

## **Perform Achieve and Trade (PAT) Scheme**

### **Introduction – PAT Scheme**

Perform, Achieve and Trade (PAT) is a regulatory instrument to reduce Specific Energy Consumption (SEC) in energy intensive industries, with an associated market based mechanism to enhance the cost effectiveness through certification of excess energy saving which can be traded.

PAT is a mechanism designed to achieve the required energy efficiency in energy intensive sectors. Energy consumption norms and standards are set by the BEE for intensive industry sectors. Selected industries from energy intensive sectors based on specified threshold levels are identified as Designated Consumers (DCs) within certain key sectors and are required to comply with the notified norms, rules and regulations framed under Energy Conservation (EC) Act, 2001.

### **PAT Cycle- I:**

Perform Achieve and Trade in its first cycle included 478 industrial units in 8 sectors viz. Aluminum, Cement, Chlor- Alkali, Fertilizer, Iron & Steel, Paper & Pulp, Thermal Power Plant and Textile. The overall SEC reduction targets aimed to secure an energy saving of 6.686 Million Tonne of Oil Equivalent (MTOE). PAT Cycle I was completed on 31st March, 2015. The energy savings achieved in PAT Cycle –I was 8.67 MTOE which was exceeded the target by 30 percent. This energy saving also translated into avoiding about of about 31 million tonne of CO<sub>2</sub> emission. The energy savings of the DCs of PAT Cycle-I were converted to tradable Energy Saving Certificates (ESCerts). The total volume of ESCerts traded in “PAT cycle I” was about 13 lakhs resulting into a business of about INR 100 crores.

### **PAT Cycle –II:**

Deepening” –identification of new DCs in existing sectors and “Widening” –inclusion of new sectors, was carried out by BEE before the commencement of the second cycle of PAT. Deepening study resulted into identification of 89 DCs from the existing sectors of PAT. Widening study resulted into notification of three new sectors namely Refineries, Railways and DISCOMs under PAT scheme. The total energy consumption target of 8.869 MTOE was notified to 621 DCs from 11 energy intensive sectors (eight existing sectors and three new sectors). PAT Cycle II commenced from 1st April, 2016 and was completed on 31st March 2019.

Implementation of PAT cycle -II has resulted into total energy savings of about 13.28 MTOE translating into avoiding of about 61.34 Million tonne of Carbon dioxide emission.

### **PAT Cycle –III:**

The Parliamentary Standing Committee on Energy, Executive Committee on Climate Change under Prime Minister’s Office (PMO) and Group of Secretaries recommended notifying DCs under PAT scheme annually for accelerated coverage. Thus, PAT scheme is being implemented on a rolling cycle basis where new DCs/sectors are notified every year. Since a decision was taken to put PAT scheme under the rolling

cycle from PAT-II onwards, PAT cycle-III was notified on 31st March, 2017. PAT cycle - III seeks to achieve and overall energy consumption reduction of 1.06 MTOE for which targets have been notified to 116 Designated Consumers from six sectors viz. Thermal Power Plant, Cement, Aluminum, Pulp & Paper, Iron & Steel and Textile.

**PAT Cycle –IV:**

PAT cycle –IV was notified on 28th March-2018. A total of 109 DCs with a total reduction target of 0.6998 MTOE was notified under PAT cycle -IV. The DCs notified under PAT cycle -IV are from 8 sectors consisting of 6 existing sectors and two new sectors. The new sectors are Petrochemicals and Buildings.

**PAT cycle –V (2019-2020 to 2021-22)**

PAT cycle –V had commenced with effect from 1st April 2019. Under PAT cycle –V, 110 DCs from the existing sectors of PAT i.e. Aluminum, Cement, Chlor-Alkali, Commercial Buildings (Hotels), Iron & Steel, Pulp & Paper, Textile and Thermal Power Plant were notified. Total energy savings of 0.5130 MTOE through the implementation of PAT cycle –V is expected to be achieved.

**PAT cycle –VI (2020-21 to 2022-23)**

PAT Cycle-VI has commenced with effect from 1st April 2020. Under PAT Cycle-VI, 135 DCs from six sectors, i.e. Cement, Commercial buildings (hotels), Iron and Steel, Petroleum Refinery, Pulp and Paper and Textiles, have been notified. With implementation of PAT cycle –VI, it is expected to achieve a total energy savings of 1.277 MTOE.

BEE has rolled out six PAT cycles till 31st March, 2020, with a total of 1073 DCs covering 13 sectors. It is projected that total energy savings of about 26 MTOE translating into avoiding of about 70 million tonnes of CO<sub>2</sub> will be achieved by March 2023.