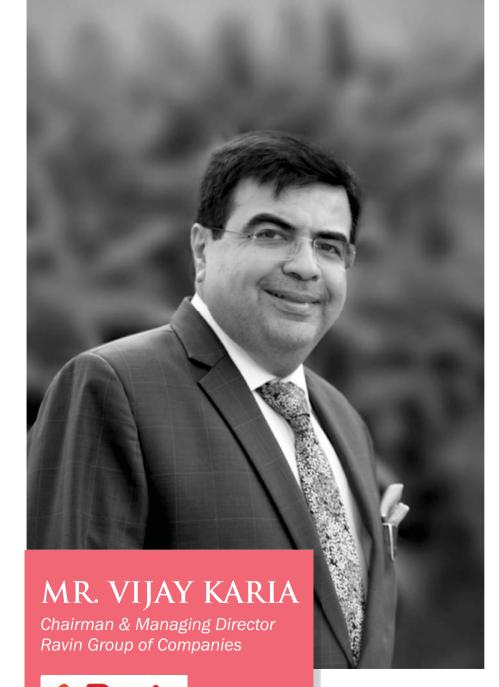
INTERVIEW

- 1. We have less than a decade left to achieve the 2030 UN Sustainable Development Goals, the global energy systems still nee to transformation. How are the Ravin Group products and projects aligned to the UN SDG guidelines to achieve these goals?
- A. The future is going to hit us faster than we think, as the pace of the world - especially the technology space is undergoing massive reforms. While we do not think of the challenges or the changes that we require to align to the UN SDG guidelines, the principle our entire Ravin group organization works onone that is rooted in our DNA, is that we are here to make a difference. We are committed to safety. sustainability and affordability. The technologies that we start researching on today are the path for tomorrow.

Whatever the world does in any field, Electricity is going to be the mainstay for tomorrow. We have seen that health, education, sanitation, industry, infrastructure, sustainable cities or communities, entertainment, infotainment etc, all require electricity. And we are here to provide clean and green electricity. At the same time, ensure safety and affordability.

Ravin group has already undertaken several goals and technologies which will be drivers for the next decade:

 Affordable Green and Clean Energy Committed to generating and distributing clean green energy, especially solar. Our Solar vertical offers affordable energy solutions to residential, commercial and



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industrial consumers by captive or open access mechanisms.

- b. The new technologies in storage are also being worked upon.
- c. Industry, Innovation and Infrastruc ture Innovative, entrepreneurial thinking, constant innovation, creating value and attaining global benchmarks. The rapid infrastructure growth requires ne technologies life for eg.: cables need to be fire safe. And low cost.

Much more from same is the mantra for our solar- through Smart Tracking systems, combining smart technologies

like IoT, IIoT & AI to predict any kind of probable failure.

d. Quality Education – The onset of COVID has reduced the dependence on physical, and made things virtual. While we engaged in sustainable communities, we strongly believe in girl child education and have created an awareness drive in various locations and forums we are present in. We are now in the

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process to set up skill development centers for training the people locally.

- With the world moving from non renewable sources of energy, towards a more conscious, sustainable living, what are the Ravin Group's future plans and growth strategy?
- A. India is stepping up to become a "Solar Diplomacy". Our Group strongly believes that any technology should not only be easily available but also accessible and affordable. (AAA). We strongly feel that renewables is the future for tomorrow. Some of our key plans, under development are to provide customized solutions to generate green energy in remote parts of India. Our SMS 5.4 are solar mobile devices which are a step in that direction. Our target is to produce sustainable products which generate energy and reduce waste by 2025, our sustainable products shall be the fulcrum of productions. Thereby creating a better life for our people and the communities impacted by our business and" consciously moving to a sustainable future.
- 3. Sustainable Energy
 Innovation can have a huge
 effect on business and
 society, in shaping our
 future, by helping to solve
 some of the world's
 toughest problems. How can
 innovation be accelerated in
 sustainable energy?
- A. Simply put, the Innovation that is happening in generation and consumption of electricity is very exciting and perhaps not seen on the surface. But a lot of innovation is taking place. Solar energy is now cost comparable or at certain places lower than thermal energy. Storage ideas are exciting. Electric vehicles- cars, buses, trucks and

scooters- not forgetting e rickshaws are rapidly multiplying. Their fuel of the future is green energy.

Also, renewable energy is having a huge impact in our Infra Revolution - the Off Grid Solar Systems are most convenient way of lighting up remote locations by storage of electricity with the help of low cost storage solutions. Electrifying Schools & Hospitals in remote areas; Making electricity as mobile as you are. It has also sparked a Social Revolution with the rise in Literacy Rate. With Uninterrupted electricity there is upgrade in the standard of living & cleaner air & water available also, renewables creates growth of businesses. This helps to contain brain drain by creating opportunities within the country. **Skill Revolution** - It creates employment in allied industries fabrication; Computer skills like programming & maintenance of systems; Operations & Management of systems. Digital Revolution - Automated tech & analytics will influence customer consumption & contribute to new customer services, boosting economy, e.g. Smart Meters, Digital Infrastructure . Smart devices, etc.

- 4. Renewables comprise 10% in India's energy mix now and the country has emerged as a hotspot for renewable energy investors. What can be some of the challenges despite this, in the path to achieving the 175 GW by 2022?
- A. A facilitating policy framework, an appropriate regulatory framework, transparent and dispute free commercial mechanism of doing business and a robust transmission are what is required today to achieve our renewable targets. Some major challenges that we are facing today are:
- a. Grid Implementation ISTS system of nearly 10000 kms is yet to be

- installed. This can be a major hurdle in achieving the target of 175 GW if we do not have the grid in place.
- b. Land Aggregation Issues 3.5 acres is approximately needed per Mwp of solar. There are many legal and procedural hurdles in land aggregation, which are not only time consuming but lead to lot of litigations. We suggest that the Government should establish the solar parks and not leave it up to the developers to do the same.
- dues to renewable energy generators from DSICOMs (as of Sep 2020) Rajasthan, Telangana, Maharashtra, Odisha, West Bengal are the worst states, States also seeking to circumvent the PPAs or renegotiate the PPAs creates a lot of uncertainty among solar developers
- d. Financing challenges An estimated 45000 cr. financing is required to achieve 100 GW target (out of 175 GW). IREDA, PFCL and REC put together may find it difficult to raise such amounts in such a limited time. International funding will also be required if we are to achieve this ambitious but doable target.
- e. **Policy framework** -The policy setting can be much more "business oriented" rather than "cost oriented".
- 5. The Indian Government is promoting India as a global manufacturing and industrial hub, under massive programs such as 'Make in India'; population and urbanization steadily growing, India's energy demands are poised to grow even more. What are your strategies to leverage into this growing demand?
- A. For our industry, warning bells were being sounded for last many years, with increase in imports and with the industry struggling. However,

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knowing the nature of the product and the way 'Make in India' can be manipulated, the interpretation of 'Make in India' has to be read as "Make Completely in India". Only then will this give an impetus in the industry. To leverage this, and for the country to grow, the reach of electricity and the per capita consumption of electricity has to grow across the space of the entire country, it would not be viable to rely on imports for the growth of the country. We would have to upgrade ourselves in terms of manufacturing techniques and technologies and make it an extremely attractive and viable proposition for the customers to buy products locally. Agile organizations like ours will stand to benefit with the experience and knowledge of markets. The adaptability and the ability to survive and not just sustain but also perhaps growing in this kind of situation would give a huge edge to organizations who are confident of the growth story of India- ones who are not scared of the uncertainty ahead.

Plus, the cyber security- most of the electrical sector is run via computers and IT systems, have brought to the fore the concern that we cannot depend on imports for our critical sectors. And electricity is the most critical sector that will see growth as part of the Make in India.

- 6. The Indian Power sector has witnessed a significant fall in both, conventional as well as the renewable segment's capacity building for close to 3 years now, after the initial robust, enthusiastic growth since 2001. With India's robust energy demand, how can this sluggish growth be countered, despite the current economic slowdown?
- A. True, especially due to COVID-19 caused supply chain disruptions and construction slowdowns. The

commissioning of plants delayed by at least 1 year and India has permitted the same. But our Hon'ble Prime Ministers vision and commitment especially at the recent G20 summit, that we will not only meet the goal of 175 GW target of renewable energy before 2022 but also achieve 450 GW by 2030 instils a lot of confidence in the" sector. Solar energy tariffs have been at par with thermal tariffs.

Added to this the government has already put into place certain good mechanisms that will allow the power sector, especially the renewable energy sector to bounce back well. When it comes to solar, PPAs backed by SECI with off takers lined up pre-auction will give added payment security to the developers and attract more participants. Hybrid auctions, be it wind+solar or wind+solar+storage will make renewable energy more competitive. Removal of ceiling tariffs allows developers to fully reflect changes in the economic environment in their bids and result in more viable projects. Green Energy Corridor and solar parks will eliminate grid and land bottlenecks. Hence, many measures are in place to ensure that we are back on track towards achieving our targets.



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