

**R**ENEWABLE ENERGY HAS entered an exciting new phase and its growth is unstoppable. Once considered a niche industry dependent on government subsidies,

today it is driven largely by economic realities, improved reliability and cost competitiveness backed by proven technology. Another advantage of renewables is that it is modular in nature and is scalable. We are confident that the evolving technology and economic viability of energy storage solutions, will give further impetus to renewables. Additionally, conducive policy reforms and growing consciousness to mitigate climate change risks, has ushered momentum in favour of renewable energy across the world.

#### **Foundation for a Green Revolution:**

While the wind industry's transition to bidding created short-term challenges in 2017, it laid the foundation for sustainable and inclusive sector growth. Investors are bullish and excited to be part of the renewable growth story in India and the momentum will continue to gather speed. The wind industry is poised to grow to about 8-10 GW annually, with 5-6 GW annual bidding from the central government, 3-4 GW auctions at the state level and 1 GW capacity expected from the PSU and captive markets.

This has paved the way to unlock 300 GW wind energy potential in India and harness the latent potential of non-windy States. The canvas has expanded from nine wind-rich States to all 29 States in the country with waiver of Inter-State Transmission (ISTS) charges in the central bidding scheme. The first auction of 1 GW capacity that took place in February, 2017, witnessed 100 per cent power off-take by non-

## Reshaping Future Of Energy

Renewable energy is all set to aggressively power a greener tomorrow



windy states.

**2018: Opportunities to Unlock:** The government target of 175 GW by 2022, comprising of 60 GW wind energy is not a distant dream. India's coastline of 7,600 km provides enormous potential for offshore wind energy and India can potentially repeat the success achieved in onshore wind energy. The Ministry of New and Renewable Energy plans to auction 5 GW offshore wind energy power projects in 2018.

Repowering of ageing low capacity wind turbines with the latest technology is also an opportunity to be unlocked. Further, India has the po-

tential and capability to become the renewable energy manufacturing hub to the world. By securing the supply chain for wind, solar and other renewable technologies in India, we can not only reduce the cost, but also create value additions and employment in the country. This would act as a GDP multiplier as seen in Europe and China. It will not only save foreign currency but earn much needed foreign currency. What we require now is policy predictability and flawless execution.

#### **Technology and digital transformation:**

Technology and innovation will remain the catalyst that will drive growth in the sector. Digitalisation of services, innovation in tower and blade technologies aimed towards making unviable wind sites viable, ensuring better yield and increasing turbine utilisation will be the key focus areas.

Digitalisation will enable maximising turbine efficiency and availability by leveraging the big data technologies. This will not only increase energy production at lower lifecycle cost, but also ensure greater transparency of performance parameters at all levels. It is a win-win situation for customers and wind farm operators due to enhanced revenue and reduced operations and maintenance cost.

Further, with improved accuracy in scheduling, forecasting and integration in the grid, enabled by the technological advancements, renewable energy has already achieved grid parity with fossil fuels and competitive levelised cost of energy (LCOE).

The wind energy sector is scaling up to achieve nearly 10 GW per annum installation in the next four years. It is through technological innovation and the pursuit of sustainable development that we can power a greener tomorrow. **BW**

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