National Energy Conservation Day 2021

For Prelims: National Energy Conservation Day, Bureau of Energy Efficiency (BEE), National Energy Conservation Awards, SAMEEEKSHA Portal.

For Mains: National and global efforts to ensure energy conservation, Scenario of Power Sector in India and need of energy conservation.

Why in News

The **National Energy Conservation Day** is observed on December 14th, every year by the **Bureau of Energy Efficiency (BEE)**.

- The day focuses on making people aware of <u>global warming and climate change</u> and promotes efforts towards saving energy resources. It also highlights the achievements of the country in the fields of energy efficiency and conservation.
- The Ministry of Power celebrated Energy Conservation Week (8-14 Dec) in 2021 under Azadi Ka Amrit Mahotsav. As part of celebrations, the BEE under the Ministry of Power has organized various programs.

Key Points

- Energy Conservation:
 - It refers to the efforts made to ensure that energy is used efficiently by either using less energy for a particular constant purpose – like switching off lights and fans when not being used – or reducing the use of a particular service that uses energy – like driving less and using public transport instead.
 - Energy conservation is a **conscious, individual effort**, and at a macro level, it leads to energy efficiency.
 - The end goal of energy conservation is to reach towards sustainable energy.
 - It is **different from the term 'energy efficiency'**, which is using technology that requires less energy to perform the same function.
- Energy Conservation Act, 2001:
 - The <u>Act</u> was enacted with the goal of reducing the energy intensity of the Indian economy. **It provides regulatory mandates for:**
 - Standards & labeling of equipment and appliances;
 - Energy conservation building codes for commercial buildings; and
 - Energy consumption norms for energy intensive industries.
- Energy Conservation Week:
 - The Ministry of Power is celebrating Energy Conservation Week under <u>Azadi Ka</u> <u>Amrit Mahotsav</u> from 8th to 14th December 2021.
 - The **BEE and the Ministry of Micro, Small and Medium Enterprises (MSMEs)** have together taken a number of initiatives to ensure the growth of this sector in an energy-efficient and environmentally-friendly way.
 - $\circ\,$ To ensure synergy among various players in the MSME sector, BEE and the Ministry of

MSME have also promoted a collaborative platform--"SAMEEEKSHA" (Small and Medium Enterprises Energy Efficiency Knowledge Sharing).

- The platform **aims to pool the knowledge and synergise the efforts of various organisations** for the promotion and adoption of clean, energy technologies and practices.
- The BEE has organized an Interactive Workshop on Outcomes of Energy and Resource Mapping of the MSMEs Clusters.

National Energy Conservation Awards:

- The Ministry of Power had launched the <u>National Energy Conservation Awards</u> in 1991, to give national recognition through awards to industries and establishments that have taken special efforts to reduce energy consumption while maintaining their production.
- It **recognizes the energy efficiency achievements** in 56 sub-sectors across industry, establishments and institutions.

Other Related Initiatives:

- National:
 - **Perform Achieve and Trade Scheme (PAT):** It is a market based mechanism to enhance the cost effectiveness in improving the Energy Efficiency in Energy Intensive industries through certification of energy saving which can be traded.
 - **<u>Standards and Labeling</u>**: The scheme was launched in 2006 and is currently invoked for equipment/appliances.
 - Energy Conservation Building Code (ECBC): It was developed for new commercial buildings in 2007.
 - **Demand Side Management:** It is the selection, planning, and implementation of measures intended to have an influence on the demand or customer-side of the electric meter.
- Global Efforts:
 - International Energy Agency: It works with countries around the world to shape energy policies for a secure and sustainable future.
 - India is not a member country but an <u>association country</u>. However <u>IEA</u> has invited India to be a full time member.
 - The **IEA** and Energy Efficiency Services Ltd. (EESL Ministry of Power) coproduced a case study on the Indian Government's domestic efficient lighting programme -<u>UJALA</u> - to showcase the multiple benefits of energy efficient lighting.
 - Sustainable Energy for All (SEforALL):
 - It is an international organization that works in partnership with the <u>United Nations</u> and leaders in government, the private sector, financial institutions and civil society to drive faster action towards the achievement of <u>Sustainable Development Goal 7 (SDG7</u>) – access to affordable, reliable, sustainable and modern energy for all by 2030 – in line with the Paris Agreement on climate.
 - Paris Agreement:
 - It is a <u>legally binding international treaty</u> on **climate change**. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.
 - As a part of the **Paris Agreement**, India has **committed to reducing its energy intensity** (units of energy use per unit of GDP) by 33-35% by 2030 compared to the 2005 levels.
 - Mission Innovation (MI):
 - It is a **global initiative of 24 countries** and the European Commission (on behalf of the **European Union**) to accelerate clean energy innovation.
 - India is one of the member countries.

Scenario of Power Sector in India:

- **Overall Capacity:** India is the **third-largest electricity producer** in the world. The overall capacity of about 392 GW is added into its electricity grid, as of November 2021.
 - Thermal, nuclear, and <u>renewable energy</u> systems are the major sources for generating India's electricity.
 - The installed power generation capacities for thermal, nuclear, and renewable energy technologies hold shares of 60% (234.69 GW), 2% (6.78

GW), and 38% (150.54 GW), respectively.

- Renewable Energy Sector: The renewable energy sector in India is the fourth most attractive renewable energy market globally.
 - In terms of **wind energy installation capacity,** India was **ranked fourth**, while it was placed fifth in solar energy installation capacity.
 - India has achieved a milestone by crossing 150 GW of renewable energy (RE) capacity.
 - As of November 2021, the overall RE installed capacity stood at 150.54 GW against the ambitious RE target of 175 GW by 2022 and 450 GW by 2030.

Bureau of Energy Efficiency (BEE)

- The BEE is a statutory body established through the <u>Energy Conservation Act, 2001</u> under the Union Ministry of Power.
- It assists in developing policies and strategies with the primary objective of reducing the energy intensity of the Indian economy.
- BEE coordinates with designated consumers, designated agencies, and other organizations to identify and utilize the existing resources and infrastructure, in performing its functions.

Source: PIB

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