



SECI Plays Pivotal Role in Powering India With Renewables

The Solar Energy Corporation of India emerges as a leading force for creating an enabling renewable energy ecosystem and laying the foundations of a sustainable future in India

By Sujata Patro



1.7 MW solar power project with a 1.4 MWh battery energy storage system in Lakshadweep

It was a defining moment for renewable energy in India and the world when Prime Minister Narendra Modi made the Panchamrit announcement of climate actions, including commitments to reach 500 GW non-fossil energy capacity and achieve 50% of the country's installed electricity capacity from renewable energy by 2030. The global community followed up at the last COP28 at Dubai with a call to transition away from fossil fuels to reach net zero.

Deeply seated in India's solar ecosystem is the Solar Energy Corporation of India Ltd (SECI), which is leading the charge with the help of progressive policies and initiatives and creating an enabling renewable energy ecosystem in the country.

The corporation has been incorporated by the government to create a conducive ecosystem for renewable energy in the country, covering all aspects of the sector. It is the centre point for propelling the sector towards commercialisation. Now, after successful transformation of the sector, other agencies have also been roped in by the government to accelerate and scale up for achieving India's clean energy goals.

India's Power Procurement Intermediary

SECI is a prime example of the Indian government's unique model of boosting and de-risking private investment through a central power procurement

intermediary with a higher credit standing in comparison to the final off-taker(s). Under the vision and guidance of the Ministry of New and Renewable Energy (MNRE), the company is one of the nodal agencies for implementation of MNRE's schemes like issuing tenders for development of solar projects, wind power and hybrid projects on pan-India basis. Presently, over 60 GW of project capacity has been awarded to various developers through competitive bidding process. Out of this, more than 20 GW of capacity has been commissioned and rest of the projects are under various stages of implementation.

In these projects, the organisation is the power procurement intermediary between the project developers and distribution companies (discoms), entering into 25-year Power Purchase Agreements (PPAs) and Power Sale Agreements (PSAs) with these entities respectively. Under this model, the corporation offers payment security to developers and undertakes to collect payment from discoms. This payment security mechanism has helped in providing bankability to the agreements, resulting in very good participation in its tenders and in lowering of the tariffs from about Rs. 17 to about Rs. 2 per kilowatt-hour.

SECI has been instrumental in driving enabling policies that are aligned to the sector's requirements, and has transformed the delivery models through several innovations, such as hybrid, round the clock (RTC), firm and dispatchable RE (FDRE) that not only provide

higher energy output, but also address the concerns of grid stability more effectively.

The organisation has also played a pivotal role in promoting rooftop solar PV projects through competitive bidding route in the country under various schemes of MNRE. Over 5,000 projects with an aggregate capacity of 370 MW have been commissioned in various States and Union Territories through developers.

Besides, the corporation is implementing various schemes of MNRE in which it plays the role of disbursing Central Financial Assistance (CFA) to the project implementing agencies on the basis of predefined scheme milestones. Major schemes cover solar parks, canal top and canal bank, defence establishments and CPSUs. The organisation has set up 22.7 MW of solar projects on pilot scale through its own investment and further projects are under construction.

The organisation's proactive actions and agility of working have given a tremendous boost to the sector and brought about its transformation into a commercially viable power generation source. Because of the scale and ease of doing business, India today has one of the most economical renewable energy tariffs in the world.

Foraying into new business initiatives

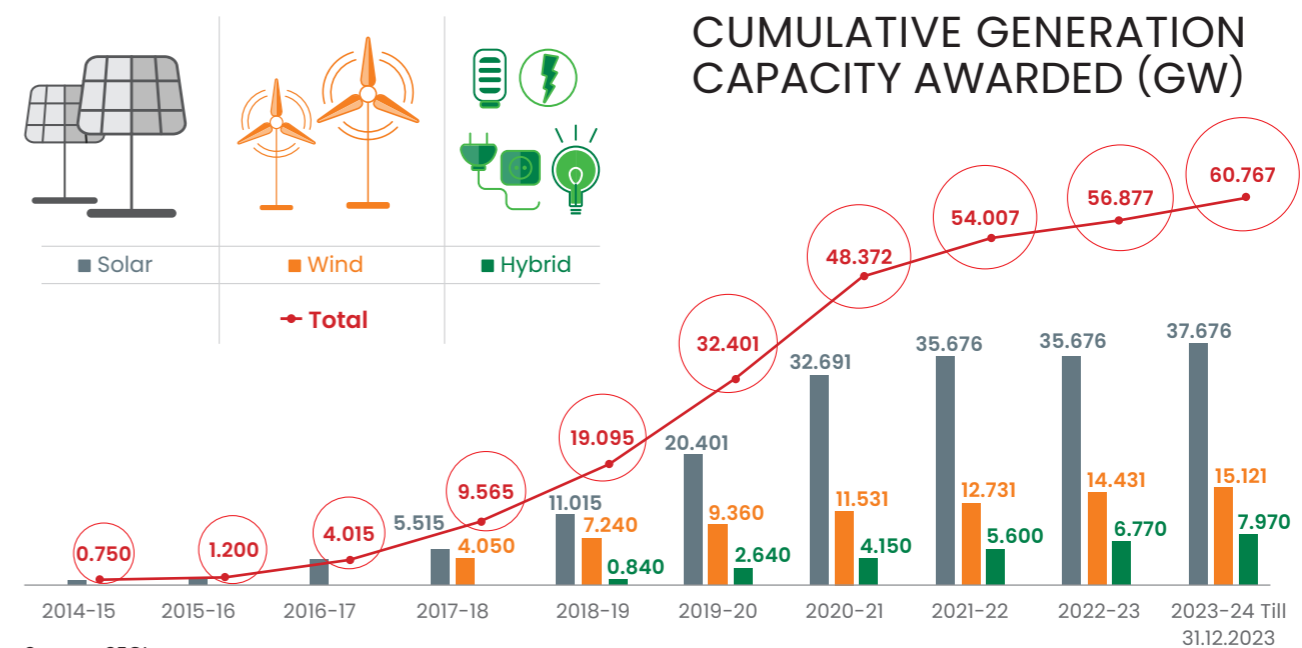
The corporation also offers project management consultancy (PMC) services to other government agencies, PSUs and private entities for renewable energy projects, including project conceptualisation, detailed

project report preparation, tender document preparation and bid management, construction management and commissioning. More than 350 MW capacity has been commissioned by SECI under PMC services.

In line with rapidly evolving renewable energy sector, the organisation is foraying into new business initiatives under the Production Linked Incentive (PLI) scheme, greening electric vehicle charging, energy storage and supplying renewable energy to commercial and industrial (C&I) consumers, and engaging with relevant stakeholders.

The corporation is now transitioning from standalone solar, wind and storage projects to hybrid, RTC and FDRE projects. It is now preparing to venture into the hydrogen space, looking at about 450,000 metric tonnes of hydrogen production capacity and 1.5 GW of electrolyser manufacturing capacity. It is even undertaking special projects in remote areas like Ladakh, Andaman and Nicobar, Lakshadweep, and the North-East region in line with the Indian government's commitments.

SECI's contribution has raised hopes and aspirations for green development in India. The country's journey towards renewable energy is not only a stride towards a more sustainable future, but also economic growth with cascading effect spanning from generating employment to attracting foreign investment. The corporation is a lynchpin of this process by playing the role of a pivot in the government's plans of deepening and broadening the renewable energy sector in the country.



Source: SECI