As a sun-swept country, India should have been a pioneer in the use of solar power with a photovoltaic panel on every roof. Good policy can help make up for lost time. Solar is the most secure of all energy sources, since it is abundantly available in India. With crippling electricity shortages, the price of electricity traded internally touched Rs. 7 a unit for base loads and Rs. 8.50 during peak periods. The 12th Plan envisages 29,800 megawatts (MW) in capacity addition through renewable sources. The Jawaharlal Nehru National Solar Mission, launched in 2010, anticipates that grid parity will be achieved by 2022 and parity with coal-based thermal power by 2030. The domestic manufacturers of solar equipment are livid at the government's failure to protect the interests of the solar industry from cheap imports, despite policy guidelines providing for such measures. According to V. Saibaba, CEO, Lanco Solar, the lack of access to energy is a key challenge in India's growth story, with approximately 400 million people having no access to electricity and another 400 million having limited access. Solar energy, with its inherent applicability of being modular and environment friendly, can help in transforming the lives of millions.

However, Mr. Saibaba underscores the need for serious intervention from various regulatory agencies (government, quasi-government and non-government) to alter market behaviour by removing specific barriers and introducing measures to make quality solar appliances affordable and viable. Another hurdle faced by solar power developers is the lack of financing for companies, and difficulties in priority sector lending for household solar appliances, despite approval from the Reserve Bank of India. "Compulsory solar installation must be mandated in new buildings without which water and electricity connections should not be given; The States should offer additional subsidy as in Kerala, Tamil Nadu and Chhattisgarh for widespread adoption by all income groups," he adds.

Tata Solar Power, a leading player in the solar market, feels solar energy should be treated as a key solution to boosting economic growth and not just as an alternative energy source. "Look at solar as a sunrise industry and not just as a part of the larger power industry. Actively promote solar energy as a viable alternative in urban India and not just as a solution to power-deprived rural or remote regions," says its CEO Ajay K. Goel.

The government must protect and nurture the industry, including the domestic solar manufacturing sector. It will ensure the country is not dependent on imports. "The government has taken some steps to achieve this, but the steps have been either poorly executed or have loopholes," Mr. Goel adds.

Mission flaw

The Ministry of New and Renewable Energy (MNRE), which is responsible for administering the Jawaharlal Nehru National Solar Mission, did mandate in Phase-I of the Mission a domestic content requirement for both cells and modules; but it was applicable only for crystalline PV technology and not

thin-films have their specific application, in India the choice was made not for technological, but financial, reasons. "The lack of clarity is evident in Phase-II too; the government stated that a percentage of the overall power projects worth 750 MW to be tendered for competitive bidding under the Viability Gap Funding Scheme would be reserved for projects with domestic content norms, while the rest of the projects would be free to procure components from any country. What was not specified is the quantum of reservation for domestic content and any exception as in Phase-I. This ambiguity and lack of commitment to protect the domestic solar industry will have an immediate and far-reaching impact on its sustainability," Mr. Goel remarks. Even in the States, several governments are promoting solar energy. While Gujarat and Rajasthan are at the forefront, other States too are moving. Together, Gujarat and Rajasthan have a capacity of more than 1,110 MW.

Solar manufacturers are of the view that solutions should be implemented at two levels: through comprehensive domestic content requirement and anti-dumping and/or countervailing duties. Similarly, support should be extended by way of incentives and subsidies to help them compete in global markets and earn valuable foreign exchange. This model is followed by several countries, including the U.S. and China, to promote their domestic players globally. Gyanesh Chaoudhary of Kolkata-based Vikram Solar says wind power is a different ballgame. India does not have good wind potential, except in some coastal areas. Solar is a more proven technology, and given that India has long sunshine hours throughout the year, the productivity of such plants is higher.