Viability Gap Funding Scheme for Battery Energy Storage Systems

Source: PIB

Why in News?

Recently, the Union Cabinet has approved the Scheme for **Viability Gap Funding (VGF)** for the development of **Battery Energy Storage Systems (BESS)**, aiming to boost the adoption of renewable energy sources.

- Battery storage, or BESS, are devices that enable energy f**rom renewables, like solar and wind,** to be stored and then **released when the power is needed most.**

Note: VGF is a financial mechanism used by governments **to bridge the gap between the cost of infrastructure projects and their economic viability**. It is typically employed in projects that are considered **economically unviable or financially unattractive** for private investors due to various reasons, such as high capital costs, low revenue potential, or long gestation periods.

What is the VGF Scheme for Battery Storage?

- **About:**
    - The government will provide financial support of up to 40% of the capital cost as budgetary support through Viability Gap Funding (VGF) to substantially reduce the cost of battery storage systems, making them more economically viable.
    - The scheme is strategically designed to harness the potential of renewable energy sources**, such as solar and wind power**, to provide clean, reliable, and affordable electricity to citizens.
    - To ensure the benefits of the scheme reach consumers, **a minimum of 85% of the BESS project capacity will be made available to Distribution Companies** (Discoms).
        - This strategic move not only strengthens the integration of renewable energy into the electricity grid but also **minimizes waste and optimizes the utilization of transmission networks**. Consequently, it reduces the need for costly infrastructure upgrades.
- **Objective:**
    - The primary objective is to facilitate the development of **4,000 megawatt hour (MWh) of BESS projects by 2030-31.**
    - **By offering VGF support, the scheme targets achieving a Levelized Cost of Storage (LCoS) ranging from Rs. 5.50-6.60 per kilowatt-hour (kWh).**

- This cost-effectiveness makes stored renewable energy a practical choice for managing peak power demand nationwide.

- **Significance:**
    - The Government of India reaffirms its commitment to promoting clean and green energy solutions. The BESS Scheme represents a **significant step towards achieving this vision by harnessing renewable energy** and promoting the adoption of battery storage.
    - This initiative aims to create a brighter and greener future for all citizens, aligning with global **sustainability goals**.