



Renewable Energy Production by Thermal Power Plants

Why in News

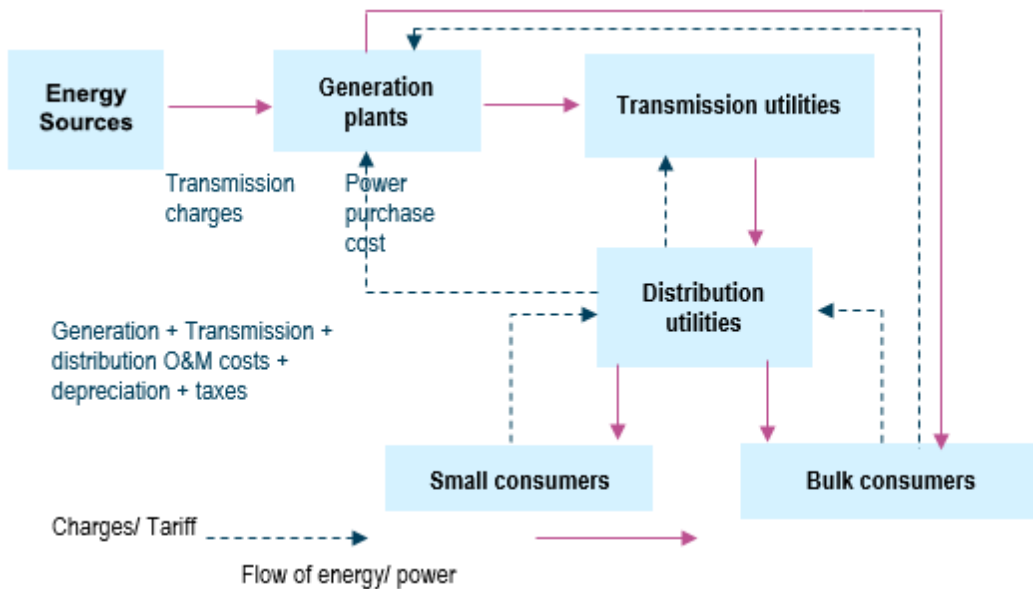
Recently, **Ministries of Power and New and Renewable Energy released guidelines** which allows **thermal generation companies to set up renewable energy generation capacity** and supply power to consumers **under existing Power Purchase Agreements (PPAs)**.

Key Points

▪ Guidelines:

- **Thermal Energy Producer to Produce Green Energy:** The new guidelines allow thermal generation companies “to set up renewable energy generation capacity either by themselves (or) through developers by open bids and supply power to consumers under existing PPAs.”
 - A **Power Purchase Agreement (PPA)**, or electricity power agreement, is a contract between two parties, one which generates electricity (power generating companies (gencos)) and one which is looking to purchase electricity (**Discoms**).
- **Complements Discoms’ RPOs:** The discoms **would be allowed to count** renewable energy purchased under the scheme **towards their Renewable Purchase Obligation (RPO)**.
 - **RPO** is a mechanism by which the State Electricity Regulatory Commissions are obliged to purchase a certain percentage of power from renewable energy sources.
 - RPO is being implemented throughout the country to create demand for renewable energy.
- **RPO Targets:** Under the long-term growth trajectory of RPOs, states have been asked to increase the proportion of power procured from renewable sources to **21.2% of their total procurement in FY2022**.
- **Funds Sharing with Discoms:** Any savings to thermal power plants from lower cost of power generation through renewable energy would be shared with discoms **on a 50:50 basis**.

Structure of Power Sector



▪ **Significance:**

- **Green Energy Push:** This will enable the replacement of fossil fuel based energy by renewable energy under the existing PPAs.
- **Synergy with Global Commitments:** The move is aimed at boosting the installed capacity of renewable energy to **500 GW by 2030** in line with [commitments made by the Indian Prime Minister at the COP26 climate change conference.](#)

PM MAKES FIVE PLEDGES

- 1 India will increase its non-fossil energy capacity to 500GW by 2030
- 2 India will meet 50% of its energy requirements from renewable energy by 2030
- 3 India will reduce the total projected carbon emissions by one billion tonnes from now to 2030
- 4 By 2030, India will reduce the carbon intensity of its economy by 45% (from a previous target of 35%)
- 5 By 2070, India will achieve the target of net zero

WHAT IS NET ZERO?

Net zero refers to a balance where emissions of greenhouse gases are offset by the absorption of an equivalent amount from the atmosphere. Experts see net zero targets as a critical measure to successfully tackle climate change and its devastating consequences

PLEDGES BY TOP THREE EMITTERS

- CHINA:** Beijing announced no new pledges on Monday. It previously pledged net zero by 2060.
- UNITED STATES:** The US touted domestic legislation to spend \$555bn to boost renewable power and electric vehicles. It has pledged net zero by 2050.
- INDIA:** The country's economy will become carbon neutral by the year 2070

Source: IE