

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. 16 of 2009

In the matter of
Petition filed by M/s. MSEDCL seeking permission for withdrawal of load shedding
in respect of feeder/Sub-station for evacuation of power from Non-Conventional
Energy sources

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

ORDER

Dated: May 24, 2010

M/s. Maharashtra State Electricity Distribution Company Limited (MSEDCL) submitted a Petition under affidavit before the Commission on May 7, 2009, under Section 86(1)(e) of the Electricity Act, 2003 (EA 2003), seeking permission for withdrawal of load shedding in respect of feeder/Sub-station for evacuation of power from Non-Conventional Energy (NCE) sources.

2. MSEDCL, under its Petition, prayed as under:

“MSEDCL humbly submits that we may be permitted to withdraw the load shedding in respect of feeder / Sub-station in case the same (load shedding) is prohibiting the evacuation of Non-Conventional Energy generation. It is submitted that MSEDCL will submit annual report of withdrawal of load shedding carried out exclusively for above said reason.

It is humbly prayed that withdrawal of load shedding may be allowed to ensure evacuation of Non Conventional Energy form of sources, as and when require such as Small Hydro, Wind, Bio-gas, Bagasse, bio-mass etc.”

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

(i) Background

MSEDCL is always endeavouring to procure the Non-Conventional Energy available in the State of Maharashtra, based on the various Orders issued by the Commission from time to time for different sources of Non-Conventional Energy.

(ii) Load shedding

MSEDCL follows the load shedding protocol as approved by the Commission and has presently issued Circular No.25 dated April 4, 2009, to its field officers to implement the protocol.

(iii) Issue

Non-Conventional Energy has to be evacuated from the location of power generation based on the technical feasibility of such evacuation. The power generation from such Non-conventional energy sources varies from time to time. Further, the evacuation of this generation totally depends on the prevailing loads on the system at that time vis-a-vis the generation. There could be evacuation problem even during the normal course when the load is lower than the generation. However, this evacuation problem is further aggravated due to load shedding protocol that is required to be followed by MSEDCL, which becomes severe where evacuation is on the radial feeder or radial sub-station at high voltage level. The Non-conventional power generators typically have an installed capacity in the range of 0.5 MW to 20 MW. Therefore, it becomes uneconomical to evacuate power through an EHV Sub-station or at EHV level.

(iv) Jurisdiction:

Section 86 (1)(e) of EA 2003 confers the power to the Commission as under:-

“promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licence;”

4. The Commission, vide its Notice dated May 26, 2009, scheduled a hearing in the matter on May 28, 2009, and directed MSEDCL to serve a copy of its Petition along with its accompaniments to the four authorised Consumer Representatives.

5. At the hearing held in the matter on May 28, 2009, Shri. Shailendra Rathor, Supdt. Engineer (Incharge) (LM) and Shri. R.G. Sonawane, Supdt. Engineer (Comm), MSEDCL appeared on behalf of MSEDCL.

6. Shri. Shailendra Rathor submitted that the NCE projects are located at remote places, therefore, it is not possible to evacuate the power through the transmission system because of additional cost to set up the high voltage network at remote locations. MSEDCL requested the Commission to allow MSEDCL to withdraw load shedding in areas, where the Non-Conventional Energy generators are generating electricity, so that MSEDCL could evacuate the power through the 33 kV network, and thus, get additional power into the MSEDCL system.

7. The Commission observed that decentralized generation needs to be promoted, after taking into consideration the technical issues involved, including feasibility of connectivity to the transmission system. The Commission enquired about the number of NCE projects, which are facing the problem of evacuation due to the prevalent load shedding protocol. Shri. Rathor submitted that there are around 40 projects in the State of Maharashtra, which are connected to the 33 kV network, and are facing evacuation problems due to the prevalent load shedding protocol.

8. The Commission directed MSEDCL to submit additional information on the specific Non Conventional Energy generators where MSEDCL is proposing to withdraw load shedding, including details of Project Name, source of generation, location, installed capacity (MW), date of commissioning, status of operation, grid connectivity (11/22/33 kV), annual generation capacity (MU), load on the feeder and hours of load shedding prevailing in that area.

9. MSEDCL, vide its letter dated June 22, 2009 submitted as under:

- (i) There are some 33/11 kV substations, which are subjected to load shedding protocol, and grid connected projects are facing irregular evacuation of power on account of the load shedding protocol.
- (ii) Out of the projects, which have entered into Agreement with MSEDCL and are being commissioned shortly, some projects are to be connected to 33/11 kV substations, which are subjected to load shedding.
- (iii) Most of the projects at their own request and convenience, in order to improve viability of their project, are connected at 33/11kV level.

- (iv) The load shedding at such 33/11 kV substations leads to:
 - (a) Financial loss to the project holders as they are unable to sell the power.
 - (b) Frequent tripping and re-starting exerts mechanical stress on their plant leading to reduction of the life of plant and hence, increase in the break down period of the plant, and increase in the maintenance cost of the plant.
 - (c) MSEDCL is unable to purchase contractual power from project holder
 - (d) MSEDCL may be required to pay deemed generation charges to project holder in spite of the availability of infrastructure.
 - (e) Reduction in NCE generation greatly helps in distributed generation in rural areas.
- (v) MSEDCL submitted that in the larger interest of the consumers of Maharashtra, project holder and MSEDCL, the project holder's plants can run smoothly, efficiently and attain the desired PLF in case MSEDCL could withdraw load shedding for these substations.

10. The Commission, vide its Notice dated August 17, 2009, scheduled a hearing in the matter on August 27, 2009.

11. At the hearing held in the matter on August 27, 2009, Shri. A.J. Deshpande, Chief Engineer (Commercial), Shri. Shailendra Rathor, Chief Engineer (Incharge (Load Management)), and Shri. R.G. Sonawane, Superintending Engineer (Commercial) appeared on behalf of MSEDCL.

12. Shri. A.J. Deshpande, Chief Engineer (Commercial), MSEDCL submitted that MSEDCL requested the Commission to consider waiver of load shedding in certain areas/substations due to problems faced in evacuation of the power generated by NCE projects. In accordance with the Commission's directions in the earlier hearing, MSEDCL submitted the relevant information on June 26, 2009. The Commission has directed several times that infrastructure for evacuating power generated is of prime importance. In the present case, the NCE projects are of smaller capacity of 0.5 MW, 1MW and 2 MW and connecting to EHV network becomes unviable due to presence of forest land, financial capacity and limitation of the project holders. Further, it is practically very difficult for 1 MW projects to connect on EHV network for 100% evacuation. MSEDCL had connected upto 2 MW power projects to 11 kV network. The power evacuation is already faced with hurdles such as rainfall, remote location, etc., and the load shedding protocol adds to the problems.

13. The Commission observed that the NCE projects are coming up in areas having high distribution losses, where MSEDCL is proposing to withdraw load shedding, and the impact of the withdrawal of load shedding on increase in distribution losses, which will affect the other consumers, needs to be studied. The Commission enquired about the problems faced by MSEDCL in evacuating power from NCE generating stations.

14. MSEDCL submitted that in 95% sub-stations, there is no problem of power evacuation, as these sub-stations are connected to multiple feeders, and the problems are faced at only 5% substations.

15. The Commission further discussed possible solutions for evacuation of power from Non Conventional Energy Sources and directed MSEDCL to discuss with technical experts like IIT Bombay and conduct a detailed study on a systematic load shedding protocol, keeping all these aspects in mind.

16. Shri. Nitin Gadkari, President, Bharatiya Janata Party, Maharashtra vide letter dated November 6, 2009 received on December 3, 2009 communicated his support to MSEDCL's Petition for withdrawal of load shedding protocol for evacuation of power from Non-Conventional sources, and submitted that it will help improve the power situation in areas where these renewable energy/non-conventional energy sources based projects can supply power.

17. The Commission vide its letter February 18, 2010 scheduled a meeting on February 24, 2010 in the office of the Commission and directed MSEDCL to come along with details of the project, which were facing evacuation problem due to load shedding protocol.

18. During the meeting held in the Commission' Office, C.E. (Commercial), MSEDCL stated that MSEDCL will conduct a study in accordance with the direction given on August 27, 2009.

19. MSEDCL has not yet submitted any report on the study on the possible solutions for evacuation of power from Non Conventional Energy Sources to the Commission, without violating the overall load shedding protocol.

In view of the above, without the aforesaid study report, the present case is hereby dismissed, with a liberty to MSEDCL to file a fresh Petition after conducting the detailed study, as directed by the Commission.

Sd/-
(V. L. Sonavane)
Member

Sd/-
(S. B. Kulkarni)
Member

Sd/-
(V. P. Raja)
Chairman

(K.N Khawarey)
Secretary, MERC