

8. Renewable Energy

8.1. Lamma Winds and Solar Power System

Committed to developing renewable energy (“RE”), HK Electric has built the city’s first commercial scale wind turbine, “Lamma Winds” and an extensive solar power system.

Lamma Winds was commissioned in February 2006 and has since become an icon for the city’s aspirations for cleaner air. Perched atop Tai Ling on the northern part of Lamma Island, it remains Hong Kong’s first and only grid-connected wind power station and is now a very popular destination for visitors to Lamma Island.



Commissioned in 2010, the **solar power system** is located inside Lamma Power Station and is one of the largest in Hong Kong. The one-megawatt system comprises more than 8,600 thin-film photovoltaic modules installed on the rooftops and grounds of the station buildings. The two RE systems combined produced about 1.47 million units of green electricity in 2016, avoiding 1,230 tonnes of carbon dioxide emissions that would have been produced with coal-fired generation.



8.2. Offshore Wind Farm Project

To further harness RE, HK Electric is proposing to build a 100 MW offshore wind farm at about 3.5 km southwest off Lamma Island. In March 2012, we set up a wind monitoring station on site to collect meteorological and oceanographic data necessary for the wind farm’s detailed design. Initial analysis confirmed its feasibility and more data to optimise its design are being collected. Discussions with key stakeholders indicated that the project is supported by the community in general.

The construction of the wind farm is contingent upon government approval. Upon completion, it is expected to produce enough energy for 50,000 families, representing about 1-2% of HK Electric’s annual electricity output. This will offset the usage of 62,000 tonnes of coal and 150,000 tonnes of carbon dioxide emission every year.

8.3. Customers’ Connections to our Grid

To encourage and support efforts in using RE in the community, we welcome customers to connect their RE power systems to our electricity grid. To do so, the proposed RE systems must comply with the relevant technical and safety requirements as stipulated in the Company’s Supply Rules and relevant technical guidelines issued by the Government.

As at end 2016, about 70 small scale RE installations, mainly from non-residential customers such as government buildings and schools, have been connected to our power grid.