



BY INVITATION

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COEXISTENCE IS THE KEY

Addressing issues of private players could help govt tap 175gw from renewables

THE government's thrust on renewable energy has led the country to experience a transformation in the energy sector. Out of India's total installed power capacity of 303gw, 15 per cent is contributed by the clean energy sector, which is presently driven by 27gw of wind power. The government has set an ambitious target of 175gw of renewable energy capacity by 2022 with an intention to power and achieve energy security in an environmentally sustainable way.

India, undeniably possesses the capability to lead the transition from conventional energy sources to renewables, which, in turn, would also help the country emerge as the world's renewable energy technology hub. But this depends on policy certainty and execution, which is presently seeing a positive change, evidenced in the new amendments in the national tariff policy for electricity in January 2016 that focusses on electricity to all, environment friendly procurement of power to help the *Swachh Bharat* mission, efficiency through optimal utilisation of land and other resources, renewable purchase obligation (RPO) to promote renewable energy, policies and measures that will enable efficient interstate power transmission and introduction of *Uday* scheme to improve the financial health of the discoms, among others.

Another major development referring to the government's move to support renewables is the new offshore policy that facilitates development of offshore wind farms in the territorial waters of India and also the RBI according priority sector lending status for renewable energy.

Playing pivotal roles in the execution of Make in India mission, renewable industry cannot only transform the country into a manufacturing hub for renewable energy technologies, but also prove to be the key to competitiveness of Indian manufacturing and



HIGHER PATH: Together, wind and solar can position India as the torchbearers of a new economy that is environmentally conscious and ensures energy access to all, in an affordable and sustainable manner

exports. Since power is a vital aspect in any industry, it constitutes a critical input and cost. The rapidly declining cost of energy from renewables has resulted in renewable energy sources being competitive with the prevailing commercial or industrial tariff for power from conventional sources. In fact, many companies, public sector units and small and medium enterprises, such as in textiles, have already tapped the benefits of wind power to hedge their energy costs. By investing in renewables, Indian industries can freeze their energy costs for 25 years helping manufacturing become more competitive vis-à-vis the global scenario.

The new government's ambitious plans of 175gw from renewables is achievable if the key issues faced by the private sector are addressed. Additionally, availability of grid and land infrastructure at state level is a concern, which both, the central and state governments are trying to overcome through a variety of programmes viz., green energy corridor and grid strengthening. Renewable energy is bound to need large-scale funding, so it is impor-

tant that banks and financial institutions earmark a fair amount of outlay for renewable energy projects for a longer amortisation schedule ranging 20-25 years.

The ease of arranging funds for greenfield projects and expansion will go a long way towards lowering the cost of energy. Renewable energy is the key catalyst for economic growth of our country and development of renewable energy such as wind is vital to attract domestic manufacturing.

Contrary to common belief, wind is already at grid-parity with other conventional sources of energy and with over 27gw installation, India, today is the world's fourth largest wind energy producer. Solar, which is a sunrise sector in India, is a complementary source and not a substitute to the already established wind energy sector.

It is now firmly believed that both the technologies are required for securing the country's energy needs and lower the levelised cost of energy (LCoE). Due to complementary generation profiles of both, wind and solar, it ensures an optimum utilisation of the

available grid and power evacuation infrastructure, and hence, a combination of both the technologies is required from the country's long-term energy security point of view. Hence, both the energy sources have to grow. This is very much in line with the draft guidelines issued by the Union government on wind-solar hybrid policy.

From a RE perspective in general, and wind energy in particular, it is important to constantly innovate by increasing the efficiency of the products year-on-year.

The wind sector is rolling out products to harness energy from low wind sites, with larger blades, higher towers, state-of-the-art advanced control systems and improved systems for scheduling and forecasting generation; in the future, one would see wind-solar hybrid, along with digitally smart grids and storage systems to smoothen out unpredictability of both the energy sources. Such an approach will also see India emerging as a technology hub for the competitive export market.

Similarly, the solar industry requires a huge cha-

nge in approach to bring down the cost of kWh towards grid parity and also improve the capacity factor.

While the first phase of the solar mission was very successful in bringing the market to a go scale, there is a long way to go in terms of innovation, manufacturing of quality modules on a required scale and achieving efficiency in installation and maintenance.

There is enormous scope for indigenising India's solar value chain. We need to make India a manufacturing and technology hub for solar. With a huge growth potential, Indian solar industry can clearly aim for leapfrogging existing technologies and nations, driving manufacturing in the sector.

On the finance front, apart from raising masala bonds, it is time to implement concepts like investment trust (INVIT), which would widen the equity base and substantially reduce the cost of equity, which is in two-digits today.

There is an urgent need to improve the availability of non-traditional sources of finance for this sector so that projects do not suffer due to undue delays in financial closure.

The banking sector, too, needs to be sensitised to change its approach towards greenfield RE projects which were once considered too risky, but have since proven otherwise. Priority sector lending currently covers only the retail segment.

However, as the market is undergoing a sea change, more and more organised IPP customers are playing a major role and timely availability of cost effective funding to these customers will determine the competitiveness of the country's renewable energy sector.

Together, wind and solar can position India as the torchbearers of a new economy that is environmentally conscious and ensures energy access to all, in an affordable and sustainable manner.

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