

We should go for local manufacturing of renewable energy equipment - Jalaluddin Sadiq

An exclusive interview of Chief Executive Officer of JD Aviation



For Import of renewable energy equipment and solar panels, we need to have quality assurance system in place to discourage substandard solar panels availability in the market. It is good that Government of Pakistan has already regulated quality import of solar panels.

Now there is need for its flawless implementation", says CEO of JD Aviation while talking to Energy Update in an exclusive interview. He further says that

■ By Mustafa Tahir

EU: Please brief us about yourself, your qualification, experience and attachment with renewable energy Sector?

Jalaluddin Sadiq: I am an Aeronautical Engineer by profession and I graduated in the 3rd Engineering Course of the PAF College of Aeronautical Engineering Korangi Creek-I graduated in June 1970 and was commissioned in the maintenance branch of the PAF. I served my country and PAF for 34 years and retired as a Group Captain in 1998. I handled various projects independently some major are: Resident Engineer HMC Taxila to execute drop tank manufacturing project (1975 – 1980). Project Officer Blue Flash IV: Established second line maintenance facilities in PAF Masroor for Mirages (1980 – 1981). Officer Commanding Engineering Wing PAF Base Minhas: Planned and established facilities for new Base (1984 – 1986). Director Weapon System Management (French) in Rear AHQ Peshawar (1986 – 1988). Director Quality Control Rear Air AHQ Peshawar (1988 – 1989). Chief Engineer (Facilities & Development) and Project Director K – 8 Co-project in AMF PAC Kamra (1989 – 1998). Contributed various papers / presentations related to establishment of Aviation Industry in Pakistan. (7th National Aeronautical Conference 26 – 27 March 1995).

Defense Industries Co-operation among Developing Countries in 2000 with special reference to the Aviation Industry held in Turkey. Presentation / Press Briefing on PAC Kamra & K – 8 programme in Air Shows at Singapore 1992, Thailand Air Show 1993 and Dubai Air Show 1995 & 1997. Honours & Awards; Awarded Tamgha-e-Imtiaz (Mil) for outstanding performance in establishing PAF Base Minhas (1986). Awarded Maintenance Efficiency Trophy for Excellent / Safe Maintenance of Weapon System at the Base (1985). Thrice Awarded Chief of the Air Staff Commendation Certificate for outstanding performance and devotion to duty.

Post retirement; In 1998 joined Kohinoor Textile Mills Rawalpindi as Manager Engineering Services. Proactive Machinery Maintenance Program established.

Water resource development project implemented to meet daily requirements of 50000 gallons per day. In 2006 joined IKAN Engineering Services as business partner. 2014 Started own company JD AVIATION SOURCING & ENGINEERING SERVICES. With focus on Renewable Energy especially Solar PV projects.

In order to remove its carbon footprint humanity is opting for renewable energy and among all renewable energy sources solar shows the most potential. The sun is producing unlimited amount of energy compared to our needs, but we are yet to

harness that energy with maximum efficiency. Concurrently the concept of solar thermal storage (TES) has shown great promise.

I am among those pioneering solar energy. Ever since my days as Flying Officer in the PAF Maintenance Branch, I have envisioned developing a PV module manufacturing facility but the state of solar energy at the time did not permit so. But now the times have changed, with entire world opting for renewable energy, I decided that Pakistan should do so as well. JD Aviation., a company dedicated to establishing solar energy as the one of country's major source as well as raising awareness among the populous. And to further it's cause JD Aviation., employs those having exposure in renewable energy like its employees having worked with BP Solar and World Bank project "White Pipeline" represented Pakistan in world solar Summit in Malaysia, 1997. With having worked in PV systems the company has now turned it's attention towards thermal energy especially solar thermal storage (TES). TES is still in its infancy phase and its prototype / lab module has been developed by Azelio; renowned Swedish company. We already signed MOU with them for developing and marketing their TES systems in Pakistan. We are expecting to have its first system in Gwadar in November this year.

As both PV and TES solar systems have their importance. We also have active plan for local production of solar modules in Pakistan. We are in search of potential JV partner, who has international PV manufacturing experience and willing in transfer of technology. We are already in negotiation with potential JV partners. Local production of solar panels in Pakistan is very import for Pakistan economy as well as development of renewable energy in Pakistan as it will help us to save our valuable foreign exchange, otherwise used on solar panel massive import. We are also actively working on creating awareness about use of renewable energy especially solar energy by contacting potential users to create market as well as establishing knowledge / industry linkage between academia and industry. In this regard we established "Center for Renewable Energies and Appropriate Technology (CREATE)" in Karakorum International University (KIU) Gilgit. Beside this we are helping engineering students in all major universities with their final year projects especially related to renewable energy. I also deliver lectures in Engineering Institutes as well as in Engineering Professional Associations. I also wrote technical paper on

thermal energy and presented paper in International Symposium on Renewable Energy organized by Air University Islamabad. We also have active internship program for engineering students to provide hands on renewable energy projects work exposure. Similarly we are actively involved in developing skilled manpower in renewable energy sector and work actively with Skill Sector Council for Renewable Energy (SSC-RE) to identify the skills set gap and opportunities to fill the gap.

We are blessed with natural resources including hydro, sun and wind. Need of the time is to optimize the use of these resources. It is important to use these resources appropriately either independently or jointly as hybrid systems depending upon their availability.

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

JS: Our decision making process is based on team consulting, brain storming within team preference is given to innovative ideas keeping in view national interests and move along with all stakeholders. Learn lesson from successful business models and adopt creative result oriented approach.

EU: What are the ongoing and future projects of JD Aviation?

JS: We are currently working on solar thermal storage TES projects with Azelio Swedish renowned renewable energy manufacturers of Concentrated Solar Power, solar thermal storage (CSP – TES). Similarly we are working on Solar PV residential as well as commercial projects. We are also AEDB approved vendor for Solar PV net metering. We also have active plan for solar panel local assembly / manufacturing facility in Pakistan.

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

JS: We are blessed with natural resources including hydro, sun and wind. Need of the time is to optimize the use of these resources. It is important to use these resources appropriately either independently or jointly as hybrid systems depending upon their availability. Like in Gilgit, Baltistan due to its location and resources 90% of its energy requirements are met by hydro. However, due to its severe weather in winter, the hydro potential drastically reduces and they need solar and wind (wherever feasible) to fill the gap. Therefore, Hydro-Solar-Wind hybrid systems are most appropriate for this region. Similarly decentralized off grid solar and wind systems have their importance for areas having uneven population density and areas far away from grid. Most import thing we need to focus on is total overhaul of our distribution and transmission lines to minimize the power losses and maximize the benefit from solar and wind farms. With reference to import of solar panels we need to have quality assurance system in place to discourage substandard solar panels availability in the market. It is good that Government of Pakistan has already regulated quality import of solar panels. Now there is need for its flawless implementation. Awareness about renewable energy use is very important. That is potential users know what is his / her actual requirement in term of load. Second basic know-how about renewable energy components / systems including how to check the rated power and other related parameters and quality, knowledge about pricing, warranties, designing, installation / commissioning norms. System maintenance (if any), module cleaning and also have knowledge of common system faults and its remedy. On vendor / installer side ensuring proper training / skill set of the manpower. We have to ultimately go for local assembly / manufacturing of solar panels as well as inverters and electronic control units economically without compromising quality. This will also help us to save valuable foreign exchange. Lastly there are a lot of uncoordinated activities going on in renewable energy sector especially on government level. We need coordination within renewable energy sector main objective to develop inventory of available resources in terms of equipment, facilities as well as skilled manpower. In second stage we will identify and consolidate duplicate resources for optimal use. ■