13th China (Jinan) Solar Energy Utilization Conference & Exhibition

Nepal eyes on Chinese solar technology

BY SHRISTI KAFLE

When countries all over the world are enthusiastically embracing alternative energy such as solar, wind, and biomass, Nepal cannot be left behind. Renewable energy, in fact, has become inevitable.

Having used various advanced solar technologies, mostly in the rural areas, Nepal is eyeing towards China, which has developed the most advanced technologies in solar energy. In 2016, China became the world's top solar-energy producer, boosting its photovoltaic capacity to around 78 Gigawatts, while it aims to produce 105 by 2020.

Experts argue that the enormous potentiality of exploiting Nepal's water resources, the use of solar panels to convert the great quantity of sunlight, and the wind energy can satisfy the country's electrification demand. Moreover, exploitation of these resources can be an inexhaustible and "clean" source of profits.

Nepal's participation in the 13th Jinan Solar Energy Utilization Conference and Exhibition (SUCE) held in Jinan, the capital of east China's Shandong Province during the first week of April proved to be effective. The exhibition was participated by entrepreneurs and businessmen from at least 10 countries, including Nepal, China, Bangladesh, Vietnam, US, Australia, Sweden, Romania among others.

Organized by Shandong New Chenghua Exhibition Co.Ltd., it proved out to be the right platform for solar enthusiasts to explore more about solar technologies, latest products, its features, and to seek possibilities of their usage back home. It should be noted that Shandong occupies 60 percent credit of the total manufacturing capacity of solar technologies in whole China with over a hundred energy projects.

At least 18 representatives from various Nepali solar energy-related companies and organizations participated in the fair. Talking to APD, the participants said they were impressed by the fair and showcase of technological innovations. The representatives told APD that this can be implemented in Nepal as an alternative source of electricity to meet energy demands.

"I am impressed with the water heating technology used for large-scale industries, which has a payback guarantee. It can be effective for Nepal which is heavily dependent on imported fuel. Besides, electricity is expensive. I am confident that this technology will be productive in our hotels and factories," Kiran Prakash Saakha, Director of Saakha Group - involved in construction, trade, and manufacturing, told APD in China's Jinan.

Saakha added that he is planning to introduce the same technology in Nepal. "I visited two industries and observed the commercial water heating system which can work in both summer and winter. The cost of installation is quite reasonable, and it perfectly fits our purpose. This, I am sure, will generate good business in Nepal," he said.

The delegation also visited a leather processing and textile factory at the outskirts of Jinan city to explore features of solar water heating system and working modalities. Impressed with the system, Nepalese entrepreneurs said it would be suitable for Nepali industries since Nepal, which has 6.8 sunshine hours per day in an average, has a commercial potential of solar power for grid connection estimated to be 2,100 MW.

Likewise, among a wide range of products showcased in the exhibition, Nepalese entrepreneurs were impressed with the solar panels. With the government's introduction of financing solar projects at a subsidized interest rate in 2015, solar panels have become popular in Nepal - though recognized as the second richest country in water resources.

Arun Kumar KC, who is involved in multiple hydropower projects in Nuwakot and Myagdi districts, said that the Chinese expertise is the best in solar technologies, which he argued would suit for a country like Nepal because it is easily available besides being cost-effective.

"I have been purchasing hydro turbines from Chinese companies. They are efficient and of standard quality. This time, I am impressed with the solar panels. Since I am planning to initiate a 5 MW solar project on the outskirts of Kathmandu soon, I will use the products that I saw here in Shandong," KC told APD in the exhibition.

Echoing KC's view, Shamba Lama, Director of Akama Hotel, who is also involved in solar projects in Nepal, said he was highly impressed with the way the Chinese government has been working towards the protection of environment along with the operation of the business.

"Solar technology can be a right approach to protect environmental degradation. China has promoted electric vehicles, which can be used in our cities as well. I realized that Nepal needs to learn a lot from China in regard to clean energy ambitions," Lama told APD.

Meanwhile, several Nepalese companies inked a deal with some Chinese companies on solar business. Manish Baral of Surya Power Company Pvt. Ltd., who signed an agreement with Chinese company Sun Grow Power Supply, said that Chinese solar products are highly efficient for Nepal. "We will use Chinese technology this year," he said.

Likewise, Bharat Malla of Solar Homes Nepal Pvt. Ltd., who has been doing business with China for the last three years, said that he is satisfied with the Chinese products. "I sold nearly 13,000 solar home systems in Nepal last year of which 90 percent were Chinese products. They are cost effective and handy. I have no complaints."

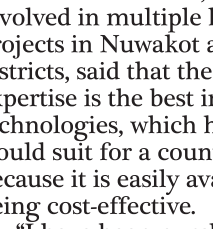
Despite having huge potential in alternative and renewable energy sources, Nepal is heavily dependent on hydropower and traditional sources like biomass for energy demands. Nepal aims to achieve universal access to clean, reliable and affordable renewable energy solutions by 2030. Thus, experts are of the view that it is high time that Nepal focused on energy security by promoting clean energy and launching new mechanisms, rather than being dependent on a single energy source.

World's First Solar Highway

At the end of 2017, China opened a 1-km section solar expressway in a ring road surrounding Jinan as the world's first photovoltaic highway. As part of the first solar highway, solar panels are laid beneath the road while the road surface is made of a transparent, weight-bearing material that allows sunlight to penetrate. The stretch is made of three layers: transparent concrete on the top, photovoltaic panels in the middle, and insulation on the bottom.

According to the authorities, the panels, covering 5,875 square meters, can generate 1 million kWh of power in a year, enough to meet the everyday demand of street lights, snow-melting system on the road and even households. It has been designed in such a way that it can supply power as charging stations for electric vehicles

Peng Fei
Vice Secretary General
Shandong Solar Energy Industry Association



Today, there is a huge competition in terms of energy in the world. No matter rich or poor, the countries are coming up with new innovations in solar technology. Being a least developed country, I believe, Nepal too should develop its own kind of solar technology and industry as per the need by utilizing the available resources. Nepal should grab the sunlight and make the optimum use of it to create energy. Nepal can opt for public-private partnership model to realize its solar energy dreams. As Shandong is a powerhouse of solar energy, we are always ready to promote solar development in Nepal and we look forward to cooperation.

Wang AiMin
Chairman
Shandong New Chenghua Exhibition Co. Ltd.

Shandong was dependent on coal production and consumption for energy needs earlier. But in the last few years, it has transformed into a solar hub with heavy industries and the highest energy consumption. We have developed our economy but we have also been able to protect our environment due to which we can see the blue sky even today. Nepal can adopt a similar model. We very much welcome Nepali entrepreneurs to Shandong to observe our technologies and industries. Under the Belt and Road Initiative, Nepal can seek China's support and cooperation to develop solar energy industry.