State Bank should finance renewable energy on priority basis - Sajjad Ahmad Sajid

Exclusive interview of Founder & CEO, Infra Energy Pvt. Ltd

By M. Naeem Qureshi

EU: What is your qualification, experience and attachment with the renewable energy sector?

Sajjad Ahmad Sajid: I graduated in Electrical Engineering from University of Engineering & Technology, Lahore in 1977. I have 44 years of practical experience on execution of energy projects, with 30 years in Saudi Arabia. I worked for 20 years with Siemens Ltd. Saudi Arabia, on project management of 380/132kV grid stations in all parts of Saudi Arabia including Holy places.

I was attached to the renewable energy sector after coming back to Pakistan from Saudi Arabia in 2013. I started working as manager projects with 100MW Quaid-e-Azam Solar Power (QASP) project, Pakistan's first utility scale, grid tied, pilot project located in Bahawalpur, South Punjab from September, 2014. After achieving timely completion of plant commercial operation Date (COD) on 15 July, 2015, I was promoted to the position of chief technical officer of company and worked further 5 years on solar plant O&M together with various studies on solar off-grid solutions in remote areas and O&M of existing hybrid plant (solar & wind). After concluding my contract with QASP by end April, 2020, I decided to serve further the Renewable Energy sector of Pakistan and launched Infra Energy Pvt. Ltd. Lahore, a renewable energy consultancy company as founder/ CEO by June, 2020.

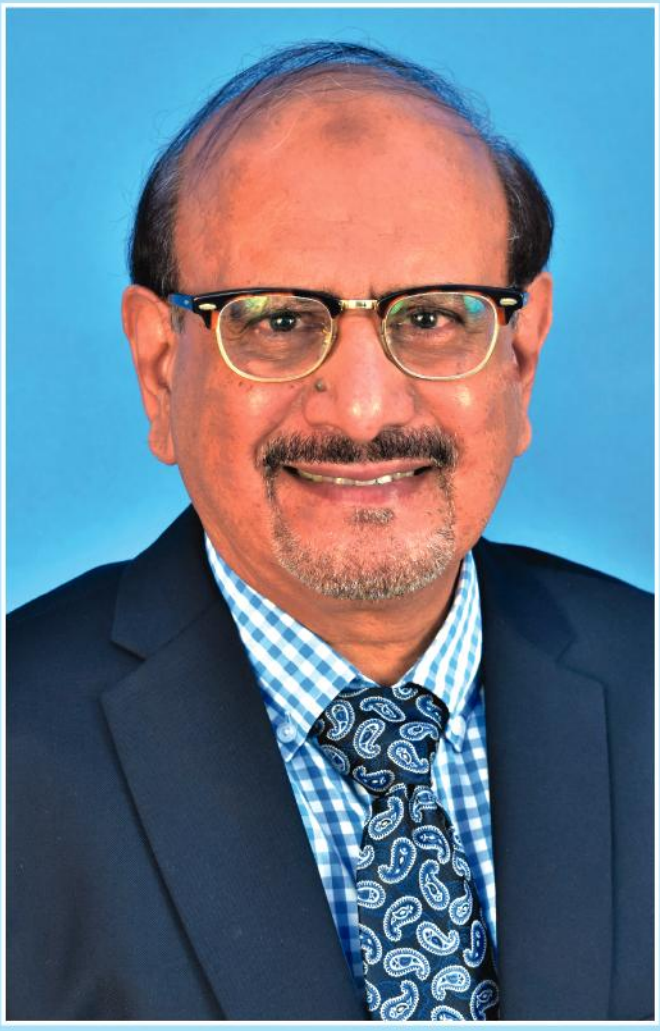
EU: What's your decision-making process to run your business?

SAS: Considering reduction in tariffs and LCoE of renewable energy projects, together with GHG emission reduction, global warming mitigation and decrease in dependency on fossil fuels, the first criteria is that Renewable Energy projects should be promoted in Pakistan. The 2nd criteria is decision making for selection of kind of renewable energy like solar, wind, biomass, smart grid etc. by reviewing various variables. The 3rd criteria require consideration of renewable energy resource data, geospatial data, cost-benefit analysis, technical, economic, regulatory, social and environmental aspects and grid integration to offer investors from site selection to project planning with sustainability, maximization of profits and minimization of risks.

These criteria cover the main decision-making process to run our business.

EU: What are the salient current and future projects of your company?

SAS: Infra Energy is a start-up and we are striving to work on planning, design and construction supervision of following future projects: solar on-grid/ off-grid /hybrid systems with net metering, hybrid wind/solar projects, smart grids, biomass / waste to energy projects, energy efficiency and environmental management, clean development mechanism, smart mechanized cleaning, solutions for PV modules for solar plant



yield improvement, technical and economical performance analysis of renewable assets and performance optimization and battery storage systems.

EU: What is the future of Renewable Energy sector in Pakistan? How can we convert all conventional plants to clean energy?

SAS: Renewable energy currently accounts for 5-6% of the energy mix of Pakistan. However, the government is taking steps to increase the share of renewable energy. As per ARET policy 2019, 25% of total generation capacity shall be from alternative and renewable energy technologies (solar, wind, geothermal and biomass as well as biogas, waste to energy, storage systems and their hybrids) and 30% by 2030. This shall result in a rough split of 30:30:30:10 between renewable energy,

hydropower, thermal power and nuclear power. The potential of wind power alone is 340 GW in Pakistan which should be further exploited. Also, the government envisages 30% from clean energy hydropower resulting in mostly environment friendly and affordable electrical mix. Pakistan has potential to produce 60,000 MW of hydropower, but currently produces just around 7000 MW.

By implementing ARET policy 2019, we can achieve 30% of installed generation capacity in future by 2030. We can convert all conventional energy sources (gas, oil, coal and nuclear) to clean energy by lowering dependence on fossil fuels (which shall tackle circular debt issue also) and increasing the use of renewable energy (like solar, wind, biomass/ biogas, fuel cells etc.) with following additional measures, together with ARET policy 2019: promote the role of energy efficiency in commercial and industrial sectors, increase the use of bioenergy and biofuels, employ off-shore wind projects, mploy small small-scale run-of-river projects together with large hydro projects, prepare and implement integrated energy plan, diversify the investment in renewable energy resources, concentrated solar power (CSP) technology should also be developed in Pakistan and consider large scale battery deployment until cost reductions make it more affordable. By adapting these measures, the fossil fuel-based electricity generation may become minimal beyond 2030.

EU: What reforms should urgently be introduced in the energy sector of Pakistan for its sustainability and to minimize financial losses of the sector?

SAS: The following reforms should be implemented urgently in the energy sector of Pakistan for its sustainability: attractive tariffs for wind and solar plants should be announced by NEPRA, encourage renewable energy zoning and competitive procurement to reduce overall system cost, devise policy and regulatory framework to facilitate private sector engagement in rural/ off-grid electrification in remote areas, develop transmission infrastructure by private sector to enhance grid capacity, exploit wind and solar resources which are cheapest sources of energy (as well as with faster construction time 18-24 months) in Pakistan and stress down the cost burden and increase energy security by increased utilization of abundant free solar and wind resources.

Also, to minimize financial losses to the RE sector, the following policies are suggested: increase transfer of technology, develop local manufacturing of solar energy components (PV panels, inverters, charge controllers, batteries etc.). Against installation of each 1000 MW installation by IPP in future, a PV panels production facility of minimum 100 MW per year should be installed locally by IPP, strong manufacturing base of various models of wind turbines should also be developed with exporting capacity, improve regulatory framework and policy for business-friendly import of renewable energy components, waste to energy technology should be implemented as Pakistan produces one of the world's largest waste, carbon emissions credits should be claimed and traded to avail benefits and earned amounts should be used for promotion of the renewable energy sector, network metering for solar home/ commercial solutions should be further facilitated to customers with the help of all stakeholders (Nepra, Discos and banks), financing facilities towards IPPS, vendors and suppliers for development of renewable projects of different sizes should be improved by State Bank of Pakistan together with local banks. ■