

Perform, Achieve and Trade (PAT) Scheme



Presentation on PAT Amendment Rules, 2016

**Bureau of Energy Efficiency
INDIA**

PAT Rules - Contents

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Mandatory requirement to be fulfilled by DC

- **EC Act schedule provides list of 15 energy intensive industries and other establishments to be notified as designated consumers (DC).**
- **DCs to appoint or designate energy managers who shall be in charge of activities for efficient use of energy and its conservation (clause 14(l)).**
- Note: The minimum qualification of energy manager to be designated or appointed under clause 14(l) is the passing of certification examination, conducted by Bureau of Energy Efficiency.
- The following information to be provided for energy manager:
 - Name of the energy manager
 - Registration number (EA/EM No.)
 - Complete postal office address
 - Telephone and Mobile number
 - Email address)
- **The information with regard to energy consumed (clause 14(a)) in Form 1**
- **Get energy audits conducted by accredited energy auditors**
- **Implement techno-economic viable recommendations**
- **Comply with norms of specific energy consumption**
- **Submit report on steps taken**

Major Activity to be Done by DC (Rule 5)

Preparation of scheme for implementation of efficient use of energy and its conservation

Every Designated Consumer, within three months of the issue of notification under sub-rule (6) of rule 4 shall submit a scheme to State designated agency with a copy to Bureau, which may include: -

- ✓ Action Plan containing inter- alia, a brief description of identified energy saving measures to comply energy consumption norms and standards by the target year.
- ✓ The estimated cost of each identified energy saving measures.
- ✓ Implementation plan to Achieve Energy Consumption Norms and Standards

Major Activity to be Done by DC (Rule 7)

Arrangement for Monitoring and Verification

The Designated consumer in consultation with empanelled accredited energy auditor, shall put in place transparent, independent and credible Monitoring and Verification (M&V) for Energy Consumption and Production based on the Bureau of Energy Efficiency (Manner and Intervals of Time for Conduct of Energy Audit) Regulations, 2010 for compliance with the Energy Consumption Norms and Standards.

Monitoring and Verification (Rule 7)

- a) **Preparation and Maintenance of Quarterly Data / Yearly Data reports /End of Cycle Data Reports by Designated Consumers**
- ✓ On the performance of plant and production process
 - ✓ Internal Field Audit of Plant and Production Process
 - ✓ On outcomes of Internal Field Audit of Plant and Production Process
 - ✓ A Year wise report on Production achieved, Energy Consumed and SEC consumption and reduction achieved and measures adopted for energy conservation and quantity of savings achieved
- b) **All the activities under taken by the designated consumers under these rules shall be scrutinized by the empanelled accredited energy auditor for the purpose of verification report and the DC shall furnish the full and complete data, Provide necessary documents and others facilities required by EmAEA for the purpose of performing the function of verification under these rules . (Rule 7)**

Various Forms to be submitted by DC and EmAEA

- **Form I and Sector Specific Pro-Forma**
- **Performance Assessment Documents (Form A)**
- **Certificate of Verification (Form B)**
- **Certificate of Check-Verification (Form C)**
- **Compliance of Energy Consumption Norms and Standard Document (Form D)**

Form I and Sector Specific Pro-Forma

	Sector	No of Pro-forma	Name of Pro-Forma for Sub-Sector	Sub-Sector
1	Aluminium	2	Sa1, Sa2	Smelter & Cold Sheet
2	Cement	1	Sb	Cement
3	Chlor- Alkali	1	Sc	Chlor- Alkali
4	Fertilizer	1	Sd	Fertilizer
5	Iron & Steel	2	Se1, Se2	Integrated steel & Sponge Iron
6	Paper & Pulp	1	Sf	Paper & Pulp
7	Textile	4	Sg1, Sg2, Sg3, Sg4	Composite, Fiber, Spinning & Processing
8	Thermal Power Plant	1	Sh	Thermal Power Plant
9	Railways	General format for data collection of these three Sectors are available on BEE website https://beeindia.gov.in/content/pat-performa The sector specific pro-forma for these sectors are under finalisation.		
10	DISCOMM			
11	Petroleum Refinery			
	Total	13		

Timelines and Activities

Activity	Time Line	Description	Tentative Dates for PAT Cycle II	Activity by	Where
Form 1, Action plan submission	3 Months	Within 3 month from Notification	30 June 2016	DC	SDA/BEE
Form 1 submission	3 Months	Yearly submission of Form 1 within 3 months from last financial year	30 June (Every Year)	DC	SDA/BEE
Form A, Form B along with others documents	4 Months	Within 4 month from conclusion of target year	31 st July 2019	DC	SDA/BEE
Submission of Form A, Form B with SDA comments	45 Days	Within 45 days of the last date of submission of Form A	15 th Sept 2019	SDA	BEE
Recommendation of ESCerts to MoP, GOI	Two Months	Within two months from the date of the receipt of the comments from SDA	15 th Nov 2019	BEE	MoP
Issuance of ESCerts by MoP	45 Days	Within 45 days from the date of the recommendation of Escerts from BEE	31 st Dec 2019	MoP	
Form D Submission	One Month	After 1 month from the Completion of Trading		DC	SDA/BEE

Submission of Form A and B

Assessment of Performance (Rule 6)

After Completion of Target Year: Every DC **within four months** of the conclusion of the target year from the baseline year shall submit to the SDA with a copy to the Bureau, the performance assessment document (PAD) in Form 'A', duly verified together with certificate in Form 'B' given by the empanelled Accredited Energy Auditor (AEA).

Comments from State Designated Agency (SDA)

After submission of duly verified Form 'A' by designated consumer, state designated agency may convey its comments, if any, on Form 'A' to the Bureau **within Forty-five days** of the last date of submission of Form 'A' for PAT Cycle 1.

Recommendation for issue of Energy Saving Certificates (ES Certs)

The Bureau on satisfying itself about the correctness of verification report, and check-verification report, wherever sought by it, send its recommendation to the Central Government, based on the claim raised by the designated consumer in Form 'A', **within two months** from the last date of submission of said Form 'A' by the concerned state designated agency, for issuance of energy savings certificates.

Procedure for issue of Energy Savings Certificates (ES Certs)

- Central Govt. after receiving recommendation from Bureau issue ESCerts of desired value to DC **within 45 days**.
- ESCerts shall only be in electronic form
- 1 ESCerts= 1 tonne of Oil Equivalent (toe) = 10968 INR
- The DC who has been issued energy savings certificates may sell them through the power exchange.
- ESCerts issued in current cycle shall remain valid till compliance period of next cycle.
- ESCerts purchased by DC for compliance shall after their submission to Bureau stand expire.

Compliance of energy consumption norms and standards (Form D)

The designated consumer for the purpose of achieving the compliance with the energy consumption norms and standards during the target year, in the relevant cycle shall take the following action and after completing the said action, furnish the status of compliance to the concerned state designated agency with a copy to the Bureau in Form 'D' by the end of one month from the completion of trading of ESCerts of respective cycle as may be specified by CERC.

(a) by implementation of energy conservation and energy efficiency improvement measures or;

(b) where the measures implemented in terms of clause (a) are found inadequate for achieving compliance with the energy consumption norms and standards, the designated consumer shall purchase the energy savings certificates equivalent in full satisfaction of the shortfall in the energy consumption norms and standards worked out in terms of metric ton of oil equivalent.

Check-Verification

Check-Verification (Rule 8)

The Bureau may on its own or receipt of a complaint within 1 yr from date of submission of compliance report from the date of issue of ESCerts shall initiate action in accordance with following procedures:

Issue a Notice to DC and EmAEA , asking for comments



Within two months from receipt of comment, Bureau shall after taking into consideration the said comments, decide to undertake or not to undertake review and the Bureau shall record the reasons in writing for its decision

It shall be competent for the State Designated Agency to supervise the completion of check-verification through its Inspecting Officer, who shall, if need be, may submit its inspection report under the Energy Conservation (Inspection, Rules), 2010 to the State Designated Agency who shall take further necessary action under intimation to the Bureau

Check-Verification

Bureau appoints EmAEA to conduct Check Verification



EmAEA shall assess and verify that the activities performed by the DC



The DC shall furnish full and complete data, provide necessary documents and other facilities required by the AEA for the purpose of performing the function of check-verification under these rules.



The AEA in-charge of check-verification function shall report the results of his assessment in certificate of check – verification (Form C) to BEE and the concerned SDA.

Forms

Performance Assessment Documents (Form A)

To be filled by DCs

1.	Name of designated consumer		
2.	Registration number		
3.	Sector		
4.	Sub-sector		
5.	Accredited energy auditor		
	Name		
	Registration number		
6.	List of documents submitted		
a.	Baseline data (three years)	Submitted/Not submitted	Date of submission
b.	Form I () Specify the year in the bracket	Submitted/Not submitted	Date of submission
c.	Form I () Specify the year in the bracket	Submitted/Not submitted	Date of submission
d.	Form I () Specify the year in the bracket	Submitted/Not submitted	Date of submission
e.	Form II	Submitted/Not submitted	Date of submission
f.	Form III	Submitted/Not submitted	Date of submission

Performance Assessment Documents (Form A)

7	Target Year	Notified target specific energy consumption for the cycle	Energy savings certificates issued	Revised target specific energy consumption for the cycle		
		toe/ton of product or Net Kcal/kWh	Nos	toe/ton of product or Net Kcal/kWh		
a.	Mention the year ()		-			
b.	Mention the year ()					
c.	Mention the year ()		-			
8.	Specific energy consumption					
a.	Specific energy consumption (baseline)			toe/ton or Net kcal/kWh		
b.	Production (baseline)			ton or Million kWh		
c.	Revised target SEC (from 7.b)			toe/ton or Net kcal/kWh		
d.	Target after normalisation, if any			toe/ton or Net kcal/kWh		
e.	Achieved specific energy consumption			toe/ton or Net kcal/kWh		
f.	Energy savings certificates			nos		
9.	Energy Efficiency Project implemented during current cycle					
	Project	Year of Implementation	Annual Energy consumption (before)	Annual Energy consumption (after)	Energy tariff	Investment

Certificate of Verification (Form B)

Form B

(See rule 5)

CERTIFICATE OF VERIFICATION

I/We _____ the accredited energy auditor, have undertaken a thorough independent evaluation of the activities undertaken by M/s. _____, a designated consumer for compliance with the energy consumption norms and standards specified under the Government of India Ministry of Power notification number _____, dated the _____ during the target year compared to the baseline year and consequent entitlement or requirement of energy savings certificates and certify that-

- (a) the verification of the data collection in relation to energy consumed and specific energy consumption per unit of production in the baseline year and in the target year in Form 1 under Rules 2007 or Rules 2008, has been carried out diligently and truthfully;
- (b) the verification of the identified energy efficiency measures, and the progress of their implementation given in Form II and Form III under Rules 2008 has been carried out diligently and truthfully;
- (c) the verification of the compliance with energy consumption norms and standards during the target year has been carried out diligently and truthfully;
- (d) the verification of the total amount of energy saved, year-wise, after the baseline year and until target year or otherwise and request made by the designated consumer, the entitlement of _____ (Nos) energy savings certificate (s) required to be issued or purchased by him have been carried out diligently and truthfully;
- (e) all reasonable professional skill, care, and diligence have been taken in verifying the various verification activities, findings and conclusions, documents, reports, preparing the documents including the performance assessment document in Form 'A' and verification report and the contents thereof are a true representation of the facts.

Compliance of Energy Consumption Norms and Standard Document (Form D)

1.	Name of designated consumer		
2.	Registration number		
3.	Sector		
4.	Sub-sector		
5.	List of documents submitted		
a.	Performance Assessment Document (Form 'A')	Submitted/Not Submitted	Date of Submission
6.	Compliance		
a.	Energy Savings Certificates		Issued/Recommended for purchase
b.	Energy Savings Certificates submitted for compliance		If recommended for purchase
c.	Balance Energy Savings Certificates		Nos

Penalties and Adjudication

As per Section 26 of EC Act,

- If any DC fails to comply with the timelines of M&V procedure, he shall be liable for a penalty of Rs. 10 lakh, in addition to Rs. 10,000 per day
- If any DC fails to comply with the provisions, he shall be liable to a penalty of Rs. 10 lakh rupees and, in the case of continuing failure, with an additional penalty of the price of every metric ton of oil equivalent of energy
- Any amount payable under this section, if not paid, may be recovered as if it were an arrear of land revenue.

Thank You