



# Perform, Achieve and Trade (PAT) Scheme



# GOVERNMENT OF INDIA

Bureau of Energy Efficiency, Ministry of Power, Government of India



Agenda





- Bureau of Energy Efficiency, India
- National Mission for Enhanced Energy Efficiency (NMEEE)
- Perform Achieve and Trade (PAT)
- Indian Carbon Market
- Inclusion of Sugar Sector under PAT Scheme
  - Why Sugar Industries?
  - Baseline Data Collection and Verification
  - Sectorial Technical Committee & Stakeholder Discussion
  - Specific Energy Consumption Reduction Target & Compliances

Energy Saving Certificate (ESCerts) Trading & Related Activities

- What is ESCerts?
- How to Trade ESCerts?
- PATNet Portal
- Grid India, Exchanges, Automated Payment Gateway & Helpdesk
- PAT Rule, Obligations & Enforcement
  - PAT Rule
  - It's Obligations
  - Enforcement of PAT Scheme
  - Penalties





# **Overview of PAT Scheme**

Bureau of Energy Efficiency, Ministry of Power, Government of India



# **Bureau of Energy Efficiency, India**



The Government of India set up Bureau of Energy Efficiency (BEE) on <u>1st March 2002</u> under the provisions of the Energy Conservation Act, 2001

#### <u>Vision</u>

To improve Energy Intensity of Indian Economy thereby contributing towards sustainable development of country.

#### **Mission**

To develop policy and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act (EC Act), 2001.

#### **Objective**

To reduce energy intensity in the Indian economy.



### Function of Bureau of Energy Efficiency, India





# Regulatory Functions

- Develop minimum energy performance standards for equipment and appliances under Standards and Labelling
- Develop minimum energy performance standards for Commercial Buildings
- Develop Energy Consumption Norms for Designated Consumers
- Certify energy managers and energy auditors (EM,EA, AEA)



Promotiona

Functions

- Create awareness and disseminate information on energy efficiency and conservation.
- Arrange and organize training of personnel and specialists in the techniques for efficient use of energy and its conservation.
- Strengthen consultancy services in the field of Energy Efficiency.
- Promote research and development.



# Activities of Bureau of Energy Efficiency



#### Awareness Programs

- General Awareness
- Energy Conservation Awards
- Painting Competition

#### National Mission for Enhanced Energy Efficiency (NMEEE)

- Perform, Achieve and Trade (PAT)
- Financing Energy Efficiency Programme (FEEP)

#### **Buildings EE**

- ECBC Commercial
- ECBC Residential
- Star Labelling of Buildings

#### Strengthening Institutional Capacity of Partners

- Strengthening of State Designated Agencies (SDAs)
- International Cooperation

#### **Demand Side Management**

- Agriculture DSM (including Cold Chain)
- Municipal DSM
- Energy Efficiency in SMEs
- Capacity Building of DISCOMs

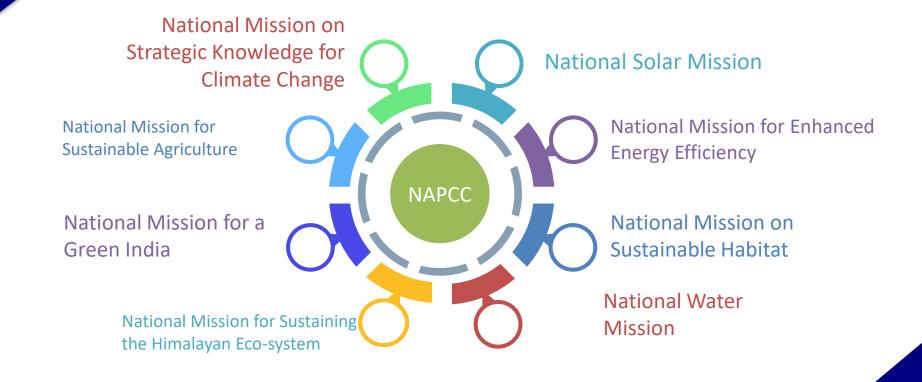
#### **Transport Sector**

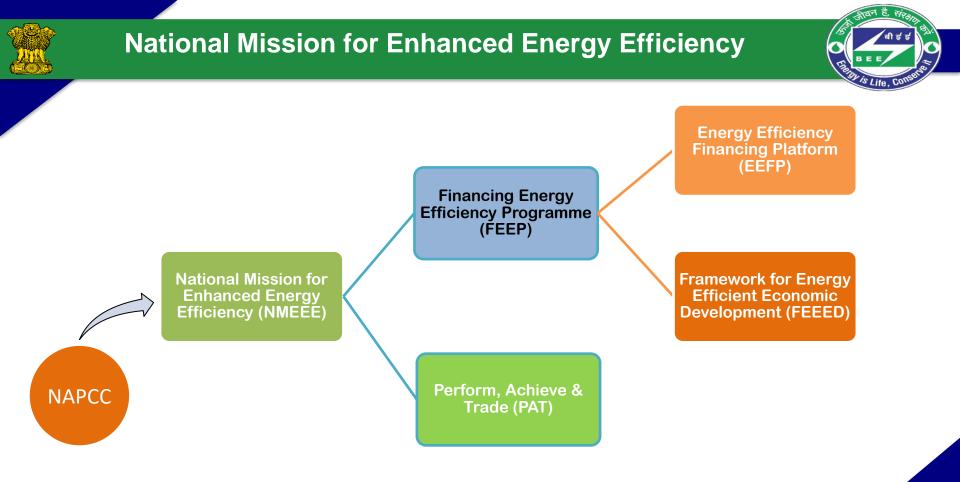
- Fuel Efficiency Norms
- Electric Vehicle (EV)
- EV infrastructure
- Railways

#### Equipment & Appliances

- Standards & Labelling
- Large scale deployment of LED bulb (UJALA)









# **Regulatory Framework**



### • Energy Conservation (EC) Act 2001

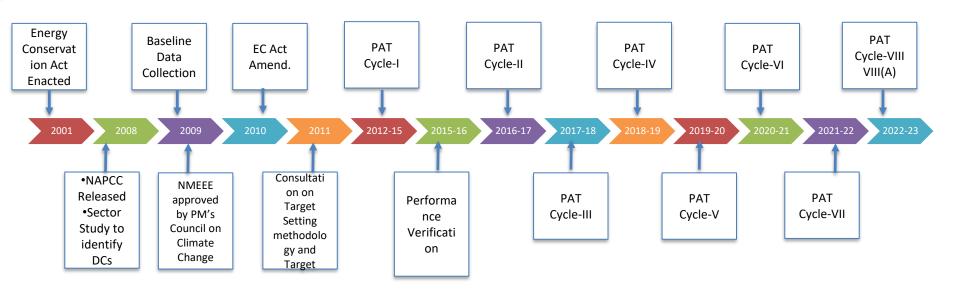
- Norms for Energy Intensive Industries
- Standard & Labeling
- Energy Conservation Building Code
- Demand Side Management
- Certification of Energy Professionals
- Carbon Market

#### Perform, Achieve & Trade

- A market based regulatory instrument to reduce specific energy consumption in industries, to enhance the cost effectiveness through tradable energy saving certificates.
- Section 14 (g): Establish norms
- Section 14 (n): Direction to Industries
- Section 14 (x): Non-Fossil Fuel
- Section 14A: Energy Saving Certificates
- Section 26: Penalty & Enforcement
- Section 27: Adjudication



## Perform Achieve and Trade (PAT)





# **Sectoral Coverage**



#### **Criteria for Identification of Sectors**

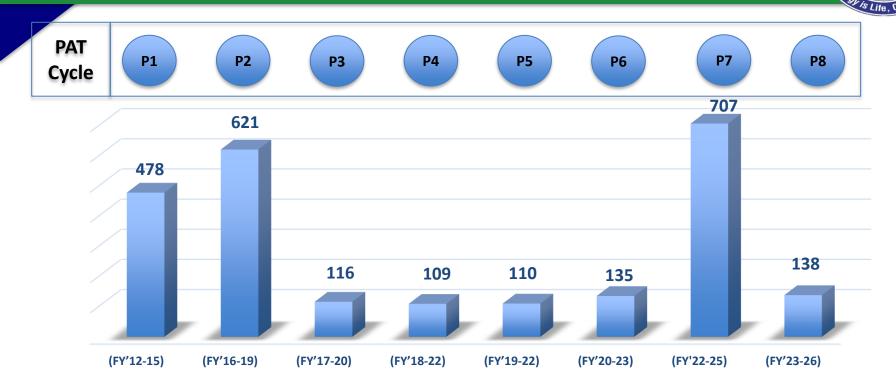
- Listed in Schedule of EC Act
- Intensity or quantity of energy consumed
- Amount of investment needed
- Capacity to invest
- Availability of energy efficient technology

PAT 1 Sectors PAT 2 Sectors PAT 4 Sectors

### Sectors in PAT Scheme

- 1. Aluminum;
- 2. Fertilizers;
- 3. Iron and Steels;
- 4. Cement;
- 5. Pulp and Paper;
- 6. Chlor Alkali;
- 7. Sugar;
- 8. Textile;
- 9. Chemicals;
- 10. Railways;
- 11. Port Trust
- 12. Transport Sector (Industries and Services)
- 13. Petrochemical, Gas Crackers, Naphtha Crackers and Petroleum Refinery
- 14. Thermal Power Stations, Hydel Power Stations, Electricity transmission companies and distribution companies;
- 15. Commercial Buildings or Establishment

# Industries Covered under PAT Scheme

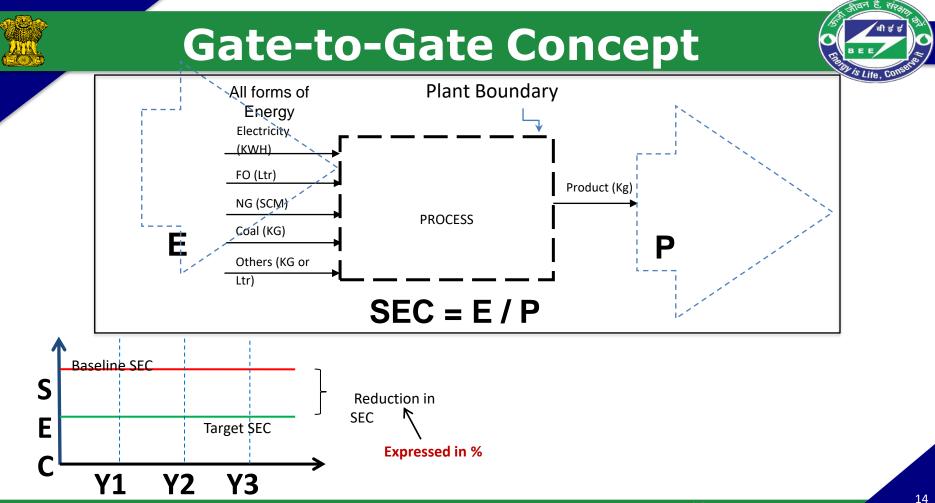




### **Process Flow in PAT Scheme**



- Step 1: Identification of Sectoral Threshold Level and Potential of Energy Saving for given Sector in EC Act.
- Step 2: Identification of Prospective DCs in given sector and Conduct Baseline Audit.
- **Step 3**: Fixation of Baseline Production, Baseline SEC and Target SEC for DCs whoever above sectoral Threshold.
- Step 4: PAT Cycle of 3 years initiated for DC to achieve the Target SEC
- Step 5: Conducting M&V Audit (to be carried out by DCs)
- Step 6: Evaluation of M&V Audit Reports and all Forms.
- Step 7: Finalize the DC Achieved SEC and accordingly finalize the Final No. of ESCerts for DC.
- **Step 8:** Recommendation of ESCerts to MoP for issuance.
- Step 9: ESCerts issuance on PATNET.
- Step 10: Trading of ESCerts.
- Step 11: New PAT Cycle.



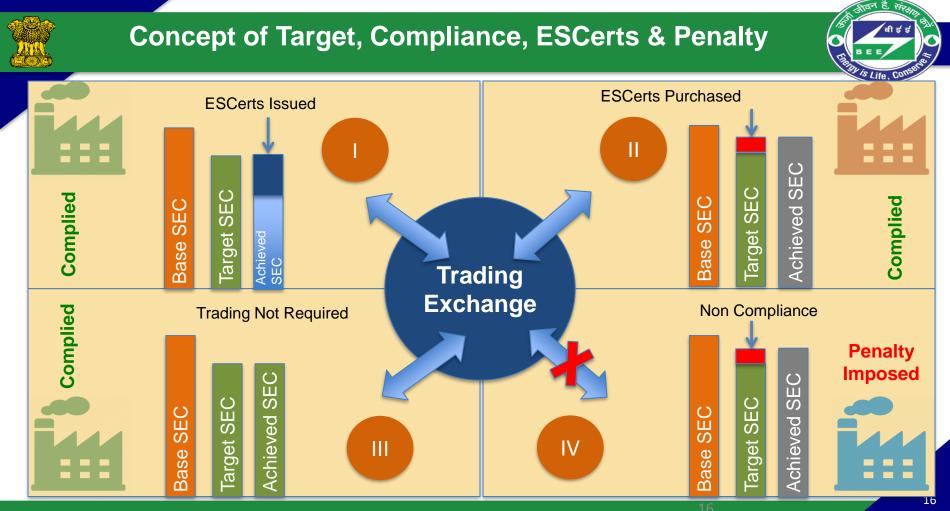


## **Key-Timelines**



Activity	Time Line	Description	Tentative Dates for PAT Cycle II (Duration 2016-19)	Activity by	Where
Action plan submission	3 Months	Within 3 month from Notification	30 June	DC	SDA/BEE
Form 1, Form 3 and Pro-forma submission	3 Months	Yearly submission of Form 1 within 3 months from last financial year	30 June (Every Year)	DC	SDA/BEE
Form 2 & Mandatory Energy Audit	3 Months	Within 18 month from notification and 36 month from 1 <sup>st</sup> MEA report	31 <sup>st</sup> December	DC	SDA/BEE
Form A, Form B along with other documents	5/6 Months	Within 5 month from conclusion of target year for all sectors except Railways and DISCOMs. 6 months for Railways & DISCOMs	31 <sup>st</sup> Aug / 30 <sup>th</sup> Sep	DC	SDA/BEE
Submission of comments on Form A, Form B from SDA	45 Days	Within 45 days of the last date of submission of Form A	15 <sup>th</sup> Oct / 15 <sup>th</sup> Nov	SDA	BEE
Recommendation of ESCerts to MoP, GOI	Two Months	Within two months from the date of the receipt of the comments from SDA		BEE	МоР
Issuance of ESCerts by MoP	45 Days	Within 45 days from the date of receipt of recommendation of Escerts from BEE		МоР	
Form D Submission	24 Months	Within 24 months from the last date of submission of form A	15	DC	SDA/BEE

Bureau of Energy Efficiency, Ministry of Power, Government of India



Bureau of Energy Efficiency, Ministry of Power, Government of India



## **Realized Impacts – PAT Scheme**





Energy Saving

25.77 mtoe

3.5 % of India's

Total primary energy supply



Emission Reduction

110.66 million tonnes of CO2

> 3.49% of India's

emissions



Skill Development Capacity building: 12000+ Engineers and operators

17975 Energy Auditors & Managers 285 Accreditation



**ESCerts** 

Trading

95.63 lakhs

**ESCerts** were

awarded.

51.09 lakhs

**ESCerts** 

entitled to

Purchase.

36.28 lakhs

**ESCerts** 

traded in PAT-I

& II worth Rs.

400 Crores

Investment

MAKE IN INDIA

Encouraged investments for energy efficient technologies for domestic manufacturing

> Rs 56,100 Crore invested



Savings

Rs 58443 Crores

from saved energy consumption



## **Additional PAT Sectors**



#### Energy Intensive Sectors will be covered under PAT Scheme in subsequent cycles

Sr. No.	Sectors	Threshold Level of Annual Energy Consumption (toe)	Sr. No.	Sectors	Threshold Level of Annual Energy Consumption (toe)
1.	Sugar	10,000	8.	Dairy	2,500
2.	Chemical	3,000	9.	Automobile Assembly Unit	3,000
3.	Ceramic	5,000	10.	Tyre Manufacturer	7,000
4.	Glass	10,000	11.	Forging	1,500
5.	Zinc	20,000	12.	Foundry	5,000
6.	Copper	10,000	13.	Refractories	3,000
7.	Port Trust	500	14.	Airports	500





# **Indian Carbon Market**

Bureau of Energy Efficiency, Ministry of Power, Government of India



## **Indian Carbon Market**



The Indian Carbon Market is designed to drive emission reductions in the energy and GHG intensive sectors. By setting emission targets and establishing a market for Carbon Credit Certificates, the system encourages the adoption of cleaner technologies, energy efficiency measures, and investments in low-carbon projects, thus contributing to India's overall climate goals.

The Indian Carbon Market refers to the scheme/system established in India to regulate and incentivize the reduction of greenhouse gas (GHG) emissions.

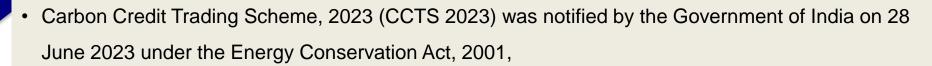
Under this, certain industries or manufacturing facilities, known as obligated entities, are assigned GHG reduction targets by the Central Government and the facilities have to comply with the emission targets.

It aims to create a market-based approach to achieve cost effective GHG emission reductions by facilitating trade of Carbon Credit Certificates (1 CCC = 1 T CO2e reduction).

These obligated entities are Designated Consumers (notified under the Energy Conservation Act) that are considered significant contributors to GHG emissions and are large-scale industrial facilities.

Type of Targets : Based on GHG Emission Intensity (t CO<sub>2</sub>e/t product)





• The notification underlines the required framework and the roles of diverse stakeholders for the development and functioning of the Indian Carbon Market (ICM).

Definitions	National Steering Committee	Administrator (BEE)	Registry (GCI)	Trading Regulator (CERC)
Technical Committee	Accredited Carbon Verifiers	Trading of Certificates	Compliance Mechanism	Detailed Procedures



# **Institutional Framework**



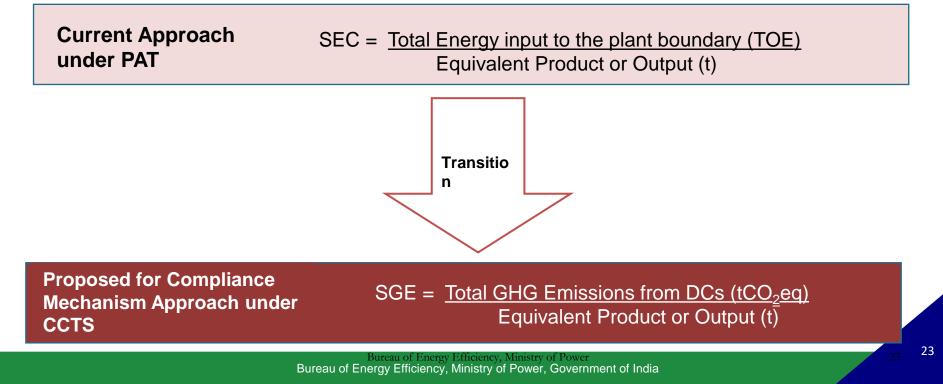
National Steering Committee for Indian Carbon Market (NSCICM)					
Chairperson			Co-Chairperson		
Secretary, Ministry of Power		Secretary, Ministry of Environment, Forest and Climate Change			
	Mer	nbers			
Ministry of Finance	NITI Aayog		Ministry of Power	Ministry of Environment, Forest and Climate Change	
Ministry of New and Renewable Energy	Ministry of Steel		Ministry of Coal	Ministry of Petroleum and Natural Gas	
Ministry of Agriculture and Farmers Welfare	Ministry of Chemical and Fertilizers		Central Electricity Authority	Grid Controller of India Limited	
DepartmentofEnvironmentofExpert Members - (2)*StateGovernmentrepresentingOther Members - (3)*State - (2)		` '	Member Secretary: Energy Efficiency	Director General, Bureau of	

\*CII & FICCI – also has been included as coo-opted members





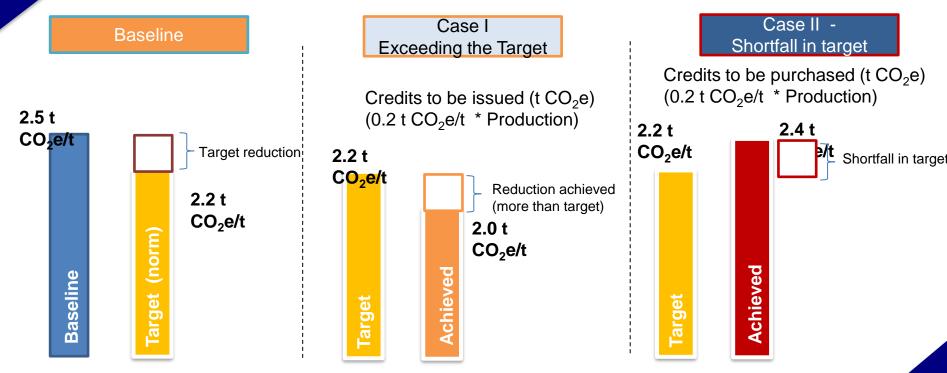
SEC ~toe/t to SGE ~ 
$$tCO_2e/t$$





## **Compliance Mechanism**





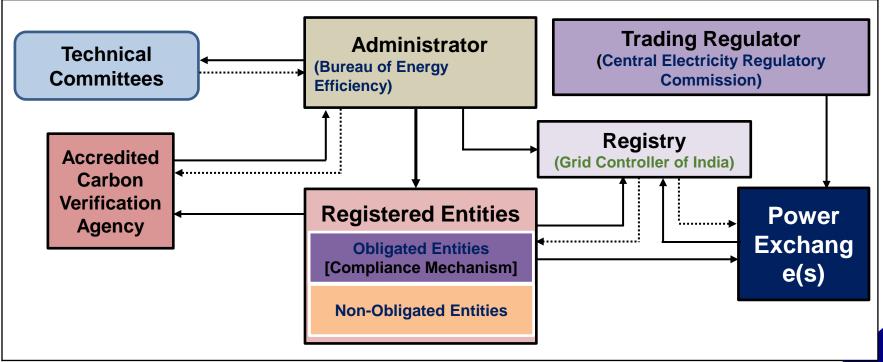
Issuance/purchase of CCCs will be post verification



## **Institutional Framework**



#### National Steering Committee for Indian Carbon Market (NSCICM)







# Inclusion of Sugar Sector under PAT Scheme

Bureau of Energy Efficiency, Ministry of Power, Government of India



## **Inclusion of Sugar Industries under PAT Scheme**

### Sugar: Transition from agricultural crops Essential Commodity, Installed Capacity & Production and Policies



### Sugar: Transition from agricultural crops Essential Commodity



#### Sugar : Introduction

- "SARKARA" : 5000 Years Old crop of India, Citation of Sugarcane during 800 BC in "ATHARVA" Veda.
- In India, sugarcane juice was originally consumed as a sweet beverage and for medicinal purposes.
- The 18th and 19th centuries saw significant advancements in sugar production technology.
- Steam engines and machinery were introduced to process sugarcane, making sugar production more efficient.
- 1<sup>st</sup> Sugar Mill setup in 1903 in State of United Provinces

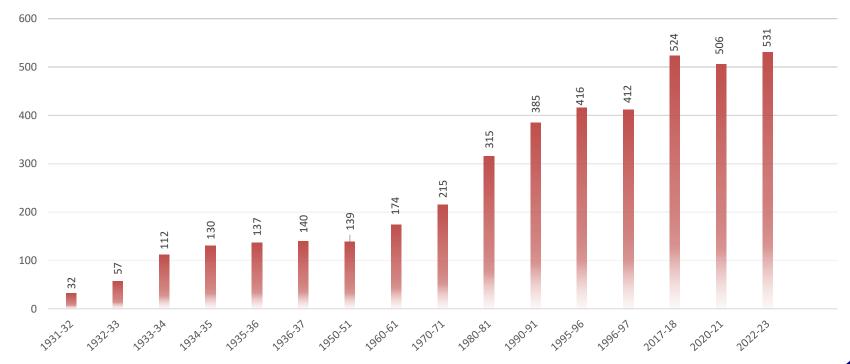
#### **Factors: For Essential Commodities**

- Identification of Essential Crops
- Importance for Food Security
- Regulation and Price Control
- Buffer Stock Management
- Investment in Agriculture
- Agricultural Policies
- Distribution and Retail
- Trade Policy
- Monitoring and Enforcement
- Crisis Management
- In order to cushion the industry from imports, tariff protection, referred to Tariff Board in 1930-31. After that, Sugar Industry (Protection) Act, 1932 was passed and granted protection for next 14 years up to 1st March 1946.
- At that time of frame, 29 Vacuum Pan Sugar Factories and 10 refineries in the state of UP, Bihar and Orissa.



## **Sugar Industry: Transitions from FY 1931-32 to FY 2022-23**

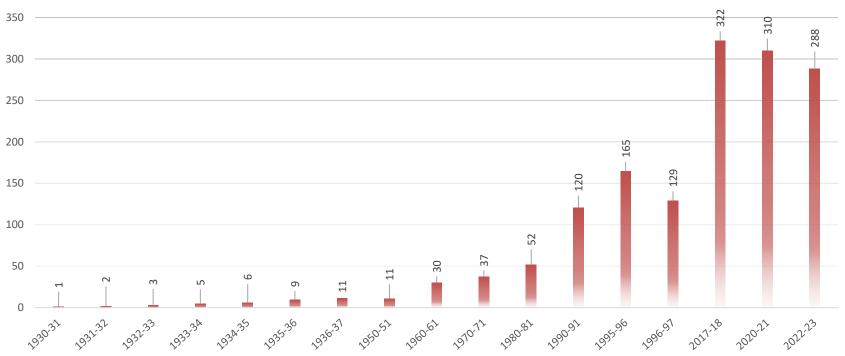
#### **SUGAR INDUSTRY**





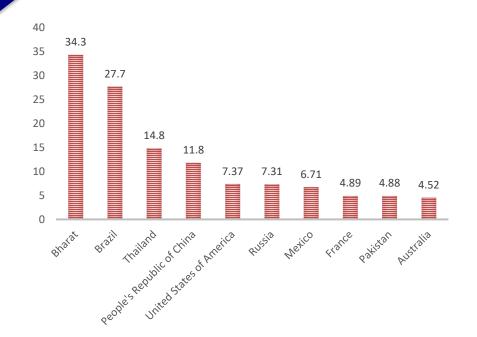
### **Sugar Industry: Transitions from FY 1930-31 to FY 2022-23**

#### SUGAR PRODUCTION (IN LAKH TONNES)





### World Scenario: Raw Sugar Production (In Million Tonne)





World India





# Why Sugar Industries?







BEE conducted sugar sectoral feasibility study, the outcome of the study as follows:-

India is having about 642 no. of Sugar factories of different capacity ranging from 600 TCD to 20000 TCD.

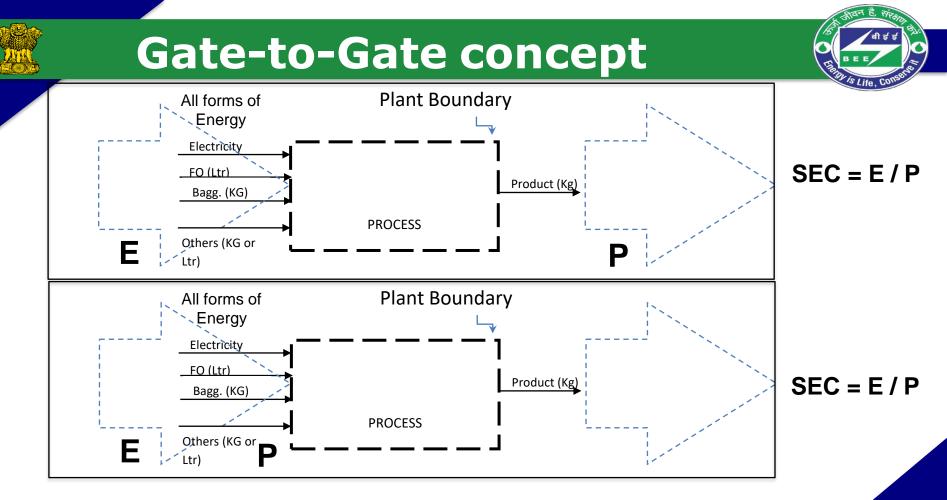
- The operational day is 65 Days per annum to 255 days per annum with an annual average working day is about 150 days.
- Annual energy consumption of sugar industry is about 20.28 Million MTOE.



# **Baseline Study: Sugar Industries**

#### Baseline of Sugar Industries conducted :

Sr. No	State	No of Plants Covered
1	Uttar Pradesh	56
2	Maharashtra	50
3	Tamil Nadu	25
4	Karnataka	52





## Compliances for PAT Scheme



Sr. No	Compliances	For Existing Sector
1	Action Plan Submission	Within 03 Months after notification
2	Energy Manager/ Energy Auditor Details Submission	Within 03 Months after notification
3	Form-I Submission	Within 03 Months after Financial year
4	Form-2 Submission	Within 18 Months after notification for 1 <sup>st</sup> target assign after that every 36 months
5	Mandatory Energy Audit Report Submission	Within 18 Months after notification for 1 <sup>st</sup> target assign after that every 36 months
6	Form-3	Within 03 Months after Financial year
7	Monitoring & Verification Audit report Submission	Within 04 Months after completion of Target year
8	Form-A Submission	Within 04 Months after completion of Target year
9	Form-B Submission	Within 04 Months after completion of Target year
10	Form-C Submission	Check Verification
11	Form-D Submission	Within 24 Months after submission of Form-A (as described above)

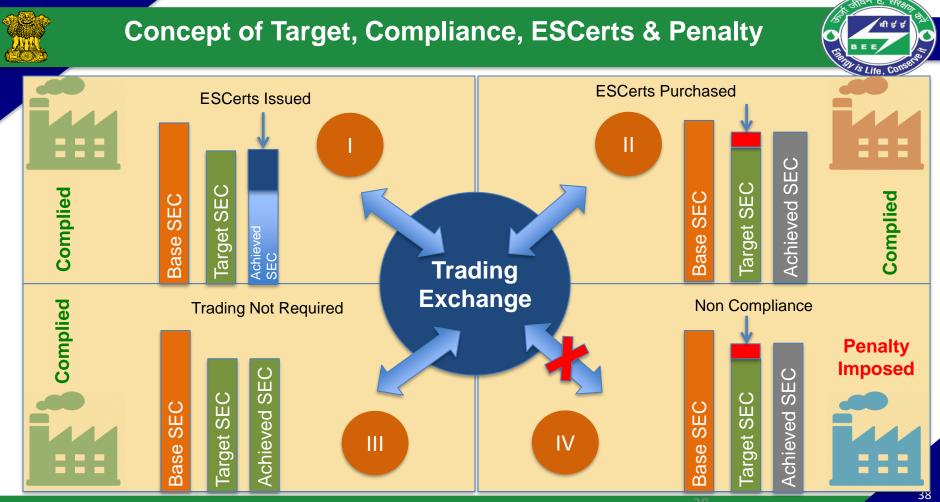


### ESCerts calculation methodology



- ESCerts can be calculate as below:
- No of ESCerts= (Specific Energy Consumption notified for the Target Year- Specific Energy Consumption as Achieved in the target year) X Cane Crushed in Baseline Year
- Example:
  - Specific Energy Consumption notified for the Target Year= 0.5687 ToE/ Tonne of Cane Crushed
  - Cane Crushed in Baseline Year= 10000 Tonne
  - Specific Energy Consumption as Achieved in the target year= 0.5680ToE/ Tonne of Cane Crushed

Then, No of ESCerts= (0.5687-0.5680) X 10000 = 70

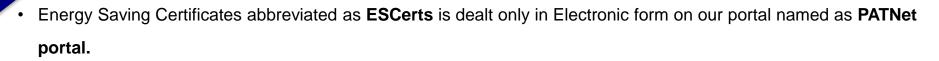






### Energy Saving Certificate (ESCerts) Trading & Related Activities





- ESCerts once issued is valid till the time it is not sold. It means the life of ESCerts is now "perpetual".
- ESCerts **once sold cannot be resold**. Buyers buying excess ESCerts i.e. more than their compliance can only use those ESCerts for their self-compliance in his next PAT Cycle.
- DCs can introduce their ESCerts in slots. For example if any DC is having 100 +ve ESCerts, they can introduce their ESCerts like 50 + 50 or 25+25+25+25. This is totally upto the DCs.
- The value of one energy savings certificate shall be equal to one metric ton of oil equivalent of energy consumed.
- Trading for PAT Cycle III is scheduled from 9<sup>th</sup> April 2024 & Registration on Registry is open.





- For PAT Cycle III, ESCerts will be traded at a floor price of **Rs 2165/-.** For every PAT Cycle Trading will be having a dedicated floor price.
- The price of one metric tonne of oil equivalent is discovered for every PAT Cycle. This will be a penalty price.
- For PAT Cycle III, price is Rupees **21,650/-** which will be the penalty price not the price of ESCerts.
- DCs who have not registered with Registry( GRID Controller of India) shall be liable for penalty.
- Extinguishment of ESCerts will be done by the Registry after submission of Form D.
- If the DC as seller has placed the bid more than their available ESCerts for trading, DC will be declared as a defaulter, and DC can't participate in that trading session.
- If the DC is declared defaulter 3 times, then he shall be barred to trade for next 6 months.



### **Important Points: ESCerts & its Trading**



### MINISTRY OF POWER

### NOTIFICATION

New Delhi, the 26th December, 2023

G.S.R. 916(E).—In exercise of the powers conferred by clauses (laa) of sub-section (2) of section 56, read with clauses (g) and (o) of section 14, sub-section (1) of section 14A and section 14B of the Energy Conservation Act, 2001 (52 of 2001), the Central Government, in consultation with Bureau, hereby makes the following rules further to amend the Energy Conservation (Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Ton of Oil Equivalent of Energy Consumed) Rules 2012, namely:-

1. (1) These rules may be called the Energy Conservation (Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Ton of Oil Equivalent of Energy Consumed) Amendment Rules, 2023.

(2) They shall come into force on the date of their publication in the Official Gazette.

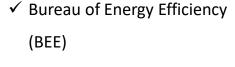
2. In the Energy conservation ((Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Ton of Oil Equivalent of Energy Consumed), Rule, 2012, the sub-rule (2A), inserted vide G.S.R. 779(E), dated the 14<sup>th</sup> December, 2020 shall be renumbered as (2B) thereof, and after sub-rule (2B) also renumbered, the following sub-rule shall be inserted, namely :-

"(2C) The value of per metric tonne of oil equivalent of energy consumed for the purpose of these rules shall be twenty one thousand six hundred and fifty rupees (Rs. 21,650) for the year 2019-20 and for the succeeding targeted years shall be such amount as may be specified by the Central Government, by notification in the Official Gazette".

[F. No. 11-10/3/2020-EC]

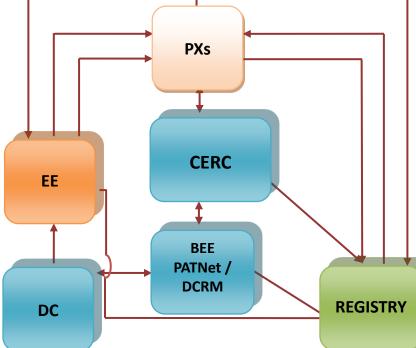
AJAY TEWARI, Addl. Secy.

# EE BEE PATNet / DCRM DC



- ✓ Central Electricity Regulatory Commission (CERC)
- ✓ Registry (Grid Controller of India)
- ✓ Power Exchanges (PXs)
- $\checkmark$  Eligible Entity (EE) [Designated Consumers (DC)]

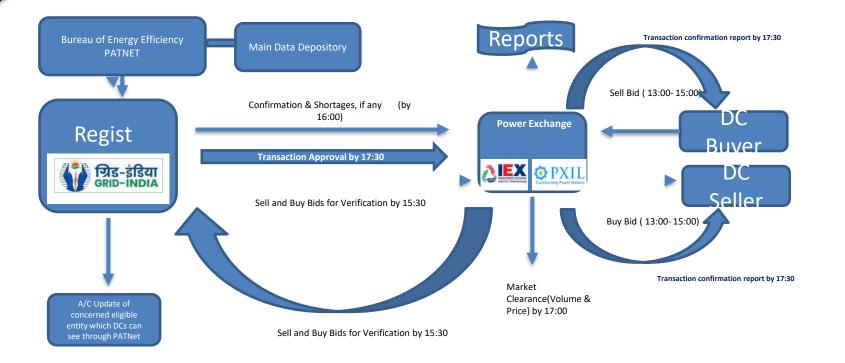








### **ESCerts trading process flow**



## **Overview on PATNet and DCRM Portal**

**PATNet** is the portal developed for Designated Consumers (DCs), Empaneled Accredited Energy Auditor (EmAEA) and State Designated Agency (SDA) – Technical Officer(TO) and Nodal Officer (NO). This portal is used essentially by the all to file, verify and commenting on the forms as part of PAT.

- DC Registration
- EmAEA Registration
- SDA Registration

- Form- I Filing
- Form- A Filing
- Form- B Generation by EmAEA
- Forms verification by SDAs

### DCRM365 is developed and will be used by below stakeholders:

- Sector Project Engineer (SPE)
- Sector Expert (SE)
- Sector In-Charge (SI)
- ESCerts In-Charger (EI)
- Director General (DG)
- Ministry of Power (MoP)
- Registry (Grid Controller of India)
- Power Exchanges (HPX,IEX and PXIL)
- Central Electricity Regulatory Commission (CERC)
- Helpdesk User

Both PATNet portal and DCRM365 are hosted from NIC Cloud

### • Form- 2

- Form- 3
- Form- C
- Form- D







### **New DC Registration Process – PAT Net Portal**



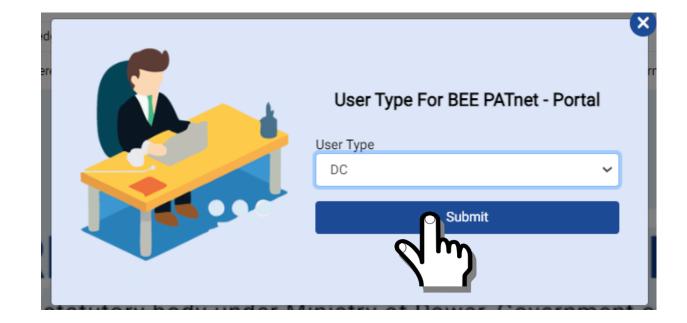


# **BUREAU OF ENERGY EFFICIENCY**

A statutory body under Ministry of Power, Government of India







### **Organization Details**



#### DESIGNATED CONSUMER (DC) REGISTRATION FORM

Note : All fields marked with \* are mandatory



1.1	TTO A	
- 0	<b>1</b>	
	-	
PTON	Manage	

Chhattisgarh

GH65445THJK





Sector Organisation

Year of Establishment

Organisation

Unit Address

Address Line1

City/Town/Village

State '

Telephone No. with STD Code

PAN NO.

GSTIN

State of GST Registration Registration No. under Shops and EStablishment Act

Thermal Power Plant	٠
Kozhikode Diesel Power Project KSEB, Nailalam, F	٠
2010	

PH-LI		Address Lin
Ralpur		District
Chhat	tisgarh	▼ Pin code*
771	857678909	Fax No. with
ALTIKUS	9315T	TAN
JGHTY	UI8675HHG9	CIN

Sub Sector **DC Registration No** Recovery Email Id

ne2

EPFO No.

h STD Code

AHGJYU78IK DHJUY76895UJKLOIUJHGG

GHJU768595YHJKIUYTRF55555

Cancel

Next

Thermal Power Plant

TPP0065KL

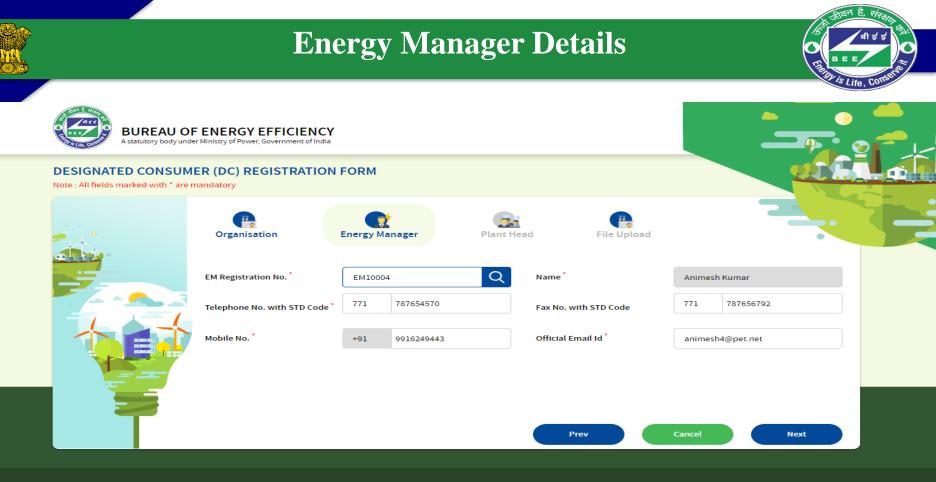
testing.vishai2706@gmail.com

Nr. Indust Growth Centre, Siltara Ralpur

493111

771 567889098

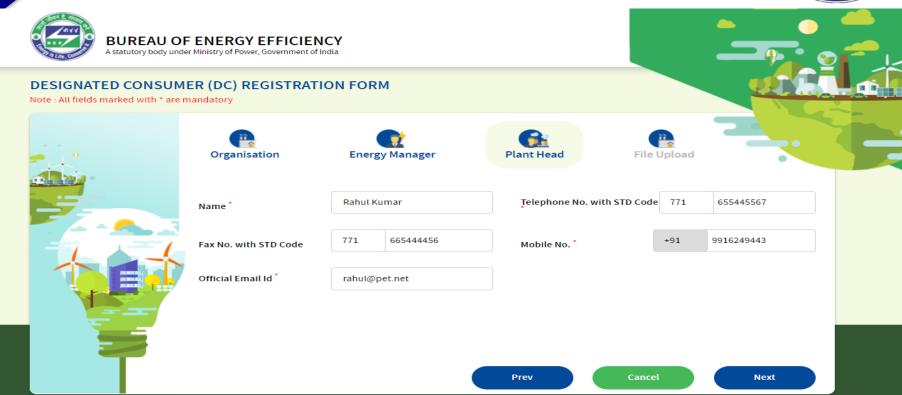


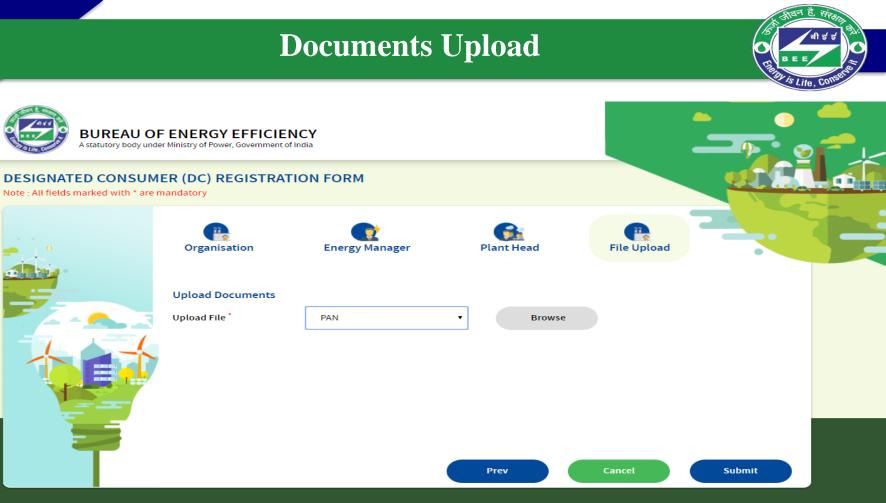


Copyright © BEE 2018 - 2019. All rights reserved









### **Documents Required**



#### DESIGNATED CONSUMER (DC) REGISTRATION FORM

Note : All fields marked with \* are mandatory



Organisation	Energy Manager	Plant Head	File Upload

Select Document Type



.

#### Upload Documents

Upload File

Document Name	Document For	Format	Size	Action
PAN.pdf	PAN	PDF	156.83 KB	<b></b>
TAN.pdf	TAN	PDF	156.83 KB	Ē
GSTIN.pdf	GSTIN	PDF	156.83 KB	Ê
CIN.pdf	CIN	PDF	156.83 KB	<b></b>
EPFO No.pdf	EPFO No	PDF	156.83 KB	Ē
Reg No.pdf	Reg. No. Under Shops and Establishment Act	PDF	156.83 KB	Ê
EM.jpg	EM Image	JPG	16.22 KB	<b>a</b>
PH.Jpg	PH Image	JPG	52.39 KB	â

Copyright © BEE 2018 - 2019. All rights reserved



### **Successful Registration**



### BUREAU OF ENERGY EFFICIENCY A statutory body under Ministry of Power, Government of India

### **REGISTRATION STATUS**



### SUCCESSFULLY REGISTERED

Thank you for registration. Please check your email for more details. Your request has been assigned to Mr/Ms. Khusaboo D (Mobile: 7411876558) For any query please contact Bureau of Energy Efficiency (BEE)









### Dear Animesh

Kumar,

You have successfully registered on BEE PATNet.

In order to make any changes to your current registration information. You will require your User name and the security password displayed below to access the management interface.

User Name: vishaXt3jxC

Password : 5wdBm2njDx4YFm4Bj0t1

#### Click Here to Login

Regards, Helpdesk-PATNet Bureau of Energy Efficiency Ministry of Power, GOI 4th Floor, Sewa Bhawan, R.K.Puram New Delhi - 110066





# **Initial Login**

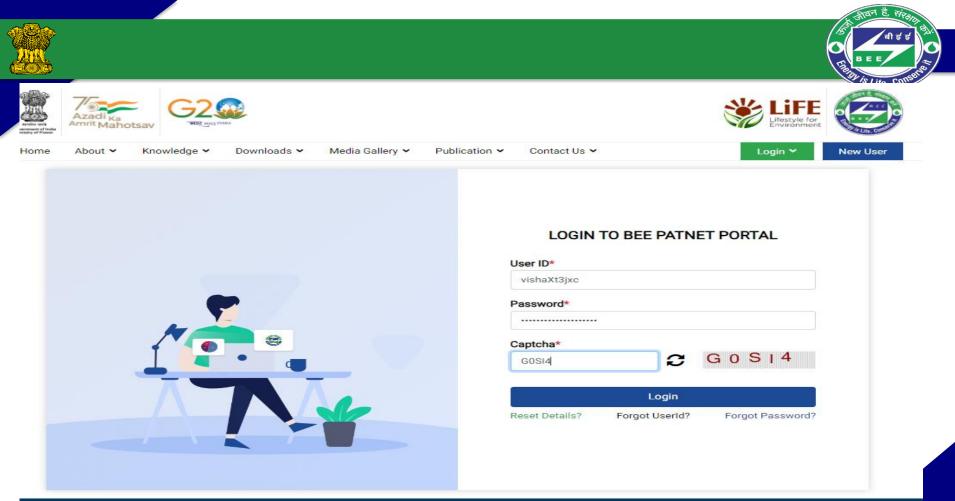






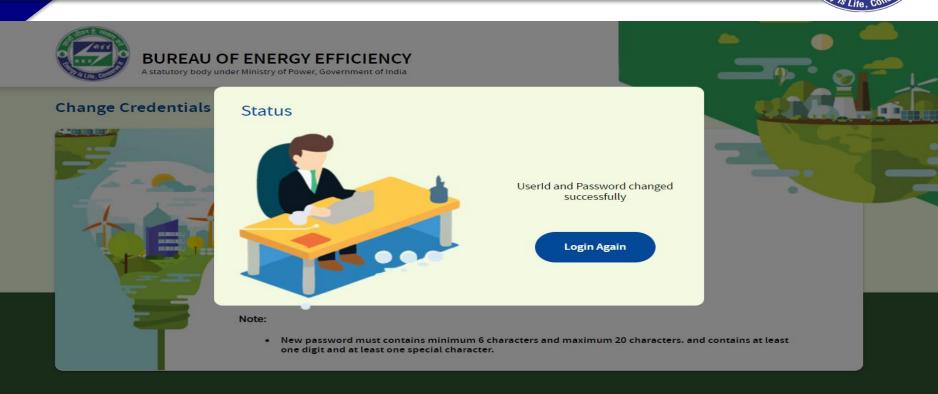
# **BUREAU OF ENERGY EFFICIENCY**

A statutory body under Ministry of Power, Government of India



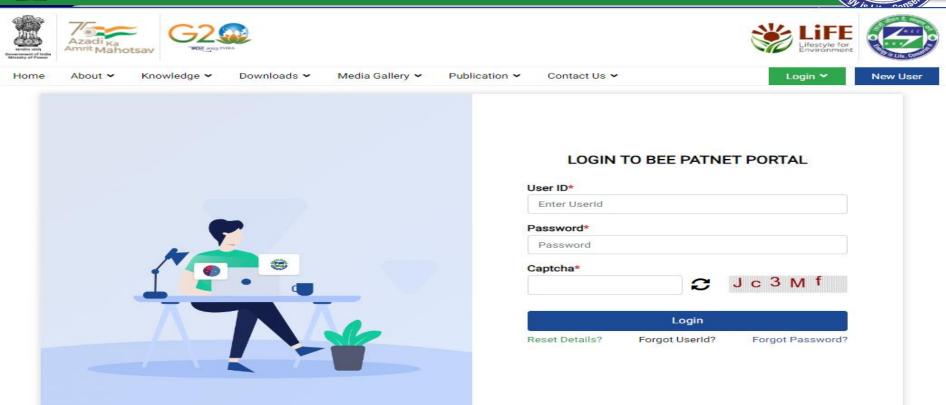


### **Credentials Changed**



Copyright © BEE 2017-2018. All rights reserved

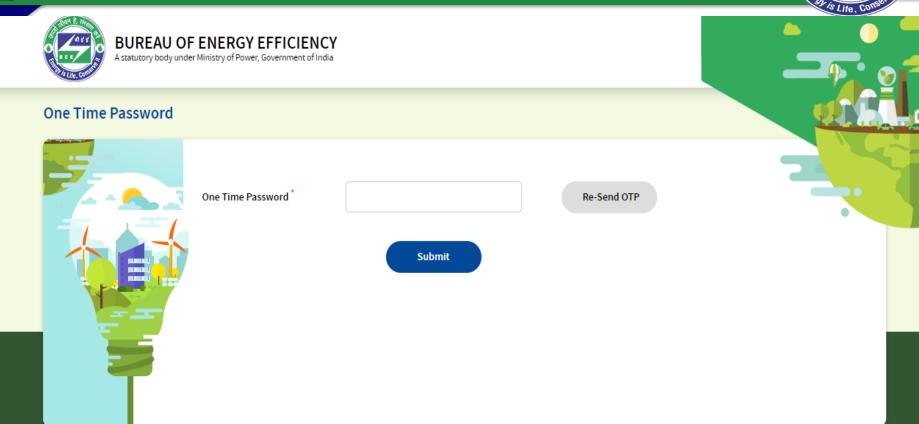


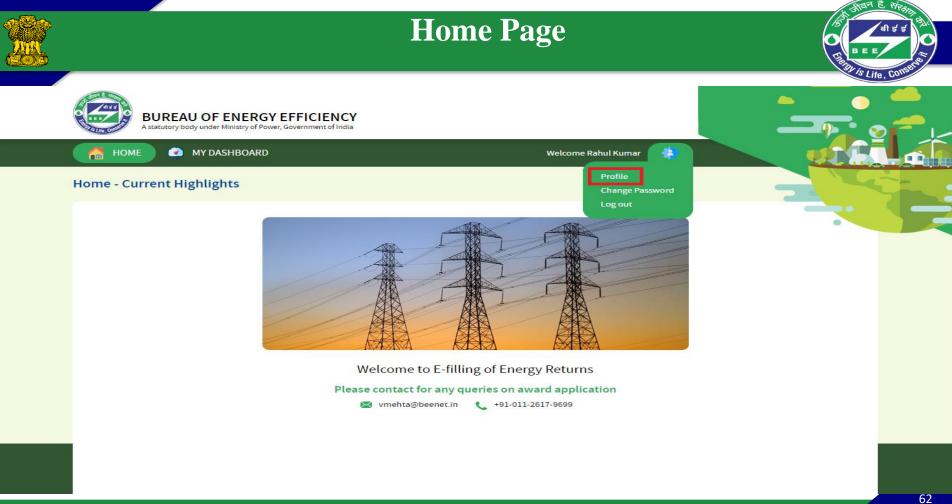




### **One Time Password**









## **Use of PATNet portal for Industries (DC)**



- Industries(DCs) can submit their Energy Return Forms online at PATNet Portal
- Online forms filled in by the DCs are automatically shared with the SDA with a copy to BEE.
- BEE is working to build in the proforma on PATNet, apart from proforma all other forms can be filled in PATNet portal.
- All the forms will be filled in sequential order.
- Now 1333 DCs have successfully registered on PATNet from PAT Cycle I to PAT Cycle VIII covering 13 energy intensive sectors across PAN India.
- SDAs and EmAEA firms have also given login on the PATNet portal.
- BEE helpdesk is made to cater the queries and necessary support to the DCs.
- Before and after trading of Energy Saving Certificates (ESCerts) are automatically updated on the dashboard of every DC.





- For any complaint related to the PATNet portal email to BEE on <u>helpdesk-patnet@beeindia.gov.in</u>.
- After the complaint being made, one complaint number will be generated for your reference.
- As per standard protocol, complaint will be addressed within 3 working days.
- In case the complaint is not resolved in 3 working days, you can contact on helpdesk number 011-20867405 on working days between 9:30 to 6:00 pm.
- Till date we have resolved more than 4000 queries.
- For the change in credentials of EM or PH, it is requested to send the request on helpdesk from plant head email or recovery email id.
- Request send from gmail, yahoo, rediff etc email ids will not be considered.
- New helpdesk with automatic facility is ready to GO live.



## **Fee order for Transaction of ESCerts**



- On 24th March 2017, CERC approved the Fee order for transaction of ESCerts, with following details:
  - i. One time Registration Fee of Rs. 15000/- per eligible entity.

ii. The Eligible Entities who have been issued ESCerts, shall pay ESCerts Fee at the rate of Rs. 5/- per ESCert.

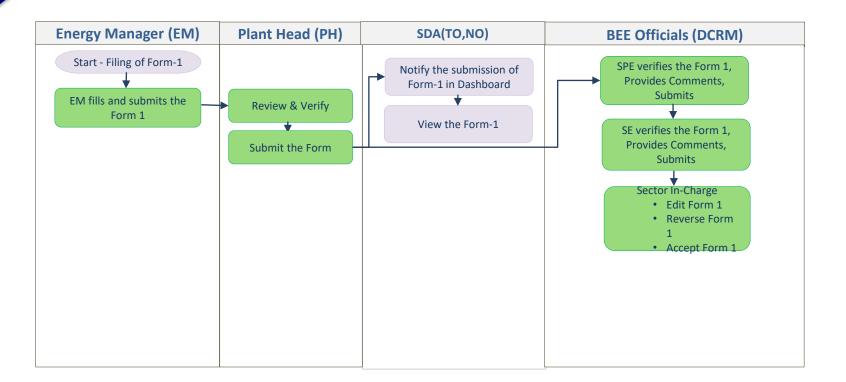
iii. The taxes and duties on fees & charges shall be applicable as per the prevailing norms.

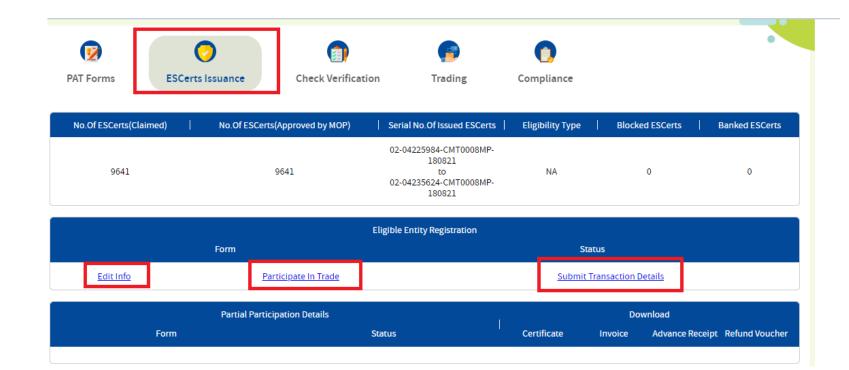
Now, BEE has developed automated payment gateway for all the transactions , which is live from PAT Cycle-III onwards.

65



### **Form filing Process**







'S Life

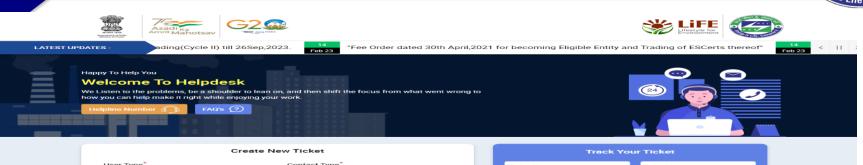




# Online Help Desk Mechanism New facility for the DCs/ SDAs/EmAEAs

2 April 2024





Contact Type User Type\* Ticket No Captcha Please select Contact Type Please select user type ~  $\sim$ GZZEDRN 2 Registered Contact Detail\* Please select ~ Verify Helpdesk Query Stats In Process 85.71% Resolved 4.76%

#### User Manuals



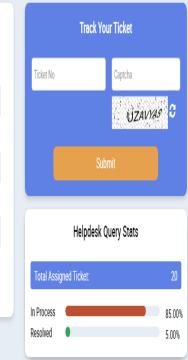


## **Step 1 - Authentication Process**

This section explains the Authentication process on the Helpdesk to raise a ticket. It includes the following key details,

- User & Contact Type:
  - DC
    - Plant Head
    - Energy Manager
  - SDA
    - Nodal Officer
    - Technical Officer
  - EmAEA
    - Energy Auditor
- Registration No.
- Pat Cycle
- Registered Contact Details:
  - Recovery Email
  - Contact
  - Email

Jser Type <sup>*</sup>		Contact Type <sup>*</sup>		Ţ
DC	۷	Please Select	۷	ľ
Please select user type DC		PAT Cycle <sup>*</sup>		
SDA EmAEA		PAT(2)2016-2019	v	
Registered Contact Detail <sup>*</sup>		Email*		
Recovery Email	۷	Email		
	V	erify		

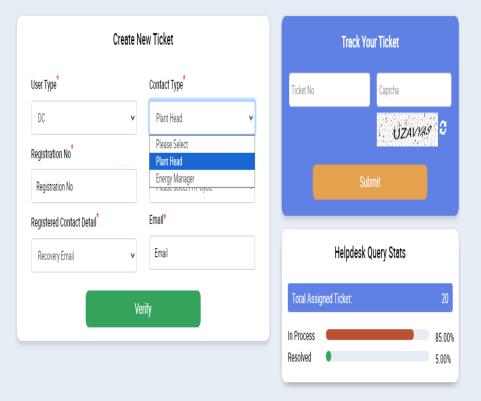






### **Step 2 - Authentication Process as DC**

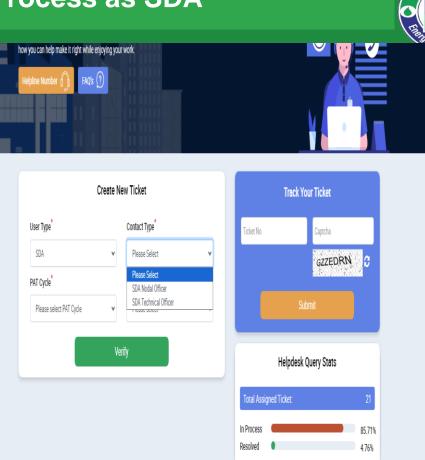
- **1. Select User Type**: Choose 'DC' from the User Type options.
- 2. Select Contact Type: Choose either 'Plant Head' or 'Energy Manager' from the Contact Type options.
- **3. Enter DC Registration No.**: Input the unique registration number associated with the DC.
- **4. Select PAT Cycle**: Choose the current PAT Cycle in which the DC is participating.



### Step 3 - Authentication Process as SDA

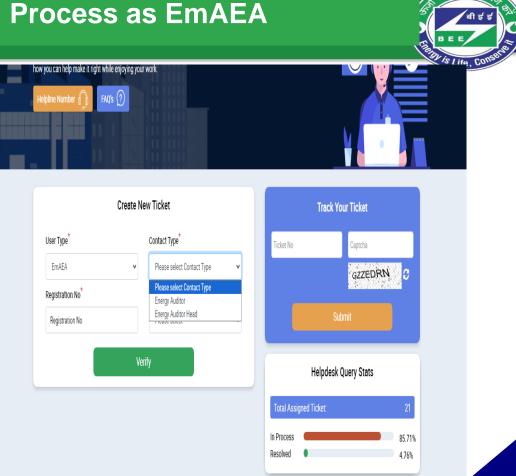
- **1. Select User Type**: Choose 'SDA' from the User Type options.
- 2. Select Contact Type: Choose either 'SDA Nodal Officer' or 'SDA Technical Officer' from the Contact Type options.
- **3. Select PAT Cycle**: Choose the current PAT Cycle in which the DC is participating.
- 4. Select Registered Contact Detail: Choose the preferred method for user authentication from the

available



## **Step 4 - Authentication Process as EmAEA**

- **1. Select**UserType:Choose'EmAEA'fromtheUserTypeoptions.
- 2. Select Contact Type: Choose either 'Energy Auditor' or 'Energy Auditor Head' from the Contact Type options.
- **3. Enter Registration No.**: Input the unique registration number associated with the EmAEA.
- **4. Select Registered Contact Detail**: Choose the preferred method for



user authentication from au ot Energy Efficiency, Ministry of Power, Government of India



## **Step 5 - Create Ticket**

After successful verification of the details, the system will enable the user to create a ticket and pre-populate the following fields:

- **DC Registration Number**: The system will automatically populate this field with the relevant details.
- **PAT Cycle**: The system will pre-fill this field based on the selected cycle during the verification process.
- **Category Name**: Users will be presented with options to select a category that best describes their issue, allowing for efficient issue classification and resolution.
- **Previous Ticket (if any):** Users can refer to any previous tickets they've raised for similar issues.
- Query: Users can provide a detailed description of the issue they are currently facing.
- Attachment: Users have the option to attach any relevant snapshots or documents related to the issue for better understanding and assistance.



## **Step 5.1 - Categorizations of Issues**

Generic	General Problem Related Issues like: website login
Reset of Credentials – PH	Reset the Credentials username / Password – PH
Creation of Credentials – PH	Generate the Credentials username / Password – PH
Reset of Credentials – EM	Reset the Credentials username / Password – EM
Creation of Credentials – EM	Generate the Credentials username / Password – EM
Data Submission	Wrong data displaying, Data not updated on dashboard
Form Submission	Form related issues like as button not enabled, form submission etc.
Payment Related	Payment Related Issue



## **Step 6 - Ticket Submission**

After clicking the **Submit** button, the system will conduct a series of validations. Upon successful validation, a unique Complaint Number will be assigned to the ticket, as illustrated below. The ticket will then be processed, and our aim is to resolve the matter within the next

Relie und Azadi Ka Amrit Mahotsav	E ANS INDIA		Lifestyle for Environment
DC Registration Number* Query *		Success!	Previous Ticket Reference (If Any)
Attachment No file chosen		or contacting BEE's PATNet Helpdesk.Your complaint number is 11092300. laint shall be resolved within 3 working days starting from today.	
IMPORTANT LINKS	Address	BEE Location	Instant Updates

Bureau of En.

e Of Arts

Waiting for syndication.twitter.com..

Bureau of Energy Efficiency 4th Floor,



B E E CONTRACT

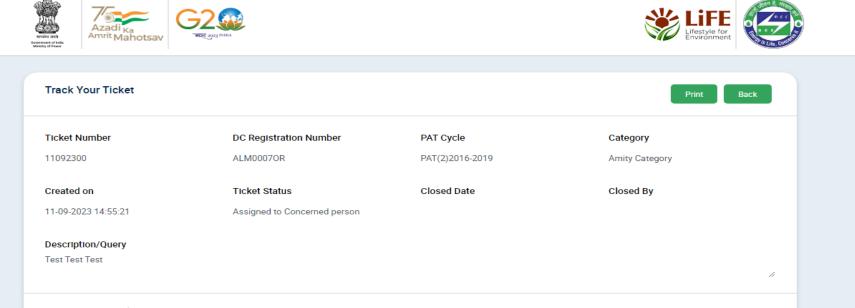
If a ticket has already been created by the same user for the same Category Name, and the status of that ticket is currently 'In progress' and not in the 'Completed' stage, the system will validate the request. In such cases, a message will be displayed: 'A ticket

with with Mahotsav	J NINA	KIFE Liestyle for Environment	ickets
DC Registration Number* ALM00070R Query *	i	Previous Ticket Reference (If Any)	
Attachment No file chosen	Info! Ticket already exist with the user in the given category Close		



## Step 7 - Track Ticket

Track your ticket by entering the Ticket No. and clicking on the 'Submit' button along with completing the Captcha verification. The system will then display the current status of the ticket. Once the ticket is closed, you can view the closed comment and closed date.





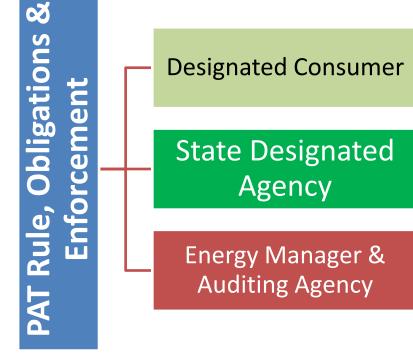


## PAT Rule, Obligations & Enforcement

Bureau of Energy Efficiency, Ministry of Power, Government of India









## Designated Consumer under the EC Act



- Identification of Designated Consumer
- Obligations of Designated Consumer
- Conditions for occurrence of non-compliance events
- Procedure for Enforcement



## Identification of Designated Consumer



- Any user or class of users of energy in the energy intensive industries and other establishments as specified in the Schedule is defined as a designated consumer.
- The Central Government, notifies industrial units as Designated Consumers who are consuming energy more than the minimum annual energy consumption (threshold energy) in different energy intensive sectors as notified by the Bureau of Energy Efficiency (BEE).





The following clauses of section 14 of Act identifies functions and obligations of the designated consumer:

Section 14: The Central Government may, by notification, in consultation with the Bureau

- Clause (I): direct any designated consumer to designate or appoint energy manager in charge of activities for efficient use of energy and its conservation.
- Clause (I): direct any designated consumer to submit a report, in the form and manner as may be prescribed, on the status of energy consumption at the end of the every financial year to designated agency;
- **Clause (i):** direct, if considered necessary for efficient use of energy and its conservation, any designated consumer to get energy audit conducted by an accredited energy auditor;
- Clause (k): direct any designated consumer to furnish to the designated agency, in such form and manner and within such period, as may be prescribed, the information with regard to the energy consumed and action taken on the recommendation of the accredited energy auditor;



## Compliances for PAT Scheme



Sr. No	Compliances	For Existing Sector
1	Action Plan Submission	Within 03 Months after notification
2	Energy Manager/ Energy Auditor Details Submission	Within 03 Months after notification
3	Form-I Submission	Within 03 Months after Financial year
4	Form-2 Submission	Within 18 Months after notification for 1 <sup>st</sup> target assign after that every 36 months
5	Mandatory Energy Audit Report Submission	Within 18 Months after notification for 1 <sup>st</sup> target assign after that every 36 months
6	Form-3	Within 03 Months after Financial year
7	Monitoring & Verification Audit report Submission	Within 04 Months after completion of Target year
8	Form-A Submission	Within 04 Months after completion of Target year
9	Form-B Submission	Within 04 Months after completion of Target year
10	Form-C Submission	Check Verification
11	Form-D Submission	Within 24 Months after submission of Form-A (as described above)

84



## **Key-Timelines**



Activity	Time Line	Description	Tentative Dates for PAT Cycle II (Duration 2016-19)	Activity by	Where
Action plan submission	3 Months	Within 3 month from Notification	30 June	DC	SDA/BEE
Form 1, Form 3 and Pro-forma submission	3 Months	Yearly submission of Form 1 within 3 months from last financial year	30 June (Every Year)	DC	SDA/BEE
Form 2 & Mandatory Energy Audit	3 Months	Within 18 month from notification and 36 month from 1 <sup>st</sup> MEA report	31 <sup>st</sup> December	DC	SDA/BEE
Form A, Form B along with other documents	5/6 Months	Within 5 month from conclusion of target year for all sectors except Railways and DISCOMs. 6 months for Railways & DISCOMs	31 <sup>st</sup> Aug / 30 <sup>th</sup> Sep	DC	SDA/BEE
Submission of comments on Form A, Form B from SDA	45 Days	Within 45 days of the last date of submission of Form A	15 <sup>th</sup> Oct / 15 <sup>th</sup> Nov	SDA	BEE
Recommendation of ESCerts to MoP, GOI	Two Months	Within two months from the date of the receipt of the comments from SDA		BEE	МоР
Issuance of ESCerts by MoP	45 Days	Within 45 days from the date of receipt of recommendation of Escerts from BEE		МоР	
Form D Submission	24 Months	Within 24 months from the last date of submission of form A	85	DC	SDA/BEE





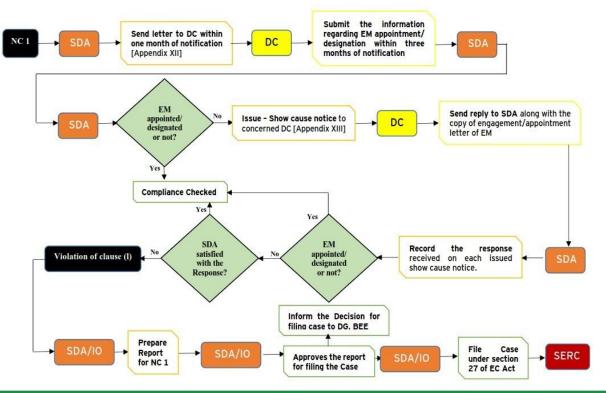
#### Identified – Non Compliance

NC	Non-Compliance
NC 1	Non- appointment or designation of Energy Manager
NC 2	Non- Submission of FORM 1
NC 3	Mandatory Energy Audit (MEA) not conducted
NC 4	Non- Submission of FORM I and FORM 2
NC 5	Non- Submission of FORM 3
NC 6	Non- submission of Performance Assessment Document in Form 'A' and Certificate of Verification in Form 'B' along with Verification Report
NC 7	Not registering as Eligible Entity with Registry
NC 8	Non-submission of Compliance Assessment Document in Form 'D'
NC 9	Balance ESCerts are not zero or positive





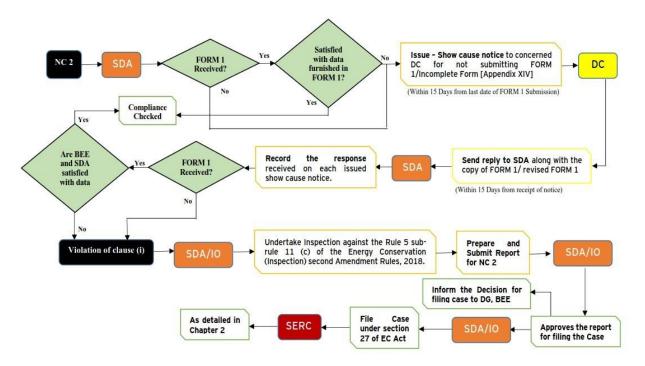
#### NC 1 – NON-APPOINTMENT OR DESIGNATION OF ENERGY MANAGER



Bureau of Energy Efficiency, Ministry of Power, Government of India



#### NC 2 - NON-SUBMISSION OF FORM 1



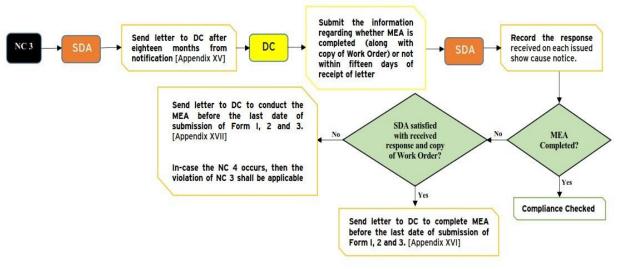
Bureau of Energy Efficiency, Ministry of Power, Government of India

S Life





#### NC 3 - MANDATORY ENERGY AUDIT (MEA) - NOT CONDUCTED

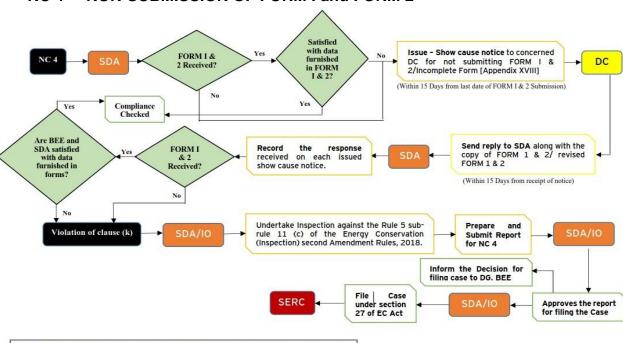


Note: SDA may remind DC of their obligation under EC Act prior to compliance period.

Section 48 of EC Act is applicable, wherever there is non-compliance by any Company or any officer(s) in-charge responsible for conduct of the business of the company







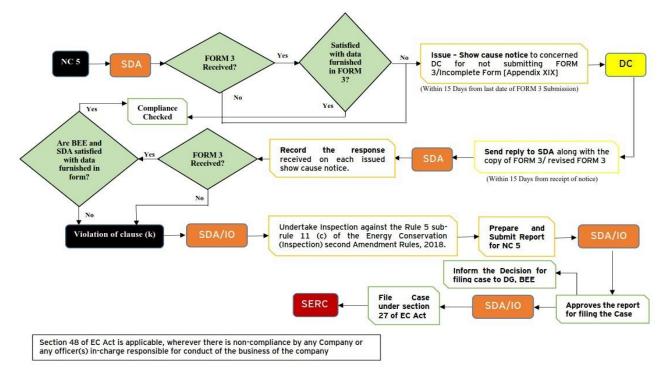
#### NC 4 – NON-SUBMISSION OF FORM I and FORM 2

Section 48 of EC Act is applicable, wherever there is non-compliance by any Company or any officer(s) in-charge responsible for conduct of the business of the company





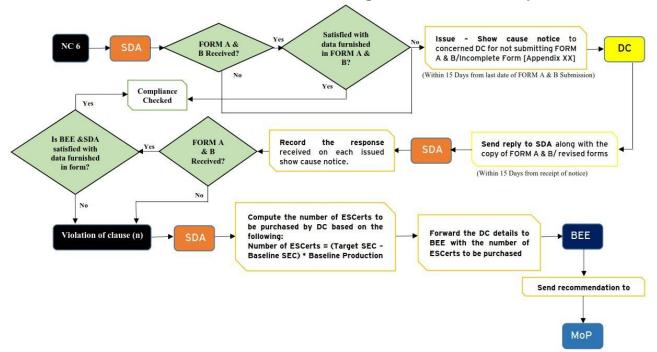
#### NC 5 – NON-SUBMISSION OF FORM 3





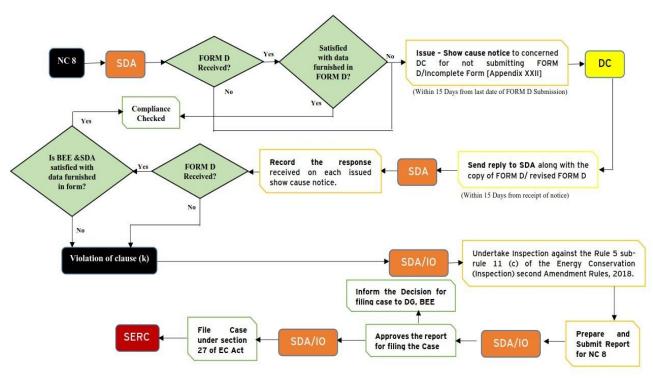


NC 6 – Non- submission of Performance Assessment Document in Form 'A' and Certificate of Verification in Form 'B' along with Verification Report





#### NC 8 - Non-submission of Compliance Assessment Document in Form 'D'

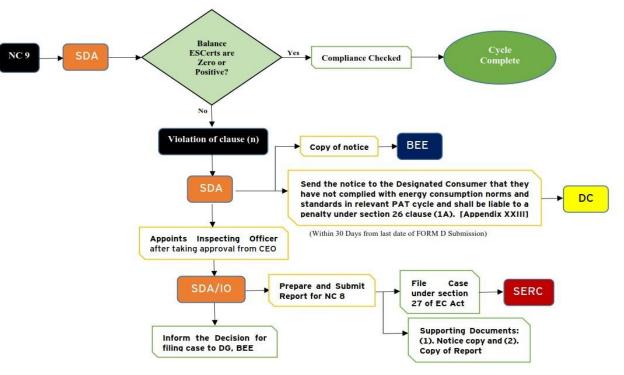


Life



# B E E CONSUS

#### NC 9 - Balance ESCerts are not zero or positive





## Checklist of Documents

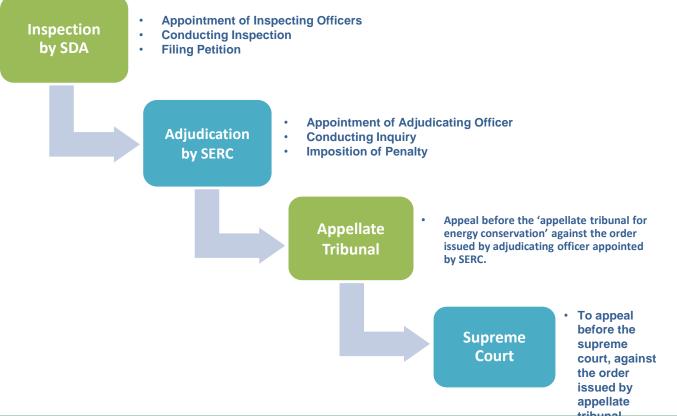


S. No.	Appendix
XII	Notice to Designated Consumer to submit the information regarding the appointed or designated Energy Manager
XIII	Notice for not submitting the information regarding the appointed or designated Energy Manager
XIV	Notice for not submitting the FORM I/ Incomplete Form
XV	Notice for submitting the information regarding the Mandatory Energy Audit (MEA) Completion
XVI	Notice to complete Mandatory Energy Audit (MEA)
XVII	Notice to complete Mandatory Energy Audit (MEA)
XVIII	Notice for not submitting the FORM I and 2/ Incomplete Form
XIX	Notice for not submitting the FORM 3/ Incomplete Form
XX	Notice for not submitting the Performance Assessment Document (PAD) in Form 'A' and Certificate of Verification in 'FORM B' along with verification Report
XXII	Notice for not submitting the Compliance Assessment Document (CAD) in Form 'D'
XXIII	Notice for not achieving the compliance with the energy consumption norms and standards during the target year, in the relevant cycle under Rule 13 of PAT Scheme.



## Gears for Implementation of Enforcement Mechanism







## Appointment of Inspecting Officer

- Under sub-section (1) of section 17 of EC Act,2001 from amongst its officers holding a post equivalent or in the rank of Under Secretary to the state government.
- Person must be a 'Graduate Engineer'
- Minimum professional experience of <u>three years in the field of energy conservation or energy efficiency</u> in the State designated agencies or any Department or Office of the Central Government or a State Government.





- Under section 27 of EC Act, 2001 the State Commission shall appoint any of its members to be an adjudicating officer for holding an inquiry in such manner as may be prescribed by the Central Government, after giving any person concerned a reasonable opportunity of being heard for the purpose of imposing any penalty.
- Where a State Commission has not been established in a State, The Government of that State shall appoint any of its officers, not below the rank equivalent to a Secretary dealing with legal affairs in that State to be an adjudicating officer

## Appellate Tribunal for Energy Conservation



The concerned party (i.e. the designated consumer, the permittee, the owner of the building) or the SDA has the right, under Section 31 (1) of the Act to appeal before the 'Appellate Tribunal for Energy Conservation' against the Order issued by Adjudicating Officer appointed by SERC.



Enforcement of the Act through Inspection, Adjudication, Inquiry and Imposition of Penalty

- Need for Inspection and Adjudication
- Process for Inspection
- Process for Adjudication
- Appeal before the Appellate Tribunal for Energy Conservation



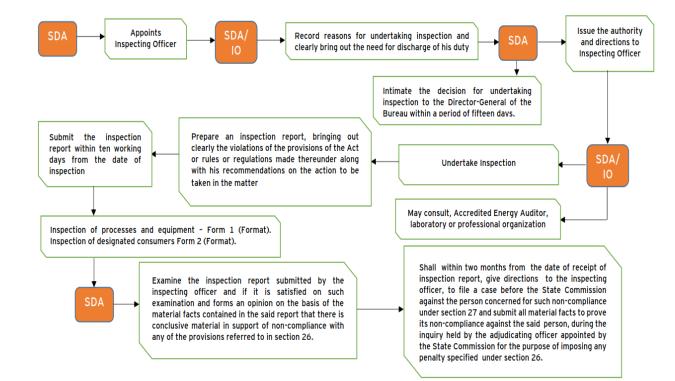


- Inspection is crucial to ensure the compliance to norms or standards
- No penalty can be imposed without proper inspection being conducted with regard to non-compliance.
- Further, as the power of inspection is executive in nature and does not empower the inspecting officer to levy penalty on his own., therefore, the Adjudicating Officer lets the penalty pass through a judicial scrutiny.
- The procedure envisaged under the Act may seem complex at first, however, it is only in order to allow a just and fair procedure of law for the non-compliant, so that no penalty is imposed on a person without passing through just procedure of law and compliance with the principles of natural justice. The law is well settled on the point that any procedural law has to be just and must pass the test of fairness, otherwise the same becomes arbitrary in nature and fails to survive at the altar of constitutionality.



#### **Process for Inspection**

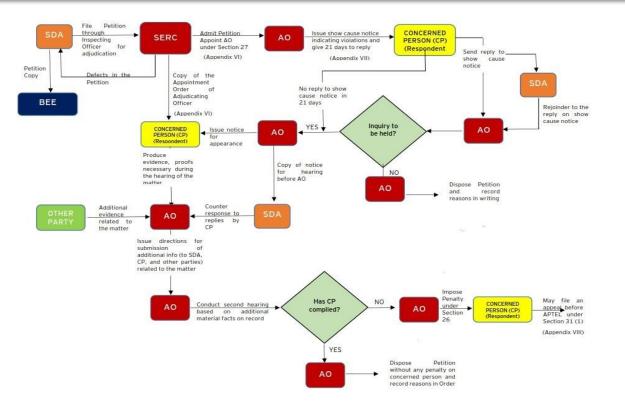






#### **Process for Adjudication**









In line with Section 28 of the Act, while adjudicating the quantum of penalty under section 26, the adjudicating officer shall have due regard to the following factors, namely:-

- (a) The amount of disproportionate gain or unfair advantage, wherever quantifiable, made as a result of the default;
- (b) The repetitive nature of the default.

The level of severity and repetitiveness of any noncompliance are the main criteria to quantify the penalty to be imposed.





S. No.	Appendix
L	Relevant Section and clauses of Non Compliance under Section 14 and Section 15 of the Act.
Ш	Direction for filing of Petition before State Electricity Regulatory Commission against the non- compliant person (designated consumer/manufacturer /trader/distributor)
Ш	Petition format
IV	Affidavit format
V	Notice for defects identified in your Petition
VI	Notice for Holding Inquiry
VII	Notice under Section 27 of the Energy Conservation Act, 2001 read with Rule 3 of the Energy Conservation (Manner of Holding Inquiry) Rules, 2009.



- Procedure for filing an Appeal to Appellate Tribunal for Energy Conservation
- Appeal to the Supreme Court
- Proceedings before the Hon'ble Appellate Tribunal for Energy Conservation.



## Appellate Tribunal for Energy Conservation



Section 30 – Appellate Tribunal for Energy Conservation

Appellate Tribunal

The Appellate Tribunal established under section 110 of the Electricity Act, 2003 (36 of 2003) shall, without prejudice to the provisions of the Electricity Act, 2003 (36 of 2003), be the Appellate Tribunal for the purpose of this Act and hear appeals against the orders of the adjudicating officer or the Central Government or the State Government or any other authority under this Act.



## Appellate Tribunal for Energy Conservation



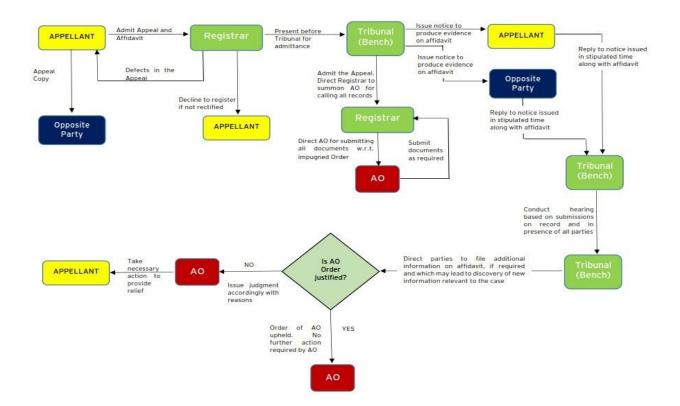
• Section 31 of the Act provides for appeal to Appellate Tribunal for Energy Conservation.

 Any person preferring for an appeal has a right to take assistance of legal practitioner or an accredited auditor to present his case before the Appellate Tribunal under section 44 of the Act.

The person filing an appeal shall submit the form and fees as prescribed in Section 56
(2) (r) of the Act.



## Appellate Tribunal for Energy Conservation



/s Life



# Appeal to the Supreme Court



• The concerned party (i.e. the designated consumer, the permittee, the owner of the building) or the SDA has the right, under **Section 45** of the Act to appeal before the Supreme Court, against the Order issued by Appellate Tribunal.





S. No.	Appendix	
VIII	Notice for defects identified in your Appeal	
IX	Submission of data/information against Appeal	
Х	Reply to defects identified in Appeal	
XI	Notice to appear before the Appellant Tribunal for Energy Conservation	



Harri E, richard B.

- Background
- Key Stakeholders and their roles & responsibilities
- Compliance Mechanism
- Mapping of Expected Violations with Provisions of the Act
- Procedure for Enforcement



# Background



- ✤ Act provides for the following Energy Efficiency Professionals, namely:-
  - 1. Energy Manager
    - 2. Energy Auditor
    - 3. Accredited Energy Auditor
- The Central Government in consultation with the Bureau shall prescribe vide section 14 (m) of the Act, the minimum qualification for Energy Manager.\*

14 (m) prescribe minimum qualification for energy auditors and energy managers to be designated or appointed under clause (I);

The Bureau maintain the list of Accredited Energy Auditors.

\*[Minimum qualification for Energy Manager), Rules, 2006 were notified under section 56 (2) (j) vide GSR 309 dated 8th December, 2006]



# Key Stakeholders and their roles & responsibilities



S. No	Name of Stakeholders	
1	Energy Manager	
2	Accredited Energy Auditor	
3	Bureau of Energy Efficiency	
4	Advisory Committee for Energy Managers	
5	Accreditation Advisory Committee	
6	National Energy Conservation Building Code Implementation Committee	

#### Roles and Responsibilities





#### For Certified Energy Auditor or Energy Auditor (Building) or Energy Manager

Shall attend a short term refresher training course conducted by the Bureau or the agency appointed by the Bureau, after every five years for the renewal of the certification and shall produce a certificate of participation issued in that behalf.

For Accredited Energy Auditor

Shall pay an annual accreditation fee of rupees one thousand.



### Conditions for occurrence of non-compliance events



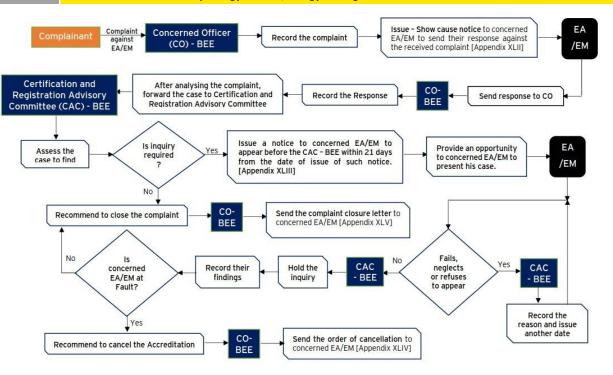
Identified – Non Compliance		
NC	Non-Compliance	
NC 18	Professional Misconduct by Energy Auditor/Energy Manager	
NC 19	Misrepresentation of Facts by Energy Auditor/Energy Manager	
NC 20	Act Amounting to Fraud by Energy Auditor/Energy Manager	
NC 21	Failure to attend Refresher Course by Energy Auditor/Energy Manager	
NC 22	Holding a position of 'Energy Manager' of any Designated Consumer after the cancellation of certification	
NC 23	Opening of Office by Accredited Energy Auditor without approval of BEE	
NC 24	Non-submission of change in Information by Accredited Energy Auditor	
NC 25	Failure to undertake Energy Audit in accordance with the Manner and Intervals of Time for Conduct of Energy Audit, Regulation	
NC 26	Incorrect, misleading or false information provided by Accredited Energy Auditor	
NC 27	Misconduct or Fraud by Accredited Energy Auditor	
NC 28	Failure to pay Annual Accreditation Fee	





S Life

#### NC 18 Professional Misconduct by Energy Auditor/Energy Manager

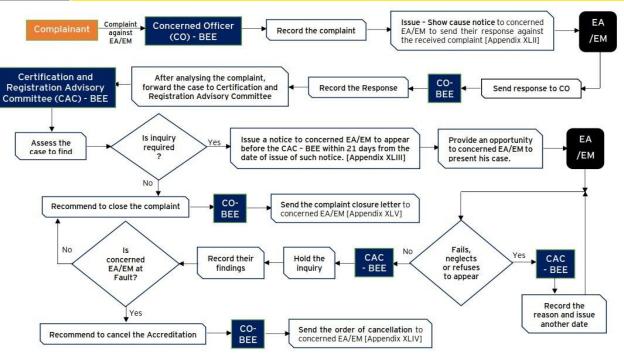




# Chapter 8 8.5 Procedure for Enforcement

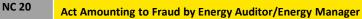


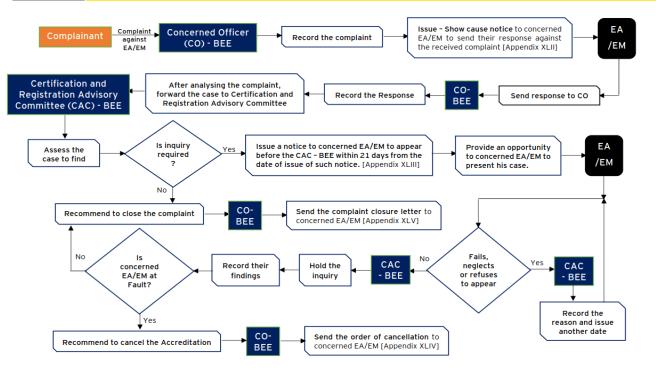








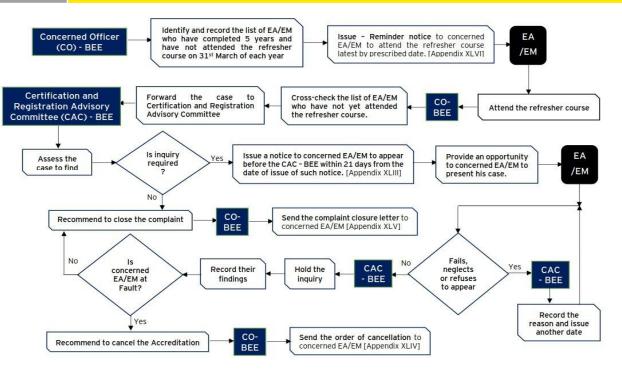








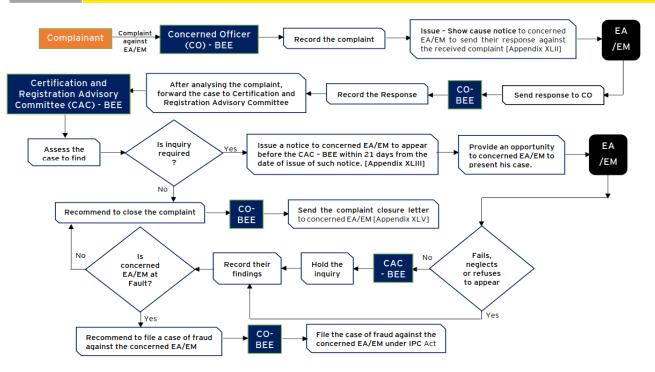








#### Holding a position of 'Energy Manager' of any Designated Consumer after the cancellation of certification





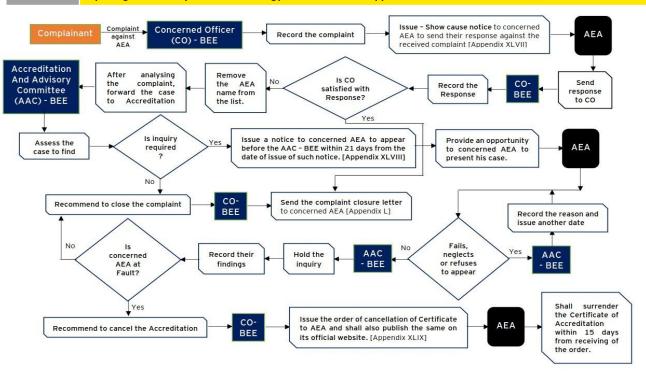
Life







#### Opening of Office by Accredited Energy Auditor without approval of BEE

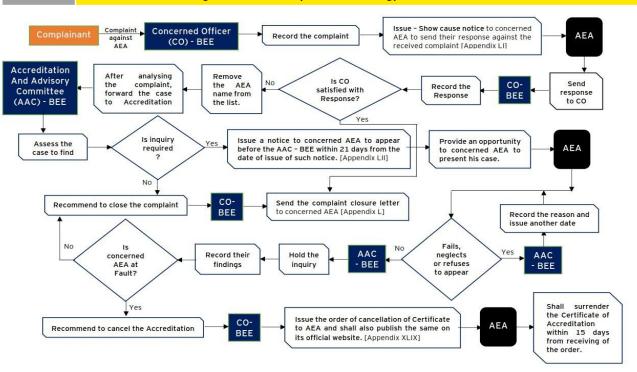






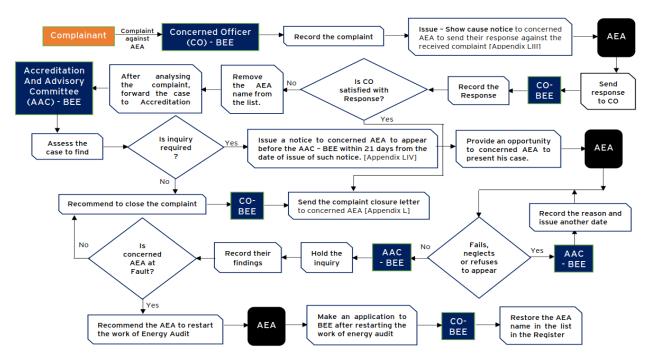


#### Non-submission of change in Information by Accredited Energy Auditor





NC Failure to undertake Energy Audit in accordance with the Manner and Intervals of Time for Conduct of Energy Audit, Regulation

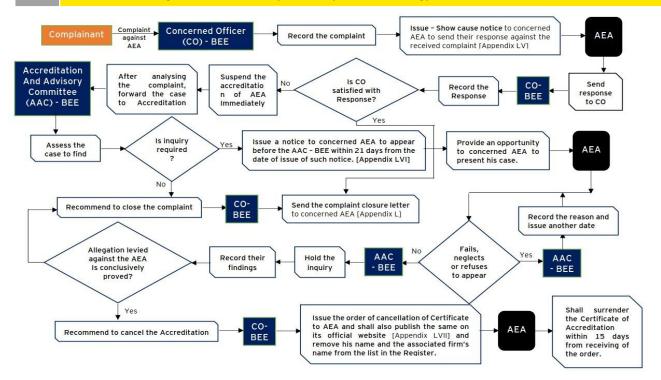


S Life





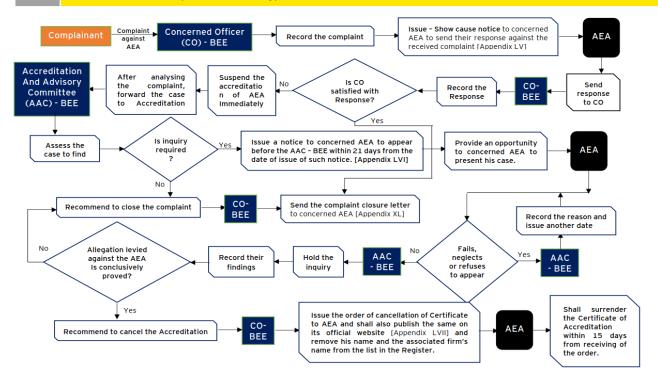
#### NC 26 Incorrect, misleading or false information provided by Accredited Energy Auditor







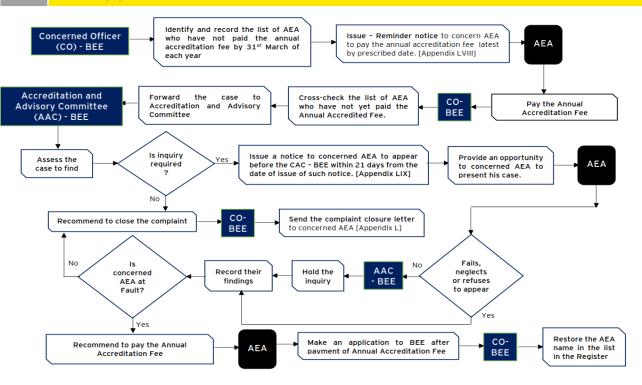
#### NC 27 Misconduct or Fraud by Accredited Energy Auditor







#### NC 28 Failure to pay Annual Accreditation Fee







Appendix

S. No.	Appendix	
XLII	Notice to 'Energy Auditor/ Energy Manager Id' to give response against the 'received complaint'	
XLIII	Notice to 'Energy Auditor/ Energy Manager Id' to appear before the BEE - Certification and Registration Advisory Committee (CAC).	
XLIV	Order of Cancellation of Certificate of Certified Energy Auditor / Energy Manager - 'Energy Auditor/ Energy Manager Id'	
XLV	Compliant Closure Letter for the complaint made against the Certified Energy Auditor / Energy Manager - 'Energy Auditor/ Energy Manager Id'	
XLVI	Notice to 'Energy Auditor/ Energy Manager Id' to attend the refresher course	
XLVII	Notice to 'Accredited Energy Auditor Id' to give response against the 'received complaint'	
XLVIII	Notice to 'Accredited Energy Auditor Id' to appear before the BEE – Accreditation And Advisory Committee (AAC).	





Appendix

S. No.	Appendix	
XLIX	Order of Cancellation of Certificate of Accredition Energy Auditor - 'Accredited Energy Auditor Id'	
L	Compliant Closure Letter for the complaint made against the Accredited Energy Auditor - 'Accredited Energy Auditor ${\rm Id}'$	
LI	Notice to 'Accredited Energy Auditor Id' to give response against the 'received complaint'	
LII	Notice to 'Accredited Energy Auditor Id' to appear before the BEE – Accreditation And Advisory Committee (AAC).	
LIII	Notice to 'Accredited Energy Auditor Id' to give response against the 'received complaint'	
LIV	Notice to 'Accredited Energy Auditor Id' to appear before the BEE – Accreditation And Advisory Committee (AAC).	
LV	Notice to 'Accredited Energy Auditor Id' to give response against the 'received complaint'	





Appendix

S. No.	Appendix	
LVI	Notice to 'Accredited Energy Auditor Id' to appear before the BEE – Accreditation And Advisory Committee (AAC).	
LVII	Order of Cancellation of Certificate of Accredited Energy Auditor - 'Accredited Energy Auditor Id'	
LVIII	Notice to 'Accredited Energy Auditor Id' to pay the Annual Accreditation Fee	
LIX	Notice to 'Accredited Energy Auditor Id' to appear before the BEE – Accreditation And Advisory Committee (AAC).	





S. No	Name of Stakeholders	Roles & Responsibilities
1	Central Government (Ministry of Power)	Issue of Policy Directives in consultation with the Bureau
2	Bureau of Energy Efficiency	Program Administrator
3	Designated Consumer	Complying Party
4	State Designated Agency	State Nodal Agency
5	State Electricity Regulatory Commission	Adjudicator
6	Empanelled Accredited Energy Auditor	Verifier
7	Central Electricity Regulatory Commission (CERC)	Market Regulator
8	Grid India (Formally known as POSOCO)	Registry
9	Power Exchanges (Namely IEX, PXIL & HPX)	Trading Platform





# **Thank You**

# Ashish Ranjan Srivastava Senior Sector Expert Sugar Sector / PATNet Portal / PAT Cell / IDEEKSHA Platform / Enforcement Phone: +91 11-26766700 Ext: 841

Email: a.srivastava22@beeindia.gov.in