

Net Zero: Going Green, Going Digital, Time for India Inc to take lead
(Amitabh Kant)

In his national statement at the COP26 Summit in Glasgow, the Prime Minister emphasised on the global belief that India is the only big economy, which has delivered in letter and spirit on the Paris Commitment. From an ambitious net zero target set for itself by the mammoth Indian Railways network to the massive LED bulb campaign UJALA which is phenomenally reducing emissions, India is spearheading the quest for a sustainable planet. With a five-point strategy which includes enhancing non-fossil energy capacity, leveraging renewable energy to generate power for meeting the national energy requirements, a one billion tonne reduction in carbon emissions by 2030 and a reduction in the carbon intensity of the economy, India is poised to achieve net zero by 2070.

India has successfully built a globally competitive renewable energy industry – we have world class clean energy players with top-notch execution capabilities. We are also looking at innovative measures to reduce the capital costs for green projects such as renewables to reduce the solar power prices to INR 1/unit in next 5 years. This will create a situation where India's green products will be cheaper than India's high carbon products. The Government of India has taken a confluence of major initiatives – the Production Linked Incentive (PLI) schemes for Advanced Cell Chemistry (ACC) Battery Storage and Solar Panels, promotion of Electric Vehicles through schemes such as FAME, establishment of the International Solar Alliance, and most recently, the National Green Hydrogen Mission, to name a few. As the leaders of the world meet in Glasgow for COP26 and strategize climate action, the leaders of Indian industries have a decision to make- are they willing to make the switch to green and digital?

For efforts of the government to succeed, the support of the industry is a must to translate policy into action. The world is more enthusiastic about green technology now more than ever, with consumers opting for low carbon products and governments imposing carbon border tariffs. Global investors are keen on funding cutting edge technologies in hard-to-decarbonise sectors and other clean-tech start-ups. Scaling hard-core technologies are extremely challenging and requires extraordinary vision and commitment from the industry leaders. But, the rewards are exceptional for companies that go green and digital. The twin crisis of COVID-19 pandemic and the severe impact of climate change, albeit challenging, present massive opportunities for our industries to become global leaders of tomorrow. For both these challenges, the industry will have to restructure, resize and redesign.

Today's processes are characterized by the extent of digitization whereas the definition of quality also includes carbon intensity. The world is increasingly demanding products and services which are green and digitally driven. Tesla is the poster child for the premium that the market is willing to pay for a company which embraced both green and digital technologies. Tesla's commitment to replace gas-driven cars with AI loaded EVs has paid off- it has become the lowest revenue company to reach \$1 trillion valuation even before it reached the \$50 billion mark. Such astronomical valuation gives Tesla an envious position to

raise capital at very low rates compared to its traditional competitors. The failure of the industry to align itself with this evolved demand would have consequences. A delay of a few months in joining the “go-green” bandwagon led to the BMW’s shares to fall 18% between June to August this year. Major automakers like General Motors and Volvo have all set a date to do away with Internal Combustion Engine. On the contrary, BMW criticized the EU’s target to ban gasoline and diesel by 2035. To add to BMW’s new troubles, their EV competitor, Tesla, is opening a factory in Berlin and Tesla’s model 3 has already become the best selling EV in the whole of Western Europe. Not heeding to the demand for green products has led BMW to lose out a major chunk of its backyard- West Europe, to Tesla and lose 18% share value in 3 months.

The ability of the industry to make this transition quickly is critical for attracting global capital and investments and also for them to integrate deeply with the global value chains. Without this, our industry cannot compete at the global stage. As per a recent report of the Asian Infrastructure Investment Bank (AIIB), sustaining global value chains in the future would require digitization, which has the potential to improve productivity and resilience as well as the ability to reduce the carbon footprint through efficient use of resources. Further, production would have to transition to net zero and each industry would need its own transition to curb emissions specific to its technology and economics.

India has set itself a goal to attain self-reliance in energy by 2047, the hundredth year of independence. To achieve this, there is a need to invest in cutting-edge technologies across areas such as Batteries, Solar Panels, Green Hydrogen, Electrolysers and Green Steel and focus on their consequent scale-up. Lithium-air, Lithium-sulfur, Sodium-ion, Aluminium-ion and solid state batteries all hold promising potential. Next generation and high efficiency solar panels, powered by direct (kerfless) solar wafers and heterojunction PV, are the future of energy industry. It is now the opportune moment for the Industry to make this transition to digital, lean and green. The transition has to be supported by a dramatic shift in mindset. On the digital front, this requires digital transformation of manufacturing intelligent network of machines and processes with IT and communication technology. This, in turn, requires the passion and energy of our companies to bring together technologies such as Internet of Things (IoT) Cloud Computing, Big Data Analytics, Manufacturing, Augmented Reality (AR), Robotics, Cyber Security and Machine to Machine (M2M) communication, besides others, to create Digital Factories.

If we are to fulfil our vision of making Indian products globally competitive, then the industry must establish a new identity of quality and reliability. The industry must build world-class products, increase investments in corporate R&D and drive cutting-edge product investment in future growth areas. Making calculated bets on future technologies holds the key. The Swedish venture, Hybrit, made such a bet on Green Steel and this year they have provided the world’s first customer delivery of Green Steel produced without using coal. Encouraged by them, H2 Green Steel, is planning to build a fossil fuel-free steel plant in the north of Sweden, including a sustainable hydrogen facility, with production starting in 2024. The world is transacting towards industries which are green and digital. These industries will attract capital, lending, technology, innovations and valuations. An all-of-industry approach is the need of the hour to position India’s brand as that of green, high quality and high reliability. Old industries which do not transform will ultimately wither away.

(The author is CEO, NITI Aayog. Views expressed are personal)