



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

No. F. 11(1567)/DERC/2017-18/6081

**Petition No. 10/2018**

**In the matter of:**      **Petition seeking approval of the Commission for “Replacement of non-star rated Air-conditioner with BEE 5 Star rated Air Condition Scheme.”**

Tata Power Delhi Distribution Ltd.

**Through its : Managing Director**

NDPL House, Hudson Lane

Kingsway Camp

Delhi 110 009

**...Petitioner**

**Coram: Sh. B.P. Singh, Member**

**ORDER**

(Date of Order: 06.04.2018)

1. M/s Tata Power Delhi Distribution Limited has submitted the present petition for approval of the Commission for “Replacement of non-star rated Air-conditioner with BEE 5 Star rated Air Condition Scheme with following prayers:-

- a) To grant in principle approval for the scheme proposed by the petitioner or as may be modified by the Hon'ble Commission; and/or
- b) To allow the expenses on account of floating tender, hiring of implementation agency, administrative costs and the rebate cost along with interest thereon in the ARR of the petitioner to be recovered under the head of DSM budget or any other head as the Hon'ble Commission may deem fit.

2. **Petitioner's Submission:**

The Petitioner through the Petition and subsequent communications has submitted that:

- a. Under this programme, rebate of Rs. 2550-6350 per Air Conditioner (BEE 5 star rated) considering capacity of AC and its efficiency parameter will be offered to the consumer in exchange for their old air conditioner, not having any star rating. This rebate is proposed as allowed in the Annual Revenue Requirement of the petitioner granted by the Commission as in accordance with the recommendations of the Commission vide Tariff Order dated 31.08.2017. The following is the proposal of Rebate for AC

replacement program. The rebate amount are derived from the savings of the program:

Ac Category	Rebate Proposed (INR)
1 TR 5 star AC	2550
1.5 TR star AC	3720
1TR Split Inverter AC	4800
1.5 TR Split Inverter AC	6350

- b. The deemed energy savings from this program are 7.44 Mus cumulatively after a period of 1 years, calculating the difference between energy consumption of 1.5 ton and 1 ton Non Star rated ACs per hour and 1.5 ton and 1 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.
- c. The salient features of the scheme being proposed by the petitioner are as follows:
  - i. **Objective:** To accelerate the adoption of BEE 5 Star Rated Air Conditioners through consumer rebate scheme. This would reduce power consumption of household and their electricity bill. It would further enhance awareness about use of energy efficient products amongst household and have a cascading effect for other products. Objectives of the proposed programme are reduction in peak summer demand of the Petitioner due to load contributed by Air Conditioners, flattening of load curve, phasing out of Air Conditioners that have no star rating, change in consumer choice by encouraging energy efficient Air Conditioners and enhancing awareness about the cost and savings in regard of the same.
  - ii. **Estimated deemed energy saving:** It is expected the deemed energy consumption shall be reduced by a conservative estimate of 683 kWh/year for every BEE 5 Star rated Air Conditioner to be used in place of old, non-star rated Air Conditioner as per the Bureau of Energy Efficiency.
  - iii. **Rebate Offered:** Under the proposed scheme an upfront rebate of Rs. 2550-6350/- (depending upon the type of AC purchased) (BEE 5 star rated) is being offered on exchange of old, non-star rated AC. As a result of the same the consumers would pay the price being the market operating price offered by the dealer/manufacturer minus a sum of rebate amount and exchange price per installed AC, on surrender of the old AC. The rebate amount would be provided on Market Operating Price (MOP). It is the price offered

by retailers/distributors to buyers which is generally lower than MRP (Maximum Retail Price) and is inclusive of post purchase services such as transport, installation, etc.

- iv. **Target consumers:** The target consumers are all consumers coming within the area of operations of the petitioner having a valid electricity connection and CA number.
- v. **Replacement of the old Air Conditioner:** It shall be mandatory for the interested consumers to purchase a new 5 star rated AC and give back the old non rated AC. This is to phase out the old, inefficient AC and encourage the consumers to use new, energy efficient appliances.
- vi. **Implementation Agency:** Implementation agency may be appointed for the programme and may be an OEM (Original Equipment Manufacturer). The OEM would be selected by the petitioner through competitive bidding. Subsequently, retailers/distributors across petitioner's area of supply would be brought in for the wide spread execution of the programme. Selection of retailers/distributors would be done by the Implementing agency/OEM subject to final approval by the Petitioner. At least 2 OEMs will be selected as Implementing Agency by the petitioner.
- vii. **Marketing and promotion:** Due publicity and promotion of the scheme will be carried out by the petitioner and IA/OEMs, distributors etc. so as to create awareness amongst the consumers of the petitioner and apprise them of the benefits of using BEE 5 star rated appliances.
- viii. The petitioner shall register the interested consumers and issue them purchase rebate coupons against each CA No. The consumer shall submit their valid identity proof, address proof etc. as may be necessary for participating in the scheme. In particular the consumer shall be apprised that he may be required to sign an agreement with the petitioner for M&V by Monitoring agency to be appointed by the Commission which may carry out post installation Monitoring and Verification.
- ix. The interested consumer may then visit the selected Outlets, choose the OEM (BEE 5 star rated AC) and submit the discount coupon, requisite documents along with the last paid electricity bill to the Implementing Agency. The coupon shall be non-transferable.

- x. The implementing Agency/OEM shall collect from the consumer the Market operating price reduced by a sum equal to rebate amount and exchange price discount and the implementing Agency/OEM shall deliver and install the said AC at the address stated in the bill and collect the old AC.
  - xi. The OEM/Implementing agency will submit the relevant documents along with sales data and installation report to the petitioner on a fortnightly basis for verification.
  - xii. After verification of the same the petitioner will release the amount due on account of the rebate refundable to the IA/OEM.
  - xiii. An independent, third party Monitoring Agency shall be appointed by the Commission to follow up and verify that consumers are using the 5 star rated ACs under the scheme.
  - xiv. The old AC shall be removed by the Implementing Agency/OEM from the site/address of the consumer under receipt and shall be disposed off by the registered electronic waste recycler in accordance with the applicable rules and in an environment friendly manner.
  - xv. The monitoring agency to be appointed by the Commission shall conduct the random sample physical inspection check for the ACs purchased by the petitioner's consumers post installation so as to find out whether or not the star rated appliances are still in use.
- d. The petition was listed for hearing on 13.03.2018 wherein the counsel for the petitioner submitted that the petitioner may face a practical difficulty in implementing such directions of the Commission as contained in order dated 20.09.2017 in Petition No. 32 of 2016 of BSES Rajdhani Power Limited to destroy the old replaced AC by cutting its compressor vertically into two pieces in the presence of the consumer to avoid misuse. The counsel for the petitioner also submitted that cutting of the compressor will release CFC gases in the air which are harmful for the environment; therefore the Commission may give directions for some other form of disposal of the compressor.
3. The petition was admitted *vide* order dated 26.03.2018 and it was directed that the petitioner may suggest within two weeks, such other options which caters to an environment friendly guaranteed disposal of compressors of replaced ACs so that they cannot be reused.

4. Pursuant to the hearing dated 13.03.2018 and the directions of the Commission, the petitioner has submitted the following proposal for the process of disposal of Old ACs that may be adopted, as against the directives issued in the BRPL order dated 20.09.2017 as issued by the Commission:

- i. The compressor of AC consists of three leads (phase, neutral and capacitor point) for electrical connections which can be cut from the sealed compressor tank in front of the consumer. This shall render the compressor non-reusable and will also prevent release of refrigerant from the compressor which means shall be environment friendly and safe for consumer, as opposed to the process of cutting the AC in front of the consumer.
- ii. Once the compressor is rendered non-reusable, the old ACs shall be restored in the petitioner's warehouse from where the same shall be disposed of as per the applicable laws through an authorized disposal agency. Once disposed/dismantled, disposal certificate is issued by such agency.

5. **Commissions Decision:**

Considering the calculation of cost benefit analysis for AC replacement scheme based on all the aforesaid assumptions and the cost saving as prorated to the ratio of energy saved for specified AC, the Commission approves this scheme for replacement of non-star rated Air-conditioner with BEE 5 Star rated Energy Efficient Air Conditioner as under:

i. **Buy back arrangement :**

The scheme shall be operated under 100% buy back arrangement so that the inefficient Acs must be taken out of the grid and disposed off in an environmental friendly manner.

ii. **Rebate/Discount rate:**

- a. The rebate of 5 Star ratings of AC based on notification of Bureau of Energy Efficiency (BEE) dated 08.08.2017 shall be computed, as per the following equation:

$$\text{Rebate (in Rs.)} = 2632.47 + 19.53 \times (\text{Savings in MU})$$

- b. The Savings in MU will be computed as follows:

- i. The installed capacity of 5 Star/Inverter Acs compared with 3 star rated AC of power consumption of 2364 Watts;
- ii. Hours of Usage 6 hours/day
- iii. No. of days Usage 150 days/year

- iv. Transmission and Distribution Losses @ 9.28%
- v. Compressor Life (savings in MU computed from i to iv is multiplied with compressor life and the resultant is input in the equation indicated above)

**vi. 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) budget or any other head.

**vii. Eligibility of Consumers:**

- a. The consumer should have a valid consumer connection number/CA number.
- b. There shall be no outstanding dues as on date of application.
- c. A maximum number of 3 Acs shall be offered to a consumer.
- d. The scheme shall be applicable on first come first serve basis for the eligible consumers.

**viii. 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.

**ix. 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; and
- d. Any other record relevant to the scheme.

**x. 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. For this purpose, the three leads (phase, neutral and capacitor point) from the sealed compressor tank shall be cut in the

presence of the consumer. Subsequently, the old ACs shall be stored in the petitioner's warehouse from where the same shall be disposed of as per the applicable laws through an authorized disposal agency. The disposal certificate shall also be issued by such agency.

**xi. Validilty of the Scheme:**

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

6. In view of the above, the case is disposed of accordingly.

**Sd/-  
(B.P. Singh)  
Member**