

**Before the**  
**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION**  
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**Case Nos. 17 of 2009, 17 of 2010, 38 of 2010 and 58 of 2010**

**In the matter of**

**Petition of Shri Nathu Gangadhar Rambhad for seeking directions to upon the Respondents in regard to the methodology of repairs of Distribution Transformers which cause loss of power and choke electricity generation (Case No. 17 of 2009)**

**And**

**Petition of Shri Nathu G Rambhad for directions upon the Respondent to declare the repaired – failed transformers of which the colour of windings is blackened / Charred as failure due to overloads and hence outside the purview of guarantee-period clauses of the Order (Case No. 17 of 2010)**

**And**

**Petition of MSEDCL for reviewing the matter of testing of distribution transformers by Third Party as per desire of agency working for MSEDCL (Case No. 38 of 2010)**

**And**

**Petition of Shri Nathu G Rambhad for direction upon the Respondents on the methodology of repairs to Distribution Transformers which cause loss of power and choke the electricity generation (Case No. 58 of 2010)**

**Shri. V.P. Raja, Chairman**

**Shri. Vijay L. Sonavane, Member**



**Case No. 17 of 2009**

Shri Nathu Gangadhar Rambhad,,  
Plot No. 8, Ambazari Layout.,  
Nagpur 440 033

.... Petitioner

Vs.

1. The Managing Director,  
Maharashtra State Electricity Distribution Co. Ltd.  
Prakashgad, Bandra (East), Mumbai

..... Respondent No.1

2. The Managing Director,  
Maharashtra State Power Generation Co. Ltd.  
Prakashgad, Bandra (East), Mumbai.

..... Respondent No. 2

3. The Secretary (Energy)  
Industries, Energy & Labour Department,  
Government of Maharashtra,  
Mantralaya, Mumbai 400 032.

..... Respondent No. 3

**Case No. 17 of 2010**

Shri Nathu Gangadhar Rambhad,  
Plot No. 8, Ambazari Layout,  
Nagpur 440 033

.... Petitioner

Vs.

The Managing Director,  
Maharashtra State Electricity Distribution Co. Ltd.  
Prakashgad, Bandra (East), Mumbai

.... Respondent

**Case No. 38 of 2010**

The Managing Director,  
Maharashtra State Electricity Distribution Co. Ltd.  
Prakashgad, Bandra (East), Mumbai

.... Petitioner

**Case No. 58 of 2010**

Shri Nathu Gangadhar Rambhad,,  
Plot No. 8, Ambazari Layout.,  
Nagpur 440 033

.... Petitioner



Vs.

The Managing Director,  
Maharashtra State Electricity Distribution Co. Ltd.  
Prakashgad, Bandra (East), Mumbai

.... Respondent

## **ORDER**

**November 24, 2010**

Shri. Nathu Gangadhar Rambhad submitted a Petition under affidavit before the Commission on 4<sup>th</sup> May, 2009 under Sections 57(1), 86 (1) (i), 142 and 143 of the Electricity Act, 2003, seeking directions upon the Respondents in regard to the methodology of repairs of Distribution Transformers which cause loss of power and choke electricity generation. This Petition is numbered as Case No. 17 of 2009.

2. The Petitioner has prayed as follows:

“

1. *That by an appropriate order, the Respondents be directed to discard the method of getting the distribution transformers repaired on the basis of item rate contract (on the lines of specimen appended as Annexure No.2 and 6);*
2. *That by an order, the respondent be jointly and severally directed to get the distribution transformers repaired as per the approved specifications, described in Annexure 5 suitably modified to take into consideration the direction in Annexure 4;*
3. *That by an appropriate order, about 2 nos. transformers repaired and tested about a month ago may be re-tested in Nagpur Zone, and if wrongdoing is observed the guilty be punished;*
4. *That by an appropriate order, the entire activity of purchase of distribution transformers during the last 5 years may be investigated and the guilty are to be punished;*
5. *That by an appropriate order the wrongdoing as explained in Annexure 11, 12 and 13 may be inquired and the guilty may be severely punished.”*

3. The Petitioner has submitted that he is a manufacturer of Distribution Transformers and also repairs the Distribution Transformers for MSEDCL (then MSEB). The Petitioner is repairing the Distribution Transformers for MSEDCL (then MSEB) since 1976 and based on his experience with MSEDCL, he has submitted the present Petition which is in the nature of Public Interest Litigation and the reliefs sought in the Petition are motivated by



public spiritedness and with a view to streamline and economize the working of the respondents in the power sector.

4. Petitioner in its Petition submitted as follows:

- a. MSEB/MSEDCL is procuring the Distribution Transformers which are manufactured as per IS-2026 and IS-1180. Though the purchase of new Distribution Transformers are as per standard specifications and followed by four stage inspections by inspecting Officers, the Distribution Transformers received are not as per standard specification due to malpractices involved in procurement process.
- b. MSEDCL has around 2,60,000 Distribution Transformers installed all over State of Maharashtra, and hardly any of them is as per specifications prescribed by MSEB/MSEDCL i.e. IS-2026 and IS-1180. Almost 20,000 Distribution Transformer failed every year by tendering process.
- c. The method adopted for repairs of Distribution Transformers is 'repairs of transformers under item rate contract' and in this method stress is given on replacing the damaged parts of the Distribution Transformers assuming that the original Distribution Transformers were manufactured as per IS-2026 and IS-1180. As bad quality of Distribution Transformers were purchased by MSEDCL over last several years, MSEDCL is allowing essential condition of distribution transformer repairing tender i.e. level of No Load and Full Load loss.
- d. Bad quality of new Distribution Transformers and worse quality of repaired transformers consume large generation capacity for feeding the losses, and further larger generation capacity is chocked causing hurdle in power generation which causes power shortage and consequent load shedding and which would only go on increasing.
- e. The new method devised by MSEDCL i.e. 'repairs of Distribution Transformers on Lump sum rate' (annexed in the Petition at Annexure 4 and 5) where essential and critical characteristics are taken care of should be put in place. This will save losses in transformers, relieve the capacity now chocked by reactive currents, additional capacity up to 2000 MW from the same plant and machinery is likely to be available.



5. The Commission, vide Notice dated 15<sup>th</sup> June, 2009, fixed the hearing in the matter on 6<sup>th</sup> July, 2009 and directed the Petitioner to serve a copy of its Petition upon the Respondents and the four authorized Consumer Representatives.

6. The hearing in the matter was held on 6<sup>th</sup> July, 2009. Shri Nathu G. Rambhad, the Petitioner appeared in person. Shri. S. K. Chari, Advocate appeared on behalf of MSEDCL. During the hearing, the Counsel of MSEDCL sought an adjournment of the hearing stating that they have received the copy of the Petition on 3<sup>rd</sup> July, 2009 and need time to file appropriate reply.

7. MSPGCL (Respondent No.2) vide its letter received on 6<sup>th</sup> July, 2009 submitted that the issue of repairs of Distribution Transformers is under the purview of MSEDCL. None representing the Secretary, Energy, Govt. of Maharashtra (Respondent No.3) was present during the hearing.

8. During the hearing, the Commission observed that this Petition brought out serious allegations about the procurement of Distribution Transformers which is always an ongoing practice for a Distribution Licensee and also about the repairs and maintenance of the same. The Commission directed MSEDCL during the hearing to put the entire issue before its Board of Directors so that MSEDCL's Board could consider and discuss the matter and if found fit, appoint an enquiry or investigating committee to make its recommendations. With this directive, the Commission adjourned the proceedings for six weeks and asked MSEDCL to file minutes of the Board Meetings and the course of action proposed by its Board as corrective measures.

9. MSEDCL vide its letter dated 17<sup>th</sup> August, 2010 informed that the Commission that the entire issue is put up before its Board for consideration and discussion. The issue having been put under consideration and discussion of its Board, MSEDCL requested the Commission to extend the period for filing of reply by four weeks. The same was granted by the Commission.

10. MSEDCL vide its letter dated 11<sup>th</sup> September, 2009 submitted its reply to the issues raised by the Petitioner. MSEDCL in its reply submitted as follows:

- a. It is stated that the Petition is more by way of a public interest litigation than that of a personal nature, however being a transformer repairer Petitioner is aggrieved by the policy being adopted by MSEDCL to repair failed Distribution Transformers on item rate basis but it seems that his interest lies in repairing of distribution transformers only on a lump sum rate basis.



- b. The entire activities of purchase of new Distribution Transformers are carried out by the Central Purchase Agency (CPA) of MSEDCL through transparent process of E-tendering. To ensure quality of transformers, stringent quality inspection and testing is being done at various levels i.e. from manufacturing to final acceptance. All the Distribution Transformers received from manufacturers at MSEDCL stores are tested for No load Loss, Load loss and No Load current before acceptance.
- c. MSEDCL is having approximately 2,75,523 numbers of Distribution Transformers in the system to distribute power supply to the users. The average annual Distribution Transformer failure rate ranges between 10 to 15%. These failed Distribution Transformers are repaired through annual contract on item rate basis at Zonal level which is awarded through the transparent process of Tendering. The repaired Distribution Transformers are inspected and tested as per IS-2026 and IS-1180, in case test results are found negative then the repaired Distribution Transformer is rejected.
- d. In the year 2006, MSEDCL was willing to change the methodology of repairing of failed Distribution Transformers on lump sum basis instead of item rate basis. But due to very high rate quoted by the repairers for repairing of Distribution Transformers on lump sum basis which would have resulted in high financial burden on MSEDCL, it was decided as a matter of policy to 'not to adopt the method of repairs of Distribution Transformers on lump sum basis being a matter of very high costly affair' and continued the method of repair of Distribution Transformer on item rate basis.
- e. All the repaired Distribution Transformers in Nagpur Zone are inspected and tested by representative (Engineer) of O&M Division and Testing Engineer as per IS-2026 and IS-1180. Repaired Distribution Transformers which withstand the various tests and whose losses are within the limits, are accepted. If the Commission feels necessary to re-test the two transformers in Nagpur Zone, it will be retested.
- f. Power factor (PF) of Distribution System is one of the factors which decide the Plant Load Factor (PLF) of generating unit. Low PF of Distribution System is mainly due to actual reactive (inductive) load connected to the system and contribution of no-load current of Distribution Transformers in total reactive load is not significant. Further failed Distribution Transformers are being repaired with general conditions of keeping their losses within the limit as per IS specifications and the transformers having high loss level than the IS specifications are discarded from the system. This avoids and takes care of additions of reactive power in the system.

11. MSEDCL vide its letter dated 9<sup>th</sup> October, 2009 submitted a copy of Board Resolution passed by the Board of Directors of MSEDCL after discussing the various issues



raised by the Petitioner. The relevant paragraph of said Board Resolution is reproduced below:

*“After detail discussion the Board of Directors resolved as under.*

**RESOLVED THAT**

- *The item rate basis method for repairing of failed Distribution Transformer as adopted by the Company be and is hereby continued.*
- *The existing policy of the Company for discarding high loss level distribution transformers from the system / network as per the specifications of IS 2026 & 1180 be and is hereby continued.*

**RESOLVED FURTHER THAT** *the Managing Director be and is hereby authorised to take such further steps with regard to the above as may be suggested by MERC.”*

12. Next hearing in the matter was held on 24<sup>th</sup> November, 2010. During the hearing the Commission observed that, MSEDCL’s Board has retained the practice being followed for procurement and repairing of Distribution Transformers. On enquiring regarding the methodology being adopted for purchase of Distribution Transformers, MSEDCL submitted that they have empanelled 25 transformer manufacturers. The new transformers are being procured with 5 years of guarantee period. Regular Inspection and Testing of Distribution Transformers is carried out at Manufacturers’ site and random checking of new transformers at MSEDCL’s stores is being carried out. Distribution Transformer Failure rate in MSEDCL is around 15%. Maintenance during the guarantee period is carried out departmentally and after the guarantee period, the maintenance contract is outsourced through private contractors.

13. During the hearing the Petitioner submitted that item rate contract system of repairing of Distribution Transformers needs to be discontinued. He further submitted that testing process of transformers need to be made transparent, other repairers / NGO or members of the public if so desires may be allowed to witness the tests. Officers / Manufacturers should be punished for deficiency in quality of Distribution Transformer. The Petitioner requested that an enquiry committee should be constituted which will analyse the entire system / procedure of procurement / repairs of Distribution Transformers and accordingly will suggest a corrective action plan.

14. After hearing both the parties, the Commission directed MSEDCL to submit a Plan of Action keeping in mind the issues discussed during the last two hearings. Further by considering the importance of issues raised by the Petitioner, MSEDCL was directed to put all these issues once again before the Board of Directors of MSEDCL. With these directives, the matter was posted for further hearing.

15. MSEDCL vide its letter dated 24<sup>th</sup> December, 2009 submitted its reply to the issues raised during the hearing held on 24<sup>th</sup> November, 2009. MSEDCL submitted that they



would extend all the assistance to ensure that the testing process of Distribution Transformers is transparent. It is further submitted that MSEDCL is ready to involve a person / member (as may be decided by the Commission) subject to pre-intimation for going through the testing process. It is also informed that issues raised by the Petitioner in the last two hearings has been once again put up before the Board of Directors of MSEDCL. In the same submission, MSEDCL submitted Action Plan to be under taken for reduction in Distribution Transformer Failure rate as follows:

“

1. *A committee will be constituted to study the root cause of the total issue of dist. Transformer failure / repairer and to suggest the remedial measures.*
2. *Load on the dist. Transformers will be measured regularly once in every 3 months. Also oil level and protection to both HV & LV side will be checked & wherever necessary maintenance work will be carried out.*
3. *The existing dist. Transformers in the system / network which have out-lived their life will be replaced by new dist. Transformers in stages instead of repairing after failure.*
4. *The failed dist. transformers shall be repaired strictly as per tender order conditions so that their loss level will remain minimum / within the limits.*
5. *The Scheme for purchase of 5500 new dist. transformers for replacement of failed / to be discarded dist. transformers is under process and will be implemented within next 6 to 8 months.*
6. *To avoid failure of dist. transformers, maximum inbuilt self protected dist. transformers are being purchased.”*

16. Next hearing in the matter was held on 29<sup>th</sup> December, 2009. During the hearing the Commission directed MSEDCL to act as per the Action Plan submitted by them. Regarding use of Star labelled Distribution Transformers, the Commission directed MSEDCL to submit a roadmap / programme for use of Star Labelled Distribution Transformers.

17. During the hearing Shri. Rambhad (Petitioner) suggested that third party testing of repaired Distribution Transformers need to be carried out and further requested to allow him to be present during third party testing of Distribution Transformers.

18. The Commission directed MSEDCL to submit the updated status of the Case along with actions suggested for rectification once again before the Board of Directors of MSEDCL. Further it was concluded that third party testing of Distribution Transformers should be organised by MERC and cost of which would be recovered from MSEDCL. The Petitioner and MSEDCL were directed to submit Terms of Reference (ToR) for third party testing of Distribution Transformers. The Commission also suggested that the Petitioner may be permitted to remain present at the time of third party testing of Distribution Transformers.



19. Accordingly the Petitioner vide its letter dated 31<sup>st</sup> December, 2009 and MSEDCL vide its letter dated 14<sup>th</sup> January, 2010 submitted ToR for third party testing of Distribution Transformers.

20. For conducting third party testing of repaired Distribution Transformers, MERC vide its letter dated 25<sup>th</sup> March, 2010 asked MSEDCL to submit details of Distribution Transformers in Nasik (Rural) and Jalgaon Circle which are repaired in last two years.

21. Meanwhile Shri. Rambhad submitted a new Petition (Case No. 17 of 2010) under affidavit before the Commission, on 03.03.2010 under Section 86 (1) (i) and (4) of the Electricity Act, 2003, seeking directions upon MSEDCL inter-alia to declare that the transformers which have failed due to overloads are outside the purview of guarantee-period clause of the transformer repairing order issued by MSEDCL.

22. The Petitioner in Case No 17 of 2010 has prayed as follows;

“

- i) *That by an appropriate order, the Respondents be directed to jointly inspect the repaired transformers failed within guarantee period to ascertain the causes of failure.*
- ii) *That by an appropriate order- If all the coils of the transformers are blackened or charred, the failure may be considered due to overloads, and the transformer may not be treated as failure during guarantee period.*
- iii) *That by an appropriate order- If it can be ascertained that the failure is due to loss of transformer oil from the transformer and the coils above the oil level are charred/blackened, the transformer may not be treated as failure during guarantee period.*
- iv) *That by an appropriate order the MSEDCL may be asked to pay the cost of repairs of the transformers failed during guarantee period, and was brought to the notice of MSEDCL that they may not be considered as guarantee period failure; but had to repair under duress.”*

23. The Petitioner, Shri. Rambhad , in its Petition in Case No 17 of 2010 submitted as follows:

- a. MSEDCL has given work of repairing of Distribution Transformers to the Petitioner. As per work order conditions, the repaired transformers are to be guaranteed for a period of one year for grey coloured transformers and two years for green coloured transformers, and any failure during this period is to be repaired free of cost by repairer.



- b. It is submitted that, Distribution Transformers are subjected to over loading due to theft of electricity which leads to failure of Distribution Transformers. The Petitioner has approached to MSEDCL to exclude such failure due to overloading of transformers from guarantee clause of transformer repairing order, but MSEDCL has not agreed to the same.
- c. The Petitioner has submitted that there was prevalent procedure for joint inspection of failed Distribution Transformers and in case it is found that the transformer has failed due to overloading, such failed Distribution Transformer was being exempted from guaranty clause of transformer repairs work order. But this system of joint inspection has been discontinued by MSEDCL.

24. The Commission, vide Notice dated 14<sup>th</sup> June, 2010, fixed the hearing in the matter of Case No. 17 of 2010 on 1<sup>st</sup> July, 2010 and directed the Petitioner to serve a copy of its Petition to the Respondent and four authorized Consumer Representatives.

25. The hearing in the matter was held on 1<sup>st</sup> July, 2010. Shri Rambhad was not present during the hearing. However, Shri. D. S. Bodle, Chief Engineer (LM) appeared on behalf of MSEDCL. The Commission decided to conduct the hearing as scheduled.

26. After hearing the Respondent, the Commission observed that failure of distribution transformer is an important issue and MSEDCL should find out solutions for avoiding failure of distribution transformers. Further the Commission directed MSEDCL to submit all the technical details, testing reports and causes of failure of the five failed distribution transformers mentioned in the Petition, before the next hearing in the matter.

27. MSEDCL vide its letter dated 15<sup>th</sup> July, 2010 submitted the details as mentioned in the above para as per the directives of the Commission.

28. Next hearing in this matter was held on 16<sup>th</sup> July, 2010. Shri Rambhad, the Petitioner appeared in person. Shri. D. S. Bodle, Chief Engineer (LM) appeared on behalf of MSEDCL.

29. During the hearing, MSEDCL made a detailed presentation on technical details, testing reports and causes of failure of Distribution Transformers. MSEDCL submitted that, failure rate of Distribution Transformers repaired by the Petitioner is almost double than the other repairers working for MSEDCL.

30. During the hearing, the Commission directed MSEDCL to submit within fifteen days, a time bound Action Plan for reduction in overloading of Distribution Transformers and its failure rate.



31. MSEDCL vide its letter dated 12<sup>th</sup> August, 2010 submitted said Action Plan as follows:

“

1. *The transformers are to be loaded up to 70% of its capacity for releasing new connections. For transformer loaded above 70%, a new or augmentation of transformer to be proposed if it is not considered in earlier schemes.*
2. *Also for existing transformer if loaded more than 70%, a new transformer is to be proposed if it is not included in any schemes.*
3. *The infrastructure work to be completed as per plan which will reduce load on existing transformers.*
4. *The routine maintenance as per standard procedures to be carried out.*
5. *After taking the feedback of already procured CSP (completely Self Protected) type transformers, action plan for purchase of all new distribution transformers will be decided.*
6. *The year wise target for reduction of failure rate of dist. Transformer is as mentioned below.*

Year	Actual rate 2009-10	Target		
		2010-11	2011-12	2012-12
Percentage of failure rate	13.40	12%	10%	8.5%

32. Next hearing in this matter was held on 21<sup>st</sup> September, 2010. During the hearing MSEDCL made detailed presentation on Action Plan submitted by them for reduction in overloading of Distribution Transformers and its failure rate.

33. During the hearing the Commission observed that overloading of distribution transformers and their subsequent failures need to be controlled and hence MSEDCL was directed to take all efforts to reduce Distribution Transformer failure rate. Further MSEDCL was directed to submit details of Distribution Transformer failure (including transformer failed within guarantee period) for last five years.

34. Meanwhile, as sought in the matter related to Case No 17 of 2009, MSEDCL vide its letter dated 12<sup>th</sup> May, 2010 submitted details of distribution transformers repaired under Nasik (Rural) and Jalgaon Circle of MSEDCL in last two years. On the basis of these details provided by MSEDCL, the Commission selected ten numbers of repaired Distribution Transformers on random sample basis for third party testing and scheduled testing of these transformers on 3<sup>rd</sup> to 5<sup>th</sup> August, 2010 at CPRI, Bhopal. Intimation regarding the same was given to MSEDCL on dated 15<sup>th</sup> July, 2010 and the Commission



directed MSEDCL to ensure that, the transformers which are to be tested should be transported to CPRI, Bhopal, before scheduled date of testing.

35. But, being aggrieved by the Commission's directives of third party testing of repaired Distribution Transformers in the matter of Case No 17 of 2010, MSEDCL submitted a Petition under affidavit before the Commission on 2<sup>nd</sup> August, 2010 under Regulation 92 & 96 read with regulation 85 of MERC (Conduct of Business) Regulations, 2004 for reviewing the matter of testing of distribution transformers by Third party as per desire of the agency working for MSEDCL. This Petition of MSEDCL is numbered as Case No 38 of 2010.

36. MSEDCL in Case No. 38 of 2010 prayed as follows:

- “
- a) *That the Hon'ble Commission may kindly consider the petition for favorable dispensation.*
  - b) *The Hon'ble Commission may kindly review the matter & issue directions to not to test the distribution transformers by third party as per desire of agency working for MSEDCL.*
  - c) *The Hon'ble Commission may be pleased to condone errors omissions, if any & give an opportunity to rectify the same & to file additional data / information as may be required.”*

37. MSEDCL in its Petition in the matter of Case No 38 of 2010 submitted as follows:

- a. Hon. MERC in Case No 17 of 2009 filed by Shri. N. G. Rambhad decided to test 10 numbers of Distribution Transformers by Third Party as per desired of agency working for MSEDCL. In view of improvement in quality of equipments, MSEDCL has agreed for third party testing of Distribution Transformers and same is informed to the Commission vide letter dated 14<sup>th</sup> January, 2010.
- b. Shri. N. G. Rambhad, the Petitioner in the matter of Case No. 17 of 2009 is a transformer manufacturer and repairer having its main office at Nagpur and working as agency for MSEDCL to repair failed Distribution Transformers. Shri. Rambhad has already filed another Petition in the matter of Case No 17 of 2010 for directions to the MSEDCL to declare repaired Distribution Transformer failed due to overloading is beyond the guarantee clause of repairs work order.
- c. During the hearing in the matter of Case No 17 of 2010 held on 16<sup>th</sup> July, 2010, it was brought to the notice of the Commission that, the failure rate of repaired Distribution Transformers repaired by Shri. Rambhad is about double than the



other repairer. Therefore it seems that the intention of Shri. Rambhad is to enter into the administration of the government utility through its Petition.

- d. The matter of third party testing of Distribution Transformer has been reviewed in totality by MSEDCL and MSEDCL has come to a considered opinion that the third party testing of transformer only for satisfying the desires of the person / transformer repairer who is working for MSEDCL as a contractor is not required.
- e. MSEDCL has standard specifications which are as per the latest developments. All the equipments are procured as per specifications and further testing is carried out as per the set process and norms. Hence there is no necessity of any third party (especially by individual) testing again.
- f. Practically, it is not possible to consider all / any request for such third party testing by individual for individual equipment. If it is so allowed, it will give wrong message and MSEDCL feels that it will be used by other agency / individual as a tool of micro management administered by Commission.

38. The Commission, vide Notice dated 23<sup>rd</sup> September, 2010, fixed the hearing in the matter of Case No. 38 of 2010 on 5<sup>th</sup> October, 2010 and directed the Petitioner to serve a copy of its Petition to the four authorized Consumer Representatives. Subsequent to issue of Notice, as the issue in Case No 17 of 2010 is related to repairs of Distribution Transformer and the same is being referred to by the MSEDCL in Case No 38 of 2010, the Commission vide Notice dated 27<sup>th</sup> September, 2010, fixed the hearing in the matter of Case No 17 of 2010 on same day i.e 5<sup>th</sup> October, 2010.

39. The combined hearing in the matter of Case No. 17 and 38 of 2010 was held on 5<sup>th</sup> October, 2010. Shri Rambhad, the Petitioner in Case No 17 of 2010 appeared in person. Mrs. Deepa Chavan (Advocate) appeared on behalf of MSEDCL.

40. During the hearing MSEDCL submitted that technically there are two Cases before the Commission i.e. Case No. 17 of 2009 and Case No. 17 of 2010. It was submitted that, MSEDCL is very much concerned about quality of Distribution Transformers and reduction in rate of failure of Distribution Transformers and MSEDCL is continuously taking efforts towards the reduction in transformer failure rate.

41. MSEDCL submitted that during the pendency of the matter before the Commission, Shri. Rambhad had written several letters including notice of hunger strike to MSEDCL's local Officers, Police Authority and other Authorities. MSEDCL submitted these letters written by Shri. Rambhad to the Commission. It was submitted that, 'Regulatory procedure is being misused by Shri. Rambhad for micromanagement of MSEDCL, which should not



be allowed'. Therefore, MSEDCL requested the Commission to review its directions of third party testing of Distribution Transformers on the desire of Shri. Rambhad.

42. MSEDCL submitted that as far as the issue of repairs of Distribution Transformer on item rate contract vs. lump sum rate contract was concerned, the Board of MSEDCL has already deliberated on the issue and came to the conclusion that lump sum rate contract method is not economical so that item rate contract method for repairs of transformers has been continued. Therefore, MSEDCL requested that both the Petition i.e. Case no 17 of 2009 and Case no. 17 of 2010 should be dismissed.

43. During the hearing, the Commission observed that any misuse of the regulatory procedures for pressurising the Respondent or staff of Respondent through direct or indirect conduct of the Petitioner would not be correct. But the transformer failure being an important issue, the Commission directed MSEDCL to submit a proposal for reduction in transformer failure rate.

44. During the hearing, in the matter of Case No 17 of 2010 MSEDCL submitted that, Distribution Transformer failure rate for FY 2009-10 is 13.38% which includes within guarantee period failure of 5.31%.

45. The Commission observed that rate of failure of Distribution Transformers within guarantee is 5.31 % which is also on higher side as these includes failure of newly procured Distribution Transformers. Therefore, the Commission directed MSEDCL to look into the matter of failure of Distribution Transformers within guarantee period. With these directives, the Commission adjourned the hearing.

46. Meanwhile Shri Rambhad submitted a Petition before the Commission on 29.09.2010, under Sections 57(1), 86 (1) (i), 142 and 143 of the Electricity Act, 2003, for seeking directions upon MSEDCL regarding tendering procedure adopted for repairs of Distribution Transformers in Nagpur Zone of MSEDCL. This Petition is numbered as Case No. 58 of 2010.

47. Shri. Rambhad in Case No. 58 of 2010, prayed as follows:

*“The transformers repaired against Tender No. CE/NZ/TECH/DT Repairs/2010-2011/T-2 may be tested publically or through local standard educational institution ‘Vishveswarayya National Institute of Technology, Nagpur’ to ascertain the quality”*

48. Shri. Rambhad in its Petition in the matter of Case No. 58 of 2010 submitted as follows:



- a. The Petitioner has submitted that, MSEDCL has floated tender no. CE/NZ/TECH/DT Repairs/2010-2011/T-2 for repairs of Distribution transformers in Nagpur Zone specifying level of transformers losses. The Petitioner has also participated in the same.
- b. It is submitted that, lowest rate quoted for this tender is very low and it is not possible to repair Distribution transformers with such a low rate and achieve loss level as specified in Tender documents.
- c. It is submitted that, if such things are allowed to be happen then MSEDCL may continue this process in other zones all over Maharashtra and it will be highly damaging.

49. As the issues raised in the matter of Case No. 17 of 2009, Case No. 17, 38 and 58 of 2010 are related to the quality of Distribution Transformers and its repairs, the Commission decided to hold a combined hearing in all these cases. Accordingly a combined hearing in all these matters was fixed on 22<sup>nd</sup> October, 2010.

50. MSEDCL vide letter dated 21<sup>st</sup> October, 2010, as directed by the Commission during the hearing on 5<sup>th</sup> October, 2010, submitted an action plan for reduction of transformer failure rate. MSEDCL in its letter mentioned that the following steps are being taken for reduction in transformer failure rate:

- a. MSEDCL already submitted an Action plan for reducing Distribution Transformer failure rate vide its letter dated 12<sup>th</sup> August, 2010. The same is reproduced in para 31 above.
- b. Major remedial steps being taken by MSEDCL for reducing overloading , failure and losses of Distribution Transformers are as below:
  - i. MSEDCL has started procurement of Dist. Transformers of three star labeled completely self protected (CSP) type of Dist. Transformers.
  - ii. MSEDCL has initiated procurement of new 11/0.43kV, 8500 nos. of 63 and 100 kVA, three star labeled CSP featured distribution transformers for replacement of failed / replenishment of old high loss level transformers.
  - iii. MSEDCL is implementing infrastructure plan for installation of new & augmentation of 60204 nos. of distribution transformers to reduce over loading on existing distribution transformers & meet future load growth.
  - iv. The field testing units are being strengthened. The 15 nos. of new testing divisions have been formed.



- v. In order to maintain uniformity in dist. Transformer repairing method throughout the MSEDCL area, a common tender document for repairing of failed dist. Transformer is prepared & circulated to reduce the losses.
- c. Major remedial steps taken by MSEDCL for theft detection are as follows:
- i. At present 40 nos of flying squad units are working under the Director of Vigilance & Security.
  - ii. In addition to these 120 special squads at O&M Divisional level are established.
  - iii. Special theft detection drives are regularly arranged by flying squads and local O&M Divisional / Sub-divisional / Sectional Engineers & Staff.
  - iv. EDP data sheets, MRI, Energy audit are studied and analysis is being carried out to find out the suspected consumers, who indulge in theft of energy.
  - v. The special and dedicated six police stations are created in theft prone areas to deal with the theft of energy cases.
- d. MSEDCL is strengthening its Vigilance & Security wing for conducting investigation in respect of the complaints received against various employees of MSEDCL.

51. The combined hearing in the matter of Case No. 17 of 2009, Case No 17, 38 and 58 of 2010 was held on 22<sup>nd</sup> October, 2010. Shri Rambhad, the Petitioner appeared in person. Mrs. Deepa Chavan, Advocate appeared on behalf of MSEDCL.

52. During the hearing MSEDCL submitted that technically there are four cases i.e. Case No 17 of 2009, Case No. 17, 38 and 58 of 2010 before the Commission where issues are similar and connected and hence combined hearing of these Cases may be taken. Shri. Rambhad did not object to the same. MSEDCL submitted that for FY2009-10, Distribution Transformer failure rate in 7 circles out of total 43 circles of MSEDCL is below 5%. Distribution Transformer failure rate for Rastapeth, Pune Circle is 1.29% for FY2009-10 which is comparable with other Utilities running in Urban areas. Transformer failure rate in rural area is on higher side mainly due to overloading and unauthorized use of electricity and in order to overcome this problem MSEDCL is continuously taking all possible efforts. MSEDCL submitted that continuous steps are being taken by MSEDCL during procurement of Distribution Transformers for ensuring quality of Distribution Transformers and reduction in transformer failure rate. The Commission noted that only action plan will not solve the problem but stringent monitoring system needs to be put in place so that quantifiable progress can be seen.



53. Having heard the parties and after considering the materials placed on record, the Commission is of view as under:

- a. In order to procure good quality Distribution Transformers proper care needs to be taken right from the Notice Inviting Tender (NIT) stage by MSEDCL. The Technical Qualifying criterion needs to be seriously specified and to be followed strictly during Bid evaluation process by MSEDCL.
- b. In fact a strict pre-qualification system needs to be evaluated by MSEDCL to improve the quality of newly procured as well as repaired Distribution Transformers, as the within guarantee period failure rate is at alarming level of 5.31%.
- c. The next step is proper pre-delivery inspection (Type test and Routine test at Manufacturer's site) and post-delivery sample testing / inspection after Distribution Transformer are received at MSEDCL's Stores. This procedure should be followed for newly procured as well as repaired Distribution Transformers.
- d. The Commission is not inclined to direct MSEDCL to conduct Third Party Testing of Distribution Transformers, in view of the fact that during the hearing Counsel for MSEDCL informed that, besides random testing MSEDCL has introduced Challenge testing from last year as they are equally concerned about quality of Distribution Transformers
- e. MSEDCL should design a monitoring system for the repaired Distribution Transformers. The Commission directs that the issue of Distribution Transformer failure rate at various Circle / Zonal level should be on permanent agenda of monthly review meetings of MSEDCL.
- f. MSEDCL should improve upon the preventive maintenance practices for Distribution Transformers.
- g. MSEDCL should submit quarterly report to the Commission showing Distribution Transformer failure rate against the year wise target as submitted by MSEDCL for reduction of failure rate of Distribution Transformers which has been indicated in paragraph 31 (6) above
- h. MSEDCL should follow the 'Action Plan' submitted by them to the Commission and also submit Action Taken Report to the Commission along with their next APR / ARR Petition.



With the above observations and directions, Case No 17 of 2009, Case No 17, 38 and 58 of 2010 stand disposed of.

(Vijay L. Sonavane)  
Member

(V. P. Raja)  
Chairman



(K. N. Khawarey)  
Secretary, MERC