

'EVs the undisputed future of mobility in India'

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WHAT are the key challenges before the Indian EV sector? And how can we square them off?

Electric vehicles (EV) are the undisputed future of mobility in India; a case in point – a CAGR of 47 per cent is expected in next few years which is quite encouraging for the EV market. However, like any other disruptive technology, there are many challenges on the way. Likewise, despite policy and subsidy drive from the Indian Government, there is still low rate of conversion from interested customers to actual buyers. This is marked by the high initial cost of owning an EV and lack of public charging infra, which is causing range anxiety, i.e., the fear of running out of battery while on the long drive. Another significant barrier is the lack of cost-down opportunity through true localization due to the insufficient availability of LIB cell, raw material, and technology in India.

To square it off, we first need customized EV policies for the different segments of EVs with major focus on R&D and manufacturability especially for batteries, charging infra, and transmission technology. A collaborative ecosystem with sound policies and tax benefits will help generate favourable demand to reach economies of scale.

Share your thoughts on the policy framework adopted by the Indian government in terms of its focus on renewable energy and more particularly with regard to EV adoption?

The Indian government is quite committed towards the renewable energy sector which is quite evident from the policy they have drafted to accelerate the transition to non-conventional energy resources. India, which was ranked fifth in solar power installed capacity as of 2020 and ranked third in the EY Energy Country Attractive Index 2021, upgraded its renewable power generation capacity and has gained CAGR of 17.33 per cent between FY20. The government plans to establish renewable energy capacity of 523 GW by 2030. Aligning with government's vision for renewable energy sector, Servotech is committed to its vision of achieving net-zero emissions and mission to provide the most advanced cutting-edge technology and innovative solutions for a sustainable future. To that end, we have successfully launched solar, off-grid & hybrid PCU systems. Recently, we have successfully installed a first-of-its-kind portable solar system 'Servport' at Ak-

shardham Temple in Gujarat. Another unique device developed by Servotech is the Solar Management Unit (SMU) which converts a standard inverter into a solar inverter, helping reduce grid (government) electricity consumption. Apart from this, we are also providing solar batteries and panels of all specs and sizes.

Plus, the Indian Government is very actively encouraging EV adoption by providing fiscal and non-fiscal incentives including upfront capital subsidy under FAME – Phase II, GST on EV has been reduced from 12 per cent to 5 per cent. Apart from this, income tax deductions can be claimed on the interest paid on loans taken for purchase of EVs. Under FAME – Phase II, the government has approved Rs 10,000 crore for a period of three years commencing from Apr 1, 2019. About 86 per cent of that fund has been allocated for demand incentives for EVs. To overcome the hurdle of availability of charging infra, the government has involved private and public agencies, such as BEE, EESL, PGCIL, NTPC, and oil marketing companies, to help set up 22,000

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EV charging stations in prominent cities and national highways across the country.

For the current financial year, what strategy Servotech is looking to pursue?

Servotech's strategy is to charge the future of electro mobility via creating smart EV charging solutions by cooperating and understanding the unique needs of different stakeholders such as utilities, corpo-

Electric vehicles (EV) are the undisputed future of mobility in India. However, like any other disruptive technology, there are many challenges on the way for EV industry. To square it off, we first need customized EV policies for the different segments of EVs with major focus on R&D and manufacturability especially for batteries, charging infra, and transmission technology. A collaborative ecosystem with sound policies and tax benefits will help generate favourable demand to reach economies of scale, says Sarika Bhatia, Whole-Time Director, Servotech Power Systems in an interview with *Bizz Buzz*



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rates, infra, automotive, fleet operators, cities and end-users, and exceeding their expectation by delivering ready-to-implement e-mobility solutions. Our charging systems are highly energy efficient and are a result of the combination of quality research infrastructure, innovative approaches, skilled personnel, and high performance components. In the current financial year, we are aiming to deliver 10,000 units of high quality EV chargers from our wide range of AC & DC alternatives.

Explains us about Servotech's expansion goals and the vision that you have in place for the next 12 months.

We will be continuing on our growth trajectory this fiscal year as well as we are aiming to cross a revenue margin of Rs 300 crore. To actualize that, we have already added new assembly line for EV chargers and will soon be adding a new plant for hybrid inverters to fulfil customer demand. Briefly, we are aiming a 15 times growth in the next five years.

What would be your key recommendations that could boost EV adoption and manufacturing?

As I pointed out earlier, the key for faster EV adoption is to fasten the pace of increasing and enhancing public and private charging infra and reducing the initial cost of owning the vehicle and replacing

Lithium-Ion battery. Apart from this, the government needs to further reduce import duties on component, SKD & CKD, and ease PLI norms for EV manufacturer - especially for tier 1 & 2 suppliers.

List out the imperatives that would help accelerate the EV charging infrastructure in India?

A dense charging infra is necessitated to fuel demand for EVs. On the other side, a high volume of EV is required to achieve a reasonable return on investment (RoI). Such a unique situation invites the involvement of government in building and supporting the amplification of charging infra. Here, a public-private partnership (PPP) model could prove to be the best arrangement where government can bear the initial cost of infra and can lease charging stations to private players on Operation & Maintenance (O&M) basis.

Servotech has recently ventured into the EV segment, what comprises your go-to-market strategy for the same?

Our strategy is growth-oriented yet simple. It is well-aligned with current EV market dynamics and customer requirements from utilities, corporates, infra, automotive, fleet operators, cities and end-users. Based on demand analysis, we are majorly focusing on AC chargers (3.3kW, 7.2 kW, 10 kW, 14 kW, 22 kW) & DC chargers (30 kW & 60 kW), followed by

combo (hybrid) chargers at a later stage. Accordingly, we are working on optimizing our capabilities to deliver world-class products to our customers. Thereupon, we have invested highly into R&D along with bringing the culture of continuous improvement through lean manufacturing into our organisation and are ready to cut through the competition on the SQCDM front. In our first phase, we have targeted all major cities with high EV density like Delhi NCR, Bangalore, Chennai, Mumbai, Pune, Surat, Ahmedabad, and Chandigarh, and are utilizing our well established network of solar and ServPort distribution to reach other parts of the country.

The EV startup ecosystem is already seeing active women participation and contribution on multiple fronts. As a successful, established woman leader in the industry, share your thoughts on how women are set to bring change to this evolving sector.

India has a great history of women participating and excelling in all fields, and that same tradition has continued generation after generation. If we take a closer look, Indian women have already left a great impression of their will and skill in banking, IT & service sector, and now since the last decade, they have started making their presence felt in the manufacturing sector as well. On similar lines, the EV sector has seen increasing and encouraging participation of women. We have healthy male to female ratio of 70:30 in our organization and have plans to increase it further. We have the example of Ola Electric going with an all women workforce in their future factory which is quite unique if we compare other automotive OEMs. Apart from this, we have many successful women who are already working efficiently to unlock the next level of EV sector in India. To name a few key differentiators, take Sulajja Firodia Motwani, CEO of Kinetic Green, Mahua Acharya the Green Evangelist who is driving India's green transportation by adding value to state-run Convergence Energy Solutions as the CEO, Rashmi Urdhwarshie, a former director of Automotive Research Association of India (ARAI) who is adding value to EV related policies while working with government bodies, and Suman Mishra who is leading Mahindra Electric.

It won't be an overstatement if I say that women's humane virtues like sensitivity, nurturance, and gentleness complement the incubation that India's EV sector currently needs and will prove pivotal as EVs get enhanced with, automation, digitization & AI components.

What are Servotech's key focus areas that

are driving its R&D efforts?

The role of R&D is very central to all of Servotech's efforts. It helps us to carry our vision and mission into solutions by translating internal and external requirements into product design and specification. Recently, we have shifted our R&D centre to New Delhi to ensure close interaction with customers, enact better project execution, and improve synergizing with business requirements and innovations. We have strengthened our R&D team with experienced designers and software engineers and bringing Advanced Product Quality Planning (APQP) and Production Part Approval Process (PPAP) into our development process to improve product quality and help us better align with automotive customer requirements.

From a consumer standpoint, what is the economic equivalent for an electric vehicle?

Understanding EV economics is quite interesting. Automotive companies are currently providing a warranty of 3-8 years or 1.5 lakh to 1.6 lakh kms on EV batteries. Taking that into account, the

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total cost of ownership, consisting of upfront cost, operational cost, and maintenance cost, is found to be most economical in EVs when compared to internal combustion engine (ICE) vehicles as well as hydrogen fuel cell powered vehicles. Recently, Minister of Road Transport & Highways Nitin Gadkari pointed out in the Lok Sabha that prices of all electric vehicle (EV) will be equal to the cost of petrol vehicle within in next two years. This is the good indication for industry as well as for customers that EVs are set to be more economical than any other type of vehicle.

