 2003. However, such exemption can only be sought in the short-term.

In a time bound manner, the Distribution Licensee shall have to develop the required infrastructure taking into account SoP Regulations.

(b) As regards MSEDCL's proposal for levy of Voltage Surcharge, this being a tariff related issue, MSEDCL may incorporate this proposal in its application for ARR/Tariff determination.

- h) MSEDCL incorporated the proposal in the Petition for approval of Aggregate Revenue Requirement (ARR)/Tariff for FY 2006-07 and FY 2007-08, for consideration to be compensated for the following three primary reasons:
- (i) Additional loss incurred by MSEDCL.
 - (ii) The network and grid stability that would have been achieved in case supply had been released at the specified voltage level.
 - (iii) The proposal is primarily submitted for alleviating the problems of consumers who are required to set up their own infrastructure for receiving supply at the specified voltage level. Since, the consumer is unable to comply with the Regulations, the Voltage Surcharge may be levied.
- i) Due to various constraints, MSEDCL is unable to sanction/release the connections at the voltage prescribed in SoP Regulations. To overcome this and also to meet the universal service obligation of providing supply to all, the following practice was in vogue.

A) If the power supply is connected on dedicated feeder (only one connection on the said feeder)

The monthly energy billing is done based on the consumption, whichever is higher, between the meter installed at source of supply (at EHV level) and at the consumer end (premises) (After ensuring that the metering at both S/S end and the consumer end are of the same rating and class of accuracy, and the cost involved is borne by the applicant)

B) If the consumer is connected on non-dedicated feeder (more than one connection on the said feeder)

Levy of 2 % extra units on the monthly energy consumed by the applicant. In both the above methodologies, the power supply shall be released only after taking consent/acceptance from the applicant. The 2% criteria is as per the Commission's assessment of T&D losses for express feeders, i.e., -0.5% to 2% as mentioned in the Commission's Tariff Order in Case No.2 of 2003 dated March 10, 2004.

The levy of 2% extra units on the monthly energy consumed by the applicant is in line with the Tariff Philosophy. The consumers availing supply at voltage lower than those prescribed by the Commission cause additional technical loss, which would not have existed in case the load was availed by the consumer at the specified voltage level. Also, this additional loss results in revenue shortfall to that extent and this revenue shortfall needs to be met. The additional loss incurred on account of particular consumers cannot be recovered from the rest of the consumers of Maharashtra through a common pool. Thus, the loss incurred by the distribution licensee due to a particular consumer availing power at lower voltage needs to be made good by the same consumer. The only other option available with the consumer would be to avail supply at proper voltage, i.e., at higher voltage level. It is quite possible that these losses incurred on account of individual consumers could be in the range of 1 to 3%. However, it is not practically possible to calculate these losses individually for every consumer and that too every month. Hence, till such time the Commission decides a proper mechanism, MSEDCL is levying a normative loss of 2%.

- j) This practical aspect has been addressed by other State Electricity Boards/Distribution Companies, and Voltage Surcharge is being levied by some of them, after due approval by the respective State Electricity Regulatory Commissions. The summary of the additional surcharge levied by Uttar Pradesh Power Corporation Ltd., MPSEB, APTRANSCO and the four DISCOMS in Andhra Pradesh are as under:

Sr.	Name of Distribution Company	% of Voltage/additional Surcharges
1.	Uttar Pradesh Power Corporation Ltd.	15 % of Demand and Energy charges.
2.	Madhya Pradesh State Electricity Board	7 % of total amount of the bill
3.	APTRANSCO and AP Discoms	12 % of Demand and 10 % of Energy Charges.

- k) Regulation 14 of the SoP Regulations confers the Commission with the power to add to, vary, alter, modify or amend any provisions of these Regulations, at any time, while Regulation 15 of the SoP Regulations empowers the Commission to make provisions necessary to remove the difficulties in giving effect to the Regulations.

5. The Commission, vide its Notice dated December 3, 2009, scheduled a hearing in the matter on December 15, 2009, and directed MSEDCL to serve a copy of the Petition to the four Consumer Representatives authorised on a standing basis under Section 94 of the EA 2003.
6. During the hearing held on December 15, 2009, Shri. Abhijit Deshpande, Executive Director (Commercial) appeared on behalf of MSEDCL and Shri. N. Ponrathnam. appeared as an Intervener.
7. Shri. Abhijit Deshpande submitted that the SoP Regulations specify the prescribed voltage level for release of electricity supply. However, in some case, it is impossible to give supply at the voltage prescribed in the SoP Regulations. MSEDCL has submitted the data along with the ARR Petition for requirement of load upto 10 MVA at HV rather than EHV. Further, Shri Deshpande submitted that the Commission had directed MSEDCL to submit the required details in the Tariff Petition, and although MSEDCL submitted the required details in its Tariff Petition, the Commission has not provided the ruling on the above said issue in its Tariff Order.
8. Shri. Deshpande submitted that the levy of 2% Voltage Surcharge by MSEDCL has been challenged by a consumer before the Hon'ble High Court of Judicature at Bombay on the ground that the levy of 2% Voltage Surcharge has not been approved by the Commission. MSEDCL, on the other hand, contended that the consumer was bound by the Indian Contract Act, and has to pay the Voltage Surcharge after having availed the benefit, since they have entered into contracts with MSEDCL which clearly state that the Voltage Surcharge will be levied on account of supply being given at voltages lower than that specified under SoP Regulations. The High Court in the aforesaid proceedings directed MSEDCL to approach the Commission within one month on the technical implications where it is impossible to give supply at voltage levels specified in the SoP Regulations.
9. The Commission enquired from MSEDCL regarding the technical implications in case the SoP Regulations were to be implemented in all cases.
10. MSEDCL submitted that the technical implication is that higher load requires more land, involves higher cost, and is dependent on line capacity limitations, transient swings and will also result in higher losses.

11. MSEDCL submitted that levy of normative 2% losses should be allowed as an interim measure since the transformation loss itself varies in the range of 1% to 3%. MSEDCL further submitted that after approval of levy of Voltage Surcharge, the levy of 2% extra units on the monthly energy consumed by the applicant will not be considered.

12. Shri N.Ponrathnam, as an Intervener, referred to Regulation No. 5.3 of SoP Regulations, Section 62 sub-sections (3), (4) and (5) of EA 2003 and submitted as under:

- (i) The Commission had approved Wheeling charges and Wheeling Losses for FY 2008-09 as under:

Voltage Level	Wheeling Charge (Rs./kW/Month)	Wheeling Loss (%)
33kV	20	6%
22kV/11kV	110	9%
LT Level	191	14%
EHT 132kV or more	Nil	Nil

The Commission should fix the charges based on wheeling charge, wheeling losses and cost of supply at different voltages.

- (ii) The Commission should encourage supply of electricity for a particular load at higher voltages as losses are lower at high Voltage.

Similarly, the Commission should have a concrete principle regarding levy of Voltage Surcharge to discourage supply of electricity for a particular load at voltages lower than that specified in the SoP Regulations as losses are high at low voltage.

- (iii) The Commission while determining the charges should consider the following techno-commercial constraints:

- Space constraints for construction of EHV sub-station
- Cost of EHV substation
- Time required for construction of EHV Sub-station
- Right of way/ way Leave/clearance problems.

- (iv) The Commission should determine the Voltage Surcharge or create new category for recovery of reasonable cost only after conducting a Public Hearing.

13. In this context, the Maharashtra Rajya Veej Grahak Sanghatana, vide letter dated February 2, 2010, submitted as under:

- a. The Commission has published the "Draft Amendments" to the SoP Regulations, 2005, and has invited comments and suggestions from the public vide Public Notice dated November 14, 2008. However, the amended SoP Regulations are yet to be notified. Under these circumstances, MSEDCL's Petition and prayers are wholly inappropriate.
- b. The revised tariffs for MSEDCL have been made effective from August 1, 2009, wherein the total existing distribution losses have been factored in. Under such circumstances, levy of Voltage Surcharge in addition to the revised tariffs will amount to a dual levy.
- c. MSEDCL has started levying Voltage Surcharge of 2% additional units with effect from August 2009, and this has been reflected in the bills raised from September 2009. MSEDCL has filed this Petition in November 2009, and in Prayer No. 4, has prayed for permission to continue levy of 2% Voltage Surcharge. This approach of MSEDCL is wholly illegal and amounts to contempt of the proceedings of the Commission.
- d. In case levy of Voltage Surcharge is to be approved, then it is essential to undertake a thorough technical study and assessment to determine the quantum of Voltage Surcharge.
- e. Till such time as the amended SoP Regulations are notified, it will not be possible to determine the applicability of Voltage Surcharge for different consumers. The amended SoP Regulations should first be notified, and then any decision in this regard can be taken.
- f. MSEDCL is expected to file its Tariff Petition for FY 2010-11 very shortly. If the Commission considers it appropriate and necessary, MSEDCL's present proposal for levy of Voltage Surcharge may be made a part of MSEDCL's Tariff Petition for FY 2010-11, and the Commission may, after due public hearing, issue appropriate Orders for levy of Voltage Surcharge on prospective basis.



- g. The Commission has never approved any levy on retrospective basis. Accordingly, MSEDCL's prayers for retrospective application of Voltage Surcharge should not be considered.

14. Having heard the Parties and after considering the material placed on record, the Commission is of the view as under:

15. MSEDCL should ensure that supply is released in accordance with the voltages specified in the SoP Regulations for release of electricity supply connections. However, in certain circumstances as highlighted by MSEDCL and reproduced below, there could be a need to release the supply connection at lower voltages:

- (i) Space constraint for construction of EHV sub-station
- (ii) Time required for construction of EHV sub-station
- (iii) Right of way/Way Leave/clearance problems
- (iv) Non-availability of prescribed voltage level infrastructure

It is clarified that even in the above instances, the electricity supply may be released at lower voltages only under exceptional circumstances, and that too only as an interim solution, and the distribution licensee has to ensure that the supply is given at the specified voltage at the earliest.

It is further clarified that the cost of EHV sub-station and the consumer's inability to afford the EHV sub-station cannot be a ground for releasing supply at lower voltages, as the SoP Regulations do not make any allowances in this regard, and more consumers may claim non-affordability as a ground for release of supply at lower voltages.

16. Further, the Commission is presently in the process of amending the SoP Regulations and one of the amendments being proposed is in the context of the specified voltages depending on the different loads required to be sanctioned. Hence, the applicability of the Voltage Surcharge would depend on the supply voltages specified in the final notified amended SoP Regulations.

17. At the same time, it cannot be denied that the distribution losses, including transformation losses, will increase on account of supply to consumers at voltages lower than that specified in the SoP Regulations. Accordingly, till such time as the detailed technical study is undertaken and the Commission approves the levy of Voltage Surcharge based on detailed deliberations in this regard, the Commission approves MSEDCL's request for interim relief seeking permission to levy Voltage Surcharge of 2% additional units to be billed, for supply to the consumers at voltages lower than that specified in the SoP Regulations. It is clarified that this Voltage Surcharge shall apply from the date of issue of this Order, till such time as the Commission issues further orders.

Sd/-
(V. L. Sonavane)
Member

Sd/-
(S. B. Kulkarni)
Member

Sd/-
(V. P. Raja)
Chairman



(K.N Khawarey)
Secretary, MERC