

Delhi Electricity Regulatory Commission
Viniyamak Bhawan, 'C' Block, Shivalik, Malviya Nagar, New Delhi – 17

No. F. 11(1160)/DERC/2014-15/

Petition No. 53/2014

In the matter of: **Petition seeking approval for “Replacement of non-star rated Air-conditioner with BEE 5 Star rated air conditioner scheme” at attractive/low price to TPDDL consumers in its area of supply.**

Tata Power Delhi Distribution Ltd.
Through its **Managing Director**
Grid Sub Station Building
Hudson Lines, Kingsway Camp,
Delhi 110 009

....**Petitioner**

Appearance:

1. Mr. Sanjay Kumar Saha, TPDDL
2. Mr. Ajay Kondoll, TPDDL
3. J K Sinha, TPDDL
4. Ms. Nayantara A Pande, TPDDL

Coram:

Sh. P. D. Sudhakar, Chairperson
Sh. J. P. Singh, Member &
Sh. B. P. Singh, Member

ORDER

(Date of Hearing 21.04.2015)
(Date of Order: 13.05.2015)

1. M/s Tata Power Delhi Distribution Limited (TPDDL) has submitted the present petition for seeking in principle approval of the Commission to launch an “Energy Efficient Air Conditioner Program” for its consumers in its area of supply by accelerating the adoption of BEE 5 Star Rated Air Conditioner (AC) through consumer rebate scheme which in turn would significantly reduce power consumption of consumers and as well as their electricity bill. Further, It is expected to save deemed energy consumption by a conservative estimate of 814 kWh/year for every BEE 5 Star rated AC.

Petitioner’s Submission:

2. The petitioner through this petition has also requested for allowing the expenses on account of floating tender, hiring of implementation agency, administrative costs and the rebate cost along with interest thereon additionally in the Annual Revenue Requirement (ARR) of the petitioner to be recovered under the head of Demand Side Management (DSM) budget or any other head.

3. The petitioner has submitted that under the proposed scheme, a rebate of Rs. 8000/- per conditioner (BEE 5 star rated) will be offered to the interested consumer in exchange for their old AC, not having any star rating. This rebate is proposed to be sought (claimed in the ARR of the petitioner for the relevant Financial Year) from the Commission in accordance with the guidance, observations, recommendations expressed by the Commission vide its various Tariff Order(s).
4. In support of the Scheme, the petitioner has submitted that during recent market surveys, it has observed that 3 star rated ACs are the most popular fast selling units among the consumers. Price differential between BEE 3 star and 5 star rated AC is around Rs.8000/- and thus the petitioner has proposed the rebate of same amount in order to encourage consumers to switch over to BEE 5 star rated AC.
5. The petitioner has further submitted that, the proposed scheme is aimed at incentivizing the consumers to purchase Energy Efficient ACs having a Five Star Bureau of Energy of Efficiency Rating (5 Star BEE rating) and surrender their old, inefficient/power guzzling AC which are a major source of energy consumption by consumers in the summer months. In this regard the petitioner has conducted a focused load research for residential consumers in the year 2013 and the brief findings are that 1.5 ton AC is the most commonly used, with the average household having 2 AC's. The AC's are used for around 6 hours a day, for 150 days over the period of months from May to September.
6. The petitioner's submission is that the deemed energy savings from this program are 45.74 MUs cumulatively after a period of 3 years, calculating the difference between energy consumption of 1.5 ton Non Star rated ACs per hour and 1.5 ton 5 star BEE Rated ACs. These savings will translate into benefit for consumer in terms of amount as well as curtailment of power purchase cost and assists in supplying uninterrupted and reliable electricity to consumers.

Commission's Analysis

7. The Commission vide its order dated 19.11.2014 directed the petitioner that since various aspects of the scheme raised in the petition needed clarification, a meeting should be convened between the officials of the Commission and the petitioner. Thereafter, meetings with the TPDDL officials were held in the Commission's office to discuss the issue and revision of Cost benefit analysis in the petition on 26.11.2014, 05.12.2014 and 09.12.2014.

8. The Commission vide its Order dated 25.02.2015 directed the petitioner that the rebate should be proposed due to savings in the ARR of the petitioner by implementing the proposed scheme. The savings from this scheme should also cover the administrative expenses related to implementation of this scheme. Pursuant to the Order dated 25.02.2015 of the Commission another meeting was held on 02.03.2015.
9. Subsequently, based on the discussions a revised calculation of cost benefit analysis for AC replacement scheme was submitted by the petitioner vide letter dated 19.03.2015, with the following assumptions:
 - I. This scheme is for replacement of Non star rated AC in working condition with 5 Star rated/inverter AC under replacement scheme.
 - II. Rebate proposed under the scheme has been determined based on the Energy saving from the specified AC.
 - III. Total number of AC under the scheme is 20000.
 - IV. The breakup of different type of AC
 - a) Five Star AC 1.5 TR of 70%
 - b) Five Star AC 1 TR of 20%
 - c) Inverter AC 1.5 TR of 5%
 - d) Inverter AC 1 TR of 5%
 - V. The energy saving has been considered during May to September with utilization factor of 0.8.
 - VI. Hourly uses per day have been considered as 6 hour per day.
 - VII. The avoided cost on account of Transmission and Distribution system due to energy saving after implementing these schemes has been computed based on the specification such as total number of ACs offered under the scheme year wise, wattage of existing Non Star ACs vis-à-vis Five Star rated/inverter ACs.
 - VIII. Difference of the Peak Power Purchase cost vis-à-vis Revenue on account of energy saving has also been factored into the model.
 - IX. The project shall be funded on 70:30 debt:equity ratio.
 - X. The rate of interest shall be 12.5%, whereas the Return on equity shall be at 16% pre-tax.
 - XI. The useful life of AC shall be considered as 5 years.
 - XII. The old AC collected from the consumers in the scheme shall be disposed off in environment friendly manner.
 - XIII. There shall not be any cost to the consumers for disposal of old AC at the same time no salvage value/additional cost shall be considered for the consumers.

10. The Commission, after considering the above assumptions and the cost saving as prorated to the ratio of energy saved for specified AC, has approved this scheme for 20,000 ACs during the Financial Year 2015-16 on account of replacement of 1TR and 1.5 TR Non-Star Act by 5 Star/inverter AC of 1 TR or 1.5 TR as under:

i. **Rebate/ Discount Rate:**

The rebate to be allowed to eligible consumers for different class of ACs after considering the salvage value, if any, and cost towards disposal of old Ac is as follows:

Type of Ac	BEE 5 Star 1.5 TR	BEE 5 Star 1 TR	Inverter 1.5 TR	Inverter 1 TR
Rebate Proposed (Rs./Ac)	6400	4800	7400	5500

ii. **Expenses in ARR:**

The expenses on account of floating tender, hiring of implementation agency, administrative costs and the rebate cost along with interest thereon are allowed additionally in the Annual Revenue Requirement (ARR) of the petitioner to be recovered under the head of Demand Side Management (DSM) Fund.

iii. **Eligibility of Consumers:**

- The consumer should have a valid consumer connection number/CA number.
- There shall be not outstanding dues as on date of application.
- Only 1 AC shall be allowed against one CA number.
- The domestic consumers having average monthly consumption upto 1200 units per month during the summer period from April-September, 2014.
- The scheme shall be applicable on first come first serve basis for the eligible consumers.

iv. **Implementing Agency:**

TPDDL shall engage at least two implementing agencies discovered through competitive bidding process. The price to be quoted by the implementing agency in the bid process shall be net of the quoted price of new AC minus the salvage value of the old AC, which shall be indicated separately as part of the bid. The implementing agency shall be responsible for the safe disposal of old Ac's.

v. Maintenance of Records:

TPDDL shall keep all the records related to this scheme separately. TPDDL will submit following details related to the implementation of the scheme :

- a. Final price discovered through competitive bidding for the specified ACs
- b. Actual saving of energy due to implementation of this scheme
- c. Administrative cost incurred under this scheme
- d. Any other record relevant to the scheme

vi. Proper and Safe disposal of old replaced ACs:

TPDDL shall ensure proper and environment friendly disposal of old replaced air-conditioners by the implementation agency to avoid misuse as well as safety hazards.

vii. Validity of the Scheme:

The scheme shall be valid for 12 months from the date of issue.

11. The case is accordingly disposed off.

Sd/-
(B.P. Singh)
Member

Sd/-
(J. P. Singh)
Member

Sd/-
(P. D. Sudhakar)
Chairperson