



FINANCING LARGE-SCALE RENEWABLES



ECONOMIC

In the last decade (2001-2011), offshore wind in Europe has developed from a curiosity to a market, increasing installed capacity from 4 MW to 866 MW.¹



ENVIRONMENTAL

DONG's electricity production from wind power and water increased to 4.4 TWh, taking the total share from 20% in 2010 to 22% in 2011. That is the equivalent of 1.1 million households' electricity consumption.

→ A unique partnership model contributes to developing the offshore wind industry – this innovative financing model solves a key issue holding back further development of renewable energy.

THE SOLUTION

! Based on a unique partnership model, DONG Energy has been able to attract partners ranging from Danish and international pension funds to large industrial players like Danish Kirkbi or Japanese Marubeni for its offshore wind projects.

For those partners, confidence in their investments has been based on three pillars: confidence in the developer, long-term commitments between partners, with the developer taking a majority stake in the project, and a risk-sharing model that allows the investor to only assume the risks they are comfortable with. Typically, risks associated with the development and construction of a wind farm are borne by DONG Energy, delivering the project at a fixed price and by a fixed date.

WHY A SUSTAINIA100 SOLUTION?

? Financing, particularly in the wake of the global economic crisis, is one of the key challenges for the transition to a sustainable energy supply. DONG Energy is already bringing large financial players into the renewable energy sector, and with joint effort making wind energy a long-term sustainable energy resource.

1. European Wind Energy Association (2012): "Wind in power – 2011 European statistics."



DENMARK



www.dongenergy.com



HYDROKINETIC ENERGY



ECONOMIC

Pike Research estimates that worldwide tidal energy capacity will reach 2.4 GW in 2017.³



SOCIAL

Whereas large-scale hydropower development projects involve relocations of local populations, projects like this harness hydrokinetic energy at no social cost.



ENVIRONMENTAL

The project delivers energy without compromising local marine environments.

→ Turbines powered by natural river flows, ebbs, and tides promise to liberate hydropower from its local, social, and environmental sustainability challenges.

THE SOLUTION

! Submerged turbines produce electricity from natural water flows. Just as wind turbines leverage the energy of air flows, Verdant Power's Free Flow Kinetic Hydropower System leverages the energy of New York City's East River natural tidal flows to generate electricity.

In January 2012, Verdant Power received a license from the U.S. Department of Energy to expand its East River demonstration plant to commercial scale operation (1 MW). According to the U.S. Federal Energy Regulatory Commission, many more projects are on the way, with Verdant Power's technology being one of many promising hydrokinetic technologies.¹

WHY A SUSTAINIA100 SOLUTION?

? Though hydropower already contributes a significant share of global electricity generation (16%)², large-scale hydropower projects are often developed at the expense of local populations and ecosystems. Verdant Power's turbine technology holds the promise of leveraging natural river flows for commercial power production without sacrificing local environments and displacing populations.

1. ferc.gov, Jan. 23 2012, FERC Issues First Pilot License for Tidal Power Project in New York
2. International Energy Agency (2011): Key World Energy Statistics.
3. businesswire.com, Feb. 8 2012, Marine and Hydrokinetic Power Generation Installed Capacity..



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