

Friends of the Earth

地球之友

For Immediate Release

Wind Energy Can Power Hong Kong

Friends of the Earth (HK) Supports LegCo's Endorsement
of the Motion Debate on Renewable Energy and
Urges the Government Formulate a Renewable Energy Policy for Hong Kong

Thursday, 31 October 2002—Friends of the Earth (Hong Kong) fully supports the Motion Debate on “Renewable Energy,” brought forth by Legislative Councillor Law Chi Kwong on Wednesday, 30 October, and is pleased that the Legislative Council has endorsed the motion. We now call on the Hong Kong SAR Government to swiftly respond to the Legislative Council's request regarding this important policy issue and formulate a renewable energy policy for Hong Kong.

Renewable energy is the only long-term solution to avert climate change. Hong Kong's air quality is rapidly deteriorating and will only continue to worsen. Our local power plants contribute to 64 percent of Hong Kong's carbon dioxide emission, which is the major component of greenhouse gases that contribute to global warming. It is vital that Hong Kong do its part to support China's ratification of the Kyoto Protocol. Hong Kong has similar levels of per capita carbon dioxide emissions compared to many European countries that have already ratified the Kyoto Protocol, such as France, Spain, Portugal, Switzerland and Sweden, and much higher per capita emissions than China. We must continue to actively control and minimise current pollution. Introducing renewable energy into our energy portfolio is an essential part of the solution.

It is imperative for the Government to formulate a ***Renewable Energy Policy*** within a definite timeframe for implementation. Friends of the Earth proposes that the Government set a target to introduce a certain amount of renewable energy into Hong Kong's energy mix in the near term. The interim review at the end of 2003 of the Government's Scheme of Control agreements with the two utility companies, CLP Hong Kong Limited and The Hongkong Electric Company, Limited, is an opportune time for the Government to implement a ***more socially responsible energy policy for Hong Kong.***

We urge the Government and the two power companies to actively explore different sources of renewable energy. Not only should Hong Kong look at local opportunities to implement renewable sources of energy, we must also ***look beyond our boundaries.*** Our small land area and urban density may preclude the development of large-scale renewable energy projects, but there are numerous viable solutions that are available to Hong Kong. ***Wind energy is one of the most economically viable and well-developed renewable energy sources.*** Hong Kong can benefit from this clean and renewable energy by (1) Integrating wind energy from Guangdong into Hong Kong's power grid and (2) Installing wind turbines on outlying islands that possess rich wind resources, and especially those that are off-grid like Po Toi Island.

1/4



Friends of the Earth has been actively exploring the feasibility of introducing wind energy to Hong Kong, and we believe that our mature power system is well poised to phase in renewable energy sources. Moreover, apart from the overriding importance of improving Hong Kong's air quality and quality of life, renewable energy also has wide social benefits. These include the security of energy prices and supply, the creation of job opportunities from supporting industries and infrastructure, enhancing regional cooperation, and promoting environmental awareness. ***Perceived technical and institutional difficulties can be overcome if there is a political and social will on the part of the Government and the power companies.*** Hong Kong must incorporate renewable energy into our planning and explore all possible avenues of implementation. We have the responsibility as not only a part of China, but also of the global community to protect the global climate.

- END -

NOTE: Attached are clarifications to some common misconceptions about renewable specifically, about the development of wind energy and cooperation between Hong Kong and Guangdong.

For more information, please contact Daphne Mah, Campaigns Coordinator or Jennifer Wang, Campaigner at Friends of the Earth (Hong Kong), 2528.5588.

Friends of the Earth

地球之友

Misconceptions about Renewable Energy	The Facts
Renewable energy is incompatible to the existing power grid	Renewable energy systems highly sophisticated now that compatibility is no longer an issue
<ul style="list-style-type: none"> • Connecting wind or solar energy to the existing power grids may cause instability in the energy supply • Integration of renewable energy sources with conventional energy in the power grid may cause harmonic interference and repulsion 	<ul style="list-style-type: none"> • Power quality and control systems of solar photovoltaic and wind energies have evolved to the point where compatibility issues have been resolved by better design. • Rather than relying on the grid for stability as they have in the past, wind farms can now be designed to strengthen weak grid areas. • e.g., the Lake Benton 2 Wind Facility in Minnesota, U.S., is equipped with VAR control technology that allows the wind turbines to individually supply reactive power to the grid to stabilise the voltage under control of the central monitoring system. The wind farm was only permitted on the condition that it would improve the power quality by reducing the voltage spikes on the rural Minnesota grid.
Renewable energy sources are unreliable	Good strategies and well-designed systems can manage energy sources efficiently
<ul style="list-style-type: none"> • Solar power systems may stop operating at times of limited sunlight • Hong Kong does not have abundant locations with continuous strong wind 	<ul style="list-style-type: none"> • Wind and solar are by nature intermittent energy sources, but there are proven strategies to manage them. • Wider wind network—as more wind farms are connected over a larger area, the wind pattern affecting each is different and the total variation of power output is reduced (this points to the advantage of cooperation between Hong Kong and Guangdong on wind development). • Pumped storage to shift base load energy to peak demand times can be used to smooth out wind power variation.
Renewable energies will increase tariffs	Unit cost for wind power is already equal or lower than conventional power plants in many places around the world

<ul style="list-style-type: none"> • Renewable energy has yet to achieve economic viability and will raise electricity tariffs 	<ul style="list-style-type: none"> • Even in Guangdong's immature wind power market where small projects and insufficient localization drive up costs, wind is only slightly more expensive (RMB0.61/kWh) than nuclear power, which CLP Hong Kong imports from Daya Bay. • With many large wind farm projects in the pipeline and increased technology localization, the wind power price is destined to fall. • As polluting fossil fuel and nuclear power plants are forced to internalise their real health and environmental costs, wind will definitely be the least costly power supply of the near future.
<p>Guangdong needs its own energy. Purchasing wind energy from Guangdong is not feasible</p>	<p style="text-align: center;">Hong Kong can play an important role in the development of wind projects in the Pearl River Delta region</p>
<ul style="list-style-type: none"> • Shenzhen and Dongguan are already running out of electricity • Wind farms in Guangdong cannot guarantee reliable supply of energy to Hong Kong 	<ul style="list-style-type: none"> • Hong Kong is not only a green purchaser, but can also serve as a catalyst of the regional wind movement. With its leading legal and financial systems, Hong Kong can help attract international investors who often lack confidence in Mainland regulatory systems. • As wind projects increase in scale, costs would fall and more green power projects would be in the pipeline. • Shortage of electricity in some parts of Guangdong occurs in part because the Central Government has been restricting the building of conventional power plants because due to pollution concerns, while imports of cleaner power from the Western provinces are delayed by transmission extensions. • Not only can wind energy improve air quality, it has the advantages of ease of construction and connection to the power grid, making it an important component in the development of Guangdong's power sector. • Hong Kong and Guangdong have over two decades of experience in sharing power on their common grid and it is in our common interest to continue this cooperation to benefit renewable energy development.