

## Trading of ESCERTS (Energy Saving Certificates)

Hon'ble CERC has notified The Central Electricity Regulatory Commission (Terms and Conditions for Dealing in Energy Savings Certificates) Regulations, 2016. This regulation mandates the trading of ESCERTS to be done only on power exchanges.

## What is PAT and ESCERTS

PAT (perform, achieve and trade) is a mechanism initiated under National Mission on Enhanced Energy Efficiency by Ministry of Power on 4<sup>th</sup> July 2012. It is a mechanism to improvise and incentivize energy intensive industries. The scheme covers 478 Designated Consumers (DCs) from eight energy- intensive sectors—thermal power, aluminium, cement, fertilizer, iron and steel, pulp and paper, textiles and chlor-alkali. It facilitates the DCs to achieve their legal obligations under the Energy Conservation Act, 2001, and motivates them with necessary market-based incentives to over-achieve the targets set for them. PAT is a market based mechanism to reward over achievers and penalize under achievers.

## PAT Cycle I- Notified Sectors

S. NO.	Sectors	Annual Energy Consumption Norm to be DC (mtoe)	No. of Identified DCs	Annual Energy Consumption (Million toe)	Share Consumption (%)	Apportioned Energy Reduction For PAT Cycle-1 (Million toe)
1	Power (Thermal)	30000	144	104.56	63.38%	3.211
2	Iron & Steel	30000	67	25.32	15.35%	1.486
3	Cement	30000	85	15.01	9.10%	0.815
4	Aluminium	7500	10	7.71	4.67%	0.456
5	Fertilizer	30000	29	8.20	4.97%	0.478
6	Paper & Pulp	30000	31	2.09	1.27%	0.119
7	Textile	3000	90	1.20	0.73%	0.066
8	Chlor- Alkali	12000	22	0.88	0.53%	0.054
	Total		478	164.97	100%	6.686

### Perform

- ❖ Specific energy consumption reduction targets specified for each DC. Target set by BEE through notification.
- ❖ Energy Efficiency measures to be adopted by all DCs.
- ❖ Every DC to submit an implementation plan for achieving energy efficiency measures to BEE & State Designated Agency (SDA).

### Achieve

- ❖ DCs to appoint BEE empanelled accredited energy auditor and conduct Energy audit by accredited energy auditor.
- ❖ Verification of Specific Energy Consumption Reduction Target achieved by DC each year
- ❖ Submission of verification report and Check-verification to be done by BEE & SDA.

### Trade

- ❖ Issuance of ESCerts Based on cross-verification report from BEE.
- ❖ DCs over-achieving targets to be issued ESCerts.
- ❖ DCs under-achieving targets to purchase ESCerts from PXIL for compliance.
- ❖ Energy Savings Certificates trading to be done at PXIL\*
- ❖ Penalty for non-compliance in accordance with the Energy Conservation Act, 2001. Also, amount of unmet target to be paid at prevailing oil price.

## PAT Cycle I- Achievements

S. NO.	Sectors	No. of DCs	Savings (Million toe)	% Increase in savings
1	Aluminium	10	0.73	59%
2	Cement	75	1.44	76%
3	Chlor- Alkali	22	0.10	100%
4	Fertilizer	29	0.83	73%
5	Iron & Steel	60	2.10	41%
6	Paper & Pulp	26	0.26	117%
7	Textile	82	0.12	71%
8	Thermal Power Plant	123	3.06	(-)5%
	<b>Total</b>	<b>427</b>	<b>8.64</b>	<b>29%</b>

- ▶ **Saving of about 8.67 Million TOE from verified 427 DCs (5.24%)**
- ▶ **CO<sub>2</sub> mitigation about 31 million tonnes**

# Source: BEE website

### Provision of EC act applicable to DCs

- Energy conservation Act 2001 enacted in October 2001
- Effective from 1 March 2002
- BEE operational from 1 March 2002

Schedule to EC Act provides list of 15 energy intensive industries and other establishments to be notified as designated consumers(DC). A DC to:

- ❖ Appoint or designate certified energy manager
- ❖ Submit annual energy consumption return

- ❖ Get energy audit conducted by an accredited energy auditor
- ❖ Implement techno economic viable recommendations
- ❖ Comply with energy consumption norms and standards

### Designated consumers major provisions applicable

14 (e) specify, having regard to the intensity or quantity of energy consumed and the amount of investment required for switching over to energy efficient equipments and capacity or industry to invest in it and availability of the energy efficient machinery and equipment required by the industry, any user or class of users of energy as a designated consumer for the purposes of this Act;

(g) establish and prescribe such energy consumption norms and standards for designated consumers as it may consider necessary;

(h) direct, having regard to quantity of energy consumed or the norms and standards of energy consumption, the energy intensive industries specified in the Schedule to get energy audit conducted by an accredited energy auditor in such manner and intervals of time as may be specified by regulations;

(i) to get energy audit conducted by an accredited energy auditor;

(k) to furnish to the designated agency, in such form and manner and within such period, the information with regard to the energy consumed and action taken on the recommendation of the accredited energy auditor;

(l) to designate or appoint energy manager and submit a report on the status of energy consumption at the end of the every financial year to designated agency;

(n) to comply with energy consumption norms and standards;

(o) direct any designated consumer, who does not fulfill the energy consumption norms and standards prescribed under clause (g), to prepare a scheme for efficient use of energy and its conservation and implement such scheme keeping in view of the economic viability of the investment in such form and manner as may be prescribed;

### Salient features of ESCerts trading

✓ Issuing Agency	Gol on Recommendation of BEE
✓ ESCerts denomination	1 ESCert = 1 Mtoe (Metric Tonne of Oil Equivalent)
✓ Trading Platform	Electricity Exchange (PXIL) only*
✓ Price Determination	Closed Double sided Auction (Uniform Price)
✓ Penalty	As per the provision of EC act.
✓ Banking	Allowed for two consecutive cycles
✓ Compliance Period	3 Years for DCs
✓ Registry	PAT NET .

### Why PXIL for ESCerts trading?

- ❖ Competitive market and diverse participation on transparent and efficient neutral platform.
- ❖ Established market for electricity and REC trading since 2008.
- ❖ Robust and smooth risk free clearing and settlement ensuring financial assurance for participants.
- ❖ Proven innovation and preferred choice of participants in Green products.
- ❖ Pan Indian market and uniform Market clearing price (MCP) Market clearing volume (MCV) through closed double sided auction.
- ❖ Information dissemination in lucid and simple extractable reports for all stakeholders.

**\*Note:- Prior registration of consumers either as client or member is necessary for trading of ESCerts at PXIL**

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