

# Inexhaustible Green Oil Fields Rotate with the Wind

Once seen as a childhood toy that spins when blown, in the future, however, windmills may line up in the sea and become one of the major sources of electric power in Taiwan.

with the gradual depletion of global energy and the increasing tendency toward energy saving and carbon reduction, every country has pressed forward with the development of new and renewable energy sources. Wind power is one of these sources.

The development of wind power in Taiwan can be divided into two types: land and offshore. The former is based on small and medium wind turbines and has already been developing for 7-8 years with a complete system/component industrial chain, which provides 100W-10kW products. In addition to supplying products to domestic public constructions, private factories and communities, the wind power industry has also been exported to Canada, China, Latin America and Africa. In order to comply with export laws and regulations of different countries and lower inspection and certification costs for manufacturers, in 2010, MIRDC cooperated with BSMI (Bureau of Standards, Metrology & Inspection) under the Ministry of Economic Affairs to establish the first "Testing Laboratory for Middle & Small Wind Turbine Systems" in the Asia-Pacific region. Based on international standards, the lab has continually received a lot of international accreditations and is expected to create an annual production value of NT\$1.5 billion approximately.

Because wind turbines on land were approaching saturation at the end of 2012, In consideration of Taiwan's geographical advantages, including being surrounded by sea, the excellent condition of offshore wind farms, and the strong northeast monsoon, the Ministry of Economic Affairs decided to develop the offshore wind power industry. About 600 offshore wind turbines are expected to be installed before 2030, creating a production value of approximately NT\$0.7 trillion.

Coping with the developing trend of offshore wind farms, MIRDC plans to introduce foreign related technologies and promote the establishment of infrastructure such as harbor docks for offshore wind farms, pre-assembled processes on land, and industrial parks for manufacturers. Under the instruction of the Industrial Development Bureau, MOEA and MIRDC also established TWTIA (Taiwan Wind Turbine Industry Association) and facilitated benchmark manufacturers such as the China Steel Corporation (CSC) to participate in the association. In addition, MIRDC plans to introduce the industrial standard inspection and certification system for the domestic offshore wind turbine industry in order to reduce investment risks and ensure that domestic systems and components are able to be exported. However, the development technologies of offshore wind farms are much more complicated than those on land. Support from government is necessary, so that this industry will be able to develop and all the related industries of this field can grow.