



RAP[®]

Energy solutions
for a changing world

Activating the Demand Side:
Efficiency and Demand Response

**Examples from Asia:
PAT Scheme in India - EEO in China**

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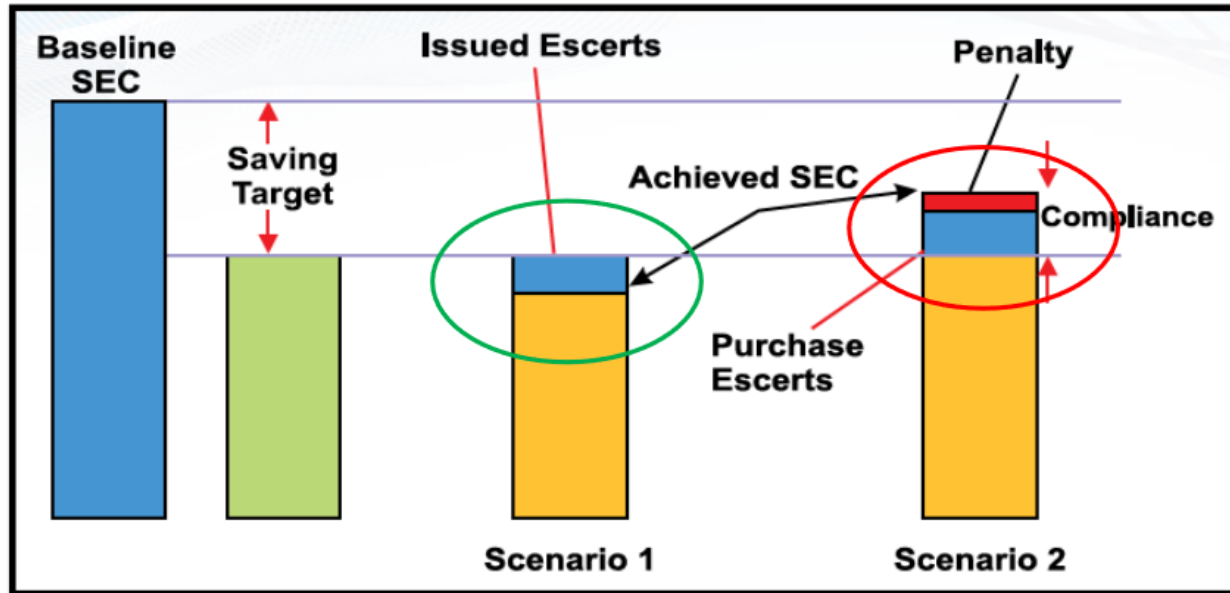
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India: Perform, Achieve & Trade (PAT) Scheme

Nation Mission for Enhanced Energy Efficiency:

- Market Transformation for Energy Efficiency (MTEE)
- Energy Efficiency Financing Platform (EEFP)
- Framework for Energy Efficient Economic Development (FEEED)
- Perform Achieve and Trade (PAT)
 - ⇒ Policy on industry to reduce emissions intensity of its GDP by 33% by 2030 (from 2005 level)

PAT Concept on Target, ESCerts and Penalty



When a designated consumer achieve and surpass the target, it can sell its excess savings in the form of Energy Savings Certificates (ESCerts) issued by Central Government, and if a designated consumer fails to achieve its targets, it must purchase the appropriate number of ESCerts to meet its energy savings targets.

PAT Cycle I - Achievements

S. NO.	Sectors	No. of Identified DCs	Savings (Million toe)
1	Aluminium	10	0.73
2	Cement	75	1.44
3	Chlor- Alkali	22	0.13
4	Fertilizer	29	0.83
5	Iron & Steel	60	2.10
6	Paper & Pulp	26	0.26
7	Textile	82	0.12
8	Thermal Power Plant	123	3.06
	Total	427	8.67

- ▶ **Saving of about 8.67 MTOE from the assessed 427 DCs**
- ▶ **CO₂ mitigation - 31 million tonne**

Source: Ministry of Power

China's EEO

- In 2010 National Development and Reform Commission (NDRC) established EEO for grid companies
- Grid companies must achieve:
 - energy savings equal to 0.3% of previous year's sales volumes; and
 - demand savings of at least 0.3 percent of previous year's maximum load
- Regulation also requires the installation of:
 - load monitoring equipment on 70% of peak load;
 - load control equipment on 10% percent of peak load

Eligible energy savings activities for grid companies under EEO

Eligible energy savings activities for grid companies:

- directly implement energy efficiency projects;
- establish an affiliated energy services company (ESCO);
- purchase energy savings by means of business transactions/trading (not to exceed 40% of total eligible energy savings);
- promote energy efficiency to end- users; and
- directly carry out grid system upgrades and operational management improvements.

Gridco incentives regarding EE

- EE reduces grid company sales and revenue
- Gov't has traditionally evaluated SOE managers on revenue/profit metrics growth metrics
- New “power sector reform” initiative is in process of changing gridco incentives:
 - Revenue regulation
 - Reward/penalty incentive mechanism for DSM performance

EEO 2.0: Performance Based Regulation

- Revenue regulation for gridcos
 - Decoupling revenues from throughput/sales volume?
- ⇒ Option for gridcos to focus on multiple solutions, as DER, EE, RES - not just on sales

About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power sector. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at www.raponline.org

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