

Energy Transition: Immense Potential for Sino-Finnish Cooperation

Reported by Huan YU

Early November was met with a snowy and chilly Vaasa, the port city in the west of Finland, where the “Sino-Finnish Business Forum on Energy Transition” took place heatedly. The Forum focused on the favourable conditions and prospects of sustainable energy cooperation not only between China and Finland, but also between China and Europe. It was attended by over 100 guests from governments, enterprises and academic communities in China and Finland. The development of the energy industry in China and Finland was respectively introduced. It was widely agreed that there are significant and promising prospects for cooperation between the two countries in energy transition.

Finland: Leader in EU Energy Transition

This forum was part of the serial activities in conjunction with the EU regional development projects and aimed to promote close cooperation between Chinese and Finnish energy enterprises in the context of global energy transition. Among those who addressed at the Forum were Mr. Chen Li, Chinese ambassador to Finland, Mr. Tomas Häyry, mayor of Vaasa, and Ms. Annukka Jokipii, vice-president of University of Vaasa. The keynote speakers included Ms. Miapetra Kumpula-Natri, member of the European Parliament from Finland, Mr. Gao Shixian, deputy director of Energy Research Institute National development And Reform Commission, Mr. Zhu Ziqi, chairman of Chinese Enterprise Association in Finland, and Mr. Tan Libin, president for the Energy Storage Business Unit of CATL. The topics covered Sino-Finnish energy policies, Chinese and Finnish corporate cooperation prospects and development strategies.

China and Finland are mutually and naturally complementary in developing energy transition and share a solid foundation of mutual trust, said Dr. Liang Liting, executive director of the Sino-Finnish Research Centre for Science, Technology and Innovation (Sino-Finnish STI Centre) at the University of Vaasa, the host of the Forum. As a think tank supported by EU funds, the Sino-Finnish STI Centre will continue to serve as a platform to promote all-round cooperation in energy transition between the two countries.

Ambassador Chen Li pointed out in his speech that China attaches great importance to energy transition. As the world’s largest producer and consumer of renewable energy, China will adhere to the Paris Agreement and is willing to strengthen cooperation in the field of energy transition with Finland.

Mr Tomas Häyry explained in detail the special status and advantages that Vaasa and Finland enjoy in the energy field in Europe: Finland is a leading figure in EU energy transition, and Vaasa, with the highest degree of sustainable development in Finland, is truly the Nordic energy capital. Thanks to Finland’s dynamic innovation system, rich talent reserves and high-quality business environment, Vaasa has become home to a large number of internationally renowned energy enterprises, including ABB, Wartsila, Danfoss, Yaskawa, as well as a substantial amount of small and medium-sized enterprises that are committed to sustainable development.

As early as in 2014, Finland has achieved the goal of “38% renewable energy by 2020”, the only EU country that has met the goal ahead of schedule (editor’s note: the EU requires that the proportion of renewable energy consumption in the region reach 20% by 2020, and allows member states to set their own goals). Finland has also leapt forward and become a world-class leader in energy transition.

In the 2019 Energy Transition Index (ETI) released by the World Economic Forum (WEF) in late March, Finland ranks fourth among 115 countries.

Nevertheless, Finland's great success in energy transition was not built in a day. With zero local coal and oil resources and extremely scarce traditional fossil energy resources, Finland has to feed its pillar industries, forestry and metallurgy, both large energy consumers, in addition to the long heating period and the high heating demand in winter, altogether resulting in a Finland highly dependent on foreign energy for a long period of time. Statistics show that, even with nuclear power included, Finland's energy self-sufficiency rate was below 50% during the first 10 years of this century. In order to break from it, Finland, while making every effort to improve energy efficiency, has been vigorously developing new energy sources, mainly renewable energy.

We saw on the airport shuttle bus in Helsinki a striking sentence in English: "The fuel used by this vehicle comes entirely from recyclable waste, and all Finnish airports will be carbon neutral by 2019". In Finland, low-carbon efforts can be seen everywhere, even in kindergartens where energy-saving education is also incorporated. The development and applications of Finland's hydropower, wind power, geothermal power, and second-generation biofuels based on massive forest resources have also reached a considerable scale.

Energy Cooperation Brightens Sino-Finnish Relationship

Finland was one of the first Western countries to establish diplomatic relations with the People's Republic of China, and also the first Western country to sign an inter-governmental trade agreement with China. Its successful pilot in low-carbon energy transition can provide practical references and create cooperation opportunities for China who is currently accelerating the construction of a clean, low-carbon, safe and efficient modern energy system.

In fact, since the exchange of visit between the heads of state of China and Finland in 2017 and 2019 respectively, business cooperation between China and Finland has gained unprecedented momentum, with energy being one of the most benefited and prosperous cooperation areas. In January of this year, the National Energy Administration of China announced the first batch of China-Finland energy cooperation demonstration projects. Four projects in Guangdong, Henan and Beijing were selected. These projects focus on microgrids, geothermal energy for clean heating, energy internet and biomass-coupled power generation and heating. They are forward-looking projects that give full play to the complementary advantages of both sides, and have unique values for future energy development in both China and Finland. In terms of the industrial chain, many enterprises rooted in Finland, such as ABB, Wartsila and Switch, are currently getting intensively involved in China's smart grid, marine power, wind turbine manufacturing and other energy fields. They are also closely cooperating with many Chinese energy enterprises, such as the State Grid Corporation of China and Goldwind.

It is worth noting that with the rapid development of renewable energy around the world, energy storage is expected to become an up-and-coming area for vigorous cooperation between China and the EU. Energy storage is one of the two major growth engines of CATL who started to develop its energy storage system soon after the establishment of the company, Mr Tan Libin from CATL said in an interview. Currently, the system has achieved successful applications in power generation, transmission and distribution, utility and microgrids. "We firmly believe that energy storage can bring broad attractive prospects. The continuous improvement of photovoltaic and energy storage technologies will increasingly highlight the advantages of 'PV + ESS' in technology, application

scenarios and overall costs, and it will become the future solution to replace traditional thermal power generation.”

Representatives from Finnish energy companies felt that same way at the Forum. “European countries, including Finland, are driving full force towards developing renewable energy, such as photovoltaic and wind power. The sizable application of these new energy sources has spawned increasingly frequent demand for peak and frequency modulation. Energy storage will certainly play a key role in the future European energy system. China holds a leading position in the world regarding renewable energy. That is why we look forward to and welcome Chinese enterprises to bring energy storage solutions.”

In addition to direct corporate cooperation, Annukka Jokipii added, a significant number of Finnish universities and research institutions, including the University of Vaasa, have initiated vigorous cooperation with their Chinese counterparts in renewable energy, waste disposal and smart grid among other fields.

At the Forum, Finnish participants expressed their agreement in an interview: Chinese and Finnish energy enterprises should further their cooperation, in particular hoping to have more Chinese energy enterprises to set up in Finland.

Juha Häkkinen, CEO of Ostrobothnia Chamber of Commerce, explained that Finland provides a top-notch business environment and is the best choice for Chinese enterprises that wish to explore business opportunities in EU. “Finland is the only country in Northern Europe that uses the euro as its major currency. The corporate income tax rate here is only 20%, which is much lower than other developed countries in the EU. In addition, with large high-tech talent reserves brought by the Finnish high-quality education, we are able to create high-value investment returns for foreign enterprises.”

Despite the broad prospects of cooperation, differences in business concepts and models between Chinese and Finnish enterprises may present challenges that need to be overcome. “Most Finnish enterprises are private businesses with highly specialized skills even though they may be of a small scale. For example, my company has been in business for 50 years, even though there are only 8 staff including myself. On the contrary, Chinese enterprises are usually very large. They like M&A cooperation instead of letting their partners play their specialized advantages independently, which is confusing for us.” Said Kristian Schrey, CEO of Viexpo, a Finnish marketing firm that focuses on providing international services. “But that's exactly why I came to this Forum. Only by understanding each other can we cooperate better. And I believe this is a good start.”