PAT SCHEME:

This is a market based mechanism to enhance the cost effectiveness in improving the Energy Efficiency in Energy Intensive industries (called DCs) through certification of energy saving which can be traded in form of ECerts (Energy Certificates).BEE is the implementing agency for the PAT scheme across the country.

Under the PAT scheme, 478 industrial units across the country in eight sectors — cement, thermal power plants, fertilizers, aluminum, iron and steel, chlor-alkali, pulp and paper and textiles —will be given targets for reducing energy consumption. The companies that better their targets will be allowed to sell energy-saving credits ECERTs to those failing to achieve the required cuts. The saving of 1 MtOE beyond set target is equivalent to one ECERT.

These eight sectors cover 60 per cent electricity's industrial consumption in the country. The energy efficiency certificates so devised can be traded on power exchanges and the India Energy Exchange. This is a unique program where involvement of ESCO, Energy Managers and Energy Auditors would be required to the great extent. BEE has been certifying Energy Auditors for quite some time and a decent capability has been developed in this area. But these Energy Auditors are required to be accredited to be able to perform Energy Auditing duties under PAT. This process may need some simplification in order to achieve BEE's objective.

PAT is a purely national scheme aimed at increasing the energy efficiency in energy intensive industries/ establishments in India and has no relationship with CDM or any such international scheme to incentivise emission reduction. Specific Energy Consumption (SEC) reduction targets under the PAT mechanism do not create any international obligations and must not have any relationship with them. These targets also do not intend to put any overall cap on energy consumption, consistent with the Indian stand in the ongoing climate change negotiations.

The scheme involves:

1. Methodology for setting SEC norm for each designated consumer in a manner that it captures the diversity within an industrial sector by giving unit specific SEC targets under section 14 of the Energy Conservation Act, 2001.

2. Promotion of Trading of Energy Saving Certificates (ESCerts) to those designated consumers who exceed their target SEC reduction through a transparent regulatory framework for their issuance, monitoring and verification, and reconciliation protocols outlined.

3. Fungibility of ESCerts with instruments like the proposed Renewable Energy Certificates (RECs) being formalized by MNRE to enhance the trading market with appropriate conversion factors.

4. Amendments to EC Act, 2001 to reduce the possibility of non-compliance by suitably amending the Act suitably.

The savings due to PAT mechanism will be 9.78 mmtoe and 26.21 mmt of GHG emissions, resulting in expected avoided capacity addition of 5263 MW, in the first 3 years of the implementation of the scheme. An investment of about Rs.30, 000 crores is expected to be made by the industry.

Requirements of the EC Act for DCs under PAT Scheme:

The Energy Conservation Act 2001, herein referred as the EC Act, enacted by the Government of India in 2001, provides for the overall framework for efficient use of energy and its conservation in India. The Act provisioned for various sectors to adopt measures for ensuring energy efficiency and also led to the formation organization such as the Bureau of Energy Efficiency (BEE). Identifying 8 energy intensive sectors as Designated Consumers, the Act provided regulations for these DCs to:

1. Furnish report of energy consumption to the Designated Authority of the State as well as to Bureau of Energy Efficiency(BEE).

2. Designate or appoint an Energy Manager who will be in-charge of submission of annual energy consumption returns of the Designated Agencies and BEE.

3. Comply with the energy conservation norms and standards prescribed under section 14 (g) of the Act.

4. Purchase Energy Saving Certificates (ESCerts) for compliance to section 14 (g) in the event of default, the Act has been amended with the addition of new sub-section 14A to enable this and section 14A (2) allows such trading. EScerts are defined by adding a new sub-section 2(ma).

5. Monitoring and Verification of compliance by Designated Energy Auditors (DENA) which will be prescribed the Government/ BEE under section 14A/13 (p) of the Act.

6. Excess achievement of the target set would entail issuance of ESCerts under section 14A (1).

7. Penalty for non-compliance being Rs. 10 lakhs and the value of noncompliance measured in terms of the market value of tones of oil equivalent by inserting a new section 26(1A).

BEE was made to be the overall regulator and dispute resolution agency and The Energy Efficiency Service Limited (EESL), a public sector undertaking to be the process manager.