

Pradhan Mantri Surya Sarovar Yojana (PM-SSY)

Prelims: Current events of national and international importance | Energy

Why in News?

Recently, the Union Cabinet approved the Pradhan Mantri Surya Sarovar Yojana (PM-SSY), a scheme to accelerate floating solar power installations on reservoirs and water bodies.

- **Floating solar plants** - An array of photovoltaic panels mounted on buoyant platforms like reservoirs, lakes, or dams.
- **Key Components** - Pontoons, anchoring systems and underwater cables.

Feature	Floating Solar (FPV)	Ground-Mounted Solar
Efficiency and Cooling	5% to 15% higher yield because water naturally cools the panels.	Standard yield because panels get hotter on land.
Upfront Cost	10% to 25% higher due to specialized floating platforms and anchors.	Lower installation costs using standard racking.
Space Savings	Preserves valuable land by using reservoirs and ponds.	Consumes large fields that could be used for farming.

Key Features

- **Target** - 5,000 MW floating solar capacity by 2030-31.
- **Objective** - Diversify solar fleet, reduce land dependence, integrate storage for reliability.
- **Financial Assistance** - Central Financial Assistance (CFA) up to Rs. 1 crore per MW.
- **Implementation** - By Solar Energy Corporation of India (SECI).
- **Battery Storage** - Projects under the scheme must include battery storage of at least two hours, totaling 10,000 MWh across the programme.

Current Status

- **Installed Floating Solar** - 0.7 GW
- **Potential** - 102 GW (National Institute of Solar Energy estimate).
- **Largest Project** - Omkareshwar floating solar park, Madhya Pradesh (278 MW, planned 600 MW).
- **Potential States** - Maharashtra, Madhya Pradesh, Karnataka, Odisha, Telangana.

Reference

[The Hindu | PMSSY](#)

