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Perform Achieve and Trade Scheme (PAT) is a market based mechanism to enhance the Energy Efficiency in Energy Intensive industries through certification of energy saving which can be traded.



SEC (Specific Energy Consumption): Energy Consumed per unit production

In the "first cycle" of PAT (ending in year 2014-15), 478 industries units in 8 sectors (Aluminium, Cement, Chlor-Alkali, Fertilizer, Iron & Steel, Paper & Pulp, Thermal Power Plant, Textile) were mandated to reduce their specific energy consumption (SEC) i.e. energy used per unit of production. Overall, the SEC reduction targets envisaged to secure 4.05 % reduction in energy consumption in these industries totaling an energy saving of 6.686 million tonne of oil equivalent (mtoe). The implementation of PAT in large industries has led to energy saving of 8.67 MTOE by year 2014-15 which is about 1.25% of total primary energy supply to the country in the "first cycle". This energy saving also translates in to mitigating of about 31 million tonne of CO2 emission.

The energy savings of the Designated Consumers (DCs) of PAT Cycle-I have been converted to tradable Energy Saving Certificates (ESCerts). Ministry of Power, Government of India had issued about 38.25 lakh ESCerts to 306 designated consumers while 110 Designated Consumers have to primarily purchase about 14.25 lakh for their compliance. Trading of ESCerts at Power Exchange had commenced from 26th September, 2017. The total volume of ESCerts traded is about 12.98 lakhs resulting into a business of about INR 100crores.

The "second cycle" of PAT was notified in March, 2016 covering 621 DCs from 11 sectors which include eight existing sectors and three new sectors viz. Railways, Refineries and DISCOMs. PAT in its second cycle seeks to achieve an overall energy consumption target of 8.869 MTOE. Since PAT scheme is based on a rolling cycle i.e. inclusion of new sectors/designated consumers every year, the "third cycle" of PAT was notified in March 2017 and it seeks to achieve an overall energy consumption reduction of 1.06 MTOE for which SEC reduction targets have been assigned to 116 DCs from six energy intensive sectors. Targets for the "fourth cycle" of PAT have been notified in March 2018 under which 109 DCs have been notified from existing sectors and two new sectors i.e. Petrochemical and Commercial Buildings (Hotels) with an overall SEC reduction target of 0.6998 million tonne of oil equivalent.

Presently, in total 846 designated consumers under PAT cycle -II, III and IV are undergoing implementation of energy efficiency projects to achieve the assigned targets.



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