


## Promoting Energy Efficiency in the State of Maharashtra

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## About MEDA

- ❖ **As a State Nodal Agency (SNA)** under the aegis of Ministry of New and Renewable Energy, Government of India, assists State and Central Government to promote New and Renewable sources of energy and technologies.
- ❖ **As a State Designated Agency (SDA)** under the guidance of Bureau of Energy Efficiency, Ministry of Power, Government of India to coordinate, regulate and enforce the provisions of the Energy Conservation Act, 2001

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## Role of MEDA as a SDA

- ❖ Formulate policies and schemes
- ❖ Implement EC Demonstration Projects in various Sectors
- ❖ State Level Energy Conservation awards
- ❖ Prepare rules for Energy Conservation Building Codes (ECBC) & Eco Niwas Sanhita (ENS)
- ❖ Coordinate with Central/State Govt., BEE, MERC, other SDAs to implement provisions under EC Act 2001
- ❖ Promote EE through DSM programs
- ❖ Conduct EC Awareness programs

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## Govt. of Maharashtra EC Schemes

- ❖ Save Energy Programmes
- ❖ Walk Through Energy Audit
- ❖ Energy Efficiency Demonstration Projects in Govt. Buildings /Semi Govt. Buildings / Local Bodies
- ❖ State Level EC Award Scheme for Excellence in Energy Efficiency, Conservation and Management.
- ❖ Empanelment of Energy Auditing Firms in Class A and Class B category.


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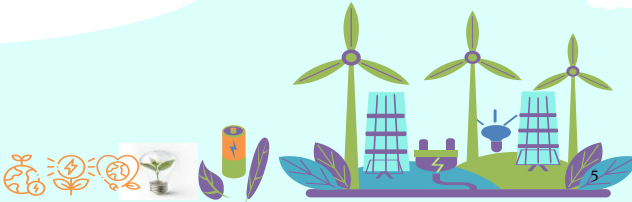
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## State Scheme



1. **Save Energy Programme :**
  - Under State's "Save Energy Programme" MEDA provides financial assistance to conduct detailed energy audit in potential sectors like Industries, Commercial Buildings, Govt. Buildings & Residential Societies.
  - Total 2184 nos. energy audits have been carried out in various sectors up to March, 2024.
2. **Walk Through Energy Audit (SME Scheme) :**
  - Under State's "Walk through Audit" Scheme which aims to promote energy efficiency in small and medium enterprises (SMEs).
  - MEDA provides financial assistance to Empanelled Energy Auditing Firm of Rs.3000/- per unit (SME), MEDA has Empanelled 33 Energy Auditing firms.
  - Under this schemes, around 4031 nos. walk through energy audits in SMEs have been completed up to March, 2024.



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## State Scheme





3. **Demonstration projects for energy conservation in Buildings Government/ Semi Government/ Urban Local Bodies / Semi Government**
  - This scheme is designed for Government/ Semi Government and Urban Local Bodies for implementation of energy conservation measures in their buildings.
  - Under this programme financial assistance is up to Rs.25.00 lakhs per building. Under this programme total **121 nos. of** buildings are covered up to the financial year March, 2024.
  - Around **1,36,60,157 kWh/year** energy savings.





Category	Value
Energy Savings kWh/yr.	13660157
CO2 Emission Reduction, Tonnes	11201.33

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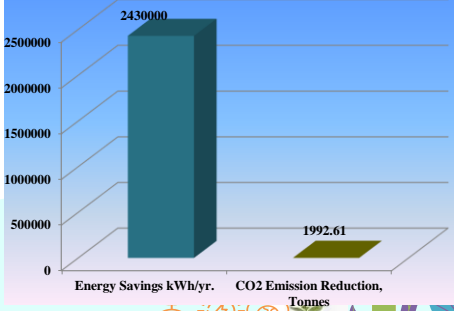



## State Scheme




**4. Installation of energy saving devices in Street lighting and water pumping systems of Municipal Councils/ Municipal Corporations / Maharashtra Jeevan Pradhikaran:**



- Installation of energy saving devices in Street lighting and water pumping systems of Municipal Councils/ Municipal Corporations / Maharashtra Jeevan Pradhikaran.
- Under this scheme financial assistance is upto Rs.20.00 lakhs is provided for installation of energy efficient equipment in street lights and Rs.5.00 lakh for installation of monitoring system. Under this programme total 40 nos. of Municipal Councils / Corporations are covered up to March, 2024.




Metric	Value
Energy Savings kWh/yr.	2430000
CO2 Emission Reduction, Tonnes	1992.61



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## BEE's Energy Conservation Schemes

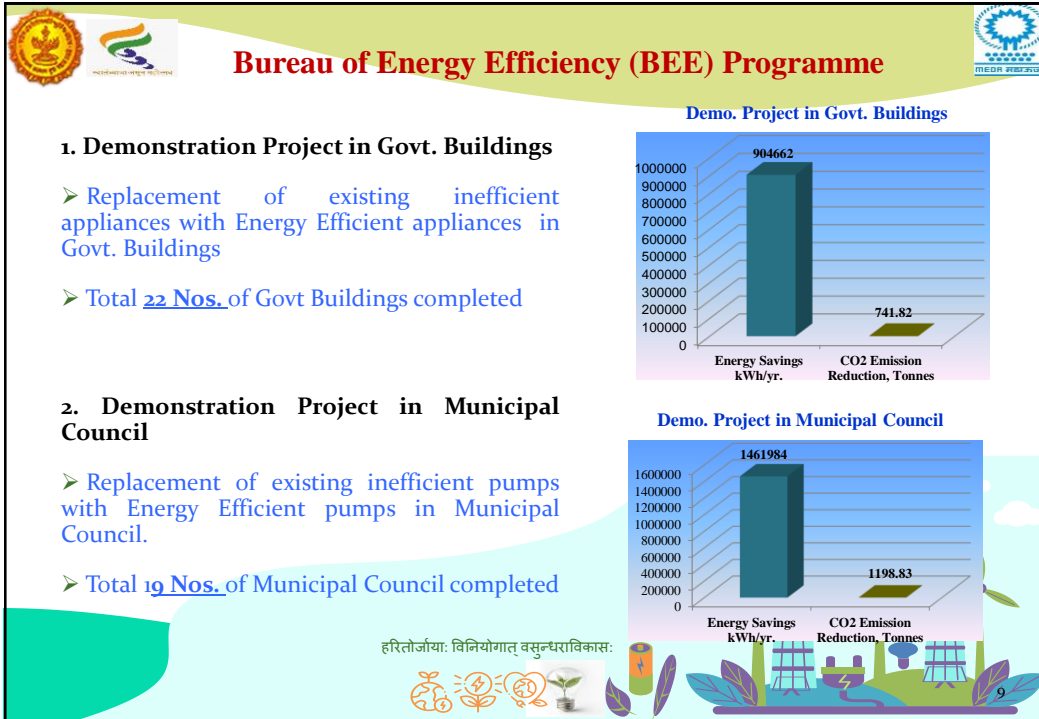


- ❖ Energy Efficiency Demonstration Projects in Govt. Buildings, Municipal Corporations/Councils
- ❖ Implementation of EE Activities in Govt. Schools
- ❖ Energy Efficiency Demonstration Projects in Govt. Hospitals
- ❖ Model Energy Efficient Village Campaign
- ❖ AgDSM Programme (Agriculture Demand Side Management)
- ❖ MuDSM Programme (Municipal Demand Side Management)
- ❖ Energy Efficiency projects in SMEs
- ❖ Perform Achieve and Trade (PAT) Scheme
- ❖ Energy Conservation Building Code (ECBC) scheme
- ❖ Student Capacity Building Programme
- ❖ Energy Awareness Programmes during EC Week

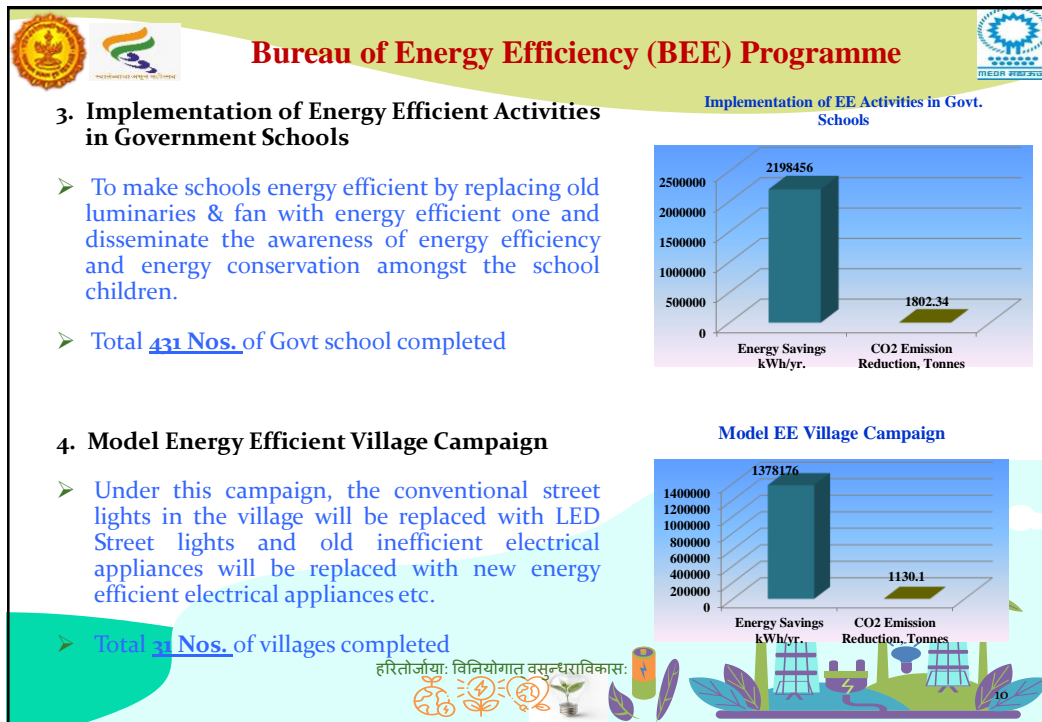
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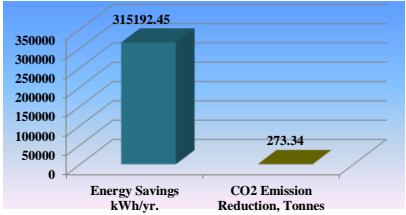
## Bureau of Energy Efficiency (BEE) Programme



### 5. Implementation of Demonstration Project in Govt. Hospitals

- Replacement of existing inefficient appliances with Energy Efficient appliances in Govt. Hospitals.
- Total 41 Nos. of Govt Buildings completed

**Demo Project in Govt. Hospitals**

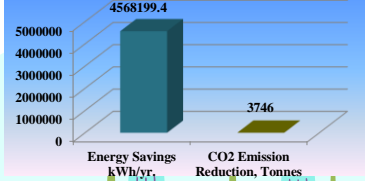


Category	Value
Energy Savings kWh/yr.	315192.45
CO2 Emission Reduction, Tonnes	273.34

### 6. Implementation of Agriculture Demand Side Management (AgDSM)


- Replacement of existing inefficient Pumps with Energy Efficient Pumps at selected Ag-Feeder, Katali, Tal. Gaganbawada, Dist. Kolhapur .
- Installed total 100 Nos. of Energy Efficient Pumps

**AgDSM Programme**





Category	Value
Energy Savings kWh/yr.	4568199.4
CO2 Emission Reduction, Tonnes	3746


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## Bureau of Energy Efficiency (BEE) Programme




### 7. School Children Capacity Building Programme/Energy club


- The awareness amongst school children by way of establishing energy clubs, organizing debates, quiz programs, etc.
- Total 533 Nos. of energy clubs established among the schools.

### 8. Energy Conservation Building Code (ECBC)-


- In line with Energy Conservation Act, 2001, Central Government in consultation with Bureau of Energy Efficiency has notified ECBC in 2007 and its amendment in 2017.
- The Code is applicable to commercial building having connected load of 100 KW or above or contract demand of 120 kVA or above.
- Total 13 nos. of Demo Projects all over the State have been taken up from different climate zones.
- Around 126 webinars/workshops conducted.



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### Bureau of Energy Efficiency (BEE) Programme

#### 9. Energy Conservation Awareness Programmes

- Display of hoarding of Energy Conservation at various public places under “Energy Conservation Outreach Programme”.
- Display of Energy Conservation awareness advertisement on Mumbai local train (external branding) under “Energy Conservation Outreach Programme”.
- Display of EC Glow Sign Board at selected ST Bus Station under “Energy Conservation Outreach Programme”.
- Preparation of documentary (2-5 Minutes) in both Marathi & English languages on Energy Conservation success stories under “Energy Conservation Outreach Programme”.
- Energy Conservation Van activation across MEDA Divisional Offices during Energy Conservation Week.
- Making of Radio Jingle on Energy Conservation and broadcasting on local radio channel as per DAVP rate during EC week.
- Making of TV Spot on Energy Conservation and broadcasting on TV channel during EC week.
- Design, printing and distribution of Energy Conservation Banners at Govt Offices during energy conservation week.
- Design, printing and distribution of Energy Conservation Posters at Govt Offices during energy conservation week.

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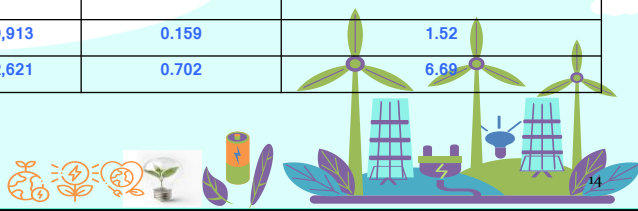



### Bureau of Energy Efficiency (BEE) Programme


#### 10. Perform Achieve and Trade (PAT):

- Perform Achieve and Trade (PAT) scheme is a component of the National Mission for Enhanced Energy Efficiency (NMEEE), which is one of the eight missions under the NAPCC.
- PAT is a regulatory instrument to reduce Specific Energy Consumption (SEC) in energy intensive industries, with an associated market-based mechanism to enhance cost effectiveness through certification of excess energy savings, which could be traded in the form of ESCerts.
- Govt. of India has notified 7 nos. of PAT Cycle and **106 nos.** of Designated Consumers are registered under these PAT Cycle in the State of Maharashtra.
- Overall achievement of PAT scheme in Maharashtra

PAT CYCLE	TARGET YEAR	OVERALL ACHIEVEMENT (ESCerts)	TOTAL ENERGY SAVING (Million TON)	GHG EMISSION REDUCTION (Million Tonnes of CO <sub>2</sub> )
PAT Cycle – I	2014-15	1,59,913	0.159	1.52
PAT Cycle– II	2018-19	7,02,621	0.702	6.69








## Bureau of Energy Efficiency (BEE) Programme

### 11. Investment Bazaar on Energy Efficiency:




- MEDA in co-ordination with BEE, New Delhi organized One Day Conference on Investment Bazaar on Energy Efficiency in order to promote financing on Energy Efficiency (EE) projects and eradicating the financing barriers in Energy Efficiency under Energy Efficiency Financing Platform (EEFP).
- The aim of this Investment Bazaar is to bring all the stakeholders of EE at one place to increase the dealing in Energy Efficiency projects.
- Organized 04 nos. of Investment Bazaar at Pune, Nagpur, Aurangabad & Mumbai.
- Participants - Industries, Banks and Financial Institutions, OEMs, Energy Auditors, etc.

### 12. Retailer Training Programme:

- MEDA in co-ordination with BEE, New Delhi organized One Day Retailer Training Programme under Standards & Labelling Programme.
- These programmes specially organized for Energy Efficient Appliances Manufacturers, Retailers, Distributors etc.
- Organized 05 nos. of Investment Bazaar at Pune, Nagpur, Aurangabad, Nashik & Mumbai.



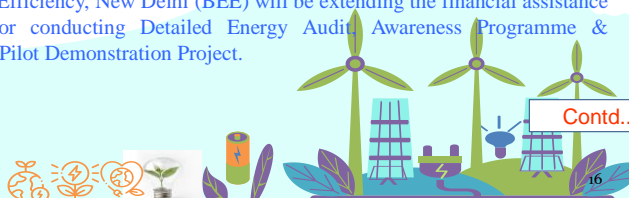
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## Furtherance.....

### Implementation of Energy Efficiency Project in MSME Cluster – BEE Scheme

- MEDA is in process to accelerate adoption of energy efficiency measures and technologies to conserve energy in MSME sectors.
- India hosts the second largest base for MSMEs in the world. MSMEs play key role in the value chain with the large industry and the sector also provide the largest share of employment after agriculture.
- Micro, Small, Medium Enterprises Ministry (MSME) and Government of India has modified MSE-CDP scheme for micro & small enterprises. Under this scheme, Govt. of India gives financial support to grant-in-aid to establish Common Facility Centres (CFC) & infrastructure development to enhance the productivity and competitiveness of the clusters.
- GoI has granted Diagnostic Study Report (DSR) of 5 MSME clusters for Maharashtra State.
- For this purpose, Bureau of Energy Efficiency, New Delhi (BEE) will be extending the financial assistance upto Rs.10.00 Lakhs for CFC for conducting Detailed Energy Audit, Awareness Programme & Implementation of Energy Efficient Pilot Demonstration Project.



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**Furtherance.....**

**Scope of Implementation of Energy Efficiency Project in MSME Cluster**

**Energy Mapping of 9 MSME Sectors in India**



- 9 Energy intensive Sectors
- 45 Clusters
- 450+ units chosen for detail energy audits
- Compendium of 120 technologies

**Additionally,**

- 3 Energy intensive Sectors (Food Processing, Leather and Textiles)

**Contd..**


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**Furtherance.....**

**Implementation of Energy Efficiency Project in MSME Cluster – BEE Scheme**

- MEDA is planning following energy efficient activities for MSME Clusters under the guidance of BEE –
  - Organizing Capacity Building Workshops for clusters.
  - Establishing **Energy Management Centres** with state-of-the-art energy auditing/monitoring instruments and systems.
  - Facilitate and Promotion of conducting Energy Audits in MSMEs (incl. financial and technical support)
  - Demonstration of energy efficient technologies with high replication potential
  - Implementation of EC Guidelines developed for MSMEs.
  - Strengthening the cluster level entities like local service providers, technical workforce etc.
- MEDA has proposed to implement Energy Efficiency Demonstration projects in MSME clusters for Installation of Energy Efficient Motors in Industries. Around 4000 nos. of old Motors are proposed to replace with Energy Efficient Motors.



Procurement of Energy Audit Instruments for Energy Management Centres

**"If you want to control somethings, you should be able to measure it"**

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