

Our chance to champion solar energy as a cause

Updated: 25 Jan 2021, 08:54 PM IST
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Photo: Bloomberg

India's bid to play a leadership role in setting up a World Solar Bank is laudable. It could galvanize domestic efforts and give the country a global voice in the push for a clean planet

That renewable energy is on top of Prime Minister Narendra Modi's energy agenda has been evident in the big boost his government has sought to give this sector. With sufficient effort, India could plausibly even attain leadership of the global quest for solar energy to replace old sources of electric power that belch out carbon and heat up the planet. On Monday, Mint reported India's eagerness to become lead member of the World Solar Bank (WSB), a multilateral lender proposed by the International Solar Alliance (ISA), by making an equity commitment of \$600 million for a 30% stake in it. The decks for setting up this bank could be cleared shortly by the steering committee of the ISA, which was formed at our initiative in 2016 to promote the cause and currently counts 121 countries as its members. Significantly, it could well be based in India.

A feasibility study conducted by the ISA and **Brickworks Analytics**, with the help of the Beijing-based New Development Bank's former chief K.V. Kamath, has indicated that New Delhi, Bengaluru or GIFT City in Ahmedabad would be best suited for the WSB. If the plans fructify, this would be the first multilateral development bank with its headquarters in the country.

As climate-change exigencies rise, we should make the most of this opportunity to position India globally as a champion of energy derived from the sun. The power of our example must shine through. Our record on the adoption of solar energy has indeed been impressive. In 2014, when Modi's government first came to power, the country had less than 3 gigawatt (GW) of installed solar capacity. That figure has now reached about 37 GW. This is a notable increase in a relatively short span of time. Yet, it constitutes just about a tenth of our total installed power capacity. As with many other countries, we have a long way to go before India's reliance on fossil fuels is meaningfully reduced. The government has a target of 100 GW by 2022, achieving which would require the country to cover much larger stretches of terrain with solar panels than we have done so far. Our covid lockdown had disrupted this mission, but the Centre seems confident of catching up. In a Mint oped last month, Niti Aayog chief Amitabh Kant wrote that India was likely to exceed by 45 GW its total renewable energy goal of 175 GW by 2022.

While our landmass is endowed with an abundance of sunlight and solar farms are cheaper than ever to set up and operate, we need our own breakthroughs in this field. Right now, most solar cells are made of wafer-thin slices of crystalline silicon, with Chinese and Taiwanese producers accounting for over two-thirds of their worldwide output. But such cells typically convert less than a fifth of the sun's light into electricity and their scope for further efficiency is limited. The West is trying out novel ideas like perovskite films that can be used to coat any sun-exposed object and whose crystal structure allows better energy conversion. Research labs around the world are also working on micro-lenses to concentrate sunrays and improve silicon-based cell performance. Our global claim to success with solar energy would require us to not just ascend that learning curve, but also make exemplary advances on panel technology. For long, investors complained that solar power took too much surface area to generate too little. We should be at the forefront of scientific efforts to stare down solar sceptics, even as we help the world invest in a clean future.