

The Sunshine Era

Center for Study of Science, Technology and Policy

One of the focal points of the Union Budget 2021–22 is the potential of renewable energy — especially solar energy — in reviving the economy. The measures suggested in the Budget could lead to higher indigenisation in the solar energy infrastructure. The Indian solar industry is heavily dependent on Chinese imports at the moment and the emphasis on indigenisation could provide the much-needed thrust to local manufacturers.

Solar manufacturing

The move to increase duties on solar cell/module-related imports will be welcomed by the indigenous manufacturing industry; however, it is worthwhile to note that this may lead to an increase in the prices of imported solar components. For this move to work, standard operating procedures and other incentives for the local manufacturers are vital in driving down costs of the components. This will help level the playing field with international manufacturers. This is key, especially if we are looking at expanding beyond domestic requirements to export quality module/cells to other countries.

The Budget has also allocated funding of INR 1,000 crore for the Solar Energy Cooperation of India (SECI) and INR 1,500 crore for the Indian Renewable Energy Development Agency (IREDA). This would allow SECI to focus more on the implementation of floating solar. It would also help them to stimulate innovation in the RE landscape by exploring the option of round-the-clock RE, which is enabled through complementary storage systems and other options. SECI could also consider

exploring potential sites and technologies and provide gap funding in situations where the levelised cost of electricity from the aforementioned system designs is more than the average power purchase cost for the respective DISCOMs.

IREDA now has a corpus to lend to developers focusing on smaller solar plants (1–5 MW), particularly in the agriculture and residential sector. Farmers can now have access to cheaper finance with the option to solarise agricultural pumps — which has been highlighted as a priority in the Budget. Homeowners can also benefit from these lines of funding, taking India closer towards achieving its rooftop solar targets.

Power

Through the Budget, the Government has also paved the way to empower citizens when choosing their electricity provider. Although the issue has been discussed many times, the Government has finally taken cognisance of the need for competition to be introduced in the functioning of DISCOMs. Consumers will now be able to choose from more than one DISCOM. This will promote competition among DISCOMs, enabling greater efficiency in their overall functioning.

The Government has also announced a INR 3.05 lakh crore scheme to assist DISCOMs. The effective utilisation of funds in alignment with the desired results would be important for the scheme to be a success. Unlike previous schemes, a penal/incentive mechanism is required to achieve the set targets under the new scheme

Apart from the traditional sources of clean energy, the Government has also proposed to launch a National Hydrogen Mission in 2021–22. This means that India is now seriously looking at hydrogen generated through green sources as an energy carrier/source. More focus on production, storage, and transportation of hydrogen is necessary along with a structured R&D programme to make this

initiative a success. The funding announced for the national research foundation can be channelled into the formulation of this mission and its research objectives.

The views are expressed by the Energy and Power team at the Center for Study of Science, Technology and Policy (CSTEP), a research-based think tank.